



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-6178

OIL CONSERVATION DIVISION  
BOX 2088  
SANTA FE, NEW MEXICO 87501

DATE 2-15-89

RE: Proposed MC \_\_\_\_\_  
Proposed DHC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD X \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated 2-13-89  
for the Union Texas Petroleum Corp. Pump Canyon SWD #1 A-25-31N-9W  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approx. 2 3/4" should be lined and anticipate  
that max. pressure will be around 1500 psi  
without a step rate

Yours truly,

Ernie Busch

**RECEIVED**

FEB 13 1989

OIL CON. DIV  
DIST. 3

## APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage  
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: UNION TEXAS PETROLEUM CORP.  
Address: P.O. BOX 2120, HOUSTON, TEXAS 77252-2120  
Contact party: KEN WHITE Phone: 713/ 968-4354
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no  
If yes, give the Division order number authorizing the project \_\_\_\_\_
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. Attached
- \* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including: Attached
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval. Attached
- IX. Describe the proposed stimulation program, if any.
- \* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.) Currently not available.
- \* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.  
No fresh water wells within one mile radius.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Attached  
Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Ken WhiteTitle Regulatory Permit CoordinatorSignature: *Ken White*Date: 2/3/89

- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

## III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

## XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

# AFFIDAVIT OF PUBLICATION

No. 22904

STATE OF NEW MEXICO,  
County of San Juan:

Betty Shipp

being duly

sworn, says: That he is the Nat'l. Adv. Manager of

THE FARMINGTON DAILY TIMES, a daily newspaper of general circulation  
published in English at Farmington, said county and state, and that the  
hereto attached legal notice

was published in a regular and entire issue of the said FARMINGTON DAILY  
TIMES, a daily newspaper duly qualified for the purpose within the  
meaning of Chapter 167 of the 1937 Session Laws of the State of New  
Mexico for one consecutive (days) (weeks) on the same day as  
follows:

First Publication Wednesday, January 25, 1989

Second Publication \_\_\_\_\_

Third Publication \_\_\_\_\_

Fourth Publication \_\_\_\_\_

and that payment therefor in the amount of \$ 7.39  
has been made.

Betty Shipp

Subscribed and sworn to before me this 26th day  
of January, 1989.

J. Shorter

NOTARY PUBLIC, SAN JUAN COUNTY, NEW MEXICO

My Commission expires: June 23, 1990

Copy of Publication

## NOTICE

Union Texas Petroleum pro-  
posed to drill the Pump Canyon  
SWD #1 for injection of saltwater  
into the Jurassic Morrison/Estrada  
zone not productive of oil and gas.  
This well is located 400 FNL &  
1200 FEL, Section 25, T31N,  
R9W, San Juan County, New Mex-  
ico. Maximum injection rate is ex-  
pected to be 3500 BWD at 1700  
PSIG.

Interested parties must file ob-  
jection or requests for hearing  
with the NMOC, P.O. Box 2088,  
Santa Fe, New Mexico 87501  
within 15 days.

UNION TEXAS PETROLEUM

Attention: Ken White

P. O. Box 2120

Houston, Texas 77252-2120

(713) 968-4354

Legal No. 22904 published in  
the Farmington Daily Times, Farm-  
ington, New Mexico on Wednes-  
day, January 25, 1989.

RECEIVED  
FEB 13 1989  
OIL CON. DIV.  
DIST. 3

C-108 Attachments  
Pump Canyon SWD #1

J-7-30-8

III. General Well Data:

- A. (1) Lease Name - Pump Canyon SWD  
Well Number - 1  
Location - Footage, 400' FNL, 1220' FEL  
Section 25, T31N-R9W  
San Juan County, New Mexico

(2) See attached diagram.

