



Oryx Energy Company  
24 Smith Road  
PO Box 1861  
Midland TX 79702-1861  
915 688 0300

October 4, 1989

RECEIVED

Southwestern  
Production Region

OCT 10 1989

Energy, Mineral and  
Natural Resource Dept.  
Oil Conservation Division  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87503

OIL CONSERVATION DIV.  
SANTA FE

7805

Attn: Mr. Michael E. Stogner

RE: Unorthodox Location Application  
Oryx Energy Company  
Ojo Chiso Federal No. 3  
Antelope Ridge - Atoka Gas  
M, 660' FWL & 660' FWL  
Sec. 26, T-22-S, R-34-E  
Lea County, New Mexico

Dear Mr. Stogner:

Enclosed is BLM Form 9-331-C application to drill the captioned unorthodox location and OCD Form C-102 well location and acreage dedication plat.

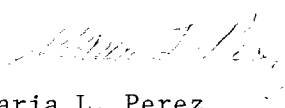
This location is 660' to the nearest end boundary. Statewide Rule 104 states that distance to end boundary should be no closer than 1980'.

The S 1/2 of Section 26, (320 Acres) has been assigned to this well location.

This location was picked due to geological reasons as reservoir pinches out to the east.

Please set this unorthodox location on the earliest possible date on the docket for administrative approval.

Yours truly,

  
Maria L. Perez  
Accountant

MLP/pw  
Attachments

CC: Bureau of Land Management  
P. O. Box 1778  
Carlsbad, New Mexico 888220

Oil Conservation Division  
P. O. Box 1980  
Hobbs, New Mexico 88241-1980

Charles Gray - NP-IV-Dls., Conservation Dept.  
Keith Nelson - CC-II-Dls., Land Dept.  
Shelly Lane - Geologist - Midland

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> <b>PLUG BACK</b> <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. 43564
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Oryx Energy Company		7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR P. O. Box 1861, Midland, Texas 79702		8. FARM OR LEASE NAME Ojo Chiso Federal
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface M, 660' FSL & 660' FWL At proposed prod. zone		9. WELL NO. 3
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 15 miles West of Eunice		10. FIELD AND POOL, OR WILDCAT Antelope Ridge-Atoka Gas
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660'	16. NO. OF ACRES IN LEASE 1920	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 26, T-22-S, R-34-E
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1st well this reservoir	19. PROPOSED DEPTH 12,600'	12. COUNTY OR PARISH Lea
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3416.0		13. STATE New Mexico
22. APPROX. DATE WORK WILL START* Upon Approval		

## 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.5#	1850'	1700 SXS
12 1/4"	9 5/8"	36#	4850'	1550 SXS
8 5/8"	7 7/8"	29.7#	11,750'	1050 SXS
	5 1/2"	23#	12,400'	175 SXS

Unorthodox Location, this location picked due to geological reasons as reservoir pinches out to the east.

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 Maria L. Perez TITLE Accountant DATE 9-20-89  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

Oryx Energy Company  
Antelope Federal Com. No. 1  
M, 1090' FSL & 990' FWL  
Sec. 22, T-22-S, R-34-E  
Lea County, New Mexico

Offset Operators

Amerada Hess Corporation  
1201 Louisiana, Ste. 700  
Houston, Texas 77002-5681

Sec. 25

Amoco Production Company  
P. O. Box 3092  
Houston, Texas 77253

Sec's 34, 35

BTA Oil Producers  
104 S. Pecos Street  
Midland, Texas 79701

Sec's 23, 34, 35

Bergen Enterprises, Inc.  
P. O. Box 241  
Richland Spring, Texas 76871

Sec. 24

Maxus Exploration Company  
717 North Harwood Street  
Dallas, Texas 75201

Sec. 36

Mobil Expl. & Prod. U.S., Inc.  
P. O. Box 633  
Midland, Texas 79702

Sec. 25

Pacific Interprises  
P. O. Box 3083  
Midland, Texas 79702

Sec. 27

Phillips Petroleum Company  
4001 Penbrook Street  
Odessa, Texas 79762

Sec. 25

Joe Reynolds  
2333 50th Street  
Lubbock, Texas 79421

Sec. 27

Oryx Energy Company  
P. O. Box 1861  
Midland, Texas 79702

Sec's 22, 27



Oryx Energy Company  
24 Smith Road  
PO Box 1861  
Midland TX 79702-1861  
915 688 0300

October 4, 1989

TO ALL OFFSET OPERATORS  
(List Attached)

Southwestern  
Production Region

RE: Offset Operators Notification  
Unorthodox Location  
Oryx Energy Company  
Ojo Chiso Federal No. 3  
Antelope Ridge - Atoka Gas  
M, 660' FSL & 660' FWL  
Sec. 26, T-22-S, R-34-E  
Lea County, New Mexico

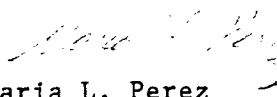
Gentlemen:

Oryx has made an application for permit to drill the captioned unorthodox location. This location is 660' to the nearest end boundary. Statewide Rule 104 states that distance to end boundary should be no closer than 1980'.

If you, as an offset operator of this lease, have no objections to the drilling of this location, please sign the waiver below. Return self addressed-stamped envelopes are enclosed for your convenience.

Should you have any questions on this location, please contact Shelly Lane, Geologist, at A/C 915-688-0525.

Yours truly,

  
Maria L. Perez  
Accountant  
A/C 915-688-0375

DATE: \_\_\_\_\_

SIGNED BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

COMPANY NAME: \_\_\_\_\_

CC: Bureau of Land Management  
P. O. Box 1778  
Carlsbad, New Mexico 88220

Oil Conservation Division  
P. O. Box 1980  
Hobbs, New Mexico 88241-1980

Charles Gray - NP-IV-Dls., Conservation Dept.  
Keith Nelson - CC-II-Dls., Land Dept.  
Shelly Lane - Geologist - Midland

Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

OIL CONSERVATION DIVISION

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

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

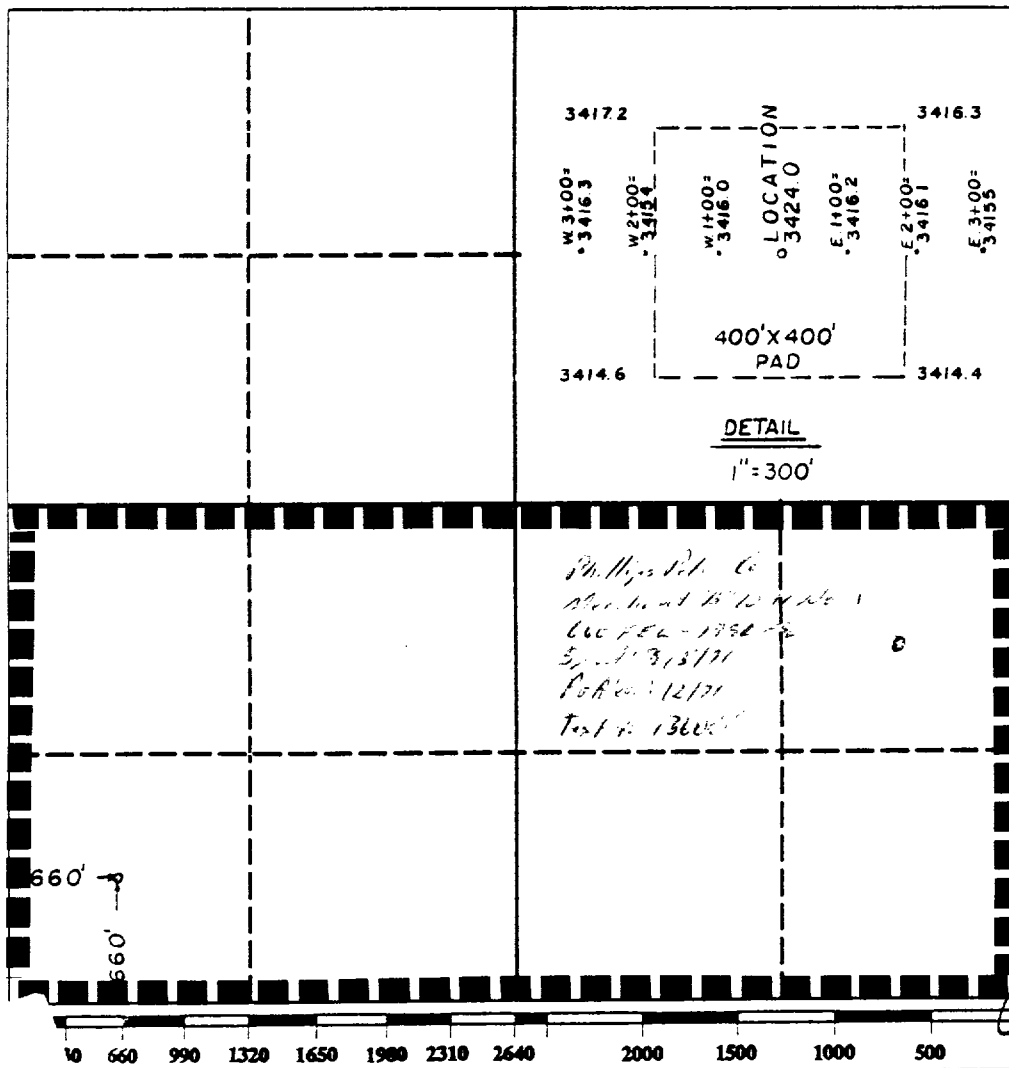
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Oryx Energy Company			Lease Ojo Chiso Federal		Well No. 3
Unit Letter M	Section 26	Township 22 South	Range 34 East	County NMPM Lea	
Actual Footage Location of Well: 660 feet from the South line and 660 feet from the West line					
Ground level Elev. 3416.0	Producing Formation Atoka	Pool Antelope Ridge-Atoka Gas	Dedicated Acreage: 320 Acres		

