

WFX

7/22/96

689

F & M OIL AND GAS COMPANY

P. O. BOX 891
MIDLAND, TEXAS 79702-0891
(915) 682-7714
FAX 682-7700

July 1, 1996

State of New Mexico
Oil Conservation Division
2040 Pacheo Street
Santa Fe, New Mexico 87505

Attn: David Catanach

**Re: Form, C-108
Wallen-Tonto #7
Sec 30, T19S, R33E
Lea County, NM**

Dear Mr. Catanach:

F&M Oil and Gas Company, as Operator of the Wallen-Tonto Lease, hereby submits the above referenced form with all attachments, please see exhibits A thru K, for the noted Waterflood Project. This would be a re-activation of the previously approved the Waterflood Project by **Case No. 9736, Order No. R-9082, (see enclosed)** in the name of Wallen Production Company.

We further ask that this application receive administrative approval.

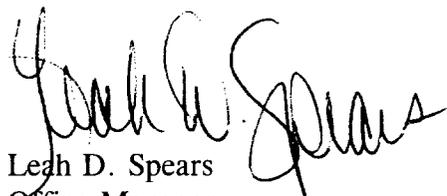
Notices have been mailed to the surface owners and off-set operators. The copies of the receipts for the certified mailing of these notices are enclosed.

We have also enclosed a proof of publication of the notice required.

We hope that the enclosed provides/meets all of the requirements necessary for F&M to proceed with this project. If you need further information, please do not hesitate to contact me at the above.

Thank you for your help and consideration with this matter.

Sincerely,



Leigh D. Spears
Office Manager

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: F&M OIL COMPANY Well: WALLEN-TONTO No. 7

Contact: LEAH SPEARS Title: OH. MGR. Phone: (915) 682-7714

DATE IN 7.5.96 RELEASE DATE 7.22.96 DATE OUT 8.6.96

Proposed Injection Application is for: **WATERFLOOD** Expansion Initial

Original Order: R- 9082 Secondary Recovery Pressure Maintenance

SENSITIVE AREAS **SALT WATER DISPOSAL** Commercial Well

WIPP Capitan Reef

Data is complete for proposed well(s)? YES Additional Data Req'd _____

AREA of REVIEW WELLS

16 Total # of AOR 0 # of Plugged Wells

YES Tabulation Complete Schematics of P & A's

YES Cement Tops Adequate AOR Repair Required

INJECTION FORMATION

Injection Formation(s) YES / SEVEN RIVERS ^{2900-3113'} Compatible Analysis YES

Source of Water or Injectate YES / SEVEN RIVERS

PROOF of NOTICE

YES Copy of Legal Notice YES Information Printed Correctly

YES Correct Operators YES Copies of Certified Mail Receipts

NO Objection Received NA Set to Hearing _____ Date

NOTES: _____

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? YES

COMMUNICATION WITH CONTACT PERSON:

1st Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____ Date	Nature of Discussion _____
2nd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____ Date	Nature of Discussion _____
3rd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____ Date	Nature of Discussion _____

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes No
- II. OPERATOR: F&M Oil and Gas Company
ADDRESS: P. O. Box 891, Midland, Texas 79702
CONTACT PARTY: Randall Foster PHONE: (915) 682-7714
- III. WELL DATA: Complete the data required on the reverse side of this form for each well processed 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.
- 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:
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 sources known to be immediately underlying the injection interval.
- 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.)
- * 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.
- 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. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Randall Foster TITLE: Vice-President
SIGNATURE: *Randall Foster* DATE: June 24, 1996
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal. _____

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, PO Box 2088, Santa Fe, NM 87504-2088 within 15 days.

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

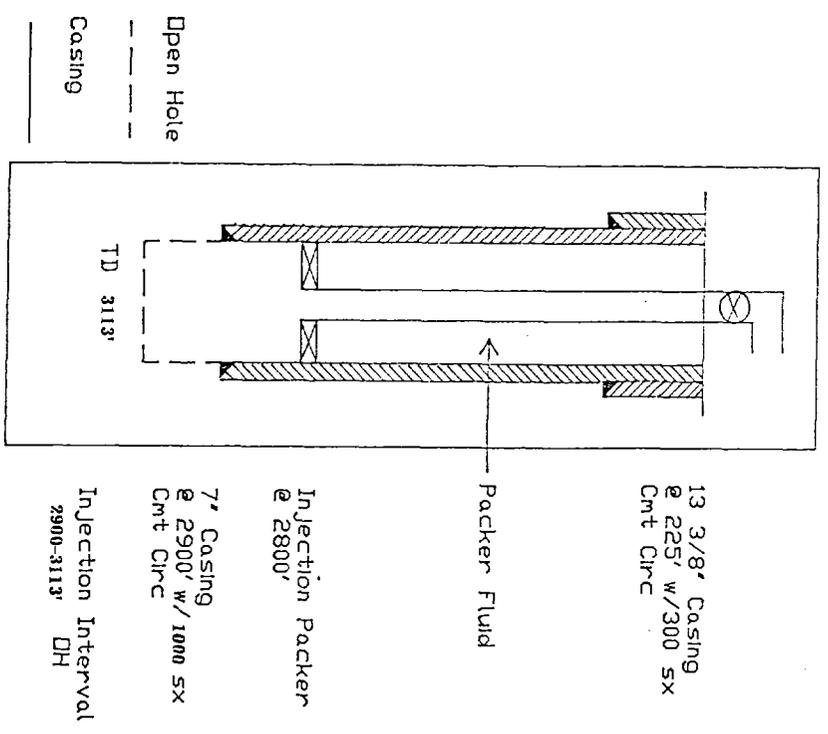
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR F&M Oil and Gas Company LEASE Wallen-Tonto

WELL NO. 7 990' FEL & 1650' FSL FOOTAGE LOCATION SECTION 30 TOWNSHIP 19 South RANGE 33 East

Schematic



Well Construction Data

Surface Casing

Size 13 3/8 * Cemented with 300 sx.

TOC circ. feet determined by circ.

Hole Size 15"

Intermediate Casing

Size * Cemented with sx.

TOC feet determined by

Hole Size

Long String

Size 7 * Cemented with 1000 sx.

TOC circ feet determined by circ

Hole Size 8"

Total Depth 3113'

Injection Interval

2900 feet to 3113 feet

(perforated or open-hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size 2 3/8" lined with Seal-Tite PVC set in a
 (type of internal coating)
Baker Loc-Set Nickel Plated packer at 2800 feet

Other type of tubing / casing seal if applicable _____

Other Data

1. Is this a new well drilled for injection? Yes No

If no, for what purpose was the well originally drilled? As a producer
well was D&A.

2. Name of the injection formation Yates-Seven Rivers

3. Name of Field or Pool (if applicable) Tonto Yates-Seven Rivers, South

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. No perfs. P&A w/ 210 sx
on 7-15-78

