



Amoco Production Company (USA)

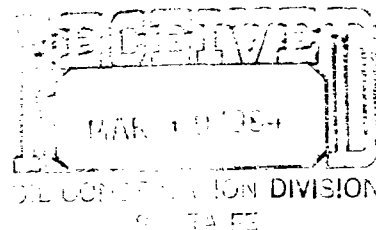
Post Office Box 68
Hobbs, New Mexico 88240

S. J. Okerson
District Superintendent

March 14, 1984

File: SJ0-545-WF

Re: Application For Authorization To Inject
Capps No. 32
Lea County, New Mexico



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

Attn: Mr. Richard L. Stamets

Gentlemen:

Amoco Production Company hereby makes application for administrative approval to expand its South Hobbs (GSA) Unit Pressure Maintenance Project. Forms C-108 and necessary documentations are attached. The wellbore of Capps No. 32 has been purchased by South Hobbs (GSA) Unit and our plans are to recomplete this well from the Drinkard to the Grayburg-San Andres formation. When this work is completed, it will be renamed South Hobbs (GSA) Unit No. 174 and equipped for injection. Your prompt consideration of this application will be appreciated.

If additional information is needed, contact Gary Clark (505) 393-1781.

Yours very truly,

S. J. Okerson

Attachments

cc: Gordon E. Lucht
315 W. Broadway
Hobbs, NM 88240

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

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 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 R-4934
- 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 details.
- 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: Gary C. Clark Title Asst. Administrative Analyst
Signature: Gary C. Clark Date: 3-13-84
- * 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. August 17, 1983, Order Nos. R-4934-B and R-4934-C copy attached.

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:

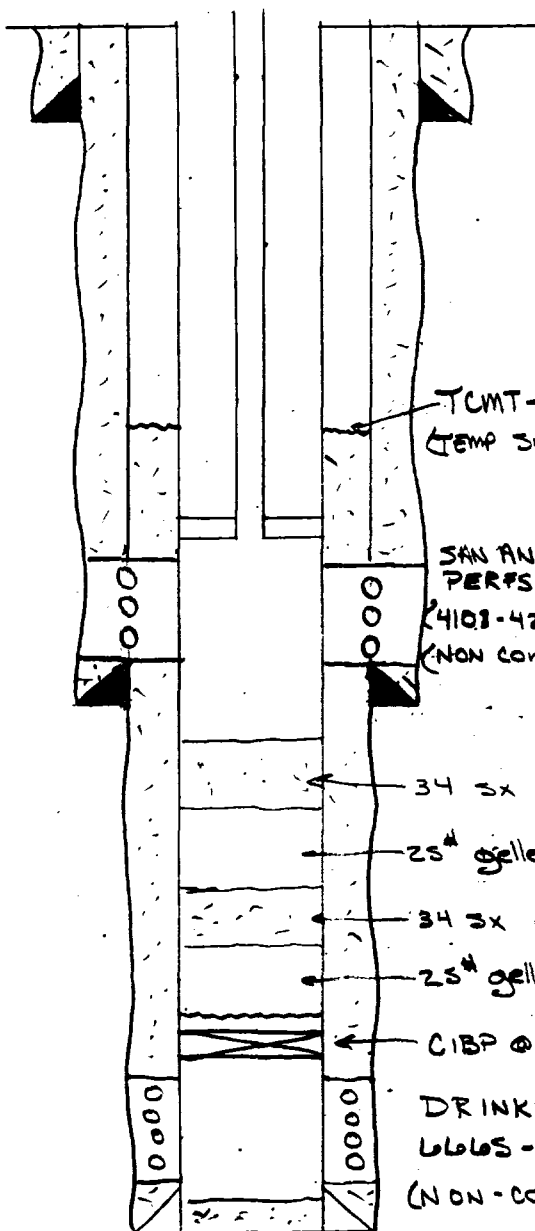
- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates 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.

