



RECEIVED
OIL CONSERVATION DIVISION
JUL 29 1994 8 35

February 2, 1994

State of New Mexico
Energy, Minerals and Natural Resources Dept.
Oil Conservation Division
P.O. box 2088
Santa Fe, NM 87504-2088

Gentlemen:

SUBJECT: APPLICATION FOR EXPANSION OF WATERFLOOD
RHODES COOP WATERFLOOD
RHODES YATES SEVEN RIVERS POOL
LEA COUNTY, NM

We request administrative approval to expand the waterflood on the Rhodes Yates Unit. Order No. R-2748, dated July 29, 1964, authorized Texaco to institute a waterflood project.

Six wells will be converted to injection on the W.H. Rhodes B Fed NCT-1, W.H. Rhodes B Fed NCT-2, and W.H. Rhodes A Fed leases. Form C-108 and attachments are enclosed.

Copies of this application with attachments have been sent to the offset operators.

If any additional information is needed, contact Darlene de Aragao at (505) 397-0424.

Sincerely,

T.L. Frazier
Hobbs Area Manager

ddd

Attachments

BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico

Case No. 10948 Exhibit No. 3

Submitted by: Texaco Exploration and
Production Inc.

Hearing Date: April 14, 1994

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Texaco Exploration & Production Inc.
Address: P.O. Box 730, Hobbs, New Mexico 88240
Contact party: Darlene de Aragao Phone: 505-397-0424
- 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 see attachment
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: Terry L. Frazier Title Area Manager

Signature: *Terry L. Frazier* Date: 1/27/94

- * 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. see attachment

**SUMMARY OF ORDER NUMBERS FOR
RHODES COOP**

R-2748	07-29-64	INSTITUTE THE COOP WATERFLOOD
R-2748-A	02-18-93	EXPANSION
WFX-454	08-02-77	EXPANSION
R-9847	02-17-93	EXPANSION
WFX-645	06-17-93	EXPANSION

NEW MEXICO OIL CONSERVATION DIVISION - Form c-108, cont'd

Conversion of the following wells to injection
Rhodes Yates Seven Rivers

W.H. Rhodes B Fed NCT-1

#11 1980' FSL, 1980' FWL, 26-26S-37E, UNIT E

#12 660' FSL, 1980' FEL, 26-26S-37E, UNIT O

W.H. Rhodes B Fed NCT-2

#5 1980' FSL, 1980' FEL, 28-26S-37E, UNIT J

#6 660' FSL, 1880' FEL, 28-26S-37E, UNIT O

W.H. Rhodes A Fed

#3 660' FSL, 660' FWL, 22-26S-37E, UNIT M

#5 555' FSL, 2085' FWL, 22-26S-37E, UNIT O

III. See attached injection well data sheets.

IV. Expansion of existing project order No. R-2748

V. See attached map.

VI. See attached well information and schematics.

VII. 1). Average injection rate - 400 BWPD
Maximum injection rate - 600 BWPD

2). Closed injection system

3). Average injection pressure 1100 psi
Initial maximum injection pressure - 600 psi (0.2
psi/ft).
Maximum injection pressure - 2000 psi (possible after
step rate tests).

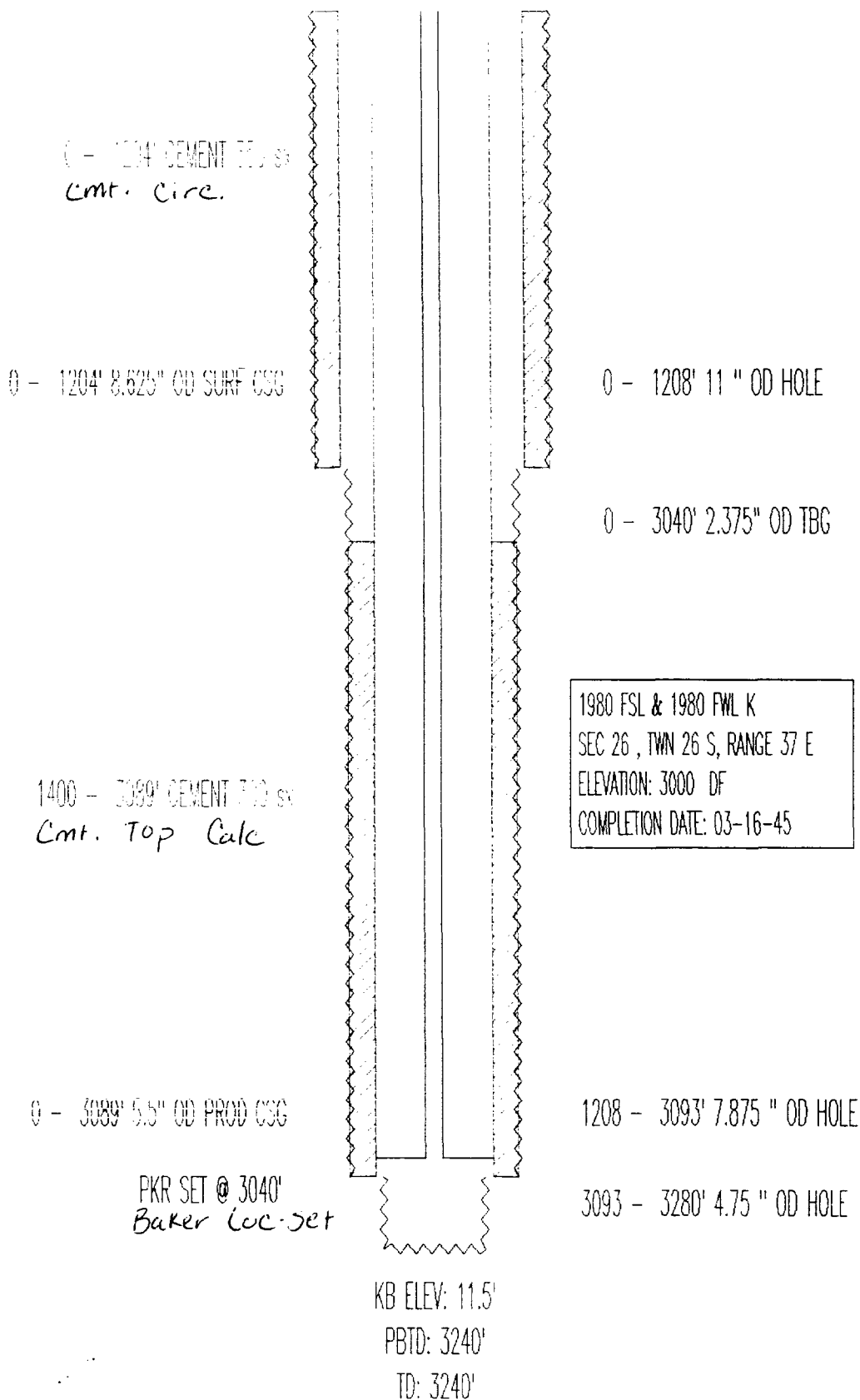
4). Yates Seven Rivers produced water
Santa Rosa and Ogallala fresh water for make-up.

