Amoco Production Company
Post Office Box 68
Hobbs, New Mexico 88240

L. R. Smith
District Manager

March 4, 1986

File: SGH-287-WF

Re: Application for Authorization to
Convert State "NC" No. 1
Lea County, New Mexico
to Saltwater Disposal Well

Case 8885

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Attention: Mr. Richard L. Stamets

Amoco Production Company hereby makes application for administrative approval to convert State "NC" No. 1 to a saltwater disposal well. Form C-108 and required documentation is attached. Your prompt consideration of this application will be appreciated.

If additional information is needed, please contact Beverly Otwell (505) 393-1781.

L. R. Smith/BAO

BAO/tjt
APRD04-AA

Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240

State of New Mexico
Commissioner of Public Lands
P. O. Box 1148
Santa Fe, NM 87501

Mr. Robert B. Eidson
Eidson Ranch, Inc.
West Star Route, Box 490
Lovington, NM 88260

Mobil Producing Texas and
New Mexico, Inc.
9 Greenway Plaza, Suite 2700
Houston, TX 77046

Chevron U.S.A., Inc.
P. O. Box 670
Hobbs, NM 88240

H. L. Brown, Jr.
P. O. Box 2237
Midland, TX 79702

Union Texas Petroleum
Division of Allied Chemicals
P. O. Box 2120
Houston, TX 77252-2120

Tenneco Oil Company
P. O. Box 2511
Houston, TX 77001

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

Case 8855

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: Amoco Production Company

Address: P. O. Box 68, Hobbs, NM 88240

Contact party: J. M. Breeden, Jr. Phone: (505) 393-1781

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Beverly A. Otwell Title Sr. Administrative Analyst

Signature: Beverly A. Otwell Date: March 4, 1986

* 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. _____

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.

ITEM NO. 3

INJECTION WELL DATA

ITEM NO. 3

INJECTION WELL DATA SHEET

Amoco Production Company	State NC No. 1
Operator	Lease

1	660' FEL x 1320' FNL	3	16-S	32-E
Well No.	Footage Location	Section	Township	Range

Schematic

(See attached wellbore sketch)

13-3/8" CSA 425'
8-5/8" CSA 4,138'
5-1/2" CSA 10,800'

Tubular Data

Surface Casing

Size 13-3/8 " Cemented with 450 sx

TOC surface feet determined by circulation

Hole Size 17-1/2"

Intermediate Casing

Size 8-5/8 " Cemented with 1805 sx

TOC surface feet determined by circulation

Hole Size 11"

Long String

Size 5-1/2 " Cemented with 1850 sx

TOC surface feet determined by circulation

Hole Size 7-7/8"

Total Depth 10,800'

Injection interval 9,080' to 9,979'

Tubing Size 2-7/8" lined with plastic (Material) set in a Guiberson Uni VI Baker Lock-set (plastic coated) (brand and model) packer at 9000 feet
(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Wolfcamp

2. Name of Field or Pool (if applicable) Anderson Ranch

3. Is this a new well drilled for injection? _____ Yes X No

   If no, for what purpose was the well originally drilled? Production of oil and gas.

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used. The Penn formation was tested across the interval 10,450' - 10470'. However after testing nonproductive a CIBP was set at 10400' and capped with 35' of cement.

5. Give the depth to and name any of overlying and/or underlying oil or gas zones (pools) in this area. The Penn. Formation underlies the Wolfcamp (-5694'). No overlying productive horizons are known to exist above the Wolfcamp. (Note: The Wolfcamp formation is also productive.)

RJG/tjt
FPPRI8-DD

SHEET NO. OF

Amoco Production Company

ENGINEERING CHART

FILE

APPN

SUBJECT STATE NC No. 1
ANDERSON RANCH

DATE 2/5/86

BY

LOCATION: 1320' FNL & 660' FEL, SEC 3, T-16-S, R-32-E
LEA COUNTY, NEW MEXICO.

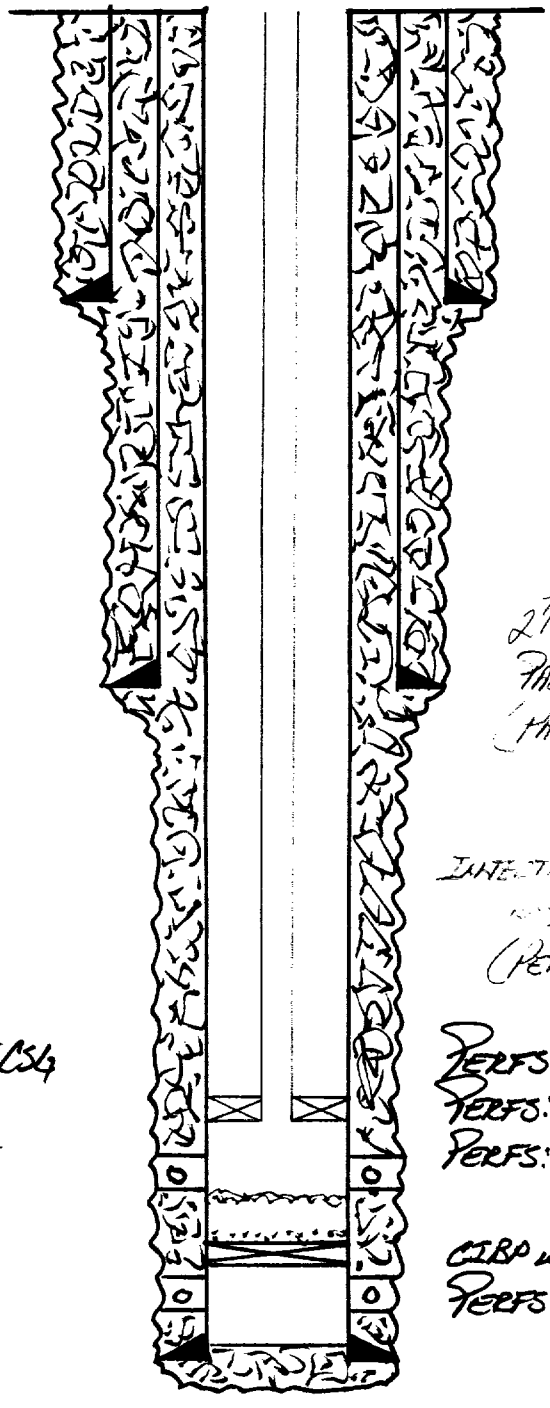
ELEV: 4318' GL
4339.25 KB.

