

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

14245

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Marador Operating Company

3. ADDRESS AND TELEPHONE NO.

8340 Meadow Road #150, Dallas, TX 75231

4. LOCATION OF WELL (Report location clearly and in accordance with
At surface

1700' FNL & 1980' FWL
At proposed prod. zone

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

42 miles West of Hobbs

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT. 1700'

(Also to nearest drlg. unit line, if any)

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT. NA

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

3545' GL

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8" H-40	48#	500' 600'	420 sx
11" or 12-1/4"	8-5/8" J-55	32#	3800'	1200 sx
7-7/8"	5-1/2" L-80 & S-95	17#	12300'	700 sx

Drill 12,300' Morrow test. Drill 17-1/2" hole to ±500'. Run and cement 13-3/8" casing to surface. NU BOP stack and drill 11" or 12-1/4" hole to ±3800'. Run and cement 8-5/8" casing to surface. NU BOP assembly and test. Drill 7-7/8" hole to ±12,300' and evaluate.

Well Location and Acreage Dedication Plat
Application for Permit to Drill (Drilling Program)
Surface Use Plan
Exhibit A, Area Map
Exhibit B, Wellsite Plan
Exhibit C, Production Map
Exhibit D, BOP schematic
Exhibit E, Choke Manifold
Topo Map

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

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

TITLE Sr. Drilling Engineer

DATE

4/16/01

(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

Acting
FIELD MANAGER

DATE

JUN 05 2001

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

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 87507-2088

State of New Mexico
E. Ry. Minerals, and Natural Resources Department

Form C-102
Revised 02-10-94

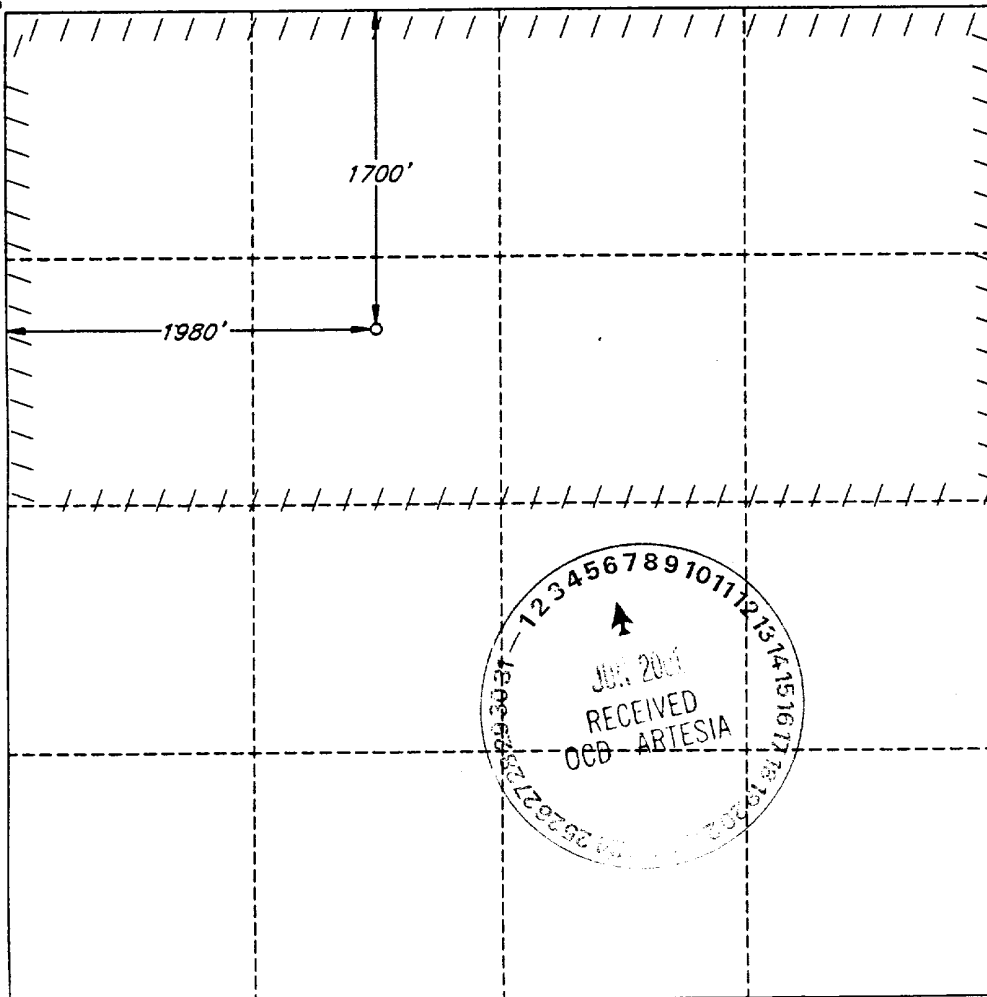
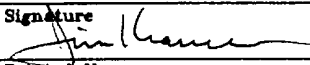
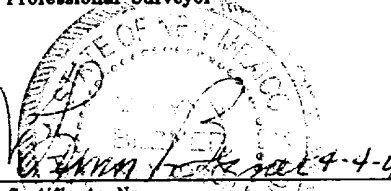
Instructions on back

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name					
4 Property Code		5 Property Name WEST SHUGART 31 FEDERAL						6 Well Number 2	
7 OGRID No. 014245		8 Operator Name MATADOR OPERATING COMPANY						9 Elevation 3545'	
10 SURFACE LOCATION									
UL or lot no. F	Section 31	Township 18 SOUTH	Range 31 EAST, N.M.P.M.	Lot Ida	Feet from the 1700'	North/South line NORTH	Feet from the 1980'	East/West line WEST	County EDDY
11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE									
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres 311.32		13 Joint or Infill		14 Consolidation Code		15 Order No.			
NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT 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 			
						Printed Name Jim Kramer			
						Title Sr. Drilling Engineer			
						Date 4/16/01			
						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.			
						Date of Survey MARCH 27, 2001			
						Signature and Seal of Professional Surveyor 			
						Certificate No. V. L. BEZNER R.P.S. #7920 JOB #75510 / 73 NW / J.C.P.			

