

6450



COMMERCIAL RESOURCES  
(505)-827-5724

SURFACE RESOURCES  
(505)-827-5795

MINERAL RESOURCES  
(505)-827-5744

ROYALTY  
(505)-827-5772

PUBLIC AFFAIRS  
(505)-827-5765

ADMINISTRATIVE MGMT.  
(505)-827-5700

LEGAL  
(505)-827-5713

PLANNING  
(505)-827-5752

State of New Mexico  
Commissioner of Public Lands

Ray Powell, M.S., D.V.M.  
310 Old Santa Fe Trall, P. O. Box 1148  
Santa Fe, New Mexico 87504-1148  
Phone (505)-827-5760, Fax (505)-827-5766

March 24, 1997

Stephens & Johnson Operating Company  
P.O. Box 2249  
Wichita Falls, Texas 76307-2249

Attn: Mr. William M. Kincaid

Re: 1997 Plan of Development  
East Millman Pool Unit  
Eddy County, New Mexico

Dear Mr. Kincaid:

The Commissioner of Public Lands has, of this date, approved the above-captioned Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the Unit Area and the need for further development of the unit may exist. You may be contacted at a later date regarding these possibilities.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.  
COMMISSIONER OF PUBLIC LANDS

BY:   
JAMI BAILEY, Director  
Oil, Gas and Minerals Division  
(505) 827-5744

RP/JB/cpm  
cc: Reader File

OCD

BLM

**STEPHENS & JOHNSON OPERATING CO.**

6450

811 Sixth Street, Suite 300

Post Office Box 2249

WICHITA FALLS, TEXAS  
76307-2249

MAR 17 1997

March 10, 1997

United States Dept. of the Interior  
Bureau of Land Management  
Roswell District Office  
1717 W. 2nd Street  
Roswell, New Mexico 88201-2019

Re: East Millman Pool Unit  
Queen-Grayburg Field  
Eddy County, New Mexico  
Annual Review of Operations - 1996  
and Plan of Development - 1997

Gentlemen:

We respectfully submit for your approval the Annual Review of Operations for 1996 and the Plan of Development for 1997 for the East Millman Pool Unit, Queen-Grayburg Field, Eddy County, New Mexico.

I. Annual Review - 1996

This Unit became effective November 14, 1979 with water injection operations commencing on June 1, 1981. Water injection was continuous through 1996 with the injection rate showing a significant increase during the last quarter of 1996 which was the result of increased water production from the Unit due to the infill drilling program. Six infill wells were drilled during 1996 and a Drilling Well Summary Tabulation has been attached summarizing the results of these infill wells. The infill wells can be seen on the attached plat. No other major revisions in the waterflooding program were performed during 1996.

<u>1996 Production</u>	<u>Daily Average</u>	<u>Yearly Total</u>	<u>Cum. Since Unitization</u>	<u>Cum. Since Discovery</u>
Oil (Bbls.)	239.4	87,380	564,226	2,598,222
Water (Bbls.)	866	315,965	3,122,498	4,522,266

Injection

Water (Bbls.)	1,815	662,632	9,627,850
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II. Well Status (As of 12/31/96)	<u>Total</u>	
Oil, Producing	2-1, 3-2, 4-2, 4-7, 4-8, 4-9, 5-1, 5-2, 5-4, 6-2, 6-3, 6-6, 7-2, 7-4, 7-6, 7-7, 7-8	17
Oil, Temporarily Abandoned:	4-4, 4-5, 4-6, 6-5, 7-1	5
Water Injection, Active	1-1, 4-1, 4-3, 5-3, 6-1, 6-4, 7-3	7
Water Injection, Temporarily Abandoned:	1-1	<u>1</u>
Total	30	

III. Plans of Development - 1997

4 infill wells are scheduled to be drilled during 1997 with the first infill well commencing on or about June 1, 1997. The exact locations to be drilled have not been determined at this time. The success or lack thereof will have a bearing on the location of the subsequent infill well. It is also planned to reactivate water injection well No. 1-1 during the first quarter of 1997. Continued monitoring of the producing wells by individual well tests, fluid level shots, and continued monitoring of injection rates will insure maximum recovery of available oil reserves.

