WTX 10/23/97

Chevron

September 17, 1997

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

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

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 Well No. 679 located in Unit D, Section 8, Township 21 South, Range 36 East, Lea County, New Mexico.

Chevron converted 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 EMSU secondary recovery unit.

Attached is an OCD Form C-108 with information relative to the water injection conversion of the EMSU #679.

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 Love

Tracy G. Love
Petroleum Engineer
New Mexico Waterfloods

TL
Attachments

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: Chevron U.S.A. Prod. Co. Well: EMSU # 679

Contact: Tracy Love Title: P.E. Phone: 915·687·7645

DATE IN 10·8·97 RELEASE DATE 10·23·97 DATE OUT 12·12·97

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

Original Order: R- 7766 X Secondary Recovery ___ Pressure Maintenance

SENSITIVE AREAS ___ **SALT WATER DISPOSAL** ___ Commercial Well

___ WIPP ___ Capitan Reef

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

AREA of REVIEW WELLS

17 Total # of AOR

YES Tabulation Complete

YES Cement Tops Adequate

6 # of Plugged Wells

1 Schematics of P & A's

___ AOR Repair Required

INJECTION FORMATION

Injection Formation(s) GRBG - SA Compatible Analysis YES

Source of Water or Injectate AREA PRODUCTION

PROOF of NOTICE

✓ Copy of Legal Notice

✓ Correct Operators

NO Objection Received

✓ Information Printed Correctly

✓ Copies of Certified Mail Receipts

___ Set to Hearing _____ Date

NOTES: ___

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? YES

COMMUNICATION WITH CONTACT PERSON:

1st Contact: ___ Telephoned ___ Letter _____ Date Nature of Discussion ___

2nd Contact: ___ Telephoned ___ Letter _____ Date Nature of Discussion ___

3rd Contact: ___ Telephoned ___ Letter _____ Date Nature of Discussion ___

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 U.S.A. Production Co.

Address: P.O. 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: 9/17/97

* 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 exhibits in Case No. 8398 - 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.

EMSU # 679 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 EMSU #679 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
No proposed stimulation program.

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.

EMSU # 679 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 9-17-97. The actual newspaper add and an affidavit of publication will be forwarded to the OCD as soon as it is obtained.

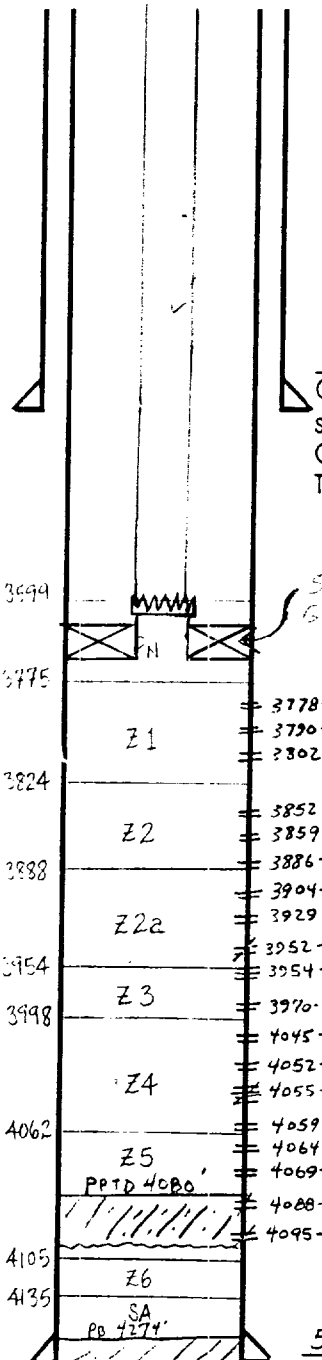
30-025-31009
Ku 9535

Well Data Sheet

Lease & Wellno EMSU #679 Field / Pool Eunice Monument Gbg/SA Date 8/7/96

1220 Feet From NORTH Line and 1220 Feet From West Line

Section 8, T21S, R36E County Lea, NM Operator Chevron



5½ Guiberson plastic coated G-6 pkr & XL On/Off Tool

GE 3585.5'
KDB to GE 10.5'
DF to GE ____'

2⅞" IPC tbg

8⅝" OD 32 # ____ Thd
Gr. ____, ____ Csg.
set @ 1220' w/ 800 sx.
Cmt Circ.? Yes
TOC @ SURF' by -

5½" OD 15.5 # ____ Thd
Gr. ____, ____ Csg.
set @ 4358' w/ 900 sx.
Cmt Circ.? Yes
TOC @ SURF' by -

T/Rustler - 1193'
T/Salt - 1350'
B/Salt - 2650'
T/Yates - 2863'
T/Seven Rivers - 3027'
T/Queen - 3400'
T/Penrose - 3591'

T/Upper - 3796
T/Lwr - 3760'
T/SA - 4135

PBD 4080'
TD 4358'

Date Completed 11/1/90
Initial Formation Seven Rivers
From: 3852 to 4097' GOR 3200
Initial: Production 15 BOPD 222 BWPD
Or: Injection ____ BWPD _@____ psig

Completion Data:

