

015F

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

151

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NM-0334702-68039
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME 27167
2. NAME OF OPERATOR HARVEY E. YATES COMPANY		7. UNIT AGREEMENT NAME POWER DEEP 31 FED COM
3. ADDRESS AND TELEPHONE NO. P.O. BOX 1933, ROSWELL, NEW MEXICO 88202 505-823-6601		8. FARM OR LEASE NAME, WELL NO. 1
4. LOCATION OF WELL (REPORT LOCATION CLEARLY AND IN ACCORDANCE WITH ANY STATE REQUIREMENTS) AT SURFACE 660' FSL & 660' FEL AT PROPOSED PROD. ZONE SAME Unit P		9. API WELL NO. 30-015-31572
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 10 MILES SE OF LOCO HILLS, NM		10. FIELD AND POOL, OR WILDCAT EMPIRE SOUTH MORROW
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest dirg. unit line, if any) 660		11. SEC., T., R., M., OR BLK AND SURVEY OR AREA SEC 31, T17S, R31E
16. NO. OF ACRES IN LEASE 233.53		12. COUNTY OR PARISH EDDY
17. NO. OF ACRES ASSIGNED TO THIS WELL 307.01		13. STATE NM

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 0	19. PROPOSED DEPTH 11,850'	20. ROTARY OR CABLE TOOLS ROTARY
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3,663' (GR)		APPROX. DATE WORK WILL START 1-Dec-00

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE, SIZE OF CASING	WT PER FT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" H-40	48#	350'	425 SX "C" W/2% CACL & 1/4# CELLOSEAL
12 1/4"	8 5/8" J-55	32#	4,450'	350 SX "C" W/2% CACL & 1/4# CELLOSEAL, 1,400 SX FILLER *
7 7/8"	5 1/2" J-55, N80 & S-95 (SEE EXHIBIT "E")	17#	11,850'	1ST STAGE-650 SX (61:15:11) W/1% FL-50 & .4% CD-32 2ND STAGE 35:65 POZ W/2% GEL & 5# SALT. 100 SX "H" NEAT

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# FLOEAL  
\*\* 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	
0-400'	FRESH WATER, PAPER, & ACTIGUARD. MW-9.0 VIS-31
400'-4,450'	BRINE WATER, PAPER, & ACTIGUARD. MW-10.0, VIS-31
4,450'-8,550'	FRESH WATER, PAPER, ACTIGUARD, & AMMONIA NITRATE. 30-60,000 CHLORIDES MW-9.0 VIS-31
8,550'-11,850'	MUD UP W/BARAZAN, 30-60,000 CHLORIDES, MW 9.6-9.8, 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	<u>Bob Williams</u>	Bob Williams	TITLE	<u>Drilling Superintendent</u>	DATE	<u>11/3/00</u>
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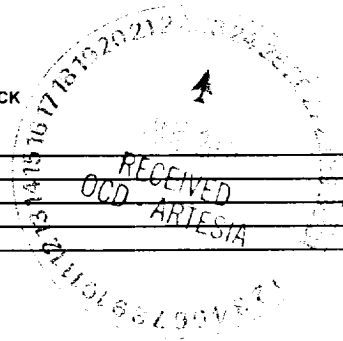
(THIS SPACE FOR FEDERAL OR STATE OFFICE USE)

PERMIT NO.	APPROVAL DATE
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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	<u>ISLAARY D. BRAY</u>	TITLE	<u>Assistant Secretary</u>	DATE	<u>11/3/00</u>
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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



RECEIVED  
NOV 13 2000  
DEPT. OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION

