OPER. ORDER NO. 1216

PROPERTY NO. 13270

POOL CODE 96392

EFF. DATE 9/2/97

API NO. 30-025-34118

Form 3160-3
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

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

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

2. NAME OF OPERATOR: Enron Oil & Gas Company

3. ADDRESS AND TELEPHONE NO.: P. O. Box 2267, Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1650' FSL & 1650' FWL
At proposed prod. zone: 1650' FSL & 1650' FWL Unit K

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

5. LEASE DESIGNATION AND SERIAL NO.: NM 19623

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME, WELL NO.: Vaca 14 Federal #1

9. API WELL NO.:

10. FIELD AND POOL, OR WILDCAT: DRAPER MILL Red Hills Bone Spring

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 14, T25S, R33E

12. COUNTY OR PARISH: Lea | 13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
1650' / 330'	1880	80
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
None	12600	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3352' GR

22. APPROX. DATE WORK WILL START*: 9/15/97

23. PROPOSED CASING AND CEMENTING PROGRAM

CARLSBAD CONTROLLED WATER BASIN

WITNESS

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14-3/4	11-3/4 H-40 ST&C	42#	650	250 sx CIRCULATED
11	8-5/8 J-55 LT&C	32#	5200	1450 sx CIRCULATED
7-7/8	5-1/2 S-95 LT&C	17#	6000	735 sx. Est TOC @ 7500'
	P-110 LT&C	17#	6600	

The Undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on leased land or portions thereof as shown below:

NM 19623
Red Hills Bone Spring Field
Sec 14, T25S, R33E
Federal Bond # is MT 0748 with
endorsement to New Mexico

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

RECEIVED
AUG 13 '97
BLM
ROSWELL, NM

BUREAU OF LAND MANAGEMENT
RECEIVED
AUG 12 1997
DIST. 6 N.M.
Carlsbad, New Mexico

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 Betty Gildon TITLE Regulatory Analyst DATE 8/11/97

(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 _____ TITLE ADM, MINERALS DATE 8-25-97

*See Instructions On Reverse Side

It is a crime for any person knowingly and willfully to make to any department or agency of the

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-34118	~~51020~~	Draper Mill ~~Red Hills~~ Bone Spring

[4] Property Code	[5] Property Name	[6] Well Number
13270	VACA "14" FEDERAL	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
7377	ENRON OIL AND GAS COMPANY	3352

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	14	25-S	33-E		1650	SOUTH	1650	WEST	LEA

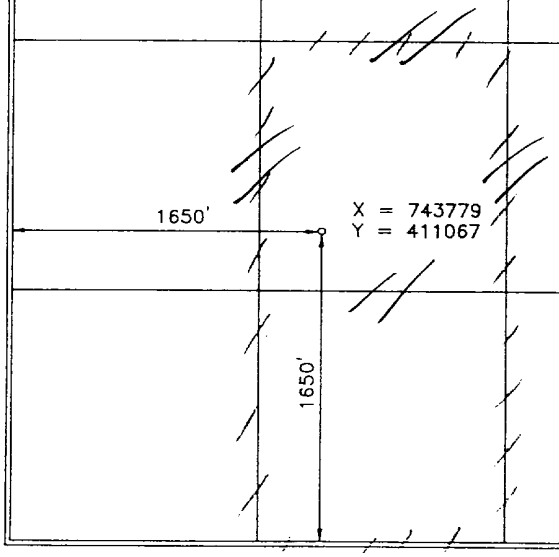
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
40 ~~80~~			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPRCVED BY THE DIVISION

16



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: Betty Gildon

Printed Name: Betty Gildon

Title: Regulatory Analyst

Date: 7/16/97

[18] SURVEYOR CERTIFICATION

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 best of my belief.

