WFX 11/23/98

745

Chevron

November 2, 1998

APPLICATION FOR AUTHORIZATION
TO INJECT - OCD FORM C-108
EUNICE MONUMENT SOUTH UNIT AREA B
EUNICE MONUMENT OIL POOL
LEA COUNTY, NEW MEXICO

Chevron U.S.A. Production Company
P.O. Box 1150
Midland, TX 79702

6 1998

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

Attention: Mr. William J. Lemay, Director

Gentlemen:

Chevron U.S.A. Production Co. requests your approval of the subject application to inject water into Eunice Monument South Unit Area B Well No. 853 located in Unit A, Section 10, Township 20 South, Range 36 East, Lea County, New Mexico.

Chevron will convert this producer to an injector due to its poor performance. This conversion will provide the much needed injection support in this area and enhance the production of the EMSUB secondary recovery unit.

Attached is an OCD Form C-108 with information relative to the water injection conversion of the EMSUB #853.

A copy of this letter and application is being sent to applicable surface land owners and offset operators by certified mail as their notice.

Your prompt consideration and approval of this application will be greatly appreciated. If further information is required please contact me at (915) 687-7645.

Sincerely,

Tracy G. Love
Petroleum Engineer
New Mexico Waterfloods

TL
Attachments

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: Chevron USA Production Co.

Address: PO Box 1150 Midland TX 79702

Contact party: Tracy Love - Petroleum Eng. Phone: 915-687-7645

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 R-7766.

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: Tracy G. Love Title Petroleum Engineer

Signature: Tracy Love Date: 10/8/98

* 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. Earlier submittal presented as exibits in Case No. 839 - (Commissioners hearing held on 11-07-84 (Order No. 7766 - Effective 12-27-84)

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.

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.

EMSUB # 853 Conversion to Injection
Eunice Monument South Unit
Lea County, NM

INFORMATION FOR NMOCD FORM C-108

ITEM I
(See OCD Form C-108)

ITEM II
(See OCD Form C-108)

ITEM III
See attached wellbore schematic.

ITEM IV
(See OCD Form C-108)

ITEM V
This was originally submitted as Exhibit No. 28 Case No. 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). Smaller area maps relating to the EMSUB #853 conversion are attached.

ITEM VI
This was originally submitted as Exhibit No. 31 of Case 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). Please note attached schematic diagrams of new drilled wells within the area of review since the effective date of the Order. No existing wells at the time of the original Order are known to have been plugged and abandoned.

ITEM VII
See attached table showing items VII (1), (2), and (3) for the subject well of this C-108 application. Items VII (4) and (5) are consistent with the original C-108 application and its Exhibit No. 33a.

ITEM VIII
This was originally submitted as Exhibit No. 34a and 36 of Case No. 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). Copies of these Exhibits are enclosed.

ITEM IX
See attached workover procedure.

ITEM X
Logging and test data have been filed with the OCD.

ITEM XI
This was originally submitted as Exhibit No. 37 of Case 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). A copy of this Exhibit is enclosed.

ITEM XII
This was originally submitted as Exhibit No. 38 of Case 8398 heard at a Commissioner's hearing on 11-07-84 (Order No. 7766 - effective 12-27-84). A copy of this Exhibit is enclosed.

EMSUB # 853 Conversion to Injection
Eunice Monument South Unit
Lea County, NM

ITEM XIII

All surface land owners and offset operators are being notified by Certified Mail with a copy of the C-108 Form. A request for publication in the Hobbs News-Sun was mailed on 10-6-98. The actual newspaper add and an affidavit of publication will be forwarded to the OCD as soon as it is obtained.

Chevron

Chevron U.S.A. Production Company
P.O. Box 1150
Midland, TX 79702

October 6, 1998

REQUEST TO PUBLISH
LEGAL NOTICE

Hobbs News-Sun
201 N. Thorp
Hobbs, NM 88240

Attention: Classified Department

Chevron U.S.A. Production Company requests that you publish the attached notice in your newspaper, one time only, as soon as possible.

Please mail the invoice to the letterhead address, attention Tracy Love. Also, please attach a copy of the notice as run in your newspaper and an affidavit certifying publication of the attached notice and the date of publication.

Your prompt assistance in this matter will be greatly appreciated. Questions may be directed to Mr. Tracy Love at (915) 687-7645.

Sincerely,

Tracy Love
Petroleum Engineer

TL/lcj
Attachment

AFFIDAVIT OF PUBLICATION

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

October 15 1998

and ending with the issue dated

October 15 1998

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 14th day of

October 1998

Jodi Henson

Notary Public.

My Commission expires
October 18, 2000
(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.

01102480000 02520918

Chevron U.S.A. Production Comp
P.O. Box 1150
a/c#
MIDLAND, TX 79702

LEGAL NOTICE
October 15, 1998

Chevron U.S.A. Production Company has applied to the Oil Conservation Division of the State of New Mexico for approval to convert #853 to an injection well in their Eunice Monument South Unit Area B. This well is designed to improve the efficiency of the waterflood pattern and enhance the production of the EMSUB secondary recovery project. This well is located in Section 10, Unit A, Township 20 South, Range 36 East, NMPM, Lea County, New Mexico. Water will be injected into the unitized interval of the Eunice Monument Grayburg-San Andres Pool which has an upper limit of 100 feet below mean sea level or the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation. Injection will be at an expected maximum rate of 1500 barrels of water per day and an expected maximum pressure of 750 pounds per square inch. Persons wanting to contact Chevron U.S.A. should direct their inquiries to Tracy Love, Chevron U.S.A., P.O. Box 1150, Midland, TX 79702, phone (915) 687-7645.
Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87501 within 15 days of this notice.
#16205

LEGAL NOTICE
(10/6/98)

Chevron U.S.A. Production Company has applied to the Oil Conservation Division of the State of New Mexico for approval to convert #853 to an injection well in their Eunice Monument South Unit Area B. This well is designed to improve the efficiency of the waterflood pattern and enhance the production of the EMSUB secondary recovery project. This well is located in Section 10, Unit A, Township 20 South, Range 36 East, NMPM, Lea County, New Mexico. Water will be injected into the unitized interval of the Eunice Monument Grayburg-San Andres Pool which has an upper limit of 100 feet below mean sea level or the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation. Injection will be at an expected maximum rate of 1500 barrels of water per day and an expected maximum pressure of 750 pounds per square inch. Persons wanting to contact Chevron U.S.A. should direct their inquires to Tracy Love, Chevron U.S.A., P.O. Box 1150, Midland, TX 79702, phone (915) 687-7645.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87501 within 15 days of this notice.

30-025-04195
FA 53430:01

Proposed Well Data Sheet

Lease & Wellno EMSU-B #853 Field / Pool Eunice Monument Date 10/7/98
Location 660 Feet From North Line and 330 Feet From East Line
Section 10, T20S, R36E, Unit A County Lea Operator Chevron

-GE 3600'
KDB to GE ____'
DF to GE ____'

10 3/4" OD ____ # Csg.
set @ 285' w/ 225 sx.
Cmt Circ.? yes
TOC @ ____ by ____

7 5/8" OD 26.4# ____ Thd
Gr. ____, ____ Csg.
set @ 1236' w/ 425 sx.
Cmt Circ.? yes
TOC @ surf by Calc.

2 3/8" IPC tbg

T/Unit - 3690'

5 1/2" Baker Loc-Set nickel plated/plastic coated pkr & XL On/Off Tool @ 3710'

3710'

T/Grayburg 3729'

3748-59' (38 holes)

5 1/2" OD 17 # ____ Thd
Gr. ____, ____ Csg.
set @ 3778' w/ 425 sx.
Cmt Circ.? yes
TOC @ surf by Calc

PBD 4060'
TD 4150'

Date Completed 12/29/36
Initial Formation Grayburg
From: 3778' to 3900' GOR ____
Initial: Production 102 BOPD ____ BWPD
Or: Injection ____ BWPD @ ____ psig
Completion Data:

Natural completion

Subsequent Workover or Reconditioning:

2/58 - Acdz w/ 2000 gals 15% NEA
B: 62 BO/97 BW/1330 MCFPD
A: 93 BO/113 BW/1478 MCFPD
12/65 - Well dead. Placed on cod-pump.
3/82 - Perf 3748-56' w/ 2 JHPF. String-Shot OH 3805-95'. Acdz OH w/ 1280 gals 15% NE HCl. Acdz perfs w/ 2775 gals 15% NEFE HCl. C/O to TD @ 3900'.
3/84 - Spotted 1 bbl 15% NEA 3713'-56'. Perf 3749-59' (20 holes). Set pkr @ 3710' and acdz w/ 12 bbls 15% NEFE HCl. Swabbed + RTP. A- 0 BO/168 BW in 24 hrs.
7/91 - Deepen from 3900'-4150'. Acdz 3778'-4150' OH w/ 1000 gal 15% NEFE