**Application  
Harvey E. Yates Company  
Power Deep 31 Fed Com #1  
Section 31, T17S, 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 425', Yates 1,750', Seven Rivers 2,150', Bowers 2,550', Queen 2,750', Penrose 2,950', Grayburg 3,100', Premier 3,550', San Andres 3,600', Bone Springs 5,100', BSPG 1<sup>st</sup> Sand 6,900', BSPG "B" Zone 7,125', BSPG 2<sup>nd</sup> Sand 7,450', BSPG "C" Zone 8,200', BSPG 3<sup>rd</sup> Sand 8,400', Wolfcamp 8,700', Penn. Shale 9,825', Strawn 10,650', Atoka 10,900', Morrow Clastics 11,400', L. Morrow Mkr. 11,600', U. Miss/Barnett 11,675.
3. **Estimated Depths at which Water, Oil, or Gas Formations are expected:**  
Oil: Bone Spring 1<sup>st</sup> sand @ 6,900  
Gas: Bone Spring 1<sup>st</sup> sand @ 6,900
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:**  
Two DSTs are planned for the Wolfcamp, or Atoka. The planned logs are Schlumberger Platform Express w/HALS.
9. **Abnormal Conditions, Pressures, Temperature, or Potential Hazards:**  
No abnormal conditions are anticipated in this well bore.  
BHST 170 deg F  
BHP 4300 psi
10. **Anticipated Starting Date & Duration of Operation:**  
Spud Date: Approximately Dec 1, 2000. 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  
Power Deep 31 Fed Com #1  
Section 31, T17S, 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 10 miles Southeast of Loco Hills, NM. Leave Artesia on US 82 & travel East 30 miles & turn South on NM 222. Go 2.4 miles & turn right on caliche road. Go .9 miles to four way intersection. Continue straight across intersection & go .2 miles. Turn left & go .2 miles to location.

**2. Planned Access Roads:**

1,068' 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. See EXHIBIT B

**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.

**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 mineral owner is the Federal Government. The surface lessee is Williams & Son Cattle Company. 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

Nov 3, 2000

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

OIL CONSERVATION DIVISION

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

DISTRICT IV  
P.O. Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name POWER DEEP "31" FEDERAL COM.	Well Number 1
OGRID No.	Operator Name HARVEY E. YATES COMPANY	Elevation 3663

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	31	17 S	31 E		660	SOUTH	660	EAST	EDDY

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
Dedicated Acres 307.01	Joint or Infill	Consolidation Code	Order No.						

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

				<b>OPERATOR CERTIFICATION</b>	
				I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.	
				<u>Bob Williams</u> Signature	
				Bob Williams Printed Name	
				Drilling Superintendent Title	
				November 3, 2000 Date	
				<b>SURVEYOR CERTIFICATION</b>	
				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.	
				OCTOBER 31, 2000	
				Date Surveyed JLP	
				Signature & Seal of Professional Surveyor	
				<u>Ronald J. Eidson 11/01/00</u> W.O. Num. 00-11-1368	
				Certificate No. RONALD J. EIDSON, 3239 GARY G. EIDSON, 12641	