Date of Survey: MAY 6, 1996

Signature and Seal of Professional Surveyor: Earl Foote

Certificate Number: 8278

DRILLING PROGRAM

ENRON OIL & GAS COMPANY
VACA 14 FEDERAL NO. 1
1650' FSL & 1650' FWL
Sec 14, T25S, R33E
LEA COUNTY, NEW MEXICO

1. GEOLOGIC NAME OF SURFACE FORMATION:

   Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

Rustler	850'
Delaware Mountain Group	5170'
Bone Spring Lime	9270'
3rd Bone Spring Sand	12300'
TD	12600'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	100'	Fresh Water
3rd Bone Spring Sand	12300'	Gas

ENRON OIL & GAS COMPANY
VACA 14 FEDERAL NO. 1
1650' FSL & 1650' FWL
Sec 14, T25S, R33E
LEA COUNTY, NEW MEXICO

4. CASING PROGRAM:

Hole Size	Interval	OD Csg	Weight Grade Jt. Cond. Type
14-3/4"	0 - 650'	11-3/4"	42# H-40 A ST&C
11"	0 - 5200'	8-5/8"	32# J-55 LT&C
7-7/8"	0 - 12600'	5-1/2"	17# S-95 6000' & P-110 LT&C 6600'

Cementing Program:

11-3/4" Surface Casing:	Cement to surface with 250 sx of Class C + 2% CaCl2 + 1/4#/sx flocele.
8-5/8" Intermediate:	Cement to surface with 1150 sx 50/50 Class C/Poz, 10% gel, 8#/sx salt, 1/4#/sx Flocele and 300 sx Cl C + 2% CaCl2.
5-1/2" Prod. Casing:	Cement with 735 sx 50/50 sx Cl H/Poz + 2% gel + .4% CF-14, .1% Diacel LWL. This cement slurry is designed to bring TOC to 7500'.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000 psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All will be installed on the 11-3/4" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 600 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000 psi and the annular to 70% of rated working pressure (3500 psi).

