

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYc/sf
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. NM-32324	
b. TYPE OF WELL OIL WELL <input 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 --	
2. NAME OF OPERATOR MITCHELL ENERGY CORPORATION			7. UNIT AGREEMENT NAME --	
3. ADDRESS OF OPERATOR 1000 Gibraltar Savings Center, Midland, Texas 79701			8. FARM OR LEASE NAME M & M FEDERAL	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1980' FSL & 660' FWL of Sec. 20-6S-23E At proposed prod. zone 660' FSL 6S			9. WELL NO. 2	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 26 air miles north-northwest of Roswell, N. M.			10. FIELD AND POOL, OR WILDCAT X Undesignated	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 2090'			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SEC. 20-6S-23E	
16. NO. OF ACRES IN LEASE 1880			12. COUNTY OR PARISH Chaves	
17. NO. OF ACRES ASSIGNED TO THIS WELL 160			13. STATE N. M.	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1320'			19. PROPOSED DEPTH 3500' Abo	
20. ROTARY OR CABLE TOOLS Rotary			21. APPROX. DATE WORK WILL START* 2-12-82	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4076 G.L.				

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8 5/8"	2.4#	1500'	Circulate to surface
7 7/8"	4 1/2"	11.6#	3500'	200 sacks

After setting and cementing production string, pay zones will be perforated and stimulated as needed for production.

Attached are: 1. Well Location & Acreage Dedication Plat
2. Supplemental Drilling Data
3. Surface Use Plan

Gas is not dedicated.

RECEIVED
JAN 28 1982

OIL & GAS
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

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 <u>James A. Knaut</u> TITLE <u>Agent</u> DATE <u>January 27, 1982</u>	
(This space for Federal or State office use)	
APPROVED	
PERMIT NO.	APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED
APPROVED BY <u>JG</u> DATE <u>FEB 11 1982</u>	DATE
CONDITIONS OF APPROVAL	
JAMES A. GILLHAM DISTRICT SUPERVISOR	

*See Instructions On Reverse Side

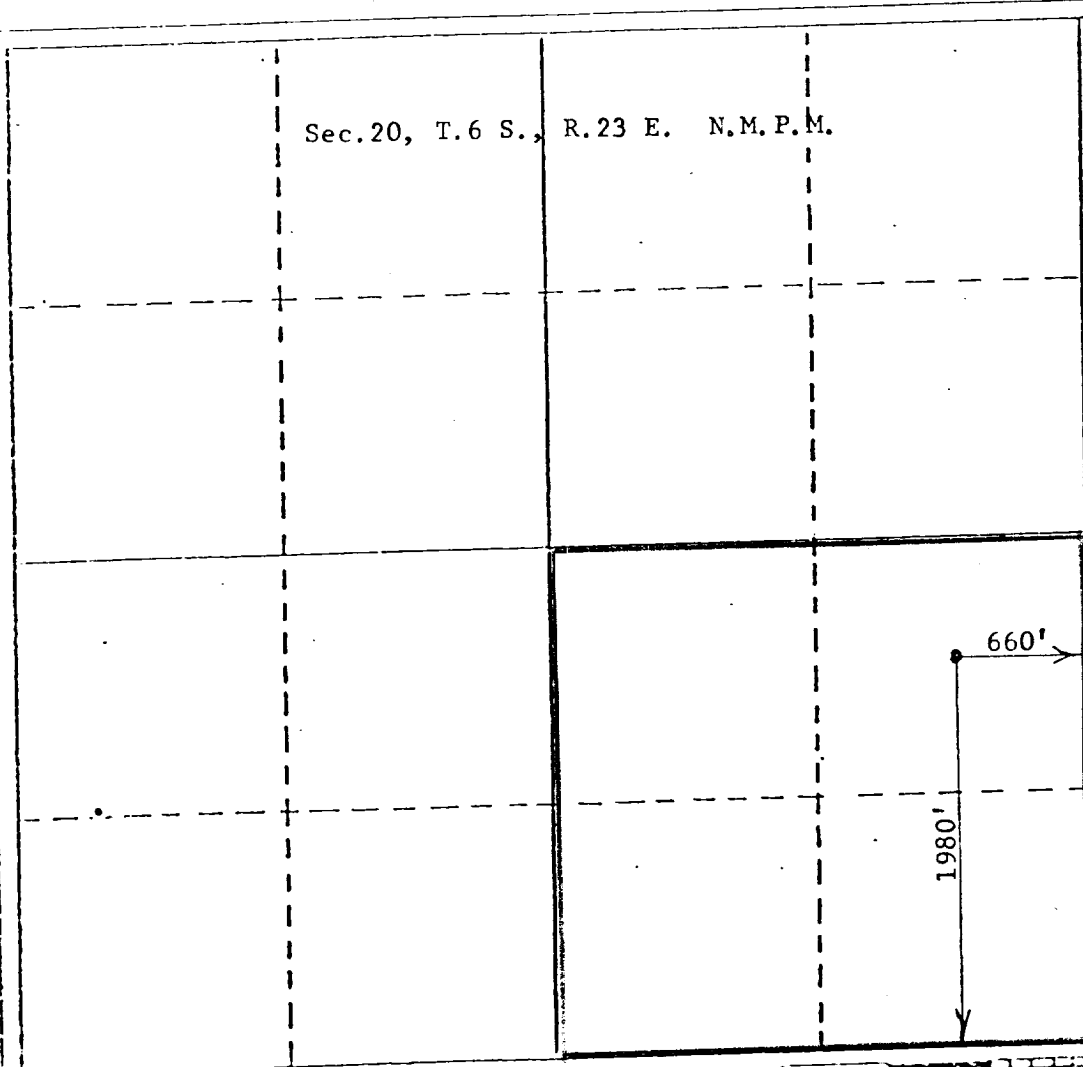
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APR + NL Book
2-19-82