APPLICATION FOR PERMIT TO DRILL

MATADOR OPERATING COMPANY

West Shugart 31 Federal #2

1700' FNL; 1980' FWL

Sec 31, T18S, R31E

Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Matador Operating Company submits the following items of pertinent information in accordance with Onshore Oil and Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

1. Geological Name of Surface Formation: Permian

2. Estimated Tops of Important Geological Markers:

	Measured Depth	Subsea	
Rustler Anhydrite	473'	+3058'	
Yates Ss	2039'	+1492'	
Grayburg Fm	3713'	-182'	
San Andres	4127'	-596'	
Bone Springs	8393'	-4862'	+
B/Wolfcamp Carbonate	10146'	-6615'	
Atoka Sands	11349'	-7805'	+
Morrow Clastics	11699'	-8155'	
Middle Morrow "B" Sands	11825'	-8281'	*
Lower Morrow Sands	11964'	-8420'	*
Barnett Shale	12138'	-8594'	
PTD	12300'	-8756'	

* Primary Reservoir Target

+ Secondary Reservoir Target

3. Estimated Depth of Anticipated Fresh Water, Oil or Gas:

Upper Permian Sands	0-400'	Fresh Water	*
Bone Spring	8393'	oil	
Wolfcamp	10146'	oil	**
Atoka	11349'	gas	
Middle Morrow Clastics	11825'	gas	
Lower Morrow	11964'	gas	

* Ground water will be protected by 13-3/8" surface casing with cement circulated to surface.

**** Potentially productive horizons in the 7-7/8" hole section to be protected by the 5-1/2" casing with cement at least 500' above upper most zone.**

4. Proposed Casing Program:

Hole Size	Interval	Casing OD	Description
26"	0-40'	20"	Conductor, if necessary
17-1/2"	0- 500 600'	13-3/8"	48# H-40, ST&C New, R-3
11" or 12-1/4"	0-3800'	8-5/8"	32# J-55, ST&C, New, R-3
7-7/8"	0-10000'	5-1/2"	17# L-80, LT&C, New, R-3
7-7/8"	10000'-12300'	5-1/2"	17# S-95, LT&C, New, R-3

Proposed Cementing Program:

20" Conductor:	Ready-mix poured to surface.
13-3/8" Surface Casing:	Cement w/ 220 sx Class "C" Light (12.5 ppg, 1.99 ft ³ /sx). Tail w/ 200 sx Class "C" + 2% CaCl ₂ (14.8 ppg, 1.32 ft ³ /sx). Float Equipment: Texas pattern shoe w/ insert float valve, 3 centralizers.
8-5/8" Intermediate Casing:	Cement w/ 1000 sx Interfill "C" (11.5 ppg, 2.75 ft ³ /sx). Tail w/ 200 sx Class "C" + 1% CaCl ₂ (14.8 ppg, 1.32 ft ³ /sx). Float Equipment: Float shoe, Float collar above shoe joint, 10 centralizers.
5-1/2" Production Casing:	Cement w/ 700 sx Super "H" Modified + 0.4% CFR-3 + 0.4% Halad-344 + 0.1% HR-7 (13.0 ppg, 1.65 ft ³ /sx).

5. Pressure Control Equipment:

The blowout preventer equipment (BOPE) shown in Exhibit D will be utilized for the 12-1/4" and 7-7/8" hole sections. The assembly will consist of a 5000 psi WP double ram-type preventer (4-1/2" pipe and blind rams) and a 3000 psi WP annular preventer (API RP53 Fig 2.c.5). This BOPE assembly will be nipped up on the surface casing and used continuously until setting the 5-1/2" casing at total depth of ±12,300'. All BOPE will be tested as follows:

- Prior to drilling out from surface casing – test all BOPE to 500 psi using rig pump.
- Prior to drilling out from 8-5/8” casing – test ram-type preventers and choke manifold to 5000 psi and annular preventer to 70% of rated WP using independent tester and test plug.

A rotating head will be installed on top of the annular preventer after setting the 8-5/8” casing at +/- 3800’.

All BOP’s will be hydraulically operated. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of hole. The kill line will be 2” minimum and will include a remote connection. The choke line will be 3” minimum. A complete choke manifold schematics is shown in Exhibit E.

6. Proposed Mud System:

The proposed mud system will be a combination of fresh water, brine, cut brine, and polymer gel. The depth and mud properties of the mud system are listed below.

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss (cc)	ph
0-500’	Fresh Water	8.3-8.8	28-30	N.C.	9-10
500’-3800’	Brine Water	10.0-10.2	28-30	N.C.	9-10
3800’-10,000’	Cut Brine	8.5-9.0	28-30	N.C.	9-10
10,000’-11,600’	Polymer/Gel	9.0-9.3	30-32	10-20	9-10
11,600’-12,300’	Polymer/Gel	9.3-9.6	32-35	<10	9-10

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

7. Auxiliary Well Control and Monitoring Equipment:

- A Kelly cock will be kept in the drill string at all times.
- A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- A mud logging unit complete will be monitoring drilling penetration rate and hydrocarbon shows from 8000’ (Top of Bone Springs) to TD.
- PVT/FLO-sensor equipment will be rigged up and operating at 10,000’ (prior to drilling into the Wolfcamp formation).

8. Drillstem Testing, Logging and Coring Programs:

- Drillstem tests: Possible test in Morrow Sands to be based on shows encountered.
- Electric logs: CNL-LDT-DLL-MSFL-GR: TD to 4000' (CNL-GR to surface).
- Coring: None planned.

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

No abnormal pressures and/or temperatures are anticipated. No hydrogen sulfide or other hazardous gases or fluids are known to exist in this area. Estimated BHP in the Morrow is 5300 psi.

10. Anticipated Starting Date and Duration of Operations:

The anticipated start date will be June 20, 2001. Once commenced, drilling operations should be completed in approximately 40 days. If the well is productive, another 15 days will be required for completion work and facility installation.