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest 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 interest, has been approved by the Division.



OPERATOR CERTIFICATION

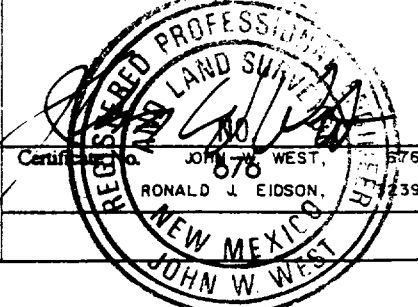
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature  
*Maria L. Perez*  
Printed Name  
Maria L. Perez  
Position  
Accountant  
Company  
Oryx Energy Company  
Date  
9-20-89

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 knowledge and belief.

Date Surveyed  
August 29, 1989  
Signature & Seal of  
Professional Surveyor



"New Mex-St."  
Sept

Yates Pet. tal  
8-1-89  
V-1202  
260 2

Yates Pet  
11-1-91  
V 2070  
51 86

Pogo  
Prod.  
BOK

13

Yates Pet.  
8-1-89  
V-1202  
260 2

Store

Bergen Oil  
12-1-89  
LG-7358  
652 "

24

BERGEN ENTERPRISES INC.

State

Phillips  
HBP  
E-1932

Phillips  
HBP  
E-1932

Mobil  
4-1 52  
LM 536

AMERADA HESS CORPORATION  
MOBIL EXPL. & PROD. U. S., INC.  
PHILLIP PETROLEUM COMPANY

B-1040

Phillips  
Merchant  
TO 13.600  
D/A 11 29 71

E-1932

State

Maxus Ener. Cal-Mon  
9 1 91 9 1 88  
V-1972 LG 6984  
301 23 350 00

MAXUS EXPLORATION COMPANY

36

1  
MAXUS Expl  
Tore 12-36  
TD 13, 700  
D/A 5-14 88

State

in choose should please please please please please please please please please please

TEN POINT DRILLING PLAN FOR OJO CHISO FEDERAL # 3  
IN COMPLIANCE WITH ORDER NUMBER 1

ORYX ENERGY COMPANY  
OJO CHISO FEDERAL # 3  
SEC. 26, T22S, R34E  
660' FSL & 560' FWL  
LEA COUNTY, NEW MEXICO

1) GEOLOGIC SURFACE FORMATION: QUATERNARY

2) ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

RUSTLER	1803	3RD. SAND	10728*
YATES	3833	WOLFCAMP	11225*
DELAWARE	5757	STRAWN	11815*
BONE SPRINGS	8605	ATOKA SHALE	12187
1ST SAND	9573*	ATOKA LIME	12200*
2ND SAND	10173*	TD	12400

3) ESTIMATED DEPTH OF ANTICIPATED WATER, OIL, GAS, OR MINERALS:  
FORMATIONS POSSIBLY PRODUCTIVE WITH OIL OR GAS ARE INDICATED  
WITH AN ASTERISK (\*) IN ABOVE SECTION 2.

4) PROPOSED CASING PROGRAM:

SIZE	CASING SEAT	FOOTAGE	GRADE	WEIGHT & THREAD
13 3/8		500	K-55	54.5# BT&C
13 3/8	1850	1350	K-55	54.5# ST&C
9 5/8	4850	4850	K-55	36.0# ST&C
7 5/8		4750	P-110	29.7# LT&C
7 5/8	11750	7000	P-110	29.7# IJ OR FJ
5 1/2	12400	1100	N-80	23.0# IJ OR FJ
2 7/8		11300	N-80	6.5# 8RD MOD.
2 3/8		900	N-80	4.7# 8RD MOD.

5) PROPOSED CEMENTING PROGRAM:

13 3/8" CEMENT TO SURFACE WITH 1300 SX. CLASS "C" + 2% GEL + 2% CaCl<sub>2</sub> MIXED @ 14.1 PPG & A YIELD OF 1.51 CU.FT./SX. TAILED IN WITH 400 SX. CLASS "C" + 1% CaCl<sub>2</sub> MIXED @ 14.8 PPG & A YIELD OF 1.32 CU.FT./SX. EXACT VOLUME WILL BE DETERMINED BY FLUID CALIPER.

9 5/8" ATTEMPT TO CEMENT TO SURFACE IN ONE STAGE USING 1400 SX. 65:35:6 LITE CLASS "C" + 10% SALT + 10 #/SX. GILSONITE MIXED @ 12.2 PPG & A YIELD OF 2.29 CU.FT./SX. TAILED IN WITH 150 SX. CLASS "C" NEAT MIXED @ 14.8 & A YIELD OF 1.32 CU.FT./SX. EXACT VOLUME TO BE DETERMINED BY FLUID CALIPER

7 5/8" ATTEMPT TO CEMENT TO 4800 FT. IN ONE STAGE USING 700 SX. 65:35:6 LITE CLASS "H" + 5 #/SX GILSONITE MIXED @ 13.1 PPG & A YIELD OF 1.68 CU.FT./SX. TAILED IN WITH 350 SX. CLASS "H" + .6% RETARDER MIXED @ 15.6 PPG & A YIELD OF 1.18 CU.FT./SX. TOC TAIL CMT 10000 FT. EXACT VOLUMES TO BE DETERMINED BY ELECTRIC LOG CALIPER.

## 5) PROPOSED CEMENTING PROGRAM: CONTINUED

4 1/2" MUD FLUSH AND SPACERS WILL PRECEDE CMT. CEMENT WITH 175 SX. CLASS "H" PLUS DISPERSANTS, RETARDERS, FLUID LOSS ADDITIVES AND PREVENTIVE GAS MIGRATION ADDITIVES AS DEEMED NECESSARY FROM LOG TEMPERATURES AND OTHER OPEN HOLE TESTS. MIX CMT @ 16.4 PPG & A YIELD OF 1.06 CU.FT./SX. EXACT VOLUMES TO BE DETERMINED BY ELECTRIC LOG CALIPER.

NOTE: IF LOSS CIRCULATION IS ENCOUNTERED ON EITHER THE 9 5/8" OR THE 7 5/8" SECTIONS OF HOLE, A TWO STAGE JOB MAY BE REQUIRED.

## 6) TYPE AND MUD SYSTEM CHARACTERISTICS:

FROM	TO	TYPE	WT.	VISC.	WL.
0	1850	FW. W/ GEL, LIME & PAPER	8.4-9.0	28 - 40	NC
1850	4850	BRINE WTR/ SALT GEL, LIME & PAPER SWEEPS/ OIL & STARCH AS NECESSARY.	10.0-10.2	28 - 32	NC
4850	11750	FW W/ GEL, LIME & PAPER SWEEPS.	8.4-9.0	28 - 32	NC
11750	12400	INVERT OIL MUD: 80/20 OWR. ADDITIVES AS NEEDED TO MAINTAIN MUD WT. VIS. & WL.	12.0-15.0	40 - 50	API <5 HTHP 15-25

NOTE: OIL MUD WILL BE USED FROM THE 7 5/8" CSG SEAT TO TD. INITIAL MW WILL BE 12.0 PPG. OFFSET WELLS HAVE RANGED FROM 10.5 PPG TO 15.0 PPG @ TD. MW WILL BE AS HIGH AS NEEDED TO CONTROL FORMATION PRESSURES.