NM-098824

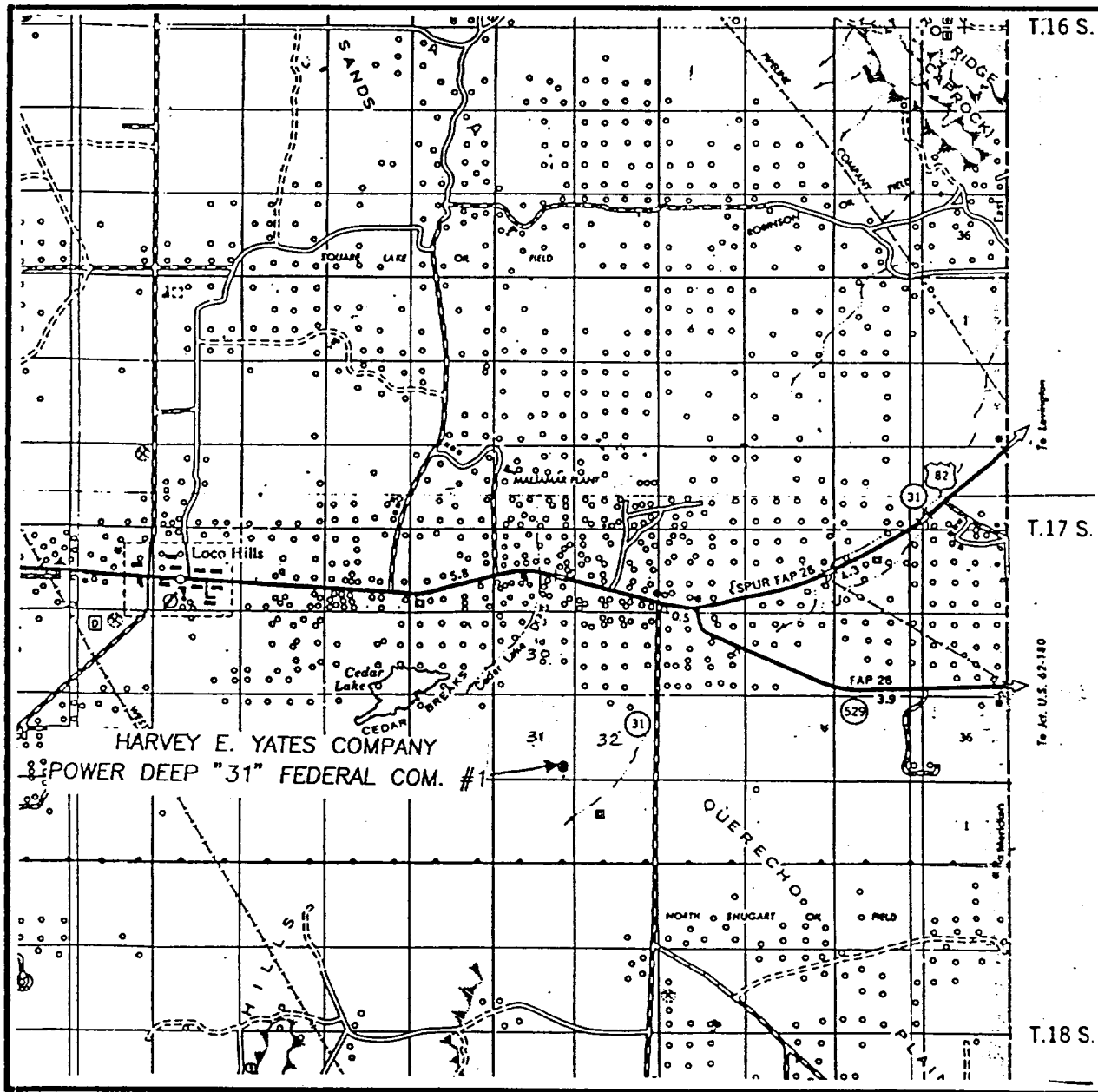
NM-0334702

3686.5' 3671.1'

3445.4' 3647.2'

660'

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 31 TWP. 17-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FSL & 660' FEL