IX. 15% HCL NEFE acid and fracturing.

XII. N/A

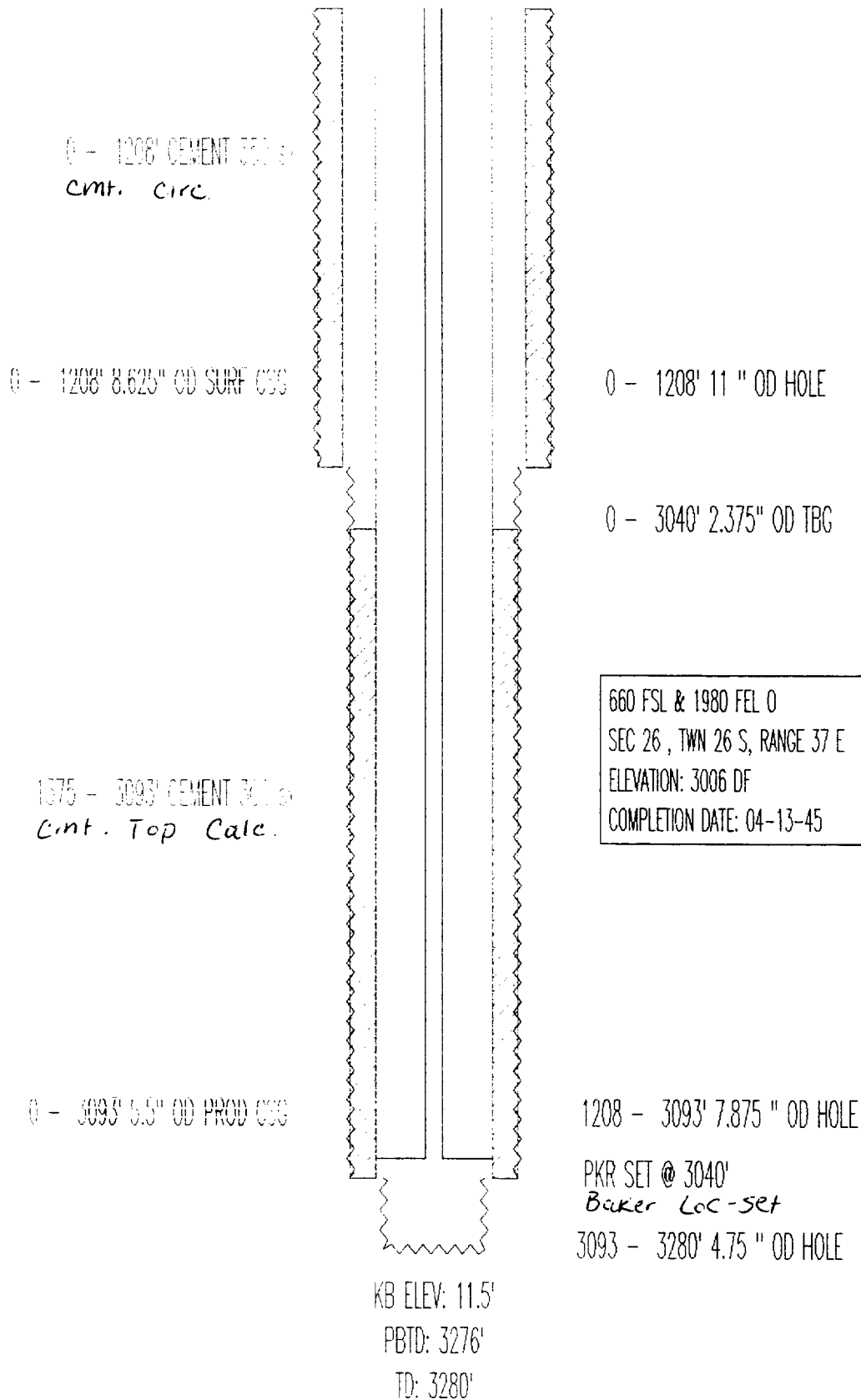
PROPOSED INJECTION WELL

TEXACO E&P
RHODES, W.H. B. FED. NCT-1 #11
API# 3002512057



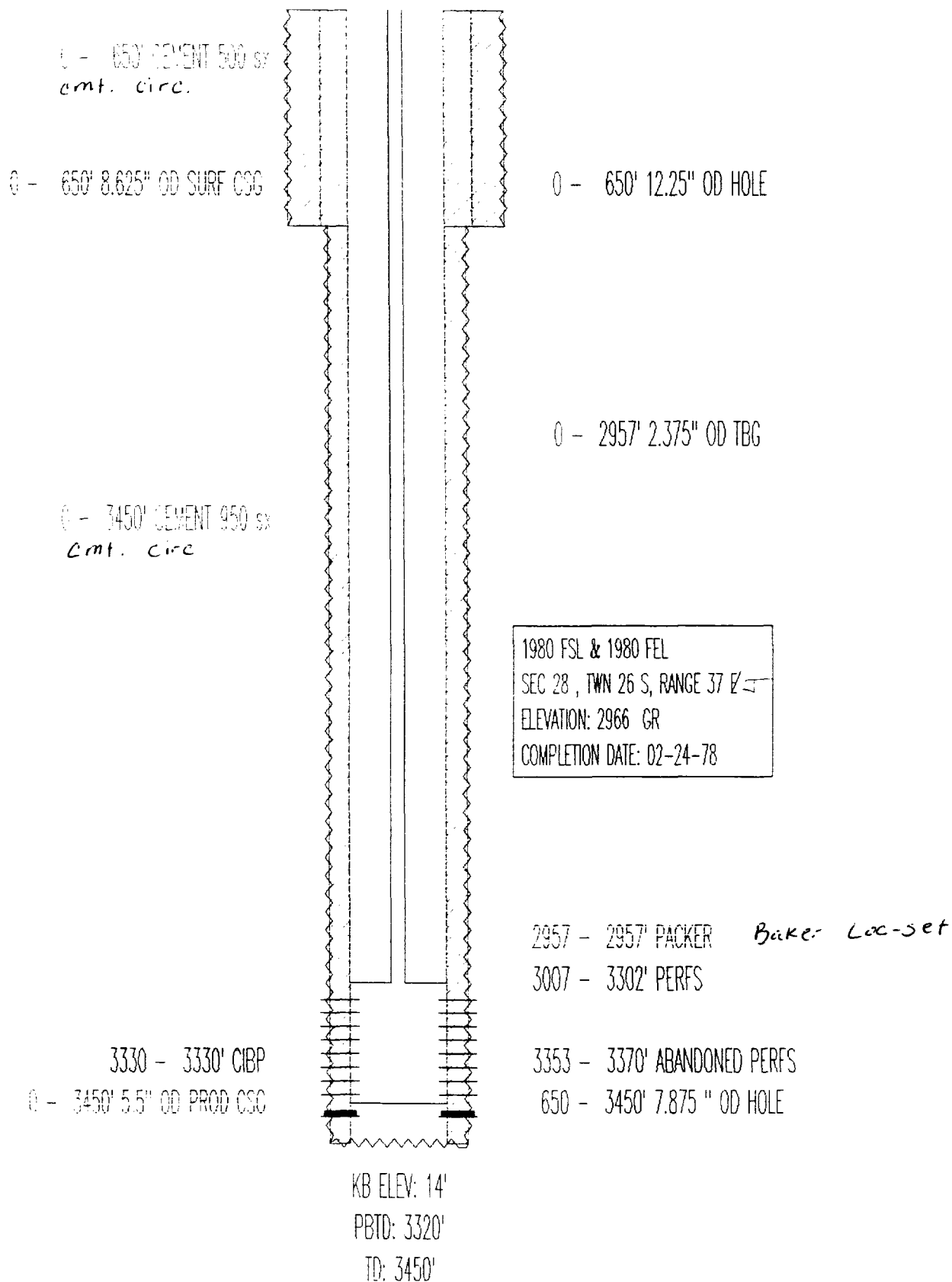
PROPOSED INJECTION WELL

TEXACO E&P