## 7) BOP AND AUXILLARY EQUIPMENT:

BOP & CHOKE MANIFOLD WILL BE SETUP AS INDICATED ON EXHIBIT #D1 THROUGH #D4.

ACCUMULATOR VOLUME WILL BE SUFFICIENT TO PROVIDE REPEATED OPEN AND CLOSING OF PREVENTERS.

A DRILL PIPE AND DRILL COLLAR FULL OPENING SAFETY VALVE WILL BE KEPT ON THE RIG FLOOR IN THE OPEN POSITION AT ALL TIMES DURING DRILLING OPERATIONS.

AN UPPER AND LOWER KELLY COCK WILL BE USED.

THE HOLE WILL BE KEPT FULL AND FILL VOLUMES WILL BE MONITORED ON ALL TRIPS.

PVT, HYDRAULIC CHOKE, BULK BARITE, GAS SEPERATOR AND ROTATING HEAD WILL BE INSTALLED AND IN SERVICE BY 11200' (ABOVE THE WOLFCAMP). FLOW SENSORS WILL BE INSTALLED BY 9600' ( ABOVE THE THE FIRST BONE SPRINGS SAND).



## 8) TEST PROCEDURE AND DRILLS:

RAM TYPE PREVENTERS WILL BE TESTED TO RATED W.P. OR 70% OF CASING BURST, WHICHEVER IS LESS.

ANNULAR TYPE BOP WILL BE TESTED TO 50% OF W.P.

PIPE RAMS WILL BE OPERATED ONCE EACH 24 HRS., AND BLIND RAMS WILL BE OPERATED ON EACH TRIP OUT OF THE HOLE.

APPROVED CLOSE-IN PROCEDURE TO BE POSTED ON THE RIG FLOOR.

EACH RIG CREW WILL HOLD A WEEKLY BOP DRILL.

## 9) TESTING PROGRAM:

POSSIBLE DST'S FROM 11750' TO TOTAL DEPTH AS DICTATED BY SHOWS. SUCH TESTS, IF NECESSARY, WILL BE CONDUCTED UNDER PRUDENT INDUSTRY PRACTICE.

## OPEN HOLE LOGGING PROGRAM:

DIL-MSFL-GR-CAL	11750' TO 4850' (GR TO SURFACE)
ONL-LDT-GR-CAL	11750' TO 4850'
DLL-MSFL-GR-CAL	12400' TO 11750'
ONL-LDT-GR-CAL	12400' TO 11750'

MUD LOGGING UNIT TO BE IN SERVICE FROM 10500' TO TOTAL DEPTH.

## 10) POTENTIAL HAZARDS:

NO H<sub>2</sub>S OR ABNORMAL TEMPERATURES ARE ANTICIPATED.

ABNORMAL PRESSURES ARE POSSIBLE FROM 11750' TO TD, BUT HAVE BEEN CONSIDERED AND DESIGNED FOR IN THE PROPOSED PROGRAM.

MAXIMUM MUD WEIGHT IS ANTICIPATED TO BE 15.0 PPG.

## 11) ESTIMATED STARTING DATE:

ANTICIPATE STARTING OPERATIONS AS SOON AS POSSIBLE, SUBJECT TO APPROVAL OF THIS PERMIT.

EXHIBIT D-1

3000 psi

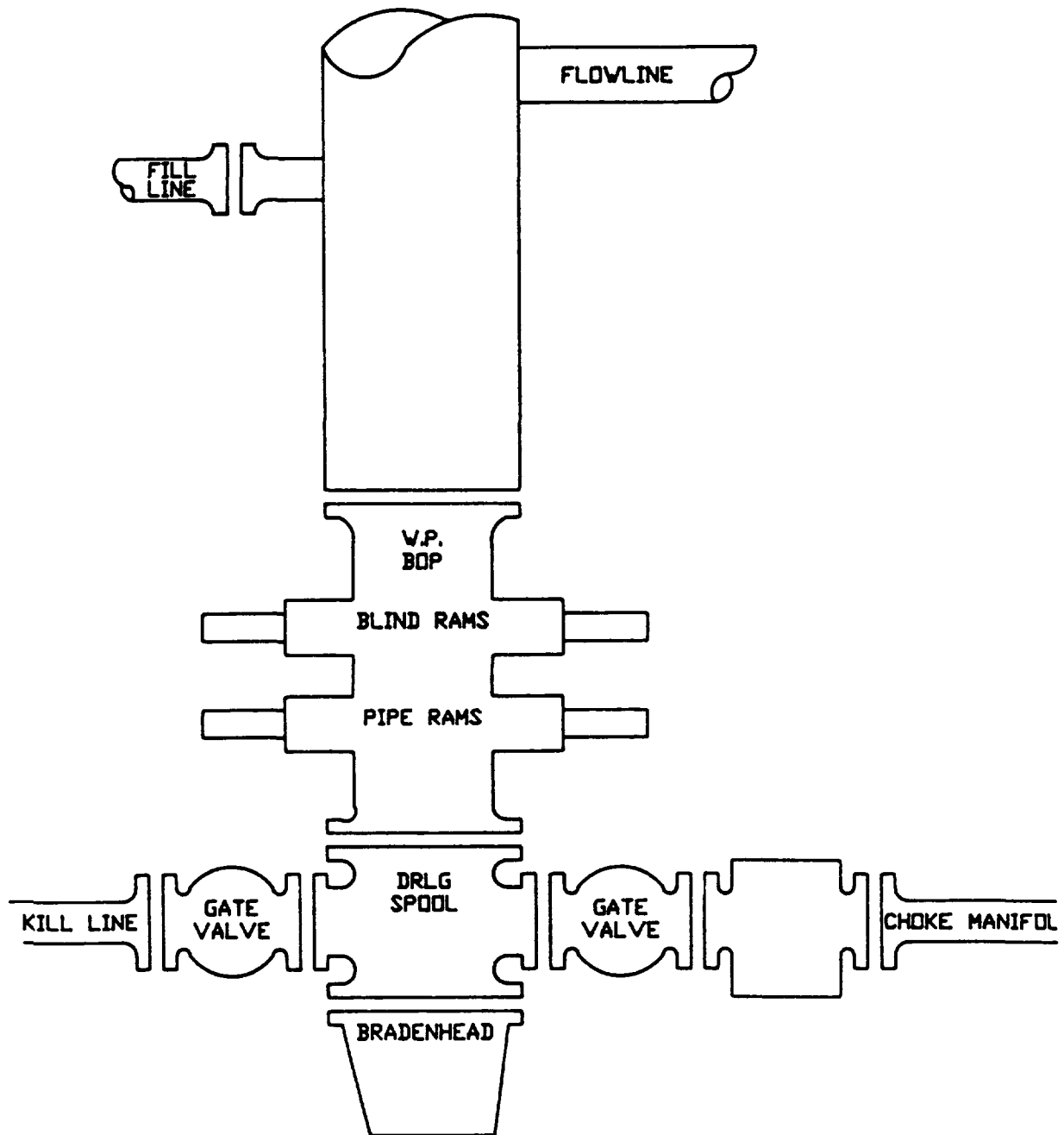


EXHIBIT DZ  
3000 ps.

