

TOCO LLC Trainer Oil Co.

P. O. Box 888 Hobbs, New Mexico 88241 (505) 392-7050

SWO 1.30.96

January 12, 1996

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Re: Morse A No. 1 Well
660' FNL & 660' FEL
Section 28, T-10S, R-37E
Lea County, New Mexico

Gentlemen:

Enclosed for administrative approval is an application for salt water disposal in the subject well. Please return approval to the letterhead address. If you have any questions, please call.

Sincerely,

TOCO, L.L.C.

Marc L. Wise

Marc L. Wise

lyad

/ad

encs

cc: OCD-Hobbs

APPLICATION FOR AUTHORIZATION TO INJECT

NOV 11 1991 9 59 AM

- I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no
- II. Operator: C. W. Trainer
Address: c/o Oil Reports & Gas Services, Inc., Box 755, Hobbs, NM 88241
Contact party: Donna Holler Phone: 505-393-2727
- 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.
- * 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 source 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: Donna Holler Title Agent

Signature: *Donna Holler* Date: November 6, 1991

* 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.

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.

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.

APPLICATION FOR AUTHORIZATION
To Convert to Water Disposal

C. W. Trainer

Morse "A" No. 1

Statements of Compliance

- Item III. A. See Exhibit A
- Item III. B. (1) Devonian
- (2) Perforations 11,806 to 11,810
- (3) Drilled for oil production from North Echols Devonian pool.
- (4) Originally drilled by the Texas Company as the Texas Gulf State Lea #1 to a total depth of 12,000 feet. It was plugged and abandoned 5/26/64 after producing 615,805 barrels oil. The well was reentered by C. W. Trainer on 10/2/90, cleaned out to 11,852 feet and perforated from 11,806 to 11,810. On swab test the interval produced 99% water and 1% oil.
- (5) There are no known higher or lower oil zones.
- Item V. See Exhibit B
- Item VI. See Exhibit C for tabular summary and Exhibit D for schematic of plugged wells.
- Item VII. (1) Estimated average rate of injection is 100 barrels per day with an estimated maximum daily rate of 1,000 barrels
- (2) The system will be closed
- (3) Average injection pressure: 0 psig
Maximum injection pressure: 100 psig
- (4) Source of water will be Devonian water produced from the C. W. Trainer Morse #1.
- (5) Source of water and injection zone are the same, being the Devonian formation.
- Item VIII. The North Echols Devonian pool was discovered 5/9/52 by the Texas Company State "AW" #1 in Unit J of Section 21. The Devonian is found at approximately 11,800 feet, being a limestone formation. The only known fresh water sand in the area is the Ogallala formation found at a depth of approximately 100 feet with thickness of 30 feet.

Item IX. None

Item X. Electrical logs have previously been furnished by The Texas Company.

Item XI. Only one fresh water well was found within a radius of one mile, being the water supply well to drill the Amerada Petroleum Corporation State EB #2, Unit C, Section 27 T10S R37E. The water analysis from this well is identified as Exhibit E.

Item XII. All geological and engineering data available indicates that there is no open fault or other hydrologic connection between the Devonian and Ogallala formations.

Item XIII. A copy of Form C-108 with Statements of Compliance has been furnished by certified mail as follows:

Surface Owner: Ben Alexander
 P. O. Box 2545
 Hobbs, New Mexico 88241

Offset Operators: Union Pacific Resources Co.
 1400 Smith Street, Suite 1500
 Houston, Texas 77002

 Yates Petroleum Corporation
 105 South 4th Street
 Artesia, New Mexico 88210

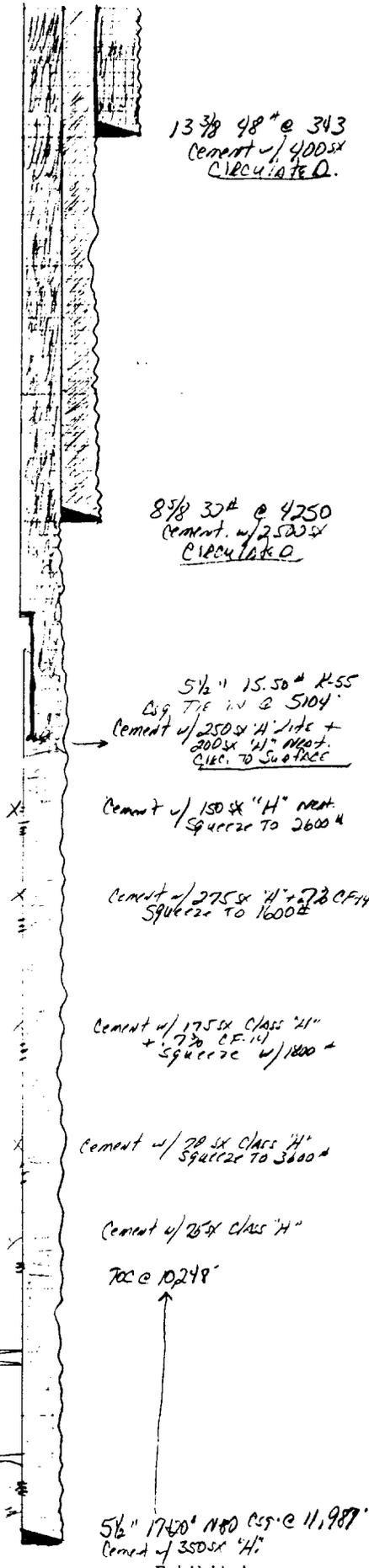
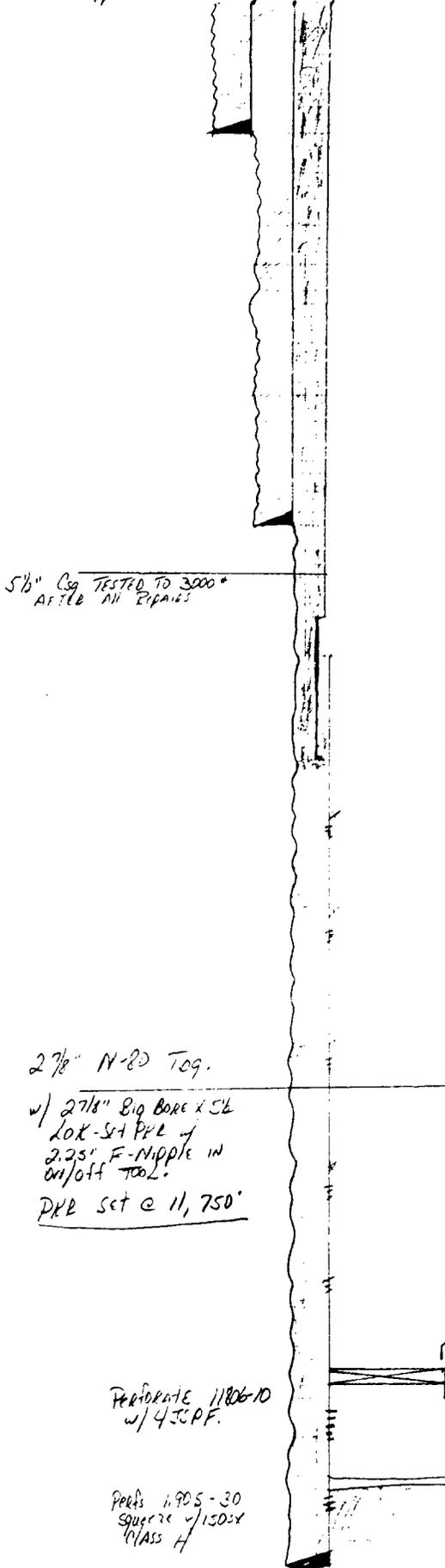
Copies of Certified Mail Receipts is identified as Exhibit F.