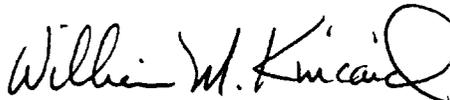
IV. Attachments

The following attachments are made part of the 1997 Plan of Development:

- A. Drilling Well Summary
- B. Production Curve - Queen and Grayburg Waterflood Wells
- C. Production Curve - Lower Grayburg Primary Wells
- D. Unit Tract Boundary Map

Yours very truly,

STEPHENS & JOHNSON OPERATING CO.



William M. Kincaid  
Petroleum Engineer

WMK/dk

cc: Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Oil Conservation Division, District II  
811 South 1st Street  
Artesia, New Mexico 88210-2834

State of New Mexico  
Commissioner of Public Lands  
Oil & Gas Division  
P. O. Box 1148  
Santa Fe, New Mexico 87504-1148

Bureau of Land Management  
Carlsbad Resource Area Headquarters  
P. O. Box 1778  
Carlsbad, New Mexico 88220

**INFILL DRILLING WELL SUMMARY  
STEPHENS & JOHNSON OPERATING CO.  
EAST MILLMAN POOL UNIT  
EDDY COUNTY, NEW MEXICO**

Well No.	Completion Date	Initial Potential			Well Location
		BOPD	MCFPD	BWPD	
4-7	10-Nov-96	114	200	113	1276' FNL, 1314' FWL, Sec 13, T19S, R28E
4-8	13-Dec-96	13	10	430	169' FNL, 1349' FWL, Sec 13, T19S, R28E
4-9	12-Dec-96	15	10	228	260' FNL, 2600' FWL, Sec 13, T19S, R28E
6-6	08-Jun-96	50	25	262	1400' FNL, 1330' FEL, Sec 13, T19S, R28E
7-6	09-Jun-96	200	137	50	2630' FSL, 2603' FWL, Sec 13, T19S, R28E
7-8	26-Oct-96	103	215	95	2574' FNL, 1392' FWL, Sec 13, T19S, R28E
<b>Totals</b>		<b>495</b>	<b>597</b>	<b>1,178</b>	