**SURFACE USE PLAN
MATADOR OPERATING COMPANY
West Shugart 31 Federal #2
1700' FNL, 1980' FWL
Sec 31, T18S, R31E
Eddy County, New Mexico**

1. EXISTING ROADS – Area map, Exhibit “A”, is a reproduction of the appropriate part of the U.S.G.S. New Mexico 7-1/2 minute quadrangle. Existing roads are shown on the exhibit and the road to be used on the referenced well is marked. All roads shall be maintained in a condition equal to that which existed prior to start of construction.
 - A. Exhibit “A” shows the proposed well site as staked.
 - B. Direction: From the jct of US 82 and SH 222 (east of Loco Hills, NM) go south 6.8 miles on SH 222. Turn right and go west 1.6 miles on County Road 250 (paved). Turn onto lease road and go south 1200', then east 1100', then south 250' to location.
2. PLANNED ACCESS ROADS - 2300' of existing two-track road off County Road 250 to be upgraded with an extension of approximately 250' of new road to the location.
3. LOCATION OF EXISTING WELLS ON A ONE-MILE RADIUS
 - A. Water wells - NA.
 - B. Disposal wells - NA.
 - C. Drilling wells - NA.
 - D. Producing wells – As shown on Exhibit “C”.
 - E. Abandoned wells-As shown on Exhibit “C”.
4. If upon completion, the well is a producer, Matador Operating Company will furnish maps or plats showing On Well Pad Facilities and Off Well Pad Facilities (if needed) on a Sundry Notice before construction of these facilities starts.

5. LOCATION AND TYPE OF WATER SUPPLY

Water will be purchased locally from a private source and trucked over the access road or piped in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIALS

If needed, construction materials will be obtained from the drill site's excavations, or from a local source. These materials will be transported over the access route as shown in Exhibit "A".

7. METHODS FOR HANDLING WASTE DISPOSAL.

- A.
 - 1. Drill cuttings will be disposed of in the reserve pit.
 - 2. Trash, waste paper, and garbage will be contained in a fenced trash trailer to prevent wind-scattering during storage. When the rig moves out, all trash and debris will be hauled to an approved land-fill site.
 - 3. Salts remaining after completion of the well will be picked up by the supplier, including broken sacks.
 - 4. Sewage from trailer houses will drain into holes with minimum depth of 10'00". These holes will be covered during drilling and back-filled upon completion. A "porta-john" will be provided for the rig crews. This will be properly maintained during the drilling operations and removed upon completion of the well.
 - 5. Chemicals remaining after completion of the well will be stored in the manufacturer's containers and picked up by the supplier.
- B. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for back-filling. In the event drilling fluids will not be evaporated in a reasonable period of time, they will be transported by a tank truck to a state approved disposal site.

Water produced during testing of the well will be disposed of in the reserve pit. Oil produced during testing of the well will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES

No camps or airstrips will be constructed.

9. WELL SITE LAYOUT

- A. Exhibit "B" shows the proposed well site layout.
- B. This exhibit indicates proposed location of the reserve pits and trash trailer.
- C. Mud pits in the active circulating system will be steel pits will be steel pits and the reserve pit is proposed to be unlined, unless subsurface conditions encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with a poly-ethylene liner. The pit liner will be a minimum of 6 mils thick. The pit liner will extend a minimum of 2'00" over the reserve pit dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

5. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or dry hole.

In either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area as closely as is possible. Drainage system, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstance to prevent inundation of the location pad and surface facilities. After the area had been shaped and contoured, topsoil from the soil pits will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

6. OTHER INFORMATION

- A. The area around the wellsite is flat loamy surface with salt brush, yucca, mesquite, prickly pear cactus & various grasses.
- B. Surface use is grazing and the lessee is Richardson Cattle Company, P. O. Box 487, Carlsbad, NM 88221.
- C. An archaeological study has been conducted for the location and road. Archaeological survey submitted under separate cover.
- D. There are no buildings in the area.

7. OPERATOR'S REPRESENTATIVE

Matador Operating Company's field representative for contact regarding compliance with the Surface Use Plan is:

Before, during, and after construction:

