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

L. R. Smith
District Manager

September 24, 1984

File: LRS-2006-416

Re: Application for Unorthodox Locations
Directional Drilling and Authority to Inject
South Hobbs (GSA) Unit
Hobbs Grayburg-San Andres Pool
Lea County, New Mexico

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

Attention: Mr. Gilbert Quintana

Amoco Production Company hereby requests administrative approval to drill five COOP injection wells located in the South Hobbs (GSA) Unit. In accordance with NMOCD Order No. R-4934-E a copy of the lease-line agreement between Amoco Production Company and Shell Western E&P, Inc. accompanies this application due to unorthodox locations being closer than 330' to the unit boundary. This application contains the request for approval of 5 unorthodox locations, 5 directional drilling exceptions, and 5 authorizations to inject.

Exhibit "A" is a tabulation of the 5 proposed drilling locations. The proposed bottom hole location, kick-off point, projected deviation, and ground elevation is shown for each well. A South Hobbs (GSA) Unit map is included with the proposed drilling sites (both surface and bottom hole locations shown). Also, included are copies of NMOCD Form C-102 Acreage Dedication Plats. NMOCD Form C-108 Application for Authorization to Inject and all required attachments are also provided.

The availability of suitable surface locations for the South Hobbs (GSA) Unit injection wells is very limited, with all of the wells being located in the Hobbs city limits. (See Exhibit "B" City Section Maps). As a result, the surface locations corresponding to the bottomhole locations could not be acquired. To obtain the necessary bottomhole locations, these wells must be directionally drilled from the closest available property. Unorthodox surface locations are also required to minimize the degree of deviation.

The bottomhole locations for each well are determined from optimum pattern geometry. This optimum geometry is necessary to most efficiently waterflood the Grayburg-San Andres formations. Some pattern realignment is required, which will displace the new well bottomhole locations, making them more conducive to waterflooding and allowing for additional future expansion.

As required, a copy of this application complete with all attachments has been served by certified mail to each of the parties shown on the attached service list.

If you have any questions concerning this application, please contact Gary Clark in our Hobbs District Office 505-393-1781.

GCC/dks
APERMI-LI

Attachments

cc: State of New Mexico
Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240

SERVICE LIST

OFFSET OPERATORS

Shell Western E&P, Inc.
P. O. Box 991
Houston, TX 77001
Attention: D. J. Pfau

Gulf Oil Exploration and Production Company
P. O. Box 1150
Gulf Building, 306 West Wall
Midland, TX 79702
Attention: J. R. Frank

Note: The surface wellsite locations for all COOP injectors are owned by Amoco Production Company.

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: Amoco Production Company

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

Contact party: John 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 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: Gary C. Clark Title Assistant Admin. Analyst

Signature: Gary C. Clark Date: 9-24-84

* 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 R-4934-B and 4934-C August 27, 1984
Application for South Hobbs Unit Westside Expansion.

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.

Exhibit "A"
South Hobbs (GSA) Unit

Well Name	Surface Location	Bottomhole Location	Kick Off Point Below Surface	Bottomhole Deviation	Elevation (Ground Level)
SHU Coop No. 9	717' FNL x 651' FWL, Sec. 34, T-18-S, R-38-E	1310' FNL x 1310' FWL, Sec. 34 T-18-S, R-38-E	1800'	887'	3635.9'
SHU Coop No. 10	2564' FSL x 1607' FWL, Sec. 34, T-18-S, R-38-E	2630' FSL x 1310' FWL, Sec. 34, T-18-S, R-38-E	1800'	304'	3628.5'
SHU Coop No. 11	2500' FSL x 1660' FWL, Sec. 34, T-18-S, R-38-E	2630' FSL x 2330' FWL, Sec. 34, T-18-S, R-38-E	1800'	682'	3627.2'
SHU Coop No. 12	636' FSL x 2348' FWL, Sec. 34, T-18-S, R-38-E	1310' FSL x 2630' FWL, Sec. 34, T-18-S, R-38-E	1800'	731'	3630.6'
SHU Coop No. 13	505' FNL x 2560' FEL, Sec. 3, T-19-S, R-38-E	10' FNL x 2630' FEL, Sec. 3, T-19-S, R-38-E	1800'	500'	3639.2'

GCC/kih
APERM1-LL-13

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
AMOCO PRODUCTION COMPANY	SOUTH HOBBS GRAYBURG-SAN ANDRES UNIT	CO-OP #9

Unit Letter	Section	Township	Range	County
D	34	18S	38E	LEA

Actual Footage Location of Well:
717 feet from the NORTH line and 651 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3635.9	Grayburg San Andres	Hobbs GSA	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

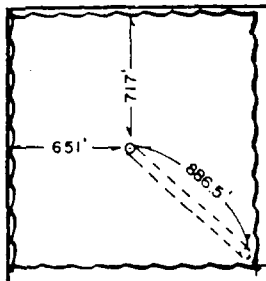
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

[X] Yes [ ] No If answer is "yes," type of consolidation Unitization

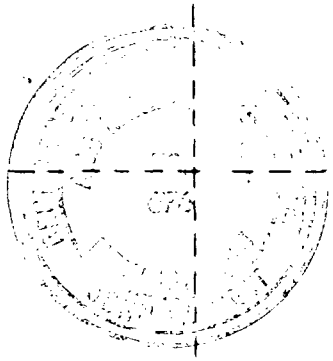
If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

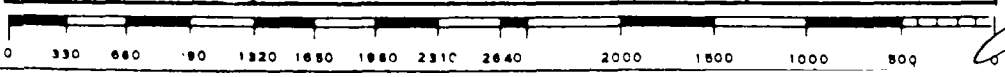
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



NOTE: THE PROPERTY WAS M-SCOPED AND NO BURIED PIPELINES WERE FOUND.

NOTE: THIS WELL IS TO BE DIRECTIONALLY DRILLED. THE BOTTOM HOLE LOCATION IS 1310' FROM THE NORTH LINE AND 1310' FROM THE WEST LINE.





CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name: Gary C. Clark

Position: Assist. Admin. Analyst

Company: AMOCO PRODUCTION COMPANY

Date: 9-17-84

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: 9/4/84

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. JOHN W. WEST, 676
RONALD J. EIDSON, 3239

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
AMOCO PRODUCTION COMPANY	SOUTH HOBBS GRAYBURG-SAN ANDRES UNIT	CO-OP #10

Unit Letter	Section	Township	Range	County
K	34	18S	38E	LEA

Actual Footage Location of Well:
2564 feet from the SOUTH line and 1607 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3628.5	Grayburg San Andres	Hobbs GSA	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

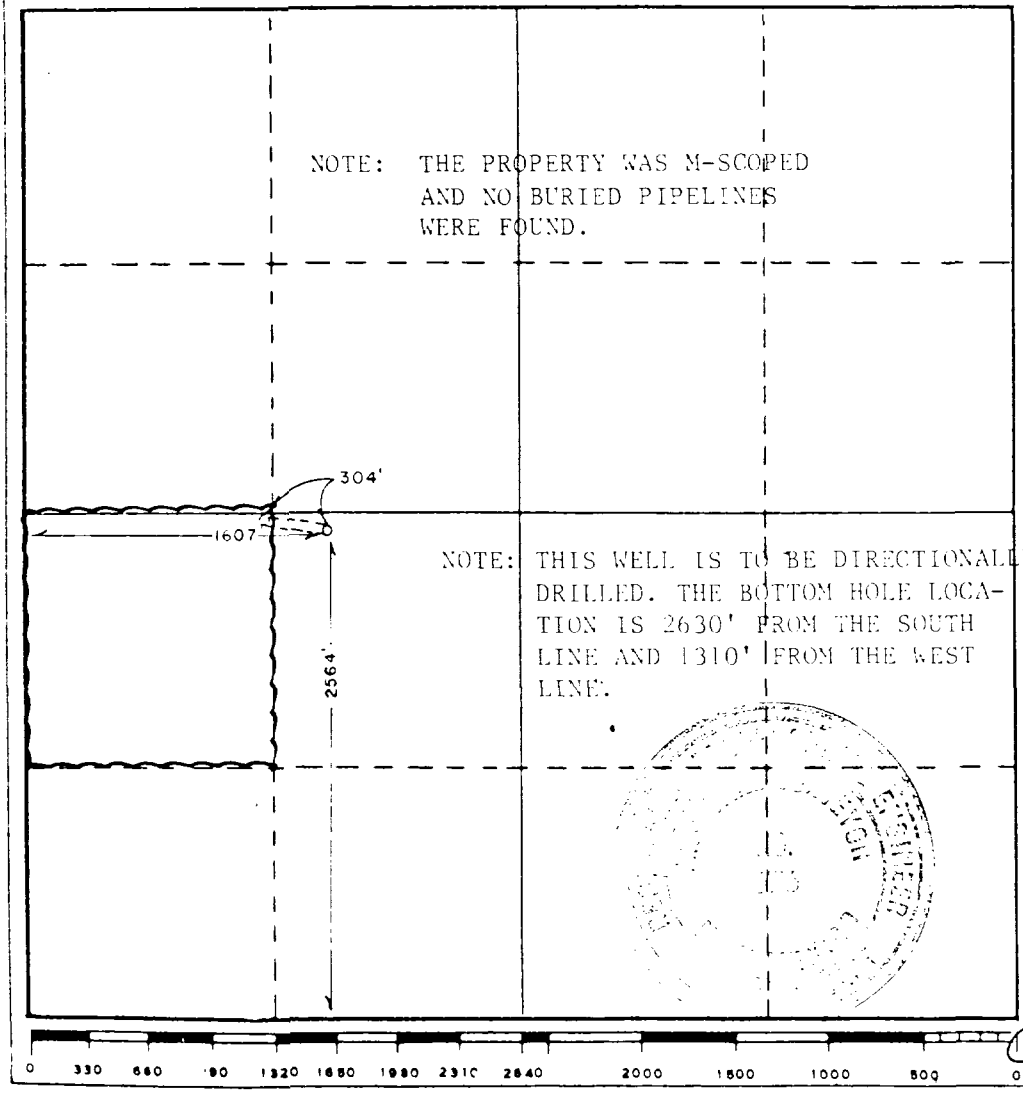
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

[X] Yes [ ] No If answer is "yes," type of consolidation Unitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



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Date: 9-17-84

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: 9/6/84

Registered Professional Engineer and/or Land Surveyor

Certificate No JOHN W WEST, 676
RONALD J. EIDSON, 3239

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
AMOCO PRODUCTION COMPANY	SOUTH HOBBS GRAYBURG-SAN ANDRES UNIT	CO-OP #11

Unit Letter	Section	Township	Range	County
K	34	18S	38E	LEA

Actual Footage Location of Well:
2500 feet from the SOUTH line and 1660 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3627.2	Grayburg San Andres	Hobbs GSA	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

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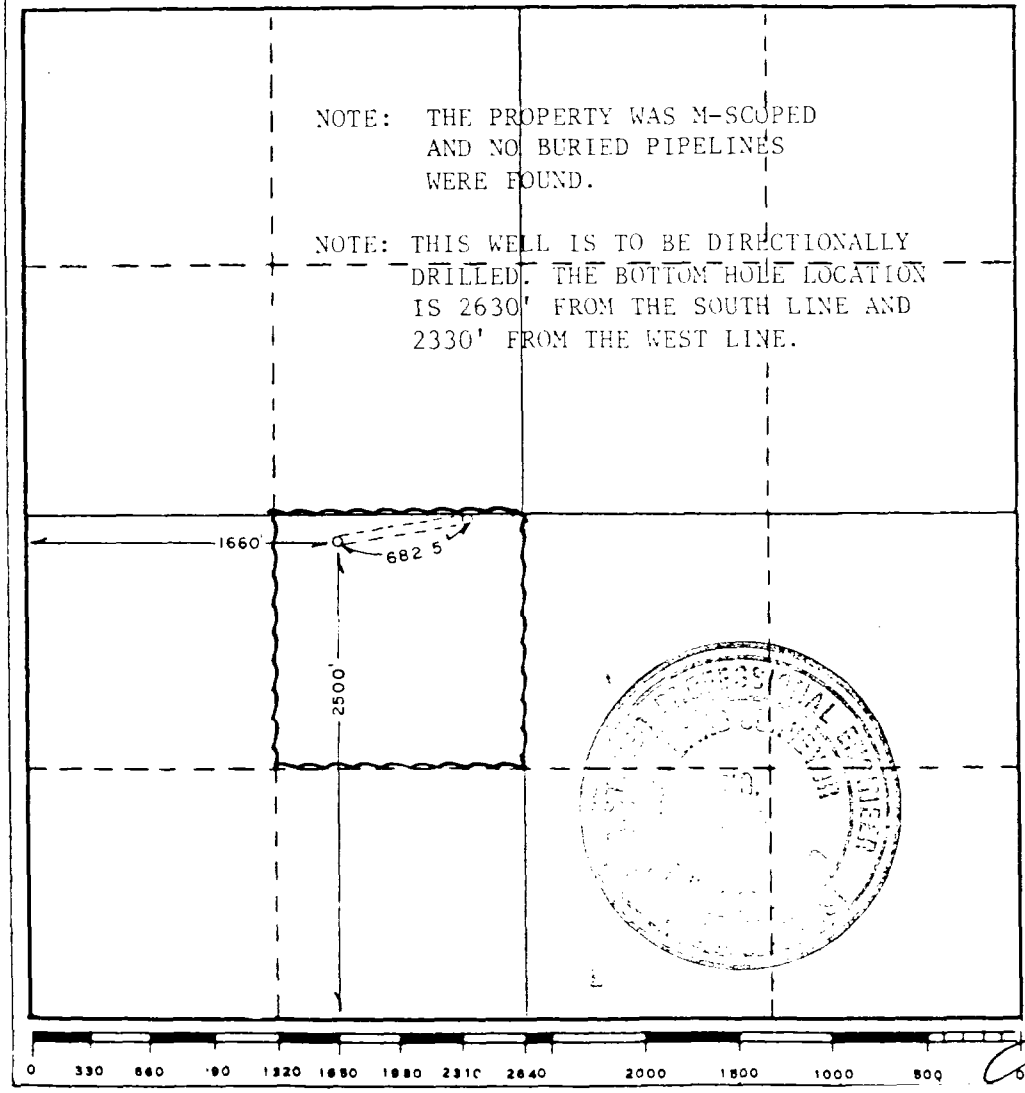

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Date Surveyed: 9/6/84

Registered Professional Engineer and/or Land Surveyor

John W. West

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RONALD J. EIDSON, 3239

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
AMOCO PRODUCTION COMPANY	SOUTH HOBBS GRAYBURG-SAN ANDRES UNIT	CO-OP#12

Unit Letter	Section	Township	Range	County
N	34	18S	38E	LEA

Actual Footage Location of Well:
636 feet from the SOUTH line and 2348 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3610.6	Grayburg San Andres	Hobbs GSA	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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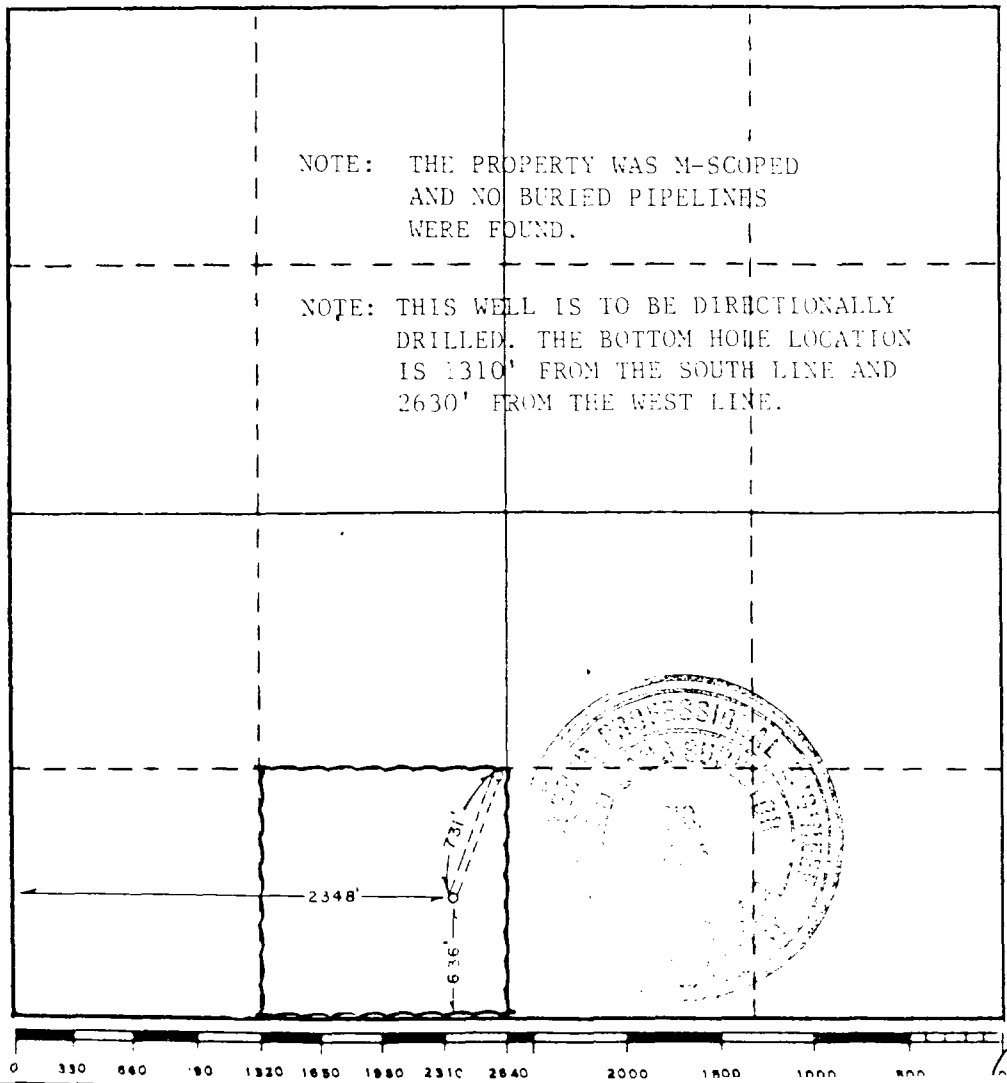