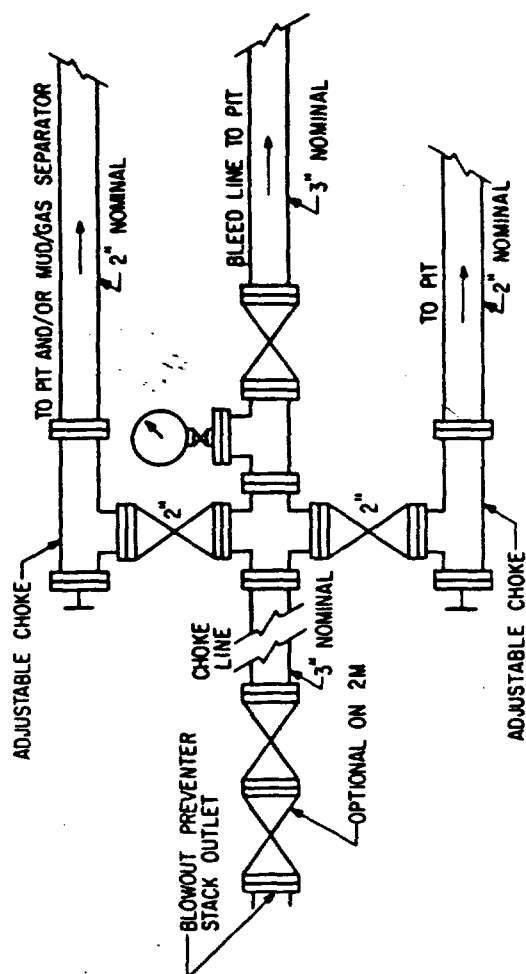
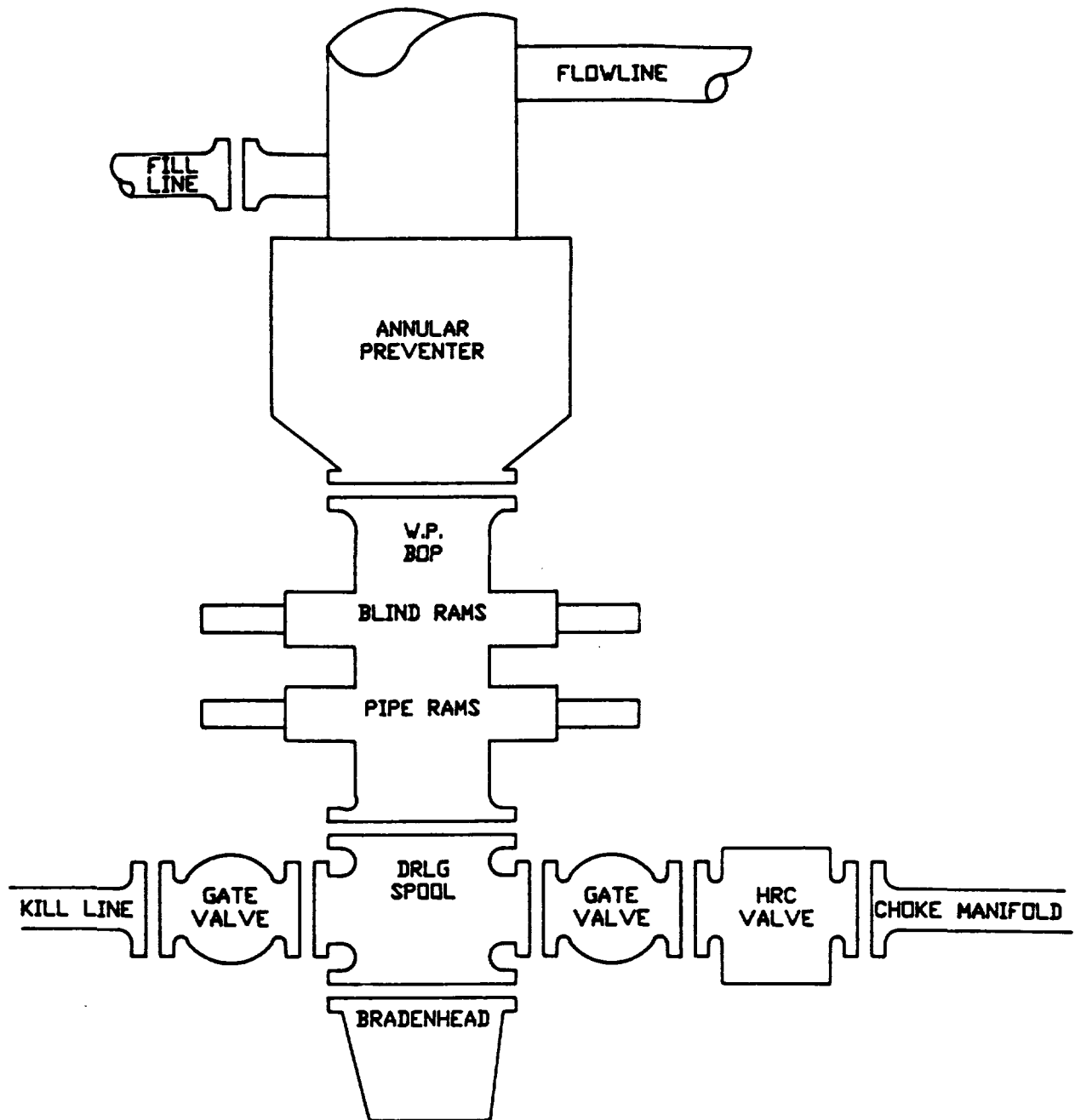
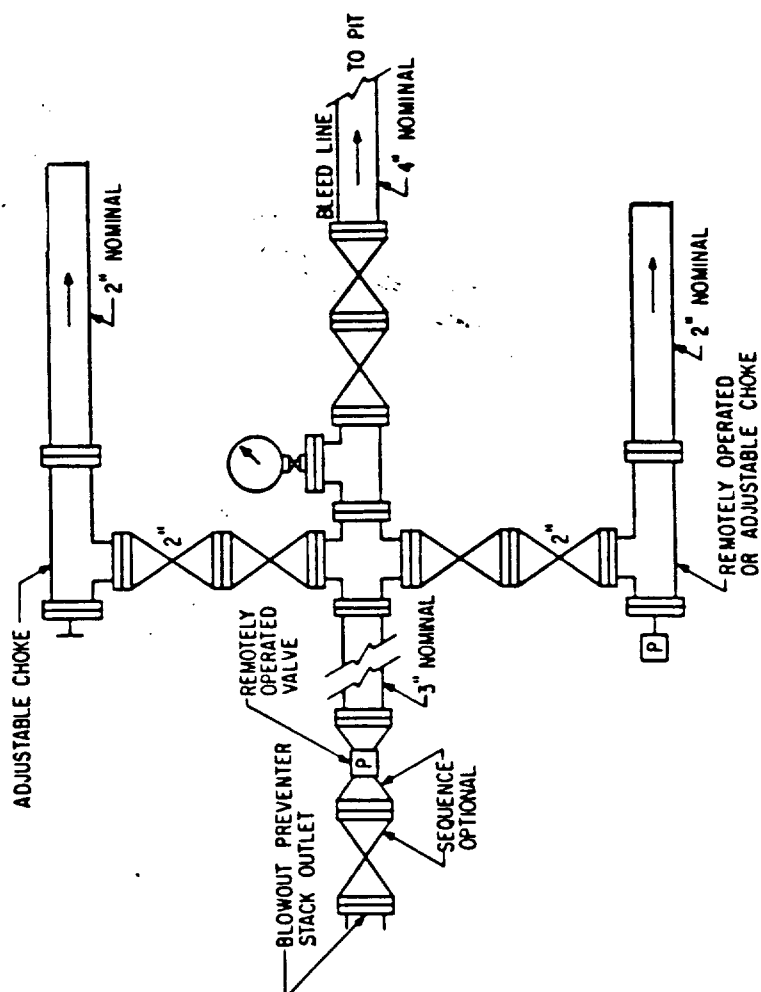