<u>Csg.</u>	<u>Hole Size</u>	<u>Csg. Size</u>	<u>Depth Set</u>	<u>Cement Volume</u>	<u>Proposed Top Cement</u>
Surface	26"	20" 94# H-40	400'	1020 sx	Surface
Inter	14-3/4"	10-3/4" 40.5# K-55	3100'	1120 sx	1st stage st - 1500'  2nd stage st - surface
Drlg Liner	9-1/2"	7-5/8" 26.4# N-80	7300'	565 sx	st-liner top = 2925'
Inj. Strg.	6-3/4"	5-1/2" 20# L-80	8600'	155 sx	5390'

(3) Injection Tubing:

Tubing size - 2-7/8" OD, 10.5#, K-55, non-coated. Setting depth - 7300', top perforation at 7515', which is 100' below the bottom of the Dakota zone.

(4) Isolation Packer:

Packer - Size 7"  
Type Otis  
Model WD

Seal Assembly - Type Otis  
Model J - slot

B. Well Data:

- (1) Injection formation name: Morrison and Entrada
- (2) Injection interval:  
Morrison Perforated  
Entrada Perforated

**C-108 Attachments  
Pump Canyon SWD #1**

- (3) The original purpose for drilling this well is to dispose of produced water.
- (4) There are to be no additional perforated intervals in the proposed well.
- (5) There are no lower producing zones in this area. The next higher producing zone is the Dakota at 7369' to 7515'.

**VI.** There are no wells penetrating the proposed depth interval within the two-mile area of review.

**VII. Proposed Injection Operations:**

- 1. The average injection rate is estimated at 3500 bbls/day. The estimated maximum is 5000 bbls/day.
- 2. The injection system will be closed.
- 3. The surface injection system will have an estimated maximum pressure of 1700 psig.
- 4. The source water will be from Fruitland Coal formation.
- 5. Injection is for disposal purposes into a zone with no known oil and gas production within several miles. Chemical analysis and compatibility with injected water will be supplied when the data becomes available.

**VIII.** The proposed injections zones are the Jurassic Morrison and Entrada, both zones are sandstone. The Morrison interval is estimated at 7515' to 8600' from GL (5992') having a thickness of 1185'. The Entrada interval is estimated at 8286' to 8486' from GL having a thickness of 200'.

The only overlaying freshwater aquifer is the Ojo Alamo, having an estimated depth of 1450' from GL. There is no known fresh water below the injection zone.'

**IX.** The proposed stimulation program will consist of sand water fracturing of each interval using 1000 lbs of 20/40 sand per net foot of formation interval. Proppant concentrations will be from 1/2 to 2 lbs/gallon. The fracturing fluid will be a 40 lb/gallon linear gel.

**X.** No logs or test data are available at present.

**XI.** Any fresh water wells in the area will have water analysis performed in the near future.

**XII.** An examination of geologic and engineering data indicates no evidence of open faults or other hydrologic connection between the disposal zone and any source of drinking water. This conclusion is based on proof of isolation between upper gas and oil bearing zones within the study area.

C-108 Attachments  
Pump Canyon SWD #1

XIII.      **Proof of Notice:**

A copy of the application and support documents have been sent by certified mail to the following:

Ramon Ulibarri  
#652 Rd. - 4599  
Blanco, NM 87412  
Surface Owner

El Paso Natural Gas Co.  
P. O. Box 4990  
Farmington, NM 87401  
Offset Leasehold Operator

Unicon Producing Co. (Supron)  
P. O. Box 2120  
Houston, Texas 77252-2120  
Union Texas Petroleum subsidiary