Jim Kramer

8340 Meadow Road #150

Dallas, TX 75231

Office: 214-987-7128

Mobile: 915-553-3542

Res: 972-377-3281

13. CERTIFICATION

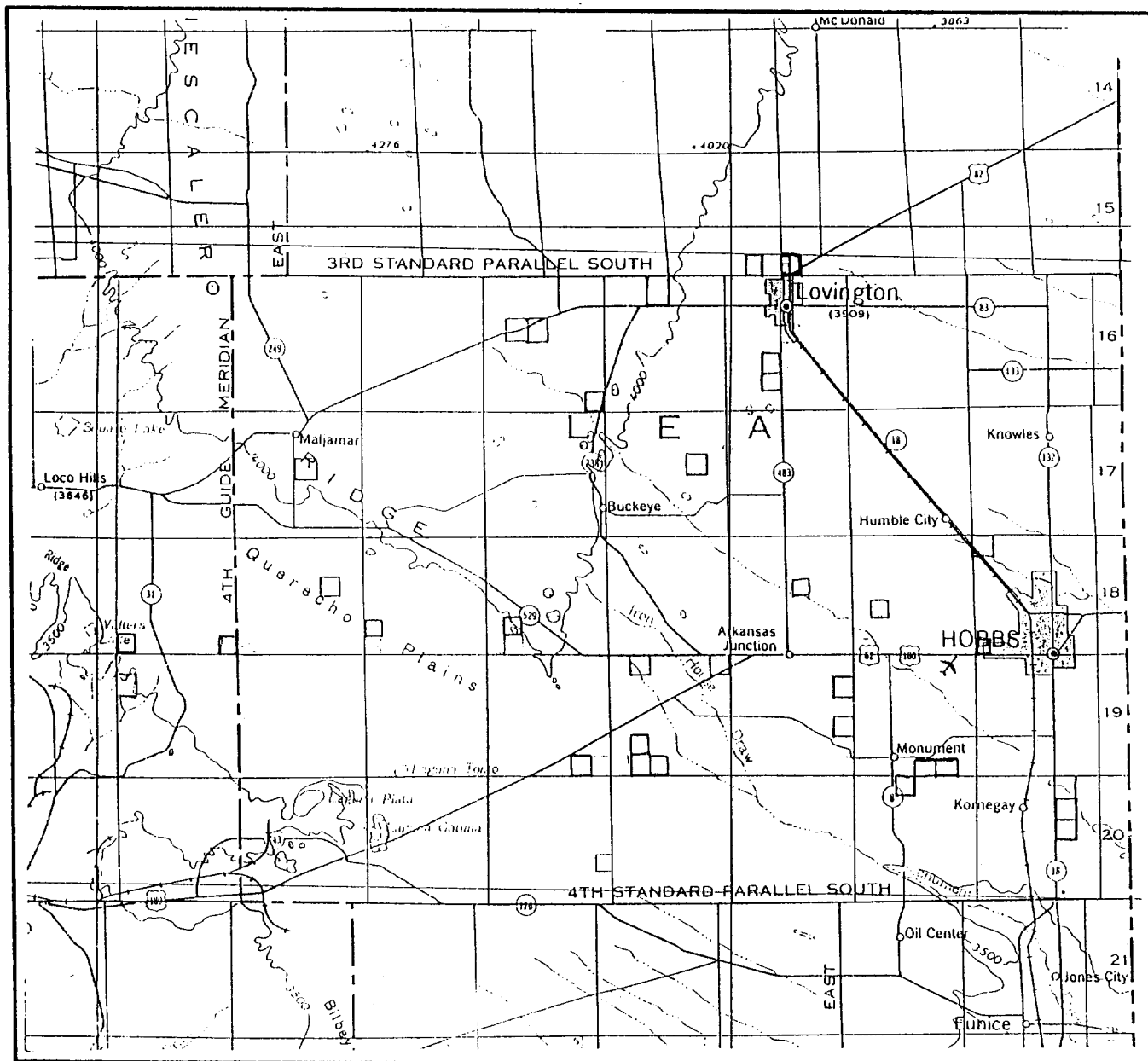
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Matador Operating Company and its contractors/ 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.

Name: _____

Jim Kramer
Sr. Drilling Engineer

Date: _____

4/16/01

SECTION 31 TWP 18-S RGE 31-ESURVEY NEW MEXICO PRINCIPAL MERIDIANCOUNTY EDDY STATE NMDESCRIPTION 1650' FNL & 1980' FWLOPERATOR MATADOR OPERATING COMPANYLEASE WEST SHUGART 31 FEDERAL #2DISTANCE & DIRECTION FROM THE JCT. OF U.S. 82 &S.H. 222 EAST OF LOCO HILLS NEW MEXICO, GO SOUTH6.8 MILE ON S.H. 222, THENCE SOUTHWEST & WEST 1.6MILE ON COUNTY ROAD 250 TO A POINT $\pm 1900'$ NORTHOF THE LOCATION.

This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.

Review this plot and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

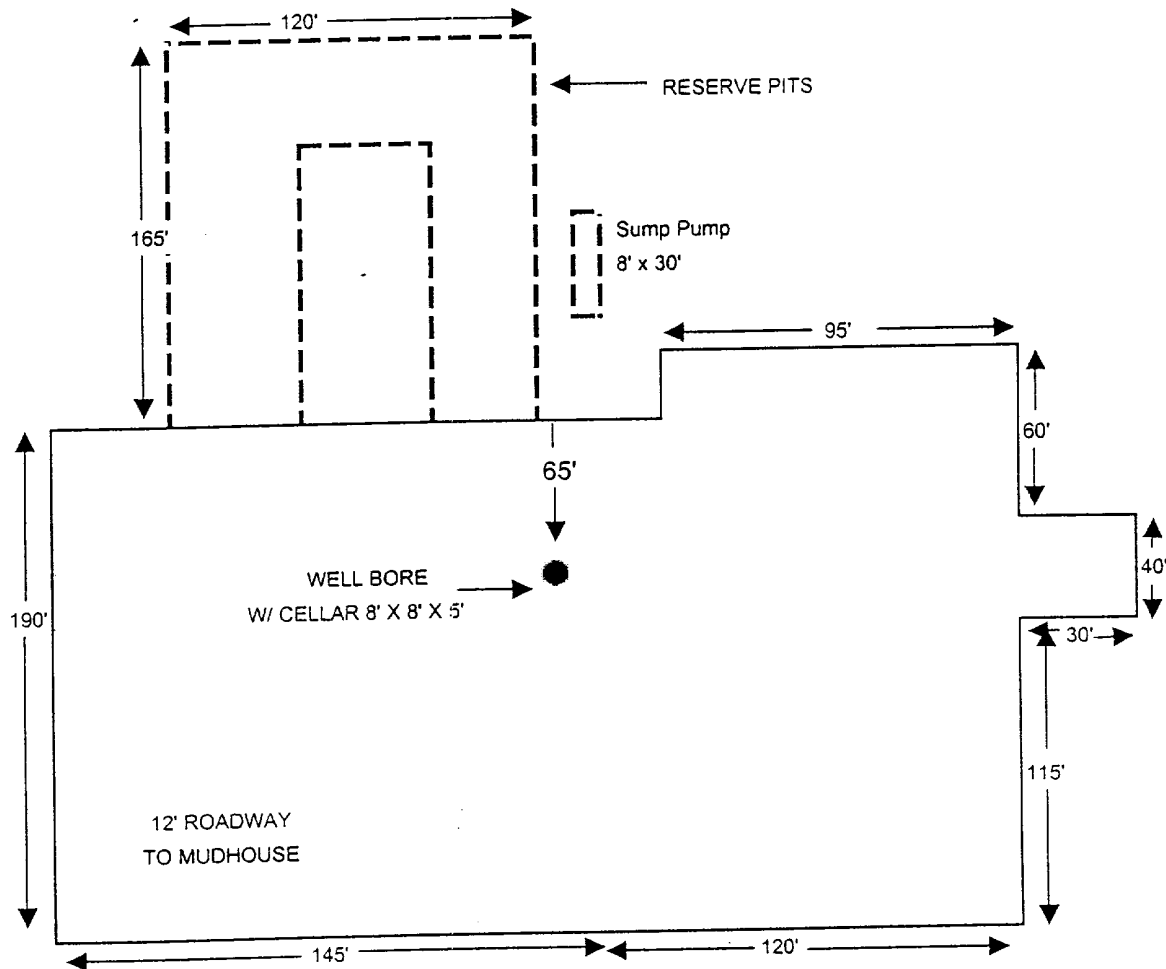
1307 N. HOBART
PAMPA, TX. 79065
(800) 658-6382