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Date Surveyed: 9/4/84

Registered Professional Engineer and/or Land Surveyor

Certificate No. JOHN W WEST, 676
RONALD J. EIDSON, 3239

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
AMOCO PRODUCTION COMPANY	SOUTH HOBBS GRAYBURG-SAN ANDRES UNIT	CO-OP #13

Unit Letter	Section	Township	Range	County
B	3	19S	38E	LEA

Actual Footage Location of Well:
505 feet from the NORTH line and 2560 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3609.2	Grayburg San Andres	Hobbs GSA	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

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3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

[X] Yes [ ] No If answer is "yes," type of consolidation Unitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

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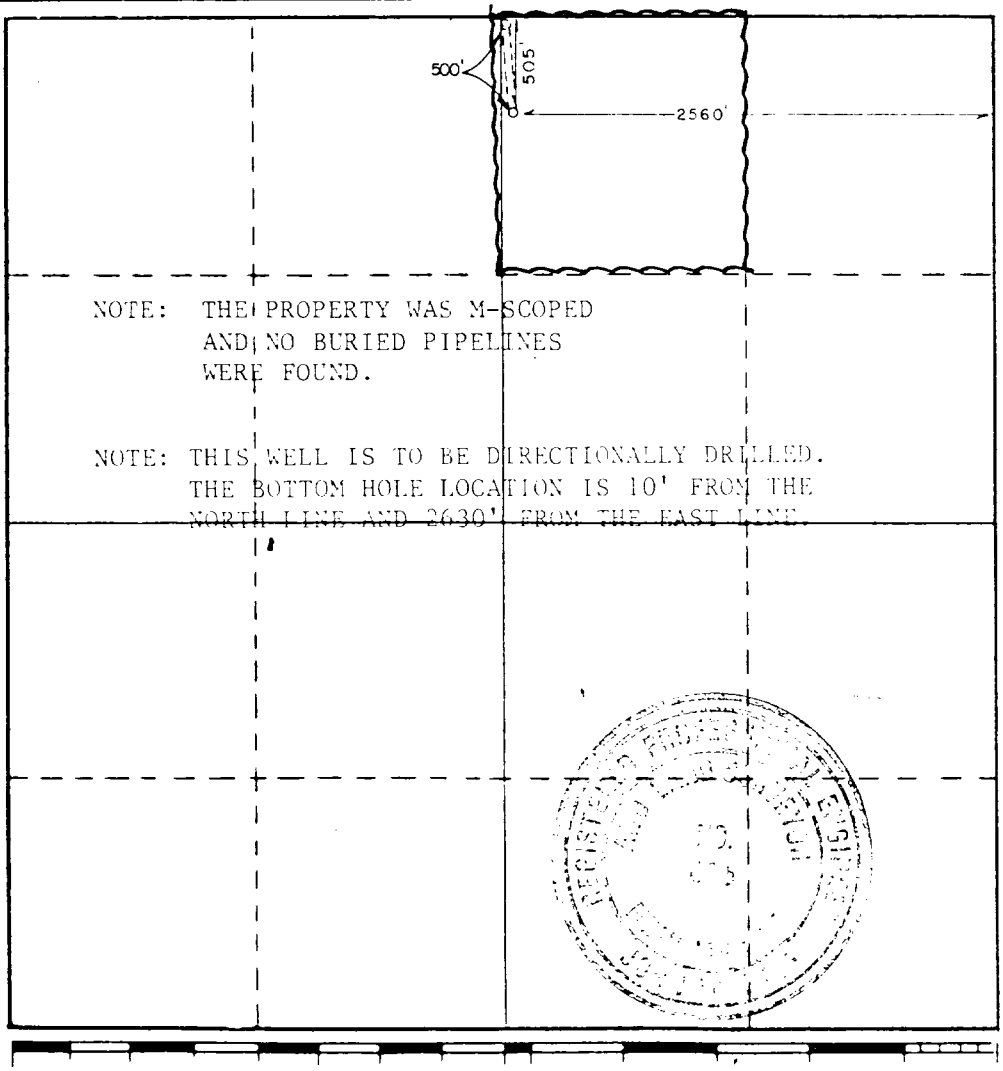

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Date Surveyed: 9/4/84

Registered Professional Engineer and/or Land Surveyor

Certificate No JOHN W WEST, 676
RONALD J. EIDSON, 3239

SOUTH HOBBS UNIT
PRESSURE MAINTENANCE WESTSIDE EXPANSION

III. Well Data

See attached data sheets for each proposed injection well.

V. See attached map covering "Area of Review".

VI. See attached pertinent data on all wells within "Area of Review".

VII. Proposed Operation Data

Average Injection Rate:	1000 BWPD
Average Injection Pressure:	100 PSI
Maximum Injection Rate:	1500 BWPD
Maximum Injection Pressure:	In accordance with Rule 15 of Order No. R-4934

VIII. Geological Data

The injection zone is approximately 200' section in the San Andres. This interval is predominantly comprised of dolomite. The top of the Rustler Anhydrite is considered the lower limit of potable water occurrence in this area. This is situated at approximately 1600'. The Ogallala formation is the primary fresh water source, generally found at approximately 200'.

IX. Proposed Stimulation Program

Initial stimulation will generally consist of approximately 4000 gallons of 15% HCL acid.

X. Logs Previously Filed

XI. Fresh Water Analysis

See attached water analysis.

XII. All available geologic and engineering data have been examined and there is no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Copy of this application has been mailed, as required by "Proof of Notice" section, to all parties on the attached service list.

EPSEC7-J

ITEM III

WELL DATA

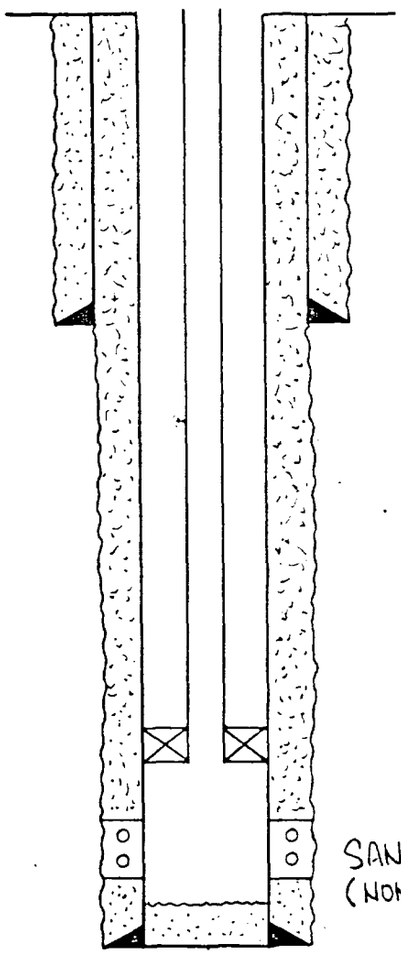
INJECTION WELL DATA SHEET

AMOCO PRODUCTION CO. (OPERATOR) SOUTH HOBBS UNIT (LEASE)

COOP 9 (WELL NO.) — FOOTAGE LOCATION — 34 (SECTION) — T-18-S (TOWNSHIP) — R-38-E (RANGE)

PROPOSED

Schematic



SAN ANDRES PERFORATIONS 4100' – 4225' (TVD)
(NON-CONTINUOUS)

Tabular Data (PROPOSED)

Surface Casing

Size 8 5/8" Cemented with _____ sx.

TOC SURFACE feet determined by CIRC

Hole size 12 1/4" x 1500'

Intermediate Casing NONE

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 5 1/2" Cemented with _____ sx.

TOC SURFACE feet determined by CIRC

Hole size 7 7/8" x 4300'

Total depth 4300'

Injection interval

4100 feet to 4225 feet
(perforated or open-hole, indicate which)

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

BAKER LOK-SET (brand and model) packer at 4000' feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES

2. Name of Field or Pool (if applicable) HOBBS

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

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

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) NONE

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

HOBBS DRINKARD 6650'-6950'

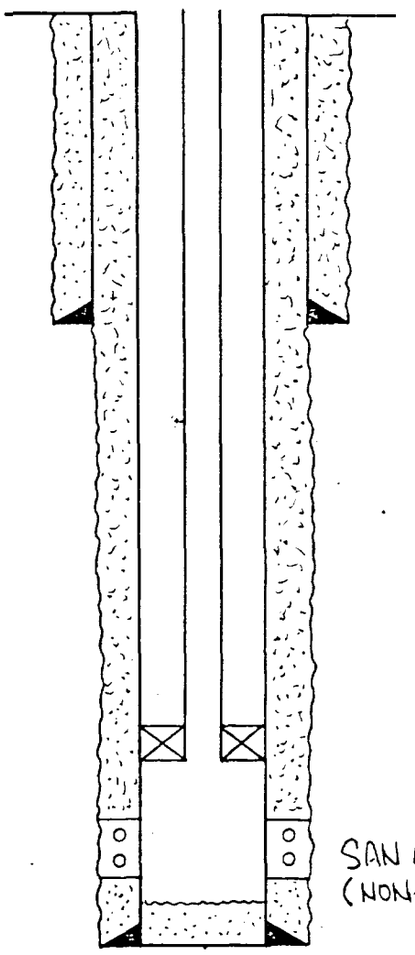
INJECTION WELL DATA SHEET

AMOCO PRODUCTION CO. (OPERATOR) SOUTH HOBBS UNIT (LEASE)

COOP 10 (WELL NO.) 34 (SECTION) T-18-S (TOWNSHIP) R-38-E (RANGE)

PROPOSED

Schematic



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(NON-CONTINUOUS)

Tabular Data (PROPOSED)

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TOC SURFACE feet determined by CIRC

Hole size 12 1/4" x 1500'

Intermediate Casing NONE

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 5 1/2" Cemented with _____ sx.

TOC SURFACE feet determined by CIRC

Hole size 7 7/8" x 4300'

Total depth 4300'

Injection interval

4100 feet to 4225 feet
(perforated or open-hole, indicate which)

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

BAKER LOK-SET (brand and model) packer at 4000' feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES

2. Name of Field or Pool (if applicable) HOBBS

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

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

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) NONE

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

   HOBBS DRINKARD 6650'-6950'

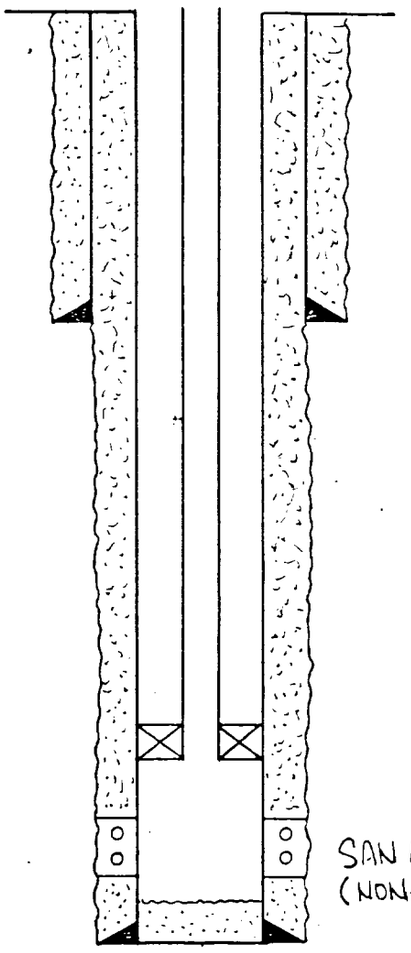
INJECTION WELL DATA SHEET

AMOCO PRODUCTION CO. (OPERATOR) SOUTH HOBBS UNIT (LEASE)

COOP 11 (WELL NO.) 34 (SECTION) T-18-S (TOWNSHIP) R-38-E (RANGE)

PROPOSED (FOOTAGE LOCATION)

Schematic



Tubular Data (PROPOSED)

Surface Casing

Size 8 5/8" Cemented with _____ sx.

TOC SURFACE feet determined by CIRC

Hole size 12 1/4" x 1500'

Intermediate Casing NONE

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 5 1/2" Cemented with _____ sx.

TOC SURFACE feet determined by CIRC

Hole size 7 7/8" x 4300'

Total depth 4300'

Injection interval

4100 feet to 4225 feet

(perforated or open-hole, indicate which)

SAN ANDRES PERFORATIONS 4100' – 4225' (TVD)
(NON-CONTINUOUS)

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

BAKER LOK-SET (brand and model) packer at 4000' feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES

2. Name of Field or Pool (if applicable) HOBBS

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

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

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) NONE

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

HOBBS DRINKARD 6650'-6950'

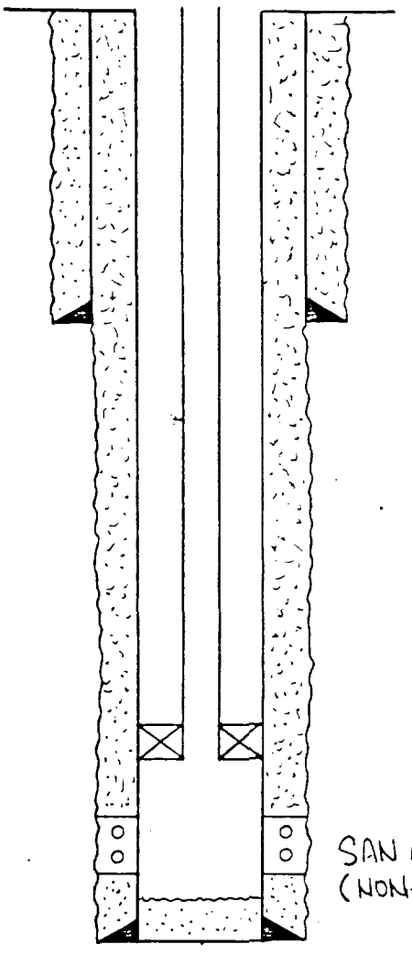
INJECTION WELL DATA SHEET

AMOCO PRODUCTION CO. (OPERATOR) SOUTH HOBBS UNIT (LEASE)

COOP 12 (WELL NO.) FOOTAGE LOCATION 34 (SECTION) T-18-S (TOWNSHIP) R-38-E (RANGE)

PROPOSED

Schematic



Tabular Data (PROPOSED)

Surface Casing

Size 8 5/8" Cemented with _____ sx.

TOC SURFACE feet determined by CIRC

Hole size 12 1/4" x 1500'

Intermediate Casing NONE

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 5 1/2" Cemented with _____ sx.