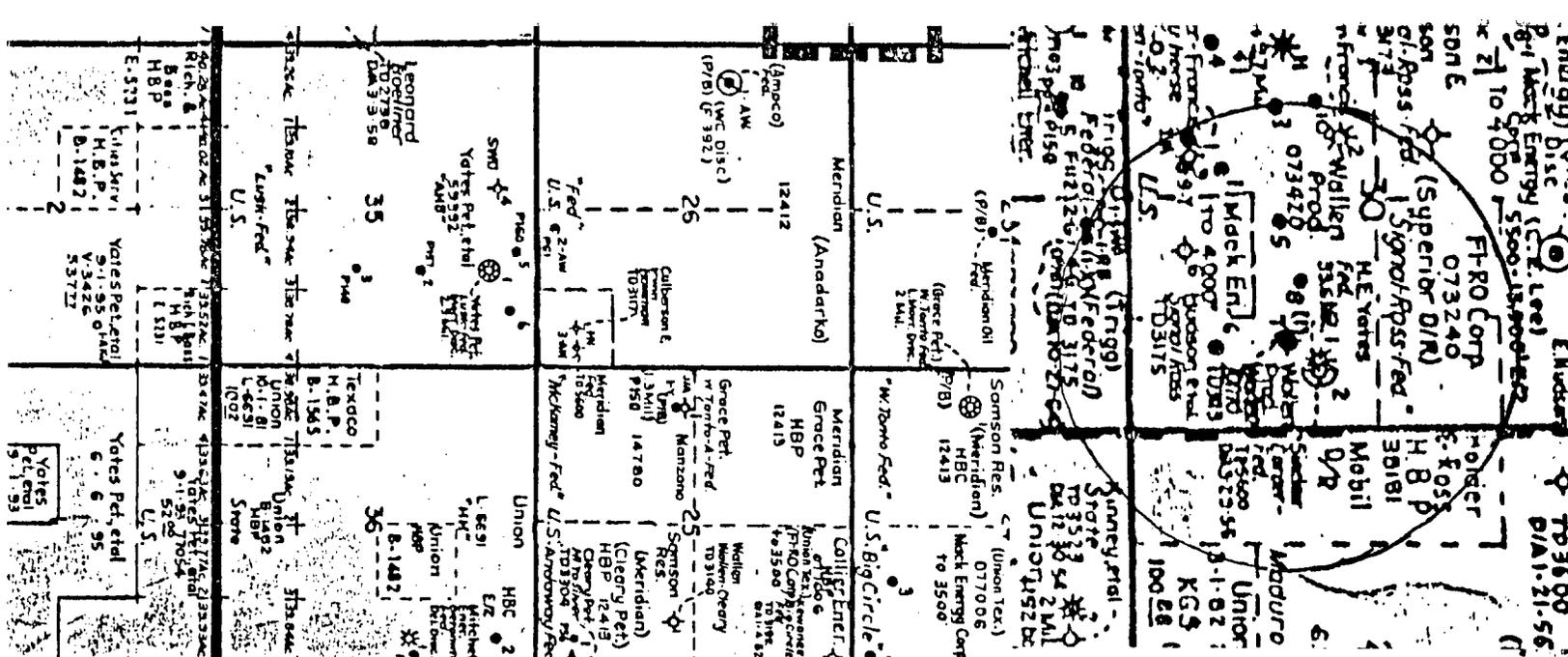
5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area.
Geronimo Fld. Delaware @ 7700', Gem Fld. Delaware @ 7700' & Bone Spring @ 8800'
Gem Fld. Morrow @ 13,200' (no overlying)

F&M OIL AND GAS COMPANY

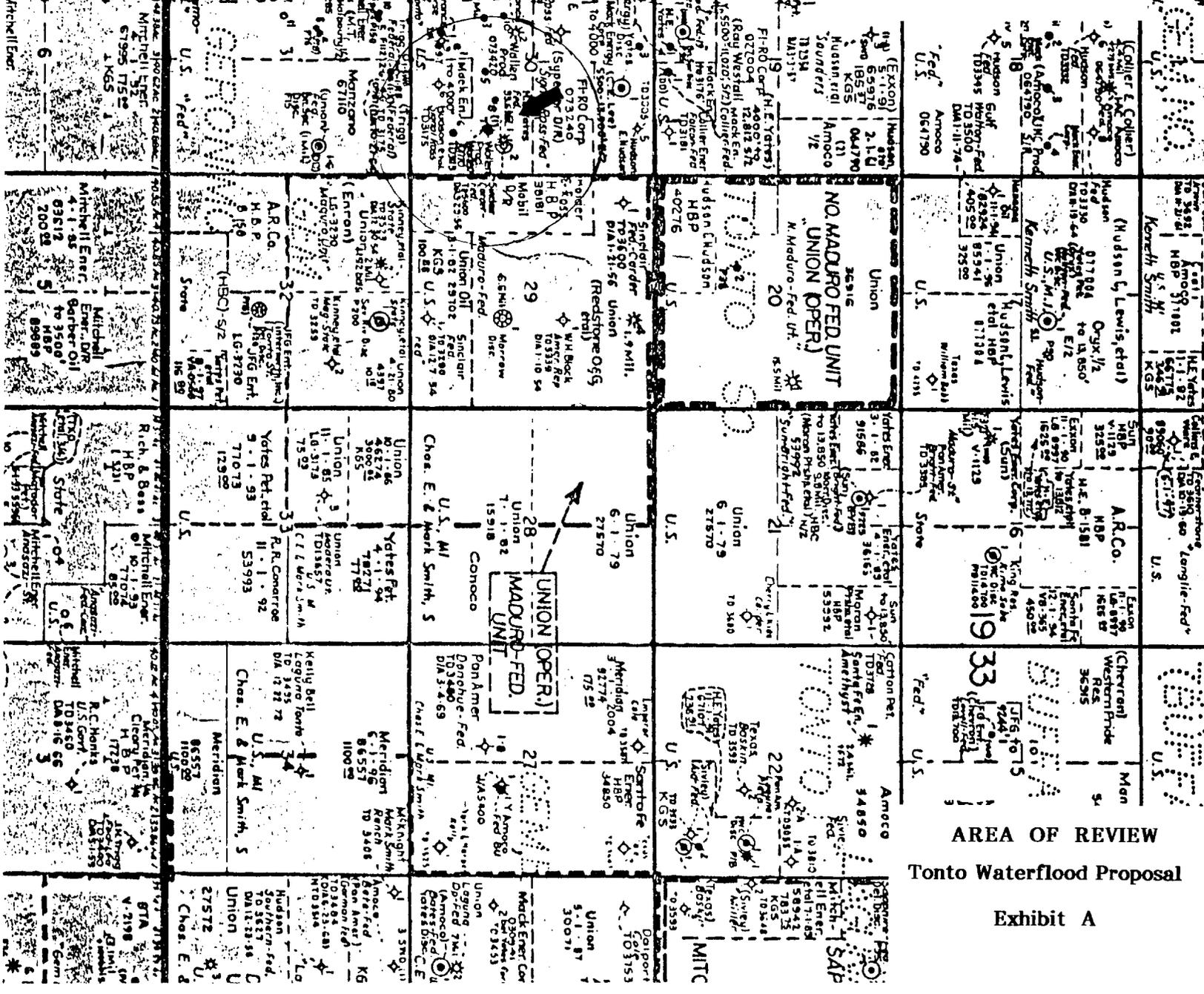
**Proposed Wallen Tonto Waterflood
Wallen Tonto #7 WIW
Sec 30, T19S, R33E
Lea County, New Mexico**

**List of Exhibits
Form C-108**

Exhibit A	Map required by Paragraph V
Exhibit B	Tabular Summary required by Paragraph VI
Exhibit C	Data Sheet required by Paragraph VII
Exhibit D	Geological Data - Paragraph VIII
Exhibit E	Log of Injection Well
Exhibit F	Data Sheet on Proposed Injection Well
Exhibit G	Schematic of Proposed Injection Well
Exhibit H	Schematic of P&A Wells within Area of Review (1/2 mile)
Exhibit I	Water Analysis Produced Water to be re-injected
Exhibit J	Statement per Paragraph XII
Exhibit K	Notice Requirements



Enlargement to show Detail.