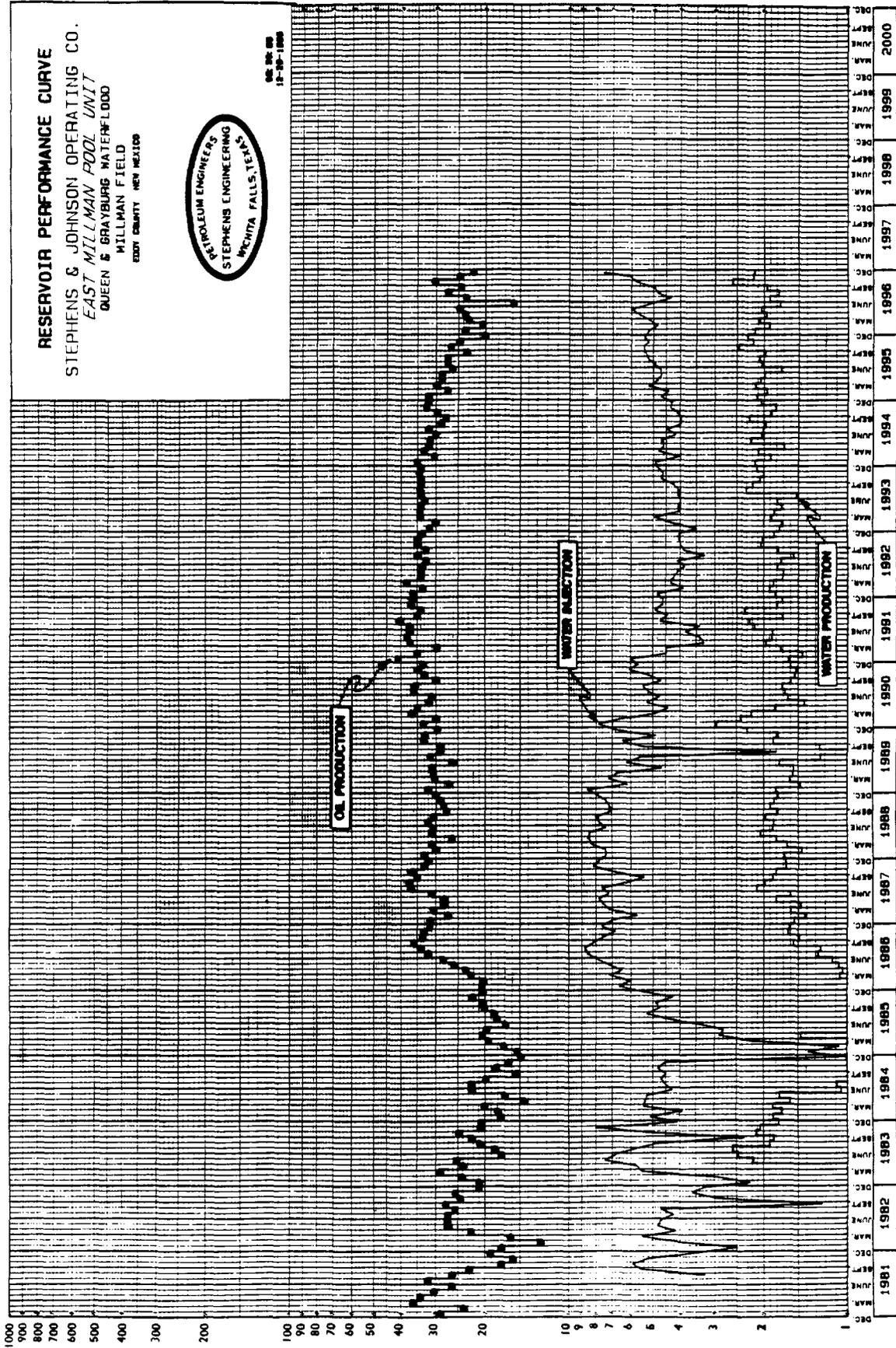
1000  
900  
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700  
600  
500  
400  
300  
200

**RESERVOIR PERFORMANCE CURVE**  
 STEPHENS & JOHNSON OPERATING CO.  
 EAST MILLMAN POOL UNIT  
 QUEEN & GRAYBURG WATERFLOOD  
 MILLMAN FIELD  
 EDDY COUNTY NEW MEXICO