All distances must be from the outer boundaries of the Section.

Operator MITCHELL ENERGY CORPORATION			Lease M & M FEDERAL		Well No. 2
Unit Letter I	Section 20	Township 6 South	Range 23 East	County Chaves	
Actual Footage Location of Well: 660 feet from the East line and 1980 feet from the South line					
Ground Level Elev. 4076	Producing Formation Abo		Pool Undesignated		Dedicated Acreage: 160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). **Federal Oil & Gas Lease NM-32324 is only lease involved.**
3. If more than one lease of different ownership is dedicated to the well, have the interests 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 interests, has been approved by the Division.



CERTIFICATION

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

Name
James A. Knauf

Position
Agent

Company
MITCHELL ENERGY CORPORATION

Date
January 27, 1982

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.

JOHN D. JAQUESS
NEW MEXICO
December 15, 1981
Registered Professional Engineer
and/or Professional Surveyor
John D. Jaquess, P.E. & L.S.
Certificate No. **6290**

SUPPLEMENTAL DRILLING DATA

MITCHELL ENERGY CORPORATION
WELL #2 M & M FEDERAL
NE $\frac{1}{4}$ SE $\frac{1}{4}$ SEC. 20-6S-23E
CHAVES COUNTY, NEW MEXICO

1. SURFACE FORMATION: Permian (Artesia Group).

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Glorietta	800'
Abo	2900'
Wolfcamp	3550'

3. ANTICIPATED POROSITY ZONES:

Water	150'
Gas	3000'
Gas	3300'

4. CASING DESIGN:

<u>Size</u>	<u>Interval</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>	<u>Condition</u>
8 5/8"	0 - 1500'	24.0#	K-55	STC	New
4 1/2"	0 - 3500'	9.5#	K-55	STC	New

5. SURFACE CONTROL EQUIPMENT: A double ram-type preventer (900 series).
A sketch of BOP is attached.

6. CIRCULATING MEDIUM: Hole will be drilled with air/foam or with mud
as follows:

0' - 850'	Freshwater mud with gel added if needed for viscosity.
1500' - TD	Fresh water mud, conditioned as necessary for control of viscosity and water loss.