Perf 4045-47', 4052-64', 4059-61', 4064-66', 4069-71', 4088-90', 4095-97' w/ 2JHPF. Aczd w/ 1000 gal 15% NEFEA + FCNB's. Swab 44 BW 4 runs EFL: 1700'. Swab 12 BO/156 BW 44 runs EFL: 3400'. Swab 6 BO/76 BW 16 runs EFL: 2800'. Perf 3852-54, 3859-61, 3886-88, 3904-14, 3929-31, 3952-54, 3970-76' w/ 2JHPF. Aczd w/ 2100 gal 15% NEFEA + FCNB's. Swb 460/42 BW EFL: 3000'. Swb 382/358 BW 9 runs EFL: 3600'. Put on pump. Tested 15 BO/222 BW/48 mcfpd FL @ SN. (DATE 11/25/90)

Test (picked up on Rpt) 12/20/90 - 4 BO/268 BW/20 mcfpd FL @ SN

Subsequent Workover or Reconditioning:

2/91 - Set RBP @ 4080'. Test pump 3852-4071'. Last test 38 BO/208 BW 25 mcf FL @ SN. POH & set RBP @ 4025'. Test pump 3852-3976'. Last Test 2 BO/228 BW/ 4 mcfpd FL @ SN. POH w/ RBP and retrieve all pkr to prod. Test 18 BO/365 BW/30 mcfpd. FL @ SN.

7/91 - Set pkr @ 4029'. Pumping 24 hrs. No comm. Set CICR @ 4027. Sqzd perfs 4045-4097' w/ 100 sx. Fd cmt @ 3540'. D/O cmt 3540-4080' (ACID) Perf 3778-82', 3790-94, 3802-06, 3852-54, 3859-61, 3886-88, 3904-14, 3929-31, 3954-62, 3970-76, 4045-47, 4052-54, 4059-61, 4064-66, 4069-71 w/ 2JHPF. Aczd 4045-96 w/ 750 gal 15% NEFEA. Swb 40 BW FER 0. Aczd 3852-3976' w/ 2000 gal 15% NEFEA. Swb 62 BW EFL: 3200' Aczd perfs 3778-3886' w/ 1250 gal 15% NEFEA. Swb 20 BW FER: 0 Put on well on prod. Test 58 BO/569 BW/21 mcfpd. Install surface flange.

5/94 - Fill @ 4064' (16' fill). C/O to PBTD 4080'. Trt perfs 3852'-4071' w/ pkr clean tool, 1424 gal Toluene & Isopropyl Alcohol & 4750 gal 15%. Swab 33 Hrs. SN @ 4040'. TST: B-280/194 BW/5 MCF, A-3 BO/579 BW/6 MCF. FL=464' ASN

1/97 - TOH w/ Prod eqp. RIH w/ 5½ Guiberson plastic coated G-6 pkr, XL ON/OFF TOOL, & 2⅞" IPC tbg TESTED TO 2000 psi. Perform MIT.