RHODES, W.H. B FED. NO. 12
API# 3002511980



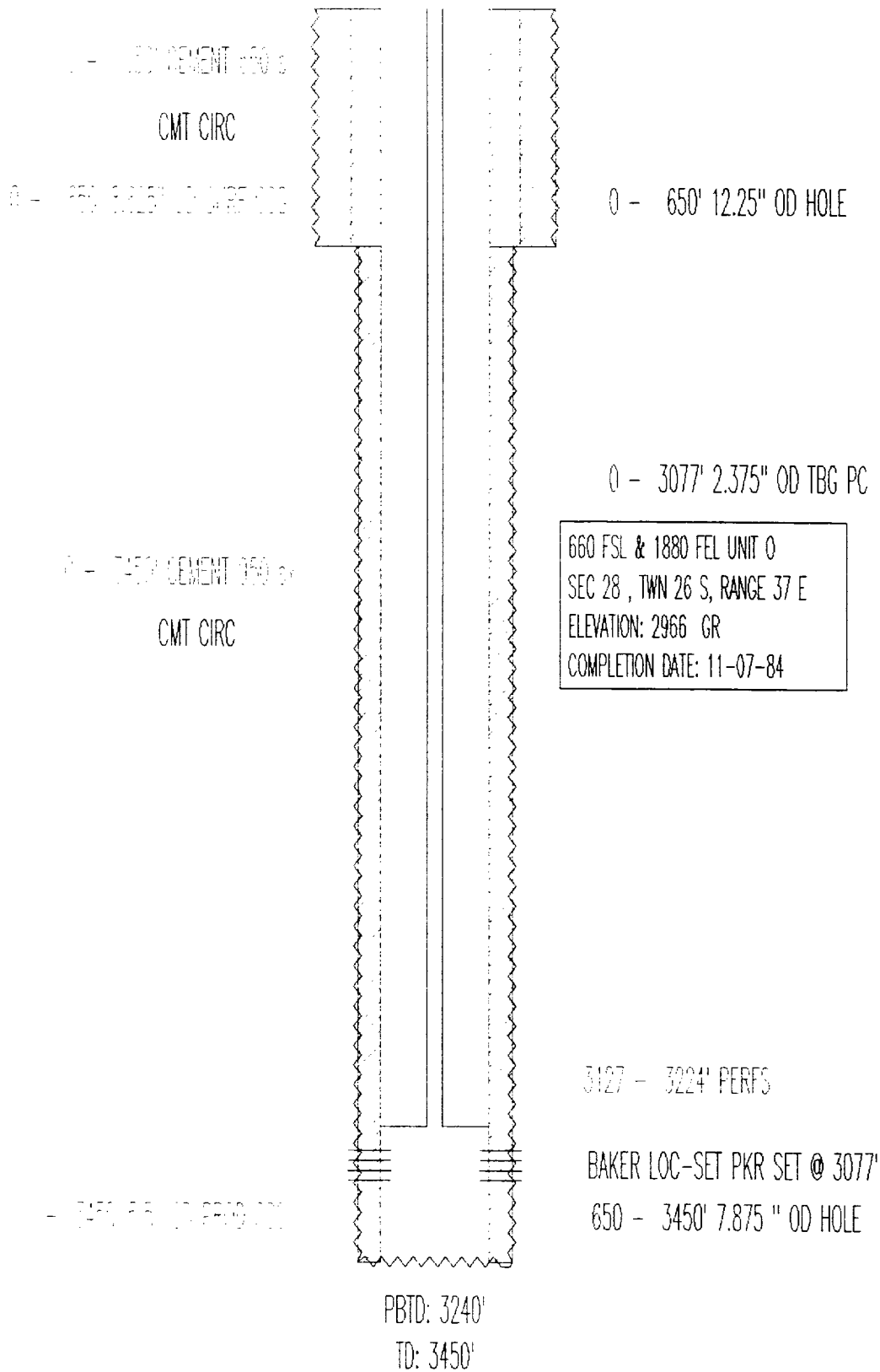
PROPOSED INJECTION WELL

TEXACO E&P
RHODES W.H. B FED NCT-2 NO. 5
API# 3002525692



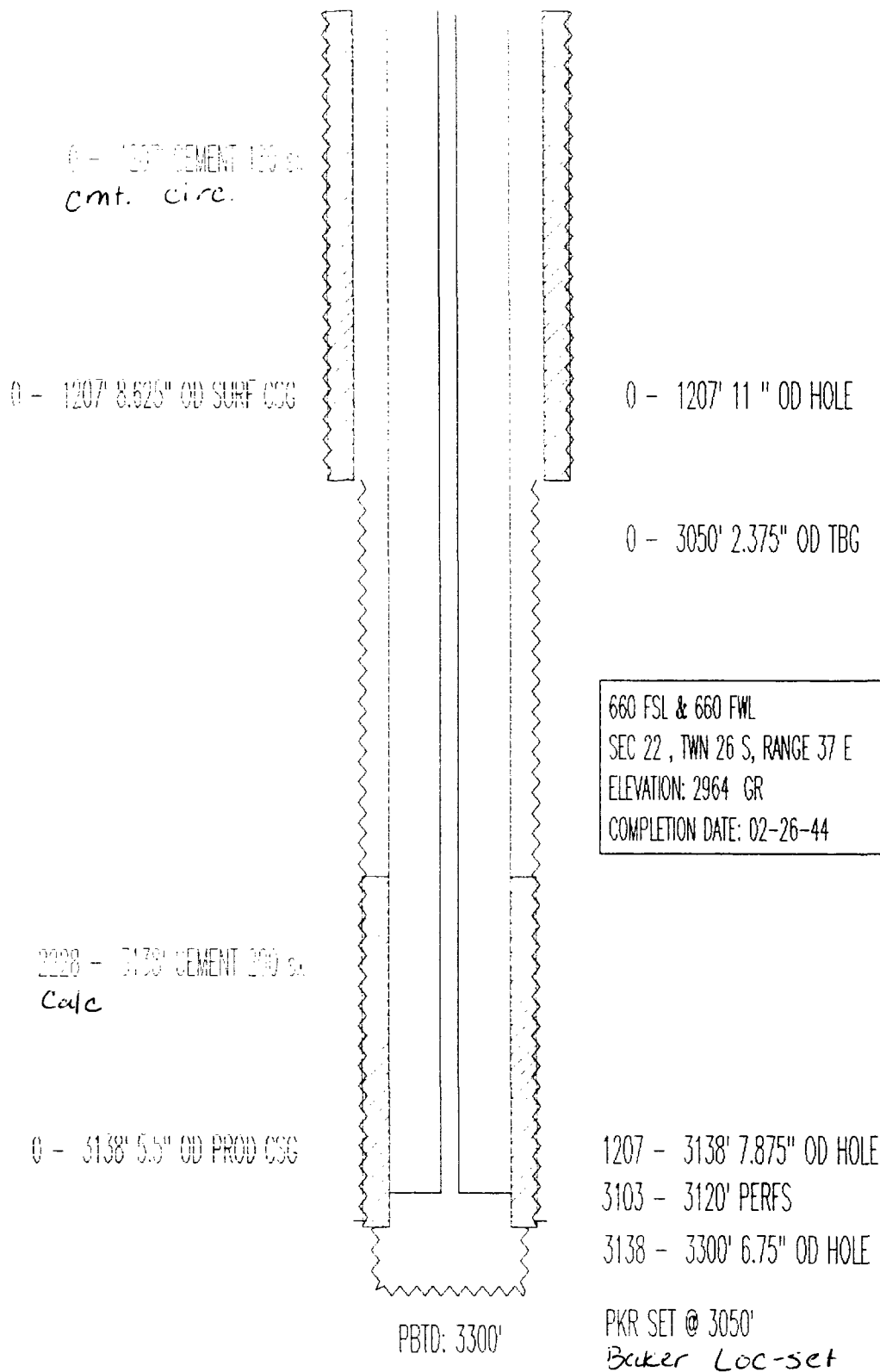
PROPOSED INJECTION WELL

TEXACO INC
RHODES, W.H. B FED NCT-2 #6
