OPER. OGRID NO. 15425
PROPERTY NO 22873
POOL CODE 37584
EFF. DATE 3/2/98
API NO. 30-025-34316

Form 3160-3
(July 1992)

DEPARTM
BUREAU O

IN DUPLICATE (instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136

APPLICATION FOR

1a. TYPE OF WORK: Drill [X] Deepen [ ]	5. LEASE DESIGNATION AND SERIAL NO: NM57285
b. TYPE OF WELL: Oil Well [X] Gas Well [ ] Other — Single Zone [ ] Multiple Zone [ ]	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
	7. UNIT AGREEMENT NAME: N/A
2. NAME OF OPERATOR: Mallon Oil Company	8. FARM OR LEASE NAME, WELL NO: Mallon 28 Fed. No. 3
3. ADDRESS AND TELEPHONE NO: P.O. Box 3256, Carlsbad, NM 88220 (505) 885-4596	9. API WELL NO.
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) At surface: 560' FSL, 1980' FWL (SE SW) Unit N	10. FIELD AND POOL, OR WILDCAT: Lea Delaware, NE ~~Delaware~~
At proposed prod. zone: 560' FSL, 1980' FWL (SE SW) Unit N	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 28, T19S-R34E
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 36 miles southwest of Hobbs, New Mexico	12. COUNTY OR PARISH: Lea County 13. STATE: NM
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT (Also to nearest drlg. unit line, if any): 2080'	16. NO. OF ACRES IN LEASE: 320 — 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: 1980'	19. PROPOSED DEPTH: 8300' — 20. ROTARY OR CABLE TOOLS: Rotary
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, Etc.): 3702' GR	22. APPROX. DATE WORK WILL START

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	20"	0.3 wall	40'	Redi-mix to surface
13-3/4"	9-5/8"	36#	1500'	700 sks Lite, 200 sks Class C Circ.
8-3/4"	5-1/2"	17# & 15.5#	TD	580 sks Lite, 800 sks Class C

WITNESS

CAPITAN CONTROLLED WATER BASIN

Mallon Oil Company proposes to drill to a depth sufficient to test the Delaware/Bone Springs formation for oil. If productive, 5-1/2" casing will be cemented. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal regulations. Specific programs as per on-shore Oil and Gas Order No. 1 are outlined in the following attachments:

Drilling Program
Exhibit 1: Blow Out Preventor Equipment/Plan
Exhibit A: Location and Elevation Plat
Exhibit B: Existing Roads/Planned Access Roads
Exhibit C: One Mile Radius Map
Exhibit D: Well Site Layout
Exhibit E: Production Facilities
Exhibit F: Archaeological Survey Submit under seperate letterhead

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If pr
to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

2/12/98 dcl

24.

SIGNED Terry Lindeman TITLE: Production Superintendent DATE 01/21/98

(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:

ADM. MINERALS

APPROVED BY (ORIG. SGD.) ARMANDO A. LOPEZ TITLE Acting DATE 2-26-98

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person 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.

DRILLING PROGRAM

Attached to Form 3160-3
Mallon Oil Company
Mallon 28 Federal No. 3
560' FSL, 1980' FWL, Sec. 28, T19S R34E
Lea County, New Mexico

Lease Number: NM-57285

1. Geologic Name of Surface Formation :
   Quaternary Alluvium

2. Estimated Tops of Important Geologic Markers

Quaternary Alluvium	Surface
Rustler	1590'
Top of Salt	1720'
Base of Salt	3326'
Yates	3513'
Seven Rivers	3821'
Queen	4516'
Delaware	5800'
Total Depth	8300'

3. The Estimated Depths of Anticipated Fresh water, Oil or Gas:

Quaternary Alluvium	300'	Fresh Water.
Yates	3513'	Oil
Queen	4516'	Oil
Delaware	5800'	Oil

No other formations are expected to give up Oil, Gas, or Fresh Water in measurable quantities. The surface fresh water sands will be protected by setting 9 5/8" casing at 1500' and circulating cement back to surface. Potash will be protected by setting 5 1/2" casing at total depth and circulating cement back to 1300' from surface.