INJECTION WELL DATA SHEET

<u>AMOCO PRODUCTION</u>		<u>CAPPS</u>	
OPERATOR		LEASE	
<u>32</u>	<u>2026 FSL X SIL FWL</u>	<u>3</u>	<u>T19S</u>
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP
			<u>R38E</u>
			RANGE

SchematicTabular DataSurface Casing

Size 13 3/8" Cemented with 450 sx.
 TOC CIRCULATED feet determined by _____
 Hole size 17 1/2" X 393'

Intermediate Casing

Size 9 5/8" Cemented with 1300 sx.
 TOC CIRCULATED feet determined by _____
 Hole size 12 1/4" X 4300'

Long string

Size 7" Cemented with 650 sx.
 TOC 3185 feet determined by TEMP. SURVEY
 Hole size 8 3/4"
 Total depth 7100

Injection interval

4108 feet to 4235 feet
 (perforated or open-hole, indicate which)

34 3x Cmt plug (~200')
 25# gelled 10# brine between plugs
 34 3x Cmt plug (~200')
 25# gelled 10# brine between plugs
 CIBP @ 6600' w/ 35' CMT
 DRINKARD PERFS
 6665-6932
 (NON-CONTINUOUS)

TD 7100

PBTD 7060

Tubing size 2 3/8" lined with PLASTIC set in a _____
 (material)

BAKER LOK-SET
 (brand and model)

packer at 4000 feet

(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation SAN ANDRES
- Name of Field or Pool (if applicable) HOBBS GRAYBURG SAN ANDRES
- Is this a new well drilled for injection? ☐ Yes ☒ No

If no, for what purpose was the well originally drilled? _____

DRINKARD OIL PRODUCTION - INTERVAL 6665-6932

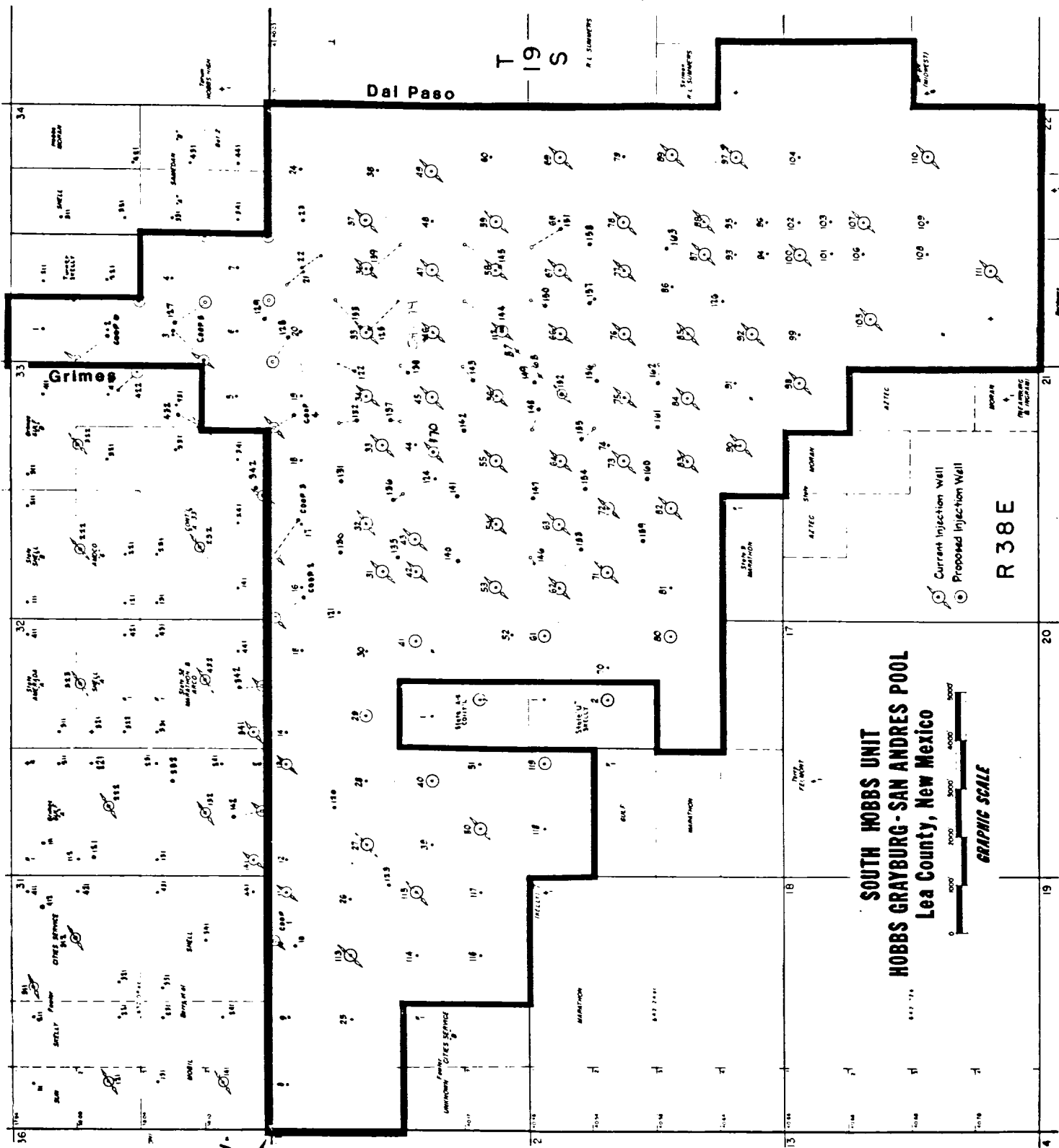
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