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

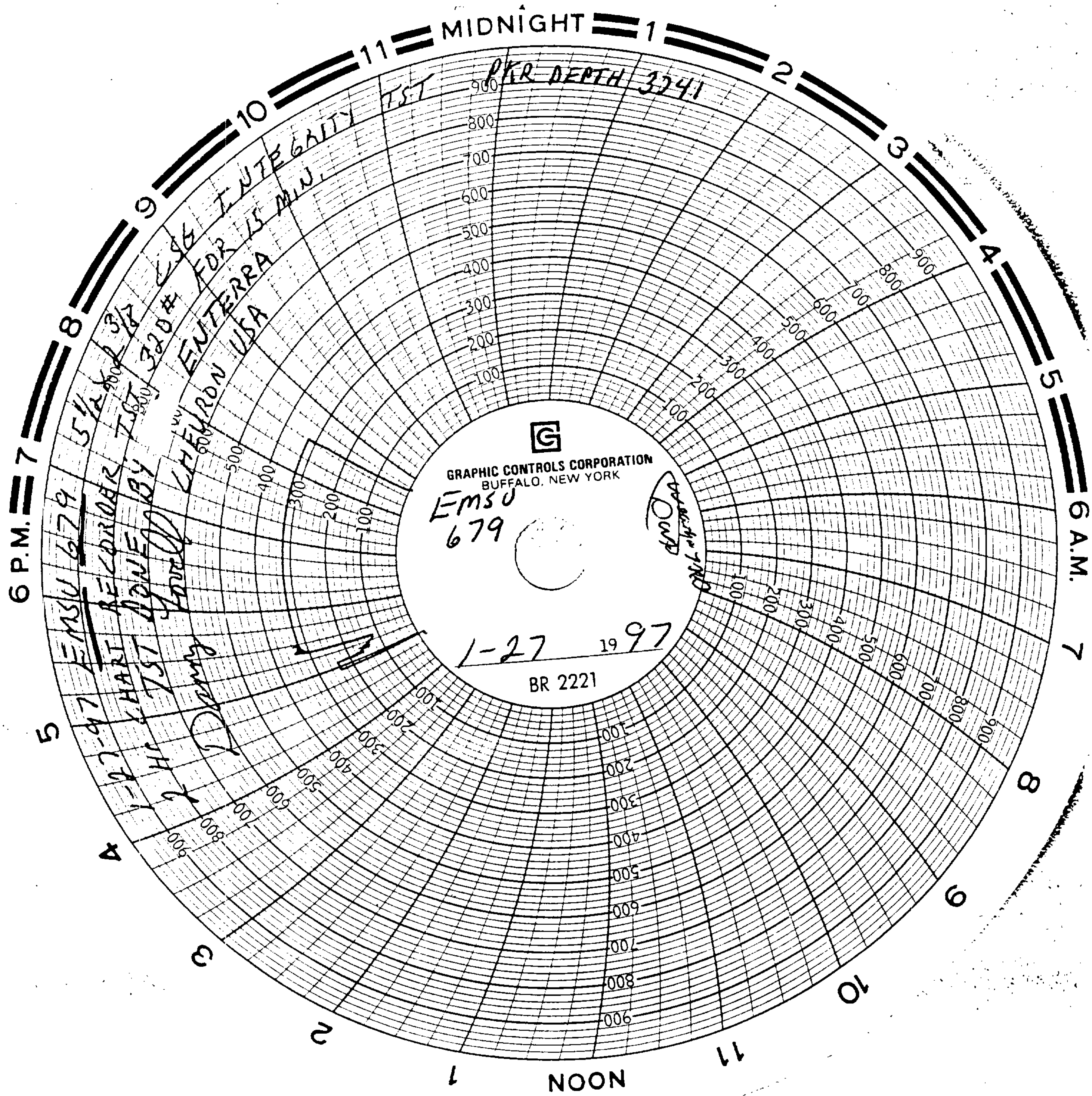
Prod Log -

1/91 - Trac indicates major entry thru perfs 4088-97'. Oil entry f/ perfs 4045-71'. (Z4 & Z5)

8/91 - 67% - 3775-95', 13% - 3850-75', 20% - 4062-66'