Overlying - Eumont Y-SR-Q Gas Pool
Underlying - No productive Pools

T/Rustler - 1140
T/Salt - 1235
B/Salt - 2375
T/Yates - 2583
T/7 Rivers - 2883
T/Queen - 3363
T/Penrose - 3505
T/Unit - 3690
T/Grayburg - 3729
T/San Andres - 4150 +/-

Present Inj. ____ bwpd @ ____ psi Date ____
Present Prod. ____ bopd ____ bwpd Date ____
Gas ____ mcfpd

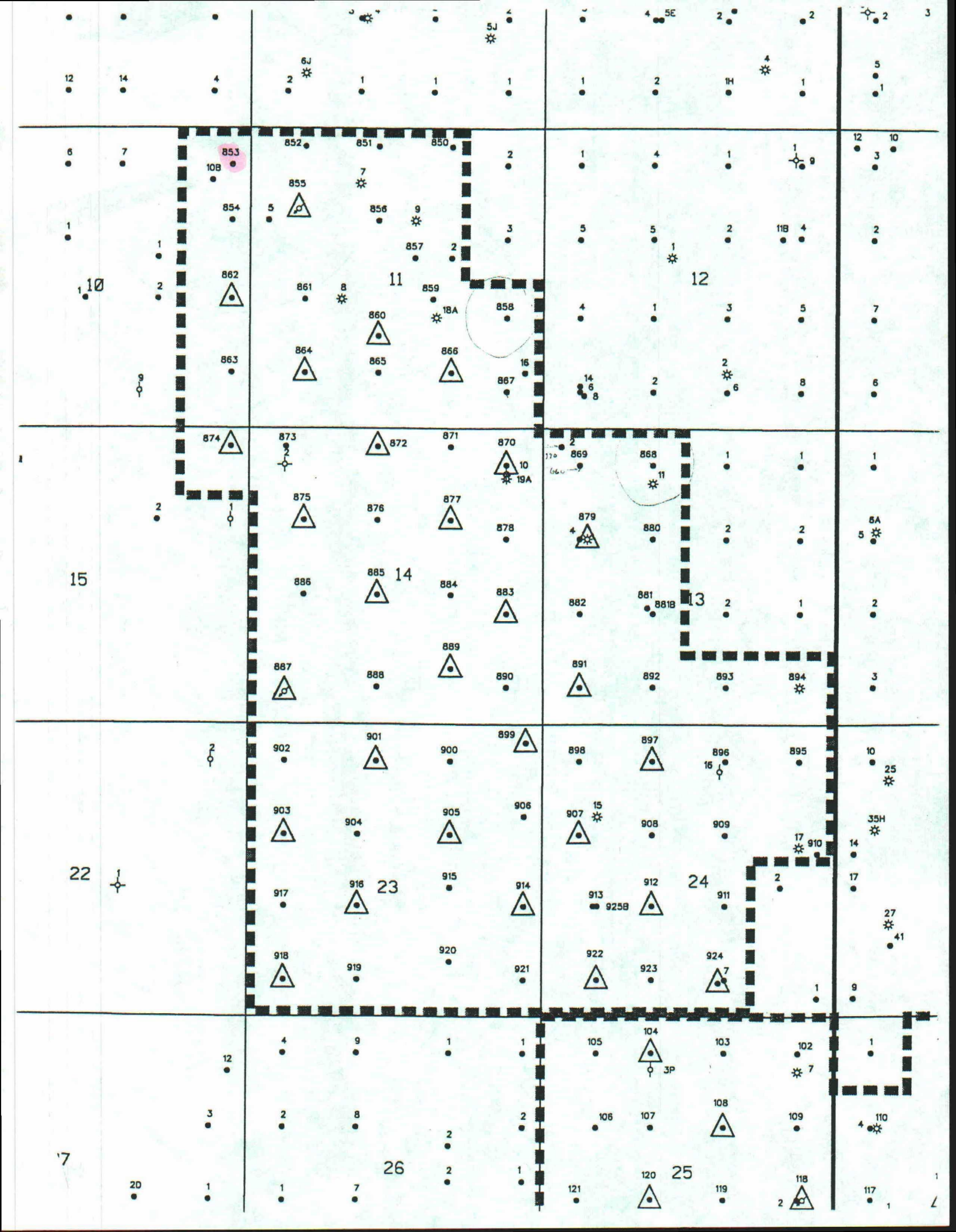
EMSUB #853
30-025-04198
UWDSA-J7004-500

PROCEDURE TO CONVERT TO INJECTION:

1. MIRU PU. POH w/ rods. NU BOP. Tag bottom & check for fill. TOH w/ tbg.
2. If fill is above 4060+/-, TIH w/ WS & 4-3/4" bit. CO to 4060+/-. TOH.
3. If PBTD is below 4060+/-, plug-back w/ 20/40 sand to 4060+/-.
4. TIH w/ 5-1/2" nickel-plated/plastic-coated Baker Loc-Set pkr w/ 1.81" profile, XL On-Off Tool, & 2-3/8" IPC tbg. Use stabbing guide to run IPC tbg.
5. Set inj pkr @ 3710+/-.