DRINKARD (6665-6932) CAST IRON BRIDGE PLUG SET AT
6600 AND CAPPED WITH 35' OF CEMENT.

- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

BOWERS 3150'

YATES 2700'



SOUTH HOBBS UNIT
HOBBS GRAYBURG-SAN ANDRES POOL
Lea County, New Mexico



R 38 E

Current Injection Well
Proposed Injection Well

Dal Paso

Grimes

CARLSBAD HWY.

VII.

1. Average 800 BWIPD

Max 1200 BWIPD

2. Closed system

3. Average 500 psi

Maximum 830 psi (.2 psi/ft. max.)

4. Reinjecting produced water

5. Reinjecting into produced zone.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7939
Order No. R-4934-B

APPLICATION OF AMOCO PRODUCTION
COMPANY FOR UNORTHODOX LOCATIONS,
DIRECTIONAL DRILLING, AND PRESSURE
MAINTENANCE EXPANSION, LEA COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on August 17, 1983, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 23rd day of August, 1983, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Amoco Production Company, seeks authority to drill 36 South Hobbs Unit wells at unorthodox oil well locations and to directionally drill 21 of said wells to various bottomhole locations all as shown on Exhibit "A" attached to this order.
- (3) That the unorthodox surface locations and the unorthodox bottomhole locations are necessitated by topography and to permit efficient recovery from the South Hobbs Pressure Maintenance Project.
- (4) That the quarter-quarter section wherein any of said wells is drilled or, in the case of directionally drilled wells, the quarter-quarter section wherein any one of said

wells is ultimately bottomed should be dedicated to such well.

(5) That a 75-foot radius tolerance should be provided for the bottomhole location for any directionally drilled well authorized by this order.

(6) That the applicant should be required to determine the subsurface location of the bottom of directionally drilled holes by means of a continuous multi-shot directional survey conducted subsequent to said directional drilling.

(7) That the applicant also seeks expansion of the South Hobbs Grayburg-San Andres Pressure Maintenance Project to permit injection into Unit Well No. 152 authorized herein.

(8) That said well should be authorized for injection subject to the provisions of Order No. R-4934 which authorized said project.

(9) That, in addition, said well or the injection system should be equipped so as to limit injection pressure at the wellhead to no more than 0.2 pounds per foot of depth to the topmost perforation in any such well but the Director should have authority to increase said pressure limitation should circumstances warrant.

(10) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil in the Hobbs Pool and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Amoco Production Company, is hereby authorized 36 unorthodox oil well locations in its South Hobbs Unit, Hobbs Pool, Lea County, New Mexico, all as shown on Exhibit "A" attached to this order.