AREA OF REVIEW

Tonto Waterflood Proposal

Exhibit A

Operator Well Name, Number	Location Unit, Sec., Twp., Range	Type	Date Spudded	Completed	Depth TD	PBD	Record of Completion Zone(s)	Perfs and Well Construction	TOC
Harry E. Yates Federal 30 Well No. 1 API 30-025-27069	I, Sec 30, T19S, R33E 1980' FSL & 760' FEL	Gas	6/19/81	9/21/81	13712	13670	Morrow	Perfs: 13744-561 Casing: 13 3/8 @ 1276'/775 sx 9 5/8 @ 5310'/3440 sx 5 1/2 @ 13712'/2150 sx	surf-calc surf-calc 2038-calc
Kaiser-Francis Federal 30 Well No. 2 API 30-025-27671	K, Sec 30, T19S, R33E 2310' FSL & 1980' FWL	Gas	12/18/81	3/4/83	13800	13753	Morrow	Perfs: 13372-440 Casing: 13 3/8 @ 1315'/1050 sx 9 5/8 @ 5315'/3181 sx 5 1/2 @ 13800'/2360 sx	surf-calc surf-calc 1263-calc
Edward Hudson Signal Ross-Fed Well No. 6 API 30-025-20560	O, Sec 30, T19S, R33E 660' FSL & 1980' FEL	D&A	2/10/64	-	3127	-	Yates	Perf: Not reported Casing: 13 3/8 @ 65'/100 sx 5 1/2 @ 3115'/30 sx	surf-calc 2810-sub
Sinclair O&G Co. Carder-Federal Well No. 2 API 30-025-01699	I, Sec 30, T19S, R33E 1980' FSL & 660' FEL	P&A	2/14/56	-	5600	-	Delaware	Perfs: Open Hole Casing: 10 3/4 @ 305'/250 sx	surf-calc
John H. Trigg Federal RB 31 Well No. 1 PA Schematic on File	B, Sec 31, T19S, R33E 330' FNL & 2310' FEL	J&A	9/18/64	-	700	-	---	Perfs: NA Casing: 13 3/8 @ 85'/50 sx	surf-calc
Manzano Oil Corp. Federal 31-G Well No. 4 API 30-025-21116	B, Sec 31, T19S, R33E 335' FNL & 2223' FEL	Oil	10/3/64	-	3225	3139	Yates	Perfs: 2884-3104 Casing: 8 5/8 @ 500'/300 sx 4 1/2 @ 3225'/1000 sx	circ circ
F&M Oil and Gas Co. Wallen-Tonto Well No. 7 API 30-025-25897	I, Sec 30, T19S, R33E 1650' FSL & 990' FEL	D&A	5/17/78	-	3113	-	Svn RVrs	Perfs: NA Casing: 13 3/8 @ 225'/330 sx 7 @ 2900'/1000 sx	circ circ
F&M Oil and Gas Co. Wallen-Tonto Well No. 8 API 30-025-27435	J, Sec 30, T19S, R33E 1790' FSL & 1710' FEL	Oil	10/16/81	2/20/82	3120	3115	Yates	Perfs: 2980-3110 Casing: 13 3/8 @ 115'/500 sx 7 @ 2940'/1000 sx 4 1/2 @ 2612-3120'/60 sx	circ circ 2625-temp
F&M Oil and Gas Co. Wallen-Tonto Well No. 5 API 30-025-25584	J, Sec 30, T19S, R33E 1650' FSL & 2310' FEL	Oil	6/30/77	8/25/77	3094	3094	Svn RVrs	Perfs: Open Hole Casing: 13 3/8 @ 277'/300 sx 7 @ 2884'/1000 sx	circ circ

Operator Well Name, Number	Location Unit, Sec., Twp., Range	Type	Date Spudded	Completed	Depth TD	PBD	Record of Completion Zone(s)	Perts and Well Construction	TOC
F&M Oil and Gas Co. Wallen-Tonto Well No. 3 API 30-025-25589	K. Sec 30, T19S, R33E 1650' FSL & 1650' FWL	Oil	8/31/77	10/21/77	3073	3073	Svn Rvrs	Perts: Open Hole 2850-3073 Casing: 13 3/8 @ 220'/300 sx 7 @ 2850'/1000 sx	circ circ
F&M Oil and Gas Co. Wallen Tonto Well No. 6 API 30-025-25591	P. Sec 30, T19S, R33E 990' FSL & 990' FEL	Oil	2/8/78	4/28/78	3096	3085	Yates Svn-Rvrs	Perts: 2986-3080 Casing: 13 3/8 @ 210'/300 sx 7 @ 2901'/1420 sx 4 1/2 @ 2600-3096'/60sx	circ circ circ 2600-circ
F&M Oil and Gas Co. Wallen-Tonto Well No. 1 API 30-025-25371	N. Sec 30, T19S, R33E 990' FSL & 2310' FWL	Oil	10/15/76	12/5/76	3082	3082	Yates Svn-Rvrs	Perts: Open Hole 2996-3082 Casing: 13 3/8 @ 225'/100 sx 7 @ 2896'/1000 sx	circ circ
F&M Oil and Gas Co. Wallen-Tonto Well No. 9 API 30-025-26343	N. Sec 30, T19S, R33E 600' FSL & 2300' FWL	J&A	9/20/80	-	570	-	---	Perts: NA Casing: 13 3/8 300 sx	
F&M Oil and Gas Co. Wallen-Tonto Well No. 9Y API 30-025-27190	N. Sec 30, T19S, R33E 660' FSL & 2300' FWL	Oil	10/12/80	3/18/81	3086	3086	Yates Svn-Rvrs	Perts: 2970-3080 OH 3084-86 Casing: 10 3/8 @ 225'/450 sx 7 @ 2800'/1100 sx 4 1/2 @ 2617-3083'/60sx	circ circ circ 2617-circ
Marzano Oil Corp. Federal 31-G Well No. 2 API 30-025-31354	B. Sec 31, T19S, R33E 400' FNL & 2310' FEL	Oil	11/30/91	2/15/92	9400	5530	BS-Del	Perts: 5130-5237 Casing: 13 3/8 @ 365'/370 sx 8 5/8 @ 4200'/1620 sx 5 1/2 @ 5915'/400 sx	circ circ circ
Kaiser-Francis Oil Co. Crazy Horse 30 Federal 660' FSL & 1980' FWL Well No. 1 API 30-025-31591	N. Sec 30, T19S, R33E 660' FSL & 1980' FWL	Oil	6/7/92	12/4/92 T/A	9450	8915	BS-Del	Perts: 7536-7682, 8978-9124 Casing: 13 3/8 @ 450'/430 sx 8 5/8 @ 3400'/2155 sx 5 1/2 @ 9450'/725 sx D. V. @ 6945'/860 sx	circ circ circ circ

F&M OIL AND GAS COMPANY

**Proposed Wallen Tonto Waterflood
Wallen Tonto #7 WIW
Sec 30, T19S, R33E
Lea County, New Mexico**

Exhibit C

Data on Proposed Operation

1. Proposed average and maximum daily rate and volume of fluids to be injected:

Average daily rate of 250 BWIPD
Maximum daily rate of 500 BWIPD

2. System is closed.
3. Proposed Average Injection Pressure: 580 psig.
Proposed Maximum Injection Pressure: 580 psig.

The proposed average and maximum injection pressures are to be determined from step rate tests to be run after the well is re-entered.

4. (A) Source of injection fluid:
Produced water from Tonto Yates Seven Rivers, South Pool.
(B) Analysis of formation fluid:
Not applicable - re-injected produced water.
5. Zone of disposal is productive of oil and gas within one mile of proposed disposal well.

F&M OIL AND GAS COMPANY

**Proposed Wallen Tonto Waterflood
Wallen Tonto #7 WIW
Sec 30, T19S, R33E
Lea County, New Mexico**

Exhibit D

Geological Data on Injection Zone

Pool: Tonto Yates Seven Rivers, South

Formation: Yates Seven Rivers

Geological Name: Yates

Thickness: @ 200 feet

Depth: @ 2900 feet

Injection Interval: 2900 to 3113 feet



Nuclear Log

FILING NO.

COMPANY WALLEN PRODUCTION COMPANY

WELL TONTO NO. 7

FIELD TONTIC

COUNTY LEA STATE N. MEXIC

LOCATION: 890' FEL & 1650' PSL

OTHER LOGS:

BULK

SEC. 30 TWP-19-S RGE-33-E

ELEVATIONS:

KB. 3593

DF. 3593

GL. 3593

PERMANENT DATUM GROUND LEVEL ELEV. 3589

LOG MEASURED FROM 2' ABOVE GROUND LEVEL

DRILLING MEASURED FROM G.D.S.