6709 N. CLASSEN BLVD.
OKLAHOMA CITY, OK. 73116
(800) 654-3219

2903 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1653

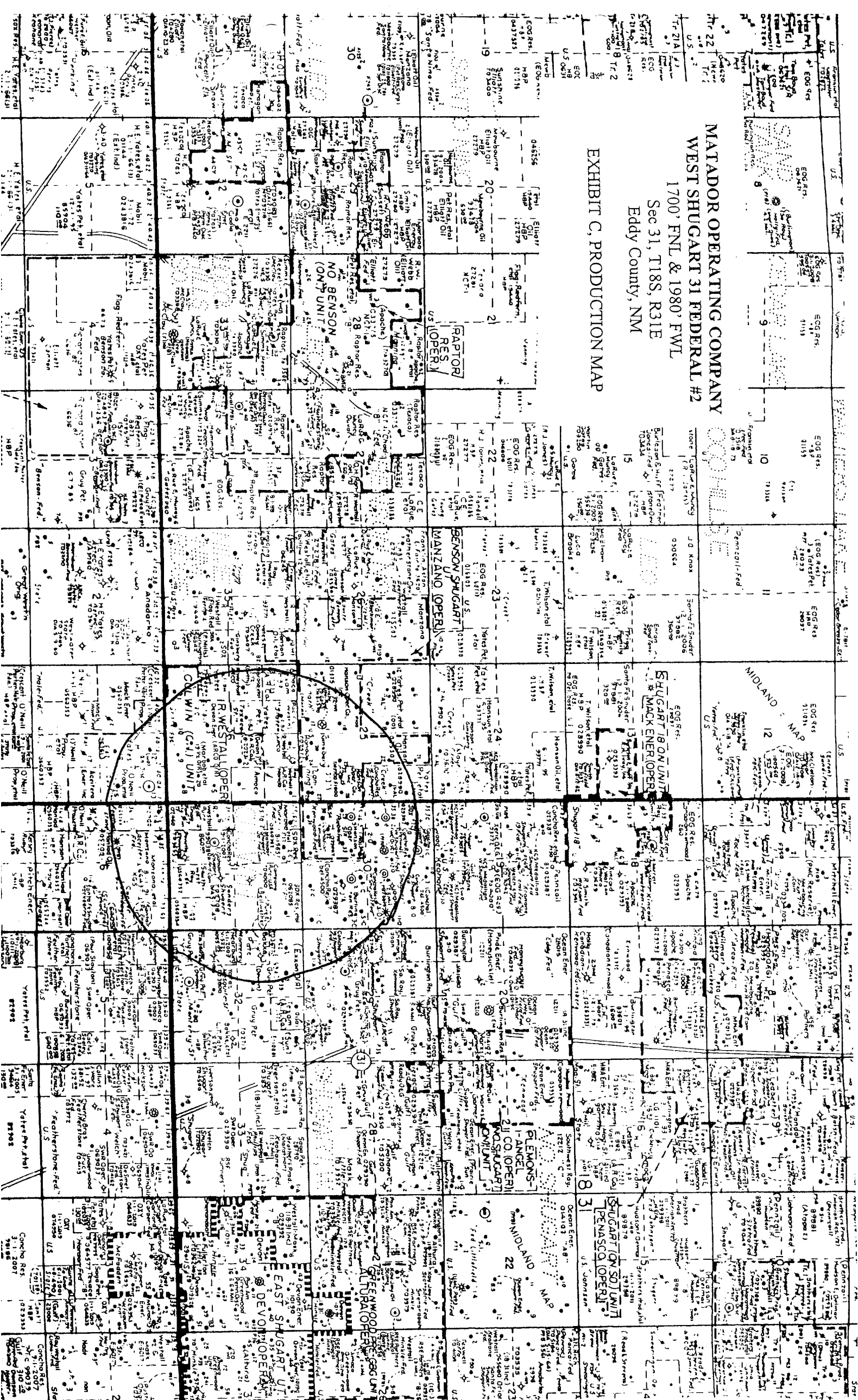
MATADOR OPERATING COMPANY
WEST SHUGART 31 FEDERAL #2
1700' FNL & 1980' FWL
Sec 31, T18S, R31E
Eddy County, New Mexico

EXHIBIT B
Well Site Plan



Sec 31, T18S, R31E
Eddy County, NM

EXHIBIT C, PRODUCTION MAP



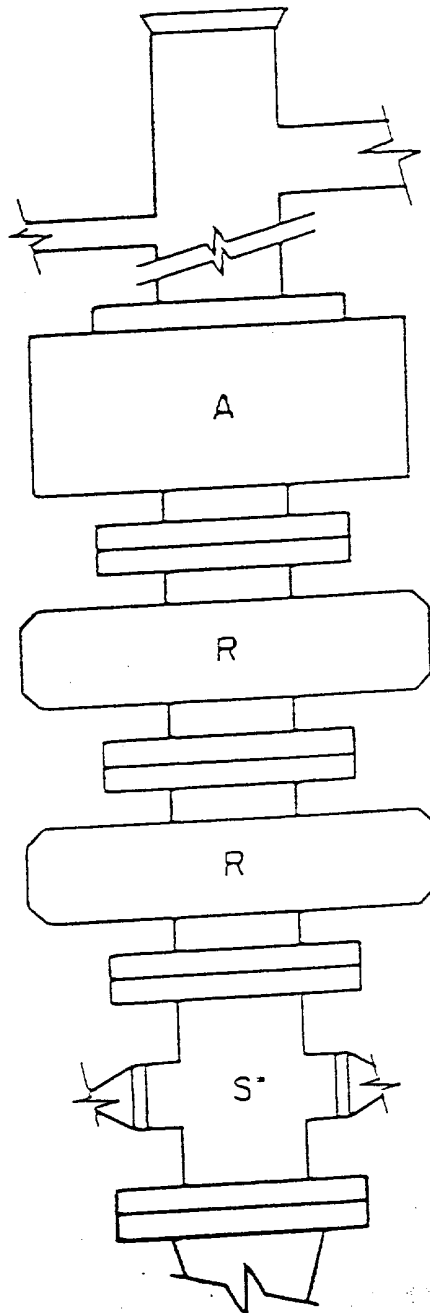
**MATADOR OPERATING COMPANY
WEST SHUGART 31 FEDERAL #2**