COMPLETED: 10-16-84 PRODUCING.

13 3/8" 48# H-40 CSG
SET AT 420'
CMT W/ 450 SX C CMT
CIRC
17 1/2" HOLE.

8 5/8" 32# J-55 CSG
SET AT 4138'
CMT W/ 1405 SX LITE C CMT
X 400 SX C CMT.
CIRC
11" HOLE

5 1/2" 17 & 15.5# N-80 & K-55 CSG
SET AT 10800'
CMT W/ 1150 SX LITE H CMT
X 700 SX H CMT
CIRC
7 7/8" HOLE.



2 7/8" INTERVALLY COATED TBG W/
PACKER SET AT 10000'
(PACKER SET WITH 20,000 LBS OF
BAKER LOK-SET).

INJECTING [illegible] BPD
[illegible] J-55, [illegible] 79
(PERFORATED)

PERFS: 9552'-9558' W/ 4 JSPF
PERFS: 9910-9980 W/ 4 JSPF X SQ CMT.
PERFS: 9910-9926, 9946-9956 W/ 4 JSPF

CIBP W/ 35' CMT CAP @ 10400'
PERFS: 10450'-10470' W/ 4 JSPF

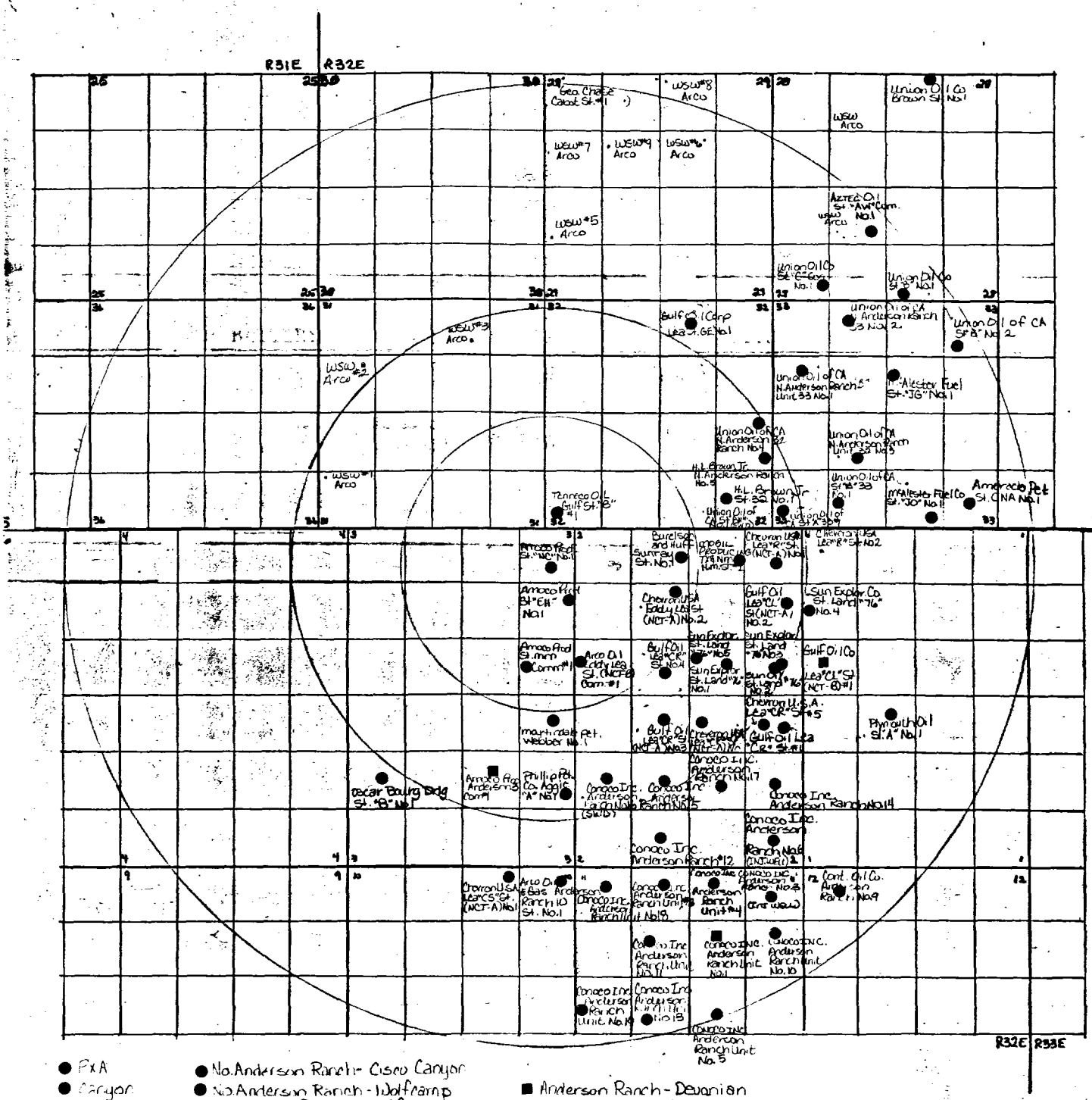
TD: 10800'
PBTD: 9979'