DATE 7-14-78

RUN NO. 1-N.W.

TYPE LOG GAMMA RAY

DEPTH-DRILLER 3123

DEPTH-LOGGER 3113

BOTTOM LOGGED INTERVAL 3102

TOP LOGGED INTERVAL 2450

TYPE FLUID IN HOLE WATER

SALINITY PPM CL. ---

DENSITY LB./GAL. ---

LEVEL ABOVE LOG

MAX. REC. TEMP. DEG. F. ---

OPR. RIG TIME 1 HR.

RECORDED BY MITRAY

WITNESSED BY MR. KRUEGE

BORE HOLE RECORD

BIT NO. 13 3/8

FROM SURFACE

TO 221

SIZE 7

WGT. 0.8

FROM SURFACE

TO 2900

WGT. 3123

FROM SURFACE

TO 2900

WGT. 2900

FROM SURFACE

TO 2900

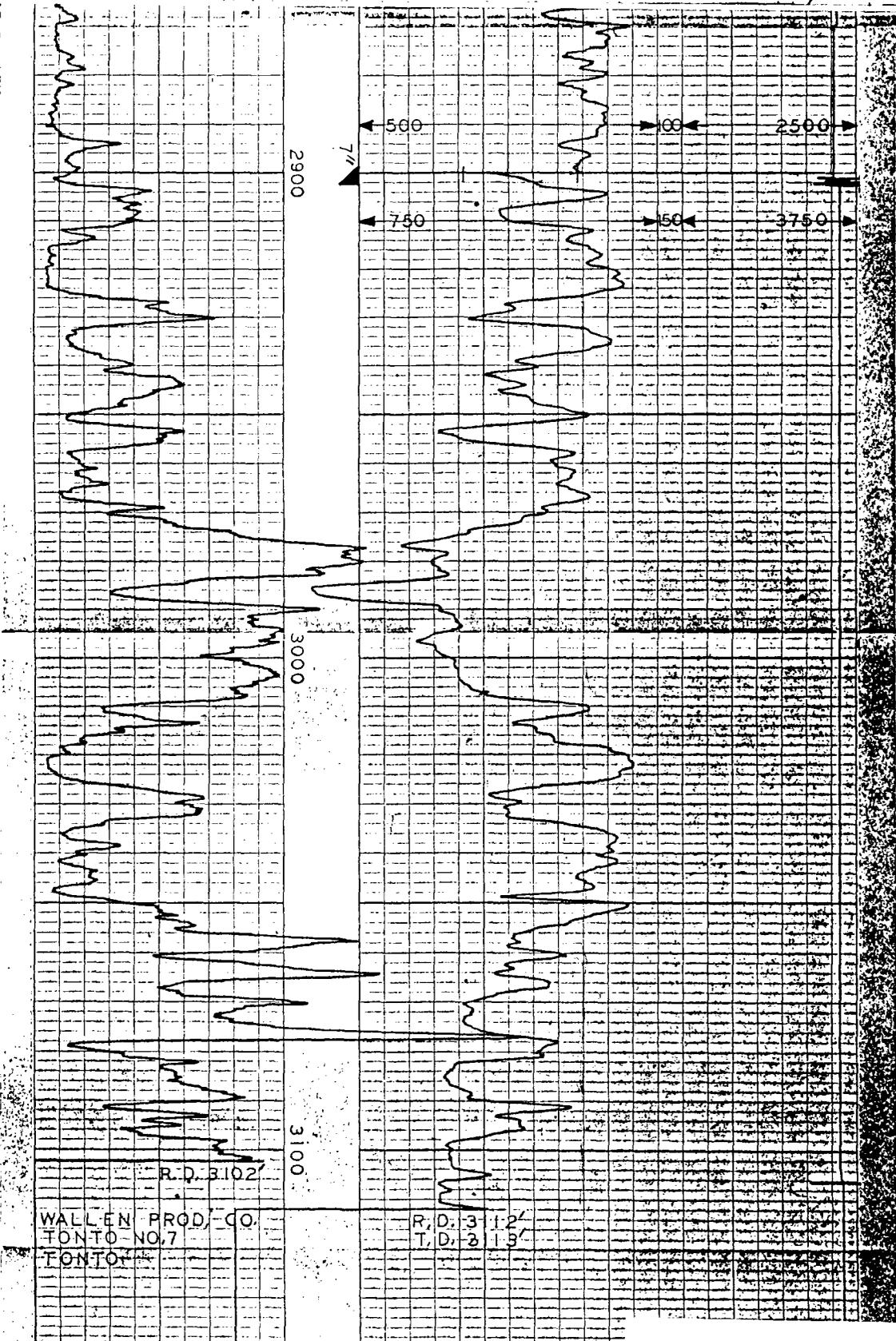
WGT. 2900

FROM SURFACE

TO 2900

WGT. 2900

THIS HEADING CONFORMS TO API STANDARD PRACTICE RP-33



WALLEN PROD. CO.
TONTO NO. 7

R.D. 312
T.D. 313

F&M OIL AND GAS COMPANY

**Proposed Wallen Tonto Waterflood
Wallen Tonto #7 WIW