1700' FNL & 1980' FWL

Sec 31, T18S, R31E

Eddy County, New Mexico

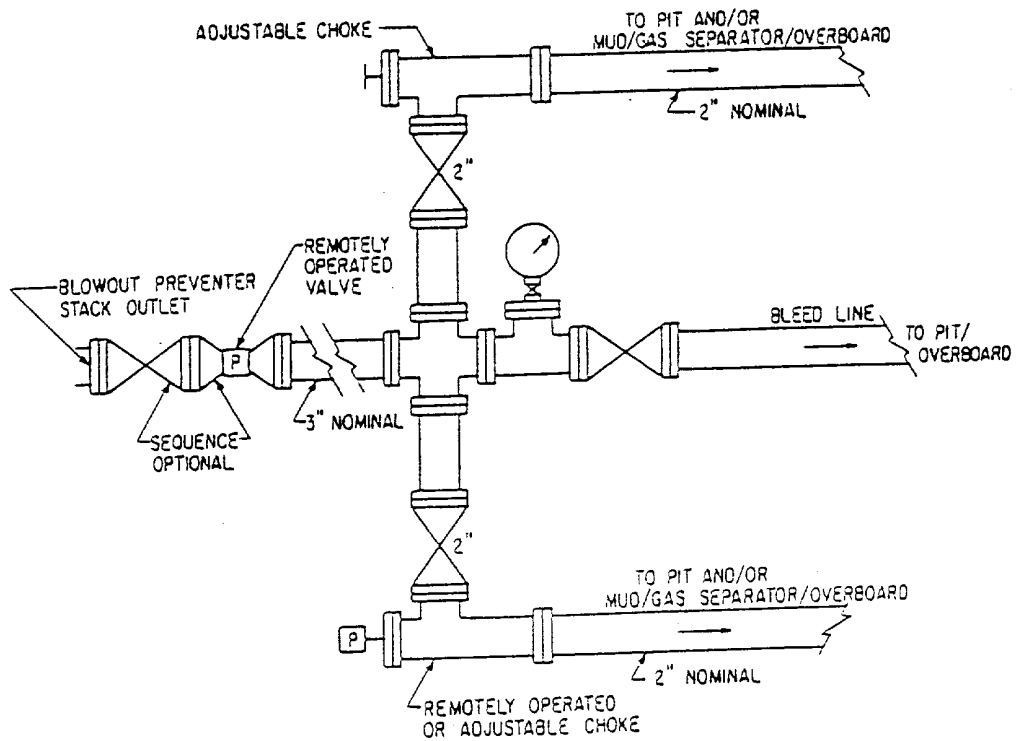
**EXHIBIT D
BOP SCHEMATIC**



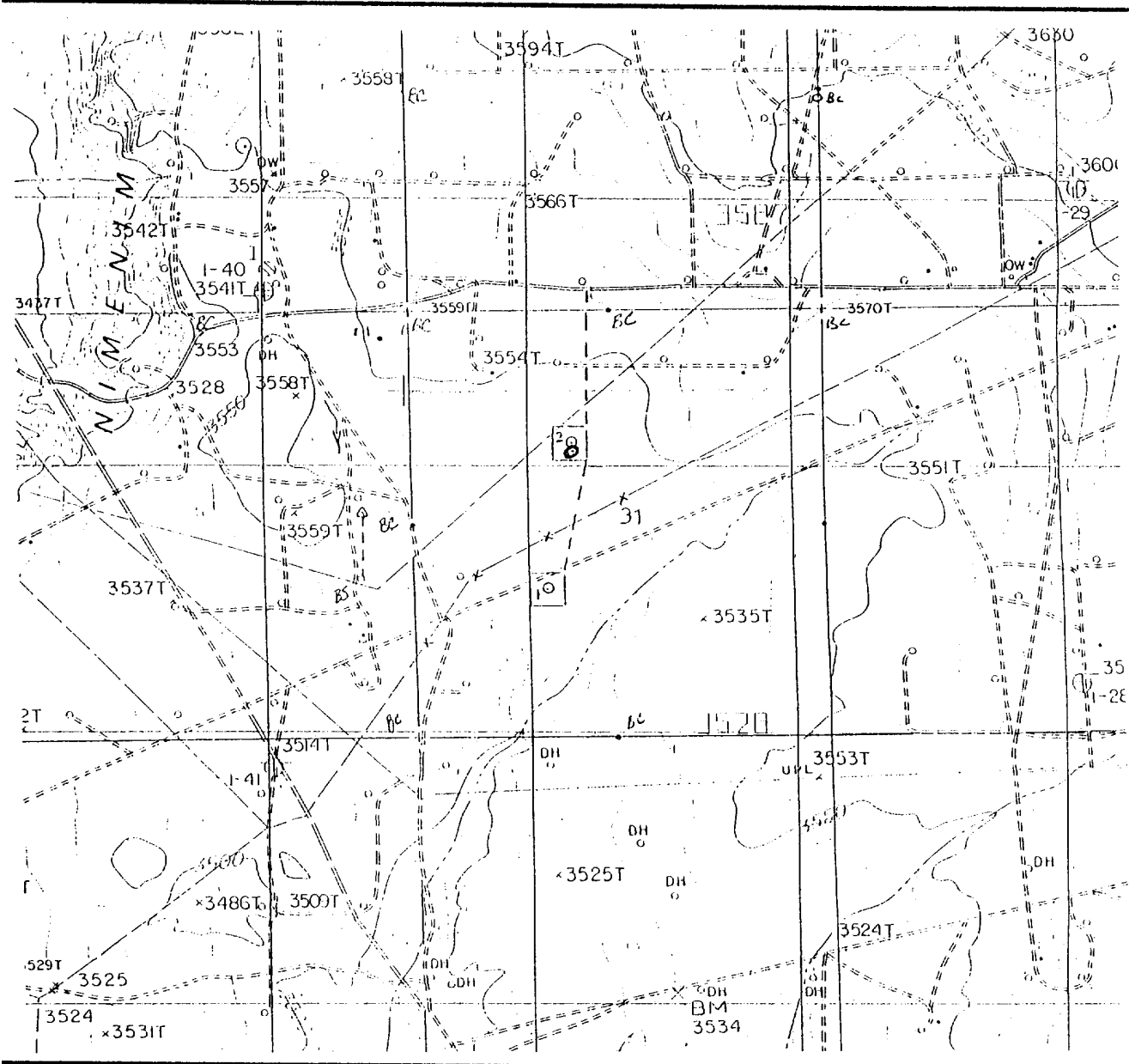
**FIG. 2.C.5
ARRANGEMENT S*RRR
Blow Preventer, R, Optional.**