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

ILLEGIBLE


MIDNIGHT
6 A.M.
NOON
6 P.M.
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
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CHEVRON USA
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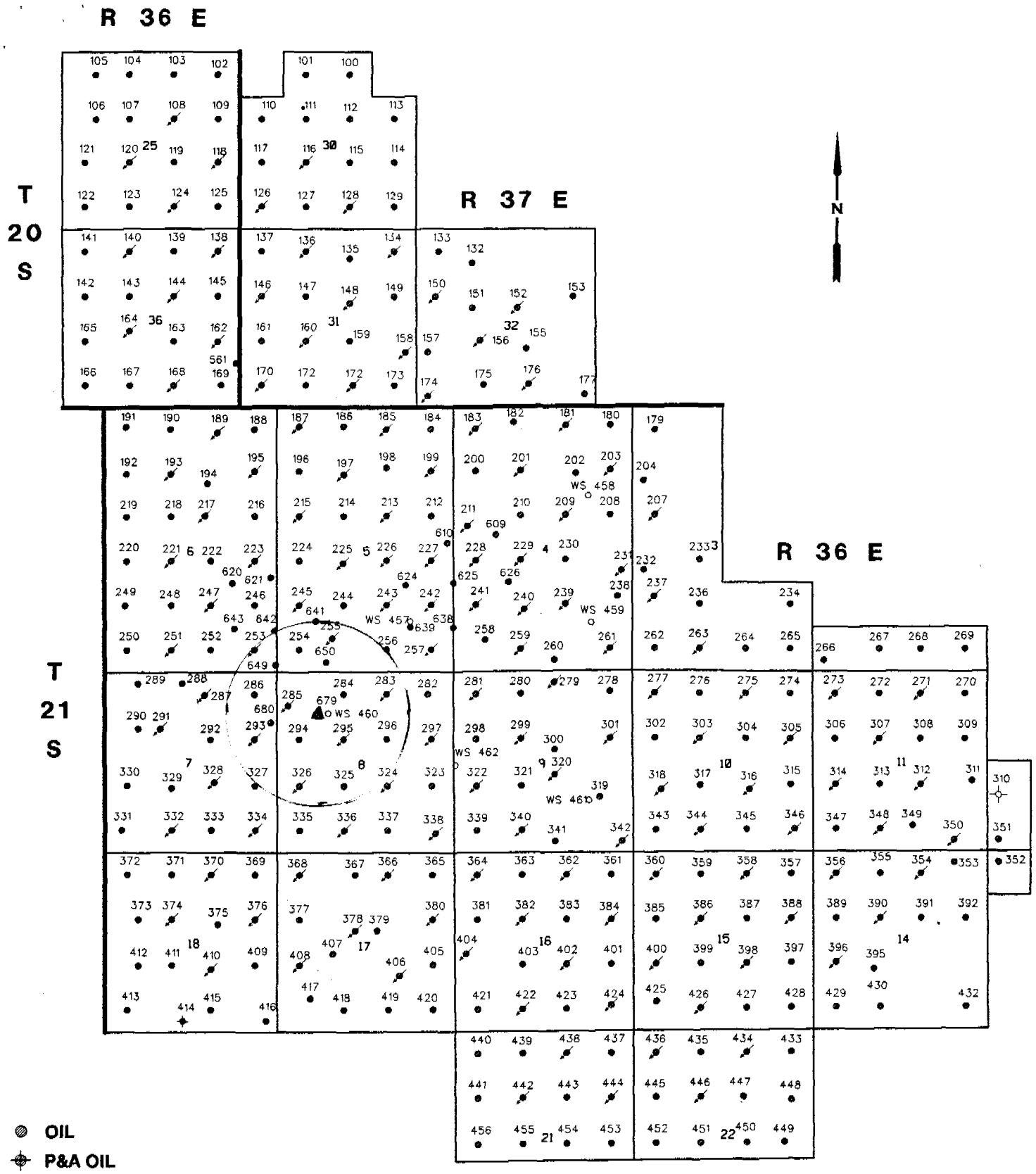
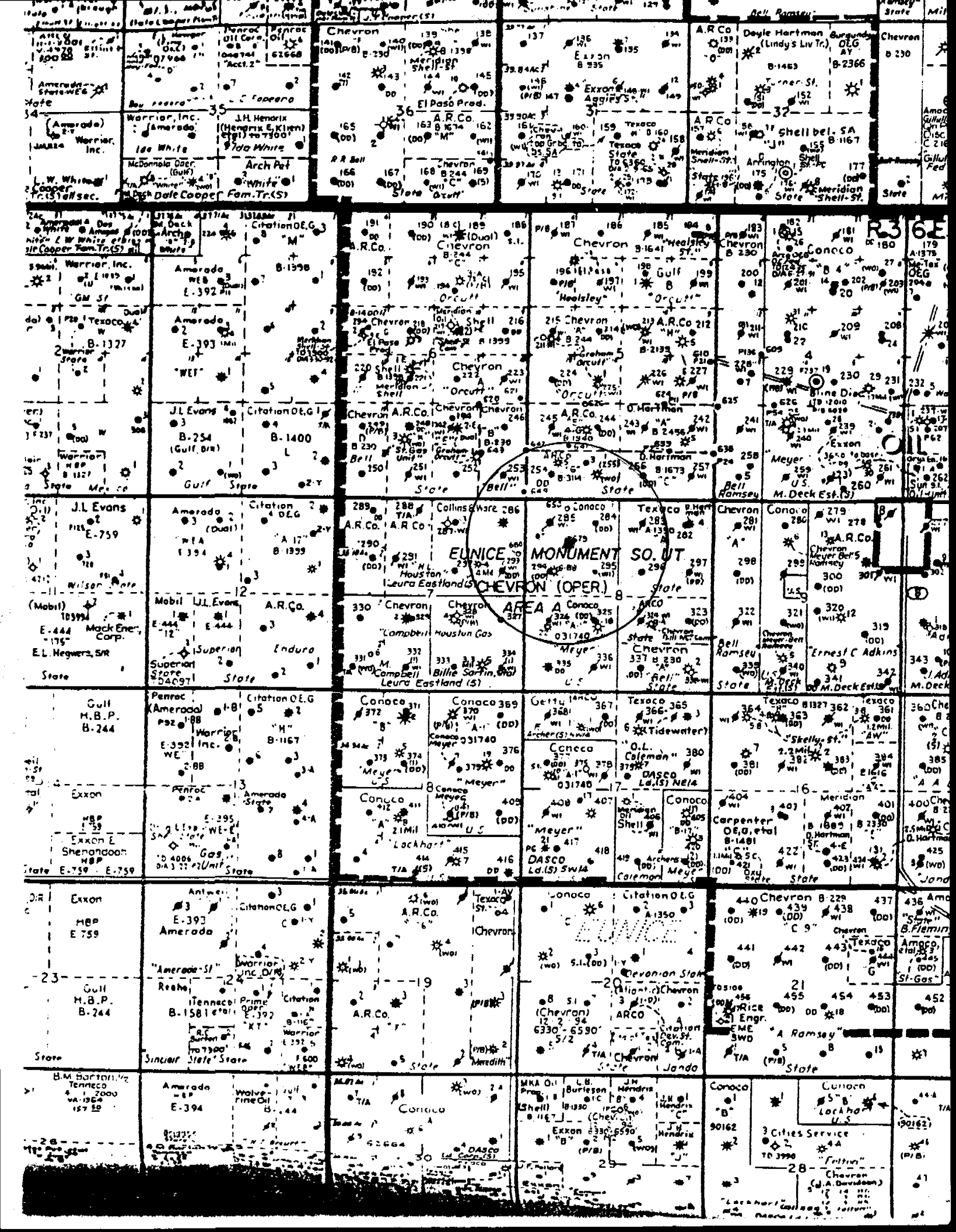
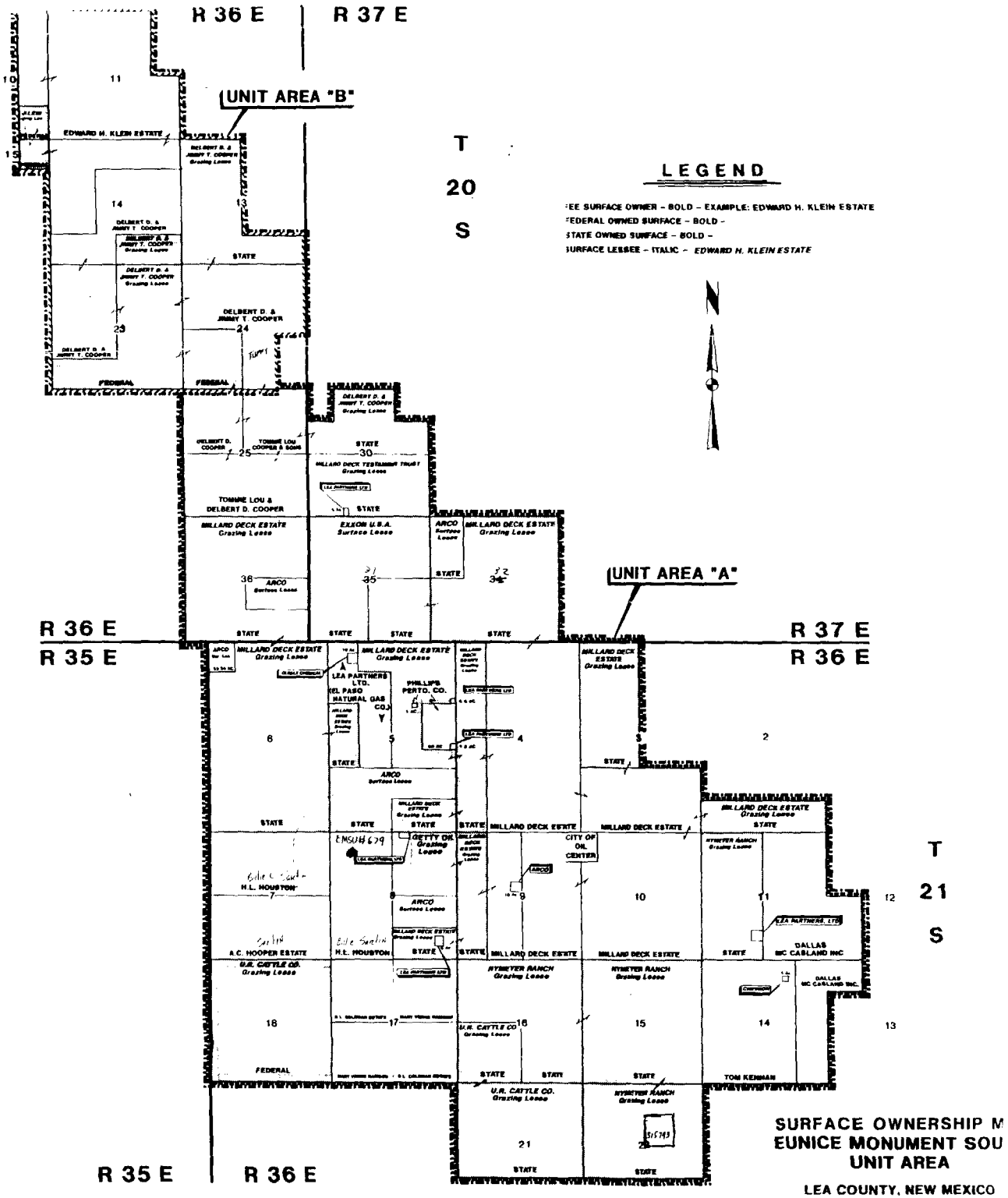