4. Proposed Casing Program:

Hole Size	Interval	Casing OD	Casing weight grade, Jt., Type Cond
25"	0'-40'	20"	Conductor, 0.25" wall thickness
13-3/4"	0'-1500'	9-5/8"	36# K-55 STC
8-3/4"	0'-5300'	5-1/2"	15.5# K-55 STC
	8300-TD	5-1/2"	17.0# N80 STC

Cement Program:

20" Conductor casing: Cemented with ready-mix to surface

9 5/8" Surface casing: Cemented to Surface with 700 sx Pacesetter Lite 6.00% Gel (Bentonite)+0.25 lb/sk Cello-Seal 105.% Fresh Water

5 1/2" Production casing: Stage #1 - Cement with 800 sacks Class "C" + 5 lb/sk CSE + 0.5% CF-14 + 5 lb/sk salt + 5lb/sk Gilsonite + 0.25 lb/sk Cello-Seal + 59.390% fresh water. This cement slurry is designed to bring TOC to 5000'. Stage #2 - Cement with 580 sacks Pacesetter Lite, 6.0% Gel (Bentonite) + 5.0% salt + 0.25 lb/sk Cello-Seal + 105.0% fresh water followed with 100 sacks Class "C" cement + 5.0 lb/sk CSE + 5 lb/sk salt + 0.25 lb/sk + Cello-Seal + 5.0 lb/sk Gilsonite + 0.5 % CF-14 + 105.0% fresh water. This cement slurry is designed to bring TOC to 1300'.

5. Minimum Specifications for Pressure Control:

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a double ram type (3000 psi WP) preventor. The unit will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and drill pipe rams on bottom. The BOP will be nippled up on the 9-5/8" surface casing and used continuously until TD is reached. BOP and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Pipe 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 2" 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 and choke lines and choke manifold with 3000 psi WP rating.

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)	Water loss (cc)
0-40	Fresh Water (spud)	8.5	40-45	N.C.
0-1500	F.W. (Gel/Lime)	8.5-9.0	32-36	N.C.
1500-TD	Brine Water	10.0	32-34	10-12cc

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site 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) The drilling fluids systems will be visually monitored at all times.

8. Testing, Logging and Coring Program:

Drill Stem Tests:	None Anticipated
Logging:	TD to Surface casing, GR, CNL-FDC, DLL, MSFL
Coring:	None Planned