API# 3002528911



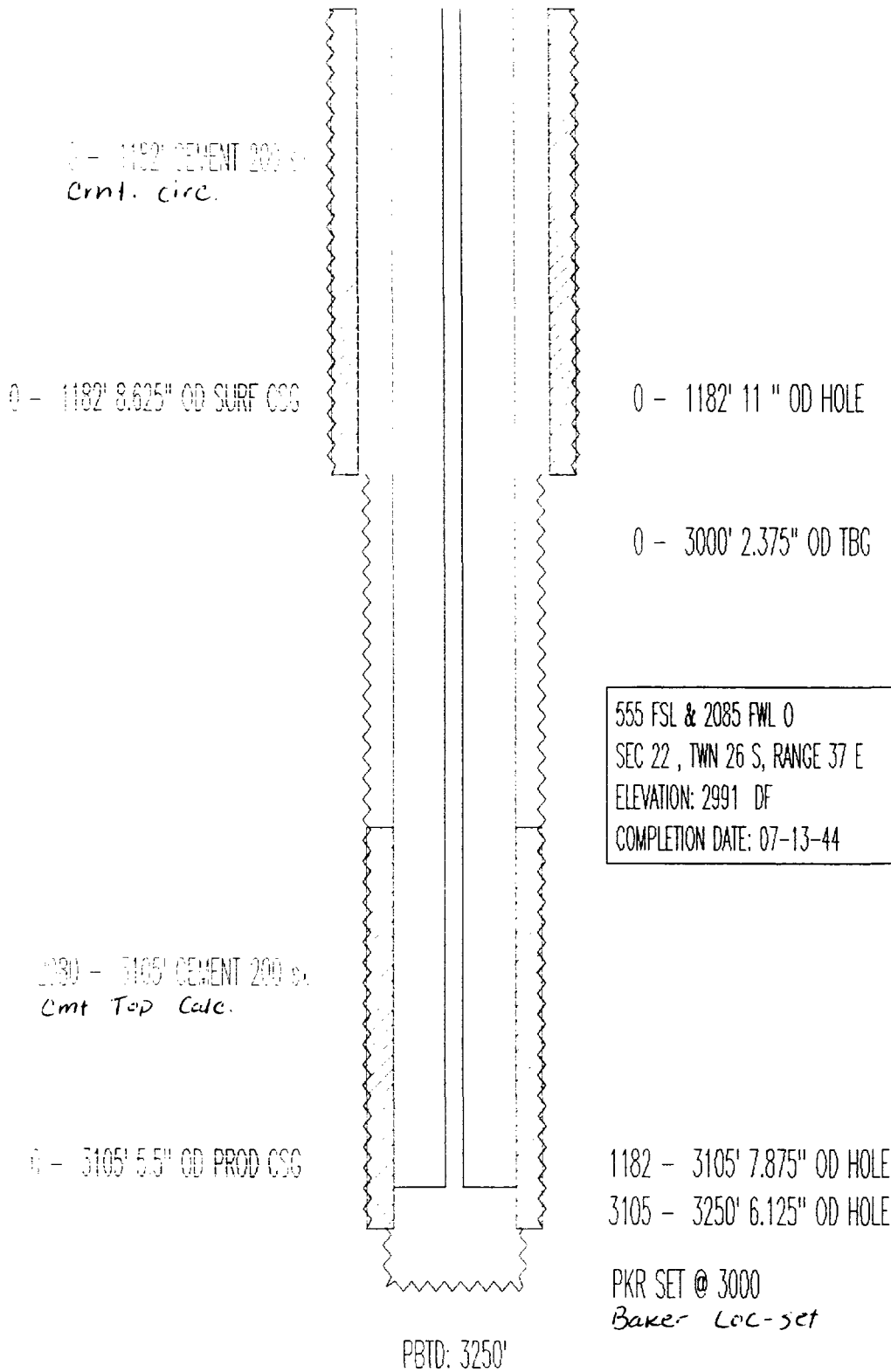
PROPOSED INJECTION WELL

TEXACO E&P
RHODES, W.H. A FED. #3
API# 3002512035



PROPOSED INJECTION WELL

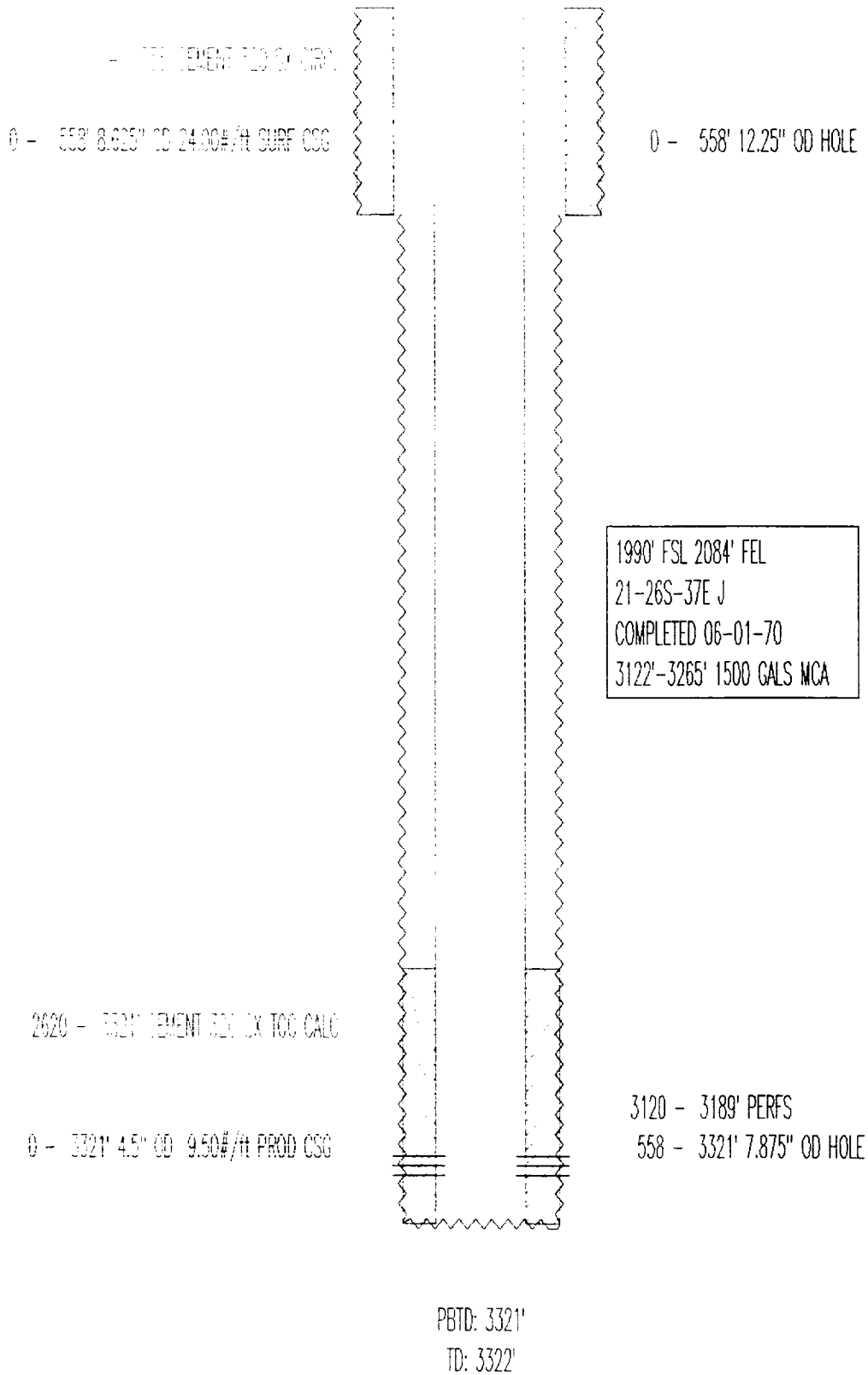
TEXACO E&P
RHODES, W.H. A FED. #5
API# 3002512037



