

EXAMINER HEARING

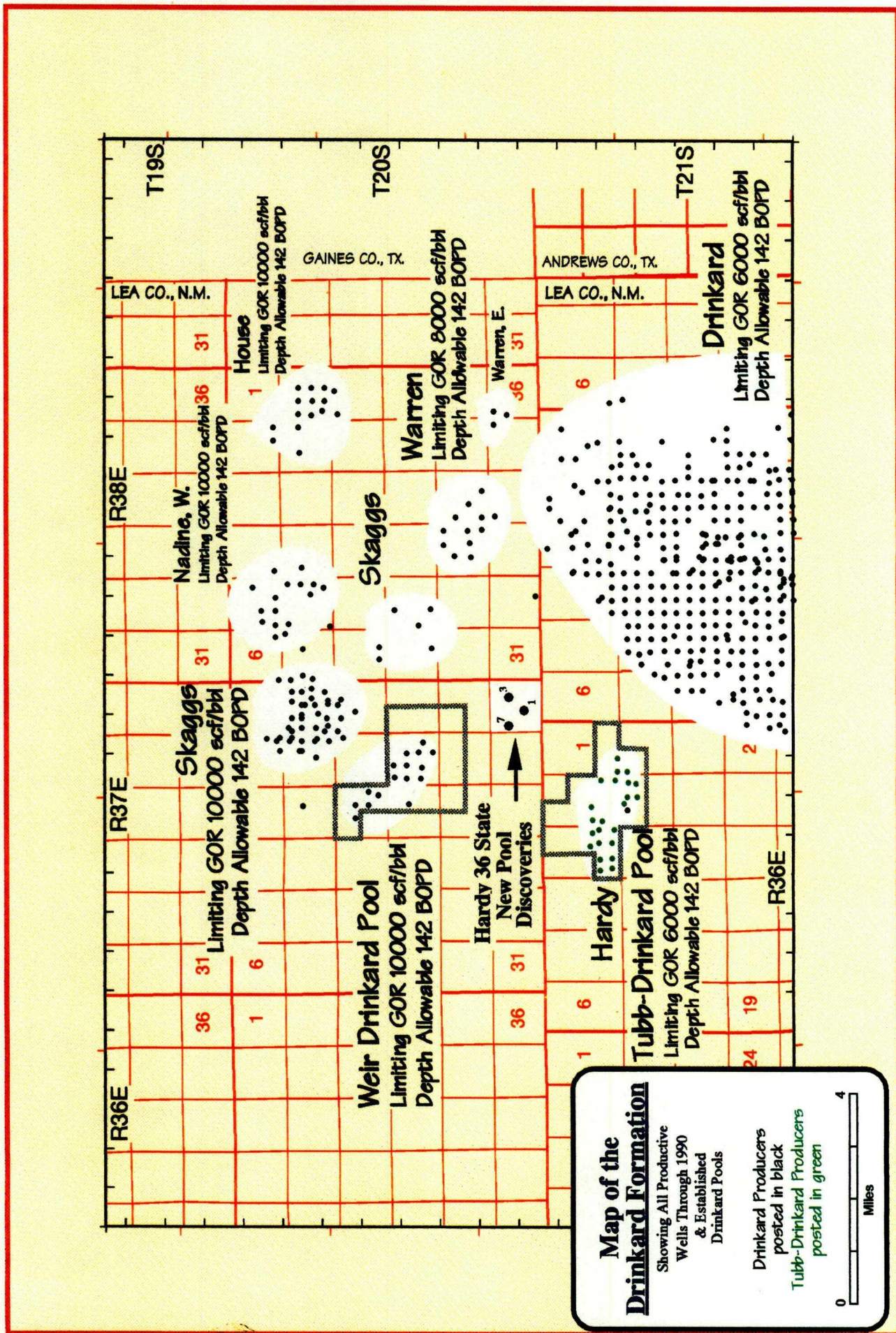
CASE 11169

Creation of Two New Pools,
Special Pool Rules, and
Discovery Oil Allowable

Submitted by: Conoco Inc.