7. AUXILIARY EQUIPMENT: Drill string safety valve.

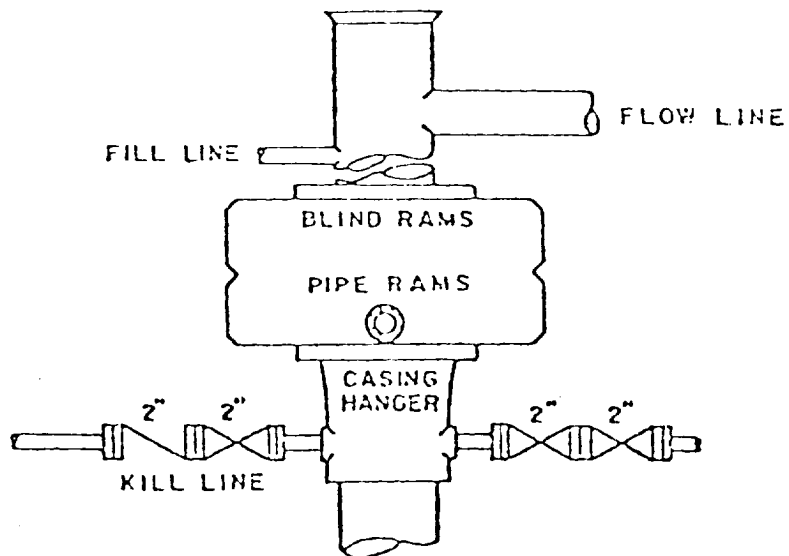
8. TESTING, LOGGING AND CORING PROGRAMS: No coring or DST's are planned.
Electric logs will include a CNL/FDC log and a DLL/Micro SFL log.

9. ABNORMAL PRESSURES, TEMPERATURES OR GASES: None anticipated.

10. ANTICIPATED DATES: It is planned that drilling operations will commence
about February 12, 1982. Duration of drilling and completion operations
should be 7 to 28 days.

BLOWOUT PREVENTER SKETCH

Well #2 M & M Federal
1980' FSL & 660' FEL Sec. 20-6S-23E



DUAL RAM-TYPE PREVENTER

900 Series

SURFACE USE PLAN
FOR
DRILLING, COMPLETING AND PRODUCING

RECEIVED
JAN 28 1982

OIL & GAS
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

MITCHELL ENERGY CORPORATION
WELL #2 M & M FEDERAL
1980' FSL & 660' FEL SEC. 20-6S-23E
CHAVES COUNTY, NEW MEXICO

LOCATED: 26 air miles north-northeast of Roswell, N. M.

FEDERAL LEASE NUMBER: NM-32324

LEASE ISSUED: 9-1-78 for a primary term of ten years.

RECORD LESSEE: Melvin Wolf

OPERATOR'S AUTHORITY: Designation of Operator from lessee.

BOND COVERAGE: \$10,000 lease bond.

ACRES IN LEASE: 1880

SURFACE OWNERSHIP: U. S. Government, with a grazing permit to
W. D. (Bill) McKnight, 301 N. Missouri,
Roswell, New Mexico 88201

POOL: Undesignated.

WELL SPACING: 160 acres

EXHIBITS:

- A. Area Road Map
- B. Topographic Map
- C. Oil & Gas Map
- D. Sketch of Well Pad

ROAD LOG TO PROPOSED DRILLSITE

STARTING POINT is 25 miles north of Roswell, New Mexico on US-285 at Mile Post-136.75.

- 0.00 Turn left (west) on ranch road and proceed in a westerly direction for a distance of 2.52 miles.
- 2.52 Turn left (south) and proceed in a southerly direction for a distance of 0.73 mile to the #1 McKnight well in SW-SE 21-6S-23.
- 3.25 Bear to right (west-northwest) and proceed in a west-northwesterly direction for a distance of 0.58 mile to #1 M & M well in the NW-SW 21-6-23.
- 3.83 Bear to left (west-southwest) and proceed in a west-southwesterly direction for a distance of 0.31 mile.
- 4.14 Turn right (north) and proceed in a northerly direction for a distance of 0.19 mile to the southwest corner of the proposed drillsite.
- 4.33 DRILLSITE (Well #2 M & M Federal).

THIRTEEN POINT PROGRAM

- 1. EXISTING ROADS: Existing roads, which lead to the proposed drillsite, are shown on Exhibits "A" & "B". It is planned to upgrade the existing ranch road from mileage 4.14 to 4.33 on the road log by straightening the southern part and then surfacing with caliche.
- 2. PROPOSED NEW ROAD: No new road will be required. The proposed well pad will extend to existing ranch road.
- 3. LOCATION OF EXISTING WELLS: Existing wells in the vicinity of the proposed drillsite are shown on Exhibit "C".
- 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES: If the well is productive, production and storage facilities will be constructed on the well pad.
- 5. LOCATION AND TYPE OF WATER SUPPLY: It is not planned to drill a water supply well. Water for leasehold operations will be obtained from a commercial source and trucked to the location.

6. SOURCE OF CONSTRUCTION MATERIALS: Material for construction of the well pad and upgrading the existing ranch road will be obtained from a pit on privately owned land in the SW-SE 21-6S-23E.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits.
- D. Oil produced during tests will be produced into temporary test tanks.
- E. Trash, waste paper, garbage, and junk will be buried in a trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of the trash pit is shown on Exhibit "D".
- F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing each drilling and/or completion operation.