Sec 30, T19S, R33E
Lea County, New Mexico**

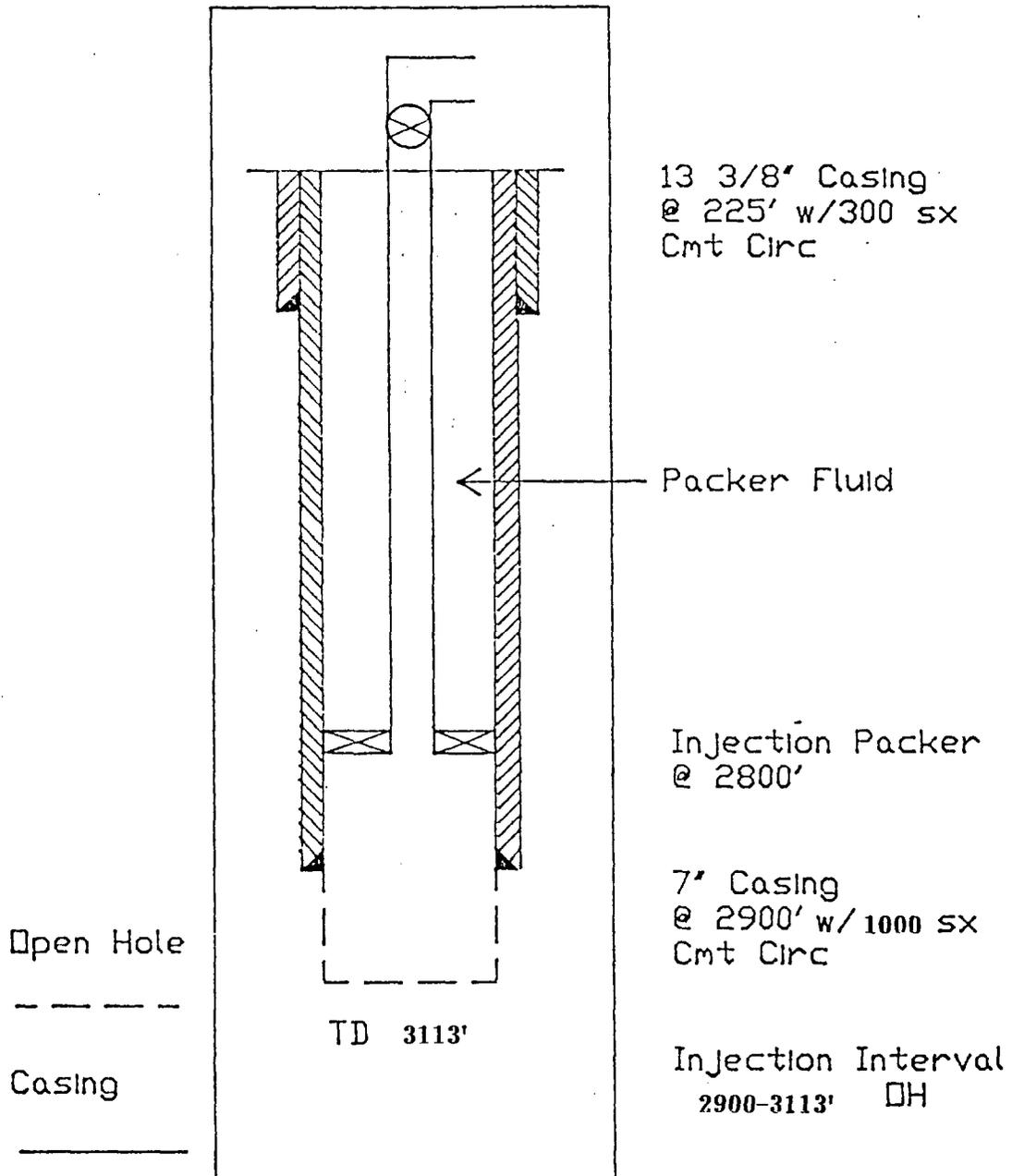
Exhibit F

Well Data on Injection Well

Stimulation Program:	2000 gallons 15% NEFE Acid
Location:	990' FEL & 1650' FSL Sec 30, T19S, R 33E Lea County, New Mexico
Casing:	13 3/8" @ 225' cmtd w/ 300 sx 7" @ 2900' cmtd w/200 sx
Tubing:	2 3/8" @ 2800' - Plastic Coated
Packer:	Baker Loc-Set Nickel Plated
Injection Formation:	Yates in the Tonto Yates Seven Rivers, South Pool.
Injection Interval:	2900' to 3113' Open Hole

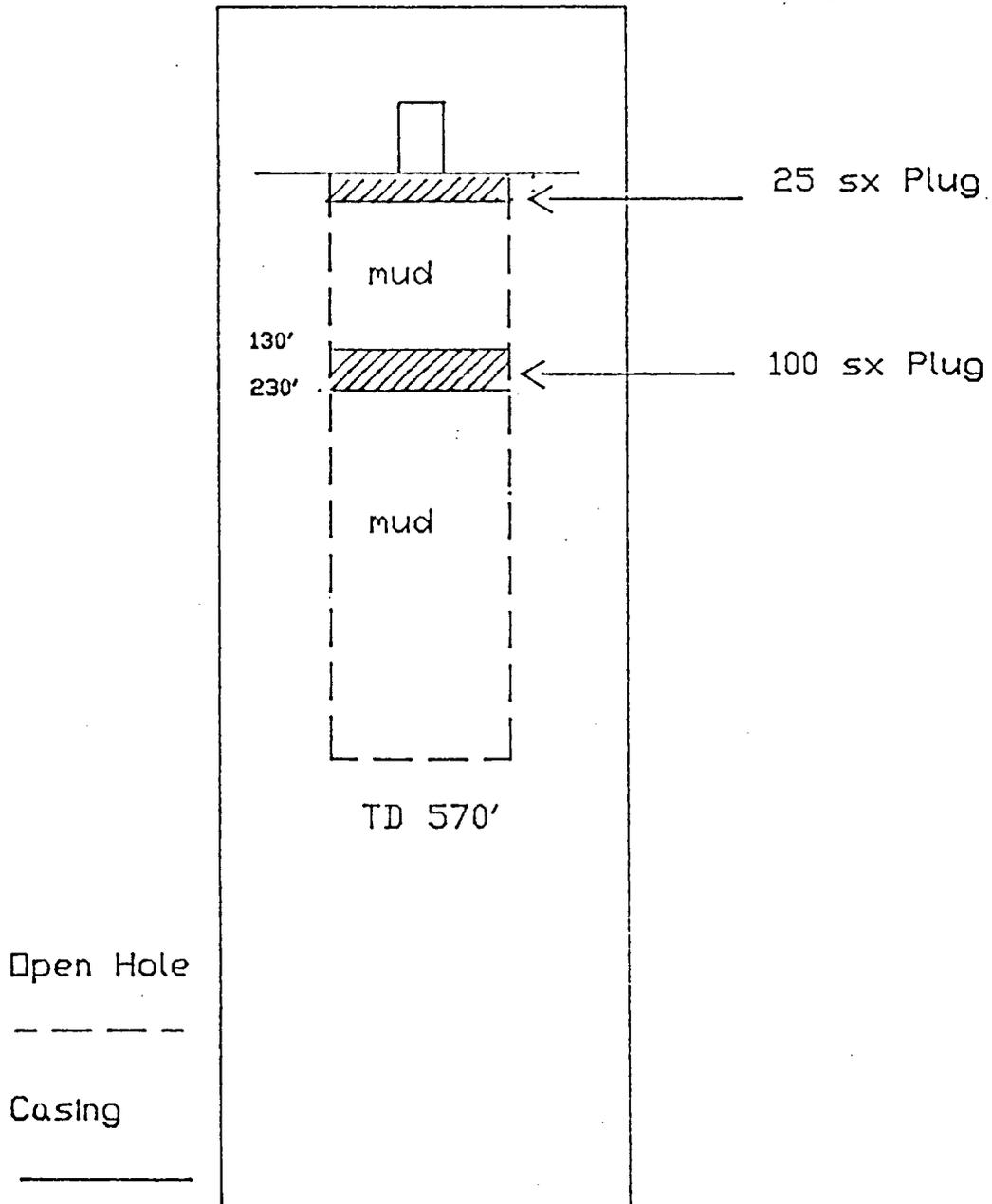
Well was originally drilled as oil producer. Currently P&A.

F&M OIL AND GAS COMPANY
 Wallen Tonto #7 WIW
 990' FEL & 1650' FSL
 Sec 30, T19S, R33E
 Lea County, New Mexico