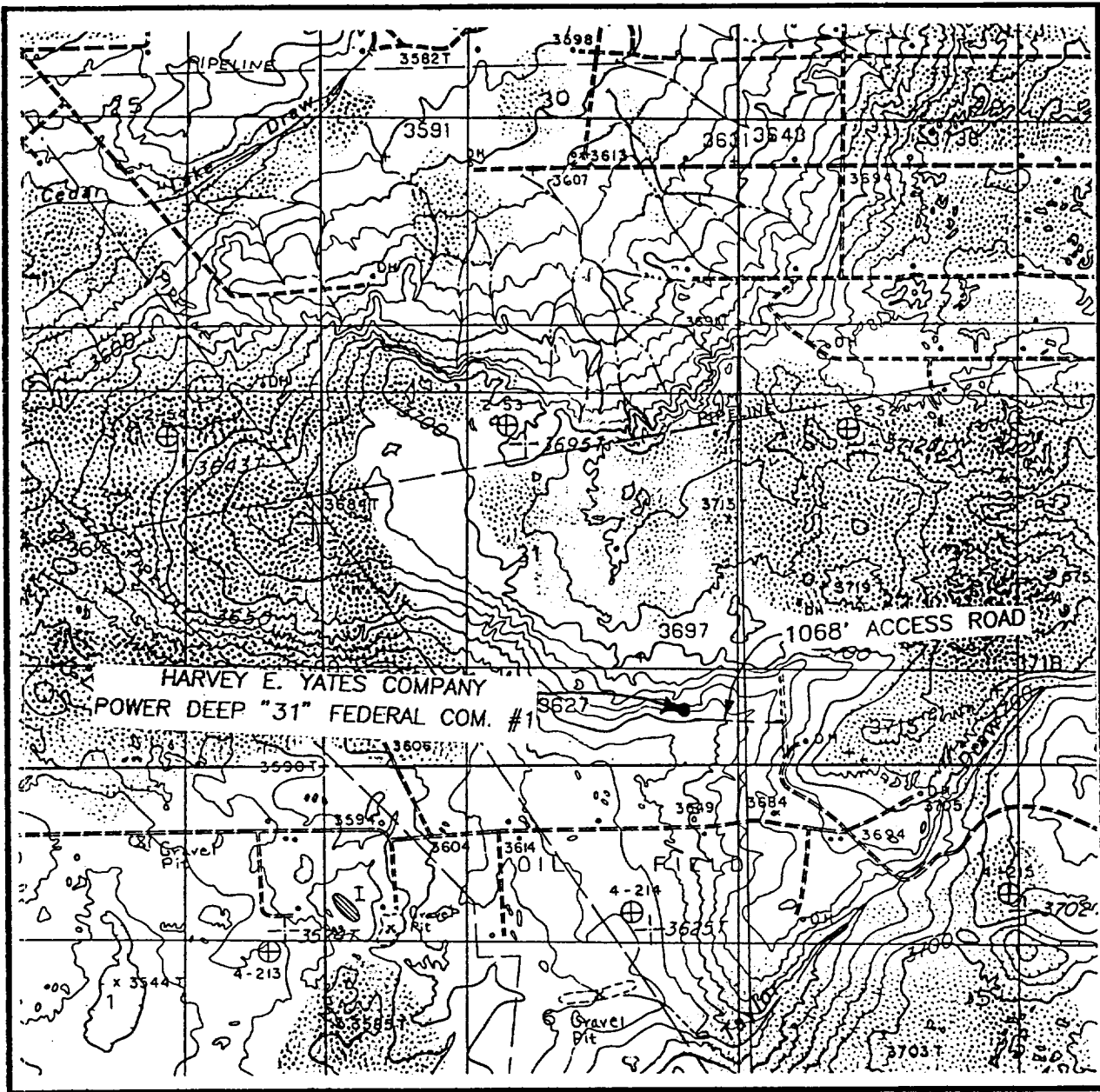
ELEVATION 3663

OPERATOR HARVEY E. YATES COMPANY

LEASE POWER DEEP "31" FEDERAL COM.

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

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL - 10'

SEC. 31 TWP. 17-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FSL & 660' FEL

ELEVATION 3663

OPERATOR HARVEY E. YATES COMPANY

LEASE POWER DEEP "31" FEDERAL COM.