8. ANCILLARY FACILITIES: None anticipated.

9. WELLSITE LAYOUT:

- A. The wellsite has been surveyed and a 400' x 400' area has been staked and flagged.
- B. The dimensions and relative location of the drill pad, mud pit, and trash pit with respect to the well bore are shown on Exhibit "D".
- C. The location is nearly level and will require only one foot of cut on the east side and one foot of fill on the west.
- D. The well pad will be surfaced with caliche.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, 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 to leave the wellsite in as aesthetically pleasing condition as possible.

- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. After abandonment, all equipment, trash and junk will be removed and the location cleaned. Any special rehabilitation and/or special revegetation requirements of the BLM will be complied with and accomplished as expeditiously as possible.

11. OTHER INFORMATION:

- A. Topography: The undisturbed wellsite is at an elevation of 4076 feet and gently slopes to the west toward Macho Draw. Regional slope is to the southeast toward the Pecos River.
- B. Soil: Top soil at the wellsite is gypsy clay loam.
- C. Land Type & Use: The vicinity surrounding the drillsite is semi-arid rangeland and its primary use is for grazing.
- D. Flora: Vegetative cover is mostly range grasses interspersed with a few yucca.
- E. Fauna: No wildlife was observed, however fauna for this type of habitat normally consists of rabbits, rodents, lizards, snakes, coyotes, skunks, quail, dove, and other small birds.
- F. Ponds & Streams: Macho Draw is one mile to the west.
- G. Water Wells: Nearest water well is one mile to the east.
- H. Residences & Other Structures: Nearest occupied dwelling is 1½ miles to the northwest.
- I. Archaeological, Historical & Cultural Sites: New Mexico Archaeological Services, Inc. of Carlsbad, N. M. has made a survey of the proposed drillsite and road areas and has recommended that the proposed construction work be approved.

12. OPERATOR'S REPRESENTATIVE: Representative responsible for assuring compliance with the approved Surface Use Plan:

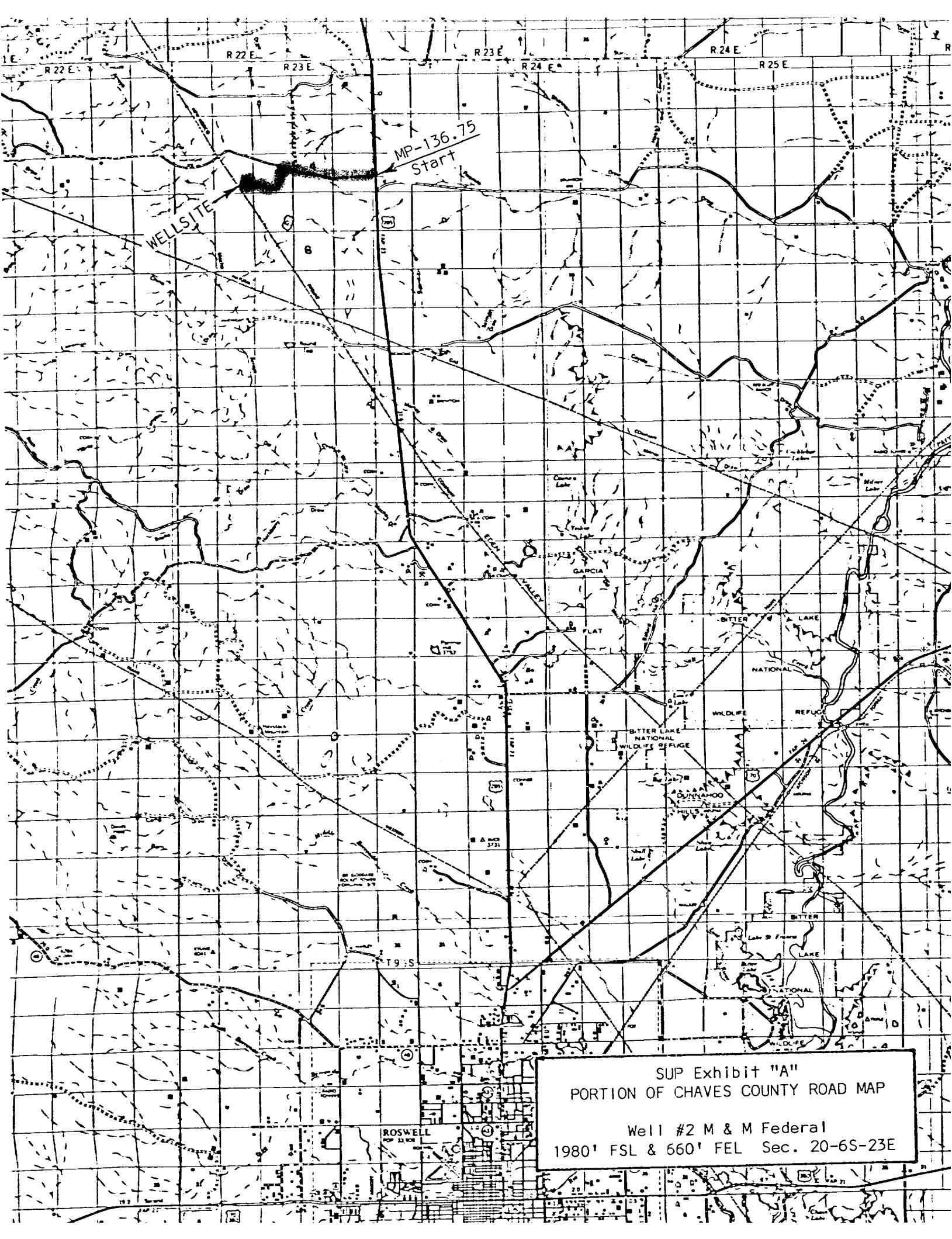
Rick Armstrong
District Production Manager
1000 Gibraltar Savings Center
Midland, Texas 79701
Office Phone 915-682-5396
Home Phone 915-697-6798