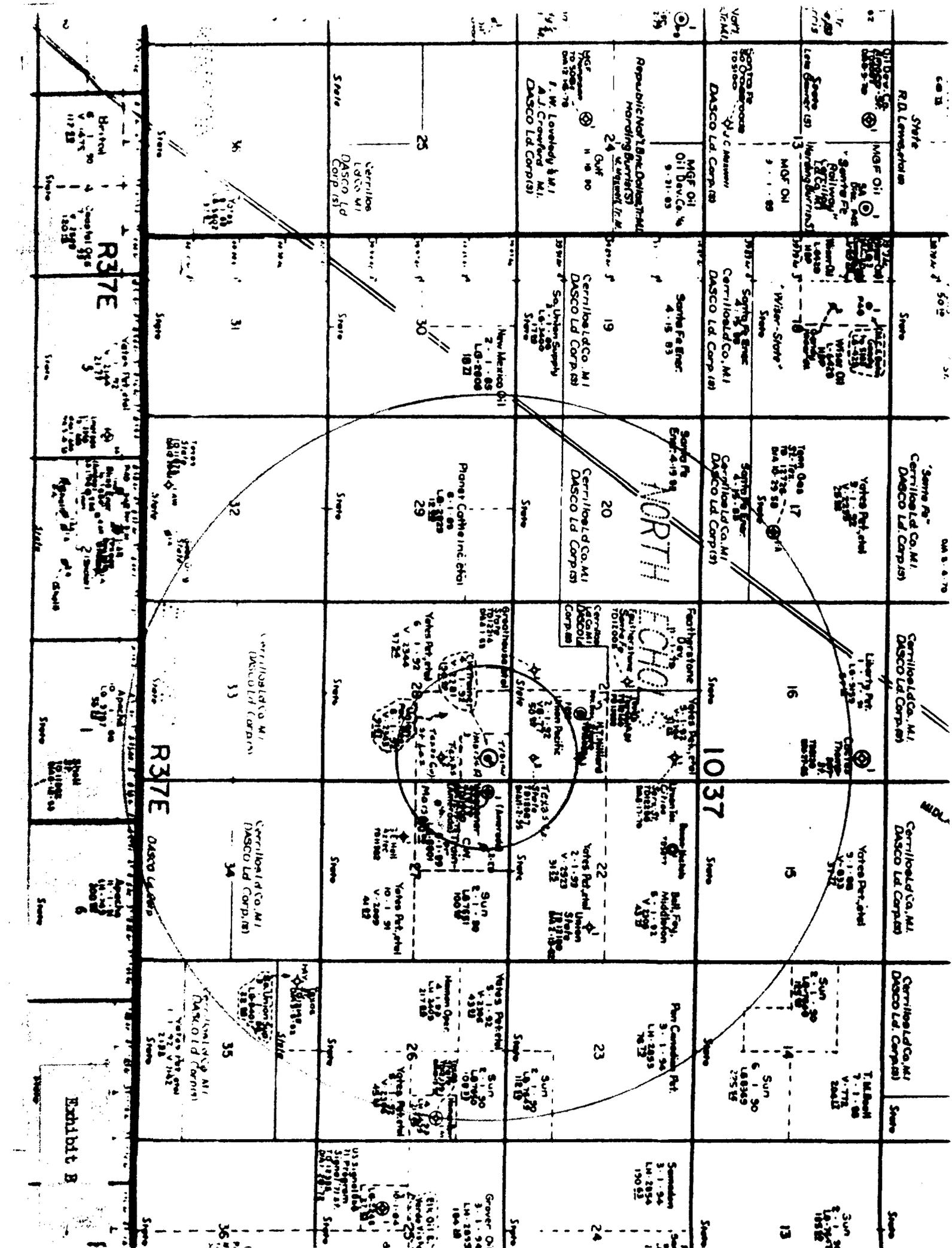
Item XIV. Proof of Publication in the Hobbs Daily News Sun is identified as Exhibit G.