EUNICE
MONUMENT SO. UT
CHEVRON (OPER.)
AREA A

LARGE FORMAT EXHIBIT HAS BEEN REMOVED AND IS LOCATED IN THE NEXT FILE



SURFACE OWNERSHIP M
EUNICE MONUMENT SOU
UNIT AREA

LEA COUNTY, NEW MEXICO

MARCH 11, 1993

JAN 31 '96 09:37AM

3002533187
BD 6710

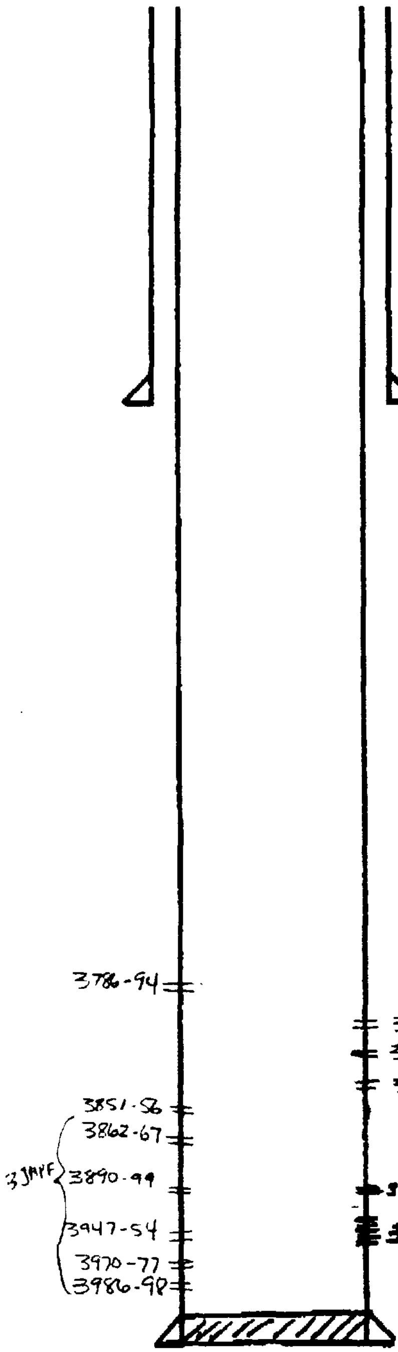
Well Data Sheet

2/6/97

Lease & Wellno EMSU #649 Field / Pool Eunice Monument Gb/SA Date ______

Location 210 Feet From South Line and 40 Feet From East Line

Section 6, T21S, R36E County Lea, New Mexico Operator Chevron USA



GE 3583'
KDB to GE 11.8'
DF to GE ______'

8 5/8" OD 24# ____ Thd
Gr. ______, ______ Csg.
set @ 1190' w/ 675 sx.
Cmt Circ.? Yes
TOC @ surf' by circ

5 1/2" OD 15.5# ____ Thd
Gr. ______, ______ Csg.
set @ 4064' w/ 575 sx.
Cmt Circ.? No
TOC @ 720' by TS

PBD 4003'
TD 4064'

Date Completed 2/96
Initial Formation Grayburg
From: ______ ' to ______ ' GOR ______
Initial: Production ______ BOPD ______ BWPD
Or: Injection ______ BWPD @ ______ psig

Completion Data:
Perf 3882-89' & 3900-23' w/ 3 JHPF. Pickle tbg w/ 350 gal. Spot 10 gal acid. Brk dn & acid perfs w/ 3000 gal 15% NEFE w/ [illegible] additives & 90 RCNB's & GRS. Swab & put well on prod. SN @ 3977' on 2 3/8" tbg.