13. CERTIFICATION:

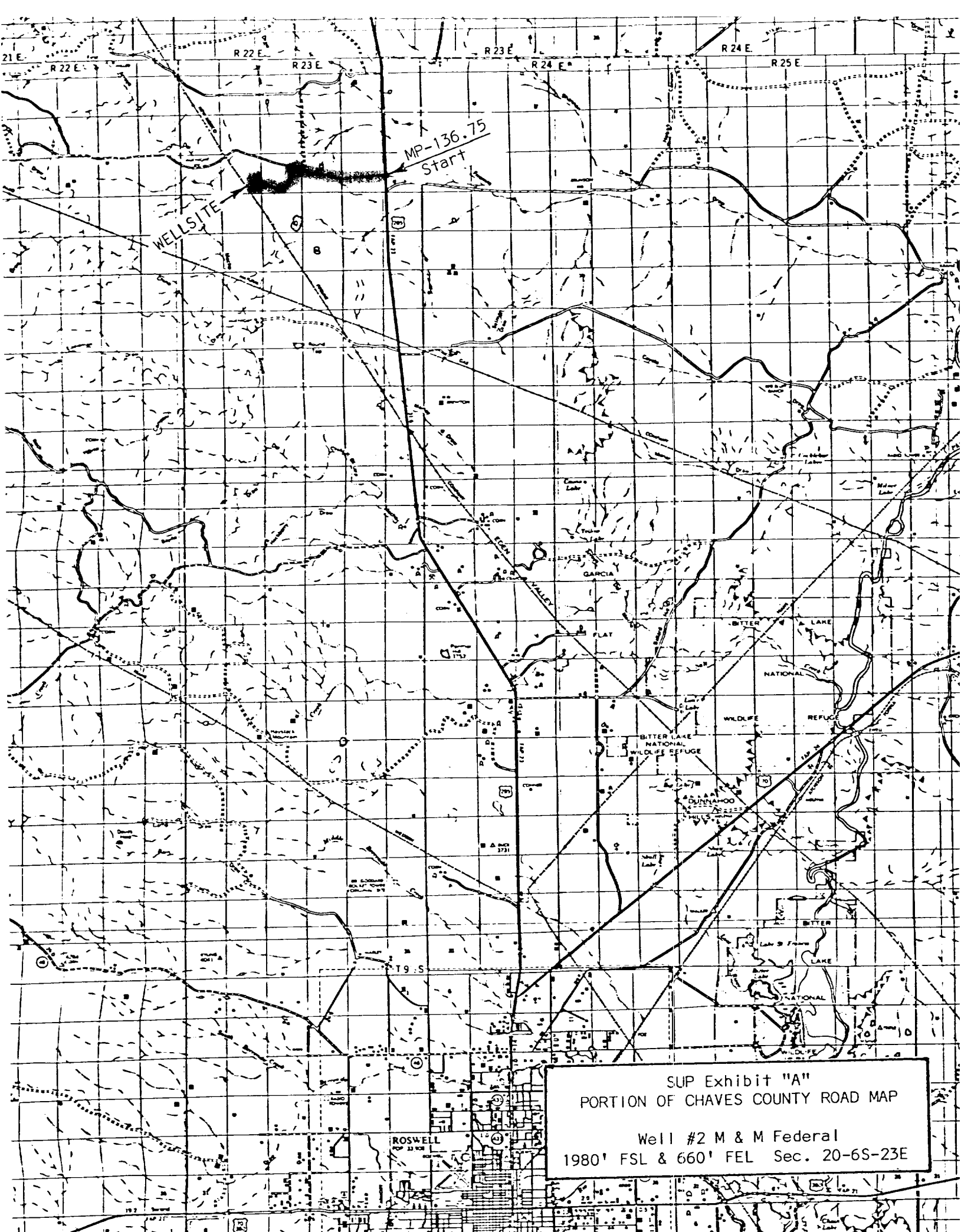
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will be performed by MITCHELL ENERGY CORPORATION and its sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