16. ND BOP. NU inj WH. Perform OCD MIT. RD PU.
17. Clean and clear location.

T. Love 687-7645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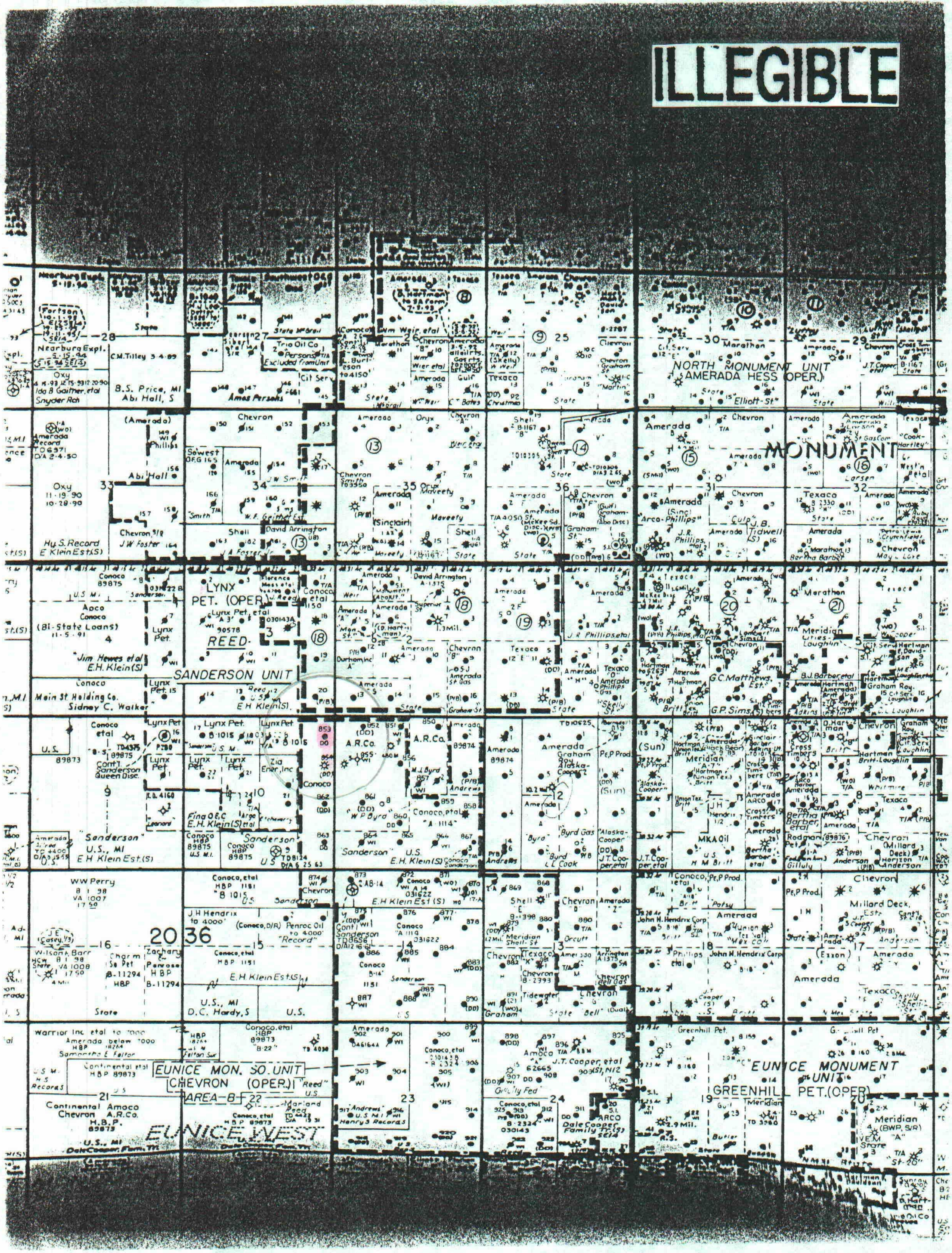
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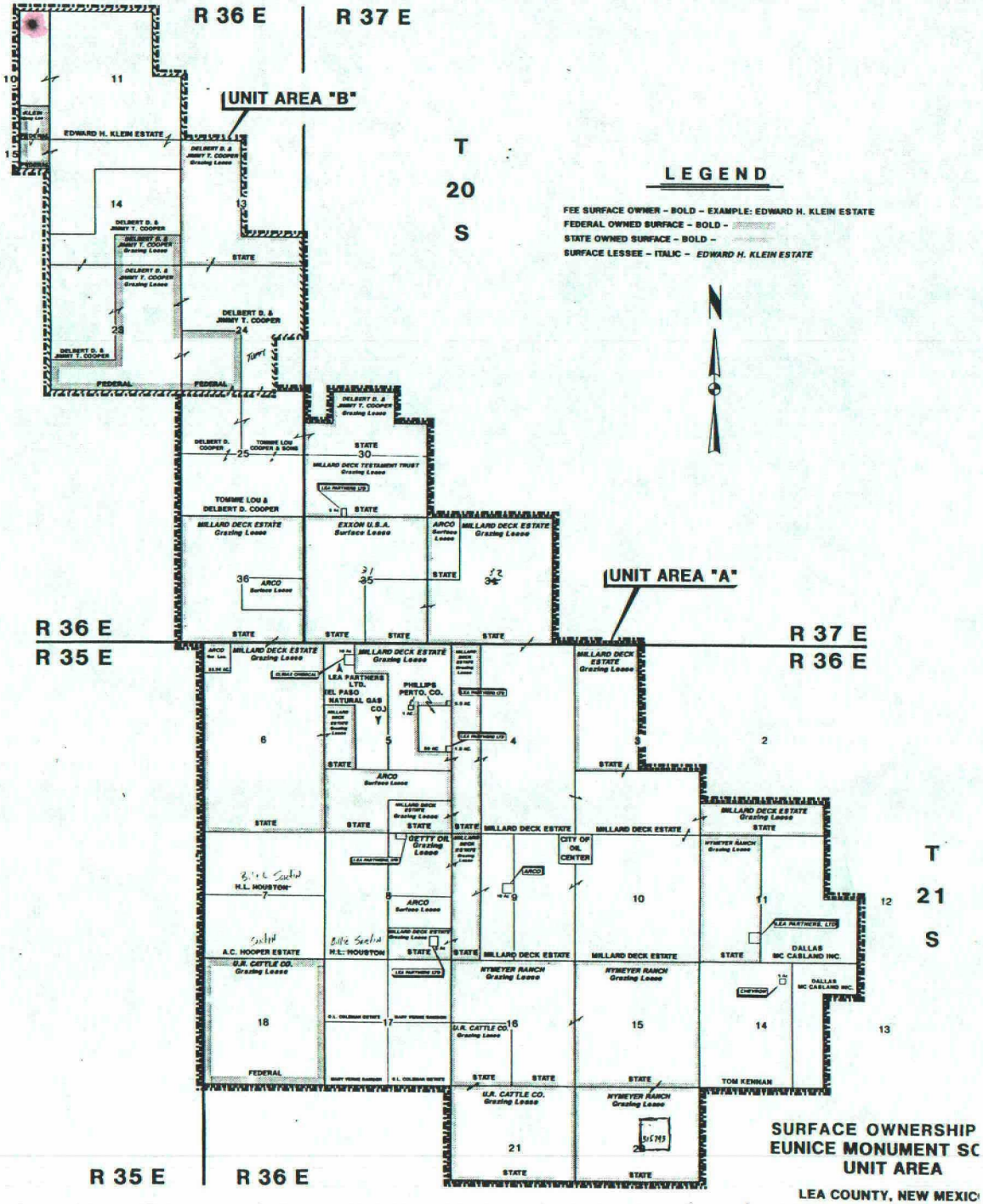
LYNX PET. (OPER.)
REED
SANDERSON UNIT
EUNICE MON. SO. UNIT
CHEVRON (OPER.)
AREA-B
EUNICE WEST
EUNICE MONUMENT UNIT
GREENHILL PET. (OPER.)
Nearburg Expl.
C.M.Tilley
B.S. Price, MI
Abi Hall, S
Amos Persons
Trio Oil Co.
Cit Serv
Marathon
Chevron
Amerada
Texaco
Shell
Oxy
Conoco
Sanderson
E.H. Klein Est.(S)
A.R.Co.
J.T. Cooper, etal
Dale Cooper
ARCO
Meridian
Greenhill Pet.
Continental Amoco
Zia Ener., Inc.
W.W. Perry
J.H. Hendrix
John H. Hendrix Corp.
Millard Deck
Graham
Alaska-Cooper
G.C. Matthews Est.
G.P. Sims (S)
Hartman
State
U.S.


R 36 E
R 37 E
UNIT AREA "B"
T 20 S
LEGEND
FEE SURFACE OWNER – BOLD – EXAMPLE: EDWARD H. KLEIN ESTATE
FEDERAL OWNED SURFACE – BOLD –
STATE OWNED SURFACE – BOLD –
SURFACE LESSEE – ITALIC – EDWARD H. KLEIN ESTATE
UNIT AREA "A"
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EDWARD H. KLEIN ESTATE
DELBERT D. & JIMMY T. COOPER
STATE
FEDERAL
TOMMIE LOU & DELBERT D. COOPER
MILLARD DECK ESTATE
EXXON U.S.A.
ARCO
LEA PARTNERS LTD.
EL PASO NATURAL GAS CO.
PHILLIPS PERTO. CO.
GETTY OIL
CITY OF OIL CENTER
H.L. HOUSTON
A.C. HOOPER ESTATE
U.R. CATTLE CO.
NYMEYER RANCH
DALLAS MC CASLAND INC.
TOM KENNAN
CHEVRON
SURFACE OWNERSHIP
EUNICE MONUMENT SC
UNIT AREA
LEA COUNTY, NEW MEXIC
MARCH 11, 1993
0
1/2
1 mile

30-025-04222
FA53670:0 OK LDM 6-20-96

W.P. BYRD #2

Well Data Sheet

Lease & Wellno EMSUB #852 Field / Pool Eunice Monument Date _____
Location 330 Feet From N Line and 990 Feet From W Line
Section 11-T20S, R36E, - Unit D County Lea, NM Operator Chevron

GE 3598'
KDB to GE _____'
DF to GE _____'

15½" OD 70 # Csg.
set @ 271' w/ 250 sx.
Cmt Circ.? _____
TOC @ _____' by _____

10¾" OD 45 # ___ Thd
Gr. _____, _____ Csg.
set @ 1161' w/ 500 sx.
Cmt Circ.? _____
TOC @ _____' by _____

3681-3716

3752-61 7" OD 24 # ___ Thd
Gr. _____, _____ Csg.
3773-96 set @ 3783' w/ 300 sx.
Cmt Circ.? _____
TOC @ _____' by _____

PBD _____'
TD 4000'

Date Completed 9/13/36
Initial Formation _____
From: 3783' to 3916' GOR _____
Initial: Production 396 BOPD 0 BWPD
Or: Injection _____ BWPD @ _____ psig
Completion Data:

9/36 - Aq OH w/ 3000 gal acid.

Subseaquent Workover or Reconditioning:

9/55 - Set hydromite plug @ 3860'-3915'. (NO RECORD OF THIS WORK IN WF - NOTED ON PREVIOUS HISTORY)
11/59 - C/O to 3860'. Ran 5" liner f/ 3738'-3860' cmt w/ 45 sx. Perf liner f/ 3842'-48' w/ 4 SPF. Wash perfs w/ 500 gal mud acid. Swab 38 bbls. 32 Guty oil / 6 Bbl form. wtr. TST: B- 1160/5 BW/ 62 MCF. A- 36 BO/ 0 BW/ 17 MCF.
3/60 - Sqzd top of liner to reduce GOR
6/84 - Perf 3833'-42' w/ 2 JSPF. Az perfs w/ 2500 gal 15%. SN @ 3789'. TST: B- 680/114 BW/ 14 MCF. A- 380/95 BW/ 4 MCF.
5/89 - TEMPORARILY ABANDON. Set top of CIBP @ 3813' (WL MEASUREMENT). Left 2⅞ tbg sub in well head w/ collars on each end. Capped tbg w/ valve.
6/91 - D/O CIBP. Tag top of junk at 3822'. Milled on junk. Rec 7 half moon metal pieces, 1 ball & hydromite in W.P. Drill hydromite & formation to 4000' Wells TD'. Perf 3814-3838 w/ 2 JSPF. Az perfs & OH w/ 1500 gal 15% NEFE. Swab tst 180/10 BW. Wait hr swab ½ bbl w/ 15% oil. SN @ 3940'. TST: 080/69 BW/ 4 MCF.
2/97 - Mill out 5" liner, Ream hole from 3763-4600 w/ 6 1/8" bit, perf 3773-3796 w/ 2 JSPF & 3752-3761, 3681-3716 w/ 4 JSPF Set RBP @ 3735' & Test Zn 2 B - 1280' 532 BW A-