ENRON OIL & GAS COMPANY

VACA 14 FEDERAL No. 1

ATTACHMENT I

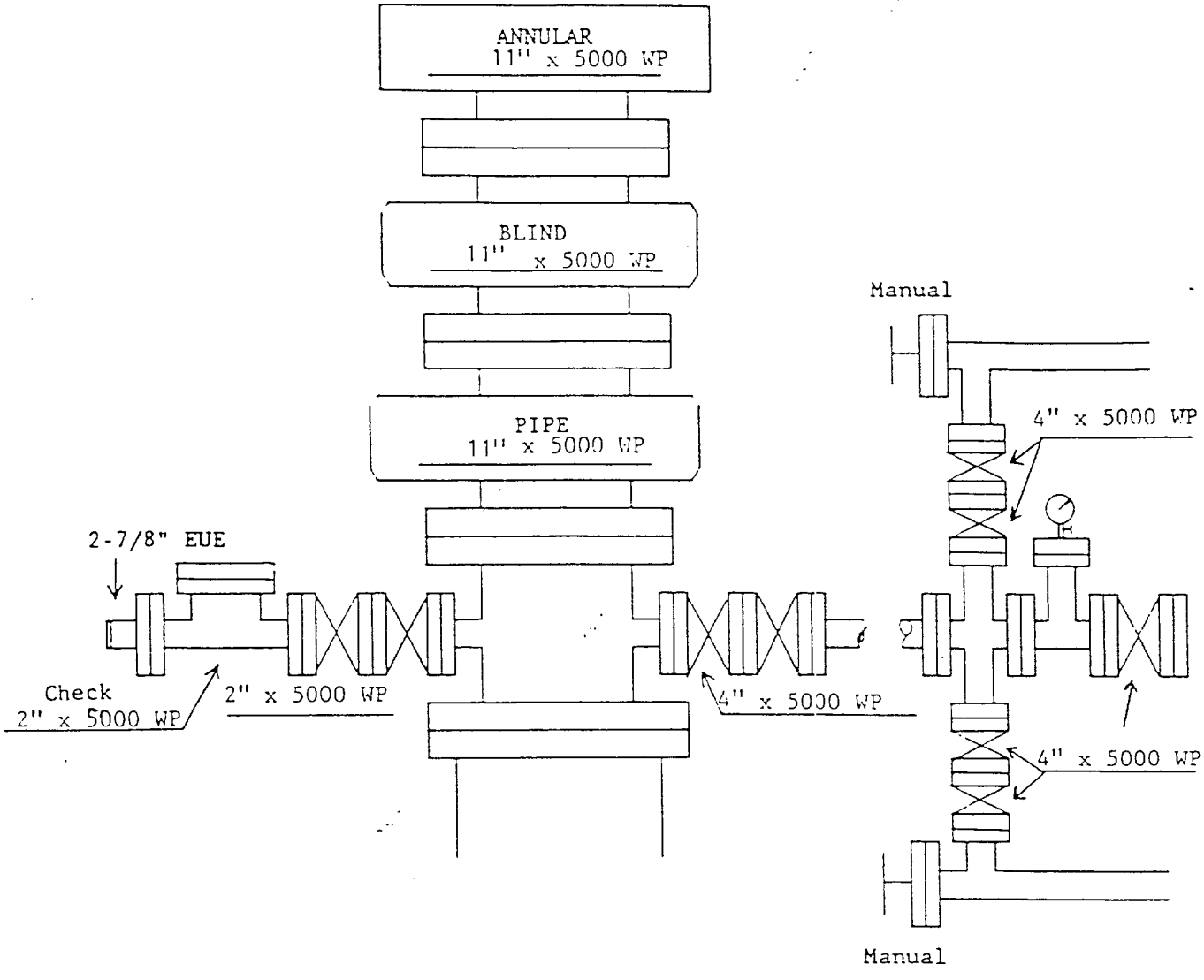


EXHIBIT #1

ENRON OIL & GAS COMPANY
VACA 14 FEDERAL NO. 1
1650' FSL & 1650' FWL
Sec 14, T25S, R33E
LEA COUNTY, NEW MEXICO

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 4" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 5000 psi WP rating.

ATTACHMENT TO EXHIBIT #1
ENRON OIL & GAS COMPANY
VACA 14 FEDERAL NO. 1

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.

2. Wear ring to be properly installed in head.

3. Blow out preventer and all fittings must be in good condition, 5000 psi W.P. minimum.

4. All fittings to be flanged.

5. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 5000 psi W.P. minimum.

6. All choke and fill lines to be securely anchored, especially ends of choke lines.

7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.

8. Kelly cock on kelly.

9. Extension wrenches and hand wheels to be properly installed.

10. Blow out preventer control to be located as close to driller's poisition as feasible.

11. Blow out preventer closing equipment to include minimum 40 gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

ENRON OIL & GAS COMPANY
VACA 14 FEDERAL NO. 1
1650' FSL & 1650' FWL
Sec 14, T25S, R33E
LEA COUNTY, NEW MEXICO

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The well will be drilled to TD with a combination of brine, cut brine, and polymer/KCL mud system. The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss (cc)
0 - 650'	Fresh Water (spud)	8.5	40-45	N.C.
650' - 5200'	Brine Water	10.0	30	N.C.
5200' - TD	Cut Brine & Polymer/KCL	8.8-9.2	28	N.C.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

(A) A kelly cock will be kept in the drill string at all times.

(B) A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

(C) A mud logging unit complete with H2S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 2000' to TD.

ENRON OIL & GAS COMPANY
VACA 14 FEDERAL NO. 1
1650' FSL & 1650' FWL
Sec 14, T25S, R33E
LEA COUNTY, NEW MEXICO

8. LOGGING, TESTING AND CORING PROGRAM:

(A) The electric logging program will consist of GR-Neutron Density and GR-Sonic from TD to intermediate casing with a GR-Neutron ran from intermediate casing to surface.

(B) Possible side-wall cores based on shows.

9. ABNORMAN CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 170 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 5900 psig. No hydrogen sulfide or other hazaradous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately three weeks. If the well is productive, an additional 30 to 45 days will be required for completion and testing before a decision is made to install permanent facilities.