Hearing Date: December 15, 1994

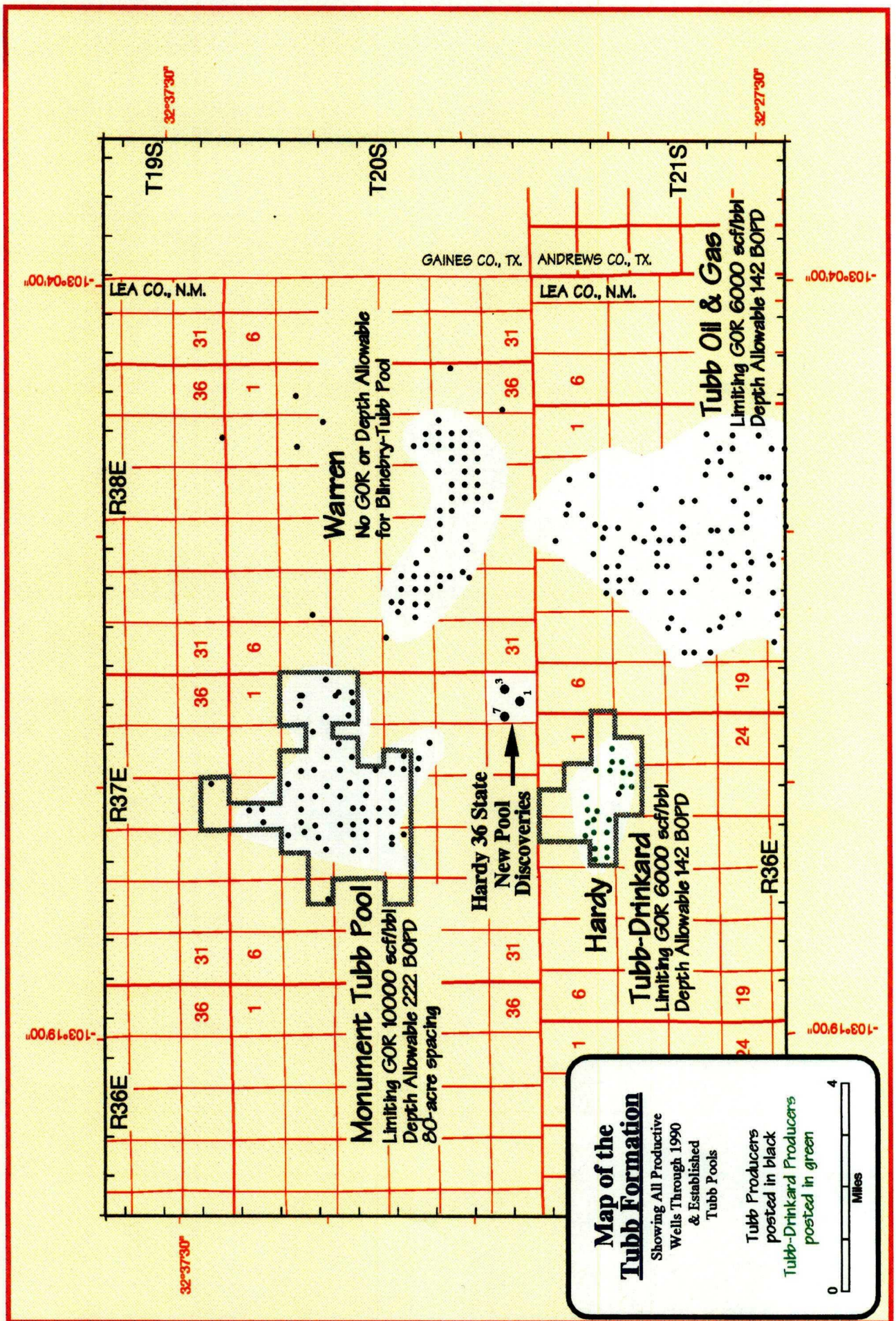
LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE



File: [CBP-PDBHARDY] CONTROL.ZGF "DRINKARD CONTROL"

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 2
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994



File: [CBIP-PDBHARDY] CONTROLZGF "TUBB CONTROL"

BEFORE AN EXAMINER OF THE OIL CONSERVATION DIVISION

EXHIBIT NO. 3
 CASE NO.: 11169
 Submitted by: Conoco Inc.
 Hearing Date: Dec 15, 1994