Subsequent Workover or Reconditioning: RBP @ 3863'.
2/96 Perf 3809-12, 3816-22, 3826-44. Acdz perfs 3809-3844 w/ 3000 gals 15% HCl in 7 stages. RIH w/ PE. TOP

4/96 Retrieve & POH w/ RBP @ 3863'. DOC to 4040'. Perf w/ 3 JHPF 3786-94, 3851-56, 3862-67, 3890-99, 3947-54, 3970-77, 3986-98. Acdz perfs w/ 8400 gals 15% in 15 stages. Swab - 8 runs. IFL ~1800', EFL 2800'. Rec'd 45 BW. RIH w/ PE. TOP.

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

Well Data Sheet

'ease & Wellno EMSU # 650 Field / Pool Eunice Monument Date 4/24/97
Location 250 Feet From North Line and 1135 Feet From West Line
Section 8, T-21-S, R-36-E County Lea, NM Operator Chevron U.S.A.

GE 3576'
KDB to GE 5.5'
DF to GE 4.5'
KB 3581.5
DF 3580.5

Date Completed 3-10-97
Initial Formation
From: ' to ' GOR
Initial: Production BOPD BWPD
Or: Injection BWPD @ psig
Completion Data:
Cored 3755 - 4039, GR/LDT/CNL/BHC/DLL/MCFL/CM

8 5/8" OD 24# Thd
Gr. K-55, ST&C Csg.
set @ 1185' w/ 650 sx.
Cmt Circ.? 145 sx
TOC @ 0' by circ.

Subsequent Workover or Reconditioning:
5/97 DO FC & Cmt to 4028. Circ clean. Pickle w/1000 gals 15% HCl.
Perf f/3840-56, 3861-71, 3877-3900, 3907-10, 3916-23 & 3960-66 (2 JHPF).
Set BP @ 4020. Spot 500 gals Rasisol II. Acdz w/1500 gals Rasisol II.
Acdz w/5000 gals 15% Rasisol II foamed w/N2 (9 stages w/50-BS)
Ret BP. Run GR Log all zones reperforated.

3840-56
3861-71
3877-3900
3907-10
3916-23
3960-66

5 1/2" OD 15.5# 8rd Thd
Gr. K-55, LT&C Csg.
set @ 4037' w/ 965 sx.
Cmt Circ.? 86 sx
TOC @ 0' by circ
25 jts 17# 1111'
1st stage 90 sx 36 circ
2nd stage 875 sx 50 circ

Logs 4/97 CNL/GR + GR/CBL/ECL

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

PBD '
TD 4038'

Well Data Sheet BI9675

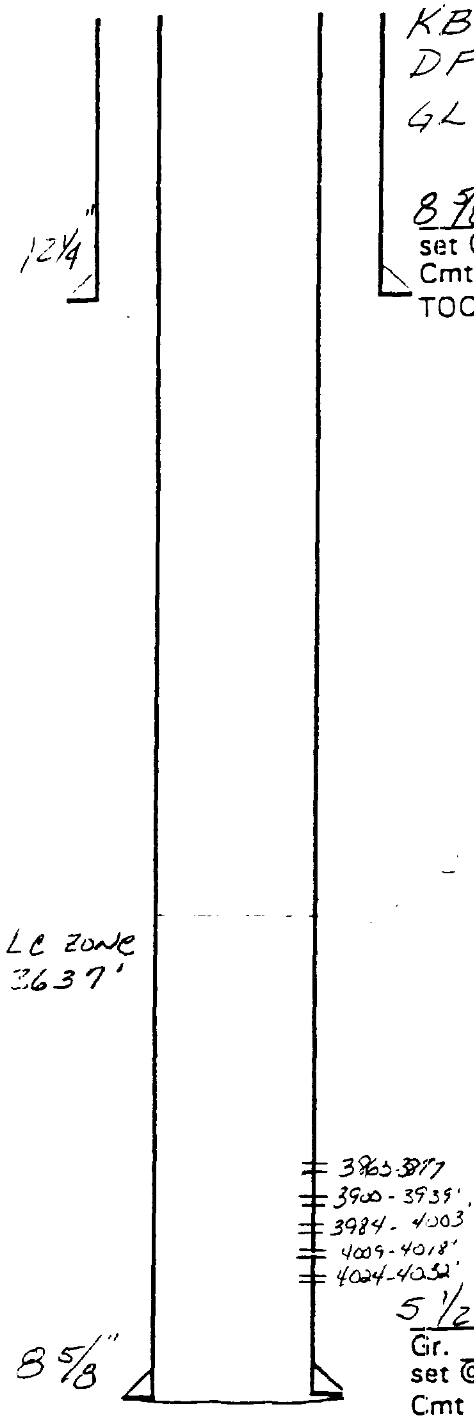
Lease & Wellno EMSU 680 | Field / Pool ______ | Date 3-1-97

Location 1490 Feet From North Line and 185 Feet From East Line

Section 7 T21S R36E County Lea Operator Chevron

KB 3588' LMD
DF 3587'
GL 3582'