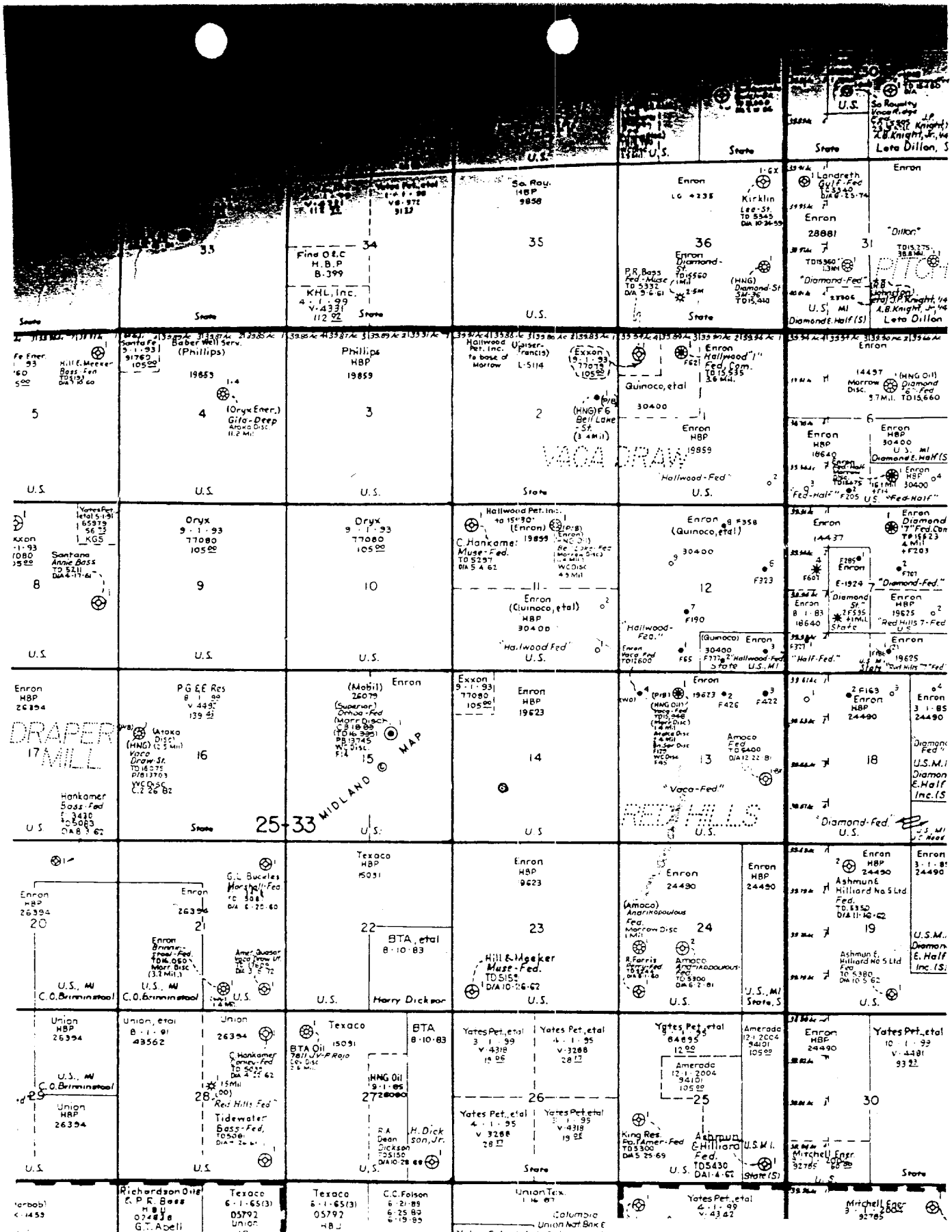

DRAPER MILL
RED HILLS
MAP
VACA DRAW
RED HILLS UNIT
Vaca 14 Federal No. 1
1650' FSL & 1650' FWL
Section 14, T25S, R33E
Lea County, New Mexico

EXHIBIT #3