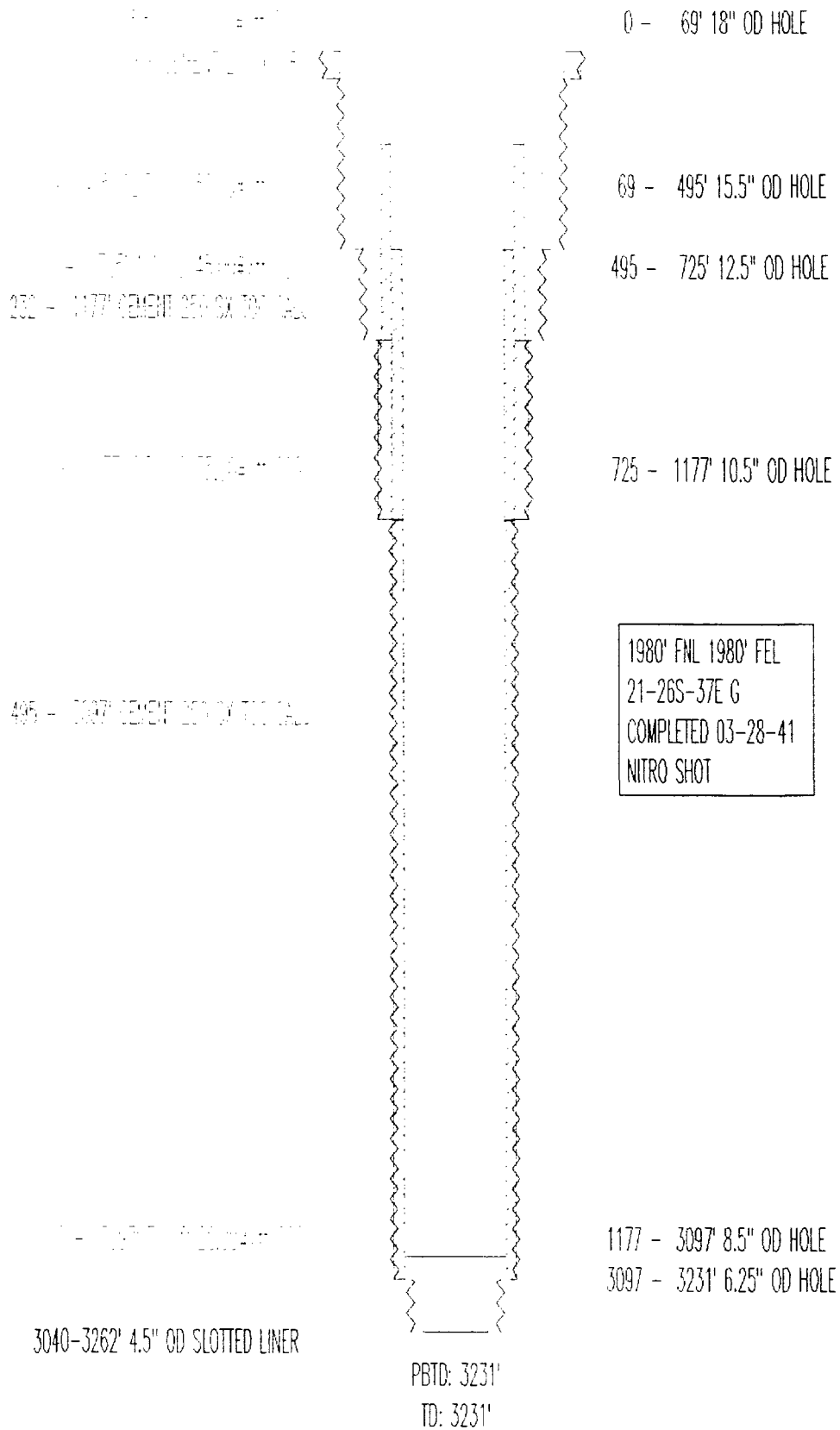
WELLS WITHIN AREA OF REVIEW THAT HAVE NOT BEEN SUBMITTED IN PAST

LEASE NAME	WELL TYPE	STATUS	OPERATOR
=====	=====	=====	=====
MOBERLY RHODES WATERFLOOD #4	OIL		MERIDIAN OIL INC
MOBERLY RHODES WATERFLOOD #5	OIL		MERIDIAN OIL INC
MOBERLY #1	OIL	P&A	KRUPP & FLAHERLY
WILLS FEDERAL #4	OIL		SEA LAND OIL CO.
WILLS FEDERAL #7	INJ		SEA LAND OIL CO.
RHODES, W.H. A FEDERAL #6	INJ		TEXACO E&P