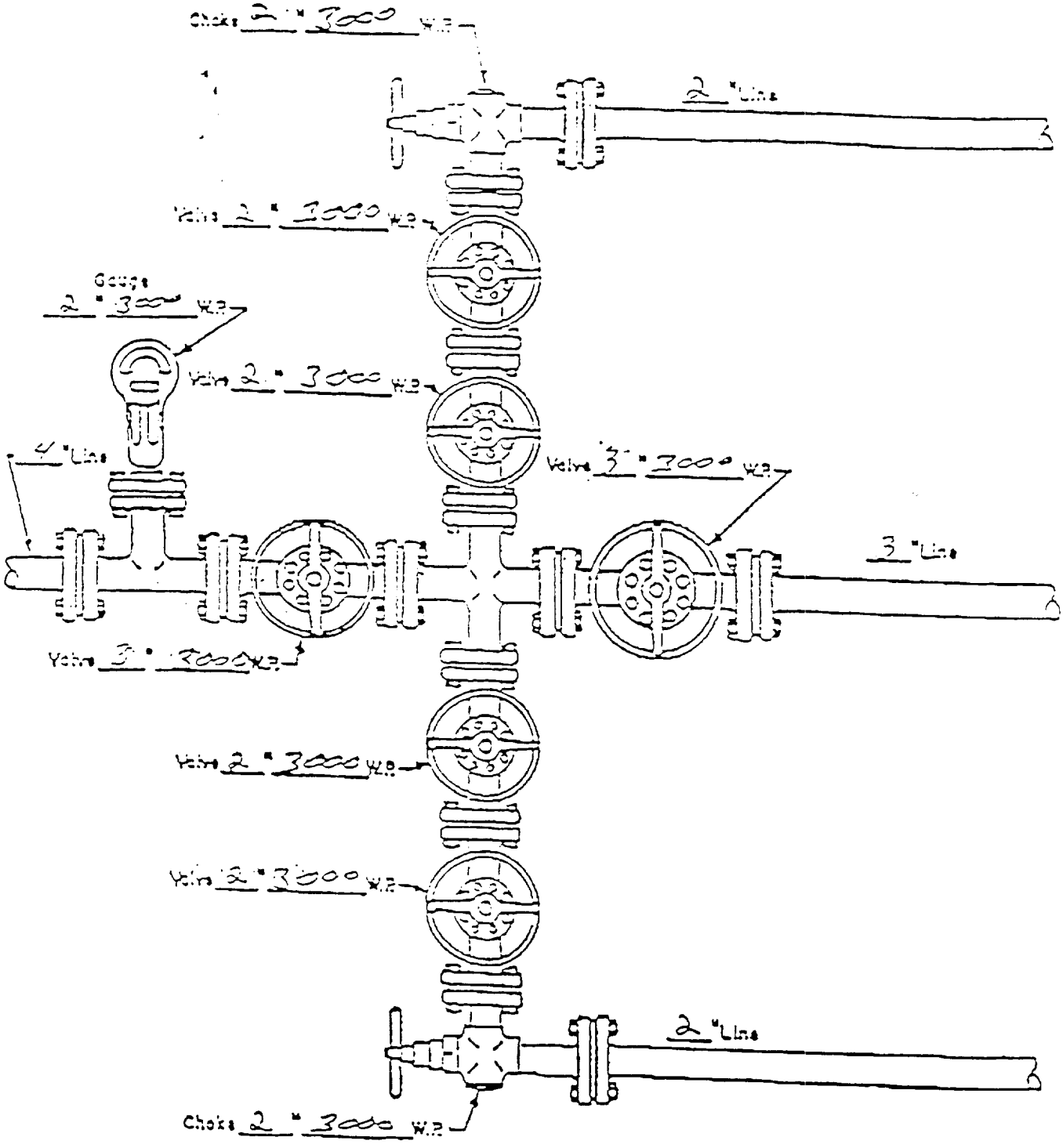
9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The proposed mud program will be modified to control excess pressure if abnormal pressures are encountered. The estimated bottom hole temperature (BHT) at TD is 150 F and estimated maximum bottom-hole pressure (BHP) is 3200 psig. No hydrogen sulfide or other hazardous 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: February 28, 1998
Anticipated completion of Drilling operations: Expected duration of 3 weeks.

C STAR DRILLING

Choke Manifold



MANIFOLD
3000 #W.P

☒ Manuel
☐ Hydraulic

Exhibit 1

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

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-34316	37584	NE Lea Delaware

Property Code	Property Name	Well Number
22873	MALLON "28" FEDERAL	3

OGRID No.	Operator Name	Elevation
13925	MALLON OIL COMPANY	3702

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	28	19 S	34 E		560	SOUTH	1980	WEST	LEA

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	Joint or Infill	Consolidation Code	Order No.
40			

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

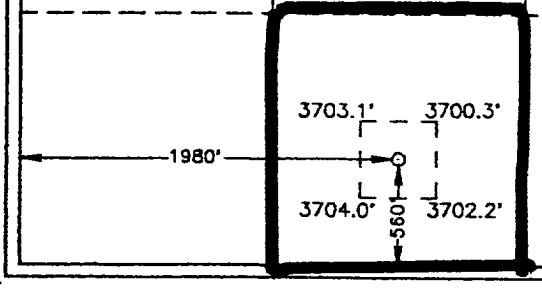


Exhibit A

OPERATOR CERTIFICATION

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

Signature

Terry Lindeman
Printed Name

Production Superintendent
Title

January 21, 1998
Date

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 the best of my belief.