Present Inj. _____ bwpd @ _____ psi Date _____
Present Prod. _____ bopd _____ bwpd Date _____
Gas _____ mcfpd

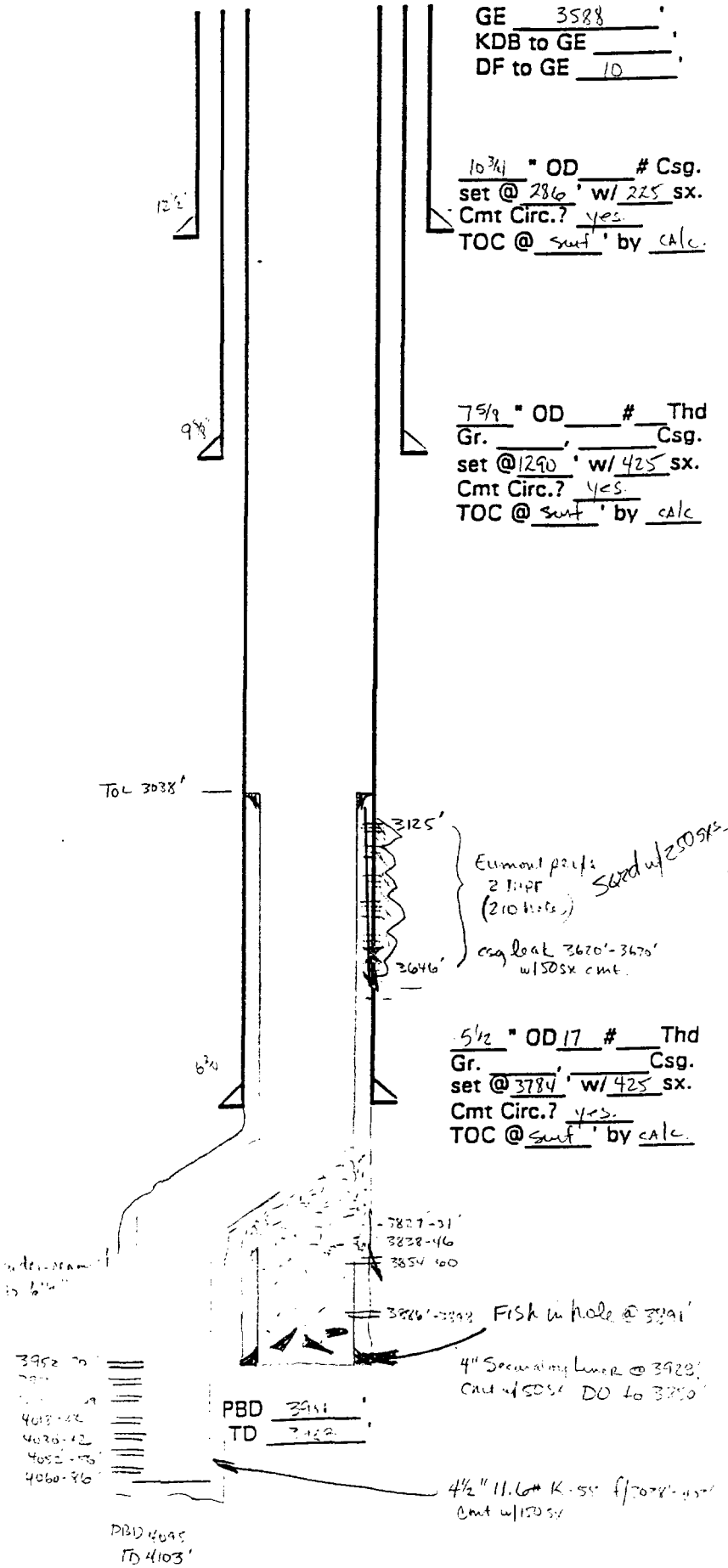
Well Data Sheet

FA53490:01

Lease & Wellno EMSU "B" 854 Field / Pool Eumont Queen Date 7/29/97

Location 1650 Feet From North Line and 330 Feet From East Line

Section 10, T20S, R36E Unit H County Lea New Mexico Operator CHEVRON



Date Completed 8-4-37

Initial Formation Grayburg

From: 3794' to 3928' GOR 1232

Initial: Production 142 BOPD BWPD

Or: Injection BWPD @ psig

Completion Data:

Natural

Subsequent Workover or Reconditioning:

6-39 Acdz OH 3794'-3905 w/ 2000 gals. A/w 288 Bo/432 Bw B/4 29 Bo/31 Bw

3-47 DB to 3900'. Acdz w/ 1000 gals. A/w 44 Bo/151 Bw GOR 3738, B/4: 22 Bo/116 Bw GOR 9020

3-48 DO to 3928'. Ran 4" Secondary Liner 3746'-3928' Cmt w/ 150 sxs. Perf 3886-3898' & Acdz w/ 500 gals. A/w 62 Bo/62 Bw GOR 352. B/4 29 Bo/15 Bw

10-57 Set plug @ 3700', Perf Eumont 3125-3646' (210 holes) Treated perfs w/ 25000 gals sand frac. Perf'd thru below plug @ 3835-37 & @ 3710'. Overlaid Eumont.

2-60 Pulled plug. Ran GRN Perf Liner 3827-31, 3838-46', 3854-60 w/ 4 spf. Acdz w/ 5000 gals. Reran dual Packer. A/w - 71 Bo, 70 Bw, 7100 mcf/gpd (Plug @ 3700') B/4: SI

11-66 SI due to high wtr cut

3-72 Set thru plug @ 3672' + TA'd E-M. Perf'd thg @ 3576' & attempted Eumont Gas to find TOC of thg.

4-80 MIRU. Set CIBP @ 3049' w/ 15 sx cmt on top. Set 2nd plug @ 3000'. Acdz Eumont w/ 3000 gals 15% NeFeHCl. A/w 4 Bo/24 Bw/ 168 mcf/gpd

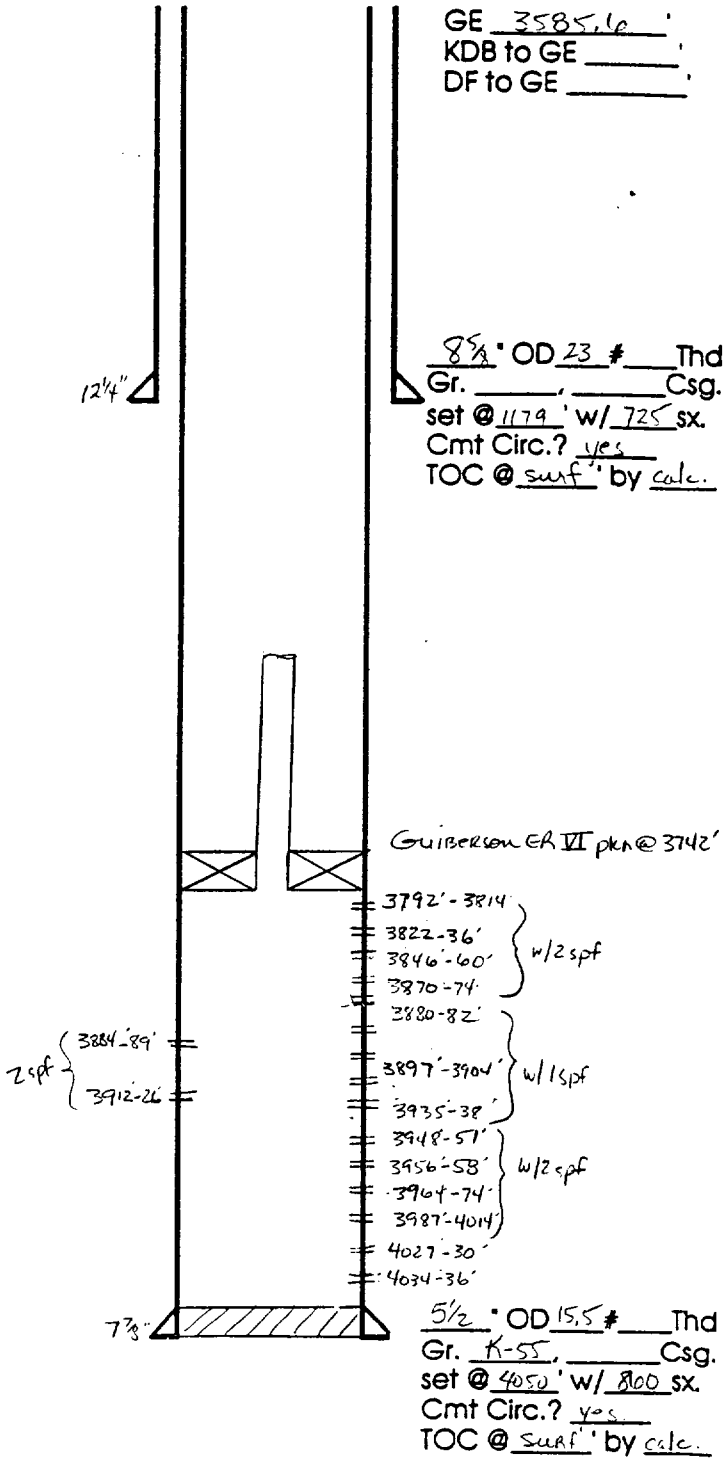
12-90 Sqz Eumont perfs 3125-3646 w/ 250 sxs. Sqz csg leak 3620-3670' w/ 150 sxs. C/o junk to PBTD @ 3901'.