C.W. TRAINER

MORSE "A" #1
660' FNL + 660' FEL
Sec. 28-T10S-R27E
Lea County, N.MEX.

CURRENT Wellbore Diagram.
As of 10-15-91





State
R.L. Lemaire

State
Walter Stone

State
Cerrillo Co. M.I.
DASCO Ld. Corp.

State
Sun

MGF Oil
Oil Dev. Co. M.I.
9-31-83

Walter Stone
Walter Stone
Walter Stone

Yates Petroleum
Yates Petroleum
Yates Petroleum

Sun
Sun
Sun

R37E

R37E

NORTH

ECHO

1037

11783

11783

11783

11783

11783

11783

11783

11783

11783

11783

Exhibit B

TABULAR SUMMARY

All Wells Within One-Half Mile

C. W. Trainer - Morse "A" No. 1

Section 21, T10S, R37E

The Texas Company - Texas Gulf State Lea #3
Unit P: 660' FSL & 660' FEL
Spud 8/8/55, Comp. 11/26/55, Type: Dry & Abandoned
Casing: 13 3/8" @ 344' w/400 sx, circ
8 5/8" @ 4265' w/1200 sx
TD 12,087 P & A 11/26/55
Schematic attached

Section 27, T10S, R37E

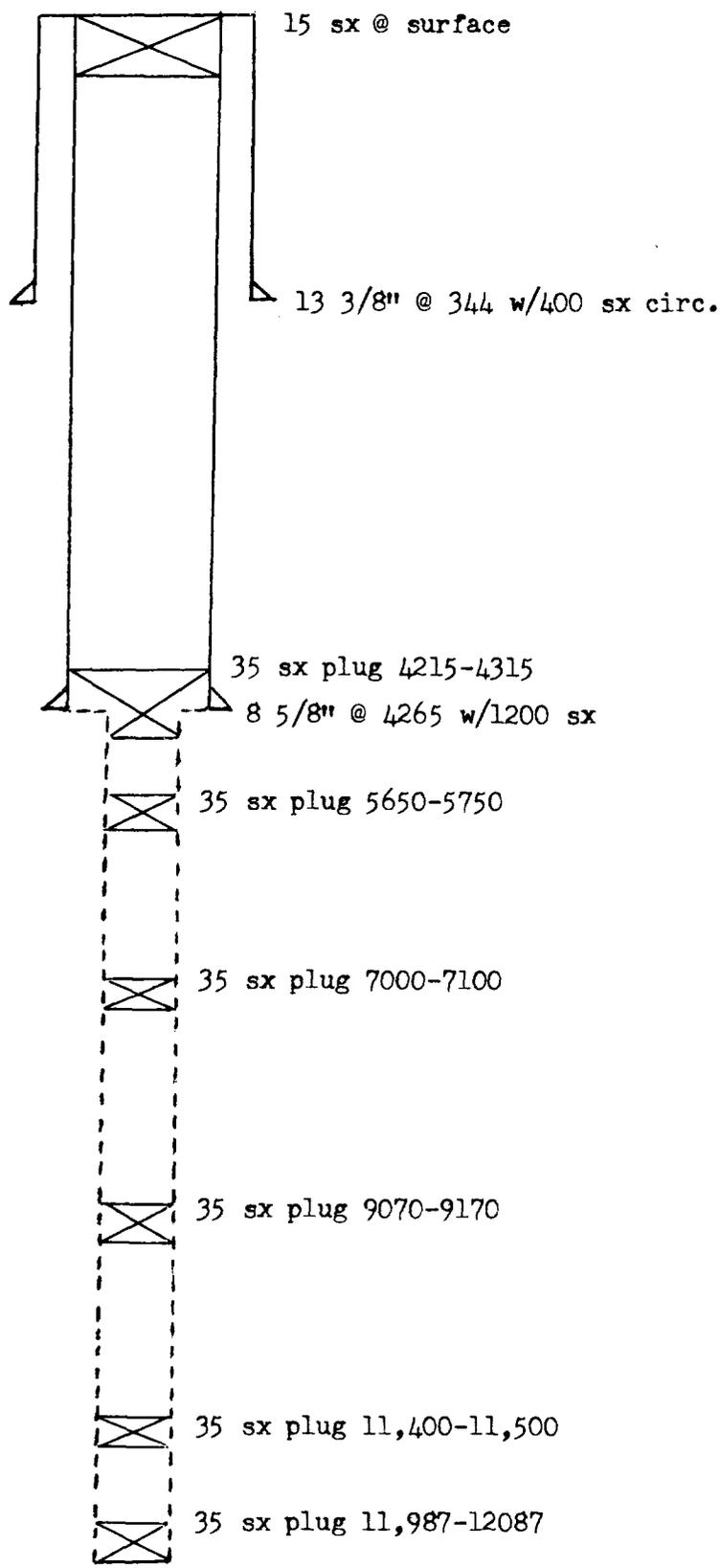
Amerada Petroleum Corporation - State EB #2
Unit C: 660' FNL & 1980' FWL
Spud: 1/10/55, Comp. 3/18/55, Type: Oil Well
Casing: 13 3/8" @ 338' w/250 sx, circ
8 5/8" @ 4270' w/1500 sx, Top Cmt 1818
5 1/2" @ 11,875' w/500 sx, Top Cmt 10,100
TD 11,901 Open Hole 11,875-901
Formation: Devonian
Potential: 336 BOPD TA 2/12/63
P & A 9/28/64 Cum Prod 158,465 bbls
Schematic attached