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

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HARDY 36 STATE

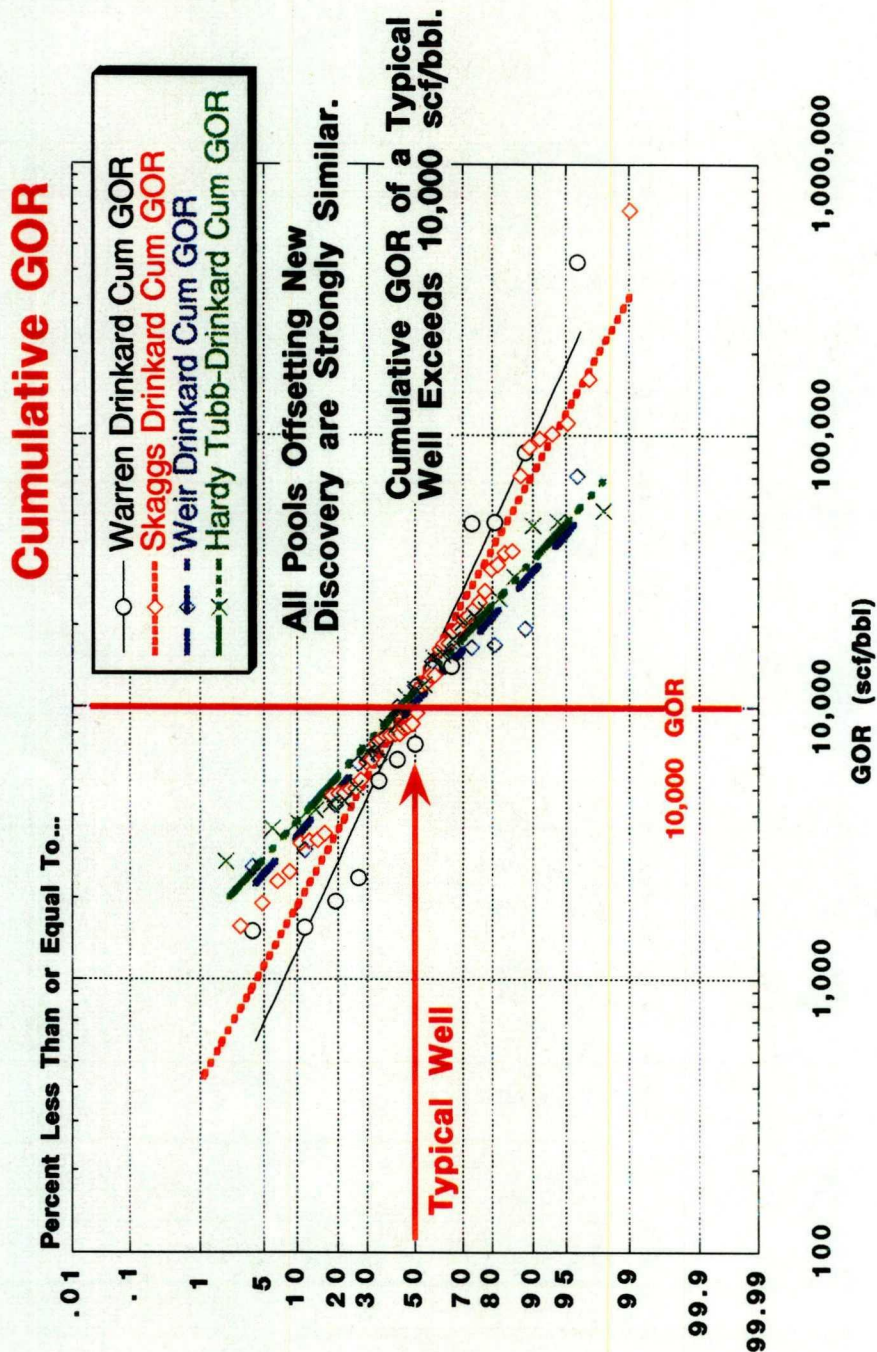
DEVELOPMENT PLAN FOR EACH 40 ACRE UNIT

1. ELLENBURGER - SIMPSON SINGLE DUAL WITH STRAWN - ABO SINGLE
2. DRINKARD - TUBB SINGLE DUAL WITH BLINEBRY- GLORIETA SINGLE
3. SAN ANDRES - GRAYBURG SINGLE OR DUAL
4. ALREADY EXISTING LYNX EUMONT WELLS

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 7
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994

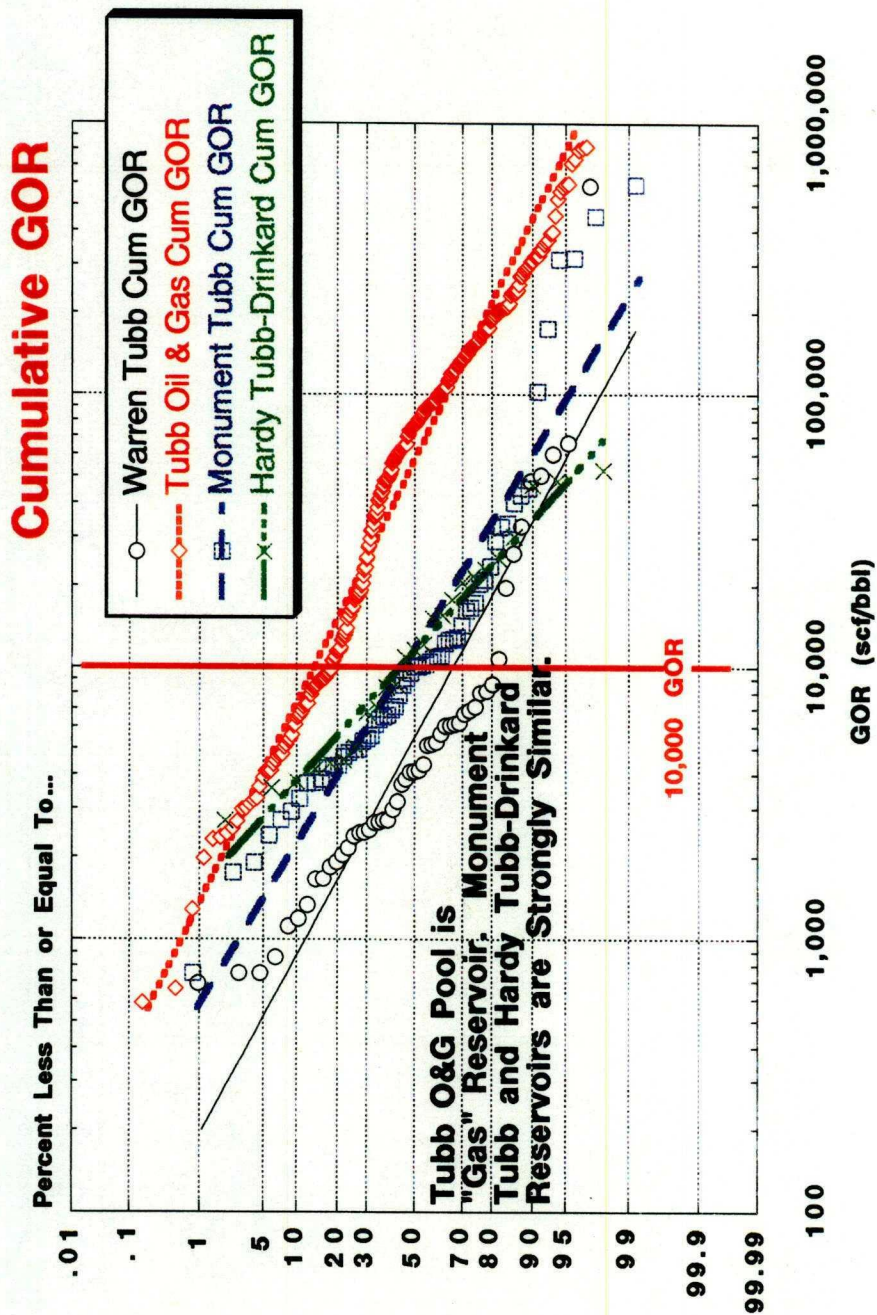
Cumulative Drinkard Production from Offsetting Analogous Pools



BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 8
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994

Cumulative Tubb Production from Offsetting Analogous Pools



BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 9
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994

HARDY 36 STATE
OFFSET POOL GORS VS STRUCTURE

	DEPTH (SUB SEA)	CUM GOR	SECTION	UNIT LETTER
HIGH STRUCTURE TUBB				
SEMUM NO.84	-2743	3,711	22	A
BRITT B NO.28	-2741	17,299	15	K
LOW STRUCTURE TUBB				
SEMUM NO.85	-2777	4,937	15	H
SEMUM NO.88	-2774	16,130	14	F
HIGH STRUCTURE DRINKARD				
SEMUM NO.122	-3060	6,171	23	D
BRITT B NO.9	-3057	16,033	15	J
LOW STRUCTURE DRINKARD				
SEMUM NO.97	-3078	4,349	23	K
SEMUM NO.115	-3076	16,919	23	L

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 10
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994

HARDY 36 STATE

ECONOMICS

WELL TYPE	BOPD	MCFPD	NPV,M\$
TUBB SINGLE	142	170	913
DRINKARD SINGLE	5	284	-156
DUAL T-D	147	454	872
COMBINED T-D SINGLE	142	544	1282

INPUTS:

OIL PRICE: \$14.76/BO FLAT
GAS PRICE: \$1.69/MCF FLAT
DISCOUNT RATE: 9%
NO ESCALATION

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 11
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994

HARDY 36 STATE

PVT ANALYSIS AND COMPARISONS

HARDY 36 STATE

WELL & FORMATION	ORIG PRESSURE	SATURATION PRESSURE	RESERVOIR TEMP	DATUM	INITIAL GOR	GRAVITY	FVF
HARDY NO.3 TUBB	2652	2530	109 ⁰	-3002 SS	974	40.2 ⁰	1.40
HARDY NO.1 DRINKARD	2742	2662	111 ⁰	-3226 SS	1127	38.5 ⁰	1.61