(2) That the applicant is further authorized to directionally drill 21 of said wells to bottomhole locations also as shown on said Exhibit "A" with a 75 foot radius tolerance target being provided for each such well.

PROVIDED HOWEVER, that prior to the above-described directional drilling, the applicant shall establish the location of the kick-off point by conducting a continuous multi-shot directional survey of the well.

PROVIDED FURTHER, that subsequent to the above-described directional drilling, a continuous multi-shot directional survey shall be made of the wellbore from total depth to the kick-off point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe office of the Division, P. O. Box 2088, Santa Fe, New Mexico-87501, and that the operator shall notify the Division's Hobbs District Office of the date and time said survey is to be commenced.

(3) That Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

(4) That the quarter-quarter section wherein any one of said wells is drilled or, in the case of directionally drilled wells, the quarter-quarter section wherein any such well is ultimately bottomed shall be dedicated to the well.

(5) That approval is also given for the expansion of the South Hobbs Grayburg-San Andres Pressure Maintenance Project to permit injection into Unit Well No. 152 being authorized herein.

(6) That injection into and operation of said well shall be in compliance with the provisions of Division Order No. R-4934 and Division Rules 702 through 708.

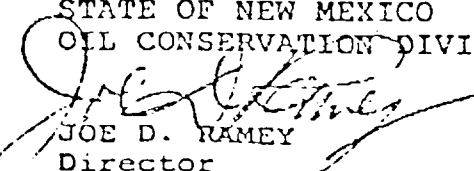
(7) That the injection well herein authorized and/or the injection pressurization system shall be equipped as to limit injection pressure at the wellhead to no more than 0.2 pounds per foot of depth to the topmost perforation in such well.

(8) That the Director of the Division may administratively authorize a higher injection pressure upon a proper showing that such pressure will not result in fracturing of the confining zone.

(9) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY
Director

UNIT
WELL
NO.SURFACE LOCATION
ALL WELLSBOTTOMHOLE LOCATION
DIRECTIONALLY DRILLED
WELLS

TOWNSHIP 18 SOUTH, RANGE 38 EAST

127	1980'	FSL x	860'	FWL, Sec. 34	1330'	FSL x	1230'	FWL, Sec. 3
129	100'	FSL x	900'	FWL, Sec. 34	10'	FSL x	1310'	FWL, Sec. 3