FIG. 3.A.1  
TYPICAL CHOKE MANIFOLD ASSEMBLY  
FOR 2M AND 3M RATED WORKING  
PRESSURE SERVICE - SURFACE INSTALLATION

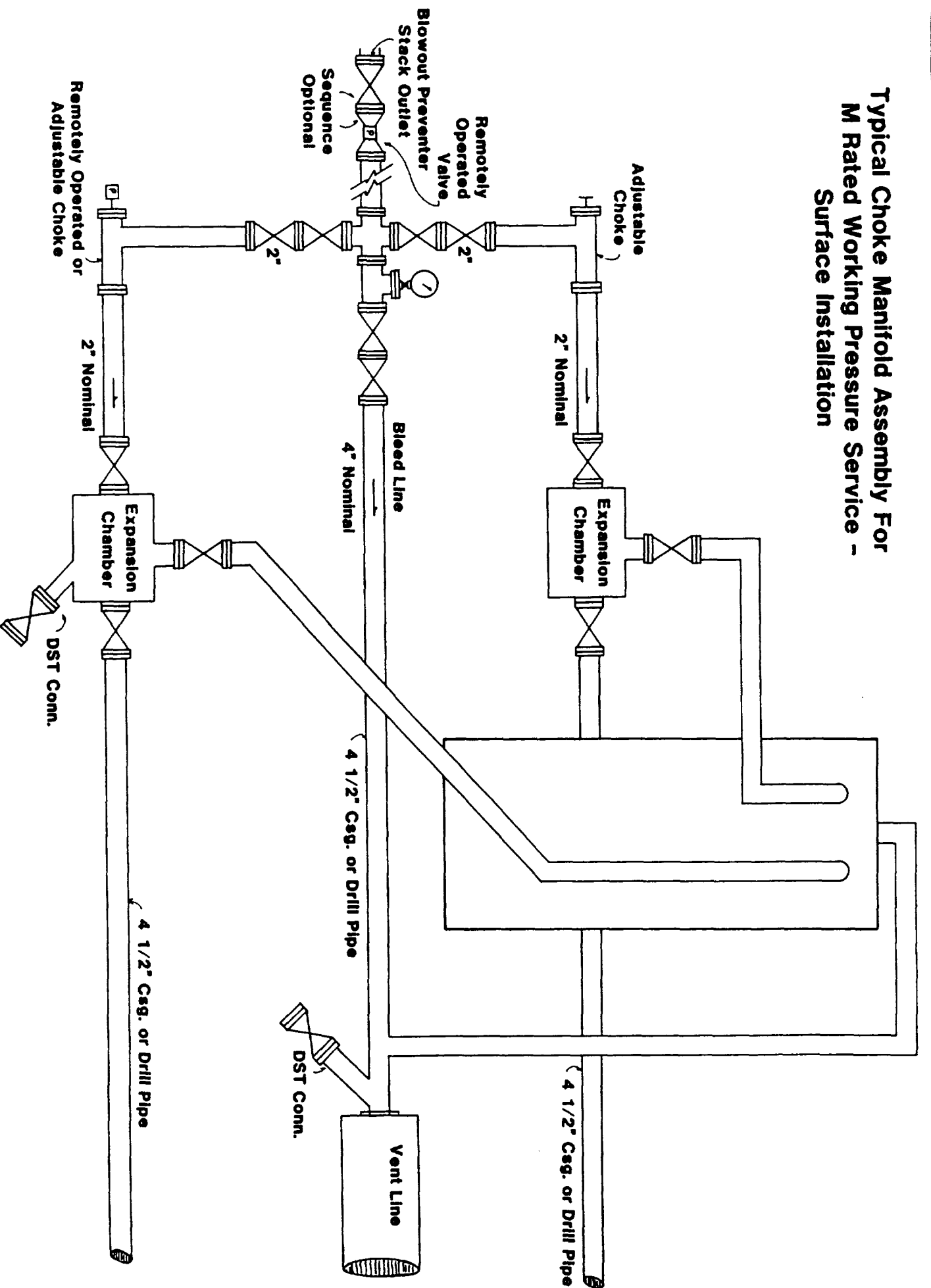
EXHIBIT D-3  
5000 PS.





TYPICAL CHOKE MANIFOLD ASSEMBLY FOR 5M  
RATED WORKING PRESSURE SERVICE —  
SURFACE INSTALLATION

# Typical Choke Manifold Assembly For M Rated Working Pressure Service - Surface Installation



MULTI-POINT SURFACE USE AND OPERATION

ORYX ENERGY COMPANY  
OJO CHISO FEDERAL # 3  
SEC. 26, T22S, R34E  
660' FSL & 660' FWL  
LEA COUNTY, NEW MEXICO

1) EXISTING ROADS:

- A. THE PROPOSED WELLSITE AND EXISTING ROADS TO PROPOSED LOCATION ARE SHOWN IN EXHIBIT #1. THE DIRECTIONS TO THIS WELL ARE AS FOLLOWS:

FROM EUNICE NEW MEXICO, TRAVEL SOUTH ON DELAWARE BASIN ROAD APPROXIMATELY 21 MILES. TURN RIGHT ON CALICHE ROAD, TRAVEL NORTH 2.4 MILES. TURN LEFT ON CALICHE ROAD, TRAVEL .7 MILES WEST. TURN LEFT INTO LOCATION.

- B. EXHIBIT #2 IS A TOPOGRAPHIC MAP INDICATING THE PROPOSED WELL LOCATION.

2) PLANNED ACCESS ROADS:

A SHORT ACCESS ROAD WILL BE CONSTRUCTED OFF THE CALICHE ROAD WHICH SERVICES THE SUN FEDERAL #1 WELL. THE ROAD SHOULD BE LESS THAN .2 MILE LONG AND WILL ENTER LOCATION FROM THE NORTH. NO CULTURAL RESOURCES WERE RECORDED.

3) LOCATION OF EXISTING WELLS:

EXISTING WELLS WITHIN A ONE-MILE RADIUS ARE SHOWN ON EXHIBIT #3.

4) LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. EXISTING FACILITIES WITHIN A ONE-MILE RADIUS OF THE PROPOSED LOCATION CAN BE SEEN ON EXHIBIT # 3. THESE EXISTING FACILITIES INCLUDE OIL OR GAS WELLS AND THEIR RESPECTIVE BATTERIES.
- B. IF THE PROPOSED WELL IS COMPLETED AND PRODUCTIVE, PLANS ARE TO CONSTRUCT A TANK BATTERY AT THE WELL PAD AND NO ADDITIONAL SURFACE DISTURBANCE WILL OCCUR.

5) LOCATION AND TYPE OF WATER SUPPLY:

WATER WILL BE PURCHASED FROM A COMMERCIAL WATER HAULER AND TRUCKED TO THE PROPOSED WELLSITE.

6) SOURCE OF CONSTRUCTION MATERIALS:

CALICHE FOR CONSTRUCTING THE ACCESS ROAD AND FOR CONSTRUCTING THE PROPOSED WELL LOCATION WILL BE OBTAINED FROM A CALICHE PIT LOCATED IN THE SW4 OF SECTION 23, T22S, R34E OR FROM A PIT DUG ON THE PROPOSED WELL PAD. LOCATION OF THE CALICHE PIT CAN BE SEEN ON EXHIBIT #1

7) METHODS OF HANDLING WASTE DISPOSAL:

- A. DRILL CUTTINGS WILL BE DISPOSED OF IN THE RESERVE PIT.
- B. DRILLING FLUID WILL BE ALLOWED TO EVAPORATE IN THE RESERVE PIT UNTIL PITS ARE DRY.
- C. WATER PRODUCED DURING TESTS WILL BE DISPOSED OF IN THE RESERVE PITS. OIL PRODUCED DURING TESTS WILL BE STORED IN A TEST TANK UNTIL SOLD. GAS WILL BE FLARED.
- D. SALTS AND CHEMICALS WILL BE DEPOSITED IN THE RESERVE PIT.
- E. A SEPTIC BOREHOLE WILL BE CONSTRUCTED AT THE LOCATION FOR THE DISPOSAL OF HUMAN WASTE.
- F. TRASH, WASTE PAPER, GARBAGE AND JUNK WILL BE BURIED IN A SEPARATE TRASH PIT (SEE BURN PIT ON EXHIBIT #4) AND COVERED WITH A MINIMUM OF 24 INCHES OF DIRT.
- G. ALL TRASH AND DEBRIS WILL BE BURIED OR REMOVED FROM THE WELLSITE AFTER FINISHING DRILLING AND/OR COMPLETION OPERATIONS.

8) ANCILLARY FACILITIES:

NONE REQUIRED

9) WELLSITE LAYOUT:

- A. EXHIBIT #4 SHOWS THE GENERAL LOCATION AND DIMENSIONS OF THE WELL LOCATION, MUD PITS, RESERVE PIT, BURN PIT, AND THE AREA OF LOCATION FOR MAJOR RIG COMPONENTS.
- B. LEVELLING OF THE WELLSITE WILL BE REQUIRED. NO SIGNIFICANT CUT OR FILLS WILL BE NECESSARY.
- C. THE RESERVE PIT WILL BE PLASTIC LINED.

10) PLANS FOR RECLAMATION OF THE SURFACE:

- A. AFTER COMPLETION OF DRILLING AND TESTING PROGRAM, ALL EQUIPMENT AND OTHER MATERIAL NOT NEEDED FOR OPERATIONS WILL BE REMOVED. PITS WILL BE FILLED AND THE LOCATION CLEANED OF ALL TRASH AND JUNK.
- B. ANY UNGUARDED PITS CONTAINING FLUIDS WILL BE FENCED UNTIL THEY ARE FILLED.
- C. AGREEMENT BETWEEN DRILLING CONTRACTOR AND BLM TO STACK THE DRILLING RIG ON LOCATION WILL BE THE RESPONSIBILITY OF THE DRILLING CONTRACTOR.
- D. AFTER ABANDONMENT OF THE WELL, SURFACE RESTORATION WILL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE SURFACE MANAGEMENT AGENCY. PITS WILL BE FILLED AND LOCATION WILL BE CLEANED. THE PIT AREA, WELL PAD AND SURFACE LOCATION WILL BE RIPPED TO PROMOTE RE-VEGETATION.