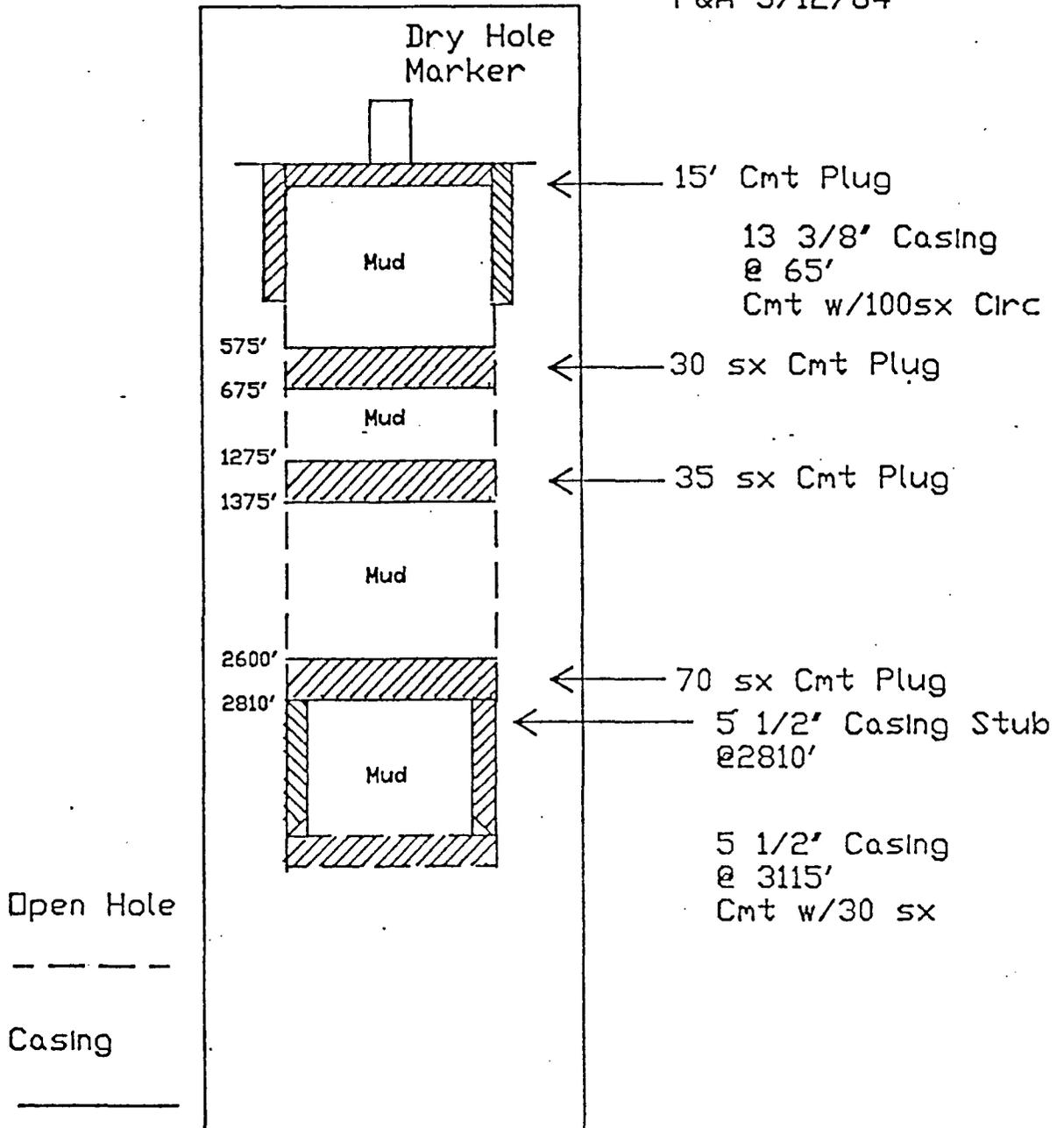
F&M OIL AND GAS COMPANY
Wallen Tonto #9
2300' FWL & 600' FSL
Sec 30, T19S, R33E
Lea County, New Mexico

P&A 10/8/80



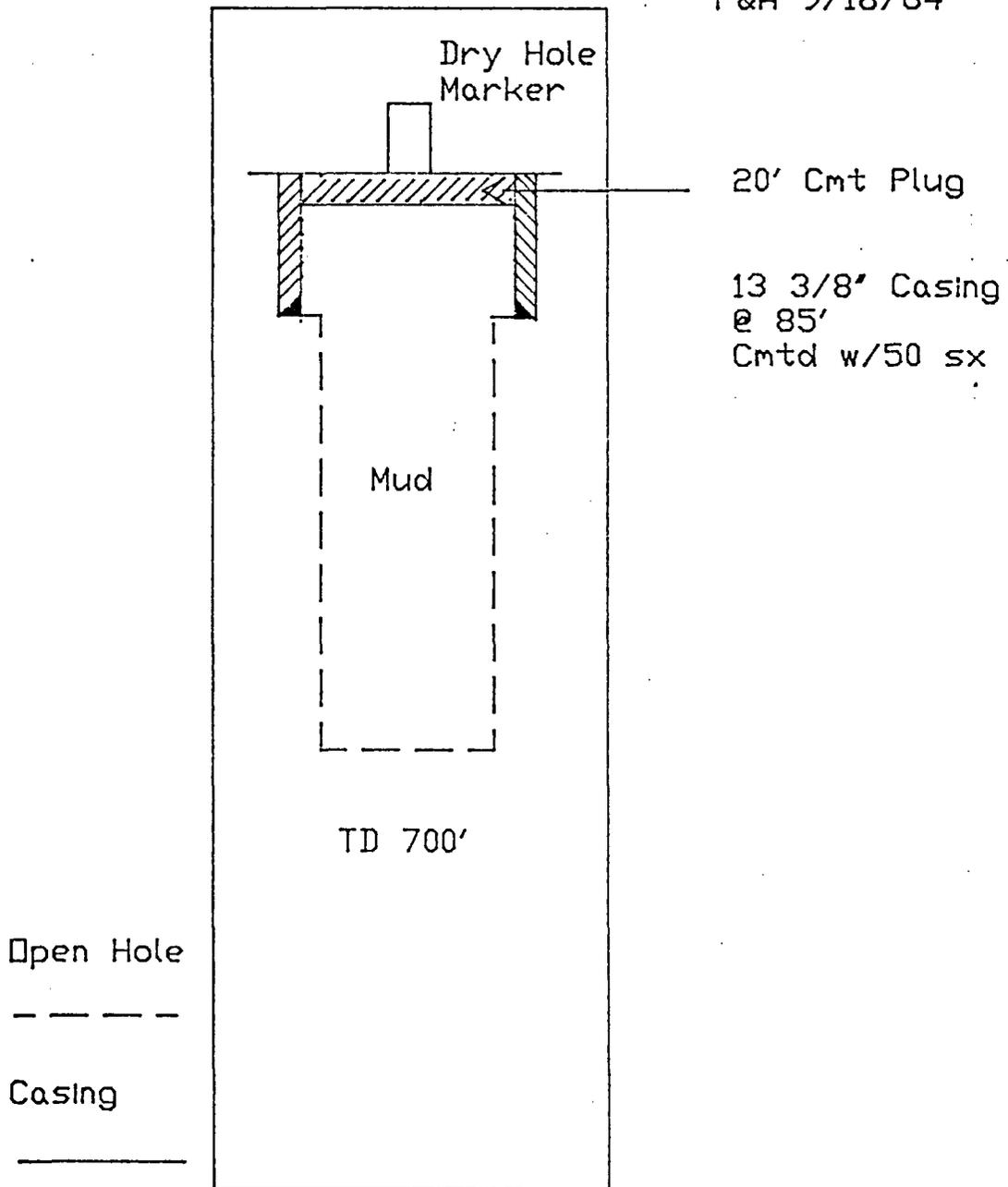
Edward Hudson
 Signal Ross_Fed. Well No. 6
 660' FSL & 1980' FEL
 Sec. 30, T19S, R33E