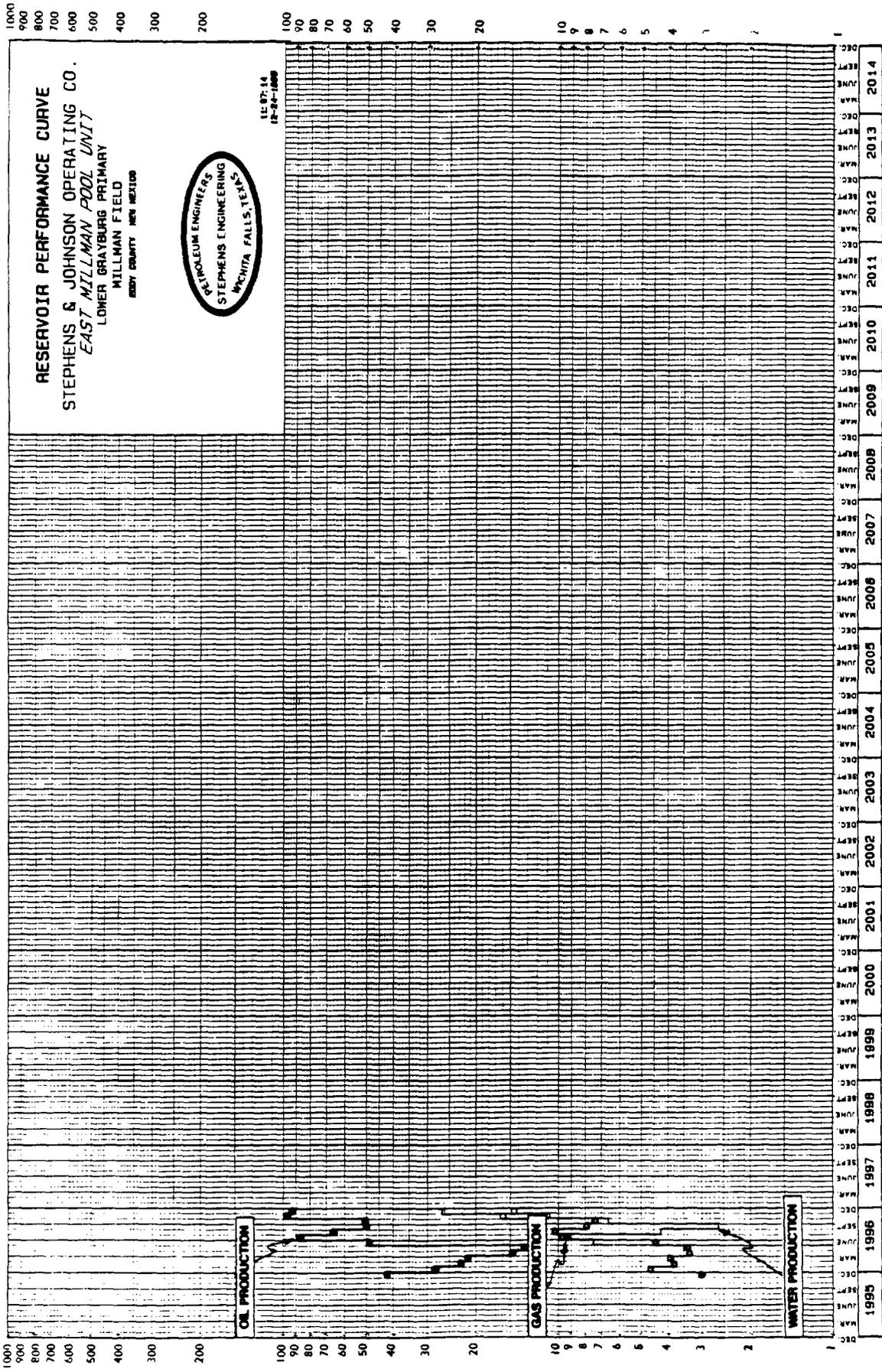
DATE: 08-08-1999  
 12-30-1998

- BARRELS OF WATER PRODUCED PER MONTH (x 10000 )  
 A BARRELS OF WATER INJECTED PER MONTH (x 10000 )



● BARRELS OF OIL PER MONTH (x 100 )

— BARRELS OF WATER PRODUCED PER MONTH (x 1000 )