January 25, 1982
Date


James A. Krauf, Agent

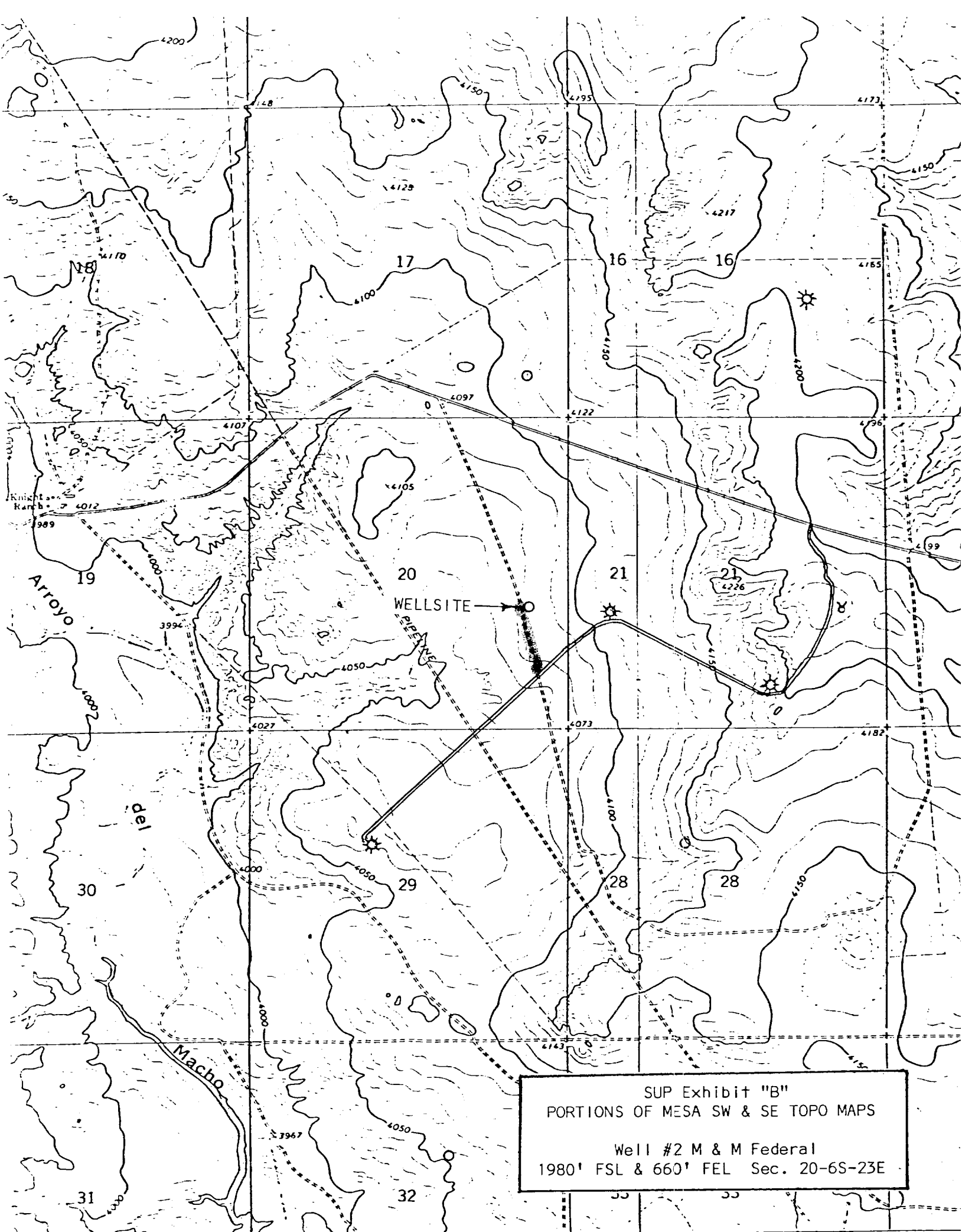


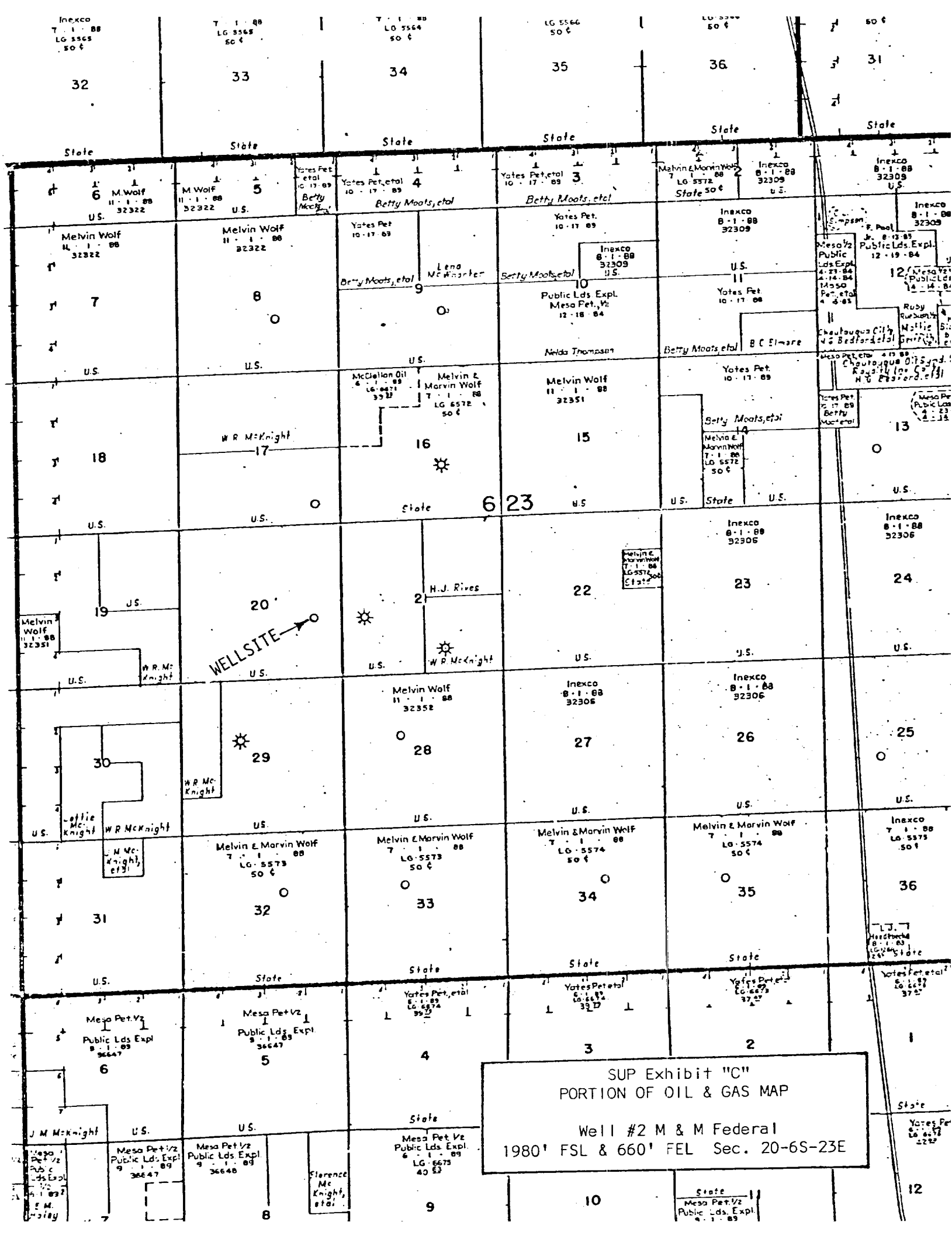
SUP Exhibit "A"
PORTION OF CHAVES COUNTY ROAD MAP
Well #2 M & M Federal
1980' FSL & 660' FEL Sec. 20-6S-23E