U.S.G.S. TOPOGRAPHIC MAP

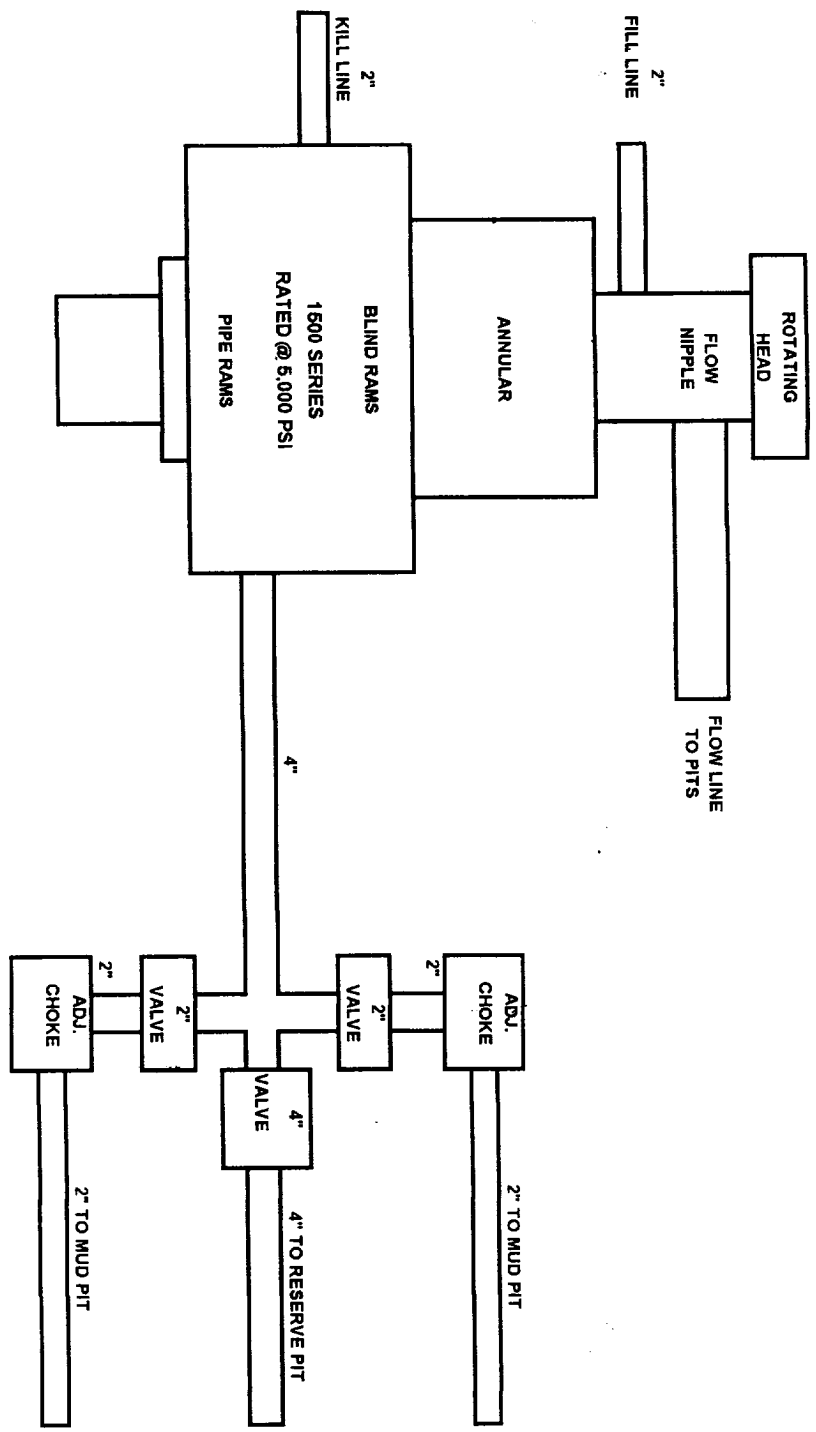
LOCO HILLS, N.M.

**JOHN WEST SURVEYING**  
**HOBBS, NEW MEXICO**

**(505) 393-3117**



EXHIBIT "C" BOP STACK  
Power Deep 31 Fed Com #1  
660' FSL & 660' FEL  
Sec 31, T18S, R31E  
Eddy County, NM