11) SURFACE OWNERSHIP:

LIVESTOCK MERCHANT COMPANY  
PO BOX 1105  
EUNICE N.M. 88231  
ATTN. MR. JOHN PEARSON

OWNERSHIP:  
BUREAU OF LAND MANAGEMENT  
P.O. BOX 1778  
CARLSBAD, NM 88220

12) OTHER INFORMATION:

A. TOPOGRAPHY: LAND SURFACE IS MOSTLY SMALL SAND DUNES COVERED WITH MESQUITE, SHINNERY OAK, AND SAND SAGE.

THE GROUND LEVEL ELEVATION OF THE WELLSITE IS 3421'.

B. SOIL: SAND UNDERLAIN BY CALICHE.

C. PONDS AND STREAMS: THERE ARE NO RIVERS, STREAMS, LAKES, OR MAJOR PONDS IN THE AREA.

D. ARCHAEOLOGICAL SURVEY: AN ARCHAEOLOGICAL CLEARANCE SURVEY WAS CONDUCTED ON SEPT 4, 1989 BY AN INVESTIGATOR FROM NEW MEXICO ARCHAEOLOGICAL SERVICES, INC. THE ARCHAEOLOGICAL CLEARANCE REPORT CAN BE REVIEWED IN EXHIBIT #5. ANY STIPULATIONS FOR ARCHAEOLOGICAL PROTECTION WILL BE INCORPORATED IN OUR SURFACE USE PLAN.

E. LAND USE: GRAZING AND HUNTING SEASON.

13) THE COMPANY REPRESENTATIVES RESPONSIBLE FOR ASSURING COMPLIANCE WITH THE APPROVED SURFACE USE AND OPERATIONS PLAN ARE AS FOLLOWS:

STEVE LIMKE  
(915) 688-0494 (OFFICE)  
(915) 684-9791 (HOME)  
MIDLAND, TEXAS

RICK SIEVERT  
(915) 688-0448 (OFFICE)  
(915) 682-6068 (HOME)  
MIDLAND, TEXAS

CERTIFICATION

I HEREBY 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; AND THAT THE WORK ASSOCIATED WITH OPERATIONS PROPOSED HEREIN WILL BE PERFORMED BY ORYX ENERGY COMPANY AND IT'S CONTRACTORS AND SUBCONTRACTORS IN CONFORMITY WITH THIS PLAN AND THE TERMS AND CONDITIONS UNDER WHICH IT IS APPROVED.