2-93 Spot 150 sx plug in liner. Tag cmt @ 2747'. DOC and liner to 3850'. Set 75 sx cmt plug. DO to 3908'. KO sidetrack and drill to 4103'. Ran 4 1/2" 11.6# K-55 f/ 3038'-4103' Cmt w/ 150 sx. DO to 4095'. Perf 3952-70, 3974-87, 3999-4009, 4018-22, 4030-42, 4052-56, 4060-86. Selectively acdz perfs w/ 1490 gals. TOP. A/w 24 Bo/78 Bw B/4 - SI

FA 53700-AA

Well Data Sheet

Lease & Wellno EMSU "B" 855x Field / Pool Eunice Monument GB/SA Date 8/5/96
Location 870 Feet From West Line and 1450 Feet From North Line
Section 11, T20S, R36E Unit E County LEA NewMexico Operator CHEVRON



GE 3585.6'
KDB to GE ____'
DF to GE ____'

8⅝" OD 23 # ___ Thd
Gr. ____, ____ Csg.
set @ 1179' w/ 725 sx.
Cmt Circ.? yes
TOC @ surf' by calc.

5½" OD 15.5 # ___ Thd
Gr. K-55, ____ Csg.
set @ 4050' w/ 800 sx.
Cmt Circ.? yes
TOC @ surf' by calc.

PBD 4045'
TD 4050'

Date Completed 3-91
Initial Formation Grayburg
From: 3792' to 4036' GOR ____
Initial: Production ____ BOPD ____ BWPD
Or: Injection 500 BWPD @ 0 psig
Completion Data:
Perf 4027-36 w/2 spf. Acdz w/1000 gals 15% NeFe
Perf 3948-4014 w/2spf Acdz w/3500 gals 15% NeFe
Perf 3880-3938 w/1spf Acdz w/1000 gals 15% NeFe
Perf 3792-3926 w/2spf Acdz w/7500 gals 15% NeFe
Swab. RIH w/ Guiberson ER VI PC pkr on 2⅜" IPC tubing - Set pkr @ 3742'. PWDI: 500 BWIPD @ 0 psi.

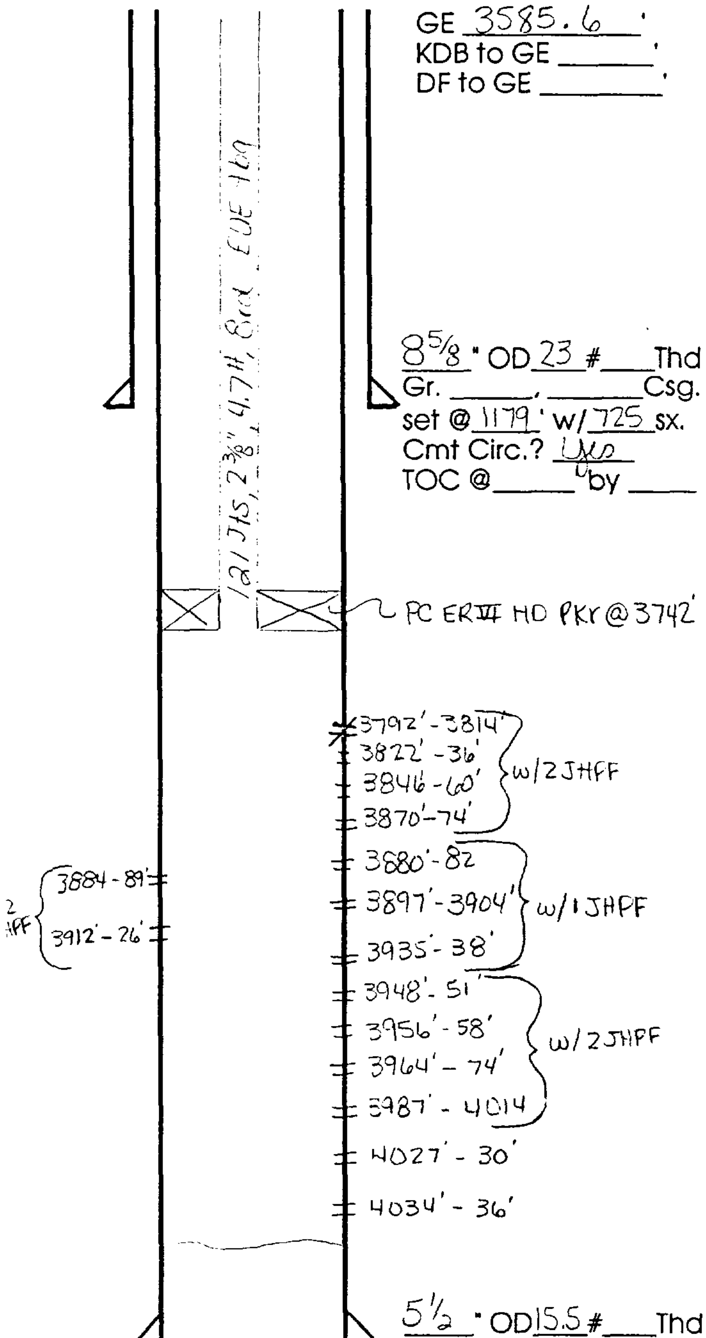
Subsequent Workover or Reconditioning:

Present Inj. ____ bwpd @ ____ psi Date ____
Present Prod. ____ bopd ____ bwpd Date ____
Gas ____ mcfpd

30-025-31080
KV 85860:01

Well Data Sheet

Lease & Wellno EMSUB #855 Field / Pool Eunice Monument Date ______
Location 870 Feet From W Line and 1450 Feet From N Line
Section 11-T20S, R36E- Unit E County Lea, NM Operator Chevron



GE 3585.6'
KDB to GE ______'
DF to GE ______'

8 5/8" OD 23 # ___ Thd
Gr. ______, ______ Csg.
set @ 1179' w/ 725 sx.
Cmt Circ.? Yes
TOC @ ______ by ______

5 1/2" OD 15.5 # ___ Thd
Gr. K-55, ______ Csg.
set @ 4050' w/ 360 sx.
Cmt Circ.? Yes
TOC @ ______ by ______

Date Completed 3/16/91
Initial Formation Grayburg
From: 3792' to 3938' GOR ______
Initial: Production ______ BOPD ______ BWPD
Or: Injection 500 BWPD on VAC

Completion Data:

3/91 - Took 8 cores f/3680' to 4050'. Perf 4027'-30' & 4034'-36'. Spot 50 gal 15% across perfs. Az w/950 gal 15%. Final swab 20% oil/80% wtr. Perf 3948'-51', 3956'-58', 3964'-74', 3987'-4014' w/2JHPF. Az 3948'-74' w/1500 gal 15%. Perfs f/3987'-4014' communicated up to perfs @ 3974'. Pmp 10 bbl CFK w/45 balls. Az 3987'-4014' w/3500 gal 15%. Final swab 2% o/98% w/Trace BS. Perf 3935'-38', 3897'-3904', 3880-82 w/1JHPF. Az/Soak/Respot 3880'-82' couldn't break down perfs. Az 3897'-3938' w/tot 1000 gal 15%. Final swab 99% wtr, 1% BS. Perf 3912'-26', 3884'-89', 3870'-74', 3846'-60', 3822'-36', 3792'-3814' w/2JHPF. Spot 2 BBL Az f/3792'-3926' Az w/ 10500 gal 15%. Swab FFI 3% oil, 96% wtr, 1% BS. SIFN. SWAB 1 BBL 20% oil/80% wtr. Set pkr @ 3742. Repair surface leaks.