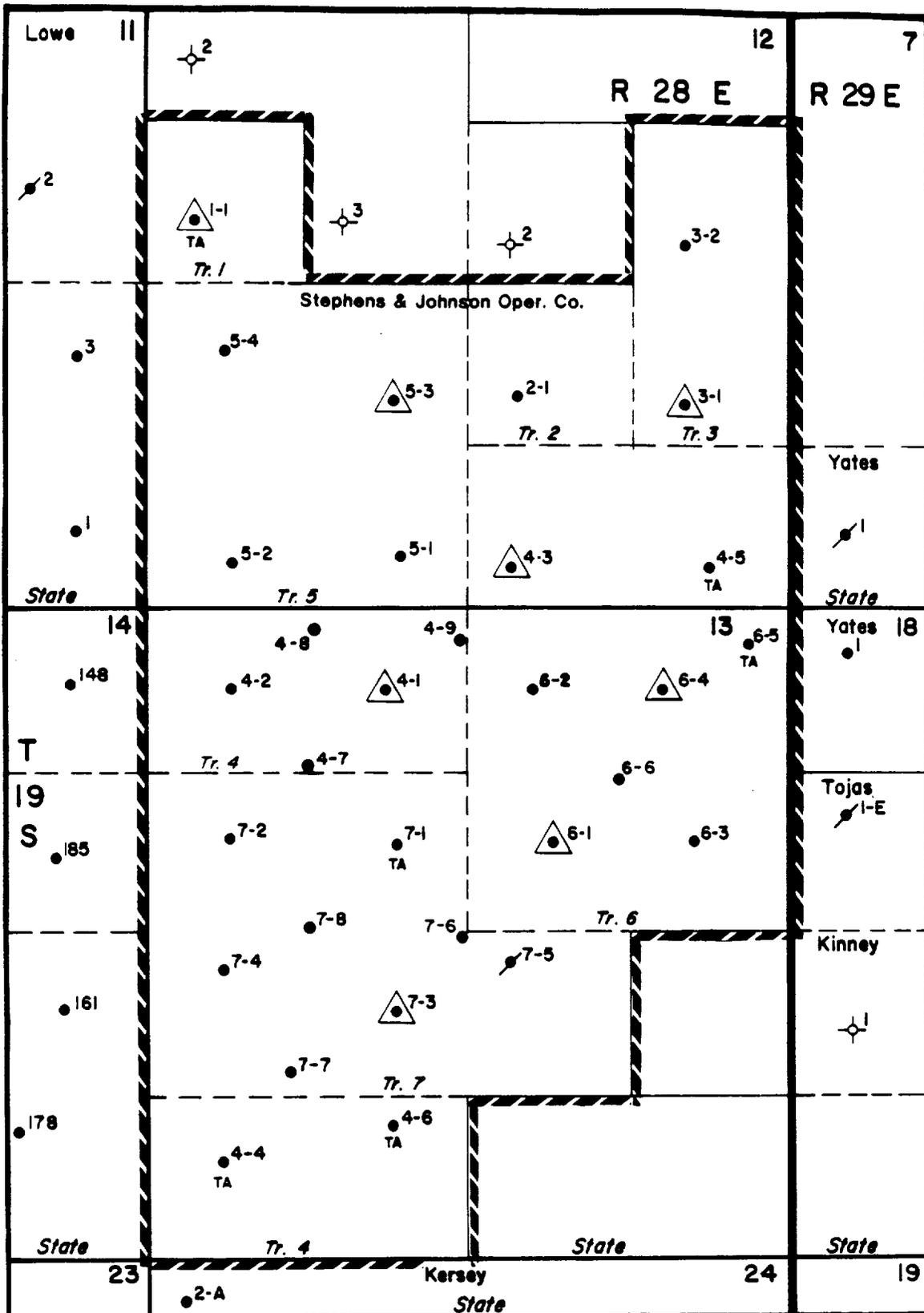


**RESERVOIR PERFORMANCE CURVE**  
**STEPHENS & JOHNSON OPERATING CO.**  
**EAST MILLMAN POOL UNIT**  
 LOWER GRAYBURG PRIMARY  
 MILLMAN FIELD  
 BERRY COUNTY NEW MEXICO



11 87.14  
 12-24-1999

● BARRELS OF OIL PER MONTH (x 100 )  
 ● MCF OF GAS PER MONTH (x 1000 )



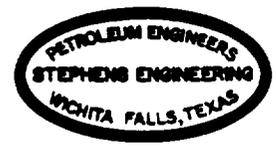
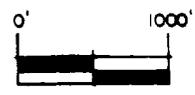
**STEPHENS & JOHNSON OPERATING CO.**