TOC SURFACE feet determined by CIRC

Hole size 7 7/8" x 4300'

Total depth 4300'

Injection interval

4100 feet to 4225 feet

(perforated or open-hole, indicate which)

SAN ANDRES PERFORATIONS 4100' – 4225' (TVD)
(NON-CONTINUOUS)

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

BAKER LOK-SET (brand and model) packer at 4000' feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES

2. Name of Field or Pool (if applicable) HOBBS

3. Is this a new well drilled for injection? ☒ Yes ☐ No

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

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) NONE

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

HOBBS DRINKARD 6650'-6950'

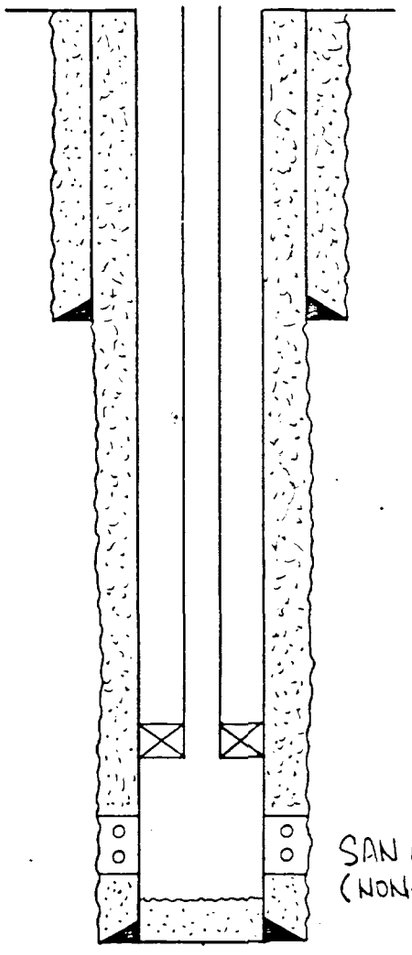
INJECTION WELL DATA SHEET

AMOCO PRODUCTION CO. (OPERATOR) SOUTH HOBBS UNIT (LEASE)

COOP 13 (WELL NO.) 3/34 (FOOTAGE LOCATION) T-19/18-S (SECTION) R-38-E (TOWNSHIP) (RANGE)

PROPOSED

Schematic



Tabular Data (PROPOSED)

Surface Casing

Size 8 5/8" Cemented with _____ sx.

TOC SURFACE feet determined by CIRC

Hole size 12 1/4" X 1500'

Intermediate Casing NONE

Size _____" Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 5 1/2" Cemented with _____ sx.

TOC SURFACE feet determined by CIRC

Hole size 7 7/8" X 4300'

Total depth 4300'

Injection interval

4100 feet to 4225 feet

(perforated or open-hole, indicate which)

SAN ANDRES PERFORATIONS 4100' – 4225' (TVD)
(NON-CONTINUOUS)

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

BAKER LOK-SET (brand and model) packer at 4000' feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES

2. Name of Field or Pool (if applicable) HOBBS

3. Is this a new well drilled for injection? ☒ Yes ☐ No

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

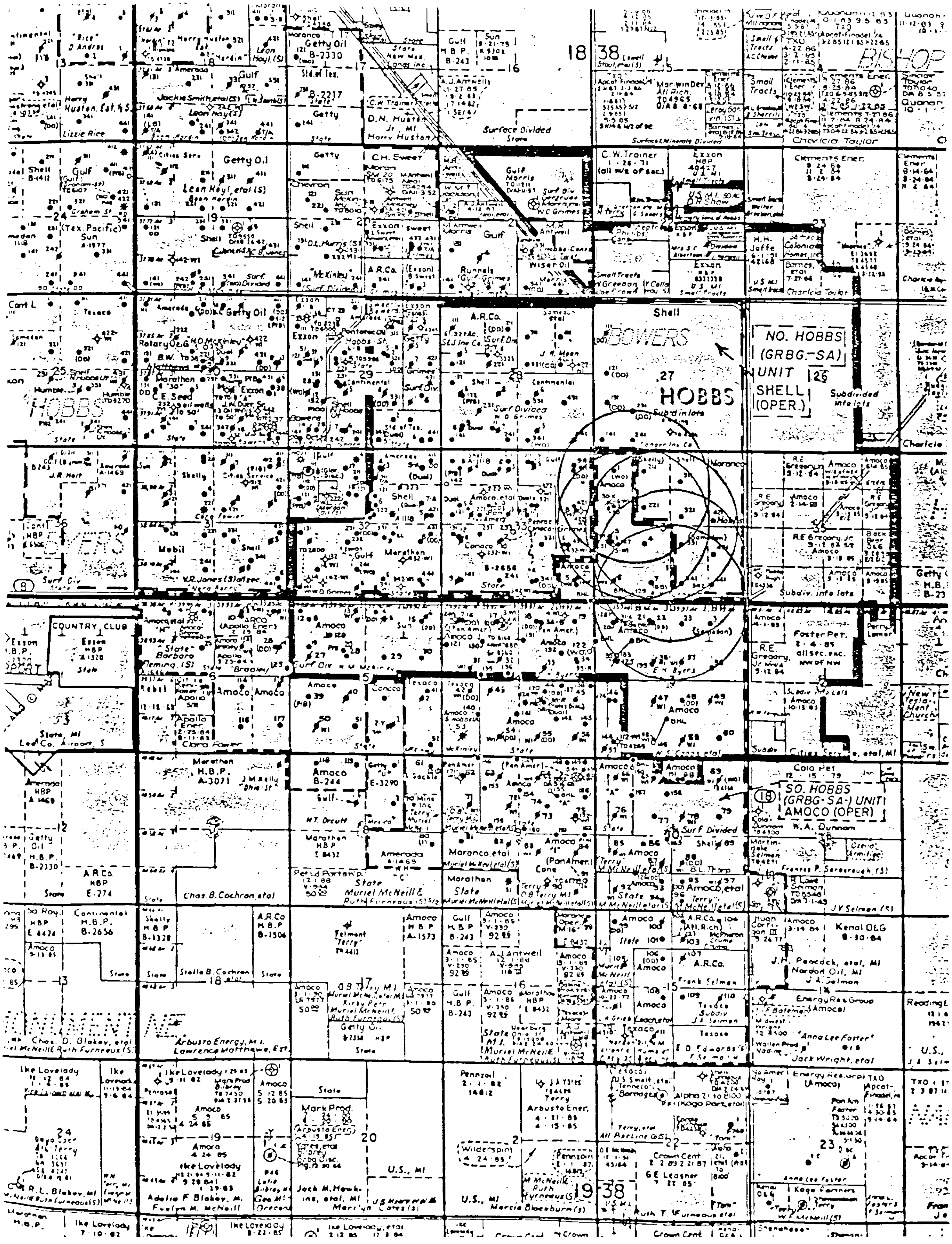
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) NONE

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

HOBBS DRINKARD 6650'-6950'

ITEM V

AREA of REVIEW



NO. HOBBS
(GRBG.-SA)
UNIT
SHELL
(OPER.)
HOBBS
Subd in lots
BOWERS
SO. HOBBS
(GRBG-SA-) UNIT
AMOCO (OPER)
COUNTRY CLUB
Lea Co. Airport, S
Surface Divided
Charlcie Taylor
Subdivided into lots
Subdiv. into lots
Getty Oil
Leon Hoyl, etal (S)
Lizzie Rice
Harry Huston
Tex. Pacific
Texaco
Rotary O.&G.
Marathon
C.E. Seed
Mobil
V.R. Jones (S) all sec.
Shell
Amoco
Amerada
Exxon
Gulf
Sun
Continental
Conoco
A.R.Co.
Runnels
Wiser Oil
E. H. Byrss
Clara Fowler
Chas. B. Cochran, etal
Muriel McNeill & Ruth Furneaux
Stella B. Cochran
Arbusto Energy, MI
Lawrence Matthews, Est.
Ike Lovelady
Adelia F. Blakey, M.
Jack M. Hawkins, etal, MI
U.S., MI
Wilderspin
Marcia Blackburn (S)
Ruth T. Furneaux etal
Crown Cent.
Kenai O&G
J.H. Peacock, etal, MI
J.A. Selman
Energy Res. Group
Anna Lee Foster
Jack Wright, etal
Frank Selman
J.Y. Selman (S)
W.A. Dunnam
Cola Pet.
Foster Pet.
R.E. Gregory, Jr.
Clements Ener.
Pennzoil
Mark Prod.
Kogo Partners

ITEM VI

PERTINENT DATA for WELLS

WITHIN AREA of REVIEW

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: AMOCO PRODUCTION COMPANY

WELL NAME: Byers "A" #31

LOCATION: 660 FNL x 735 FWL Sec. 3, T- 19 -S, R- 38 -E

ELEVATION: _____ GL _____ DF 3627 KB

TD: 7350 PBTD: 7301

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
17-1/2	13-3/8	48	398	450	NA
12-1/4	9-5/8	40	4305	875	NA
8-3/4	7	20,23,26	7350	700	NA

PRODUCING INTERAL: Drinkard 6688-6966

(RE) COMPLETION DATE: 1-16-83

CURRENT STATUS: Producing

COMMENTS: _____

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Roy H. King

WELL NAME: No. 1

LOCATION: SW 1/4 x SE 1/4 Sec. 27, T- 18 -S, R- 38 -E

ELEVATION: 3629 GL _____ DF _____ KB

TD: 4286 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
11	8-5/8	32	246	200	NA
7-7/8	5-1/2	14	4069	350	NA

PRODUCING INTERAL: _____

(RE) COMPLETION DATE: 1-7-84

CURRENT STATUS: PxA Dry Hole

COMMENTS: PxA 1. Shot 5-1/2 csg @ 1215 and pulled.

2. 25 sx plug in btm of hole.

3. 18 sx plug between 1800-1850

4. 10 sx plug @ 246

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 121

LOCATION: 2645 FSL x 412 FWL Sec. 27, T- 18 -S, R- 38 -E

ELEVATION: 3636 GL _____ DF _____ KB

TD: 4250 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	12-1/2	NA	270	150	NA
NA	9-5/8	NA	1705	575	NA
NA	7	NA	4108	275	NA

PRODUCING INTERAL: GSA

(RE) COMPLETION DATE: 1-29-83

CURRENT STATUS: Producing

COMMENTS: _____

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 131

LOCATION: 1650 FSL x 412 FWL Sec. 27, T- 18 -S, R- 38 -E

ELEVATION: 3638 GL _____ DF _____ KB

TD: 4252 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	12-1/2	50	260	150	NA
NA	9-5/8	40.60	1645	200	NA
NA	7	28	4075	200	NA

PRODUCING INTERAL: GSA 4034'-4252'

(RE) COMPLETION DATE: 1-29-84 Orig. 6-15-35

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 141

LOCATION: 287 FWL x 330 FSL Sec. 27, T- 18 -S, R- 38 -E

ELEVATION: 3644 GL _____ DF _____ KB

TD: 4225 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	12-1/2	50	250	275	NA
NA	9-5/8	36	363	1648	NA
NA	7	24	250	4060	NA
NA	5-1/2	15.5	4225	100 sx	NA

PRODUCING INTERAL: GSA

(RE) COMPLETION DATE: 10-30-80

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 231

LOCATION: 1350 FSL x 1350 FWL Sec. 27, T- 18 -S, R- 38 -E

ELEVATION: _____ GL _____ DF _____ KB

TD: 5253 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
17-1/2	13	45	274	150	NA
12-1/4	9-5/8	36	1718	450	NA
8-3/4	7	24	4093	250	NA

PRODUCING INTERAL: GSA

(RE) COMPLETION DATE: 11-18-82

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 241

LOCATION: 330 FSL x 1325 FWL Sec. 27, T- 18 -S, R- 38 -E

ELEVATION: 3643 GL _____ DF _____ KB

TD: 4060 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	12-1/2	50	235	700	NA
NA	9-5/8	44	1648	350	NA
NA	7	24	4060	250	NA

PRODUCING INTERAL: GSA

(RE) COMPLETION DATE: 2-1-35

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 431

LOCATION: 990 FEL x 1650 FSL Sec. 23, T- 18 -S, R- 38 -E

ELEVATION: _____ GL 3637.88 DF _____ KB

TD: 4225 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	10-3/4	40	225	150	NA
NA	7-5/8	26.40	1640	400	NA
NA	5-1/2	17	3993	400	NA

PRODUCING INTERAL: GSA

COMPLETION DATE: 9-6-35

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 441

LOCATION: 330 FSL x 660 FEL Sec. 28, T- 18 -S, R- 38 -E

ELEVATION: _____ GL 3642 DF _____ KB

TD: 4320 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	10	40	243	100	NA
NA	7-5/8	26.40	1634	300	NA
NA	5-1/2	17	4015	300	NA
NA	4 Liner		3803-4320	100	NA

PRODUCING INTERAL: GSA 4102'-4232'

(RE) COMPLETION DATE: 9-2-81 Orig compl. 1-29-35

CURRENT STATUS: Water injection well

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Gulf Oil Corporation

WELL NAME: W. D. Grimes No. 8

LOCATION: 2115 FNL x 600 FEL Sec. 33, T- 18 -S, R- 38 -E

ELEVATION: 3642 GL _____ DF _____ KB

TD: 7100 PBTD: 6935

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
17-1/2	13-3/8	48	398	450	Circ
12-1/4	9-5/8	40	3960	1750	Circ
8-3/4	7	23	7100	470	NA

PRODUCING INTERAL: Drinkard 6654'-6850'

COMPLETION DATE: 2-14-75

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Gulf Oil

WELL NAME: W D Grimes No. 9

LOCATION: 510 FNL x 660 FEL Sec. 33, T- 18 -S, R- 38 -E

ELEVATION: 3638 GL _____ DF _____ KB

TD: 7110 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
17-1/2	13-3/4	48	415	500	Circ
12-1/4	8-5/8	32	4289	1740	Circ
7-7/8	5-1/2	155.17	7109	1220	Circ

PRODUCING INTERAL: Drinkard 6633'-6810'

COMPLETION DATE: 9-22-83

CURRENT STATUS: Flowing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 411

LOCATION: 660 FNL x 660 FEL Sec. 33, T- 18 -S, R- 38 -E

ELEVATION: 3642 GL _____ DF _____ KB

TD: 4256 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	13-3/8	54.5	285	200	NA
NA	9-5/8	36	2739	350	NA
NA	7	24	3970	750	NA
NA	5-1/2 Liner		3919-4175	40	NA

PRODUCING INTERAL: GSA 4095'-4256'

(RE) COMPLETION DATE: 10-19-82 Orig comp. 10-29-34

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 422

LOCATION: 2181/2645 FNL x 498/FE/WL Sec. 33 34, T- 18 -S, R- 38 -E

ELEVATION: 3635.5 GL 3645.4 DF _____ KB

TD: 4476 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
20	16	65	30	40	NA
12-1/4	8-5/8	24	1660	650	NA
7-7/8	5-1/2	14	4476	750	NA

PRODUCING INTERAL: Inj 4144'-4313' San Andres Zones II and III

COMPLETION DATE: 1-24-84

CURRENT STATUS: Water injection

COMMENTS:

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

NAM/eoa
EPERM1-3

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 421

LOCATION: 1980 FNL x 660 FEL Sec. 33, T- 18 -S, R- 38 -E

ELEVATION: _____ GL 3642 DF _____ KB

TD: 4235 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	13-3/8	54.6	221	175	NA
NA	9-5/8	36	2761	500	NA
NA	6-5/8	24	3959	250	NA
NA	5-1/2 Liner		3913-4163	40	NA

PRODUCING INTERAL: GSA 4063'-4235'

COMPLETION DATE: 11-1-32

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-3

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 431

LOCATION: 1920 FSL x 860 FEL Sec. 33, T- 18 -S, R- 38 -E

ELEVATION: _____ GL 3640 DF _____ KB

TD: 4227 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	13-3/8	54.5	231	200	
NA	9-5/8	36	2741	600	
NA	7	24	3940	225	
NA	5-1/2 Liner		3908-4190	40	

PRODUCING INTERAL: GSA 4038-4227

COMPLETION DATE: 9-14-82

CURRENT STATUS: Producing

COMMENTS: _____

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: NHU #432

LOCATION: 1842/1371 FSL x 1029/1390 FEL Sec. 33, T- 18 -S, R- 38 -E

ELEVATION: 3629.6 GL 36395 DF _____ KB

TD: 4445 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
20	16	65	30	40	NA
12-1/4	8-5/8	24	1615	750	NA
7-7/8	5-1/2	14	4435	950	NA

PRODUCING INTERAL: Inj San Andres Zone II, III 4107'-4297'

COMPLETION DATE: 1-28-84

CURRENT STATUS: Inj 4107'-4297'

COMMENTS: _____

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell Oil

WELL NAME: North Hobbs Unit No. 211

LOCATION: 660 FNL x 1650 FWL Sec. 34, T- 18 -S, R- 38 -E

ELEVATION: _____ GL 3642 DF _____ KB

TD: 4214 PBTD: 4208

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	12-1/2	50	246	200	
NA	7	24	4016	400	
NA	5	14	4213	340	

PRODUCING INTERAL: GSA 4159-4204

(RE) COMPLETION DATE: 1-10-81 Oric. Comp. 6-18-34

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell

WELL NAME: NHU #221

LOCATION: 1980 FNL x 1700 FWL Sec. 34, T- 18 -S, R- 3S -E

ELEVATION: 3637 GL _____ DF _____ KB

TD: 4222 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	12-1/2	50	222	200	NA
NA	9	34	2780	400	NA
NA	7	24	3974	300	NA
NA	5	14	4221	CIRC	Surf

PRODUCING INTERAL: GSA 4102-4157

COMPLETION DATE: 9-12-32

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell

WELL NAME: NHL #311

LOCATION: 1022 FNL x 2310 FEL Sec. 34, T- 18 -S, R- 38 -E

ELEVATION: 3642 GL _____ DF _____ KB

TD: 4254 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	12-1/2	50	282	50	NA
NA	9-5/8	36	1700	625	NA
NA	7	24	4134	250	NA