Waggoner Exploration Company - State 27 #1
Unit D: 660' FNL & 330' FWL
Spud 10/22/75, Comp. 12/19/75, Type: Dry & Abandoned
Casing: 13 3/8" @ 346' w/400 sx, circ
8 5/8" @ 4241 w/450 sx
TD 11,900 P & A 12/19/75
Schematic attached

C. W. Trainer - Morse #1
Unit E: 1980' FNL & 660' FWL
Drilled by Amerada Petroleum Corp. - State EB #1
Spud 6/24/54, Comp. 9/23/54, Type: Oil Well
Casing: 13 3/8" @ 340' w/250 sx, circ
8 5/8" @ 4270 w/1500 sx, Top Cmt 2444
5 1/2" @ 11,930 w/200 sx, Top Cmt 11,100
TD 11,930, PBTD 11,844
Perfs 11,755-11,834 Formation: Devonian
Potential: 776 BOPD
Dual for SWD into San Andres 5210-5260 11/15/68
P & A 12/31/73 Cum Prod 443,095 bbls
Reentered 7/31/89 Perfs 11,784-11,783
Potential: 400 BOPD
Current Production: 9/91 Pump 32 BOPD

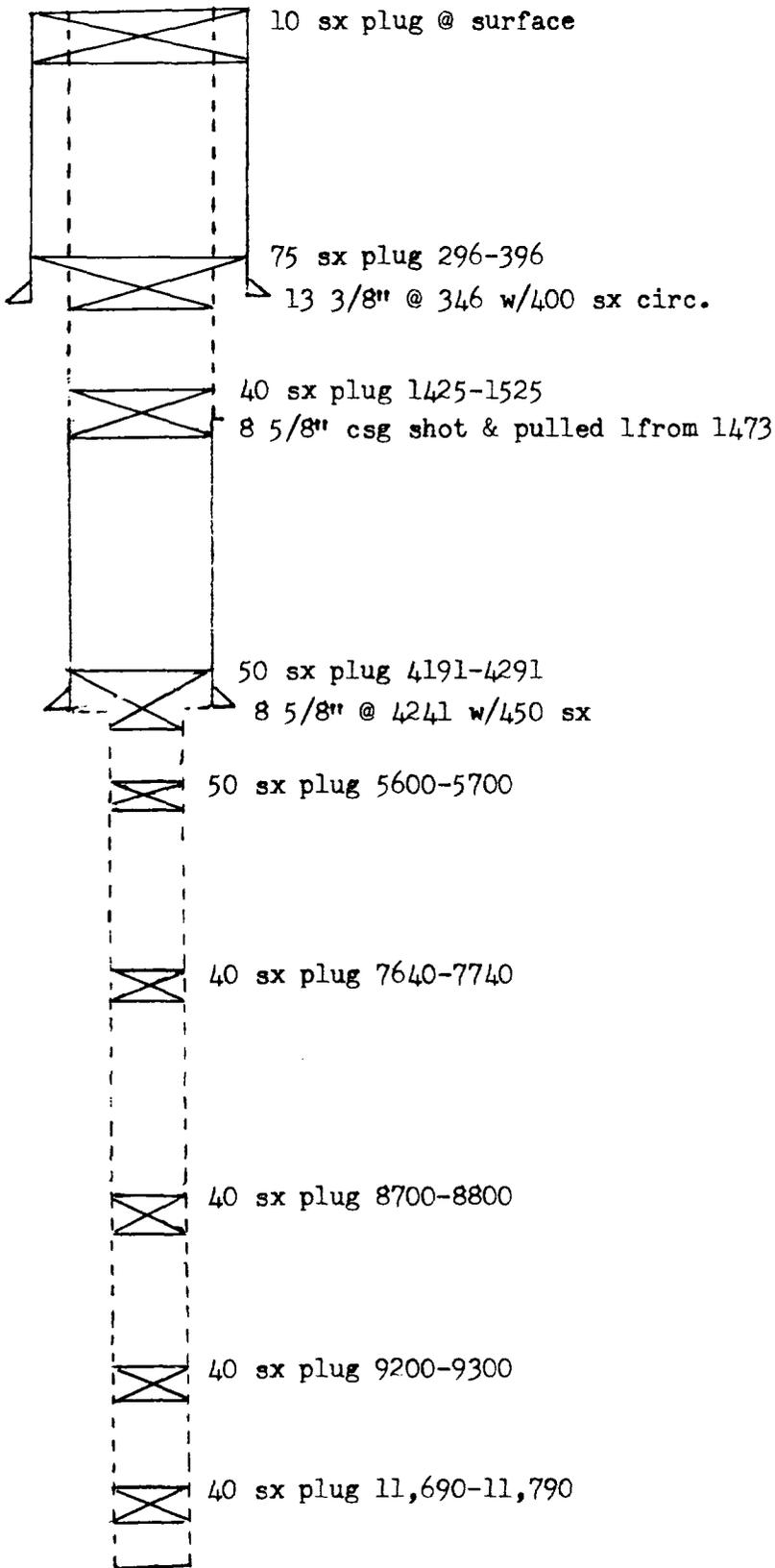
Section 28, T10S, R37E

The Texas Company - Texas Gulf State Lea #2 ✓
Unit H: 1980' FNL & 660' FEL
Spud 12/30/54, Comp. 3/24/55, Type; Dry & Abandoned
Casing: 13 3/8" @ 318' w/400 sx, circ
8 5/8" @ 4238' w/2500 sx
5 1/2" @ 11,887 w/350 sx
TD 11,887, Perfs 11,866-11,881
Formation: Devonian, No Commercial Production
P & A 5/26/55
Schematic attached



TD 12,087

The Texas Company
 Texas Gulf State Lea #3
 660' FSL & 660' FEL
 Sec. 21, T10S, R37E
 P&A 11/26/55



10 sx plug @ surface

75 sx plug 296-396
13 3/8" @ 346 w/400 sx circ.