MOBERLY RHODES WATERFLOOD 4
MERIDIAN OIL INC.
INJECTOR



MOBERLY RHODES WATERFLOOD 5
MERIDIAN
PRODUCER



MOBERLY 1
KRUPP & FLAHERTY
P&A

21-26S-37E J
COMPLETED 9-26-40

0 - 58' 18" OD HOLE

0 - 58' 18" OD HOLE

58 - 470' 15.5" OD HOLE

58 - 470' 15.5" OD HOLE

470 - 683' 12.5" OD HOLE

470 - 683' 12.5" OD HOLE

683 - 1183' 10" OD HOLE

683 - 1183' 10" OD HOLE

1183 - 3070' 8.5" OD HOLE

3070 - 3254' 6.25" OD HOLE

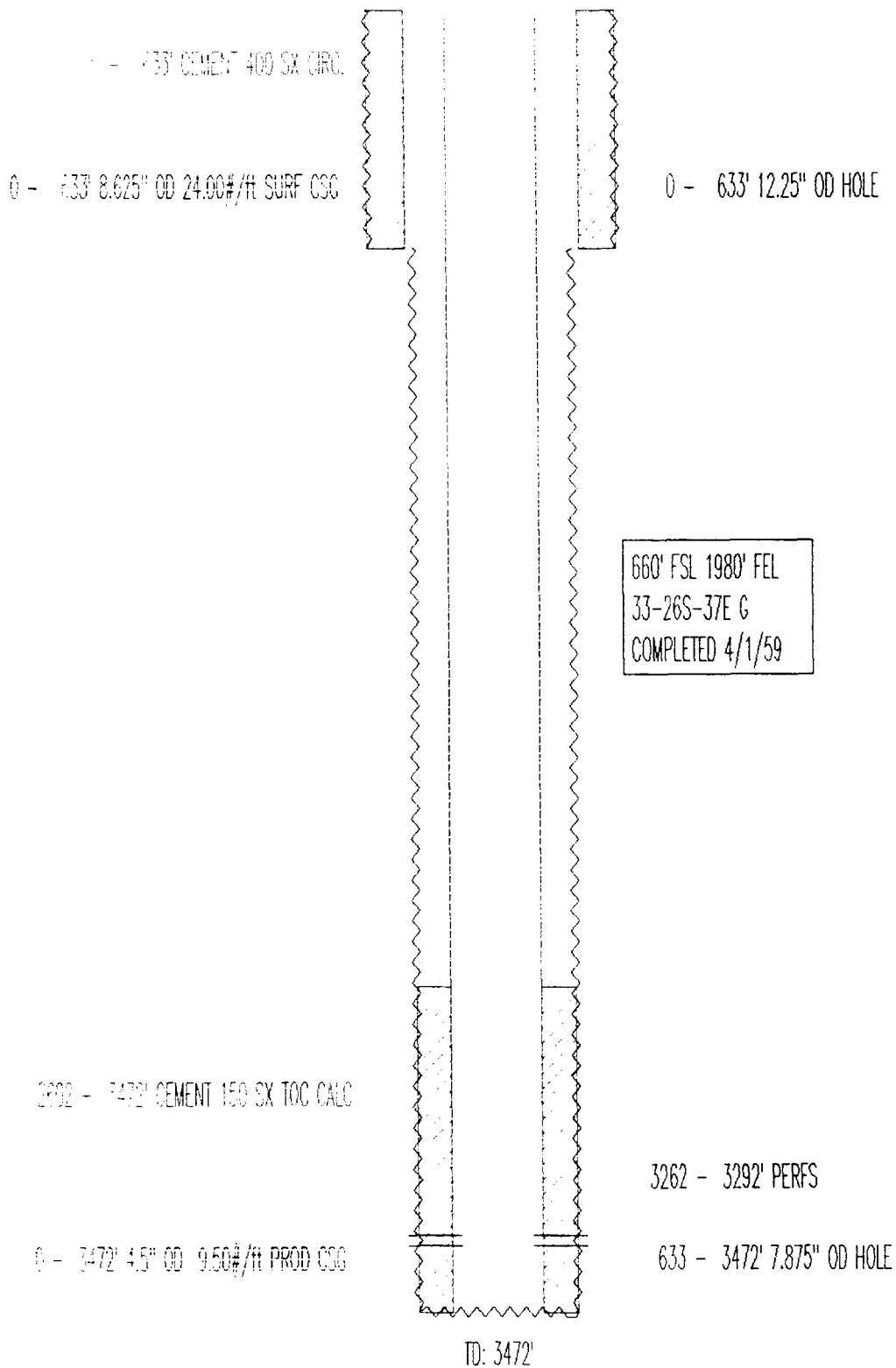
HOLE SIZE UNKNOWN

NITRO SHOT

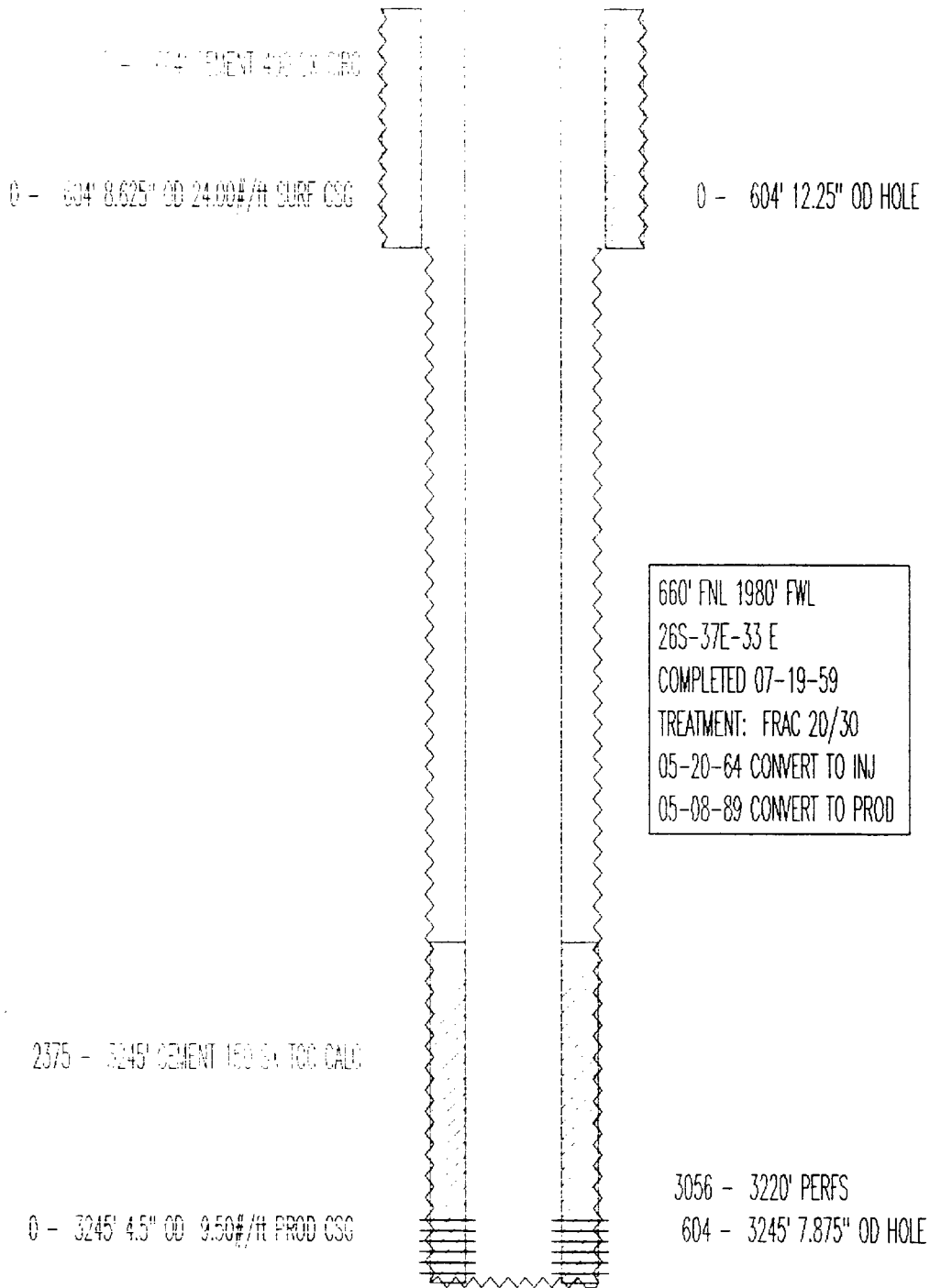
PBTD: 3254'

TD: 3254'

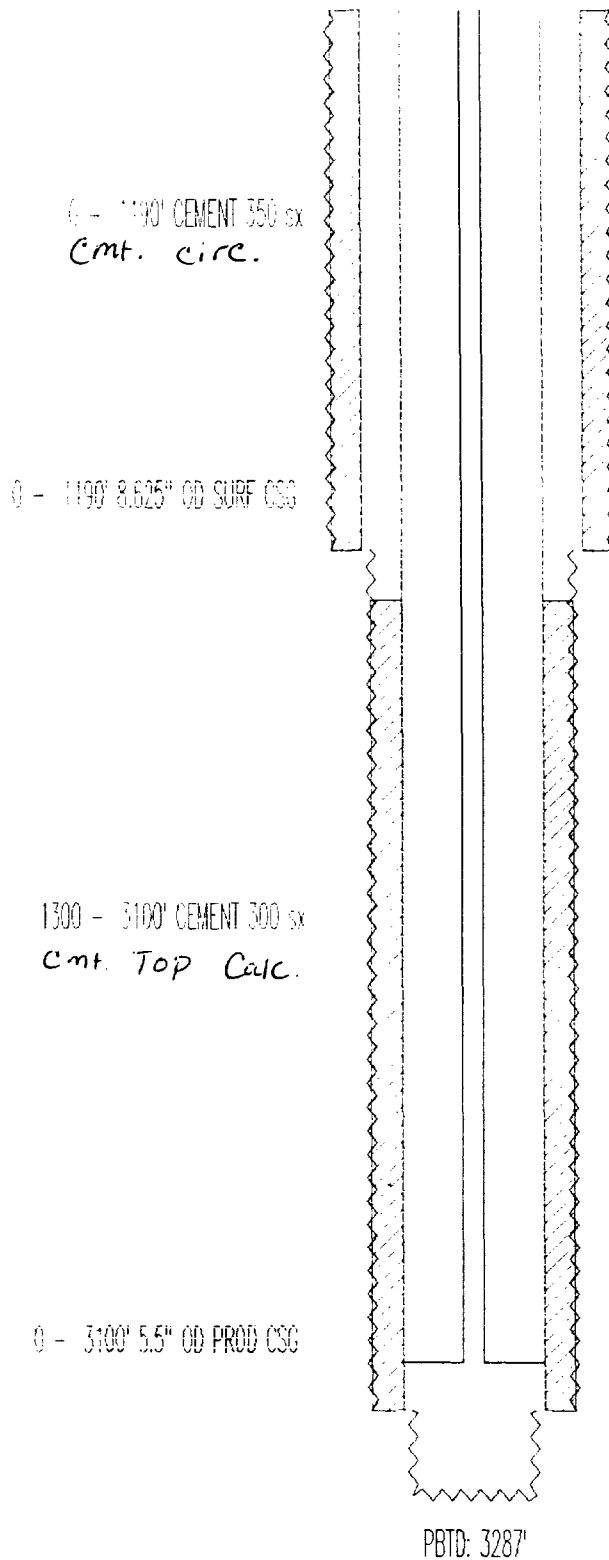
WILLS FEDERAL 4
SEA SAND OIL COMPANY
PRODUCER