PRODUCING INTERAL: GSA 4134'-4254'

(RE) COMPLETION DATE: 11-10-82

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-3

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell

WELL NAME: North Hobbs Unit No. 321

LOCATION: 2310 FNL x 2310 FEL Sec. 34, T- 18 -S, R- 38 -E

ELEVATION: 3635 GL _____ DF _____ KB

TD: 4206 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	12-1/2	50	276	150	NA
NA	8-5/8	32	1677	250	NA
NA	6-5/8	24	4065	250	NA

PRODUCING INTERAL: GSA 4065'-4206'

COMPLETION DATE: 1-28-42

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell

WELL NAME: North Hobbs Unit No. 331

LOCATION: 1980 FSL x 2310 FEL Sec. 34, T- 18 -S, R- 38 -E

ELEVATION: 3630 GL _____ DF _____ KB

TD: 4245 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	12-1/2	50	254	200	NA
NA	7	22	4055	500	NA
NA	5	13	4214	370	NA

PRODUCING INTERAL: GSA 4118'-4245'

COMPLETION DATE: 3-24-38

CURRENT STATUS: Producing

COMMENTS: _____

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell

WELL NAME: North Hobbs Unit No. 341

LOCATION: 1320 FSL x 2310 FEL Sec. 34, T- 18 -S, R- 38 -E

ELEVATION: _____ GL 3617 DF _____ KB

TD: 4234 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	12-1/2	50	254	150	NA
NA	7	22	4066	500	NA
NA	5	15	4194	370	NA

PRODUCING INTERAL: GSA 4090'-4234'

(RE) COMPLETION DATE: 1-22-38

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell

WELL NAME: North Hobbs Unit No. 342

LOCATION: 305/460 FSL x 1650/1540 FE Sec. 34, T- 18 -S, R- 38 -E

ELEVATION: 3604.5 GL _____ DF _____ KB

TD: 4370 4390 TMD PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
20	16	Conductor	30	NA	NA
12-1/4	8-5/8	24	1618	500	NA
7-7/8	5-1/2	14	4390	825	NA

PRODUCING INTERAL: GSA 4131'-4225' 4284'-4373'

COMPLETION DATE: 3-27-84

CURRENT STATUS: Producing

COMMENTS: _____

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell

WELL NAME: North Hobbs Unit No. 421

LOCATION: 2485 FNL x 1184 FEL Sec. 34, T- 18 -S, R- 38 -E

ELEVATION: 3630 GL _____ DF _____ KB

TD: 4303 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
11	8-5/8	24	372	250	NA
7-7/8	4-1/2	15.5	4303	500	NA

PRODUCING INTERAL: GSA 4207'-57'

COMPLETION DATE: 11-27-61

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-3

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Shell

WELL NAME: North Hobbs Unit No. 431

LOCATION: 1640 FSL x 1190 FEL Sec. 34, T- 18 -S, R- 38 -E

ELEVATION: _____ GL _____ DF _____ KB

TD: 4241 PBTD: _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
NA	12-1/2	50	200	200	NA
NA	7	24	4063	800	NA

PRODUCING INTERAL: GSA

(RE) COMPLETION DATE: _____

CURRENT STATUS: Producing

COMMENTS: _____

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

NAM/eoa
EPERM1-8

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: Co-op No. 5

LOCATION: (SL) 1980' FSL x 646' FWL Sec. 34, T- 18 -S, R- 38 -E
(BHL) 1361.91' FSL x 10.21' FEL Sec. 33, T- 18 -S, R- 38 -E

ELEVATION: 3625 GL _____ DF _____ KB

TD: 4490 PBTD: 4470

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
	13-3/8"	Conductor	40	4-1/2 yds Redi-Mix	Surf
12-1/4"	8-5/8"	24	1622	1000	Circ 425 sx
7-7/8"	5-1/2"	15.5	4490	1275	Circ 170 sx

PRODUCING INTERAL: G-SA 4173-4440

RECOMPLETION DATE: 10-10-83

CURRENT STATUS: Injection

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: Co-op No. 6

LOCATION: (SL) 1950 FNL x 535 FWL
(BHL) 1285 FNL x 51.94 FWL Sec. 34, T- 18 -S, R- 38 -E

ELEVATION: 3637.1 GL _____ DF 3648.5 _____ KB

TD: 4444 PBTD: 4408

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
	14	Concuctor	40	4 yds of Redi-Mix	Surf
12-1/4"	8-5/8	24	1640	100	Circ 380 sx
7-7/8"	5-1/2	15.5	4444	1700	Circ 85 sx

PRODUCING INTERAL: G-SA 4232 - 4406

~~X~~COMPLETION DATE: 11-14-83

CURRENT STATUS: Injection

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: South Hobbs Unit No. 127

LOCATION: (SL) 1980 FSL x 860 FWL (BHL) 1277 FSL x 1236 FWL Sec. 34, T- 18 -S. R- 38 -E

ELEVATION: 3625 GL _____ DF 3636 KB

TVD: 4300 MTD 4433 PBTD: 4423

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
	14"	Conductor	40	5 yds Redi-Mix	Surf
12-1/4"	8-5/8"	24	1600	925	Circ 225 sx
7-7/8"	5-1/2"	15.5	4433	1350	Circ 267 sx

PRODUCING INTERAL: G-SA 4193 - 4373

~~RE~~COMPLETION DATE: 11-8-83

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: South Hobbs Unit No. 128

LOCATION: (SL) 335 FNL x 520 FWL (BHL) 5.2 FSL x 29.2 FEL Sec. 33, T-18-S, R-38-E

ELEVATION: 3617.2 GL _____ DF _____ KB

TD: 4389 PBTD: 4380

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
	14"	Conductor	40	4 yds of Redi-M x	Surf
12-1/4"	8-5/8"	24	1616	925	Circ 234 sx
7-7/8"	5-1/2"	155	4389	1375	Circ 427 sx

PRODUCING INTERAL: G-SA 4136 - 4310

RECOMPLETION DATE: 11-17-83

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: South Hobbs Unit No. 129

LOCATION: (SL) 100 FSL x 900 FWL (BHL) 3 FSL x 1322 FWL Sec. 34, T-18-S, R-38-E

ELEVATION: 3618.9 GL _____ DF _____ _____ KB

TVD: 4300 MTD 4345 PBTD: _____ _____

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
	14"	Conductor	38	2.5 yds Redi-Mix	Surf
12-1/4"	8-5/8"	24	1642	875	Circ 44 sx
7-7/8"	5-1/2"	15.5	4345	1600	Circ 250 sx

PRODUCING INTERAL: G-SA 4143 - 4277

RECOMPLETION DATE: 11-13-83

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: South Hobbs Unit No. 133

LOCATION: (SL) 1840 FNL x 746 FWL (BHL)318 FNL x 1061.94 FWL Sec. 3, T- 19 -S, R- 38 -E

ELEVATION: 3628 GL _____ DF _____ KB

TD: 4422 PBTD: 4382

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
	14"	Conductor	40	2-1/2 yds Redi-Mix	Surf
12-1/4"	8-5/8"	24	1580	875	1498
7-7/8"	5-1/2"	15.5	4422	1300	Circ 362 sx

PRODUCING INTERAL: G-SA 4206 - 4337

RECOMPLETION DATE: 11-30-83

CURRENT STATUS: Producing

COMMENTS:

* Note: Must attach a wellbore scheratic for all PxA wells illustrating details.

NAM/eoa
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR: Amoco Production Company

WELL NAME: South Hobbs Unit No. 139

LOCATION: (SL) 2052 FNL x 1941 FWL (BHL) 2617.20 FNL x 2476.22 FWL Sec. 3, T-19-S, R-38-E

ELEVATION: 3609 GL _____ DF _____ _____ KB

TD: 4441 PBTD: 4397

CASING DATA

HOLE SIZE	SIZE	WT	DEPTH	AMT. OF CMT.	TOC
	20"	Conductor	35	N/A	N/A
12-1/4"	8-5/8"	24	1649	900	Circ 184 sx
7-7/8"	5-1/2"	15.5	4441	1000	3030

PRODUCING INTERAL: G-SA 4277 - 4348

RECOMPLETION DATE: 12-1-83

CURRENT STATUS: Producing

COMMENTS:

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

NAM/eca
EPERM1-B

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 1

LOCATION 660' FNL x 660' FWL Sec 34, T-18-S, R-38-E

ELEVATION _____ GL 3643' DF _____ KB

TD 4246' PBTD 4246'

CASING DATA

No. & Size	Size	Wt.	Depth	Amt. of Cmt.	Top
NA	16"	70#	324'	100 SX	NA
NA	10-3/4"	45.5#	2643'	350 SX	NA
NA	7"	24#	3976'	150 SX	Circ. *
NA	5" (liner)	18#	4221'	50 SX	3872' **

PRODUCING INTERVAL Grayburg-San Andres 4080'-4245'

COMPLETION DATE September 12, 1934

CURRENT STATUS Producing oil well

COMMENTS * Top of cement following casing repair
** Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 2

LOCATION 660' FNL x 1980' FWL Sec 34, T-18-S, R-38-E

ELEVATION 3635' GL 3641' DF _____ KB

TD 4256' PBTD 4256'

CASING DATA

No. & Size	Size	Wt.	Depth	Amt. of Cmt.	Top
NA	16"	70#	333'	100 SX	NA
NA	10-3/4"	45.5#	2776'	400 SX	NA
NA	8-5/8"	36#	3975'	150 SX	Circ. *
NA	5-1/2 (liner)	15.5#	4220'	100 SX	3949' **

PRODUCING INTERVAL Grayburg-San Andres 4050'-4256'

COMPLETION DATE August 4, 1932

CURRENT STATUS Producing oil well

COMMENTS * Top of cement following casing repair
** Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 3

LOCATION 1980' FSL x 660' FWL Sec 34, T-18-S, R-38-E

ELEVATION _____ GL 3629' DF 3631' KB

TD 4240' PBTD 4240'

CASING DATA

No. & Size	Size	Wt.	Depth	Amt. of Cmt.	Top
NA	16"	70#	216'	325 SX	NA
NA	10-3/4"	45.5#	2744'	400 SX	NA
NA	8-5/8"	36#	3960'	150 SX	Circ. *
NA	5-1/2" (liner)	14#	4222'	75 SX	3927' **

PRODUCING INTERVAL Grayburg-San Andres 4050'-4240'

COMPLETION DATE April 14, 1932

CURRENT STATUS Producing oil well

COMMENTS * Top of cement following casing repair
** Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 4

LOCATION 2004' FSL x 174' FWL Sec 34, T-18-S, R-38-E

ELEVATION _____ GL 4625' DF _____ KB

TD 4232' PBTD 4232'

CASING DATA

No. & Size	Size	Wt.	Depth	Amt. of Cmt.	Top
NA	16"	70#	275'	75 SX	NA
NA	10-3/4"	40#	3990'	250 SX	NA
NA	8-5/8"	36#	3990'	250 SX	Circ. *
NA	5-1/2"	14#	4231'	800 SX	740'

PRODUCING INTERVAL Grayburg-San Andres 4054'-4232'

COMPLETION DATE December 10, 1932

CURRENT STATUS Producing oil well

COMMENTS * Top of cement following casing repair.

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 5

LOCATION 660' FSL x 660' FEL Sec 33, T-18-S, R-38-E

ELEVATION _____ GL 3631' DF _____ KB

TD 4241' PBTD 4241'

CASING DATA

No. & Size	Size	Wt.	Depth	Amt. of Cmt.	Top
NA	16"	70#	309'	325 SX	NA
NA	10-3/4"	45.5#	2752'	600 SX	NA
NA	8-5/8"	36#	3948'	140 SX	Est. Circ. *
7-3/8"	5-1/2"	14#	4270'	300 SX	NA

PRODUCING INTERVAL Grayburg-San Andres 3994'-4241'

COMPLETION DATE December 14, 1931

CURRENT STATUS Producing oil well

COMMENTS * Top of cement following casing repair. Although not reported, volume of cement was sufficient to circulate

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 6

LOCATION 653' FSL x 633' WL Sec 34, T-18-S, R-38-E

ELEVATION _____ GL 3622' DF _____ KB

TD 4241' PBTD 4241'

CASING DATA

No. & Size	Size	Wt.	Depth	Amt. of Cmt.	Top
NA	16"	70#	196'	75 SX	NA
13"	10-3/4"	51.5#	2541'	500 SX	Calc. 275'
9-5/8"	8-5/8"	36#	3985'	250 SX	Circ. *
NA	5-1/2"	14#	4207'	750 SX	Circ.

PRODUCING INTERVAL Grayburg-San Andres 4065'-4241'

COMPLETION DATE January 2, 1931

CURRENT STATUS Producing oil well

COMMENTS * Top of cement following casing repair

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 7

LOCATION 1980' FNL & 660' FEL Sec 34, T-18-S, R-38-E

ELEVATION ____ GL 3613 DF ____ KB

TD 4218' PBTD 4218'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
NA	16"	70#	20C	75 SX	NA
12-1/4"	10-3/4"	40#	1622'	75 SX	NA
NA	8-5/8"	24#	3999	150 SX	Circ *
NA	5-1/2"	14#	4195	700 SX	729

PRODUCING INTERVAL Grayburg-San Andres 4106 -4218

COMPLETION DATE January 27, 1933

CURRENT STATUS Producing Oil Well

COMMENTS * Top of cement following casing repair

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 8

LOCATION 330' FNL & 433' FWL Sec 6, T-19-S, R-38-E

ELEVATION 3643 GL ____ DF 3656 KB

TD 4272' PBTD 4230

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
11"	8-5/8"	22.79	322	250 SX	Circ
7-7/8"	5-1/2"	14#	4272'	660 SX	Est Surf *

PRODUCING INTERVAL Grayburg-San Andres 4154' -4225'

COMPLETION DATE January 29 1959

CURRENT STATUS Producing Oil Well

COMMENTS * Although not reported, volume of cement was sufficient to circ old

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 9

LOCATION 330' FNL & 2310' FWL Sec 6, T-19-S, R-38-E

ELEVATION ____ GL 3642' DF ____ KB

TD 4221' PBTD 4181'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
NA	15-1/2"	70#	220'	175 SX	NA
NA	10-3/4"	40.5#	2777'	400 SX	Circ *
NA	7"	24#	3926	250 SX	Circ *
NA	5" (Liner)	15#	4221	100 SX	3802' **
NA	4-1/2"	17#	3798	250 SX	Circ *

PRODUCING INTERVAL Grayburg-San Andres 4062 -4172

COMPLETION DATE January 6, 1933

CURRENT STATUS Producing Oil Well

COMMENTS * Top of Cement following casing repair
** Top of liner
* Full string run from top of liner to surface during casing repair.