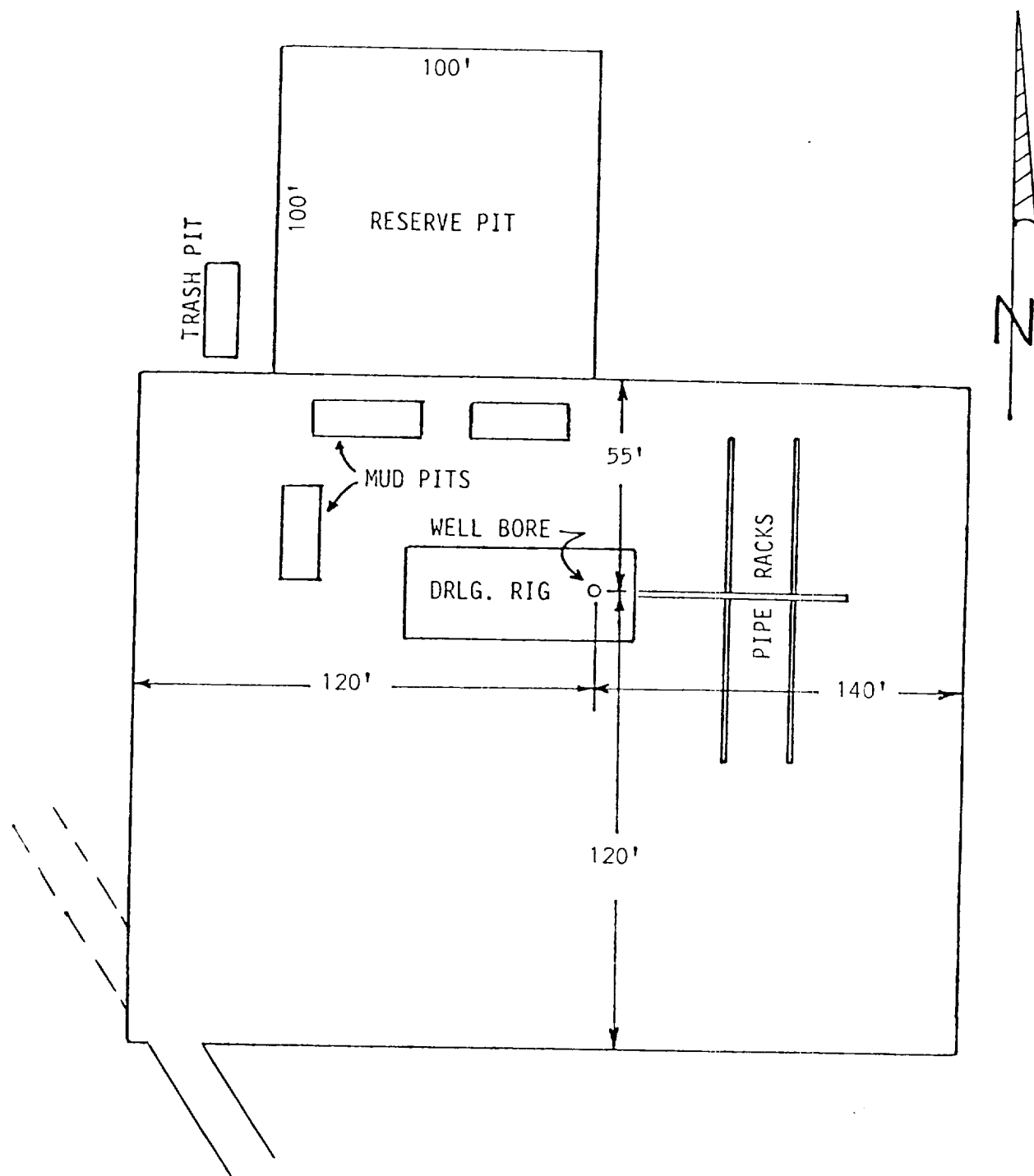


SUP Exhibit "A"
PORTION OF CHAVES COUNTY ROAD MAP

Well #2 M & M Federal
1980' FSL & 660' FEL Sec. 20-6S-23E







SUP Exhibit "D"
SKETCH OF WELL PAD

Well #2 M & M Federal
1980' FSL & 660' FEL Sec. 20-6S-23E