TOWNSHIP 19 SOUTH, RANGE 38 EAST

128	335'	FNL x	520'	FWL, Sec. 3	10'	FNL x	10'	FWL, Sec. 3
130	1403'	FNL x	1403'	FWL, Sec. 4				
131	1383'	FNL x	2498'	FEL, Sec. 4				
132	1790'	FNL x	1185'	FEL, Sec. 4	1403'	FNL x	1238'	FEL, Sec. 4
133	1840'	FNL x	748'	FWL, Sec. 3	1330'	FNL x	1310'	FWL, Sec. 3
135	2558'	FNL x	1353'	FWL, Sec. 4				
136	2490'	FNL x	2504'	FWL, Sec. 4	2630'	FNL x	2630'	FWL, Sec. 4
137	2458'	FSL x	1180'	FEL, Sec. 4	2630'	FSL x	1200'	FEL, Sec. 4
138	2490'	FSL x	173'	FEL, Sec. 4	2630'	FSL x	10'	FEL, Sec. 4
139	2052'	FNL x	1941'	FWL, Sec. 3	2630'	FNL x	2475'	FWL, Sec. 3
140	1485'	FSL x	1245'	FWL, Sec. 4				
141	1478'	FSL x	2595'	FWL, Sec. 4				
142	1310'	FSL x	1370'	FEL, Sec. 4				
143	1160'	FSL x	330'	FEL, Sec. 4	1310'	FSL x	10'	FEL, Sec. 4
144	580'	FSL x	755'	FWL, Sec. 3	1310'	FSL x	1310'	FWL, Sec. 3
145	577'	FSL x	1984'	FWL, Sec. 3	1310'	FSL x	2475'	FWL, Sec. 3
146	75'	FNL x	1205'	FWL, Sec. 9	10'	FNL x	1310'	FWL, Sec. 9
147	70'	FNL x	2570'	FWL, Sec. 9				
148	192'	FNL x	990'	FEL, Sec. 9	10'	FNL x	1310'	FEL, Sec. 9
149	150'	FNL x	380'	FEL, Sec. 9	10'	FNL x	10'	FEL, Sec. 9
150	330'	FNL x	1220'	FWL, Sec. 10	10'	FNL x	1310'	FWL, Sec. 1
151	710'	FNL x	2410'	FEL, Sec. 10	10'	FNL x	2475'	FWL, Sec. 1
152	623'	FNL x	632'	FEL, Sec. 9				
153	1105'	FNL x	1485'	FWL, Sec. 9				
154	1163'	FNL x	2600'	FEL, Sec. 9				
155	1158'	FNL x	1568'	FEL, Sec. 9	1310'	FNL x	1330'	FEL, Sec. 9
156	1370'	FNL x	330'	FEL, Sec. 9	1330'	FNL x	10'	FEL, Sec. 9
157	1245'	FNL x	1245'	FWL, Sec. 10	1310'	FNL x	1310'	FWL, Sec. 1
158	1245'	FNL x	2475'	FWL, Sec. 10				
159	2335'	FNL x	1675'	FWL, Sec. 9				
160	2475'	FNL x	2425'	FEL, Sec. 9				
161	2630'	FNL x	1331'	FEL, Sec. 9				
162	2630'	FNL x	395'	FEL, Sec. 9	2630'	FNL x	10'	FEL, Sec. 9
163	2475'	FSL x	2475'	FWL, Sec. 10				

CASE NO. 7939
ORDER NO. R-4934-B

EXHIBIT "A"

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7939
Order No. R-4934-C

APPLICATION OF AMOCO PRODUCTION
COMPANY FOR UNORTHODOX LOCATIONS,
DIRECTIONAL DRILLING, AND PRESSURE
MAINTENANCE EXPANSION, LEA COUNTY,
NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE DIVISION:

It appearing to the Division that Order No. R-4934-B dated August 23, 1983, does not correctly state the intended order of the Division,

IT IS THEREFORE ORDERED:

(1) That Paragraphs (7), (8) and (9) on Page 2 of Order No. R-4934-B in Case No. 7939 are hereby amended to read in their entirety as follows:

"(7) That the applicant also seeks expansion of the South Hobbs Grayburg-San Andres Pressure Maintenance Project to permit injection into Unit Well No. 152, authorized herein, and into 19 other unit wells as shown on Exhibit "B", attached to this order, said wells to be converted from producing wells to injection wells.

(8) That said wells should be authorized for injection subject to the provisions of Order No. R-4934 which authorized said project.

(9) That, in addition, said wells or the injection system should be equipped so as to limit injection pressure at the wellhead to no more than 0.2 pounds per foot of depth to the topmost perforation in any such well but the Director should have authority to increase said pressure limitation should circumstances warrant."

(2) That Paragraphs (5), (6) and (7) on Page 3 of Order No. R-4934-B are hereby amended to read in their entirety as follows:

-2-

Case No. 7939
Order No. R-4934-C

- (5) That approval is also given for the expansion of the South Hobbs Grayburg-San Andres Pressure Maintenance Project to permit injection into Unit Well No. 152, being authorized herein, and into 19 other unit wells as shown on Exhibit "B" attached to this order, such wells to be converted from production to injection.
- (6) That injection into and operation of said wells shall be in compliance with the provisions of Division Order No. R-4934 and Division Rules 702 through 708.
- (7) That the injection wells herein authorized and/or the injection pressurization system shall be equipped as to limit injection pressure at the wellhead to no more than 0.2 pounds per foot of depth to the topmost perforation in such wells.
- (3) That this order shall be effective nunc pro tunc as of August 23, 1983.
- DONE at Santa Fe, New Mexico, this 30th day of September, 1983.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY
Director