Form 371 271

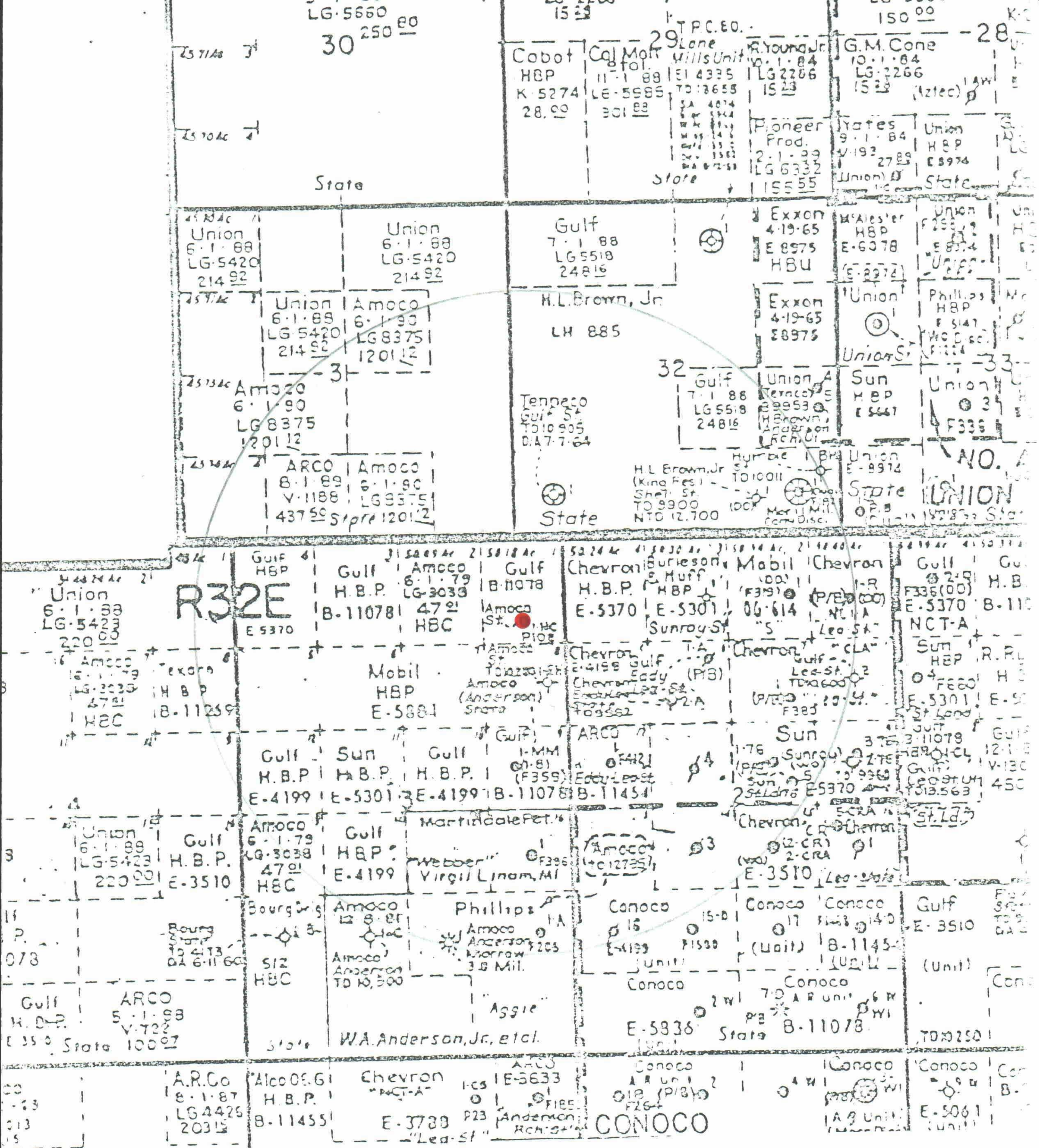
ITEM NO. 5

AREA OF REVIEW AND LEASE OWNERSHIP MAPS

All Wells Within a Two Mile Radius of the Amoco Operated State NC No. 1 Well in Unit A of Section 3, T16S, R32E, in Lea County, NM



- P x A
- Canyon
- Wolfcamp
- Morrow
- No. Anderson Ranch - Cisco Canyon
- No. Anderson Ranch - Wolfcamp
- Anderson Ranch - Wolfcamp
- Anderson Ranch - Morrow
- Anderson Ranch - Devonian
- Undesignated - Canyon
- Feather - Wolfcamp


R32E
30
29
28
31
32
33
State
Union
6-1-88
LG-5420
214 92
Amoco
6-1-90
LG 8375
1201 12
ARCO
8-1-89
V-1188
437 50
Gulf
7-1-88
LG 5518
248 16
H.L.Brown, Jr
LH 885
Exxon
4-19-65
E 8975
HBU
Cabot
HBP
K 5274
Tenneco
G.M. Cone
Pioneer Prod.
Sun
HBP
Mobil
HBP
E-5884
Chevron
H.B.P.
E-5370
Gulf
H.B.P.
B-11078
E-4199
Martindale Fed.
Virgil Linam, MI
Phillips
Conoco
E-5836
B-11078
W.A. Anderson, Jr., et al.
Chevron
E-3738
CONOCO
Union
6-1-88
LG-5423
220 00
Texaco
E-3510
ARCO
5-1-88
V-722
NO. A
UNION

ITEM NO. 6

TABULATED WELL DATA FOR WELLS WITHIN AREA OF REVIEW

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: State "NC" No. 1

LOCATION: (Unit A) 1320' FNL & 660 FEL SEC. 3 T- 16 -S, R 32 -E

ELEVATION: 4318' GL _____ DF 4339.25 KB

TD: 10,800' PBTD: 9979'

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2"	13-3/8"	48#	420'	400 sx	Circ. 100 sx
11'	8-5/8"	32#	4138'	1805 sx	Circ. out 277 sx
7-7/8"	5-1/2"	17# 15.5#	10800'	1850 sx	Circ. out 50 sx

PRODUCING INTERVAL: Penn: 10,450'-70' (Abandoned) Wolfcamp: 9910'-80-Sq Cmt, 9552'-58', 9910'-26' and 9946'-56'. N. Anderson Ranch-Wolfcamp

COMPLETION DATE: 6-15-84

CURRENT STATUS: Producing

COMMENTS: Plan to inject into the Wolfcamp formation through perforations inthe 5-1/2" casing string.

* NOTE: Must attach a wellbore schematic for all PxA wells illustrating details.

RJG/tjt
EPPRI8-DD

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: State "MM" Com. No. 1

LOCATION: (Unit I) 3637 FNL & 810 FEL SEC. 3 T-16-S, R 32-E

ELEVATION: 4315' GL _____ DF 4335' KB

TD: 10578' PBTD: 9915'

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2"	13-3/8"	48#	425'	425sx	Circ. 110sx
12-1/4"	9-5/8"	40#	4193'	5600sx	100'
8-3/4"	5-1/2"	17# 20#	10300'	2800sx	Circ. 30sx

PRODUCING INTERVAL: 9812'-9846' N. Anderson Ranch-Wolfcamp

COMPLETION DATE: 9-7-80

CURRENT STATUS: Producing (Oil and Gas)

COMMENTS: Well was completed across 10084'-104', 10112'-130', 10140'-150'. CIBP SA 10075'. Well was also perforated across 10050'-062'. CIBP capped with 35' cmt set at 9950'.