40 sx plug 1425-1525
8 5/8" csg shot & pulled lfrom 1473

50 sx plug 4191-4291
8 5/8" @ 4241 w/450 sx

50 sx plug 5600-5700

40 sx plug 7640-7740

40 sx plug 8700-8800

40 sx plug 9200-9300

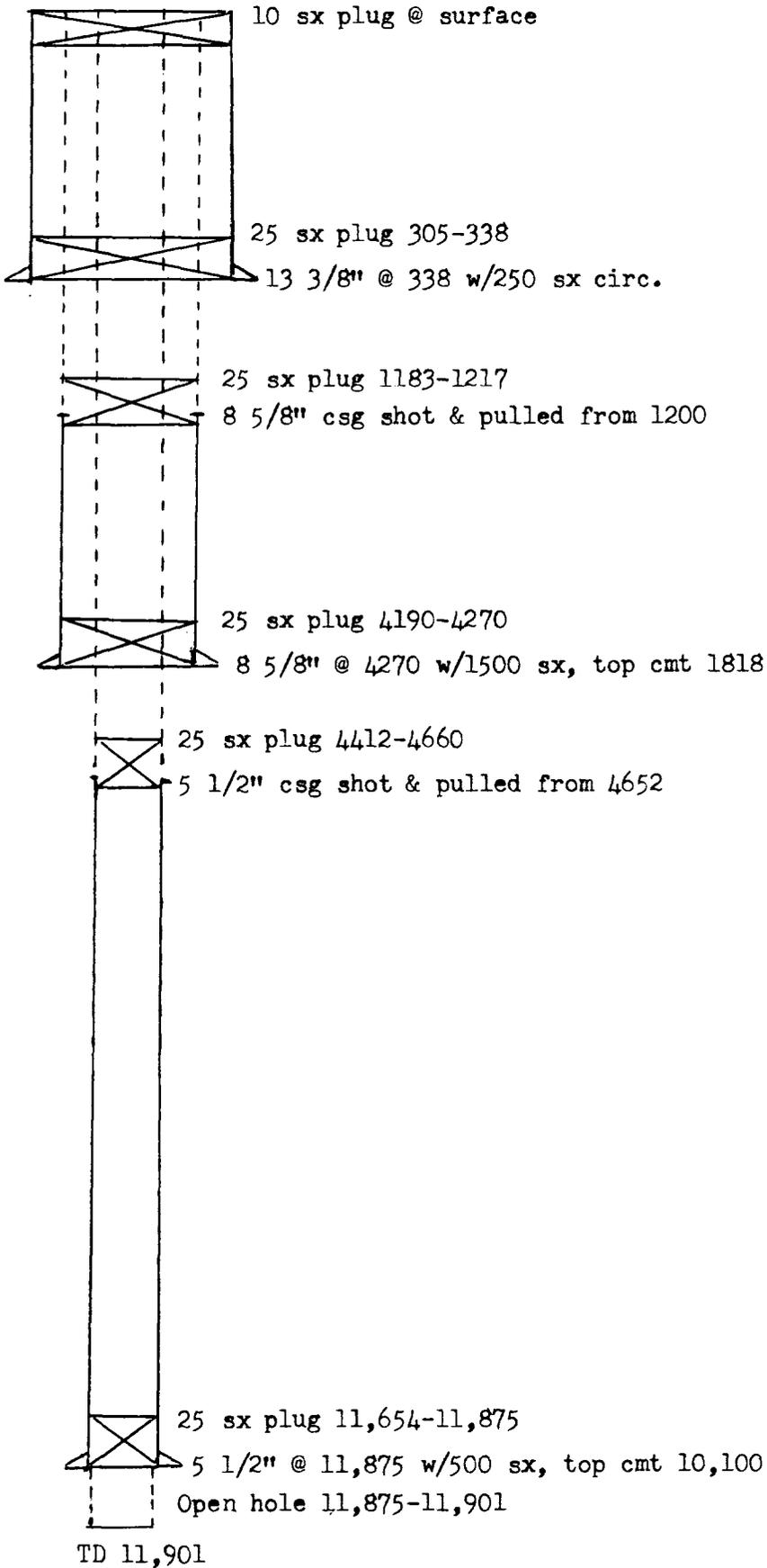
40 sx plug 11,690-11,790



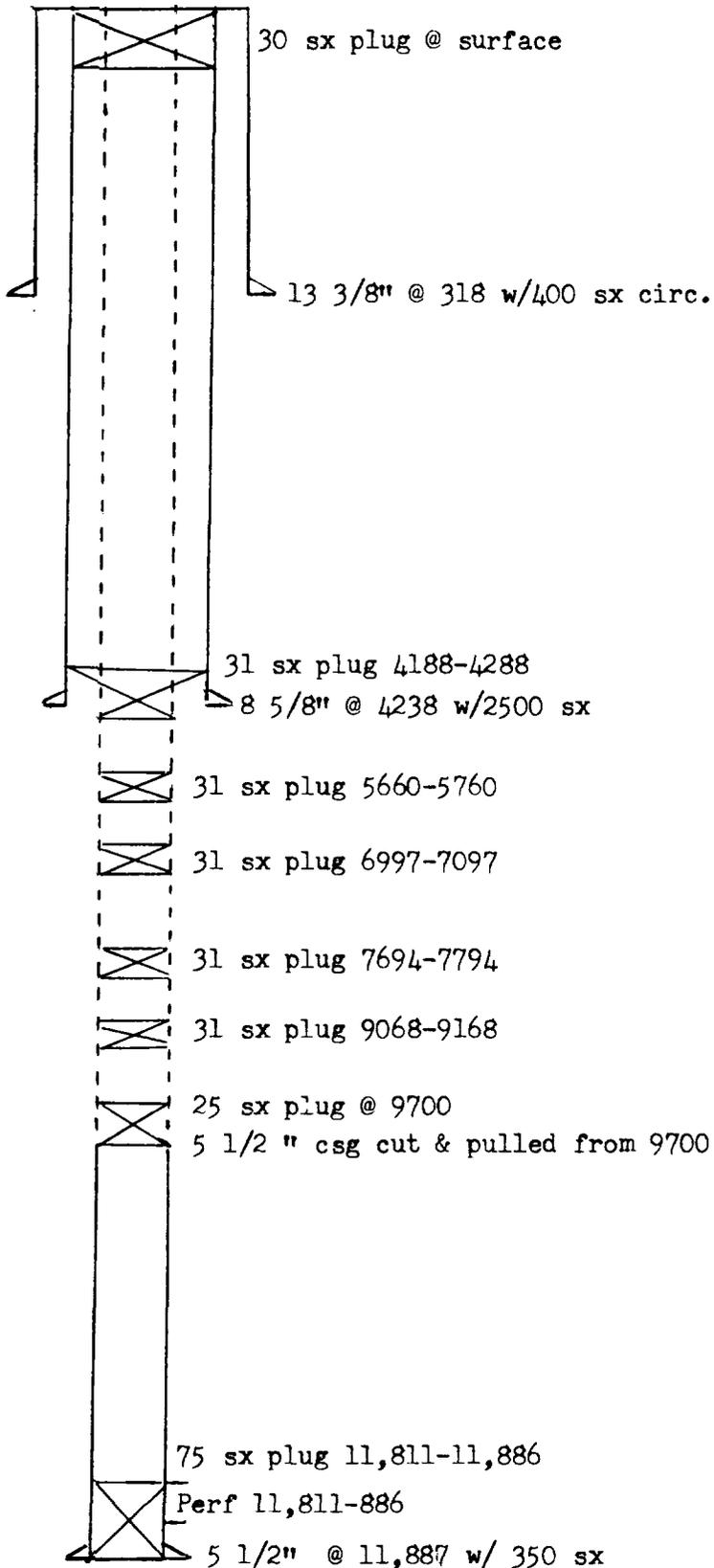
TD 11,900

Waggoner Exploration Company
State 27 #1
660' FNL & 330' FWL
Sec. 27, T10S, R37E
P&A 12/19/75

Exhibit D
Page 2



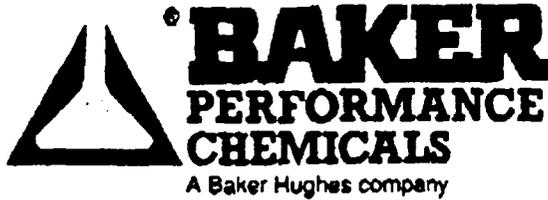
Amerada Petroleum Corporation
 State EB #2
 660' FNL & 1980' FWL
 Sec. 27, T10S, R37E
 P&A 9/28/64



The Texas Company
 Texas Gulf State Lea #2
 1980' FNL & 660' FEL
 Sec. 28, T10S, R37E
 P&A 5/26/55

TD 11,887

Exhibit D
 Page 4

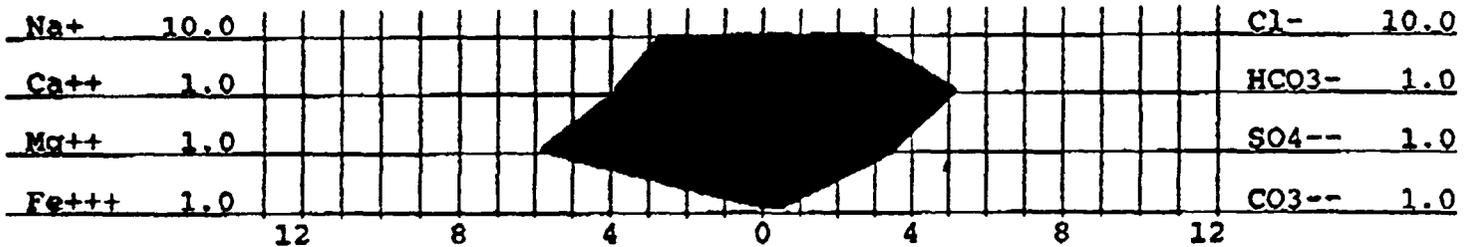


WATER ANALYSIS
for
C.W. TRAINER

Date of Analysis: SEPTEMBER 13, 1981 Analysis #: 5419
 Company: C.W. TRAINER Company Address: N/D
 State: N/D Field: N/D
 Lease: FRESH WATER ** Well #: FRESH WATER **
 Oil (bbl/day): N/D Water (bbl/day): N/D
 Type of Water: FRESH Temp., C: 20
 Sample Source: N/D Date of Sampling: SEPTEMBER 12, 1981
 Representative: WH FORT JR. Analysis By: CLYDE WILHOIT

WATER ANALYSIS PATTERN

(number beside ion symbol indicates me/l scale unit)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
Total Hardness	10.00	
Calcium, (Ca++)	4.00	80.19
Magnesium, (Mg++)	6.00	72.91
Iron, (Fe+++)	0.05	1.00
Barium, (Ba++)	N/D	N/D
Sodium, Na+(calc)	27.90	641.72
Manganese, (Mn++)	0.00	0.00