NOVEMBER 12, 1997
Date Surveyed JLP

Signature & Seal of Professional Surveyor

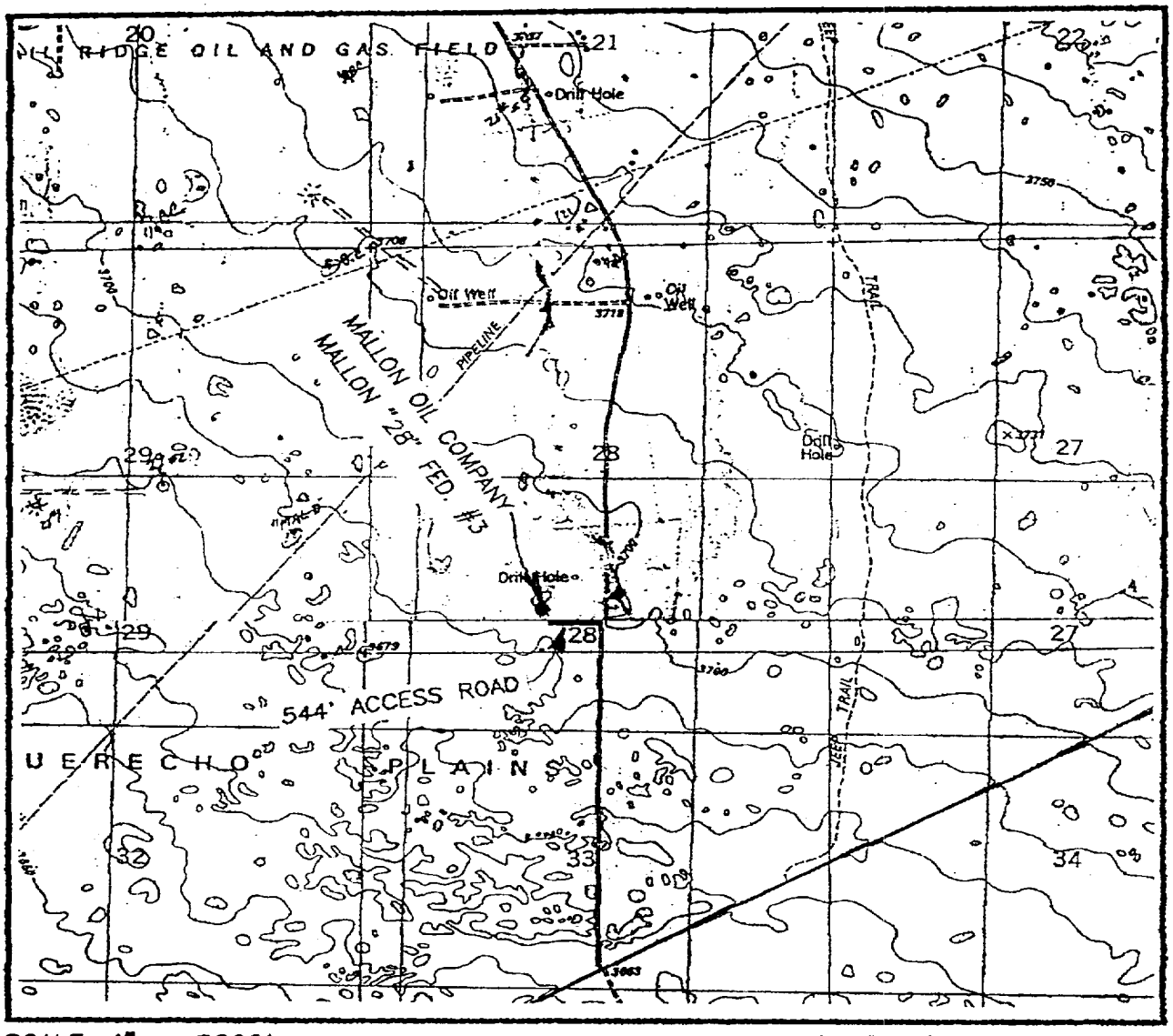
RONALD J. EIDSON
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR

12-13-97

W.O. Num. 97-11-1873

Certificate No. JOHN W. WEST, 676
RONALD J. EIDSON, 3239
GARY L. EIDSON, 12641

LOCATION VERIFICATION MAP



SCALE: 1" = 2000' CONTOUR INTERVAL — 10'

SEC. 28 TWP. 19-S RGE. 34-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 560' FSL & 1980' FWL

ELEVATION 3702'