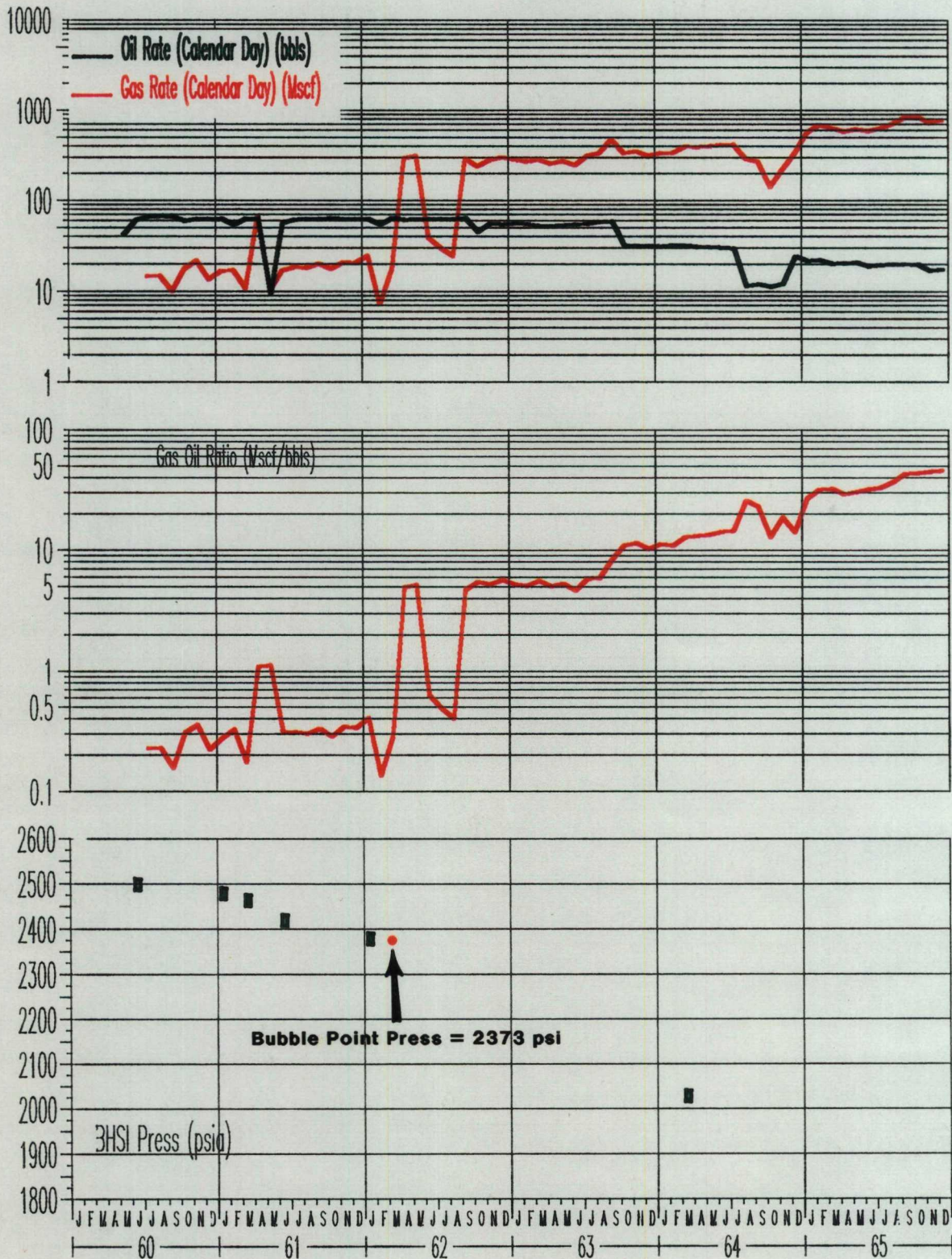
OFFSET LEASES

WELL & FORMATION	ORIG PRESSURE	SATURATION PRESSURE	RESERVOIR TEMP	DATUM	INITIAL GOR	GRAVITY	FVF
MEYER B-4 NO.20 BLINEBRY	2224	2170	101 ⁰	-2300 SS	981	44 ⁰	1.48
BRITT B NO. 10 TUBB	2695	2373	102 ⁰	-2916 SS	768	38 ⁰	1.35

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 12
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994

BRITT B 10 TUBB



BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. **13**
CASE NO.: **11169**
Submitted by: **Conoco Inc.**
Hearing Date: **Dec 15, 1994**

HARDY 36 STATE

WELLS TESTS BY FORMATION

NO.3							
FORMATION	BOPD	MCFPD	BWPD	GOR	BHP		
DRINKARD	15	362	112	4700			
TUBB	184	208	81	1100	2652		

NO.1							
FORMATION	BOPD	MCFPD	BWPD	GOR	BHP		
DRINKARD	6	336	4	56000	2742		

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 14

CASE NO.: 11169

Submitted by: Conoco Inc.

Hearing Date: Dec 15, 1994

HARDY 36 STATE

HARDY 36 STATE NO.3 DISCOVERY ALLOWABLE

$$\text{DISCOVERY ALLOWABLE} = \left[\frac{\frac{5 \text{ BOPD}}{\text{FOOT OF DEPTH}} \times \text{DEPTH TO TOP PERF.}}{730 \text{ DAYS}} \right] + \text{DEPTH ALLOWABLE}$$

TOP PERF: 6423'

DEPTH ALLOWABLE: 142 BOPD

DISCOVERY DATE: AUGUST 19, 1994

$$\text{DISCOVERY ALLOWABLE} = \left[\frac{5 \text{ BOPD} \times 6423'}{730 \text{ DAYS}} \right] + 142 \text{ BOPD} = 186 \text{ BOPD}$$

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 15
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994

HARDY 36 STATE

GRAVITY MIXING

FORMATION	GRAVITY	DEDUCT
TUBB	40.2 ⁰	NONE
DRINKARD	38.5 ⁰	\$.02
	TUBB	DRINKARD

#3 DISCOVERY CURRENT ACTUAL	$\frac{180}{185}$	40.2 ⁰ API	+	$\frac{5}{185}$	38.5 ⁰ =	40.15	NO CHANGE FROM TUBB SO NO EXTRA DEDUCT
ALLOWABLE ONLY	$\frac{137}{142}$	40.2 ⁰	+	$\frac{5}{142}$	38.5 ⁰ =	40.14	