Subsequent Workover or Reconditioning:

3/97 - Sqz perfs from 3792-3814
Acidize w/ 3000 gal Resisol II

Present Inj. ______ bwpd @ ______ psi Date ______
Present Prod. ______ bopd ______ bwpd Date ______
Gas ______ mcfpd

4036 (well logger measurement)
PBD 4045'
TD 4050'

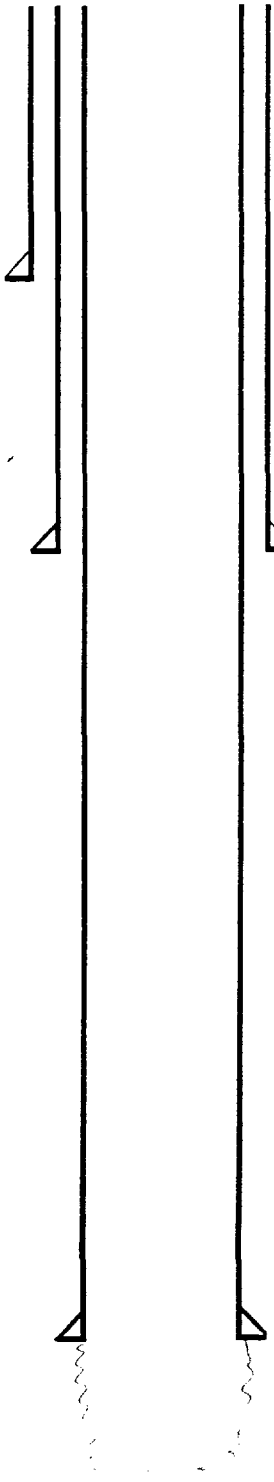
* [illegible]

Well Data Sheet

Lease & Wellno Reed A-3 #4 Field / Pool Monument Grayburg San Andres Date 10/6/98

Location 660 Feet From South Line and [illegible] Feet From East Line

Section 3, T20S, R36E, County Lea Operator Conoco



GE _____'
KDB to GE _____'
DF to GE _____'

10 3/4" OD ____# Csg.
set @ 372' w/ 225 sx.
Cmt Circ.? _____
TOC @ _____' by _____

7 5/8" OD ____# ___Thd
Gr. _____, _____Csg.
set @ 1229' w/ 425 sx.
Cmt Circ.? _____
TOC @ _____' by _____

5 1/2" OD ___# ___Thd
Gr. _____, _____Csg.
set @ 3770 w/ 425 sx.
Cmt Circ.? _____
TOC @ _____' by _____

PBD _____'
TD 3851'

Date Completed 10/22/36
Initial Formation _____
From: _____' to _____' GOR _____
Initial: Production _____ BOPD _____ BWPD
Or: Injection _____ BWPD @ _____ psig

Completion Data:

Subseaquent Workover or Reconditioning:

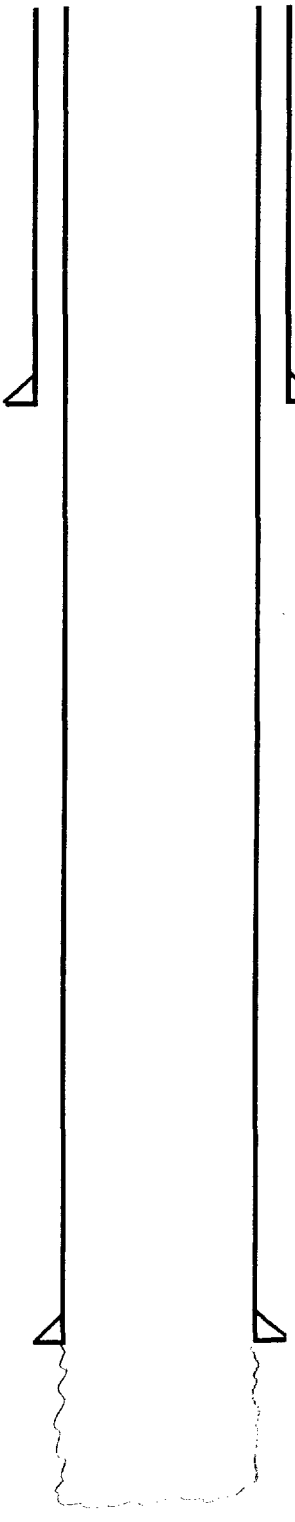
Present Inj. _____ bwpd @ _____ psi Date _____
Present Prod. _____ bopd _____ bwpd Date _____
Gas _____ mcfpd

Well Data Sheet

Lease & Wellno Etcheverry # 1 Field / Pool Eumont YS-7 RVR-Q-N Date 10/6/98

Location 2310 Feet From North Line and 1650 Feet From East Line

Section 10, T20S, R36E County LEA Operator TWO STATES OIL



GE _____'
KDB to GE _____'
DF to GE _____'

7 5/8" OD ___ # ___ Thd
Gr. _____, _____ Csg.
set @ 2430' w/ 175 sx.
Cmt Circ.? _____
TOC @ _____' by _____

5 1/2" OD ___ # ___ Thd
Gr. _____, _____ Csg.
set @ 3684' w/ 250 sx.
Cmt Circ.? _____
TOC @ _____' by _____

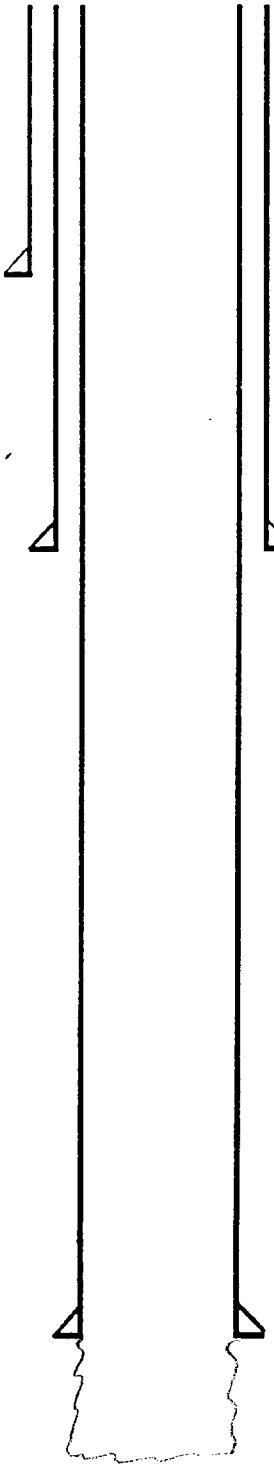
PBD _____'
TD 3894'

Date Completed 4/4/38
Initial Formation _____
From: _____' to _____' GOR _____
Initial: Production _____ BOPD _____ BWPD
Or: Injection _____ BWPD @ _____ psig
Completion Data:

Subsequent Workover or Reconditioning:

Well Data Sheet

Lease & Wellno North Monument GBSA Unit 13 Field / Pool Eun Monument GRBG SAND Date 10/6/98
Location 660 Feet From South Line and 660 Feet From West Line
Section 2, T20S, R36E County Lea Operator Amerada Hess



GE _____'
KDB to GE _____'
DF to GE _____'

12 1/2 " OD ____ # Csg.
set @ 224 ' w/ 150 sx.
Cmt Circ.? _____
TOC @ _____ ' by _____

9 5/8 " OD ____ # ___ Thd
Gr. _____, _____ Csg.
set @ 2935 ' w/ 500 sx.
Cmt Circ.? _____
TOC @ _____ ' by _____

6 5/8 " OD ____ # ___ Thd
Gr. _____, _____ Csg.
set @ 3756 ' w/ 125 sx.
Cmt Circ.? _____
TOC @ _____ ' by _____

PBD _____'
TD 4010'

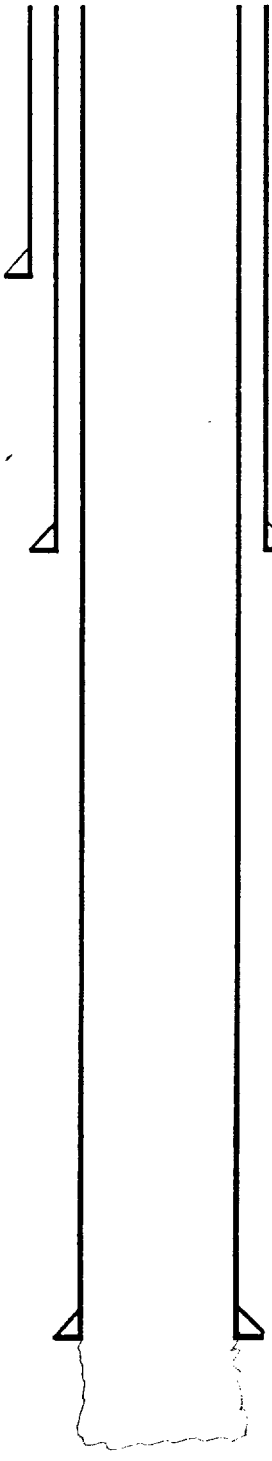
Date Completed 7/24/36
Initial Formation _____
From: _____ ' to _____ ' GOR _____
Initial: Production _____ BOPD _____ BWPD
Or: Injection _____ BWPD _@_____ psig
Completion Data:

Subsequent Workover or Reconditioning:
3/23/98 Deepened from 3920' - 4010'
Converted to water Injection

Present Inj. _____ bwpd @ _____ psi Date _____
Present Prod. _____ bopd _____ bwpd Date _____
Gas _____ mcfpd

Well Data Sheet

Lease & Wellno WP Byrd # 5 Field / Pool Monument Grayb-SAN Date 10/6/98
Location 1650 Feet From North Line and 330 Feet From West Line
Section 11, T20S, R36E County LEA Operator ARCO



GE _____'
KDB to GE _____'
DF to GE _____'