* NOTE: Must attach a wellbore schematic for all PxA wells illustrating details.

RJG/tjt
EPPRI8-DD

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Arco Oil and Gas Company

WELL NAME: Eddy Lea State (NCT-B) Com. No. 1

LOCATION: (Unit L) 3600' FNL x 660' FW SEC. 2 T- 16 -S, R 32 -E

ELEVATION: 4306 ' GL _____ DF _____ KB

TD: 10,750' PBTD: 9960'

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2"	13-3/8"	54.5#	504'	800sx	Circ. 93sx to surf.
11"	8-5/8"	28#	4180'	2600sx	Circ. 138sx to surf.
7-7/8"	5-1/2"	17#	10750'	1400sx	Plug down did circ.

ok

PRODUCING INTERVAL: 9818'-46' No. Anderson Ranch-Wolfcamp.

COMPLETION DATE: 5-8-85

CURRENT STATUS: Producing

COMMENTS: None

* NOTE: Must attach a wellbore schematic for all PxA wells illustrating details.

RJG/tjt
EPPRI8-DD

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: State "EH" No. 1

LOCATION: (Unit H) 2310' FNL x 330" FELSEC. 3 T-16 -S, R 32 -E

ELEVATION: 4312' GL _____ DF _____ KB

TD: 10,200' PBTD: 10,070' (PxA)

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2"	13-3/8"	54.5#	400'	420sx	Circ. 200sx
11"	8-5/8"	32 #	4140'	1200sx	Circ. 703sx

N/A

PRODUCING INTERVAL: --None

COMPLETION DATE: 1-19-85

CURRENT STATUS: P x A

COMMENTS: Well was drilled and abandoned (Production casing was not run.).

* NOTE: Must attach a wellbore schematic for all PxA wells illustrating details.

RJG/tjt
EPPRI8-DD

SHEET NO. OF

FILE

APPN

DATE 2/5/86

BY RJA

Amoco Production Company

ENGINEERING CHART

SUBJECT STATE EH No. 1
ANDERSON RANCH (AMOCO PRODUCTION)

LOCATION: 2310 FNL & 330 FEL, SEC 3, T-16-S, R-32-E
LEA COUNTY, NEW MEXICO

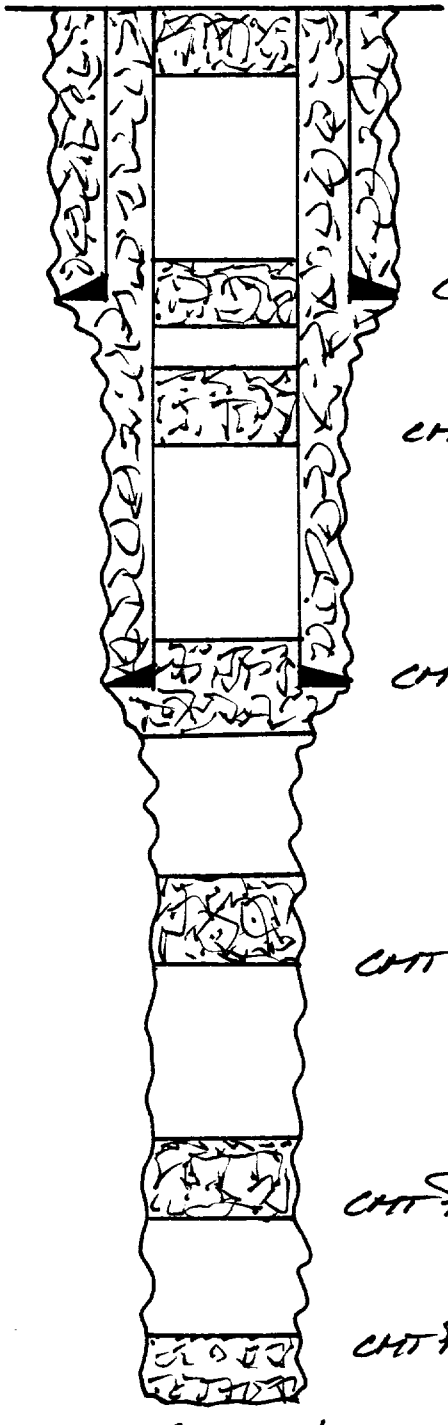
ELEV: 4312 GL

DRILLED AND ABANDONED 1-19-85

13 3/8" 54.5# CSA 400'
CMT W/ 420 SX
CIRC
17 1/2" HOLE.

8 5/8" 32# CSA 4140'
CMT W/ 1200 SX
CIRC
11" HOLE.

OK



SURFACE PLUG (10 SX)

CMT PLUG FROM 450'-350' (35 SX)

CMT PLUG FROM 1450'-1350' (35 SX)

CMT PLUG FROM 4200'-4100' (30 SX)

CMT PLUG FROM 6500'-6400' (30 SX)

CMT PLUG FROM 9000'-8950' (60 SX)

CMT PLUG FROM 10070'-9970' (50 SX)

TD: 10200'
PBTD: 10070'

Form 371 2-71

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Burleson and Huff

WELL NAME: Sunray State No. 1

LOCATION: (Unit C) 990 FNL' x 2310' FWL SEC. 2 T- 16 -S, R 32 -E

ELEVATION: 4310' GL _____ DF _____ KB

TD: 9900' PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2	13-3/8"	48#	409'	420sx	Circ.
11"	8-5/8"	24# 32#	3450'	400sx	Approx. 2000'

PRODUCING INTERVAL: --

COMPLETION DATE: 2-5-67 TD

CURRENT STATUS: PxA

COMMENTS: Waterflow encountered when setting casing at 2200'.

* NOTE: Must attach a wellbore schematic for all PxA wells illustrating details.

RJG/tjt
EPPRI8-DD

AMOCO

Amoco Production Company

ENGINEERING CHART

SHEET NO. OF

FILE

APPN

DATE 2/5/68.

BY RDH

SUBJECT SUNRAY STATE No. 1
ANDERSON RANCH (BURLESON AND HUFF)

LOCATION: 990 FNL & 2310 FWL SEC 2, T-16-S, R-32-E
LEA COUNTY, NEW MEXICO.