WILLS FEDERAL 7
SEA SAND OIL COMPANY
PRODUCER



TEXACO E&P
RHODES, W.H. A FED. NO. 6
API# 3002512038



0 - 1190' 11 " OD HOLE

0 - 2994' 2.375" OD TBG

1980 FSL & 660 FWL
SEC 22 , TWN 26 S, RANGE 37 E
ELEVATION: 2987 ES
COMPLETION DATE: 05-22-45

COMPLETION INTERVAL: 3088 - 3287 ()
IP: 27 BOPD, 0 MCFD, 0 BWPD (FLOWING)

2094 - 2994' PACKER Baker Loc-Set

1190 - 3100' 7.875 " OD HOLE

3100 - 3287' 4.75 " OD HOLE

Z 004 855 462



Receipt for Certified Mail

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

Sent to <i>Bureau of Land Management</i>	
Street and No. <i>PO Box 27115</i>	
P.O., State and ZIP Code <i>Santa Fe, NM 87502-0115</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	
Postmark or Date	

PS Form 3800, March 1993

Z 004 855 461



Receipt for Certified Mail

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(See Reverse)

Sent to <i>Tom & Evelyn Lineberry</i>	
Street and No. <i>802 S. Main</i>	
P.O., State and ZIP Code <i>Midland, TX 79701</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	
Postmark or Date	

PS Form 3800, March 1993

Z 004 855 459



Receipt for Certified Mail

No Insurance Coverage Provided
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(See Reverse)

Sent to <i>Amerada Hess Corp</i>	
Street and No. <i>PO Box 2046</i>	
P.O., State and ZIP Code <i>Tulsa, OK 74102</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	
Postmark or Date	

PS Form 3800, March 1993

Z 004 855 458



Receipt for Certified Mail

No Insurance Coverage Provided
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Sent to <i>Doyle Hartman</i>	
Street and No. <i>P.O. Box 10426</i>	
P.O., State and ZIP Code <i>Midland, TX 79702</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	
Postmark or Date	

PS Form 3800, March 1993

Z 004 855 419



Receipt for Certified Mail

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Sent to <i>Meridian Oil Inc.</i>	
Street and No. <i>P.O. Box 51810</i>	
P.O., State and ZIP Code <i>Midland, TX 79710</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, March 1993

Z 004 855 453



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(See Reverse)

Sent to <i>Oxy USA Inc</i>	
Street and No. <i>P.O. Box 300</i>	
P.O., State and ZIP Code <i>Tulsa, OK 74102</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, March 1993

Z 004 855 454



Receipt for Certified Mail

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Sent to <i>Smith & Harris Inc.</i>	
Street and No. <i>1110 N Big Spring</i>	
P.O., State and ZIP Code <i>Midland, TX 79901</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, March 1993

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(See Reverse)

Sent to <i>Mack Energy Corp.</i>	
Street and No. <i>P.O. Box 276</i>	
P.O., State and ZIP Code <i>Artesia, NM 88211</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, March 1993

Z 004 855 456



Receipt for Certified Mail

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(See Reverse)

PS Form 3800, March 1993

Sent to <i>Marathon Oil Co.</i>	
Street and No. <i>PO Box 552</i>	
P.O. State and ZIP Code <i>Midland, TX 79702</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date <i>APR 1 1993</i>	

Z 004 855 460



Receipt for Certified Mail

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

PS Form 3800, March 1993

Sent to <i>Sea Sand Oil Co.</i>	
Street and No. <i>PO Box 101777</i>	
P.O. State and ZIP Code <i>Ft Worth, TX 76185</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom Date, and Addressee's Address	
TOTAL Postage & Fees	\$1
Postmark or Date <i>APR 1 1993</i>	

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I. Kathi Bearden

General Manager

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

January 28, 1994

and ending with the issue dated

January 28, 1994

Kathi Bearden
General Manager

Sworn and subscribed to before

me this 31 day of

January, 1994

Charlene Perrini

Notary Public.

My Commission expires
March 15, 1997

(Seal)

LEGAL NOTICE
January 28, 1994

Notice is hereby given of the application of Texaco Exploration and Production Inc., Attention: Terry L. Frazier, Area Manager, P.O. Box 730, Hobbs, New Mexico, 88240, Telephone (505) 393-7191, to the New Mexico Oil Conservation Commission, Energy and Minerals Department, for approval of the following wells to be converted to injection for the purpose of expanding waterflood.

Lease/Unit Name: Rhodes Yates Unit #1 Lea Co., NM 1980' FSL, 660' FEL 21-26S-37E UNIT I

Lease/Unit Name: W.H. Rhodes B Fed. NCT-1 Lea Co., NM

#11 1980' FSL, 1980' FWL 26-26S-37E Unit K

#12 660' FSL, 1980' FEL 26-26S-37E Unit O

Lease/Unit Name: W.H. Rhodes A Fed. Lea Co., NM

#3 660' FSL, 660' FWL 22-26S-37E Unit E

#5 555' FSL, 2085' FWL 22-26S-37E Unit O

Lease/Unit Name: W.H. Rhodes B Fed. NCT-2 Lea Co., NM

#5 1980' FSL, 1980' FEL 28-26S-37E Unit J

#6 660' FSL, 1880' FEL 28-26S-37E Unit O

The injection formation is the Rhodes Yates Seven Rivers at a depth of 3000' below the surface of the

ground. Expected maximum injection rate is 600 BPD, and expected maximum injection pressure is 2000 psi. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501, within fifteen days of this publication.

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.

WFX-45
645

26S
37E



TEXACO INC.
HOBBS

U.S.A.
NM

RHODES YATES WATERFLOOD
LEA COUNTY, NEW MEXICO

Scale: 1"=1000'
C. E. SADLER
29-MAR-91