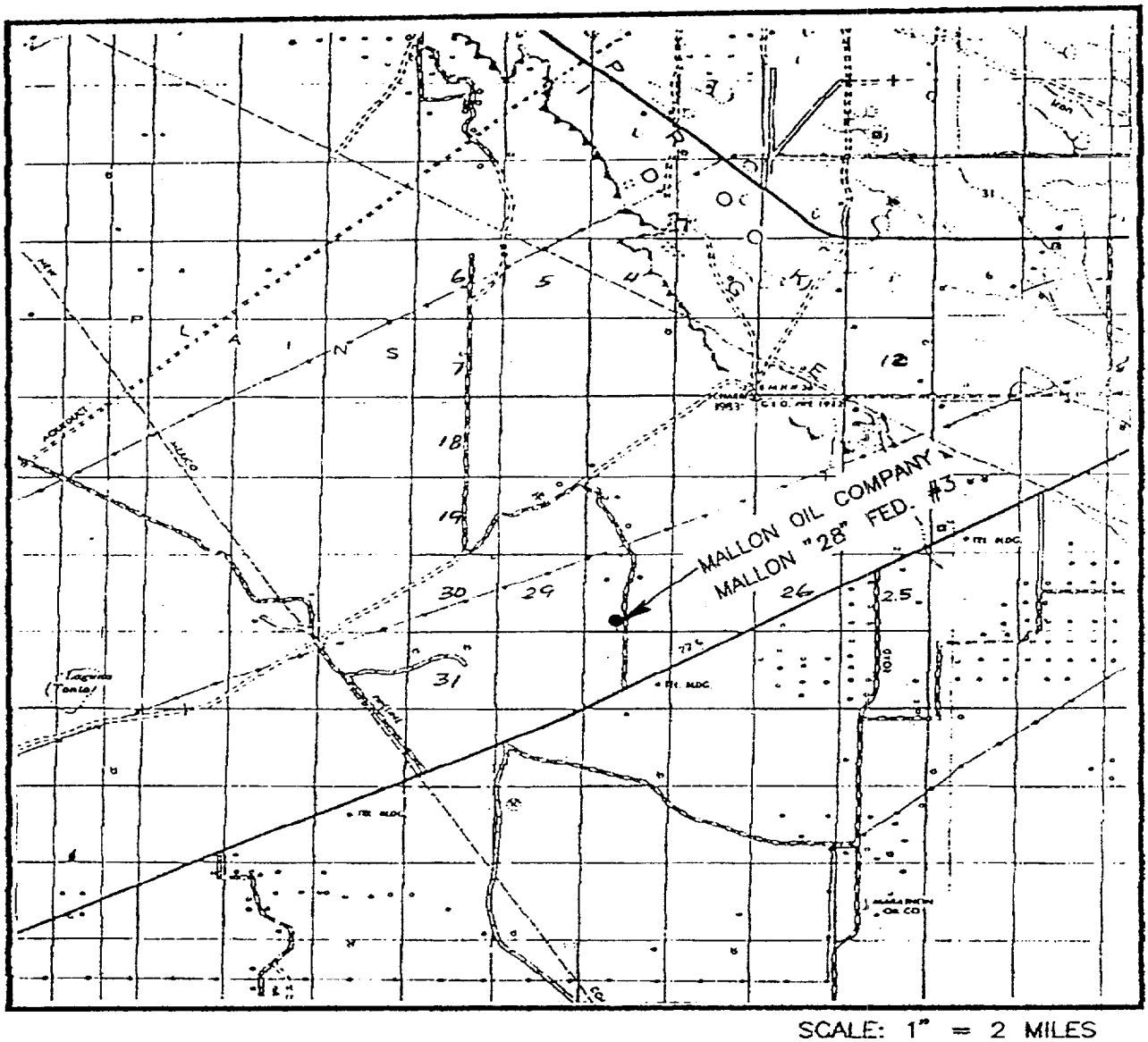
OPERATOR MALLON OIL COMPANY

LEASE MALLON "27" FED.

U.S.G.S. TOPOGRAPHIC MAP
LEA, & IRONHOUSE WELL, N.M.

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

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 28 TWP. 19-S RGE. 34-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 560' FSL & 1980' FWL

ELEVATION 3702'

OPERATOR MALLON OIL COMPANY

LEASE MALLON "27" FED.

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

Exhibit B