ANIONS	me/l	mg/l
Chloride, Cl-	28.17	999.96
Sulfate, SO4--	3.75	180.00
Carbonate, CO3--	0.64	19.20
Bicarbonate, HCO3--	5.40	329.47
Hydroxyl, OH-	0.00	0.00
Sulfide, S--	0.00	0.00
TOTAL SOLIDS (quant.)		2305.25

DISSOLVED GASES

Hydrogen sulfide:	0.00	mg/l
Carbon dioxide	0.00	mg/l
Oxygen	N/D	mg/l

PHYSICAL PROPERTIES

pH	: 8.20
Spec Grav.	: 1.000
TDS (calc.)	: 2311.30

SCALE STABILITIES

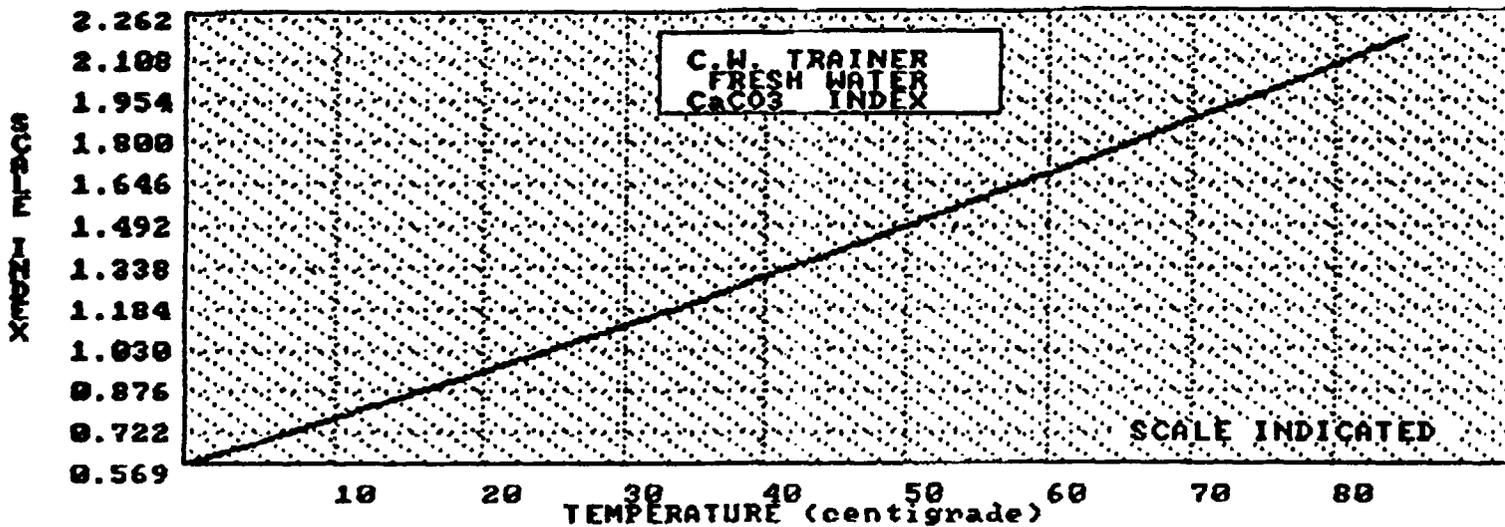
Temp., C	CaCO3	CaSO4	BaSO4
20.0	0.90	1859	0
30.0	1.08	1896	0
40.0	1.26	1899	0
Max entity, (calc.)	255		0
RESIDUAL HYDROCARBONS:	N/D		

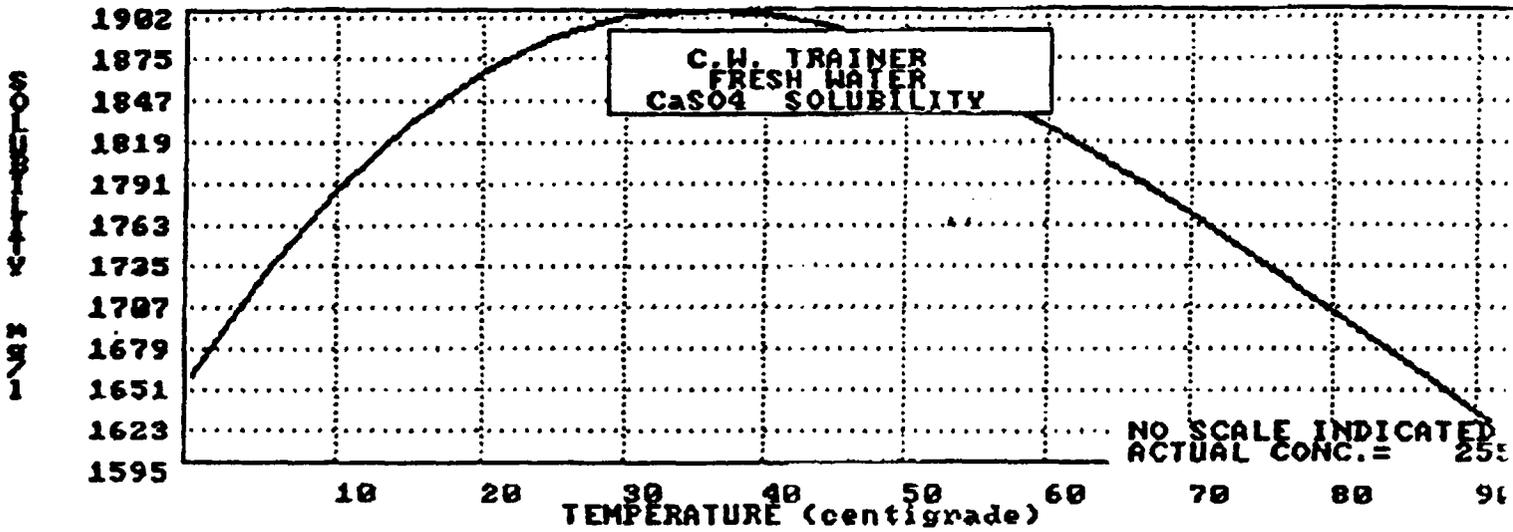
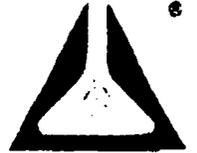
N/D = not determined