P&A 3/12/64



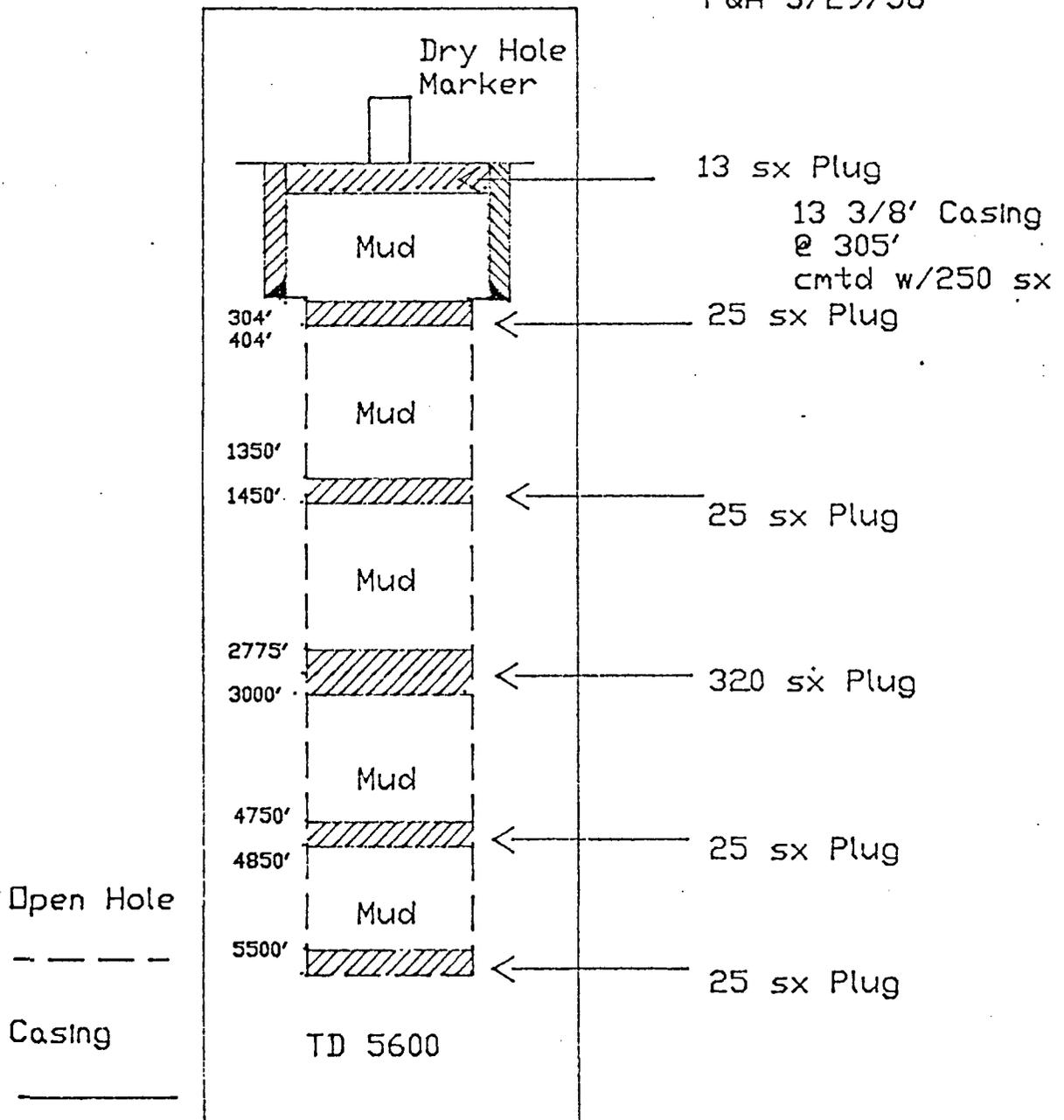
John H. Trigg
Federal 'RB' 31 Well No. 1
330' FNL & 2310' FEL
Sec. 31, T19S, R33E

P&A 9/18/64



Sinclair Oil & Gas Company
 Carder-Federal Well No. 2
 330' FNL & 2310' FEL
 Sec. 31, T19S, R33E

P&A 3/29/56



WATER ANALYSIS REPORT
furnished by TRETOLITE CHEMICALS

COMPANY: WALLEN PRODUCTION
LEASE: TONTON
SAMPLE POINT: HEATER TREATER
SAMPLE DATE: 5-27-87
SAMPLE TEMP.:

pH: 6.5
H2S: 500
SPECIFIC GRAVITY: 1.025

TITRATED AND CALCULATED IONS

	MILLIGRAMS PER LITER	MILLIEQUIVALENTS PER LITER
HCO ₃	915.00	15.00
Cl	11210.00	315.77
SO ₄	1250.00	26.04
Ca	2800.00	140.00
Mg	0.00	0.00
Na	4986.78	216.82

IONIC STRENGTH = 0.44
TOTAL HARDNESS = 6000.0 mg/ltr.
TOTAL DISSOLVED SOLIDS = 21155.5 mg/ltr.
TOTAL IRON (Fe) = 3.0 ppm

PROBABLE MINERAL COMPOSITION AND ION PAIRING

	MILLIEQUIVALENTS PER LITER	MILLIGRAMS PER LITER
Ca(HCO ₃) ₂	15.00	1215.60
CaSO ₄	26.04	1772.66
CaCl ₂	98.96	5492.19
Mg(HCO ₃) ₂	0.00	0.00
MgSO ₄	0.00	0.00
MgCl ₂	0.00	0.00
NaHCO ₃	0.00	0.00
Na ₂ SO ₄	0.00	0.00
NaCl	216.82	12675.08

CALCULATED SCALING TENDENCIES

SCALING INDEX

CaCO₃ @ 80 DEG F. = 0.5
CaCO₃ @ 120 DEG F. = 1.0

SATURATION POINT

CaSO₄ @ 70 DEG F. = 1996.5 MG/LTR.
CaSO₄ @ 110 DEG F. = 2020.2 MG/LTR.

(THIS SAMPLE CONTAINED 1772.7 MG/LTR. CaSO₄).

F&M OIL AND GAS COMPANY

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Exhibit J

Affirmative Statement

F&M Oil and Gas Company has examined available geologic and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

F&M OIL AND GAS COMPANY

**Proposed Wallen Tonto Waterflood
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Lea County, New Mexico**

Exhibit K

Notice

Pursuant to Section XIV of Form C-108,

Applicant has mailed copies of the application to the following:

Surface Owners:

Bureau of Land Management
Carlsbad Resource Area Headquarters
620 E. Greene Street
Carlsbad, New Mexico 88220-6292

Attn: Paul R. Evans

Leasehold Operators within One-half mile:

Kaiser-Francis
11722 W. HWY 80 EAST
Odessa, Texas 79765

Mitchell Energy Corporation
Box 4000
The Woodlands, Texas 77387-4000

Mack Energy
P. O. Box 960
Artesia, New Mexico 88211

Manzano Oil Corporation
P. O. Box 2107
Roswell, New Mexico 88202

TABLE 2

QUATERNARY WELLS WITH NON POTABLE WATER

LOCATION	OWNER	ELEV.	WATER LEVEL	TOTAL DEPTH	USE OF WELL	CHEMICAL ANALYSES (In Milligrams/Liter or Parts/Million)			DATE OF ANALYSIS	SAMPLED BY	
						CHLORIDES	SULFATES	TOTAL DISSOLVED SOLIDS			ELECTRICAL CONDUCTIVITY
SW of SE/4 Sec 4 T20S R33E	Scarbauer Cattle Co.	3556'	33' 1968	58'	Abd. Stock	2,382 12,978	- 16,068	- -	10,175 -	11/17/65 10/24/68	State United Chem.
NW NW Sec 21 T20S R33E	-	3536'	35' 1981	52'	Abd. Stock	3,518	905	-	-	10/24/68	United Chem.
SE NW/4 Sec 12 T20S R32E	-	3540'	-	130'	Abd. Stock	9,744	1,878	-	-	-	United Chem.
NE SW/4 Sec 11 T20S R32E	Salt Lake Rch.	3510'	21.7 1954	30'	Abd. Stock	Reported Salty - 1954 and Dry in 1972			-	-	State

TABLE 1
 QUATERNARY WELLS WITH POTABLE WATER
 CHEMICAL ANALYSIS (In Milligrams/Liter or parts/Million)

LOCATION	OWNER	ELEV.	WATER LEVEL	TOTAL DEPTH	USE OF WELL	CHLORIDES	SULFATES	DISSOLVED SOLIDS	TOTAL ELECTRICAL CONDUCTIVITY	DATE OF ANALYSIS	SAMPLED BY
NW/NW Sec 17 T19S R33E	Snyder Ranch	3650'	116' 1981	131'	Abd. Stock	In 1969 (reported good quality water)			2560	11/17/65 1/16/78	State Reed
SE NE/4 Sec. 26 T19S R33E	Smith		90.9 1/78	100'	Active Domestic Stock		996	2134	1861	1969	Reed
SE SE/4 Sec. 23 T20S R32E	Old Halway Bar	3551'	36.7' 1981	78'	Abd. Dom.		309		837 750	1969 9/72	Reed State
NW NW Sec 25 T20S R32E	SMITH?	3555'	39 1982	65'	Stock				1930	9/18/72	State
NE/4 Sec 36 T20S R32E	Birmingham Ranch	3501'	44 1972	50'	Domestic				290		
SW/4 Sec 23 T20S R32E		3541'	39.8 1981		Stock						Reed
SW/4 Sec 27 T20S R32E		3540'	33.9 1972								

No Data (Field check - Fresh water)
 No Data

F & M OIL AND GAS COMPANY

P. O. BOX 891
MIDLAND, TEXAS 79702-0891
(915) 682-7714
FAX 682-7700

July 1, 1996

Oil Conservation Division
District Office
P. O. Box 1980
Hobbs, Nm 88240

Re: **Form, C-108**
Wallen-Tonto #7
Sec 30, T19S, R33E
Lea County, NM

Dear OCD:

Please find enclosed the district copy of the above referenced form filed in duplicate with Santa Fe.