**Power Deep 31 Fed Com #1  
660' FSL & 660' FEL  
Sec 31, T18S, R31E  
Eddy County, NM**

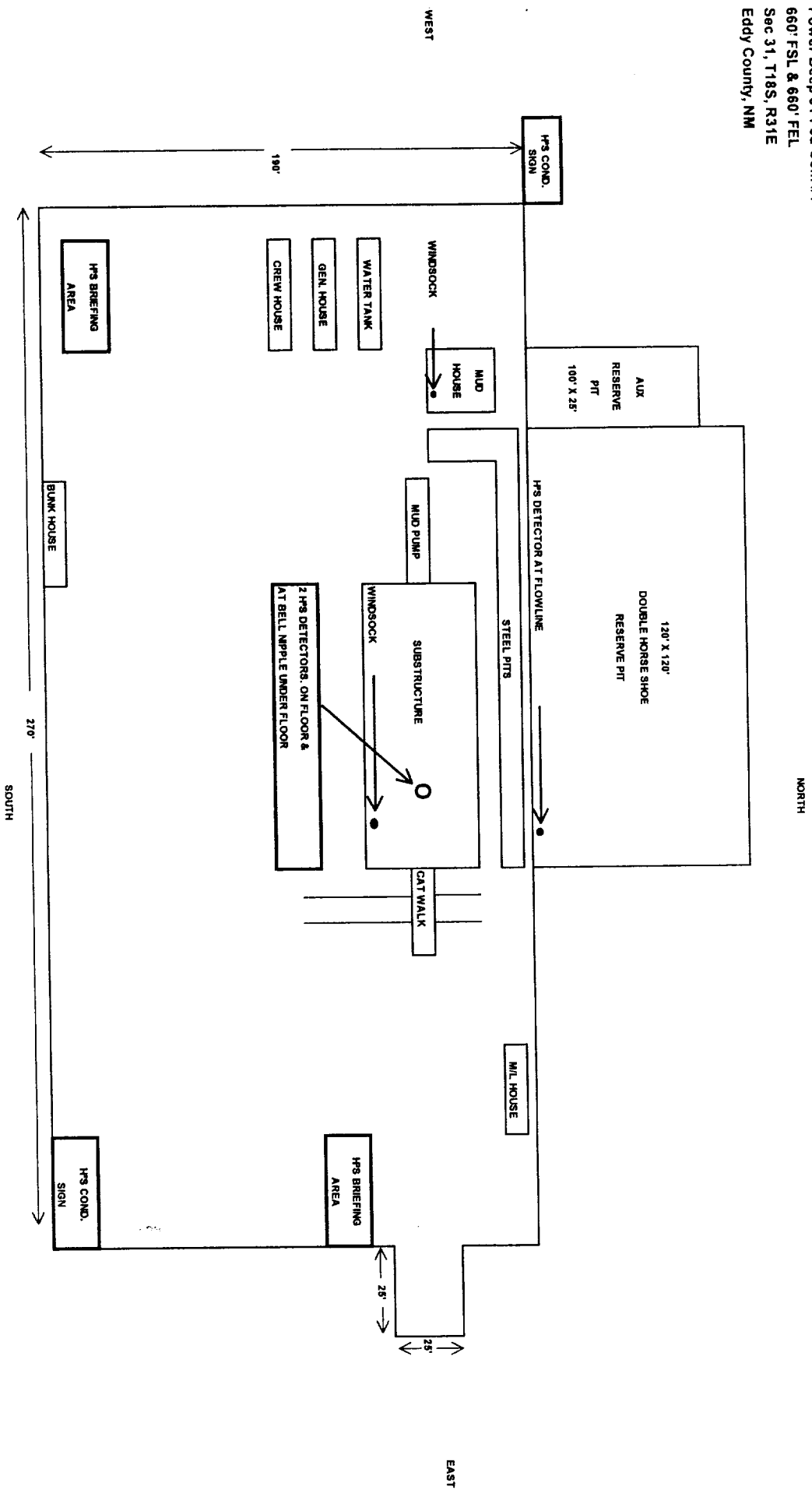
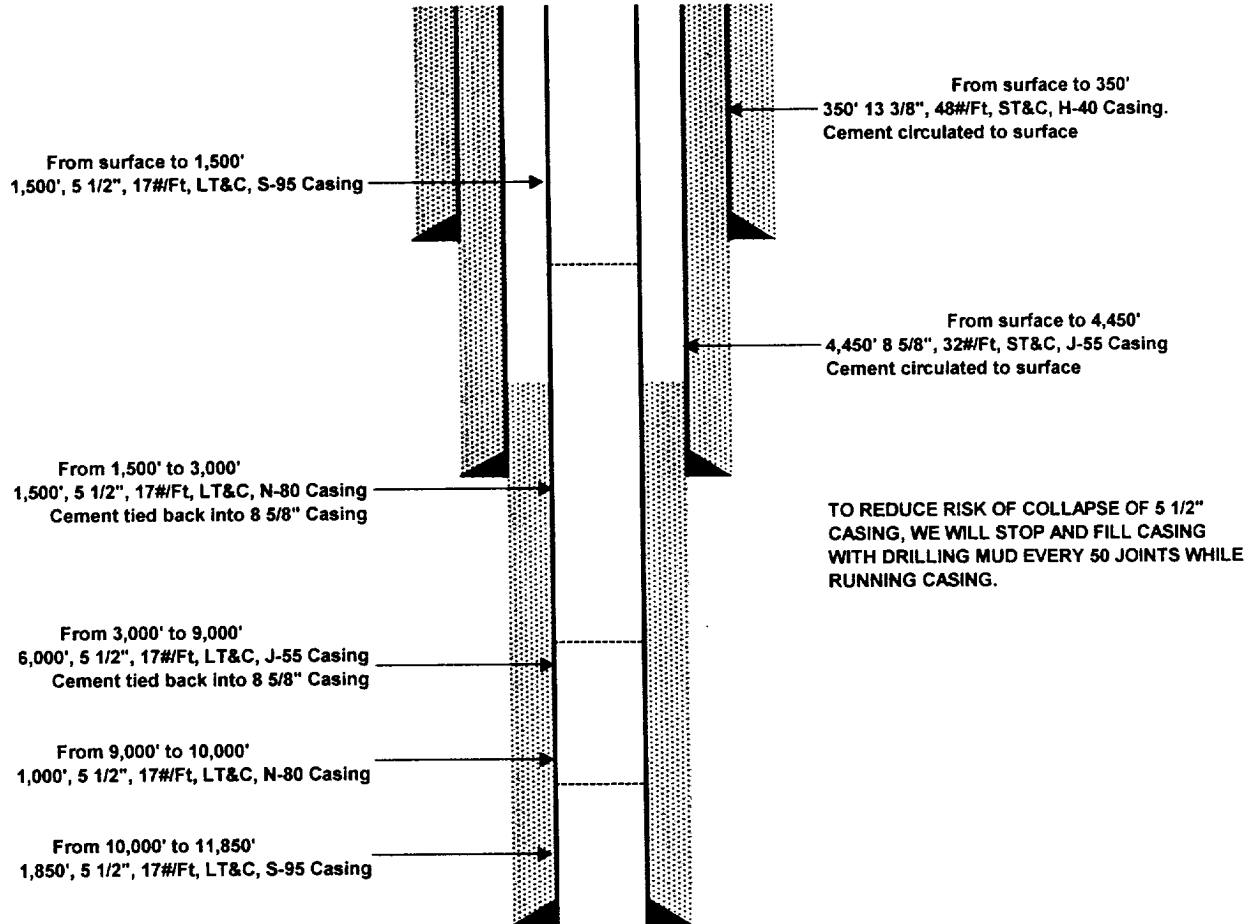