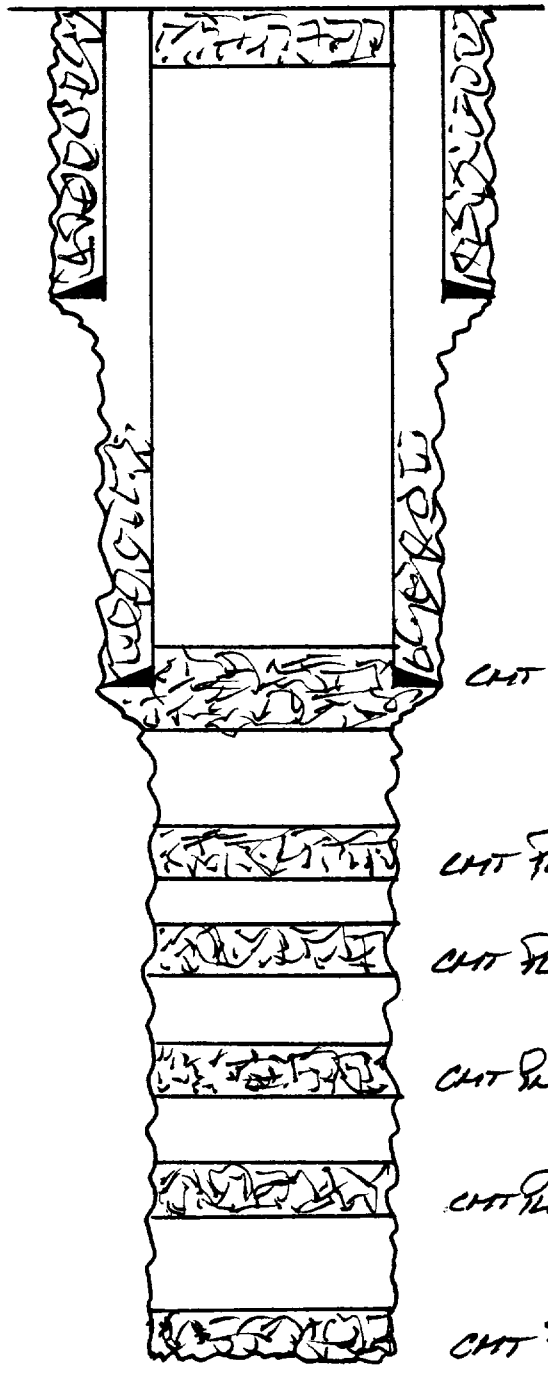
ELEV: 4310' GL

COMPLETED: 2-5-67.

13 3/8" 48# CSA 469'
CMT W/ 420 SX
CIRC
17 1/2" HOLE.

8 5/8" 24 & 32# CSA 3450'
CMT W/ 400 SX
TCMT 2000' CALC
11" HOLE

OK



10 SX SURFACE PLUG.

CMT PLUG FROM 3480' (25 SX)

CMT PLUG FROM 4300' (25 SX)

CMT PLUG FROM 5200' (25 SX)

CMT PLUG FROM 6900' (25 SX)

CMT PLUG FROM 8900' (25 SX)

CMT PLUG FROM 9200' (25 SX)

TD: 9900'

Form 371 2-71

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Tenneco Oil Company

WELL NAME: Gulf State "B" No. 1

LOCATION: Unit M 660 FSL & 660 FWL SEC. 32 T- 15 -S, R 32 -E

ELEVATION: 4321' GL _____ DF _____ KB

TD: 10,305' PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2"	13-3/8"	48#	481'	480 sx	Cmt Circ.
11"	8-5/8"	24#, 32#	4201'	4200 sx	Cmt Circ.

PRODUCING INTERVAL: None

COMPLETION DATE: July 5, 1964

CURRENT STATUS: PxA

COMMENTS: Encountered water sand from 2215-2240' flowed in excess of 6,000 BWPH

* NOTE: Must attach a wellbore schematic for all PxA wells illustrating details.

RJG/tjt
EPPRI8-DD

AMOCO

Amoco Production Company

ENGINEERING CHART

SHEET NO. OF

FILE

APPN

DATE 2/5/86

BY

SUBJECT GULF STATE "B" No. 1
ANDERSON RANCH (TENNECO OIL CO.)

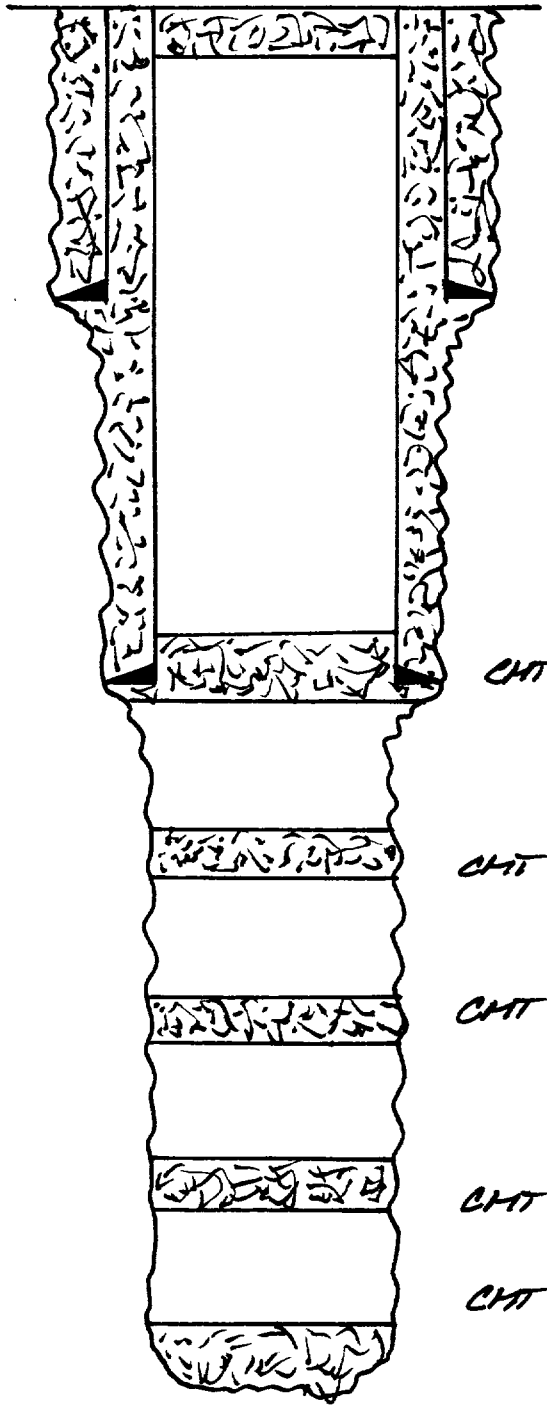
LOCATION: 660FSL, FWL, SECTION 32, T-15-S, R-32-E
LEA COUNTY, NEW MEXICO.