S E A L

SOUTH HOBBS UNIT PRODUCING WELLS
TO BE CONVERTED TO INJECTION

TOWNSHIP 19 SOUTH, RANGE 38 EAST, NMPM

UNIT WELL No.	UNIT LETTER	SECTION No.
11	A	6
13	C	5
32	F	4
34	H	4
36	F	4
42	L	3
46	L	4
54	N	3
56	P	4
58	N	4
62	D	3
64	B	9
66	D	9
72	F	10
75	H	9
77	F	9
83	J	10
85	L	9
88	J	19
		19

CASE NO. 7939
Order No. R-4934-C

EXHIBIT "B"

[illegible]

WELL Capps No. 32 V-Door West
COUNTY Lea

LOCATION 140' x 190' 6' x 6' x 5'

LEGAL 516' FWL & 2026' FSL
Sec. 3, T19S, R38E

SURFACE Fee - Gordon E. Lucht, 315 W. Broadway
393-7849

MINERALS Fee

LEASEE

DIRT CONTRACTOR New-Mex Construction - Hobbs

CALECHE PIT

WATER HAULER Petro-Thermo

WATER City of Hobbs

MUD VENDOR

BIT VENDOR

MISCELLANEOUS

COPY: J. H. HANKINS
WORKING WELL FILE

AFFIDAVIT OF PUBLICATION

State of New Mexico,

County of Lea.

1, _____

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 _____ day
One _____ ~~Weeks~~.

Beginning with the issue dated

March 12, 19 84

and ending with the issue dated

March 12, 19 84

Robert L. Summers
Publisher.

Sworn and subscribed to before

me this 13 day of

March, 19 84

M. L. B...
Notary Public.

My Commission expires _____

2-17, 19 85

(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.

34 LEGAL NOTICE
March 12, 1984
To Whom It May Concern:
Amoco Production Company has applied to the NMOCD for administrative approval to recomplate and convert to injection Capps Well No. 32. The well is located in Unit L, Section 3, Township 19-South, Range 38-East, Lea County, New Mexico. The purpose of this work is to expand the pressure maintenance operations of our South Hobbs (GSA) Unit. Water will be injected into the Grayburg-San Andres Formation at an average rate of 800 BWIPD with an average injection pressure of 500 psi. Any questions concerning this project may be directed to Mr. John M. Breeden, District Foreman, Amoco Production Company, P.O. Box 68, Hobbs, NM 88240, Phone (505) 393-1781. Interested parties must file objections or request for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87501, within 15 days.

P 267 162 776

RECEIPT FOR CERTIFIED MAIL

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

66C

SENT TO		Gordon E. Lucht	
STREET AND NO.		315 E. Broadway	
P.O. STATE AND ZIP CODE		Hobbs, NM 88240	
POSTAGE		.71	
CERTIFIED FEE		.25	
SPECIAL DELIVERY			
RESTRICTED DELIVERY			
SPECIAL SERVICE		.40	
TOTAL POSTAGE AND FEES		2.06	

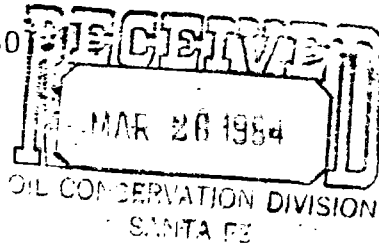
PS Form 3800, 1-7-79

NO. 2
488P
HOBBS, NM STA.

OIL CONSERVATION DIVISION
DISTRICT 1

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

DATE March 21, 1984



RE: Proposed MC
Proposed DHC
Proposed NSL
Proposed NSP
Proposed SWD
Proposed WFX
Proposed PMX X

Gentlemen:

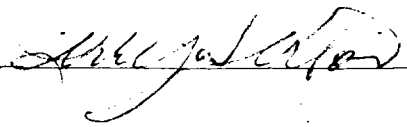
I have examined the application for the:

Amoco Production Co. South Hobbs (G/SA) Unit No. 174 3-19-38
Operator Lease and Well No. Unit, S - T - R

and my recommendations are as follows:

O.K.----J.S.

Yours very truly,


Amc