8 5/8" OD 24 # Csg. K-55
set @ 1225' w/ 650 sx.
Cmt Circ.? 105 sx
TOC @ 0' by Circ



5 1/2" OD 15.5# 8rd Thd
Gr. K-55, Csg.
set @ 4075' w/ 875 sx.
Cmt Circ.? 130
TOC @ Surf' by Circ
2ND Stage

PBD ______'
TD 4096'

Date Completed 3-20-97
Initial Formation ______
From: ______' to ______' GOR ______
Initial: Production ______ BOPD ______ BWPD
Or: Injection ______ BWPD @ ______ psig

Completion Data:
2-7-97 LOST CIRCULATION @ 3637
CORE 3750-4096 LDT/CNL/DLL/MCFL/GR
SONIC CMR
2-14-97 DV Tool @ 3577 w/ 90 sx Circ, FC @ 4025

Subsequent Workover or Reconditioning:
2-7-97 Lost circ @ 3637'
2-8-97 Core 3750-4096
LDT/CNL/DLL/MCFL/GR SONIC/GR CMR/GR
3-20-97 Drill DV Tool. Drill Float Collar & Cmt to 4061'
3-21-97 Run GR/CBL/CCL F/4066 to 1225'. GR/CCL to surf. Last cmt @ 1200' [illegible] f/3500 to surf
3-21-97 Perf f 3863' to 3877' 3900-3939, 3984-4003, 4009-4018, 4024-4032
RIH w/ PKR to 3863 & RBP
3-24-97 Spot 220 gals Resi-sol II break down perfs f/4032-3877, move pkr to 3743 Pmp 168 bbls Resi-sol II w/ 25 ballsealers every 10 bbls.
3-25-97 Run 26 RCNB's @ 2.1 BPM. Flush POH w/ RBP & Pkr. RIH w/ Prod equip
Turn to prod
4-9-97 POH w/ prod equip
4-10-97 acdz w/ 4000 gal 90/10 Resi-sol II. Run GR f/3990-3700
Run GR f/3990-3700

API: 30-025-27620

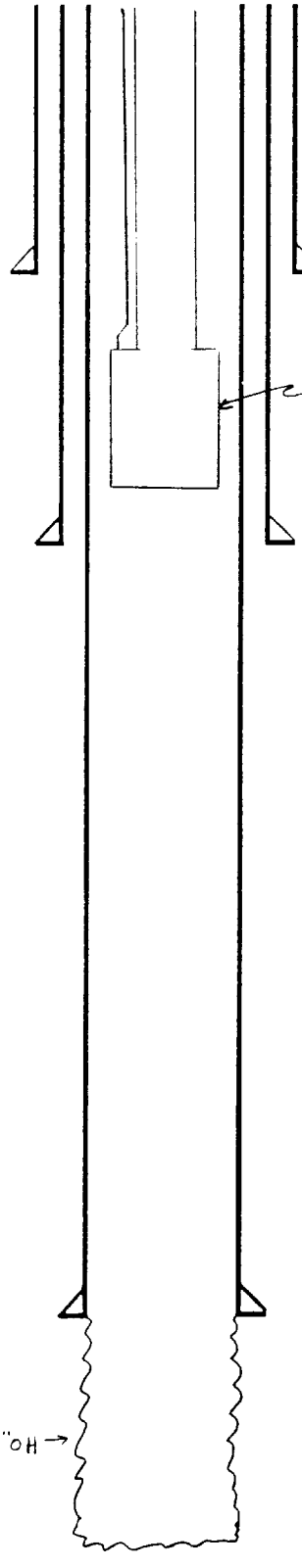
KEFNO: FW-62710:01

Well Data Sheet

Lease & Wellno EMSU #460 WSW Field / Pool Eunice/Monument Grbg/SA Date 1/24/95

Location 1220 Feet From North Line and 1520 Feet From West Line

Section 8 T21S R36E County Lea New Mexico Operator Chevron



GE 3586.7'
KDB to GE 17.6'
DF to GE ____'

16" OD 65# H-40 Csg.
set @ 415' w/ 500 sx.
Cmt Circ.? yes
TOC @ — ' by —

11 3/4" OD 47# ___ Thd
Gr. ____, ____ Csg.
set @ 2700' w/ 1050 sx.
Cmt Circ.? yes
TOC @ — ' by —

8 5/8" OD 32# ___ Thd
Gr. K-55, ____ Csg.
set @ 4350' w/ 750 sx.
Cmt Circ.? No
TOC @ 700' by TS

Date Completed 2-14-87
Initial Formation San Andres
From: 4350' to 5000' GOR —
Initial: Production — BOPD 1584 BWPD
Or: Injection — BWPD @ — psig

Completion Data:

San Andres OH 4350-5000'
Drilled with Natural Energy

PWOP and power surge caused SP failure

Subsequent Workover or Reconditioning:

2/87 - Pull & rerun pump. EMPower motor guard did not work. Run Baker-Lift 300 HP; 2360 V - 80 A monel coated motor equalizer. 46 stg pump. Run on 4½" 10.5# STC IPC csg for Tbg Ppg 16320 BWPD @ 75 amps.

10/88 - SP grounded dn hole. POH. Btm 33 jts csg pitted, cable also bad (btm 33 jts). XO cable w/ poly cable, exchanged bad csg w/ C.I.B. Run new Trico motor, pump, seal. Tst 12500 BWPD @ 88 Amps.

5/89 - Grnd dn hole. POH, Rerun pump & motor. XO seal assbly. Tst 12600 BWPD @ 80 Amps.