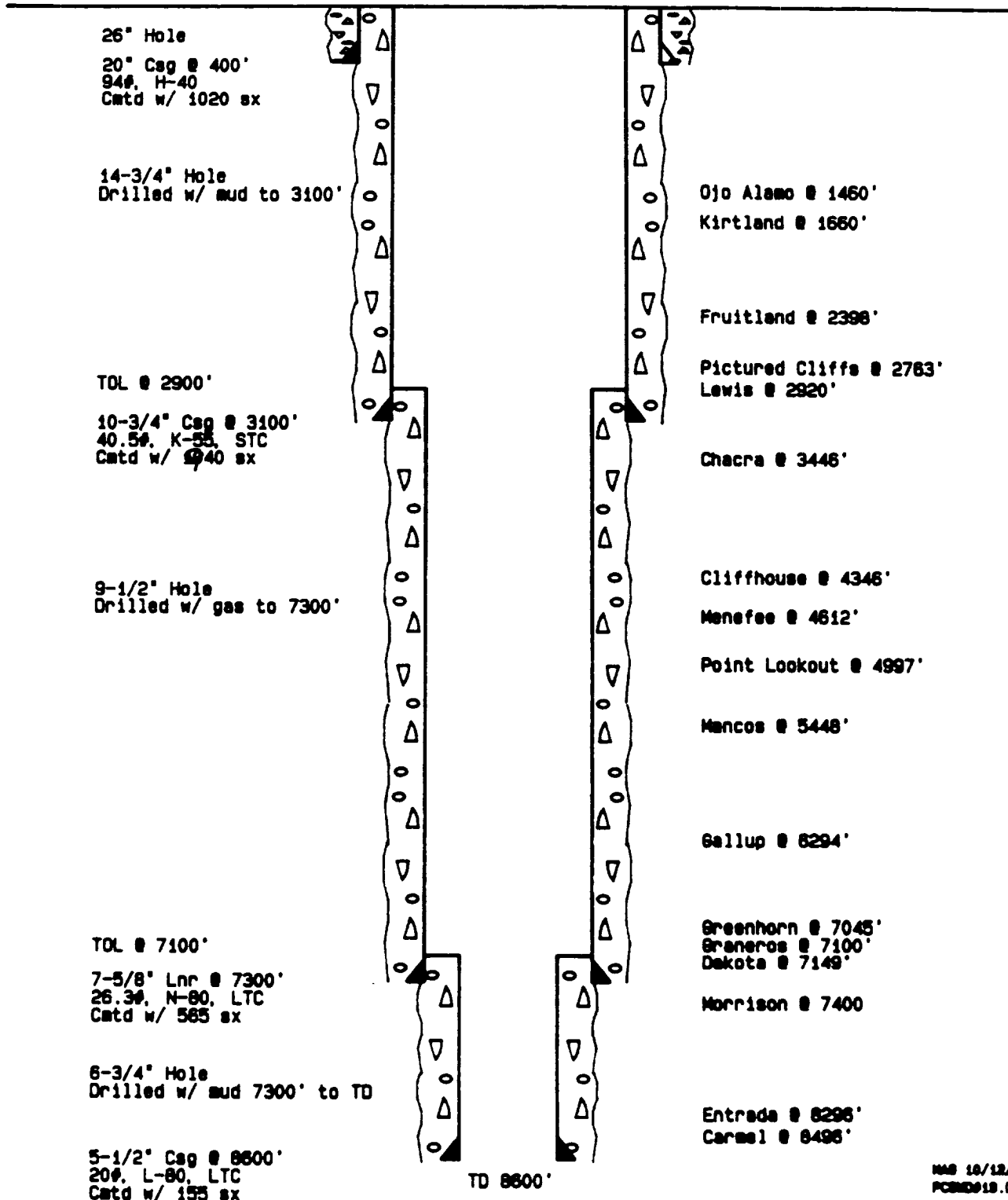
Mesa Ltd. Partnership  
P. O. Box 2009  
Amarillo, Texas 79189