9-14-89

DATE

Steve Limke

STEVE LIMKE  
DRILLING SUPERVISOR

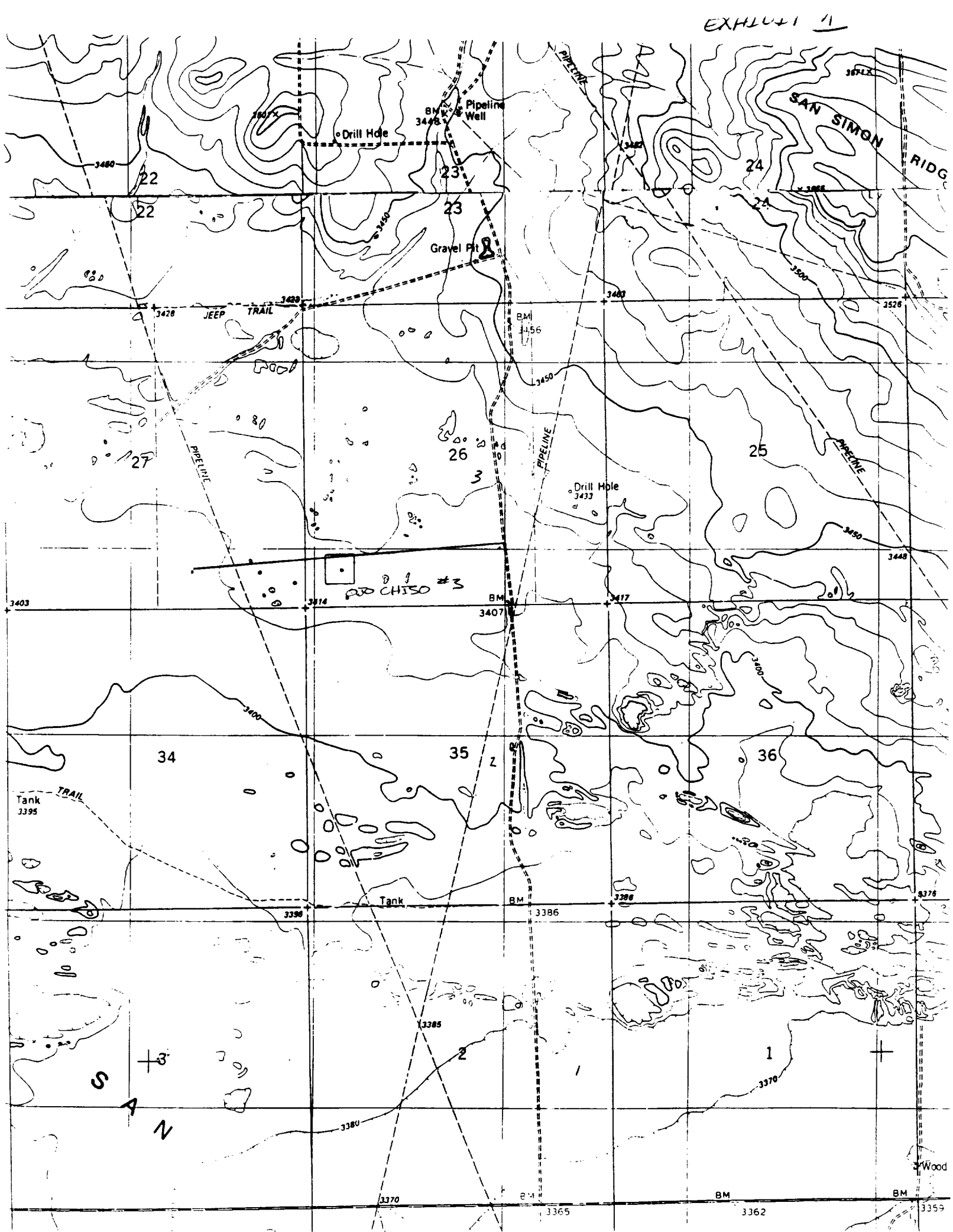


EXHIBIT #2

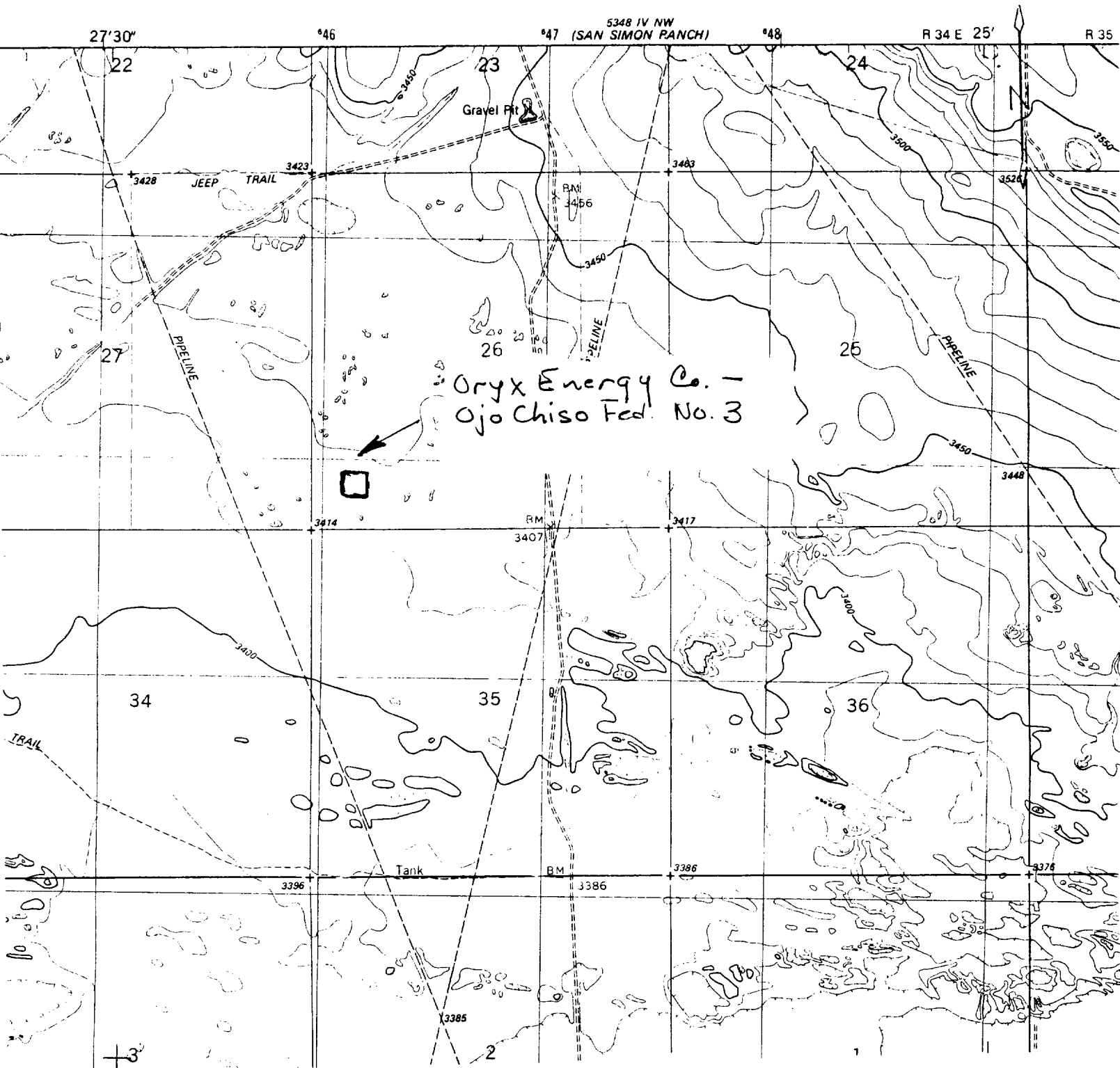
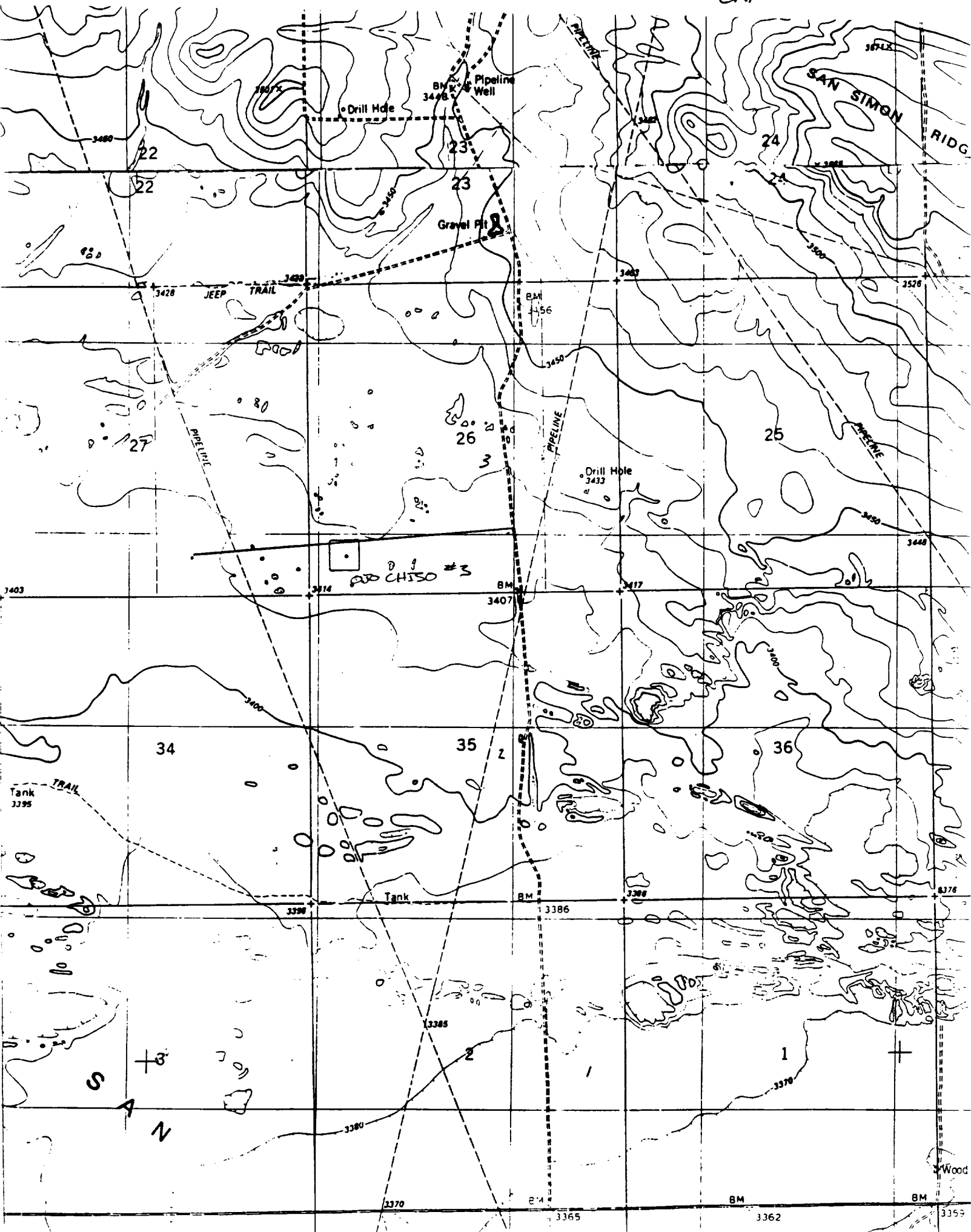
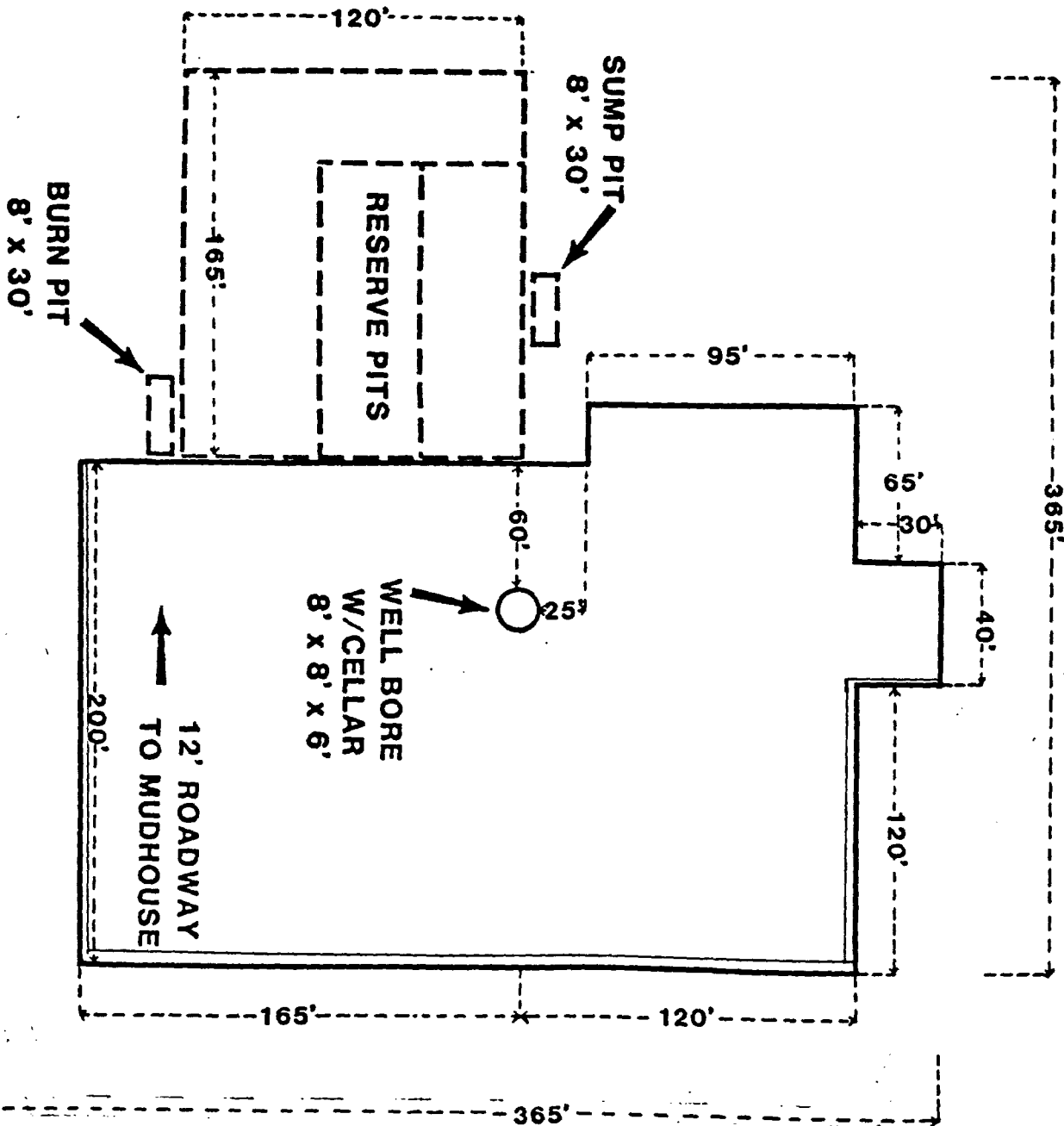
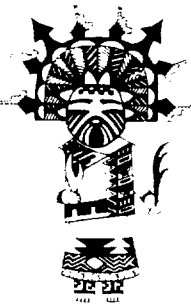