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 10

LOCATION 660' FNL & 450' FEL Sec 6 T-19-S, R-38-E

ELEVATION ____ GL 3638 DF ____ KB

TD 4237' PBTD 4237

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
17-1/2"	13-3/8"	36#	362	300 SX	Circ Surf
7-7/8"	5-1/2"	15.5#	4095	1250 SX	Circ *

PRODUCING INTERVAL Grayburg-San Andres 3980 -4237

COMPLETION DATE July 1948

CURRENT STATUS Producing Oil Well

COMMENTS * Top of cement following casing repair

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 11

LOCATION 330' FNL & 330' FEL Sec 6, T-19-S, R-38-E

ELEVATION ____ GL 3628' DF ____ KB

TD 4232 PBTD 4232'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
NA	12-1/4"	50#	214'	200 SX	NA
NA	9-5/8"	36#	2810'	900 SX	NA
NA	7"	24#	3960'	300 SX	NA
NA	4-1/2 (liner)	9.5#	4232	80 SX	3795' *

PRODUCING INTERVAL Grayburg-San Andres 4020 -4232

COMPLETION DATE September 15, 1930

CURRENT STATUS Producing Oil Well Proposed conversion to injection well

COMMENTS * Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 12

LOCATION 330' FNL & 330' FWL Sec 5 T-19-S, R-38-E

ELEVATION ____ GL 3629' DF ____ KB

TD 4235 PBTD 4235

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
NA	16"	70#	185'	75 SX	NA
NA	10-3/4"	45.5#	2782	350 SX	NA
NA	6-5/8"	24#	3977	150 SX	NA
NA	4" (Liner)	11.329	4229	50 SX	3974 *

PRODUCING INTERVAL Grayburg-San Andres 4100 -4232

COMPLETION DATE October 7, 1930

CURRENT STATUS Producing Oil Well

COMMENTS * Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 13

LOCATION 330' FNL & 2360' FWL Sec 5, T-19-S, R-38-E

ELEVATION ____ GL 3628' DF ____ KB

TD 4230' PBTD 4230'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
NA	16"	70#	167'	65 SX	NA
NA	10-3/4"	45.5#	2749	300 SX	NA
NA	6-5/8"	24#	3925	150 SX	NA
NA	5"	15#	4190	650 SX	NA

PRODUCING INTERVAL Grayburg-San Andres 4058 4230

COMPLETION DATE November 3, 1930

CURRENT STATUS Producing Oil Well - Proposed conversion to injection well

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 14

LOCATION 334 FNL & 231' FEL Sec 5, T-19-S, R-38-E

ELEVATION ____ GL 626 DF ____ KB

TD 4250' PBTD 4250

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
18"	13"	50#	20'	150 SX	Circ Circ
12-1/4"	8-5/8"	36#	2761	500 SX	Circ *
8-7/8"	7"	24#	3932	230 SX	Circ *
6-1/4"	5-1/2"	15.5#	4175	50 SX	3964

PRODUCING INTERVAL Grayburg-San Andres 4046 -4250

COMPLETION DATE October 1, 1930

CURRENT STATUS Producing Oil Well

COMMENTS * Top of cement following casing repair

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 15

LOCATION 660' FNL & 660' FEL Sec 5, T-19-S, R-38-E

ELEVATION ____ GL 3628 DF ____ KB

TD 4225' PBTD 4225

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Top
18"	13-3/8"	50#	197	150 SX	Circ
12-1/4"	9-5/8"	36#	2746	900 SX	640'
8-3/8"	7"	24#	3964	225 SX	2150'
6-1/2"	5-1/2"	15.5#	4175	80 SX	3700'

PRODUCING INTERVAL Grayburg-San Andres 4030' -4225'

COMPLETION DATE August 4, 1930

CURRENT STATUS Producing Oil Well

COMMENTS * Calculated Top of Cement

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 16

LOCATION 660' FNL & 660' FWL Sec 4, T-19-S, R-38-E

ELEVATION ____ GL 3626 DF ____ KB

TD 4225' PBTD 4225

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Top
NA	16"	70#	250'	135 SX	NA
NA	8-5/8"	40#	2764'	700 SX	NA
NA	6-5/8"	24#	3954'	200 SX	Circ *
NA	5" (Liner)	18#	4198'	75 SX	NA

PRODUCING INTERVAL Grayburg-San Andres 4053' -4225'

COMPLETION DATE August 2, 1930

CURRENT STATUS Producing Oil Well

COMMENTS * Top of cement for main casing repair

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 17

LOCATION 660' FNL & 1980' FWL Sec 4, T-19-S, R-38-E

ELEVATION ____ GL 3629' DF ____ KB

TD 4231' PBTD 4231'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Top
19-3/4"	16"	70#	203'	125 SX	Circ *
NA	10-3/4"	45.5#	2754'	600 SX	NA
9-7/8"	8-5/8"	36#	3976'	150 SX	Circ **
NA	5-1/2" (Liner)	17#	4212'	75 SX	3900' *
	5-1/2	17#	3900'	None	

PRODUCING INTERVAL Grayburg-San Andres 4058' -4231'

COMPLETION DATE February 16, 1932

CURRENT STATUS Producing Oil Well

COMMENTS * Calculated Top of Cement
** Top of cement following casing repair

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 18

LOCATION 660' FNL & 1980' FEL Sec 4, T-19-S, R-38-E

ELEVATION ____ GL 3626 DF ____ KB

TD 4243' PBTD 4243

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Top
19-3/4"	16"	70#	253'	150 SX	NA
13-3/4"	10-3/4"	45.5#	2747'	600 SX	1425' *
9-7/8"	8-5/8"	36#	3952'	135 SX	Circ **
7-7/8"	5-1/2 (Liner)	14#	4215'	82 SX	3882' *

PRODUCING INTERVAL Grayburg-San Andres 4064' -4243'

COMPLETION DATE December 12, 1931

CURRENT STATUS Producing Oil Well

COMMENTS * Calculated Top of Cement
** Top of cement following casing repair
* Top of Liner

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 19

LOCATION 660' FNL & 660' FEL Sec 4, T-19-S, R-38-E

ELEVATION ____ GL 3623' DF ____ KB

TD 4233' PBTD 4233'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Top
NA	16"	70#	211'	125 SX	NA
NA	10-3/4"	45.5	2752'	600 SX	NA
NA	8-5/8"	36#	3950'	150 SX	NA
7-3/8"	5-1/2" (Liner)	14#	4200'	300 SX	2645' *

PRODUCING INTERVAL Grayburg-San Andres 4064' -4233'

COMPLETION DATE July 28, 1932

CURRENT STATUS Producing Oil Well

COMMENTS * Top of Liner

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 20

LOCATION 660' FNL & 660' FWL Sec 3, T-19-S, R-38-E

ELEVATION ____ GL ____ DF 3627' KB

TD 4230' PB 4230'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Top
NA	16"	70#	203'	125 SX	NA
NA	10-3/4"	45.5#	2790'	450 SX	NA
NA	8-5/8"	36#	3964'	135 SX	Circ *
NA	5-1/2 (Liner)	15.5#	4254'	75 SX	3962' **

PRODUCING INTERVAL Grayburg-San Andres 4070' -4230'

COMPLETION DATE February 28, 1932

CURRENT STATUS Producing Oil Well

COMMENTS * Top of cement following casing repair
** Top of Liner

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 21

LOCATION 663' FNL & 1935' FWL Sec 3, T-19-S, R-38-E

ELEVATION ____ GL 3620' DF ____ KB

TD 4293' PBTD 4281'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Top
12-1/4"	8-5/8"	24#	303'	250 SX	Circ
7-7/8"	5-1/2"	15.5#	4283'	675 SX	Circ *

PRODUCING INTERVAL Grayburg-San Andres 4023' 4246'

COMPLETION DATE October 28, 1970

CURRENT STATUS Producing Oil Well

COMMENTS Directional well - Bottomhole location 330' FNL & 1650' FWL, Section 3, T-19-S, R-38-E
* Top of cement following casing repair

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 22

LOCATION 660' FNL & 1980' FWL Sec 3, T-19-S, R-38-E

ELEVATION ____ GL 3615' DF ____ KB

TD 4257' PBTD 4257'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Top
NA	16"	70#	203'	75 SX	NA
NA	10-3/4"	40#	1837'	75 SX	NA
NA	8-5/8"	36#	4203'	150 SX	Circ *
NA	5-1/2" (Liner)	15.5#	4193'	75 SX	3878' **

PRODUCING INTERVAL Grayburg-San Andres 4119' -4257'

COMPLETION DATE December 31, 1932

CURRENT STATUS Producing Oil We

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 23

LOCATION 660' FNL x 2310' FEL Sec 3, T-19-S, R-38-E

ELEVATION ____ GL 3627' DF ____ KB

TD 4240' PBTD 4240'

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
NA	12-1/2"	50#	208	150 SX	NA
NA	7"	22#	4055	500 SX	NA
6-1/4"	5"	13#	4200	840 SX	NA

PRODUCING INTERVAL Grayburg-San Andres 4048'-4240'

COMPLETION DATE June 22, 1935

CURRENT STATUS Producing Oil Well

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 24

LOCATION 620' FNL x 12?' FEL Sec 3, T-19-S, R-38-E

ELEVATION 3605 GL ____ DF ____ KB

TD 4234' PBTD 4234

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
NA	9-5/8"	36#	194	175 SX	NA
NA	5-1/2"	14#	4214	500 SX	NA
NA	4-1/2"	12.5#	4176	95 SX	Circ

PRODUCING INTERVAL Grayburg-San Andres 4134'-4234

COMPLETION DATE August ?, 194.

CURRENT STATUS Producing Oil Well

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 25

LOCATION 1650 FNL x 2310' FWL Sec 6, T-19-S, R-38-E

ELEVATION ____ GL ____ DF 3648 KB

TD 4322' PBTD 4200'

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
11"	8-5/8"	24#	300	200 SX	Circ
7-7/8"	5-1/2"	14#	4322'	1700 SX	850'

PRODUCING INTERVAL Grayburg-San Andres 4108'-4186
PBA 4220-54

COMPLETION DATE March 4, 1957

CURRENT STATUS Producing Oil Well

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 26

LOCATION 1650 FNL x 480 FEL Sec 6, T-19-S, R-38-E

ELEVATION ____ GL ____ DF 364? KB

TD 4250' PBTD 4250

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
NA	10-3/4"	40.5#	36?	300 SX	NA
NA	7"	20 & 24#	4074	800 SX	18??
NA	4-1/2" (lnr)	5#	4199	50 SX	3964 *

PRODUCING INTERVAL Grayburg San Andres 3942'-4250'

COMPLETION DATE April 8, 949

CURRENT STATUS Producing Oil Well

COMMENTS * Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 27

LOCATION 1980 FNL x 660 FWL Sec 5, T-19-S, R-38-E

ELEVATION 3618 GL 3629' DF ____ KB

TD 4314' PBTD 4183'

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
17"	13"	50#	213	200 SX	Circ
12-1/4"	9-5/8"	36#	2780'	500 SX	675'
8-3/4"	7"	20#	3995	300 SX	Circ **
6-1/4"	4-1/2" (lnr)	9.5#	4190	35 SX	3966 +

PRODUCING INTERVAL Grayburg-San Andres 3932'-4172'

COMPLETION DATE March 6, 1945

CURRENT STATUS Water Injection Well

COMMENTS * Calculated top of cement
** Top of cement following casing repair
+ Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 28

LOCATION 1980 FNL x 1980 FWL Sec 5, T-19-S, R-38-E

ELEVATION ____ GL 3[illegible]24 DF ____ KB

TD 4226' PBTD 4175

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
NA	13"	[illegible]	212	150 SX	NA
NA	9-5/8"	[illegible]	2780	300 SX	NA
NA	6-5/8"	[illegible]	3957	150 SX	Circ *
NA	4-1/2" (lnr)	[illegible]	4283	150 SX	3854 **

PRODUCING INTERVAL Grayburg San Andres 3966'-4174'

COMPLETION DATE October 2[illegible] 1930

CURRENT STATUS Producing Oil Well

COMMENTS * Top of cement following casing repair
** Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 29

LOCATION 1980 FNL x 1980 FEL Sec 5, T-19-S, R-38-E

ELEVATION 3609' GL ____ DF 3625 KB

TD 4220' PBTD 4220'

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
15"	13"	50#	175'	175 SX	Circ
12-1/4"	9-5/8"	40#	2744	600 SX	635' *
8-7/8"	7"	26#	3932	230 SX	Circ **
6-1/4"	5-1/2"	14# & 15.5#	4200	325 SX	NA

PRODUCING INTERVAL Grayburg-San Andres 4105'-4220'

COMPLETION DATE December 14, 1930

CURRENT STATUS Producing Oil Well

COMMENTS * Calculated top of cement
** Top of cement following casing repair

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No. 30

LOCATION 1980 FNL x 660 FEL Sec 5, T-19-S, R-38-E

ELEVATION ____ GL 3620 DF ____ KB

TD 4230' PBTD 4230

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
NA	13"	50#	192	150 SX	Circ
NA	9-5/8"	40#	2750	500 SX	NA
NA	7"	24#	3950	215 SX	Circ *
6-1/4"	5-1/2"	15.5#	4169	50 SX	29?? *

PRODUCING INTERVAL Grayburg-San Andres 4089'-4230

COMPLETION DATE October 1930

CURRENT STATUS Producing Oil Well

COMMENTS * Top of cement following casing repair

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 31

LOCATION 2310' FNL x 990' FWL Sec 4, T-19-S, R-38-E

ELEVATION 3611' GL ____ DF ____ KB

TD 4275' PBTD 4275'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
RA	13"	50#	259	100 SX	RA
RA	9-5/8"	40#	2740	300 SX	RA
RA	6-5/8"	24#	3993	135 SX	Circ *
RA	5" (liner)	15#	4217	75 SX	3945'**

PRODUCING INTERVAL Grayburg-San Andres 3975'-4275'

COMPLETION DATE August 22, 1930

CURRENT STATUS Water injection well

COMMENTS * Top of cement following casing repair
** Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 32

LOCATION 1980' FNL x 660' FWL Sec 4, T-19-S, R-38-E

ELEVATION ____ GL ____ DF 3614' KB

TD 4244' PBTD 4244'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
RA	13"	50#	253	85 SX	RA
RA	9-5/8"	40#	2775	300 SX	RA
RA	6-5/8"	24#	3994	135 SX	Circ *
RA	5" (liner)	18#	4199	70 SX	3940' **

PRODUCING INTERVAL Grayburg-San Andres 4078'-4244'

COMPLETION DATE August 30, 1930

CURRENT STATUS Producing Oil Well - Proposed conversion to injection well

COMMENTS * Top of cement following casing repair
** Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 33

LOCATION 2310' FNL x 1650' FEL Sec 4, T-19-S, R-38-E

ELEVATION ____ GL ____ DF 3623' KB

TD 4255' PBTD 4254'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
RA	16"	70#	153'	360 SX	RA
RA	10-3/4"	45.5#	1523'	75 SX	RA
RA	8-5/8"	36#	3253'	60 SX	RA
RA	6-5/8"	24#	3952'	50 SX	RA
RA	4-1/2 (liner)	10.5#	4254'	75 SX	3864' *

PRODUCING INTERVAL Grayburg-San Andres 4008'-4248'

COMPLETION DATE August 7, 1930

CURRENT STATUS Water injection well

COMMENTS * Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 34

LOCATION 1980' FNL x 660' FEL Sec 4, T-19-S, R-38-E

ELEVATION ____ GL 3617' DF ____ KB

TD 4232' PBTD 4232'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
19-3/4"	16"	70#	199	75 SX	RA
RA	10-3/4"	45#	1575	75 SX	RA
RA	8-5/8"	36#	3961	150 SX	400' *
RA	5-1/2"	14#	4206	675 SX	Circ

PRODUCING INTERVAL Grayburg-San Andres 4064'-4232'

COMPLETION DATE March 1, 1931

CURRENT STATUS Producing Oil Well - Proposed conversion to injection well

COMMENTS * Top of cement following casing repair

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 35

LOCATION 1980' FNL x 660' FWL Sec 3, T-19-S, R-38-E

ELEVATION ____ GL 3613' DF ____ KB

TD 4239' PBTD 4239'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
RA	16"	70#	216	100 SX	RA
RA	10-3/4"	40#	2790	650 SX	RA
RA	8-5/8"	36#	3990	150 SX	Circ *
RA	5-1/2"	14#	4210'	650 SX	Circ

PRODUCING INTERVAL Grayburg-San Andres 4010'-4239'

COMPLETION DATE May 16, 1933

CURRENT STATUS Water injection well

COMMENTS * Top of cement following casing repairs

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 36

LOCATION 1980' FNL x 1980' FWL Sec 3, T-19-S, R-38-E

ELEVATION ____ GL 3617' DF ____ KB

TD 4227' PBTD 4227'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
17-1/2"	13-3/8"	61#	214	135 SX	Circ
12"	9"	36#	1653	350 SX	RA
8-1/8"	7"	24#	4111	150 SX	Circ **
RA	5-1/2" (liner, 15.5#		4202	50 SX	3977' *

PRODUCING INTERVAL Grayburg-San Andres 4012'-4227'

COMPLETION DATE June 13, 1935

CURRENT STATUS Producing Oil Well - Proposed conversion to injection well

COMMENTS * Estimated top of cement
** Top of cement following casing repair
* Top of liner

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 37

LOCATION 1980' FNL x 2310' FEL Sec 3, T-19-S, R-38-E

ELEVATION ____ GL ____ DF 3615' KB

TD 4290' PBTD 4290'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
RA	12-1/2"	50#	350'	175 SX	RA
RA	7"	23#	4147'	600 SX	RA
RA	5"	13#	4180'	300 SX	RA

PRODUCING INTERVAL Grayburg-San Andres 4067'-4290'

COMPLETION DATE September 11, 1935

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME South Hobbs Unit No 38

LOCATION 2705' FNL x 1793' FEL Sec 3, T-19-S, R-38-E

ELEVATION 3602' GL ____ DF 3610' KB

TD 4233' PBTD 4200'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
RA	8-5/8"	36#	196	175 SX	RA
RA	5-1/2"	14#	4132	600 SX	3148

PRODUCING INTERVAL Grayburg-San Andres 4132'-4213'

COMPLETION DATE November 22, 194[illegible]

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME Byers "A" No. 31

LOCATION 660' FNL x 735' FWL Sec 3, T-19-S, R-38-E

ELEVATION ____ GL ____ DF 3627' KB

TD 7350' PBTD 7301'

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
17-1/2"	13-3/8"	48#	398'	450 SX	Circ
12-1/4"	9-5/8"	32#-36#	4305	875 SX	125
8-3/4"	7"	20#-26#	7350	700 SX	Circ *

PRODUCING INTERVAL Drinkard 6680'-6964' Blinebry 5738'-5874' (P&A) Yates 2593'-2902' (P&A)