HARDY 36 STATE
WATER ANALYSIS COMPATIBILITIES

NO.3 TUBB WATER ANALYSIS		NO.3 DRINKARD WATER ANALYSIS	
	mg/l		
CHLORIDE	98977		112244
SULFATE	1400		1900
CALCIUM	8881		6725
SODIUM	50630		62022
CALCIUM SULFATE	1984		2693
BARIUM	0		0
STRONTIUM	0		0
TOTAL DISSOLVED SOLIDS	162240		185952
CALCIUM SULFATE SCALING TENDENCY	2083 @ 100°		2786 @ 100°

MIXED WATER ANALYSIS

	50% TUBB, 50% DRINKARD	25% TUBB, 75% DRINKARD	75% TUBB, 25% DRINKARD
CALCIUM CARBONATE STABILITY INDEX @ 100° F	.8	.7	.6
CALCIUM SULFATE SCALING TENDENCY @ 100° F	2397	2588	2181
ACTUAL SOLUTION CALCIUM SULFATE	2339	2516	1488

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 17
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994



Midland Division
Exploration Production

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705-4500
(915) 686-5400

November 18, 1994

Mr. Jerry Sexton
Oil Conservation Division
Hobbs District Office
P.O. 1980
Hobbs, New Mexico 88241

RE: Request for interim and retroactive approval to produce the Tubb, Drinkard, Simpson, and Ellenburger Formations on Conoco's Hardy 36 State Lease according to the Pool Rules that will be proposed at an NMOCD Examiner Hearing set for December 15, 1994.

Dear Mr. Sexton:

On December 15, 1994 Conoco will present a case in examiner hearing to propose the following new pools, special pool rules, and discovery allowables for the Tubb, Drinkard, Simpson, and Ellenburger formations on Conoco's Hardy 36 State Lease:

1. To create a new oil pool for the production of oil and gas from the Tubb and Drinkard formations to be designated the North Hardy Tubb-Drinkard Pool with special rules including 40 spacing units and a special gas-oil ratio of 10,000 cubic feet of gas per barrel of oil retroactive to August 19, 1994.
2. To assign a Tubb-Drinkard discovery oil allowable, pursuant to Division Rule 509, to the Hardy 36 State No. 3 well retroactive to August 19, 1994.
3. To create a new oil pool for the production of oil and gas from the Simpson and Ellenburger formations to be designated the Hardy Simpson-Ellenburger Pool subject to the Division's statewide rules including 40-acre spacing retroactive to August 19, 1994.

In your office on November 18, 1994 evidence was presented to you and Mr. Paul Kautz, Hobbs District OCD Geologist, that there are no foreseeable reservoir engineering reasons which preclude combination of these formations into common pools for purpose of conservation regulations. As per our discussion at this meeting, you and Mr. Kautz expressed that you are in agreement with these pool designations and will support all of the above proposals to be presented to an NMOCD Hearing Examiner on December 15, 1994.

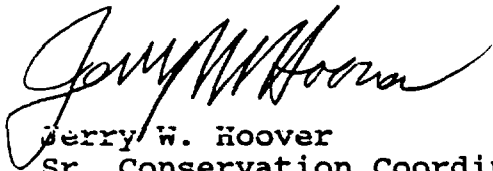
BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 18
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994

It is understood by Conoco that should any of the above proposals not be approved by the Examiner that Conoco will be responsible for isolation of these formations and/or making up of any over production based on "statewide" rules and regulations.

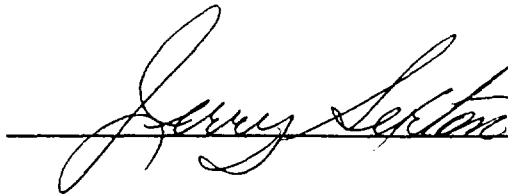
Therefore, would you please indicate your concurrence with this proposed development and producing plan which allows Conoco to complete and produce its Hardy 36 State Lease according to the above three proposals, pending results of the Examiner Hearing, by signing this letter as indicated below.