8/89 - Grnd dn hole during elec. storm. POH, found burnt motor. XO motor & seal assbly. Tst 17300 BWPD @ 75 amps.

9/90 - Replaced burnt motor & pump w/ Centrilift 440 HP motor & series 675 pump. Run new poly cable. Tst 21800 BWPD @ 86 Amps

9/92 - Replaced shorted motor w/ 450 HP Centrilift motors, XO shorted cable. Rerun pump & csg. Tst 20,000 BWPD

1/95 - POH, motor burnt. Pump tst bad. Run new pump & motor Centrilift 32HC19000 450 HP 32 stg ESP. Run new round cable, warehouse old flat cable Test 22000 BWPD.

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

PBD ____'
TD 5000'

Well Data Sheet

Lease & Wellno _____ Field / Pool _____ Date _____

Location _____ Feet From _____ Line and _____ Feet From _____ Line

Section _____ Township _____ County _____ Operator _____

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

Date Completed _____

Initial Formation _____

From: _____' to _____' GOR _____

Initial: Production _____ BOPD _____ BWPD

Or: Injection _____ BWPD _@_____ psig

Completion Data:

_____" OD____#____Thd
Gr. _____, _____Csg.
set @_____' w/_____sx.
Cmt Circ.? _____
TOC @_____' by _____

Subsequent Workover or Reconditioning:

_____" OD____#____Thd
Gr. _____, _____Csg.
set @_____' w/_____sx.
Cmt Circ.? _____
TOC @_____' by _____

Present Inj. _____ bwpd @ _____ psi Date _____

Present Prod. _____ bopd _____ bwpd Date _____

Gas _____ mcfpd

PBD _____'
TD _____'

Well Data Sheet

Lease & Wellno _____ Field / Pool _____ Date _____

Location 1720 Feet From South Line and 2330 Feet From West Line

Section _____ County _____ Operator _____

GE 3000'
KDB to GE _____'
DF to GE _____'

Date Completed 10/2/80
Initial Formation _____
From: _____' to _____' GOR _____
Initial: Production _____ BOPD _____ BWPD
Or: Injection _____ BWPD _@_____ psig
Completion Data:

8 5/8" OD ___ # ___ Thd
Gr. _____, _____ Csg.
set @ 623' w/ 600 sx.
Cmt Circ.? _____
TOC @ _____' by _____

Subsequent Workover or Reconditioning:

5 1/2" OD ___ # ___ Thd
Gr. _____, _____ Csg.
set @ 3200' w/ 1225 sx.
Cmt Circ.? _____
TOC @ _____' by _____

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

PBD _____'
TD 3250'

Well Data Sheet

Lease & Wellno _____ Field / Pool _____ Date _____
Location _____ Feet From _____ Line and _____ Feet From _____ Line
Section _____ County _____ Operator _____

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

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

_____" OD____#____Thd
Gr. _____, _____Csg.
set @_____' w/_____sx.
Cmt Circ.? _____
TOC @_____' by _____

Subsequent Workover or Reconditioning:

_____" OD____#____Thd
Gr. _____, _____Csg.
set @_____' w/_____sx.
Cmt Circ.? _____
TOC @_____' by _____

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

PBD _____'
TD _____'

EMSU # 679 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
EMSU #679	1500	750	750	650		X

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 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 284226
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 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	2,841		
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. 1

By
Waylan C. Martin, M.A.

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

#37

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.

709 W INDIANA
MIDLAND TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 284225

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

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 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.

UNICHEM INTERNATIONAL

601 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

#38

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

EMSU # 679 Conversion to Injection
Eunice Monument South Unit
Lea County, NM

Surface Land Owners

Ms. Billie Sartin
223 Moore St.
Sulfur Springs, TX 75480

Offset Operators

Conoco, Inc.
One Post Oak Central
2000 Post Oak Blvd., Suite 100
Houston, TX 79705-4500

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

Texaco E&P, Inc.
P.O. Box 3900
Midland, TX 79702

Collins & Ware, Inc.
508 W. Wall, Suite 1200
Midland, TX 79701

D. Hartman
500 N. Main St.
Midland, TX 79701

Chevron

Chevron

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

September 16, 1997

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

Tracy Love
Petroleum Engineer

TL/ndm
Attachment

LEGAL NOTICE
(DATE)

Chevron U.S.A. Production Company has applied to the Oil Conservation Division of the State of New Mexico for approval to convert #679 to an injection well in their Eunice Monument South Unit. This well is designed to improve the efficiency of the waterflood pattern and enhance the production of the EMSU secondary recovery project. This well is located in Section 8, Unit D, Township 21 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 of 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 wishing 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.

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

September 23 1997

and ending with the issue dated

September 23 1997

Kathi Bearden

Publisher

Sworn and subscribed to before me this 23rd day of September 1997

Jodi Henson

Notary Public.

My Commision 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.

LEGAL NOTICE
September 23, 1997

Chevron U.S.A. Production Company has applied to the Oil Conservation Division of the State of New Mexico for approval to convert #679 to an injection well in their Eunice Monument South Unit. This well is designed to improve the efficiency of the waterflood pattern and enhance the production of the EMSU secondary recovery project. This well is located in Section 8, Unit D, Township 21 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 of 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 wishing 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.
#15433

01102480000 02509754
Chevron U.S.A. Production Comp
P.O. Box 1150
a/c#
MIDLAND, TX 79702