If you have any questions, please do not hesitate to contact me at the above.

Thank you for your time and attention.

Sincerely,

Leah D. Spears
Office Manager

enclosures

*David
F.Y.I.*

AFFIDAVIT OF PUBLICATION

RECEIVED JUN 28 1996

State of New Mexico,
County of Lea.

I, Kathi Bearden

Publisher

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of _____

1 weeks.

Beginning with the issue dated

June 25, 1996

and ending with the issue dated

June 25, 1996

Kathi Bearden
Publisher

Sworn and subscribed to before

me this 27 day of

June, 1996

Sandra Catlett

Notary Public.

My Commission expires
August 29, 1999
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE
June 25, 1996

F & M Oil and Gas Company proposes to re-enter and put the following well into water injection service:

Wallen-Tonto #7
1650' FSL & 990' FEL, Sec. 30, T19S, R33E
Tonto-Yates Seven Rivers, South Pool
Lea County, New Mexico

1) Name address, phone number and contact party for the applicant:

F&M Oil and Gas Company
P. O. Box 891
Midland, Texas 79702

Attn: Randall R. Foster

2) The intended purpose of the injection well is to begin a waterflood project.

3) Depth of injection interval is 2,900' to 3,113'. Maximum injection rates and pressures are 500 barrels per day at 580 psig.

4) Interested parties must file objections or requests for hearing with the following within 15 days:

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505
#14638

STIC
CERTIFIED MAIL

1. If you are leaving the rear of your rural carrier's vehicle, do not get out of the vehicle.
2. If you do not have a return receipt, do not get out of the vehicle.
3. If you are returning a receipt, do not get out of the vehicle.
4. If you are returning a receipt, do not get out of the vehicle.
5. Enter fees on return receipt.
6. Save this receipt.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. Addressee's Address
2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Manzano Oil Corp.
P.O. Box 2107
Roswell, N.M.
88202

4a. Article Number

Z 781 093 902

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

7. Date of Delivery

5. Received By: (Print Name)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)

X

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

Domestic Return Receipt

Z 781 093 902



Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

Sent to MANZANO OIL CORP.	
Street and No. P.O. Box 2107	
R.O. State and ZIP Code ROSWELL, N.M. 88202	
Postage	\$.32
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, and Addressee's Address	
Other Postage & Fees	\$ 2.52
Postmark or Date MAY 1996 USPO	

PS Form 3800, March 1993

**STICK POSTAGE STAMPS
CERTIFIED MAIL FEE, AND CHARGE**

1. If you want this receipt postmark leaving the receipt attached and press your rural carrier (no extra charge).
2. If you do not want this receipt postmark, address of the article, date, detach.
3. If you want a return receipt, write return receipt card, Form 3811, and send it space permits. Otherwise, affix **REQUESTED** adjacent to the number.
4. If you want delivery restricted to addressee **RESTRICTED DELIVER**
5. Enter fees for the services requested; return receipt is requested, check the appropriate box.
6. Save this receipt and present it to your rural carrier.

Is your RETURN ADDRESS completed on the reverse side?

SENDER: ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: KAISER-FRANCIS Oil Company 11722 W. Hwy 80 EAST ODESSA, TX. 79765	4a. Article Number Z 781 093 905	4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
5. Received By: (Print Name)		7. Date of Delivery	
6. Signature: (Addressee or Agent) X		8. Addressee's Address (Only if requested and fee is paid)	

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

Domestic Return Receipt

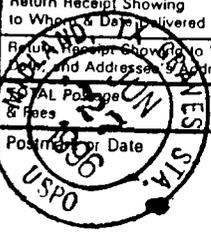
Z 781 093 905



Receipt for Certified Mail
 No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Street and No. KAISER-FRANCIS Oil Co. 11722 W. Hwy 80 EAST	
P.O., State and ZIP Code ODESSA, TX 79765	
Postage	\$.32
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 2.52
Postmark or Date	

PS Form 3800, March 1993



CERTIFIED
 1. If you are leaving your name and address on the reverse side of this form, you must also complete items 1 and 2 for additional services.
 2. If you are leaving your name and address on the reverse side of this form, you must also complete items 3, 4a, and 4b.
 3. If you are leaving your name and address on the reverse side of this form, you must also complete items 1 and 2 for additional services.
 4. If you are leaving your name and address on the reverse side of this form, you must also complete items 3, 4a, and 4b.
 5. If you are leaving your name and address on the reverse side of this form, you must also complete items 1 and 2 for additional services.
 6. If you are leaving your name and address on the reverse side of this form, you must also complete items 3, 4a, and 4b.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to: <i>Mitchell Energy Corp. Box 4000 The Woodlands, Tx. 77387-4000</i>	4a. Article Number <i>Z 781 093 904</i>
5. Received By: (Print Name)	4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD
6. Signature: (Addressee or Agent) X	7. Date of Delivery
	8. Addressee's Address (Only if requested and fee is paid)

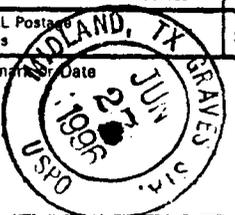
Thank you for using Return Receipt Service.

PS Form 3811, December 1994 Domestic Return Receipt



Z 781 093 904
Receipt for Certified Mail
 No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Sept. 19 <i>Mitchell Energy Corp.</i>	
Street and No. <i>Box 4000</i>	
P.O., State and ZIP Code <i>The Woodlands, TX. 77387-4000</i>	
Postage	\$.32
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 2.52
Postmaster's Date	



PS Form 3800, March 1993

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mack Energy
P.O. Box 960
Artesia, N.M. 88211

4a. Article Number
P 329 341 928

4b. Service Type:

Registered Insured

Certified COD

Express Mail Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

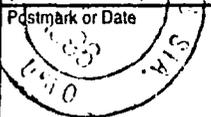
Thank you for using Return Receipt Service

P 329 341 928

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Sent to	<i>Mack Energy</i>
Street & Number	<i>P.O. Box 960</i>
Post Office, State, & ZIP Code	<i>Artesia, N.M. 88211</i>
Postage	\$ <i>-.32</i>
Certified Fee	<i>1.10</i>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	<i>1.10</i>
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ <i>2.52</i>
Postmark or Date	

PS Form 3800, April 1995



Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

<p>3. Article Addressed to: Bureau of Land Management Carlsbad Resource Area Headquarters 620 E. Greene Street Carlsbad, N.M. 88220-6292</p> <p>ATTN: Paul R. Evans</p>	<p>4a. Article Number P 329 341 918</p> <p>4b. Service Type</p> <p><input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified</p> <p><input type="checkbox"/> Express Mail <input type="checkbox"/> Insured</p> <p><input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD</p> <p>7. Date of Delivery</p>
<p>5. Received By: (Print Name)</p>	<p>8. Addressee's Address (Only if requested and fee is paid)</p>
<p>6. Signature: (Addressee or Agent) X</p>	

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

Domestic Return Receipt

P 329 341 918

US Postal Service
Receipt for Certified Mail
 No Insurance Coverage Provided.
 Do not use for International Mail (See reverse)

Sent to BLM	
Street & Number 620 E. GREENE ST.	
Post Office, State, & ZIP Code CARLSBAD, N.M. 88220-6292	
Postage	\$.32
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, & Addressee Address	
TOTAL Postage & Fees	1.52
Postmark or Date	1996

PS Form 3800, April 1995