Meridian Oil, Inc.  
P. O. Box 4289  
Farmington, New Mexico 87499

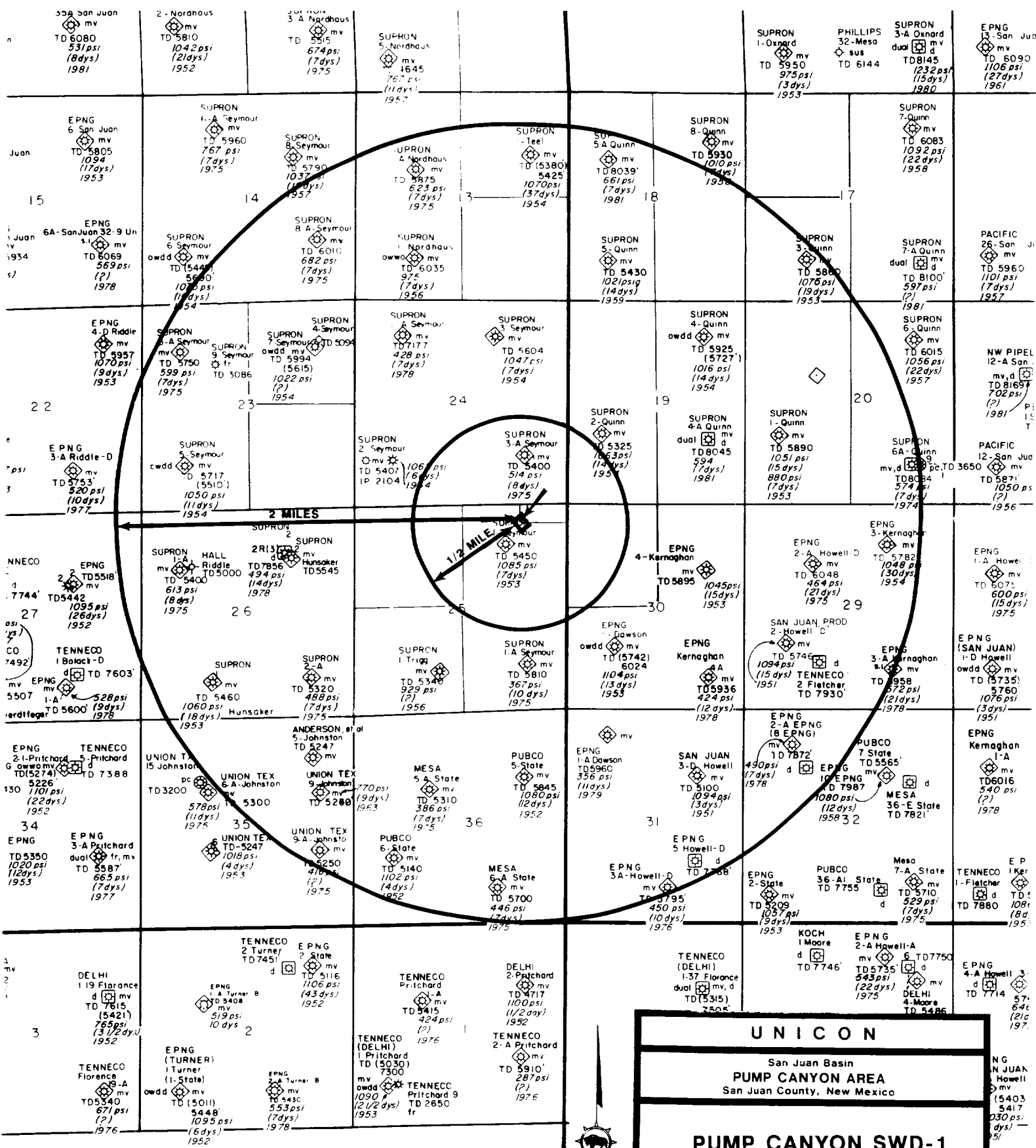
# PUMP CANYON SWD #1

## SAN JUAN COUNTY, NEW MEXICO

### PROPOSED







R-9-W

UNICON

San Juan Basin  
PUMP CANYON AREA  
San Juan County, New Mexico

PUMP CANYON SWD-1

ONE MILE

WESTERN DIVISION

GEOL.	DATE	GEOPH.	DATE	LAND	DATE	WELLS
	5-84				5-84	

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-101  
Supersedes C-101  
Effective 1-1-81