MATADOR OPERATING COMPANY
WEST SHUGART 31 FEDERAL #2
1700' FNL & 1980' FWL
Sec 31, T18S, R31E
Eddy County, New Mexico

EXHIBIT E
5M Choke Manifold



LOCATION & ELEVATION VERIFICATION MAP



SCALE : 1" = 2000'

CONTOUR INTERVAL 10'

SECTION 31 TWP 18-S RGE 31-E

SURVEY _____ NEW MEXICO PRINCIPAL MERIDIAN

COUNTY EDDY STATE NM

DESCRIPTION 1700' FNL & 1980' FWL

LEVATION _____ 3545'

OPERATOR MATADOR OPERATING COMPANY

EASE _____ WEST SHUGART 31 FEDERAL #2

.S.G.S. TOPOGRAPHIC MAP

HACKBERRY LAKE, NEW MEXICO

AT. _____ N 32°42'23"

ONG. W 103°54'36"

This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.

Review this plot and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

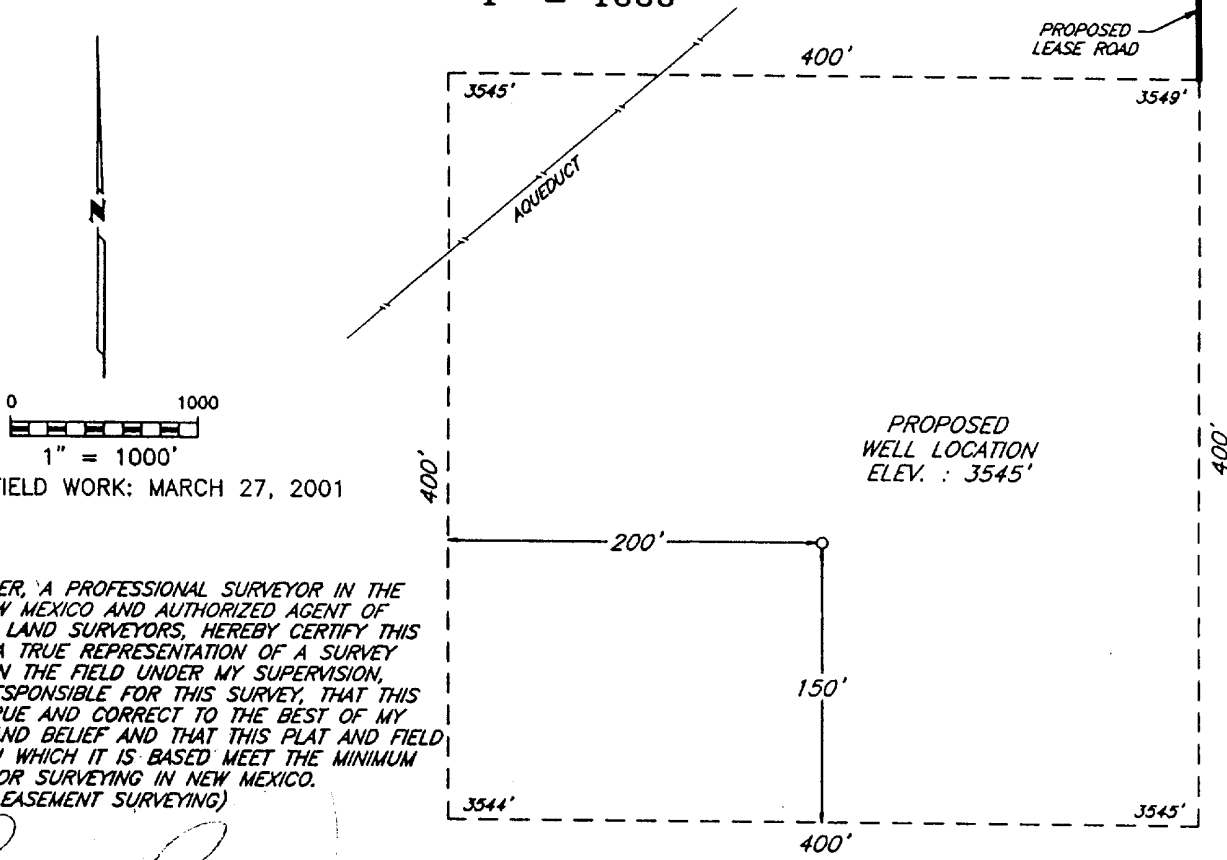
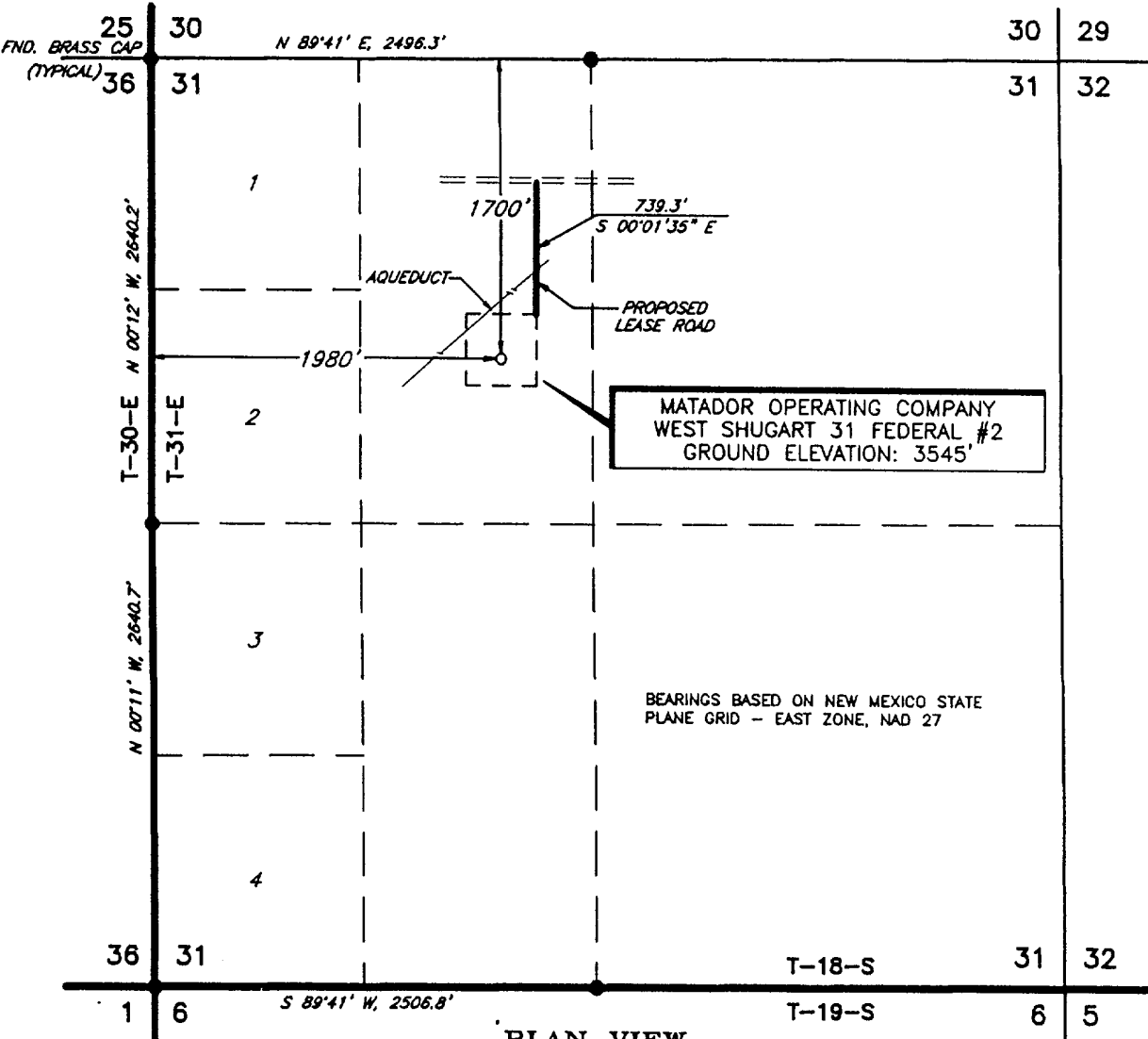
Surveying & Mapping for the Oil & Gas Industry

1307 N. HOBART
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OKLAHOMA CITY, OK. 73116
(800) 654-3219

2903 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1653

PLAT SHOWING PROPOSED
WELL LOCATION AND LEASE ROAD IN
SECTION 31, T-18-S, R-31-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



DATE OF FIELD WORK: MARCH 27, 2001