ELEV: 4321' GL.

COMPLETED: D&A 7-5-84

13 3/8" 48# CSA 481'
CMT W/ 480 SX
CIRC
17 1/2" HOLE.

8 5/8" 24 & 32# CSA 4301'
CMT W/ 4300 SX
CIRC
11" HOLE



10 SX CMT PLUG AT SURFACE

CMT PLUG FROM 4200' (25 SX)

CMT PLUG FROM 5260' (25 SX)

CMT PLUG FROM 6860' (25 SX)

CMT PLUG FROM 8980' (25 SX)

CMT PLUG FROM 10305' (25 SX)

TD: 10305'

Form 371 2-71

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Gulf Oil Corporation

WELL NAME: Lea "CR" State NCT-A #4

LOCATION: (Unit K) 3640' FNL & 1980' FWL SEC. 2 T- 16 -S, R 32 -E

ELEVATION: 4301' GL _____ DF _____ KB

TD: 13,500' PBTD: _____

Check!

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
17-1/2"	13-3/8"	48#	618'	650 sx	Circ. Cmt.
12-1/4"	9-5/8"	36#	4200'	3350 sx	1335'
8-3/4"	7"	32#	13,498'	1025 sx	9495'

PRODUCING INTERVAL: 9696-9706', 9720-30', 9754-64' 9772-82', 9808-16'

Anderson Ranch-Wolfcamp 12,148-58' Morrow

COMPLETION DATE: 1-24-57

CURRENT STATUS: PxA

COMMENTS:

* NOTE: Must attach a wellbore schematic for all PxA wells illustrating details.

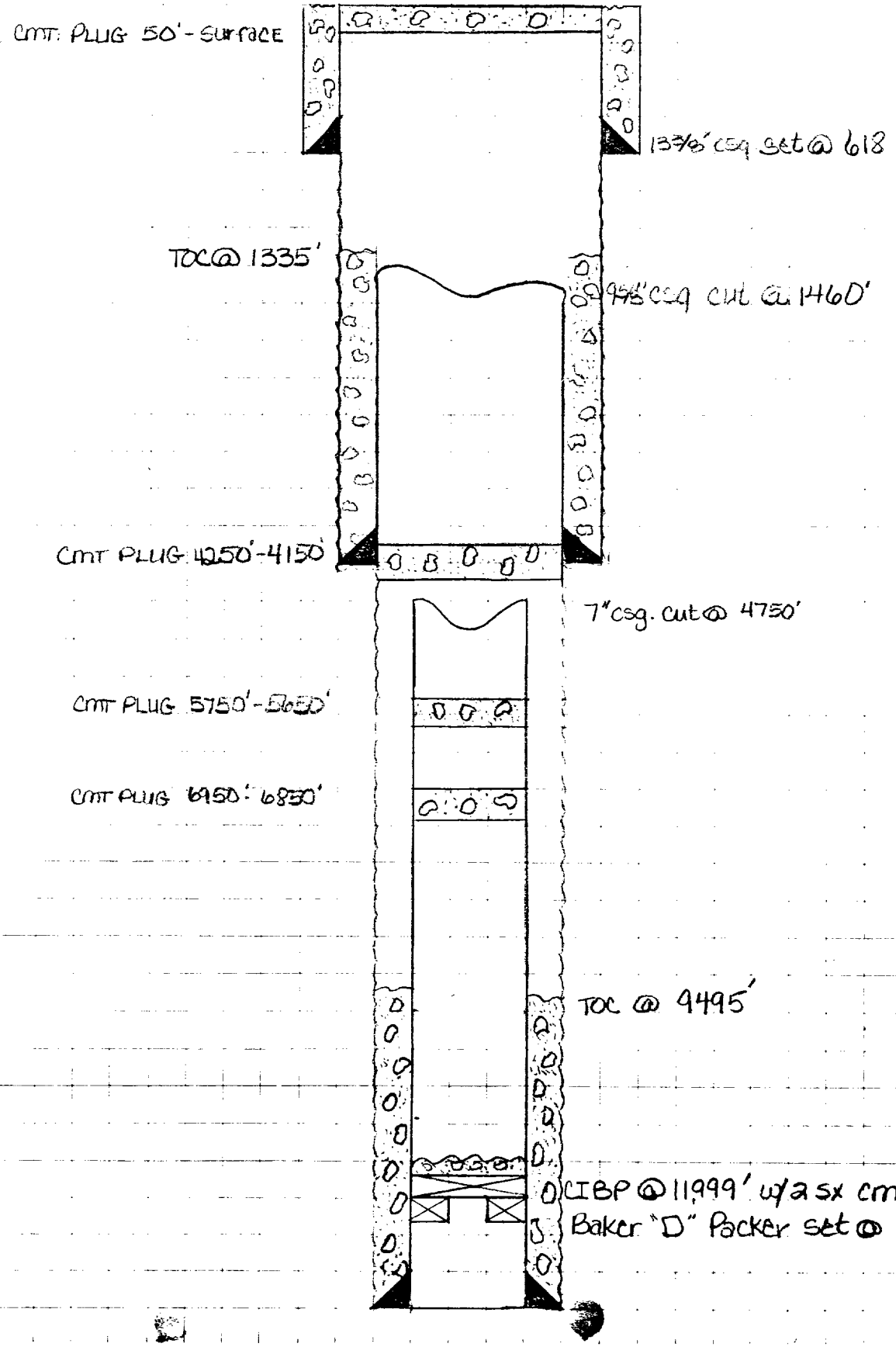
RJG/tjt
EPPRI8-DD

Amoco Production Company

ENGINEERING CHART
(TRACING)

SHEET NO. OF
FILE
APPN.
DATE 1-8-86
BY CGB

SUBJECT Lea "CR" State NCT-A #4



Form 33 2-71

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Chevron USA, Inc.