Fig. 1. USGS SAN SIMON SINK QUADRANGLE, 7.5 Minute Series, 1:24,000, 1984, showing ORYX ENERGY COMPANY's proposed Ojo Chiso Federal Well No. 3, 660' FSL, 660' FWL, Section 26, T22S, R34E, NMPM, Lea County, NM







**NMAS**  
**New Mexico Archaeological Services, Inc.**

P.O. Box 1341  
Carlsbad, New Mexico 88221-1341  
(505) 887-7646

*Reconnaissance*  
*Excavation*  
*Analysis*  
*Explanation*  
*Curation*

6 September 1989

Mr. Steve Limke  
ORYX ENERGY COMPANY  
P.O. Box 1861  
Midland, Texas 79701

Dear Mr. Limke:

Enclosed please find NMAS' Archaeological Clearance Report for ORYX ENERGY COMPANY's proposed Ojo Chiso Federal Well No. 3 in Lea County, New Mexico. No cultural resources were recorded during this survey; therefore, NMAS is suggesting clearance for this project.

If you have any questions pertaining to this report, please call my office. Thank you for asking NMAS to do this survey.

Yours sincerely,

*J. Loring Haskell*  
Dr. J. Loring Haskell  
Principal Investigator

Enclosure

cc: Mr. George Ruebelmann

as

Archaeological Clearance Report  
for

ORYX ENERGY COMPANY

Ojo Chiso Federal Well No. 3

Prepared

By

Dr. J. Loring Haskell

Submitted

By

Dr. J. Loring Haskell  
Principal Investigator  
New Mexico Archaeological Services, Inc.  
Carlsbad, New Mexico

6 September 1989

Permit Number: 14-2920-89-I

Report Number: NMAS-1989-06-S

# ABSTRACT

New Mexico Archaeological Services, Inc., representing ORYX ENERGY COMPANY, undertook a Class III survey of Bureau of Land Management land scheduled to be impacted by the construction of a drill location. Field work was conducted under sunny, partly cloudy and calm conditions during late afternoon. The proposed location will measure 400 x 400 ft (actual area surveyed 4.44 acres). It will be situated in Section 26, T22S, R34E, NMPM, Lea County, New Mexico. No cultural resources were recorded during this survey; therefore, NMAS is suggesting clearance for this project.



## Introduction

On 4 September 1989, New Mexico Archaeological Services, Inc., (NMAS), Carlsbad, (Permit Number: 14-2920-89-I), undertook for ORYX ENERGY COMPANY, an archaeological survey of federal land administered by the Bureau of Land Management in Lea County, New Mexico. The reconnoitered area will be impacted by the construction of a drill location. This survey was undertaken by Dr. Haskell.

## Survey Technique

For this investigation, ORYX ENERGY COMPANY's proposed location was reconnoitered for evidence of man's past activities by walking it in a series of 8.0 m wide, close intervals (15° or less), zigzag transects. In addition, an added zone extending 20 ft on each side of the staked 400 X 400 ft location, and lying outside the bounds of the proposed work area, was reconnoitered by a similar means. Methodologically, this procedure served to promote optimal condition for the visual examination of the area to be impacted by construction-related activities. Field work was conducted under sunny, partly cloudy and calm conditions during late afternoon. Ground visibility ranges between 75 and 85%. Field time one hour.

Ojo Chiso Federal Well No. 3

## Location

The proposed location will measure 400 X 400 ft (actual area surveyed 4.44 acres) on federal land and will be situated 660 ft from the south line and 660 ft from the west line.

Section 26, T22S, R34E, NMPM, Lea County, NM

Thus it will be situated in the:

SW¼SW¼, Section 26, T22S, R34E, NMPM, Lea County, NM

The proposed location will be situated immediately north of an existing lease road.

Map Reference: USGS SAN SIMON SINK QUADRANGLE, 7.5 Minute Series, 1984.

#### Level of Previous Impact

The location is crossed on the south by a lease road.

#### Environmental Setting

ORYX ENERGY COMPANY's proposed location will be situated on an aeolian landform which is distinguished by minor dune development. Areal microrelief ranges between 0.25 and 0.40 m in height. Surficial deposits are made up of loose, non-calcareous, sandy loams and loamy sands. Lithic inclusions, other than occasional calcareous gravels, are scarce. Soil individuals fall within the Typic Torripsamment subgroup. Elevation is 3416 ft. Slope is 0.55°. Aspect is multiple (360°). Water is universally scarce albeit seeps do occur to the east near the base of the San Simon Ridge. Drainage, overall, is of an interior nature owing to the Karst landform. Depositionally, the present surface is subject to aeolian processes. The scrub formation is made up of mesquite, shinnery oak, sand sage, many bristle pectis, sand-leaf flower, poverty threeawn, mesa dropseed, hairy grama, sandbur, sand dropseed, and sand muhly.

#### Cultural Resources

Prefield: 18 August 1989, Section 26, six archaeological sites, T22A, R34E, Arita K. Slate.

NM-06-4421 is situated within 4200 ft of the proposed location.

PAC/LE-034 is situated within 4400 ft of the proposed location.

AR-30-6-243 is situated within 3800 ft of the proposed location.

NMAS 5905 is situated within 600 ft of the proposed location.

NMAS 5987 is situated within 1200 ft of the proposed location.

NMAS 5908 is situated within 2000 ft of the proposed location.

No cultural resources were recorded during this survey.

Their absence is due to an overall lack of locally available siliceous lithic material, the relative openness of the landform and the paucity of potable water. Land usage, however, was continual, especially during the Eastern Jornada Mogollon.

#### Recommendations

NMAS recommends clearance for ORYX ENERGY COMPANY's proposed Ojo Chiso Federal Well No. 3 and suggests that work-related activities proceed in accordance with company plans (Fig. 1). Clearance, of course, is granted by the Bureau of Land Management. If cultural resources are encountered during construction, the BLM and NMAS should be notified immediately. Duned settings are notorious for covering and uncovering cultural properties.



Oryx Energy Company  
24 Smith Road  
PO Box 1861  
Midland TX 79702-1861  
915 688 0300

September 13, 1989

Southwestern  
Production Region

Bureau of Land Management  
P. O. Box 1778  
Carlsbad, NM 88220

RE: Land Usage Agreement

To Whom It May Concern:

I, as representative of Oryx Energy Company, P. O. Box 1861, Midland, Texas 79702-1861, as operator, and Merchant Livestock Co., P. O. Box 1105, Eunice, New Mexico 88231, as surface owner and/or surface/grass lessor in Section(s) 26 and other sections, T-22-S - R-34-E, Lea County, New Mexico, are in agreement as to surface damages and uses of surface in drilling the Ojo Chiso Fed. #3, 660' FSL and 660' FWL, Section 26, T-22-S - R-34-E, Lea County, New Mexico.

Respectfully,

Cecil Gutierrez  
Right-of-Way and Claims

/bs