COMPLETION DATE February 15, 1980

CURRENT STATUS Producing Drinkard oil well

COMMENTS * Top of cement following casing repair

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME Byers "B" No. 34

LOCATION 713' FNL 1840' FEL Sec 4 T-19-S, R-38-E

ELEVATION ____ GL ____ DF 3631' KB

TD 7318' PBTD 7277'

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
15"	11-3/4	42#	391'	275 SX	Circ
11"	8-5/8"	24#-32#	3842'	800 SX	NA
7-7/8"	5-1/2"	14#-15.5#	7318'	575 SX	NA

PRODUCING INTERVAL Drinkard 6700'-6928'

COMPLETION DATE April 26, 1977

CURRENT STATUS Producing Oil Well

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME Byers "B" No. 35

LOCATION 2030' FNL x 626' FEL Sec 4 T-19-S, R-38-E

ELEVATION ____ GL ____ DF 3630' KB

TD 7096' PBTD ________

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
17-1/2"	13-3/8"	48#	395'	450 SX	Circ
12-1/4"	9-5/8"	36#	4305'	1050 SX	Circ
8-3/4"	7"	20#-26#	7096'	800 SX	Circ *

PRODUCING INTERVAL Drinkard 6645'-6875'

COMPLETION DATE May 1, 1980

CURRENT STATUS Producing Oil Well

COMMENTS * Top of cement following casing repair

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME Capps No. 12

LOCATION 2025' FSL 516' FWL Sec 3, T-19-S, R-38-E

ELEVATION 3610' GL ____ DF ____ KB

TD 7100' PBTD 7050'

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
17-1/2"	13-3/8"	48#	392'	450 SX	Circ
12-1/4"	9-5/8"	36#	4300'	1300 SX	Circ
8-3/4"	7"	20#-26#	7100'	650 SX	3185'

PRODUCING INTERVAL Drinkard 6665'-6932'

COMPLETION DATE June 12, 1980

CURRENT STATUS Producing Oil Well

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME State "A-2" No 11-Y

LOCATION 810' FNL x 2030' FWL Sec 4, T-19-S, R-38-E

ELEVATION ____ GL 3639' DF ____ KB

TD 8160' PBTD ________

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
17-1/2"	13-3/8"	48#-54.5#	1544	825 SX	Circ
12"	9-5/8"	32#-40#	4434	815 SX	2400 *
8-3/4"	5-1/2"	14#-15.5#	7365	200 SX	5950

PRODUCING INTERVAL Abo 7200'-7290', Drinkard 6730'-6988', Blinebry 5925'-5953', Bowers-Seven Rivers 3172'-3224', Yates 2660'-2868'

COMPLETION DATE March 1, 1952

CURRENT STATUS Shut-in - Proposed for P&A

COMMENTS * Top of cement following casing repair

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME State "A-2" No 34

LOCATION 660' FNL x 660' FEL Sec 9 T-19-S, R-38-E

ELEVATION ____ GL ____ DF 3620' KB

TD 8812' PBTD Surface

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
17-1/2"	13-3/8"	48#	416	425 SX	Circ
12-1/4"	9-5/8"	32#-36#	4354'	1300 SX	NA
8-3/4"	5-1/2"	14#-17#	7925	1650 SX	3900

PRODUCING INTERVAL Abo 7512'-7862', Drinkard 6771'-6918', Blinebry 58[illegible]'-6075', Paddock 5348'-5564', Seven Rivers 32[illegible]'-3342'

COMPLETION DATE January 17, 1969

CURRENT STATUS Plugged and Abandoned

PERTINENT DATA FOR WELLS WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME State "A" No. 37

LOCATION 1980' FSL x 1832' FEL Sec 4, T-19-S, R-38-E

ELEVATION 3609' GL ____ DF 36[illegible] KB

TD 7097' PBTD 7060'

CASING DATA

Hole Size	Size	Wt	Depth	Amt. of Cmt	Toc
17-1/2"	13-3/8"	48#	395	450 SX	Circ
12-1/4"	9-5/8"	36#	4302	1000 SX	Circ
8-3/4"	7"	20#-26#	7096	700 SX	2935'

PRODUCING INTERVAL Drinkard 6742'-6894'

COMPLETION DATE April 23, 1980

CURRENT STATUS Producing Oil Well

COMMENTS Proposed recompletion as South Hobbs (G-SA) Unit water injection well

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME State "HF" Com No. 1

LOCATION 610' FSL & 610' FEL Sec 33, T-18-S, R-30-E

ELEVATION 3626 GL ____ DF ____ KB

TD 7950' PBTD 7010'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
17-1/2"	13-3/8"	48#	385	450 SX	Circ
12-1/4"	8-5/8"	40#	4260	22[illegible] SX	Circ
8-3/4"	7"	43#-26#	7050	590 SX	2860

PRODUCING INTERVAL Brinkard 6701'-6822

COMPLETION DATE September 4, 1979

CURRENT STATUS Producing Oil Well

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME Turner Tract 2 No. 30

LOCATION 1980 FNL & 660 FWL Sec 34, T-18-S, R-30-E

ELEVATION 3635 GL ____ DF ____ KB

TD 7950' PBTD 7836

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
17-1/2"	13-3/8"	54.5#	670	450 SX	Circ
12-1/4"	8-5/8"	32#-24#	4400	2250 SX	Circ *
8-3/4"	7"	29#-26#	7050	600 SX	4040

PRODUCING INTERVAL Brinkard 6645'-6906

COMPLETION DATE February 25, 1980

CURRENT STATUS Producing Oil Well

COMMENTS * Top of cement following casing repair

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Amoco Production Company

WELL NAME Turner Tract 2 No. 31

LOCATION 2055' FSL & 990 FWL Sec 34, T-18-S, R-30-E

ELEVATION 3623' GL ____ DF ____ KB

TD 7112' PBTD 7082'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
17-1/2"	13-3/8"	48#	399	450 SX	Circ
12-1/4"	8-5/8"	32#-24#	4305	1400 SX	Circ
8-3/4"	7"	20#-26#	7112	630 SX	3105

PRODUCING INTERVAL Brinkard 6650-6962

COMPLETION DATE March 17, 1980

CURRENT STATUS Producing Oil Well

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Continental Oil Company

WELL NAME State A-5 # 7

LOCATION 990' FSL & 1650' FEL (O) Sec 5, T-19-S, R-30-E

ELEVATION 3606' GL ____ DF 3617' KB

TD 4280' PBTD 4204'

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
12-1/4"	8-5/8"	20#	1484	750 SX	Circ
7-7/8"	5-1/2"	14#	4280	430 SX	2200

PRODUCING INTERVAL San Andres 4129'-4161

COMPLETION DATE July 3, 1973

CURRENT STATUS Producing Oil Well

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Continental Oil Company

WELL NAME State A-5 #1

LOCATION 1980' FSL & 1980 FEL (J) Sec 5, T-19-S, R-30-E

ELEVATION 3613 GL ____ DF 3623' KB

TD 4203' PBTD ______

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
NA	15-1/2"	70#	225'	250 SX	Est. Circ
NA	8-5/8"	40#	2850'	600 SX	Est. Circ
NA	7"	24#		300 SX	Unknown
NA	Liner	NA	NA	NA	Unknown

PRODUCING INTERVAL Grayburg-San Andres 3994'-4133

COMPLETION DATE 1930

CURRENT STATUS Producing Oil Well

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Cities Service Oil Company

WELL NAME Fowler "B" #1

LOCATION 2310' FSL & 2290' FWL (K) Sec 6, T-19-S, R-30-E

ELEVATION ____ GL ____ DF 3629 KB

TD 4250' PBTD ______

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
12-1/4"	8-5/8"	NA	1652	736 SX	Circ
7-7/8"	5-1/2"	NA	4250'	150 SX	Unknown

PRODUCING INTERVAL Grayburg-San Andres 4202'-14, 4144-62, 4167-72, 4178-88

COMPLETION DATE February 15, 1959

CURRENT STATUS P&A - Procedure
(1) 30 SX Cmt plug 4009-4249
(2) 5-1/2" csg shot @ 3460 & pulled
(3) 25 SX Cmt plug 3[illegible]
(4) 25 SX Cmt plug 1520-1[illegible]
(5) 15 SX Cmt plug @ surface

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR John H. Kelly

WELL NAME Ohio State #1

LOCATION 330' FNL & 330' FEL (A) Sec 7, T-19-S, R-30-E

ELEVATION 3628' GL ____ DF ____ KB

TD 4272' PBTD ______

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
12-1/4"	8-5/8"	28#	300'	200 SX	Circ
7-7/8"	5-1/2"	14#	4250'	400 SX	Unknown

PRODUCING INTERVAL Grayburg-San Andres 4148'-4249

COMPLETION DATE November 26, 1957

CURRENT STATUS P&A - Procedure
(1) 25 SX Cmt plug @ 4100
(2) 5-1/2" Csg shot @ 3320' & pulled
(3) 25 SX Cmt plugs @
(a) 3150' (b) 1650' (c) 300'
(4) 10' Cmt plug @ surface

PERTINENT DATA FOR WELLS
WITHIN AREA OF REVIEW

OPERATOR Getty Oil Company (formerly Skelly)

WELL NAME Mexico "U" #1

LOCATION 330 FNL & 1650 FEL (B) Sec 8, T-19-S, R-30-E

ELEVATION 3616' GL ____ DF ____ KB

TD 4075' PBTD ______

CASING DATA

Hole Size	Size	Wt	Depth	Amt of Cmt	Toc
11"	8-5/8"	24#	1590	600 SX	NA*
7-7/8"	5-1/2"	14#	3983	300 SX	NA

PRODUCING INTERVAL Grayburg-San Andres Open Hole 3857'-4075

COMPLETION DATE December 18, 1949

CURRENT STATUS Producing

COMMENTS * Top not reported, but volume of cement was sufficient to circulate

ITEM XI

FRESH WATER ANALYSIS

UNICHEM INTERNATIONAL

601 NORTH LEECH P.O.BOX1199

HOBBS, NEW MEXICO 88240

COMPANY : AMOCO
DATE : 9-14-84
FIELD,LEASE&WELL : HOBBS ICE CO.
SAMPLING POINT. FRESH WATER
DATE SAMPLED : 9-12-84

SE corner of Dunnam and Thorp
Depth ≈ 80'
1075 FSL x 1600 FWL, Sec 34

SPECIFIC GRAVITY = 1
TOTAL DISSOLVED SOLIDS = 944
RESISTIVITY AT 77F IS 6.88 OHMS
PH = 8.11

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	6.2	124.
MAGNESIUM	(MG)+2	3.8	46.1
SODIUM	(NA).CALC.	4.4	102.
ANIONS			
BICARBONATE	(HCO3)-1	5	305.
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	3.4	166.
CHLORIDES	(CL)-1	6	200
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		.6
BARIUM	(BA)+2	0	0
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) =.021

SCALING INDEX	TEMP
	30C 86F
CARBONATE INDEX	2.33
CALCIUM CARBONATE SCALING	LIKELY
CALCIUM SULFATE INDEX	-15.
CALCIUM SULFATE SCALING	UNLIKELY

ITEM XIII

PROOF of NOTICE

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

September 21, 19 84

and ending with the issue dated

September 21, 19 84

Robert L. Summers
Publisher.

Sworn and subscribed to before me this 24 day of Sept., 19 84

Jane Pavlovsky
Notary Public.

My Commission expires 3-24, 19 87
(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.

OFFICIAL SEAL
Signature Jane Pavlovsky
JANE PAVLOVSKY
NOTARY PUBLIC - NEW MEXICO
NOTARY BOND FILED WITH SECRETARY OF STATE
My Commission Expires 3-24-87

LEGAL NOTICE
September 21, 1984

TO WHOM IT MAY CONCERN:

Amoco Production Company will on or before September 24, 1984, apply for administrative approval to drill six water injection wells in our South Hobbs (GSA) Unit. The well names, numbers and locations are as follows:

Well Name and Number	Location
South Hobbs (GSA) Unit COOP No. 9	Unit D, Sec. 34, T-18-S, R-38-E, Lea County
South Hobbs (GSA) Unit COOP No. 10	Unit K, Sec. 34, T-18-S, R-38-E, Lea County
South Hobbs (GSA) Unit COOP No. 11	Unit K, Sec. 34, T-18-S, R-38-E, Lea County
South Hobbs (GSA) Unit COOP No. 12	Unit N, Sec. 34, T-18-S, R-38-E, Lea County
South Hobbs (GSA) Unit COOP No. 13	Unit B, Sec. 3, T-19-S, R-38-E, Lea County

The purpose of the work is to expand the South Hobbs Unit Pressure Maintenance Project. Water will be injected into the Grayburg-SanAndres formation at an average rate of 1000 BWIPD with an average injection pressure of 100 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, New Mexico 87501, within 15 days.

Please note the legal notice published in the Hobbs Daily News Sun on September 21, 1984, stated Amoco has applied for administrative approval to drill six water injection wells in our South Hobbs (GSA) Unit. However, the notice should have stated Amoco has applied for administrative approval to drill five water injection wells. The five water injection wells name, number, and location were correctly identified on the notice.

P 267 162 719

RECEIPT FOR CERTIFIED MAIL

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

SENT TO
Gulf Oil

STREET AND NO.
P.O. Box 1150

P.O., STATE AND ZIP CODE
Midland, TX 79702

POSTAGE		$ 2.42
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	.75
	OPTIONAL SERVICES — SPECIAL DELIVERY	
	OPTIONAL SERVICES — RESTRICTED DELIVERY	
	OPTIONAL SERVICES — RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	.60
	OPTIONAL SERVICES — RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	
	OPTIONAL SERVICES — RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
	OPTIONAL SERVICES — RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES		$ 3.77
POSTMARK OR DATE		

PS Form 3800, Apr. 1976

P 267 162 720

RECEIPT FOR CERTIFIED MAIL

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

SENT TO
Shell Western E&P, Inc.

STREET AND NO.
P.O. Box 991

P.O., STATE AND ZIP CODE
Houston, TX 77001

POSTAGE		$ 2.42
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	.75
	OPTIONAL SERVICES — SPECIAL DELIVERY	
	OPTIONAL SERVICES — RESTRICTED DELIVERY	
	OPTIONAL SERVICES — RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	.60
	OPTIONAL SERVICES — RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY	
	OPTIONAL SERVICES — RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
	OPTIONAL SERVICES — RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES		$ 3.77
POSTMARK OR DATE		

PS Form 3800, Apr. 1976

Cooperative Injection Well Agreement No. 2

North-South Hobbs Grayburg San Andres Units

This Agreement, dated and intended to be effective as of the 10 day of Sept., 1984, to be known as the "North-South Hobbs Unit Cooperative Injection Facility Agreement No. 2" by and between Amoco Production Company (herein sometimes referred to as "Amoco"), Unit Operator of the South Hobbs Grayburg San Andres Unit and Shell Western E&P Inc. (herein sometimes referred to as "SWEPI"), Unit Operator of the North Hobbs Grayburg San Andres Unit,

W I T N E S S E T H

THAT WHEREAS, Amoco is the Operator of the South Hobbs Grayburg San Andres Unit covering all oil and gas rights in the Grayburg San Andres formation, Lea County, New Mexico, as described in the South Hobbs Grayburg San Andres Unit Agreement, to which, reference is here made for the limited purpose of description; and

WHEREAS, SWEPI is the Operator of the North Hobbs Grayburg San Andres Unit covering all oil and gas rights in the Grayburg San Andres formation, Lea County, New Mexico, as described in the North Hobbs Grayburg San Andres Unit Agreement, to which, reference is here made for the limited purpose of description; and

WHEREAS, Amoco and SWEPI desire to provide for the operation of water injection wells on or near the common unit boundaries of the above-described units for the injection of water into the underlying Grayburg San Andres formation through said injection wells.

NOW, THEREFORE, in consideration of the premises and the mutual promises herein contained, the parties hereto agree as follows:

ARTICLE 1

Amoco, as soon as practicable following the effective date of this Agreement, and prior to January 1, 1985, shall drill, complete and equip

five (5) water injection wells on the South Hobbs Grayburg San Andres Unit with approximate bottom-hole locations in Lea County, New Mexico as follows:

Coop Well No. 9 - 1310' FNL x 1310' FWL, Sect. 34, T-18-S, R-38-E

Coop Well No. 10 - 2630' FSL x 1310' FWL, Sect. 34, T-18-S, R-38-E

Coop Well No. 11 - 2630' FSL x 2330' FWL, Sect. 34, T-18-S, R-38-E

Coop Well No. 12 - 1310' FSL x 2630' FWL, Sect. 34, T-18-S, R-38-E

Coop Well No. 13 - 10' FNL x 2630' FEL, Sect. 3, T-19-S, R-38-E

Ownership of Coop Well Nos. 9, 10, 11, 12, and 13 shall be as follows:

Well	South Hobbs Unit	North Hobbs Unit
Coop Well No. 9	71.25	28.75
Coop Well No. 10	84.67	15.33
Coop Well No. 11	54.84	45.16
Coop Well No. 12	79.39	20.61
Coop Well No. 13	89.00	11.00

Amoco shall advance all costs and expenses incurred in connection with drilling, completing and equipping said Coop Wells. SWEPI shall pay its proportionate share based upon ownership of all such costs and expenses in accordance with the accounting procedures attached hereto as Exhibit "B" and made a part hereof for all purposes.