WELL NAME: Eddy Lea State No. 2

LOCATION: (Unit F) 2640' FNL x 1650' FWL SEC. 2 T- 16 -S, R 32 -E

ELEVATION: 4296' GL _____ DF 4313' KB

TD: 9981' PBTD: 9818'

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT	TOC
14-3/4"	11-3/4"	42#	475'	377 sx	Circ. 10 sx
11"	8-5/8"	32#, 24#	2947'	750 sx	Circ. 125 sx
7-7/8"	5-1/2"	17#	9981'	600 sx	

PRODUCING INTERVAL: 9856-60', 9823-45', 9700-9776' N. Anderson Ranch - Wolfcamp

COMPLETION DATE: 10-11-85

CURRENT STATUS: PxA

COMMENTS:

* NOTE: Must attach a wellbore schematic for all PxA wells illustrating details.

RJG/tjt
EPPRI8-DD

AMOCO

Amoco Production Company

ENGINEERING CHART

SHEET NO. OF

FILE

APPN

DATE 2/5/86

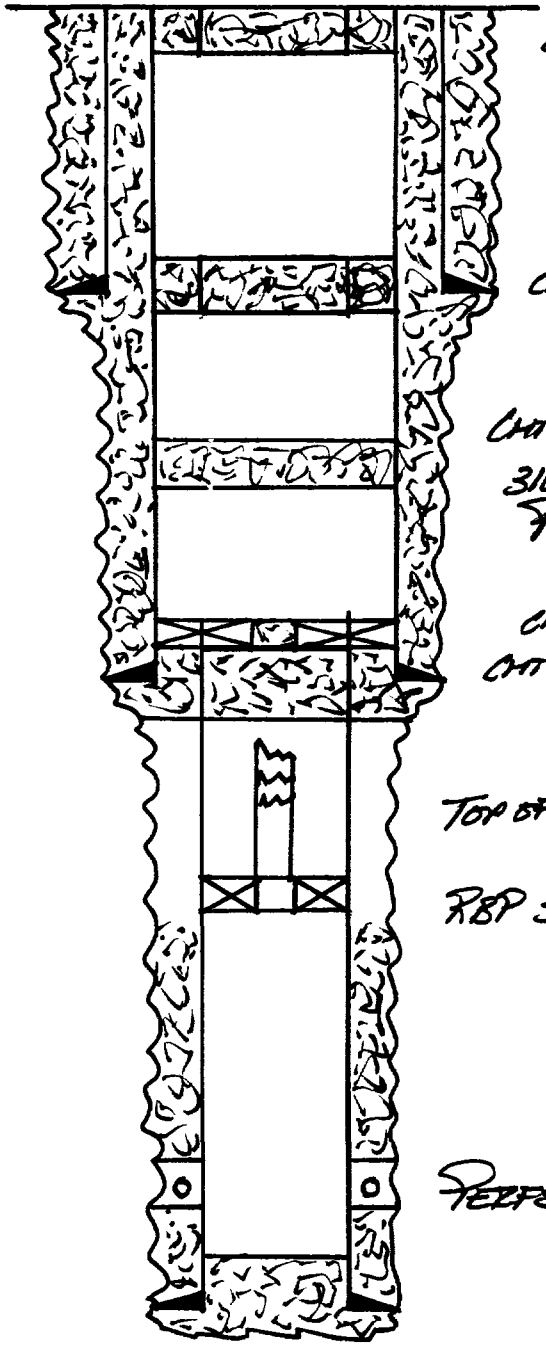
BY RJH

SUBJECT EDDY LEA STATE No. 2
ANDERSON RANCH (CHEVRON USA INC)

LOCATION: 2640' FNL & 1650' FWL, SEC 2, T-16-S, R-32-E
LEA COUNTY NEW MEXICO.

ELEV: 4296' GL
4313' KB.

COMPLETED: 10/11/85.



11 3/4" 42# CSA 475'
CMT W/ 377 SX
CIRC
14 3/4" HOLE.

8 5/8" 24 & 32# CSA 2947'
CMT W/ 750 SX
CIRC
11" HOLE

5 1/2" 17# CSA 9981'
CMT W/ 600 SX
TOC @ 5700 CALC.
7 7/8" HOLE.

CMT PLUG FROM 150 TO SURFACE

CMT PLUG FROM 525' TO 435'

CMT PLUG FROM 1230' TO 1050'
3100' OF 5 1/2" CASING WAS
PULLED DURING P&A

CMT RET AT 2806'
CMT PLUG FROM 3125'

TOP OF TUNK 3128'.

RBP SA 5600

PERFS: 9856'-60', 9823'-45' AND
9760'-9776'.

TD: 9982'
PBTD: 9818'

Form 371 2-71

ITEM NO. 7

DATA ON PROPOSED OPERATION
STATE "NC" WELL NO. 1

1. Proposed average and maximum daily rates to be injected:

   Average daily rate of 800 BWPD.
   Maximum daily rate of 2000 BWPD.

2. System will be closed with water being transferred through line pipe from producing wells to the injection well.

3. The maximum surface injection pressure will be limited to 0.2 psi/ft (2600 psi) or the actual fracture pressure will be determined by a step-rate test. The average injection pressure is expected to be approximately 100 psi or less.

4. The source on injected fluids will be from Amoco Production Company's nearby State "MM" Lease. The State "MM" No. 1 is completed in the Wolfcamp Formation.

5. Injection will be into the Wolfcamp Formation which is productive within 1 mile.

ITEM NO. 8

GEOLOGICAL INFORMATION

The Wolfcamp Formation is a carbonate formation, limestone. The total thickness is approximately 1000 feet with the top of the Wolfcamp at ±8990'. The only source of drinking water in the area is the Ogallala. The base of the Ogallala is approximately 250 feet deep. There are no drinking water sources below the Wolfcamp Formation.

ITEM NO. 9

PROPOSED STIMULATION PROGRAM

The proposed injection well will be completed through 5-1/2" production casing across the Wolfcamp Formation. The well will be acidized with 7000 gallons 15% HCl and evaluated for injectivity. In the event adequate injection is not obtained, the well will be fracture stimulated.

ITEM NO. 10

WELL DATA

The well was logged from TD to 4132' on July 29, 1984. All logs have been furnished to the NMOCD.

ITEM NO. 11

CHEMICAL ANALYSIS OF FRESH WATER

UNICHEM INTERNATIONAL

707 NORTH LEECH P.O.BOX [illegible]

HOBBS, NEW MEXICO 88240

City of Carlsbad
Sec. 31, T-15-S, R-32-E (433)
Source L 04914
Status PMT
Use Com.