Very truly yours,

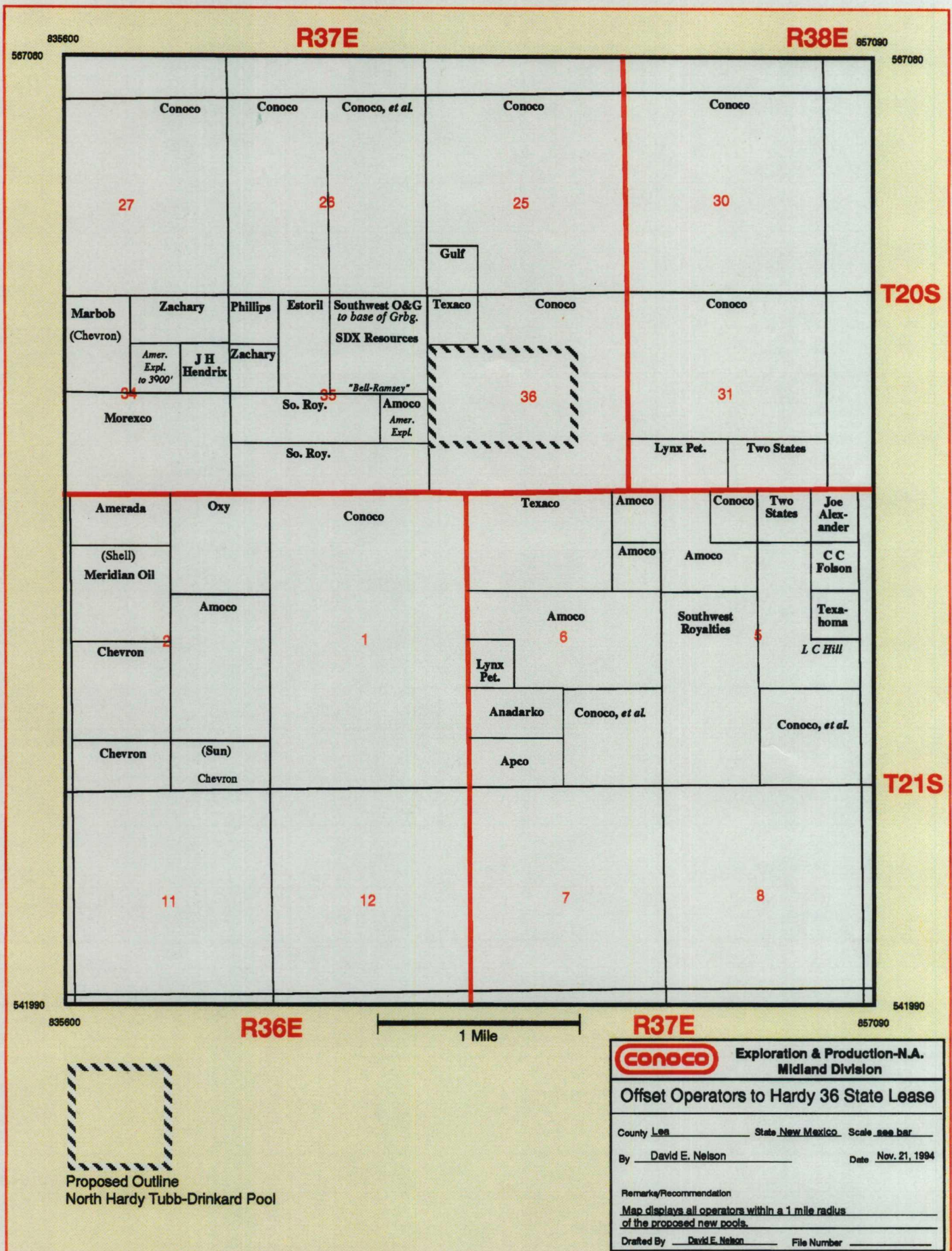


Jerry W. Hoover
Sr. Conservation Coordinator

APPROVAL BY:



Jerry T. Sexton, Supervisor and Oil & Gas Inspector
Hobbs OCD District I Office



BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 19
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994

**OFFSET OPERATORS WITHIN 1 MILE
OF POOL BOUNDARIES
FOR THE PROPOSED NEW OIL POOLS:
NORTH HARDY TUBB-DRINKARD
AND
HARDY SIMPSON-ELLENBURGER**

Amoco
P.O. Box 3092
Houston, Texas 77253

SDX Resources
P.O. Box 5061
Midland, Texas 79704

OXY USA Inc.
P.O. Box 50250
Midland, Texas 79710

Estoril Producing Corp.
400 W. Illinois, Ste. 1600
Midland, Texas 79701

Lynx Petroleum
P.O. Box 1979
Hobbs, New Mexico 88241

Phillips Petroleum
4001 Penbrook
Odessa, Texas 79762

Texaco Prod. Inc.
P.O. Box 3109
Midland, Texas 77702

Zachary Oil Operating Co.
P.O. Box 1969
Eunice, New Mexico 88231

Two States Oil Co.
Energy Square, Ste, 1030
4925 Greenville Ave.
Dallas, Texas 75206-4018

Southwest Royalties Inc.
& Quality Production Corp.
207 W. McKay
Carlsbad, New Mexico 88220

M W Petroleum Corp.
2000 Post Oak Blvd.
Suite 100
Houston, Texas 77056-4403

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 20
CASE NO.: 11169
Submitted by: Conoco Inc.
Hearing Date: Dec 15, 1994