Upon drilling, completing and equipping, the Coop Wells will be operated by Amoco and SWEPI shall pay its proportionate share, based upon ownership, of all operating costs and expenses (including the cost of injected water) in accordance with the accounting procedures set out in Exhibit "B".

ARTICLE 2

Injection of water below the base of Zone 1 of the San Andres formation in each injection well shall commence no later than January 1, 1985. Injection rates shall be 1000 BWPD per well or a maximum surface pressure of 100 psig, for the first six months after commencement of

water injection or until such time that a rate which does not exceed formation parting pressure is determined by injection well tests. Thereafter, if the rates and pressures cannot be mutually agreed upon, then the injection rate shall not exceed 1500 BWPD, provided that such rate does not exceed the formation parting pressure as previously determined by injection well tests conducted by the operating party. If the 1500 BWPD rate exceeds the formation parting pressure, then the injection rate shall be reduced to a maximum rate which will not exceed the formation parting pressure. Any injection into Zone I will only be established upon mutual agreement of the parties. The parties hereto shall have access to each of the injection wells and premises at any reasonable time and shall also have right at all reasonable times to inspect, review, and audit all pertinent books, records, and accounts in connection with the said injection wells and premises at the place where such books, records and accounts are usually kept.

ARTICLE 3

Amoco shall furnish water suitable for injection into each well through Amoco's water injection systems at the price and on the basis herein set forth. The water delivered hereunder to the injection wells shall be measured by standard type water metering equipment installed, and operated for the joint account, at the delivery point for each injection well. Such metering facilities shall be kept in good repair, and SWEPI at all reasonable times shall have access thereto for the purpose of observing the operations thereon. Each month the delivery meter through which water is delivered to each injection well shall be read, and at the end of each month shall furnish SWEPI with a statement showing the meter reading obtained and the total volume of water delivered to the coop injection wells during that calendar month. This reading shall be deemed conclusive as to the quantity of water delivered unless a meter test, or tests, shows an error in excess of 5%. Annual tests shall be made and, whenever any test shall show a meter to be registering in error beyond the limit specified or not operating, it shall be corrected to register within such limits and adjustments of

accounts between the parties hereto made for a period extending back to the time when such inaccuracy or inoperation began, if such time is ascertainable, and if not ascertainable, then for a period extending back one-half of the time elapsed since the last meter test. SWEPI will be notified as of the date of these tests in order to witness such tests if they so desire. The cost of each annual meter test shall be borne by the joint account. The cost of any special tests requested to be performed will be borne by the requesting party if the meter is found to be accurate to within 5% of actual, but if the meter is not accurate to within 5% of actual, the joint account will bear such costs. The monthly statement shall be paid within thirty (30) days after receipt and any failure to pay such statement within the time provided shall result in the accrual of interest on the unpaid balance of each at the rate of twelve percent (12%) per annum or the maximum rate allowed by law, whichever is the least, as provided in Exhibit "B."

ARTICLE 4

The payment to be made for water delivered to the injection wells is intended to reimburse the parties as nearly as possible for their proportionate share of the costs and expense actually incurred in acquiring, treating, transporting and furnishing such water to the injection well site, it being intended that neither party shall make a profit from the operations conducted hereunder. The rate of four cents ($.04) per barrel shall be charged for injection water during the first year of this Agreement. At the end of the first year, actual costs and expenses of the operating party of acquiring, treating, transporting and delivering said water shall be considered, and the first year's actual per-barrel cost shall be determined. The share of such costs accruing to the party receiving such water shall be retroactively adjusted to reflect actual costs and expenses for such year. If the actual per-barrel cost is less than the estimated per barrel charge provided for the first year, then appropriate reimbursement shall be made for the overpayment, but if the actual per-barrel cost exceeds the estimated per barrel charge collected

for the first year, then one party shall reimburse the other for its applicable share of such costs and expenses actually accrued for the first year. The actual per-barrel cost determined in the manner provided shall then be the rate for the next ensuing year; provided that the operating party may make use of the experience base developed hereunder to project costs and expenses and set a reasonable per-barrel rate for the ensuing year or period and may, at any time, recalculate its actual cost of acquiring, treating, transporting and delivering water to the injection well sites for any subsequent year or twelve (12) month period in the manner provided for the first year and, if it should occur that the rate for charges again should be adjusted, then the operating party shall so notify the other of such adjustment. Should any price readjustment increase by more than two cents (2¢) per barrel from the contemporaneously assessed charge the other party's approval must be obtained prior to assessing the increased cost. Any new rate based upon the recalculation shall become effective as of the first day of the calendar month following the date that the other is notified thereof, and there shall be a retroactive adjustment for such prior 12-month period as provided herein for the first year. This same procedure shall be followed during the term of this agreement.

ARTICLE 5

Amoco shall conduct an injectivity and/or tracer survey and step-rate the Coop Wells after six (6) months and before one (1) year after water injection is commenced. For each subsequent year of operation thereafter, injectivity and/or tracer surveys shall be conducted on an annual basis. Step-rate tests shall be conducted in said wells periodically in order to determine the maximum efficient injection rate.

ARTICLE 6

After the completion of the Coop Wells, Amoco shall not make any expenditures for the Joint Account in excess of $25,000 as to any well without the written consent of the other party hereto.

ARTICLE 7

As to all Coop Well operations hereunder, the operating party shall carry, for the benefit and protection of the parties hereto, Workmen's Compensation insurance in accordance with state, provincial, and federal laws, and Employers' Liability insurance. Workmen's Compensation insurance shall be for statutory limits; Employers' Liability insurance shall provide coverage of $100,000 each accident. Either party may elect to be a self-insurer provided they comply with applicable laws and in such event the Operating Party shall charge to the joint account, in lieu of any premiums for such insurance, a premium equivalent limited to amounts determined by applying manual insurance rates to the payroll.

Neither party hereunder is required to carry any other insurance for the joint account. The liability, if any, of the parties hereto in damages for claims growing out of personal injury to or death of third persons or injury or destruction of property of third parties resulting from the operation and development of the premises covered hereby shall be borne by the parties hereto in the proportions of their respective interest in the Coop Wells; and each party, acting individually, may acquire such insurance as it deems proper to protect itself against such claims. Third party contractors performing work in or on the premises covered hereby shall be required to carry such insurance and in such amounts as the operating party shall deem necessary.

ARTICLE 8

This Agreement shall be effective as of the date first above set out and continue in force for so long as oil or gas or both is produced from the properties included in the South Hobbs Grayburg San Andres Unit and the North Hobbs Grayburg San Andres Unit. If, within the sole discretion of a party hereto, the water injection operation being conducted hereunder is no longer economically profitable to that party, then said party shall have the right to terminate its participation in this agreement upon giving thirty (30) days advance written notice to the other party of its intention to terminate. The other party hereto shall then have the option to take over and operate, at its sole cost, risk and expense, the Coop Wells. In such event, the party taking over shall be granted the right of ingress and egress to said wells, together with rights-of-way and easements necessary to continue operation of the water injection well or wells, but this grant is made without representation and any warranty whatsoever and only insofar as the terminating party can lawfully do so. The party taking over shall pay the other party for its proportionate part of the equipment therein on the basis of the current salvage value thereof, and when said party taking over wishes to discontinue the water injection operations, such party shall, at its sole risk and expense, plug and abandon the water injection wells in compliance with all contractual obligations and rules and regulations of any governmental body having jurisdiction. The party taking over shall indemnify and hold the other party hereto harmless from and against any and all claims, charges, suits and any liabilities arising out of or in any way associated with subsequent operations. The parties shall execute and deliver, each to the other, such instruments or assurances as may be required to accomplish the intents and purposes of this article.

ARTICLE 9

Any notices required to be given hereunder shall be deemed to have been given when such notice shall have been deposited in the United States mail, postage prepaid and addressed to the parties at the following addresses:

Amoco Production Company
P. O. Box 68
Hobbs, New Mexico 88240

Shell Western E&P Inc.
P. O. Box 991
Houston, Texas 77001

ARTICLE 10

In the event that any party hereto is rendered unable, wholly or in part, by reason of force majeure to carry out its obligations under this agreement other than the obligations to make payments of amounts due hereunder, upon such party's giving notice and reasonably full particulars of such force majeure in writing or by telegraph to the other party within a reasonable time after the occurrence of the cause relied upon, the obligations of the party giving said notice, insofar as they are affected by such force majeure, shall be suspended during the continuance of any inability so caused, but for no longer period; and the cause of the force majeure so far as possible shall be remedied with all reasonable dispatch.

The term "Force Majeure" as used herein, shall mean and include any of the following which prohibit, prevent, hinder or inhibit the performance of any obligation or covenant hereunder, whether express or implied, or any act permitted hereunder: any Federal, State, County, or municipal laws, rules, regulations or executed orders asserted as official by or under public authority claiming jurisdiction; act of God, adverse field, weather, or market conditions; inability to obtain materials in the open market or transportation thereof, war, blockade, act of the public enemy, riot, or public disturbance; lightning, fire, storm, flood, or explosion; governmental restraint; failure of water supply; or any other cause, whether of the kind herein enumerated or otherwise, not reasonably within the control of the party claiming suspension.

The settlement of strikes, lockouts, and other labor difficulties shall be entirely within the discretion of the party having the difficulty. The above requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes, lockouts, or other labor difficulty by acceding to the demands of opponents therein when such course is inadvisable in the discretion of the party having the difficulty.

ARTICLE 11

The rights, duties, obligations, and liabilities of the parties hereto shall be several, and not joint nor collective, and nothing herein contained shall ever be construed as creating a partnership of any kind, joint venture, association, or a trust, or as imposing upon any or all of the parties hereto a partnership duty, obligation or liability. Each party hereto shall be individually responsible only for its obligations, as set out in this Agreement.

Each party hereby elects to be excluded from the application of Sub-chapter "K" of Chapter 1 of Subtitle "A" of the Internal Revenue Code of 1943, insofar as such Sub-chapter or any portion or portions thereof may be applicable to the parties in respect to the operations covered by this Agreement. Operator is hereby authorized and directed to execute on behalf of each of the parties hereto such additional or further evidence of such election as may be required by regulations issued under such Sub-chapter "K," or should said regulations require each party to execute such further evidence, each party agrees to execute such evidence or to join in the execution thereof.

The terms and provisions hereof shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors, legal representatives and assigns.

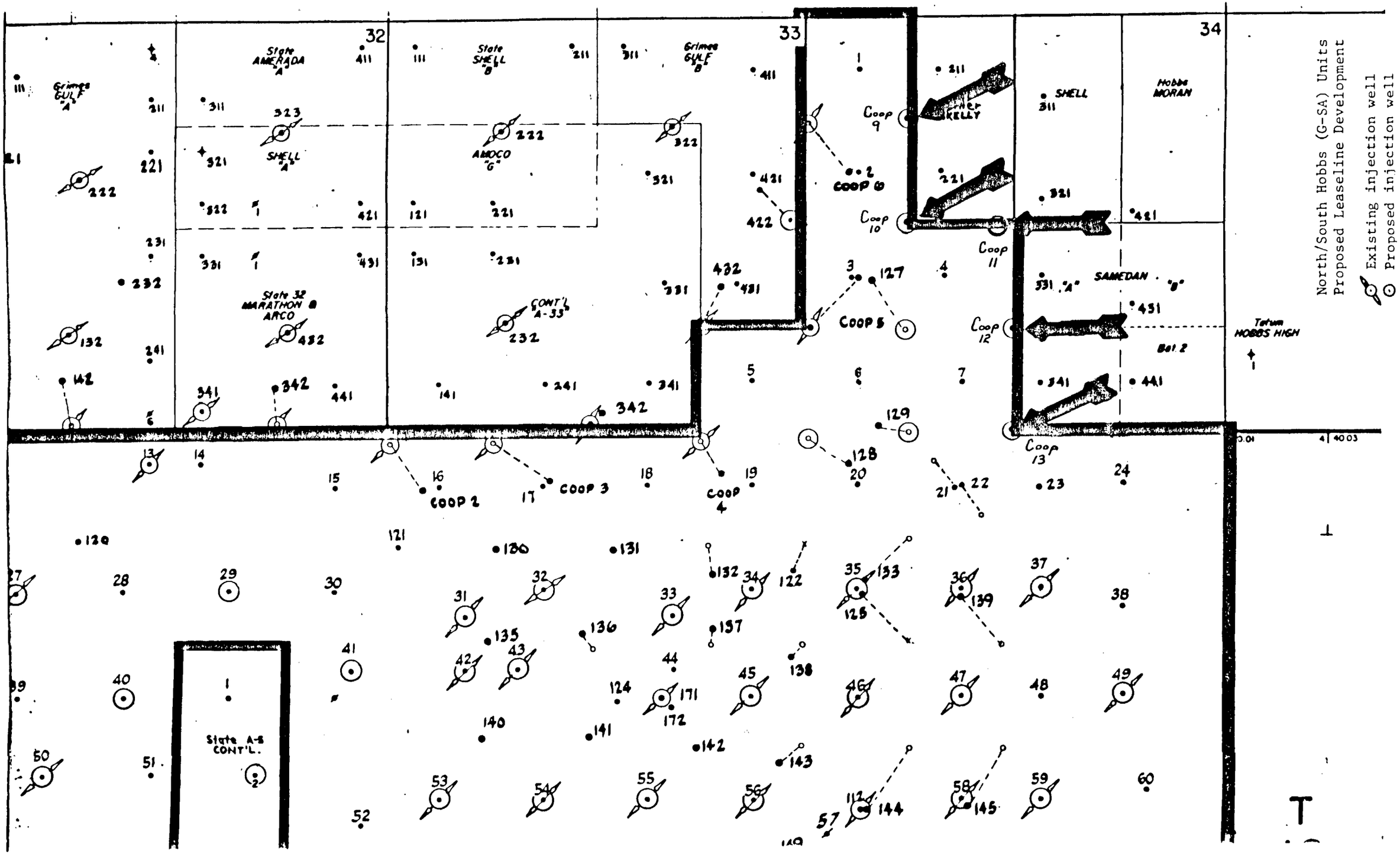
IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective as of the date first above written.

AMOCO PRODUCTION COMPANY
as Operator of the South Hobbs
Grayburg San Andres Unit

By J. L. Barnett
DIVISION PRODUCTION MANAGER

SHELL WESTERN E&P INC.
as Operator of the North Hobbs
Grayburg San Andres Unit

By George T. Carlson


32
33
34
State AMERADA "A"
State SHELL "B"
Grimes GULF "B"
Grimes GULF "A"
SHELL "A"
AMOCO "G"
State 32 MARATHON & ARCO
CONT'L A-33
Coop 9
Coop 10
Coop 11
Coop 12
Coop 13
COOP 5
COOP 2
COOP 3
COOP 4
Penn KELLY
SHELL
Hobbs MORAN
SAMEDAN "A"
SAMEDAN "B"
Bal 2
Town HOBBS HIGH
State A-8 CONT'L.
North/South Hobbs (G-SA) Units
Proposed Leaseline Development
Existing injection well
Proposed injection well
T

Kraftbilt 601, TULSA 74101

COPAS — 1974
Recommended by the Council of Petroleum Accountants Societies of North America

COPAS

EXHIBIT "B"

Attached to and made a part of Cooperative Injection Well Agreement No. 2 by and between Amoco Production Company, Opertor South Hobbs Grayburg San Andres Unit and Shell Western E&P Inc., Operator North Hobbs Grayburg San Andres Unit.

ACCOUNTING PROCEDURE
JOINT OPERATIONS

I. GENERAL PROVISIONS

1. Definitions

"Joint Property" shall mean the real and personal property subject to the agreement to which this Accounting Procedure is attached.

"Joint Operations" shall mean all operations necessary or proper for the development, operation, protection and maintenance of the Joint Property.

"Joint Account" shall mean the account showing the charges paid and credits received in the conduct of the Joint Operations and which are to be shared by the Parties.

"Operator" shall mean the party designated to conduct the Joint Operations.

"Non-Operators" shall mean the parties to this agreement other than the Operator.

"Parties" shall mean Operator and Non-Operators.

"First Level Supervisors" shall mean those employees whose primary function in Joint Operations is the direct supervision of other employees and/or contract labor directly employed on the Joint Property in a field operating capacity.