COMPANY : [illegible] PRODUCTION COMPANY
DATE : [illegible]
FIELD,LEASE OR WELL : OGALLALLA #5
SAMPLING POINT:
DATE SAMPLED : 02/19/86

SPECIFIC GRAVITY = 1
TOTAL DISSOLVED SOLIDS = 910
PH = [illegible]

		MG/L	MEQ/L
CATIONS			
CALCIUM	(CA)+2	1.1	22.4
MAGNESIUM	(MG)+2	2.4	84.
SODIUM	(NA),CALC.	.88	12.6
ANIONS			
BICARBONATE	(HCO3)-1	3	168.
CARBONATE	(CO3)-2	1	1
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	.47	22.8
CHLORIDES	(CL)-1	1	36
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON,TOTAL	(FE)		.2
BARIUM	(BA)+2	0	.0
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =7E-03

SCALING INDEX	TEMP
	30C
	86F
CARBONATE (PPM)	2.20
CALCIUM CARBONATE SCALING	(UNLIKELY)
CALCIUM SULFATE INDEX	-1.9
CALCIUM SULFATE SCALING	(UNLIKELY)

UNICHEM INTERNATIONAL

707 NORTH LEECH P.O.BOX 1499

HOBBS, NEW MEXICO 88240

H. L. Brown
Sec. 32, T-15-S, R-32-E (4432)
Source: L 09348
Status: PMT
Use: OWD

COMPANY : AMOCO PRODUCTION COMPANY
DATE : 03/20/86
FIELD;W-M-BE&NELL : OGALLALLA #11
SAMPLING POINT:
DATE SAMPLED : 02/19/86

SPECIFIC GRAVITY = 1
TOTAL DISSOLVED SOLIDS = 792
PH = 7.85

		MG/L	MG/L
CATIONS			
CALCIUM	(CA)+2	4.8	96.1
MAGNESIUM	(MG)+2	.79	9.7
SODIUM	(NA),CALC.	6.8	157.
ANIONS			
BICARBONATE	(HCO3)-1	3.2	195.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	1.2	61
CHLORIDE	(CL)-1	8	272
GAS PHASE BASED			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON, TOTAL	(FE)		3.6
BARIUM	(BA)+2	0	.2
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =.016

	SCALING INDEX	TEMP
		80C
		86F
CARBONATE INDEX		3.11
CALCIUM CARBONATE SCALING		LIKELY
CALCIUM SULFATE INDEX		-17.
CALCIUM SULFATE SCALING		UNLIKELY

ITEM NO. 12

AFFIRMATIVE STATEMENT

No evidence of open faults or any other hydrologic connection between the proposed injection zone and any underground source of drinking water was found.

ITEM NO. 13

"PROOF OF NOTICE" INFORMATION

AFFIDAVIT OF PUBLICATION

State of New Mexico,

County of Lea.

I, Robert L. Summers

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 in a supplement thereof for a period

of One weeks.

Beginning with the issue dated February 28, 19 86

and ending with the issue dated February 28, 19 86

Robert L. Summers
Publisher.

Sworn and subscribed to before me this 28 day of February, 19 86

Vera Murphy
Notary Public.

My Commission expires Nov. 14, 19 88
(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.

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LEGAL NOTICE
February 28, 1986

To Whom It May Concern:

Amoco Production Company intends to apply for administrative approval to convert State "NC" No. 1 to a saltwater disposal well. The well is located in Unit Letter A, Section 3, Township 16-South, Range 32-East, Lea County, New Mexico. The purpose of this work is to dispose of produced water from Amoco Production Company's State "MM" Lease to the subject wellbore located on the State "NC" Lease. The water will be injected into the Wolfcamp Formation at an average rate of 800 BWIPD. Maximum surface injection pressure will be limited to 0.2 psi/ft. Average injection pressure is expected to be 100 psi or less. Any questions concerning this project may be directed to Mr. John M. Breeden, District Foreman, Amoco Production Company, P.O. Box 68, Hobbs, New Mexico 88240, Phone (505) 393-1781. 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.

L.R. Smith
District Manager
Amoco Production Company
P.O. Box 68
Hobbs, NM 88240

P 119 335 900

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Seneca Oil Company	
Street and No. P.O. Box 2511	
P.O., State and ZIP Code Houston, Tx 77001	
Postage	$ 1.24
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.70
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 2.69
Postmark or Date	

PS Form 3800, Feb. 1982 ★ U.S.G.P.O. 1984-446-014

P 119 335 893

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to State of New Mexico Commissioner of Public Lands	
Street and No. P.O. Box 1148	
P.O., State and ZIP Code Santa Fe, NM 87501	
Postage	$ 1.24
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.70
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 2.69
Postmark or Date	

PS Form 3800, Feb. 1982 ★ U.S.G.P.O. 1984-446-014

P 119 335 894

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
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(See Reverse)

Sent to Robert L. Gibson Gibson Ranch, Inc	
Street and No. First Star Rt. Box 490	
P.O., State and ZIP Code Lovington, N.M. 88260	
Postage	$ 1.24
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.70
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 2.69
Postmark or Date	

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RECEIPT FOR CERTIFIED MAIL

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(See Reverse)

Sent to Mobil Producing Texas & N.M. Inc.	
Street and No. 9 Greenway Plaza, Suite 2700	
P.O., State and ZIP Code Houston, Tx 77046	
Postage	$ 1.24
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.70
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 2.69
Postmark or Date	

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P 119 335 898

RECEIPT FOR CERTIFIED MAIL

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(See Reverse)

Sent to H. L. Brown, Jr.	
Street and No. P.O. Box 2237	
P.O., State and ZIP Code Midland, Tx 79702	
Postage	$ 1.24
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.70
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 2.69
Postmark or Date	

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RECEIPT FOR CERTIFIED MAIL

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(See Reverse)

Sent to Union Texas Petroleum Attn: Gil Allred Chemical	
Street and No. P.O. Box 2120	
P.O., State and ZIP Code Houston, Tx 77252-2120	
Postage	$ 1.24
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.70
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 2.69
Postmark or Date	

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P 119 335 896

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Chevron U.S.A. Inc.	
Street and No. P.O. Box 670	
P.O., State and ZIP Code Hobbs, N.M. 88240	
Postage	$ 1.24
Certified Fee	.25
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.70
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$ 2.69
Postmark or Date	

PS Form 3800, Feb. 1982 ★ U.S.G.P.O. 1984-446-014