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

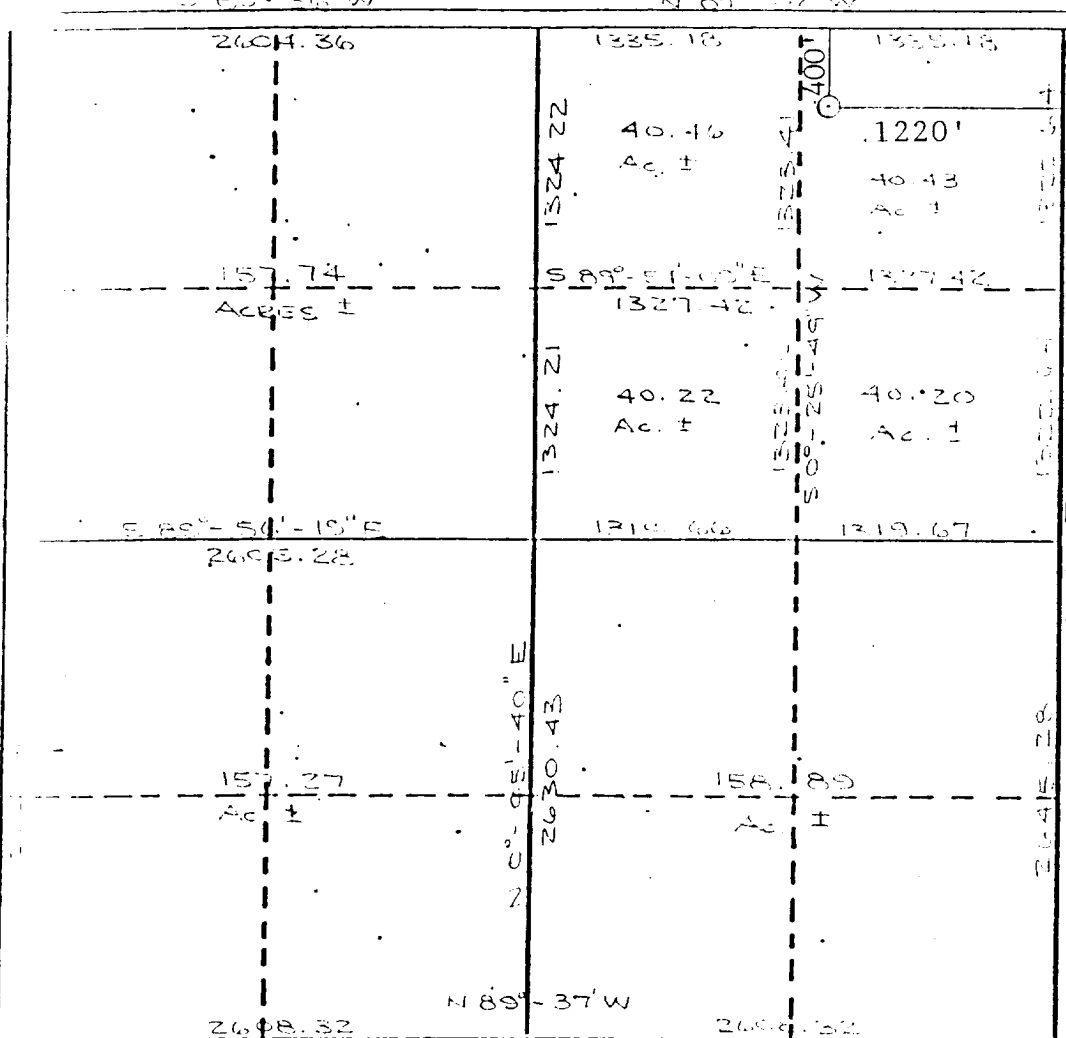
Operator UNION TEXAS PETROLEUM			Lease Pump Canyon WD		Well No. 1
Unit Letter A	Section 25	Township 31N	Range 9W	County San Juan	
Actual Footage Location of Wells					
400	feet from the	North	line and	1220	feet from the East line
Ground Level Elev. 5992	Producing Formation Jurassic-Morrison		Pool Entrada		Dedicated Acreage 320

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).
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 Commission.



CERTIFICATION

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

*Ken White*

Name  
Ken White

Position  
Regulatory Permit Coordinator

Company  
Union Texas Petroleum Corp.

Date  
January 31, 1989

I hereby certify that the well location shown on this plat is true and correct to the best of my knowledge and belief.

*Cecil B. Tullis*

Date Surveyed  
September 8, 1988

Registered Professional Engineer  
and/or Land Surveyor

Cecil B. Tullis  
Certificate No.

9672

EXHIBIT I