"Technical Employees" shall mean those employees having special and specific engineering, geological or other professional skills, and whose primary function in Joint Operations is the handling of specific operating conditions and problems for the benefit of the Joint Property.

"Personal Expenses" shall mean travel and other reasonable reimbursable expenses of Operator's employees.

"Material" shall mean personal property, equipment or supplies acquired or held for use on the Joint Property.

"Controllable Material" shall mean Material which at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies of North America.

2. Statement and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of the Joint Account for the preceding month. Such bills will be accompanied by statements which identify the authority for expenditure, lease or facility, and all charges and credits, summarized by appropriate classifications of investment and expense except that items of Controllable Material and unusual charges and credits shall be separately identified and fully described in detail.

3. Advances and Payments by Non-Operators

Unless otherwise provided for in the agreement, the Operator may require the Non-Operators to advance their share of estimated cash outlay for the succeeding month's operation. Operator shall adjust each monthly billing to reflect advances received from the Non-Operators.

Each Non-Operator shall pay its proportion of all bills within fifteen (15) days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the rate of twelve percent (12%) per annum or the maximum contract rate permitted by the applicable usury laws in the state in which the Joint Property is located, whichever is the lesser, plus attorney's fees, court costs, and other costs in connection with the collection of unpaid amounts.

4. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operator to protest or question the correctness thereof; provided, however, all bills and statements rendered to Non-Operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within the said twenty-four (24) month period a Non-Operator takes written exception thereto and makes claim on Operator for adjustment. No adjustment favorable to Operator shall be made unless it is made within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of Controllable Material as provided for in Section V.

5. Audits

A. Non-Operator, upon notice in writing to Operator and all other Non-Operators, shall have the right to audit Operator's accounts and records relating to the Joint Account for any calendar year within the twenty-four (24) month period following the end of such calendar year; provided, however, the making of an audit shall not extend the time for the taking of written exception to and the adjustments of accounts as provided for in Paragraph 4 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct joint or simultaneous audits in a manner which will result in a minimum of inconvenience to the Operator. Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator.

6. Approval by Non-Operators

Where an approval or other agreement of the Parties or Non-Operators is expressly required under other sections of this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, Operator shall notify all Non-Operators of the Operator's proposal, and the agreement or approval of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

II. DIRECT CHARGES

Operator shall charge the Joint Account with the following items:

1. Rentals and Royalties

Lease rentals and royalties paid by Operator for the Joint Operations.

2. Labor

A. (1) Salaries and wages of Operator's field employees directly employed on the Joint Property in the conduct of Joint Operations.

(2) Salaries of ~~Xxxxxxxxx~~ Supervisors in the field. below District Superintendent

(3) Salaries and wages of Technical Employees directly employed on the Joint Property if such charges are excluded from the Overhead rates.

B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II. Such costs under this Paragraph 2B may be charged on a "when and as paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Paragraph 2A of this Section II. If percentage assessment is used, the rate shall be based on the Operator's cost experience.

C. Expenditures or contributions made pursuant to assessments imposed by governmental authority which are applicable to Operator's costs chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II.

D. Personal Expenses of those employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II.

3. Employee Benefits

Operator's current costs of established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus, and other benefit plans of a like nature, applicable to Operator's labor cost chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II shall be Operator's actual cost not to exceed ~~xxxxxxxxxxxxxxxxxxxxx~~ twenty-six percent (26%) or the percent most recently recommended by the Council of Petroleum Accountants Societies of North America.

4. Material

Material purchased or furnished by Operator for use on the Joint Property as provided under Section IV. Only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use and is reasonably practical and consistent with efficient and economical operations. The accumulation of surplus stocks shall be avoided.

5. Transportation

Transportation of employees and Material necessary for the Joint Operations but subject to the following limitations:

A. If Material is moved to the Joint Property from the Operator's warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest reliable supply store, recognized barge terminal, or railway receiving point where like material is normally available, unless agreed to by the Parties.

B. If surplus Material is moved to Operator's warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest reliable supply store, recognized barge terminal, or railway receiving point unless agreed to by the Parties. No charge shall be made to the Joint Account for moving Material to other properties belonging to Operator, unless agreed to by the Parties.

C. In the application of Subparagraphs A and B above, there shall be no equalization of actual gross trucking cost of $200 or less excluding accessorial charges.

6. Services

The cost of contract services, equipment and utilities provided by outside sources, except services excluded by Paragraph 9 of Section II and Paragraph 1. ii of Section III. The cost of professional consultant services and contract services of technical personnel directly engaged on the Joint Property if such charges are excluded from the Overhead rates. The cost of professional consultant services or contract services of technical personnel not directly engaged on the Joint Property shall not be charged to the Joint Account unless previously agreed to by the Parties.

7. Equipment and Facilities Furnished by Operator

A. Operator shall charge the Joint Account for use of Operator owned equipment and facilities at rates commensurate with costs of ownership and operation. Such rates shall include costs of maintenance, repairs, other operating expense, insurance, taxes, depreciation, and interest on investment not to exceed eight per cent (8%) per annum. Such rates shall not exceed average commercial rates currently prevailing in the immediate area of the Joint Property.

B.. In lieu of charges in Paragraph 7A above, Operator may elect to use average commercial rates prevailing in the immediate area of the Joint Property less 20%. For automotive equipment, Operator may elect to use rates published by the Petroleum Motor Transport Association.

8. Damages and Losses to Joint Property

All costs or expenses necessary for the repair or replacement of Joint Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or other cause, except those resulting from Operator's gross negligence or willful misconduct. Operator shall furnish Non-Operator written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.

9. Legal Expense

Expense of handling, investigating and settling litigation or claims, discharging of liens, payment of judgments and amounts paid for settlement of claims incurred in or resulting from operations under the agreement or necessary to protect or recover the Joint Property, except that no charge for services of Operator's legal staff or fees or expense of outside attorneys shall be made unless previously agreed to by the Parties. All other legal expense is considered to be covered by the overhead provisions of Section III unless otherwise agreed to by the Parties, except as provided in Section I, Paragraph 3.

10. Taxes

All taxes of every kind and nature assessed or levied upon or in connection with the Joint Property, the operation thereof, or the production therefrom, and which taxes have been paid by the Operator for the benefit of the Parties.

11. Insurance

Net premiums paid for insurance required to be carried for the Joint Operations for the protection of the Parties. In the event Joint Operations are conducted in a state in which Operator may act as self-insurer for Workmen's Compensation and or Employers Liability under the respective state's laws, Operator may, at its election, include the risk under its self-insurance program and in that event, Operator shall include a charge at Operator's cost not to exceed manual rates.

12. Other Expenditures

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III, and which is incurred by the Operator in the necessary and proper conduct of the Joint Operations.

III. OVERHEAD

1. Overhead - Drilling and Producing Operations

i. As compensation for administrative, supervision, office services and warehousing costs, Operator shall charge drilling and producing operations on either:

(X) Fixed Rate Basis, Paragraph 1A, or

( ) Percentage Basis, Paragraph 1B.

Unless otherwise agreed to by the Parties, such charge shall be in lieu of costs and expenses of all offices and salaries or wages plus applicable burdens and expenses of all personnel, except those directly chargeable under Paragraph 2A, Section II. The cost and expense of services from outside sources in connection with matters of taxation, traffic, accounting or matters before or involving governmental agencies shall be considered as included in the Overhead rates provided for in the above selected Paragraph of this Section III unless such cost and expense are agreed to by the Parties as a direct charge to the Joint Account.

ii. The salaries, wages and Personal Expenses of Technical Employees and/or the cost of professional consultant services and contract services of technical personnel directly employed on the Joint Property shall (X) shall not ( ) be covered by the Overhead rates.

A. Overhead - Fixed Rate Basis

(1) Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate $ 3,609

Producing Well Rate $ 282

(2) Application of Overhead - Fixed Rate Basis shall be as follows:

(a) Drilling Well Rate

[1] Charges for onshore drilling wells shall begin on the date the well is spudded and terminate on the date the drilling or completion rig is released, whichever is later, except that no charge shall be made during suspension of drilling operations for fifteen (15) or more consecutive days.

[2] Charges for offshore drilling wells shall begin on the date when drilling or completion equipment arrives on location and terminate on the date the drilling or completion equipment moves off location or rig is released, whichever occurs first, except that no charge shall be made during suspension of drilling operations for fifteen (15) or more consecutive days

[3] Charges for wells undergoing any type of workover or recompletion for a period of five (5) consecutive days or more shall be made at the drilling well rate. Such charges shall be applied for the period from date workover operations, with rig, commence through date of rig release, except that no charge shall be made during suspension of operations for fifteen (15) or more consecutive days.

(b) Producing Well Rates

[1] An active well either produced or injected into for any portion of the month shall be considered as a one-well charge for the entire month.

[2] Each active completion in a multi-completed well in which production is not commingled down hole shall be considered as a one-well charge providing each completion is considered a separate well by the governing regulatory authority.

[3] An inactive gas well shut in because of overproduction or failure of purchaser to take the production shall be considered as a one-well charge providing the gas well is directly connected to a permanent sales outlet.

[4] A one-well charge may be made for the month in which plugging and abandonment operations are completed on any well.

[5] All other inactive wells (including but not limited to inactive wells covered by unit allowable, lease allowable, transferred allowable, etc.) shall not qualify for an overhead charge.

(3) The well rates shall be adjusted as of the first day of April each year following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the calendar year preceding as shown by the index of average weekly earnings of Crude Petroleum and Gas Fields Production Workers as published by the United States Department of Labor, Bureau of Labor Statistics, or the equivalent Canadian index as published by Statistics Canada, as applicable. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.

B. Overhead - Percentage Basis

(1) Operator shall charge the Joint Account at the following rates:

(a) Development

_____ Percent (%) of the cost of Development of the Joint Property exclusive of costs provided under Paragraph 9 of Section II and all salvage credits.

(b) Operating

_____ Percent (%) of the cost of Operating the Joint Property exclusive of costs provided under Paragraphs 1 and 9 of Section II, all salvage credits, the value of injected substances purchased for secondary recovery and all taxes and assessments which are levied, assessed and paid upon the mineral interest in and to the Joint Property.

(2) Application of Overhead - Percentage Basis shall be as follows:
For the purpose of determining charges on a percentage basis under Paragraph 1B of this Section III, development shall include all costs in connection with drilling, redrilling, deepening or any remedial operations on any or all wells involving the use of drilling crew and equipment; also, preliminary expenditures necessary in preparation for drilling and expenditures incurred in abandoning when the well is not completed as a producer, and original cost of construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, except Major Construction as defined in Paragraph 2 of this Section III. All other costs shall be considered as Operating.

2. Overhead - Major Construction

To compensate Operator for overhead costs incurred in the construction and installation of fixed assets, the expansion of fixed assets, and any other project clearly discernible as a fixed asset required for the development and operation of the Joint Property, Operator shall either negotiate a rate prior to the beginning of construction, or shall charge the Joint Account for Overhead based on the following rates for any Major Construction project in excess of $ 25,000 :

A. 5 % of total costs if such costs are more than $ 25,000 but less than $ 100,000 ; plus

B. 3 % of total costs in excess of $ 100,000 but less than $1,000,000; plus

C. 2 % of total costs in excess of $1,000,000.

Total cost shall mean the gross cost of any one project. For the purpose of this paragraph, the component parts of a single project shall not be treated separately and the cost of drilling and workover wells shall be excluded.

3. Amendment of Rates

The Overhead rates provided for in this Section III may be amended from time to time only by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

IV. PRICING OF JOINT ACCOUNT MATERIAL PURCHASES, TRANSFERS AND DISPOSITIONS

Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for all material movements affecting the Joint Property. Operator shall provide all Material for use on the Joint Property; however, at Operator's option, such Material may be supplied by the Non-Operator. Operator shall make timely disposition of idle and/or surplus Material, such disposal being made either through sale to Operator or Non-Operator, division in kind, or sale to outsiders. Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus condition A or B Material. The disposal of surplus Controllable Material not purchased by the Operator shall be agreed to by the Parties.

1. Purchases

Material purchased shall be charged at the price paid by Operator after deduction of all discounts received. In case of Material found to be defective or returned to vendor for any other reason, credit shall be passed to the Joint Account when adjustment has been received by the Operator.

2. Transfers and Dispositions

Material furnished to the Joint Property and Material transferred from the Joint Property or disposed of by the Operator, unless otherwise agreed to by the Parties, shall be priced on the following bases exclusive of cash discounts:

A. New Material (Condition A)

(1) Tubular goods, except line pipe, shall be priced at the current new price in effect on date of movement on a maximum carload or barge load weight basis, regardless of quantity transferred, equalized to the lowest published price f.o.b. railway receiving point or recognized barge terminal nearest the Joint Property where such Material is normally available.

(2) Line Pipe

(a) Movement of less than 30,000 pounds shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store nearest the Joint Property where such Material is normally available.

(b) Movement of 30,000 pounds or more shall be priced under provisions of tubular goods pricing in Paragraph 2A (1) of this Section IV.

(3) Other Material shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store or f.o.b. railway receiving point nearest the Joint Property where such Material is normally available.

B. Good Used Material (Condition B)

Material in sound and serviceable condition and suitable for reuse without reconditioning:

(1) Material moved to the Joint Property

(a) At seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV.

(2) Material moved from the Joint Property

(a) At seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as new Material, or

INTENTIONAL OMISSIONS

The following document(s) have been intentionally omitted from this file due to the indicated reasons.

FILE # PMX 130

DESCRIPTION OF OMITTED DOCUMENTS

OMITTED DOCUMENT	REASON OMITTED
Graphic Scale Plot	Too large.

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

(b) at sixty-five percent (65%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as good used Material at seventy-five percent (75%) of current new price.

The cost of reconditioning, if any, shall be absorbed by the transferring property.

C. Other Used Material (Condition C and D)

(1) Condition C

Material which is not in sound and serviceable condition and not suitable for its original function until after reconditioning shall be priced at fifty percent (50%) of current new price as determined by Paragraph 2A of this Section IV. The cost of reconditioning shall be charged to the receiving property, provided Condition C value plus cost of reconditioning does not exceed Condition B value.

(2) Condition D

All other Material, including junk, shall be priced at a value commensurate with its use or at prevailing prices. Material no longer suitable for its original purpose but usable for some other purpose, shall be priced on a basis comparable with that of items normally used for such other purpose. Operator may dispose of Condition D Material under procedures normally utilized by the Operator without prior approval of Non-Operators.

D. Obsolete Material

Material which is serviceable and usable for its original function but condition and or value of such Material is not equivalent to that which would justify a price as provided above may be specially priced as agreed to by the Parties. Such price should result in the Joint Account being charged with the value of the service rendered by such Material.

E. Pricing Conditions

(1) Loading and unloading costs may be charged to the Joint Account at the rate of fifteen cents (15¢) per hundred weight on all tubular goods movements, in lieu of loading and unloading costs sustained, when actual hauling cost of such tubular goods are equalized under provisions of Paragraph 5 of Section II.

(2) Material involving erection costs shall be charged at applicable percentage of the current knocked-down price of new Material.

3. Premium Prices

Whenever Material is not readily obtainable at published or listed prices because of national emergencies, strikes or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in providing such Material, in making it suitable for use, and in moving it to the Joint Property; provided notice in writing is furnished to Non-Operators of the proposed charge prior to billing Non-Operators for such Material. Each Non-Operator shall have the right, by so electing and notifying Operator within ten days after receiving notice from Operator, to furnish in kind all or part of his share of such Material suitable for use and acceptable to Operator.

4. Warranty of Material Furnished by Operator

Operator does not warrant the Material furnished. In case of defective Material, credit shall not be passed to the Joint Account until adjustment has been received by Operator from the manufacturers or their agents.

V. INVENTORIES

The Operator shall maintain detailed records of Controllable Material.

1. Periodic Inventories, Notice and Representation

At reasonable intervals, Inventories shall be taken by Operator of the Joint Account Controllable Material. Written notice of intention to take inventory shall be given by Operator at least thirty (30) days before any inventory is to begin so that Non-Operators may be represented when any inventory is taken. Failure of Non-Operators to be represented at an inventory shall bind Non-Operators to accept the inventory taken by Operator.

2. Reconciliation and Adjustment of Inventories

Reconciliation of a physical inventory with the Joint Account shall be made, and a list of overages and shortages shall be furnished to the Non-Operators within six months following the taking of the inventory. Inventory adjustments shall be made by Operator with the Joint Account for overages and shortages, but Operator shall be held accountable only for shortages due to lack of reasonable diligence.

3. Special Inventories

Special Inventories may be taken whenever there is any sale or change of interest in the Joint Property. It shall be the duty of the party selling to notify all other Parties as quickly as possible after the transfer of interest takes place. In such cases, both the seller and the purchaser shall be governed by such inventory.

4. Expense of Conducting Periodic Inventories

The expense of conducting periodic Inventories shall not be charged to the Joint Account unless agreed to by the Parties.