EXHIBIT "E" CASING DESIGN

## Casing Design

Power Deep 31 Fed Com #1  
660' FSL & 660' FEL  
Sec 31, T18S, R31E  
Eddy County, NM



## **EXHIBIT "F"**

**Harvey E. Yates Company  
Power Deep 31 Fed Com #1  
Section 31, T17S, R31E  
Eddy 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 (H<sup>2</sup>S)**
- 2. The proper use and maintenance of personal protective equipment and life support systems.**
- 3. The proper use of H<sup>2</sup>S detectors, alarms, warning signs, briefing areas, and evacuation procedures.**
- 5. The proper technique for rescues.**

#### **II    H<sup>2</sup>S Safety Equipment and Systems**

**All H<sup>2</sup>S safety equipment and systems will be installed 1,000 feet prior to penetrating the first zone containing or reasonably expected to contain H<sup>2</sup>S.**

- 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. H<sup>2</sup>S 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. H<sup>2</sup>S Condition sign located at entrance to location.**
- 5. Mud Program**

**The mud program has been designed to minimize the volume of possible H<sup>2</sup>S circulated to surface. Proper weight, safe drilling practices, and the use of H<sup>2</sup>S scavengers will minimize hazards when penetrating possible H<sup>2</sup>S 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 H<sup>2</sup>S 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.