I, V. L. BEZNER, A PROFESSIONAL SURVEYOR IN THE STATE OF NEW MEXICO AND AUTHORIZED AGENT OF TOPOGRAPHIC LAND SURVEYORS, HEREBY CERTIFY THIS PLAT TO BE A TRUE REPRESENTATION OF A SURVEY PERFORMED IN THE FIELD UNDER MY SUPERVISION, THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THIS PLAT AND FIELD SURVEY UPON WHICH IT IS BASED MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. (RULE 500.6 EASEMENT SURVEYING)

V. L. Bezner 4-4-01
V. L. BEZNER, P.S. NO. 7920

				MATADOR OPERATING COMPANY	SCALE: AS SHOWN
					DATE: MARCH 27, 2001
NO.	REVISION	DATE	BY		JOB NO.: 75510-F
SURVEYED BY: R.J.O.				SURVEYING AND MAPPING BY TOPOGRAPHIC LAND SURVEYORS MIDLAND, TEXAS	QUAD NO.: 73 NW
DRAWN BY: J.C.P.					
APPROVED BY: R.M.R.					SHEET : 1 OF 1

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Roswell Office
2909 West Second Street
Roswell, New Mexico 88201

Statement Accepting Responsibility for Operations

Operator name: Matador Operating Company
Street or box: 8340 Meadow Road, #150
City, State: Dallas, TX
Zip code: 75231

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

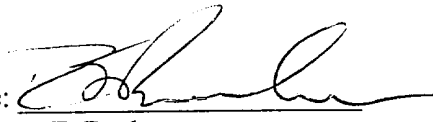
Lease No.: NM0560352
Legal Description of Land: All of Section 31, T18S, R31E, Eddy County, NM

Formation(s) (if applicable):

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

BLM Bond File No.: 29403

Authorized Signature:


R. F. Burke

Title: Vice President

Date:

4/16/01