12 1/2 " OD ____ # Csg.
set @ 222 ' w/ 30 sx.
Cmt Circ.? _____
TOC @ _____ ' by _____

9 5/8 " OD ____ # ___ Thd
Gr. _____, _____ Csg.
set @ 1236 ' w/ 400 sx.
Cmt Circ.? _____
TOC @ _____ ' by _____

7 " OD ____ # ___ Thd
Gr. _____, _____ Csg.
set @ 3779 ' w/ _____ sx.
Cmt Circ.? _____
TOC @ _____ ' by _____

Date Completed 6/6/39
Initial Formation _____
From: _____ ' to _____ ' GOR _____
Initial: Production _____ BOPD _____ BWPD
Or: Injection _____ BWPD _@_____ psig
Completion Data:

Subsequent Workover or Reconditioning:
9/25/73 Recomplete to Gas Well

Present Inj. _____ bwpd @ _____ psi Date _____
Present Prod. _____ bopd _____ bwpd Date _____
Gas _____ mcfpd

PBD 3730'
TD 3900'

EMSUB # 853 Conversion to Injection
Eunice Monument South Unit
Lea County, NM

Well No.	Max Inj. Rate (BWPD)	Avg. Inj. Rate (BWPD)	Max Inj. Press. (PSI)	Avg. Inj. Press. (PSI)	System Open	System Closed
EMSUB #853	1500	750	750	650		X

EMSUB # 853 Conversion to Injection
Eunice Monument South Unit
Lea County, NM

Surface Land Owners

Edward H. Klein Estate
P.O. Box 1502
Hobbs, NM 88240

Offset Operators

Conoco, Inc.
10 Desta Drive
Suite 100W
Midland, TX 79705-4500

Arco Permian
P.O. Box 1610
Midland, TX 79702

Two State Oil
4925 Greenville Ave.
Dallas, TX 75206

Amerada Hess
500 Dallas Street
Houston, TX 77002

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:
CONOCO
10 DESTA DR.
Suite 100 W.
MIDLAND, TEXAS 79705-4500

4a. Article Number

4b. Service Type
☐ Registered ☐ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
10/2-0

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X Anita Gonzales

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

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:
ARCO Permian
P.O Box 1610
Midland, Texas 79702

4a. Article Number

4b. Service Type
☐ Registered ☐ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
OCT 09 1998

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

Data on Proposed Operation of Eunice Monument South Unit

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

   Average daily rate of 400 BWPD
   Maximum daily rate of 500 BWPD

2. System is closed.

3. Proposed average and maximum injection pressures:

   Average injection pressure of 350 psi
   Maximum injection pressure of 740 psi *

4. The source of injection fluids will be from the San Andres formation initially, then produced water from Unit wells will be used as the primary source of water when the Unit becomes fully developed.

5. The make-up water from the San Andres formation to be used as injection fluid is compatible with the produced water from the Unit wells (See attached water analysis).

* Until a fracture gradient is determined, maximum injection pressure will be based on a .2 psi/foot gradient.

EXHIBIT NO. 33a
Case No. 8397
November 7, 1984

P O BOX 1468
MONAHANS TEXAS 79756
PH 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

700 W INDIANA
MIDLAND TEXAS 79701
PHONE 683-4621

RESULT OF WATER ANALYSES

TO Mr. Stan Chapman
P.O. Box 670, Hobbs, NM

LABORATORY NO. 284226
SAMPLE RECEIVED 2-15-84
RESULTS REPORTED 2-20-84

COMPANY Gulf Oil Exploration & Production Company LEASE
FIELD OR POOL
SECTION BLOCK SURVEY COUNTY STATE
SOURCE OF SAMPLE AND DATE TAKEN.

NO. 1 Make-up water.
NO. 2 Produced water.
NO. 3
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0465	1.0051		
pH When Sampled				
pH When Received	6.80	7.22		
Bicarbonate as HCO_3	964	1,830		
Supersaturation as $CaCO_3$	75	120		
Undersaturation as $CaCO_3$	---	---		
Total Hardness as $CaCO_3$	5,400	800		
Calcium as Ca	1,400	144		
Magnesium as Mg	462	107		
Sodium and/or Potassium	23,244	2,308		
Sulfate as SO_4	3,432	300		
Chloride as Cl	36,575	2,842		
Iron as Fe	0.27	7.5		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	66,077	7,530		
Temperature °F				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	600	325		
Resistivity, ohms/m at 77° F	0.126	0.935		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Calcium Carbonate Scaling Tendency	NONE	NONE		
Calcium Sulfate Scaling Tendency	NONE	NONE		

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: We see no evidence in the above results that would indicate any incompatibility when mixing these two waters in any proportion. Please contact us if we can be of any additional assistance in this regard.

EXHIBIT NO. 336
Case No. 8397
November 7, 1984

Form No. 3

By
Waylan C. Martin, M.A.

34a

Geological Data
Injection Zones
in the
Proposed Eunice Monument South Unit

Penrose - Approx. depth 3,400'-3,800*, approx. 170 gross feet.

The Penrose is the lower portion of the Queen formation and overlies the Grayburg. The Penrose is composed of alternating layers of hard dolomite and sand lenses. The Penrose is productive of oil and/or gas, depending on structural position.

Grayburg - Approx. depth 3,500'-3,900*, approx. 490 gross feet.

The Grayburg is a massive dolomite with thin stringers of sand interspersed within it. The majority of oil production comes from intercrystalline porosity in the dolomite.

The range in depths to the top of the Grayburg is due to an asymmetrical anticlinal structure running NW to SE through the Eunice-Monument Pool. The structure dips steeply along the western and southern flanks and therefore the Grayburg top runs deeper, approximately 3,700'-3,900'. Along the axis and the gently dipping eastern flank of the anticline the Grayburg depths run at approximately 3,500-3,700 feet.

San Andres - Approx. depth 4,100'-4,500*, approx. 1,130 gross feet.

The San Andres is a massive dolomite with intercrystalline porosity, which lies directly below the Grayburg. The contact between the Grayburg and the San Andres is gradational and there is no clear marker for the top of the San Andres which can be traced across the field. The San Andres contributes very little if any oil production to the field and serves primarily as a source for injection make-up water and as a zone for salt water disposal.

There are no known faults cutting through the San Andres and Grayburg which would act as a conduit for gas, oil or injection water to seep into fresh water horizons above the injection zones in the Grayburg and San Andres.

* Depth depends upon structural position of the well.

EXHIBIT NO. 34a
Case No. 8397
November 7, 1984

Geological Data
Fresh Water Aquifers
in the Area of the
Proposed Eunice Monument South Unit
Lea County, New Mexico

The proposed Eunice Monument South Unit is located approximately 3/4 of a mile southwest of the Mescalero Ridge on the Eunice Plain.

The fresh water zones within the proposed Eunice Monument South Unit boundaries are the Quaternary alluvium, Pliocene Ogallala, and the Triassic Chinle and Santa Rosa formations.

The Quaternary aquifers are in recent sediments and are very localized in extent. They are made up of dune sands and sands filling channels or depressions in the underlying Ogallala. The sands are unconsolidated to semiconsolidated, fine to medium grained sands. They are found at the surface to a depth of approximately 100 feet.

The Pliocene Ogallala aquifer underlies the Quaternary alluvium and is present across the entire area but is not a major water source. The Ogallala is a calcareous unconsolidated sand containing some silt, clay and gravel. The Ogallala is found at approximately 60-125 feet.

The Triassic Chinle and Santa Rosa aquifers are the principal fresh water bearing zones in this area. They are both fine to medium grained sandstones interbedded with red clays and silt stones. At the northern end of the proposed unit, the Chinle is at a depth of approximately 50 feet and the Santa Rosa is at about 675 feet. At the southern end of the unit the Chinle is at approximately 200 feet and the Santa Rosa is at about 1000 feet.

Below the Santa Rosa are un-differentiated Permian and Triassic red beds. These "red beds" consist of red shales and red silty sandstones, and are not known to produce fresh water.

At the base of the Santa Rosa and/or the un-differentiated Permian and Triassic "red beds" is the Permian Rustler. At the top of the Rustler is an impermeable anhydrite bed, approximately 60-70 feet thick which provides an excellent barrier against contamination from brine waters in the Permian oil producing formations. The Rustler anhydrite is at approximately 1000 feet at the northern end of the unit and approximately 1400 feet at the southern end of the unit. There are no known fresh water horizons below the Rustler anhydrite.

For the protection of all fresh water zones within the unit boundary, cement will be circulated to surface around casing on all new injection wells and producing wells converted to injection wells.

Reference - Ground Water Report 6, USGS, 1961.

EXHIBIT NO. 36
Case No. 8397
November 7, 1984

#3

Chemical Analysis of Fresh Water Within The Proposed Eunice Monument South Unit Lea County, New Mexico

See attached water analysis results.