SENDER: Complete items 1 and/or 2 for additional services. Complete items 3, 4a & b. Print your name and address on the reverse of this form so that we can return this card to you. Attach this form to the front of the mailpiece, or on the back if space does not permit. Write "Return Receipt Requested" on the mailpiece below the article number. The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to: Two States Oil Co. Energy Square, Ste. 1030 4925 Greenville Ave. Dallas, TX 75206-4018

4a. Article Number: 2-111-016-367

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

7. Date of Delivery: 11-23-94

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

5. Signature (Addressee):

6. Signature (Agent):

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and/or 2 for additional services. Complete items 3, 4a & b. Print your name and address on the reverse of this form so that we can return this card to you. Attach this form to the front of the mailpiece, or on the back if space does not permit. Write "Return Receipt Requested" on the mailpiece below the article number. The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to: M W Petroleum Corp. 2000 Post Oak Blvd. Ste. 100 Houston, Texas 77056-4403

4a. Article Number: 2-111-016-373

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

7. Date of Delivery: 11-23-94

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

5. Signature (Addressee):

6. Signature (Agent):

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and/or 2 for additional services. Complete items 3, 4a & b. Print your name and address on the reverse of this form so that we can return this card to you. Attach this form to the front of the mailpiece, or on the back if space does not permit. Write "Return Receipt Requested" on the mailpiece below the article number. The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to: SDX Resources P.O. Box 5061 Midland, TX 79704

4a. Article Number: 2-111-016-369

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

7. Date of Delivery: 11-23-94

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

5. Signature (Addressee):

6. Signature (Agent):

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

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3. Article Addressed to: Estoril Producing Corp. 400 W. Illinois Ste. 1600 Midland, Texas 79701

4a. Article Number: 2-111-016-371

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

7. Date of Delivery: 11-22-94

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

5. Signature (Addressee):

6. Signature (Agent):

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

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3. Article Addressed to: Amoco Production P.O. Box 3092 Houston, Texas 77253

4a. Article Number: 2-111-016-364

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

7. Date of Delivery: NOV 23 1994

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

5. Signature (Addressee):

6. Signature (Agent):

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and/or 2 for additional services. Complete items 3, 4a & b. Print your name and address on the reverse of this form so that we can return this card to you. Attach this form to the front of the mailpiece, or on the back if space does not permit. Write "Return Receipt Requested" on the mailpiece below the article number. The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to: OXY USA Inc. P.O. Box 50250 Midland, TX 79710

4a. Article Number: 2-111-016-365

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

7. Date of Delivery: 11-22-94

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

5. Signature (Addressee):

6. Signature (Agent):

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and/or 2 for additional services. Complete items 3, 4a & b. Print your name and address on the reverse of this form so that we can return this card to you. Attach this form to the front of the mailpiece, or on the back if space does not permit. Write "Return Receipt Requested" on the mailpiece below the article number. The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to: Lynx Petroleum P.O. Box 1979 Hobbs, New Mexico 88241

4a. Article Number: 2-111-016-368

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

7. Date of Delivery: 11-28-94

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

5. Signature (Addressee):

6. Signature (Agent):

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and/or 2 for additional services. Complete items 3, 4a & b. Print your name and address on the reverse of this form so that we can return this card to you. Attach this form to the front of the mailpiece, or on the back if space does not permit. Write "Return Receipt Requested" on the mailpiece below the article number. The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to: Texaco Prod. Inc. P.O. Box 3109 Midland, Texas 77702

4a. Article Number: 2-111-016-363

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

7. Date of Delivery: NOV 23 1994

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

5. Signature (Addressee):

6. Signature (Agent):

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to:

Phillips Petroleum
4001 Penbrook
Odessa, TX 79762

5. Signature (Addressee)

6. Signature (Agent)

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address2. ☐ Restricted Delivery

Consult postmaster for fee.

4a. Article Number

2-111-016-368

4b. Service Type

☐ Registered ☐ Insured☒ Certified ☐ COD☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery

11-22-94 Jm

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

PS Form 3811, December 1991 eU.S. GPO: 1993-352-714

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

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- Complete items 3, and 4a & b.
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- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to:

Zachary Oil Operating Co.
P.O. Box 1969
Eunice, New Mexico 88231

5. Signature (Addressee)

6. Signature (Agent)

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address2. ☐ Restricted Delivery

Consult postmaster for fee.

4a. Article Number

2-111-016-372

4b. Service Type

☐ Registered ☐ Insured☒ Certified ☐ COD☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery

11-22-93

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

PS Form 3811, December 1991 eU.S. GPO: 1993-352-714

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
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- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to:

Southwest Royalties Inc.
% Quality Prod. Corp.
207 W. McKay
Carlsbad, New Mex. 88220

5. Signature (Addressee)

6. Signature (Agent)

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address2. ☐ Restricted Delivery

Consult postmaster for fee.

4a. Article Number

2-111-016-370

4b. Service Type

☐ Registered ☐ Insured☒ Certified ☐ COD☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery

11-22-94

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

PS Form 3811, December 1991 eU.S. GPO: 1993-352-714

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.