REMARKS: @20 C MODERATE CARBONATE SCALING

@20 C CALCIUM SULFATE SCALING IS UNLIKELY

** FRESH WATER SAMPLE TAKEN ONE LOCATION FROM MORRIS # 1 Lease





P 243 010 492
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

SENT TO Ben Alexander	
STREET AND NO. P.O. Box 2545	
P.O. STATE AND ZIP CODE Hobbs, NM 88241	
POSTAGE	\$ 0.29
CONSULT POSTMASTER FOR FEES	
CERTIFIED FEE	1.00¢
SPECIAL DELIVERY	¢
RESTRICTED DELIVERY	¢
OPTIONAL SERVICES	
RETURN RECEIPT SERVICE	1.00¢
SHOW TO WHOM AND DATE DELIVERED	¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RETURN RECEIPT SERVICE	¢
TOTAL POSTAGE AND FEES	\$ 2.29
POSTMARK OR DATE	

PS Form 3800, Apr. 1976

P 243 010 493
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

SENT TO Union Pacific Resources	
STREET AND NO. 1400 Smith St. Suite 1500	
P.O. STATE AND ZIP CODE Houston, Texas 77002	
POSTAGE	\$ 0.29
CONSULT POSTMASTER FOR FEES	
CERTIFIED FEE	1.00¢
SPECIAL DELIVERY	¢
RESTRICTED DELIVERY	¢
OPTIONAL SERVICES	
RETURN RECEIPT SERVICE	1.00¢
SHOW TO WHOM AND DATE DELIVERED	¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RETURN RECEIPT SERVICE	¢
TOTAL POSTAGE AND FEES	\$ 2.29
POSTMARK OR DATE	

PS Form 3800, Apr. 1976

P 243 010 494
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

SENT TO Yates Petroleum Corp.	
STREET AND NO. 105 South 4th Street	
P.O. STATE AND ZIP CODE Artesia, NM 88210	
POSTAGE	\$ 0.29
CONSULT POSTMASTER FOR FEES	
CERTIFIED FEE	1.00¢
SPECIAL DELIVERY	¢
RESTRICTED DELIVERY	¢
OPTIONAL SERVICES	
RETURN RECEIPT SERVICE	1.00¢
SHOW TO WHOM AND DATE DELIVERED	¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RETURN RECEIPT SERVICE	¢
TOTAL POSTAGE AND FEES	\$ 2.29
POSTMARK OR DATE	

PS Form 3800, Apr. 1976

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

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 _____

One weeks.
Beginning with the issue dated

Nov. 8, 19 91
and ending with the issue dated

Nov. 8, 19 91

Kathi Bearden
General Manager

Sworn and subscribed to before

me this 12 day of

November, 1991

Paulo Parrish
Notary Public.

My Commission expires _____

Aug. 5, 19 95
(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
November 8, 1991
C. W. Trainer will file an application with Oil Conservation Division for water disposal into formation thru perforation of well 2066 in the FNL & W FEL of Sec. 3, T10S., R37E. Interested

parties may file objection or request for hearing within 15 days to Oil Conservation Division, P.O. Box 2066, Santa Fe, NM 87501. Local contact party for C.W. Trainer is Donnie Holler, P.O. Box 754, Hobbs, phone 806-393-0371.



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

HOBBS DISTRICT OFFICE '91 NOV 18 AM 10 21

11-15-91

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

- MC _____
- DHC _____
- NSL _____
- NSP _____
- SWD _____
- WFX _____
- PMX _____

Gentlemen:

I have examined the application for the:

<i>C.W. Inainer</i>	<i>Morse A #1-A</i>	<i>28-10-37</i>
Operator	Lease & Well No. Unit	S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
 Jerry Sexton
 Supervisor, District 1

/ed

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: JOCO, LLC - TRAINER OIL Well: MORSE A No. 1 - SWD-454 ^{AMEND}

Contact: KEITH MOORE Title: _____ Phone: 915-687-2505

DATE IN 1-16-96 RELEASE DATE 1-29-96 DATE OUT 2-6-96

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

Original Order: R- _____ 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

6 Total # of AOR 5 # of Plugged Wells
YES Tabulation Complete YES Schematics of P & A's
YES Cement Tops Adequate AOR Repair Required

INJECTION FORMATION

Injection Formation(s) SAN ANDRES Compatible Analysis YES
Source of Water or Injectate AREA PRODUCTION

PROOF of NOTICE

Copy of Legal Notice Information Printed Correctly
 Correct Operators Copies of Certified Mail Receipts
 Objection Received Set to Hearing _____ Date

NOTES: MOVED UP FROM DEVONIAN & RECOMPLETED IN THE
SAN ANDRES

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? YES

COMMUNICATION WITH CONTACT PERSON:

1st Contact: Telephoned Letter 2-6-96 Date Nature of Discussion GIVE VERBAL APPROVAL
2nd Contact: Telephoned Letter _____ Date Nature of Discussion _____
3rd Contact: Telephoned Letter _____ Date Nature of Discussion _____