Sample No. 1 - Unit A Section 16, T-21-S, R-36-E
Livestock Water Source
Ogallala Formation
State Engineer's Well No. CP 00505

Sample No. 2 - Unit D Section 10, T-21-S, R-36-E
Domestic and Commercial Sale Source
Triassic Chinle Formation
State Engineer's Well No. CP 00147

Sample No. 3 - Unit K Section 36, T-20-S, R-36-E
Livestock Water Source
(Not on file with State Engineer's office)

Sample No. 4 - Unit O Section 17, T-21-S, R-36-E
Livestock Water Source
Ogallala Formation
(Not on file with State Engineers Office)

EXHIBIT NO. 37
Case No. 8397
November 7, 1984

P O BOX 1468
MONAHANS TEXAS 79756
PH 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

700 W INDIANA
MIDLAND TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 284225
SAMPLE RECEIVED 2-15-84
RESULTS REPORTED 2-20-84

TO: Mr. Stan Chapman
P.O. Box 670, Hobbs, NM

COMPANY Gulf Oil Exploration & Production LEASE
FIELD OR POOL Company
SECTION BLOCK SURVEY COUNTY STATE
SOURCE OF SAMPLE AND DATE TAKEN.
NO. 1 Fresh water (sample #1).
NO. 2 Fresh water (sample #2).
NO. 3 Fresh water (sample #3).
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0047	1.0020	1.0022	
pH When Sampled				
pH When Received	7.56	8.20	8.27	
Bicarbonate as HCO_3	212	494	476	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	1,680	75	68	
Calcium as Ca	376	16	15	
Magnesium as Mg	180	8	7	
Sodium and/or Potassium	744	289	413	
Sulfate as SO_4	1,492	186	300	
Chloride as Cl	1,115	60	138	
Iron as Fe	0.31	1.3	1.3	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	4,119	1,065	1,391	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	1.60	8.10	5.50	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Carbonate, as CO_3	0	12	42	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: Please contact us if we can be of any assistance in interpretation of the above results.

Form No. 3

By
Waylan C. Martin, M.A.

ILLEGIBLE

UNICHEM INTERNATIONAL

401 NORTH LEECH P.O BOX1499

HOBBS, NEW MEXICO 88240

COMPANY : GULF OIL
DATE : 9-28-84
FIELD,LEASE&WELL SECTION 17-T21S-R36E, UNIT O
SAMPLING POINT: WELLHEAD-FRESH WATER SAMPLE
DATE SAMPLED : 9-27-84

SPECIFIC GRAVITY = 1
TOTAL DISSOLVED SOLIDS = 1055
PH = 7.21

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	4.4	88.1
MAGNESIUM	(MG)+2	3.8	46.1
SODIUM	(NA).CALC.	7.2	167.
ANIONS			
BICARBONATE	(HCO3)-1	4.6	280
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	5.8	282.
CHLORIDES	(CL)-1	5	190
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		1.4
BARIUM	(BA)+2	0	.4
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = .023

#39

Proposed Eunice Monument South Unit
Lea County, New Mexico

Affirmative Statement

Gulf Oil Corporation has examined available geological 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.

EXHIBIT NO. 38
Case No. 8397

AWE

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY AND MINERALS
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPPOSE OF CONSIDERING:

CASE No. 8398
Order No. R-7766

APPLICATION OF GULF OIL CORPORATION FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case came on for hearing at 9:00 A.M. on November 7, 1984, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 27th day of December, 1984, the Commission, a quorum having been present, having considered the testimony and the record and being otherwise fully advised in the premises,

FINDS THAT:

(1) Due public notice has been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Gulf Oil Corporation, in Commission Case 8398, seeks authority to institute a waterflood project in its Eunice Monument South Unit, by the injection of water into the unitized interval which shall include the formations which extend from an upper limit of 100 feet below mean sea level or the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation in the proposed unitized area, all as shown on Exhibit "A" attached to this order.

(3) The subject Commission Case 8398 was consolidated for hearing with Commission Cases 8397 and 8399.

(4) Gulf proposes to utilize an 80-acre five spot injection pattern using a well number system and proposed

(13) The subject application should be approved and the project should be governed by the provisions of Rule 701 through 708 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Gulf Oil Corporation, is hereby authorized to institute a waterflood project in the Eunice Monument South Unit Area for the acreage described on Exhibit "A" attached hereto and made a part hereof, by the injection of water into the unitized interval which shall include the formations which extend from an upper limit described as 100 feet below mean sea level or at the top of the Grayburg formation, whichever is higher, to a lower limit being the base of the San Andres formation said geologic markers having been as found to occur at 3,666 feet to 5,283 feet, respectively, in the Continental Oil Company's Meyer B-4 Well No. 23 located 660 feet from the South line and 1980 feet from the East line of Section 4, Township 21 South, Range 36 East, Lea County, New Mexico.

(2) Applicant, Gulf Oil Corporation, is hereby authorized to utilize for injection purposes the wells identified and described on Exhibit "B" attached hereto and made a part hereof.

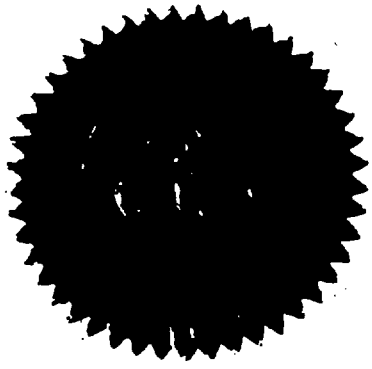
(3) The injection wells herein authorized and/or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 0.2 psi per foot of depth from the surface to the top injection perforation, provided however, the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(4) Injection into each of said wells shall be through plastic or cement-lined tubing, set in a packer which shall be located as near as practicable to the uppermost perforations, or, in the case of open-hole completions, as near as practicable to the casing-shoe; that the casing-tubing annulus shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention attracting leak detection device.

(5) Prior to injection into any well located within one-half mile of any of the five wells listed on Exhibit "C" attached to this order, the applicant shall consult with the supervisor of the Oil Conservation Division's district office at Hobbs to develop a plan acceptable to

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



S E A L

JIM BACA, Member

ED KELLEY, Member

R. L. STAMETS, Chairman and Secretary

LEA COUNTY, NEW MEXICO

UNIT WELL NO.	UNIT LETTER	SECTION	TOWNSHIP SOUTH	RANGE EAST	NEW WELL
101	C	30	20	37	N
102	A	25	20	36	
104	C	25	20	36	
106	E	25	20	36	
108	G	25	20	36	
110	E	30	20	37	
112	G	30	20	37	
114	I	30	20	37	
116	K	30	20	37	
118	I	25	20	36	
120	K	25	20	36	
122	M	25	20	36	
124	O	25	20	36	
126	M	30	20	37	
128	O	30	20	37	
130	A	32	20	37	N
132	C	32	20	37	
134	A	31	20	37	
136	C	31	20	37	
138	A	36	20	36	
140	C	36	20	36	
142	E	36	20	36	
144	G	36	20	36	
146	E	31	20	37	
148	G	31	20	37	
150	E	32	20	37	
152	G	32	20	37	
154	I	32	20	37	N
156	K	32	20	37	
158	I	31	20	37	
160	K	31	20	37	
162	I	36	20	36	
164	K	36	20	36	
166	M	36	20	36	
168	O	36	20	36	
170	M	31	20	37	
172	O	31	20	37	
174	M	32	20	37	
176	O	32	20	37	

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ORDER NO. R-7766
EXHIBIT "B"

249	T	6	21	36
251	V	6	21	36
253	X	6	21	36
255	V	5	21	36
257	X	5	21	36
259	V	4	21	36
261	X	4	21	36
263	V	3	21	36
265	X	3	21	36
267	V	2	21	36
269	X	2	21	36
271	B	11	21	36
273	D	11	21	36
275	B	10	21	36
277	D	10	21	36
279	B	9	21	36
281	D	9	21	36
283	B	8	21	36
285	D	8	21	36
287	B	7	21	36
289	D	7	21	36
291	F	7	21	36
293	H	7	21	36
295	F	8	21	36
297	H	8	21	36
299	F	9	21	36
301	H	9	21	36
303	F	10	21	36
305	H	10	21	36
307	F	11	21	36
309	H	11	21	36
310	L	12	21	36
312	J	11	21	36
314	L	11	21	36
316	J	10	21	36
318	L	10	21	36
320	J	9	21	36
322	L	9	21	36
324	J	8	21	36

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406	J	17	21	36
408	L	17	21	36
410	J	18	21	36
412	L	18	21	36
414	N	18	21	36
416	P	18	21	36
418	N	17	21	36
420	P	17	21	36
422	N	16	21	36
424	P	16	21	36
426	N	15	21	36
428	P	15	21	36
430	N	14	21	36
432	P	14	21	36
434	B	22	21	36
436	D	22	21	36
438	B	21	21	36
440	D	21	21	36
442	F	21	21	36
444	H	21	21	36
446	F	22	21	36
448	H	22	21	36
450	J	22	21	36
454	J	21	21	36
456	L	21	21	36
452	L	22	21	36

CASE 8398
ORDER NO. R-8398
EXHIBIT "B"