**EAST MILLMAN POOL UNIT**  
 EAST MILLMAN (QUEEN,  
 GRAYBURG, SAN ANDRES) FIELD  
 EDDY COUNTY, NEW MEXICO

**-LEGEND-**

- PRODUCING OIL WELL
- ✕ PLUGGED WELL
- ▲ WATER INJECTION WELL
- ★ DRY HOLE
- LOCATION

**-SCALE-**



November 1, 1996

#6450

Telephone (817) 723-2166

**STEPHENS & JOHNSON OPERATING CO.**

FAX (817) 723-8113

811 Sixth Street, Suite 300

Post Office Box 2249

WICHITA FALLS, TEXAS  
76307-2249

January 30, 1996

United States Dept. of the Interior  
Bureau of Land Management  
Roswell District Office  
1717 W. 2nd Street  
Roswell, New Mexico 88201-2019

Re: East Millman Pool Unit  
Queen-Grayburg Field  
Eddy County, New Mexico  
Annual Review of Operations - 1995  
and Plan of Development - 1996

Gentlemen:

We respectfully submit for your approval the Annual Review of Operations for 1995 and the Plan of Development for 1996 for the East Millman Pool Unit, Queen-Grayburg Field, Eddy County, New Mexico.

I. Annual Review - 1995

This Unit became effective November 14, 1979 with water injection operations commencing on June 1, 1981. Water injection was continuous through 1995 with injection remaining at a steady rate during the year. One infill well was drilled and completed during November and December, 1995. East Millman Unit No. 7-7 was completed and put on production December 2, 1995 with an initial potential of 159 barrels of oil per day, 100 MCF of gas per day and no water. This well was located 1,492' FSL and 1,151' FWL, Sec. 13, T19S, R28E and can be seen on the attached plat. No other major revisions in the waterflooding program were performed during 1995.

<u>1995 Production</u>	<u>Daily Average</u>	<u>Yearly Total</u>	<u>Cum. Since Unitization</u>	<u>Cum. Since Discovery</u>
Oil, (Bbls.)	100.0	36,508	476,846	2,510,842
Water (Bbls.)	691	252,125	2,806,533	4,206,301
<u>Injection</u>				
Water (Bbls.)	1,669	609,061	8,965,218	

II. Well Status (As of 12/31/95)		<u>Total</u>
Oil, Producing	2-1, 3-2, 4-2 5-1, 5-2, 6-2, 6-3, 7-2, 7-4, 7-7	10
Oil, Temporarily Abandoned:	4-4, 4-5, 4-6, 5-4, 6-5, 7-1	6
Water Injection, Active	3-1, 4-1, 4-3, 5-3, 6-1, 6-4, 7-3	7
Water Injection, Temporarily Abandoned:	1-1	<u>1</u>
Total		24

### III. Plans of Development - 1996

4 infill wells are scheduled to be drilled, one each quarter during 1996. The exact locations to be drilled have not been determined at this time. The success or lack thereof will have a bearing on the location of the subsequent infill well. Continued monitoring of the producing wells by individual well tests, fluid level shots, and continued monitoring of injection rates will insure maximum recovery of available oil reserves. A workover on well No. 6-2 is planned for 1995. Additional Grayburg zones will be perforated and treated which should increase the production and ultimate reserves from the East Millman Unit. It is also planned to perform remedial work on water injection wells No. 6-1 and 6-4. Attempts will be made to improve the injection profiles at these wells which should also increase the production and ultimate reserves from the East Millman Unit.

### IV. Attachments

The following attachments are made part of the 1996 Plan of Development:

- A. Production Curve
- B. Unit Tract Boundary Map

Yours very truly,

STEPHENS & JOHNSON OPERATING CO.



William M. Kincaid  
Petroleum Engineer

cc: Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

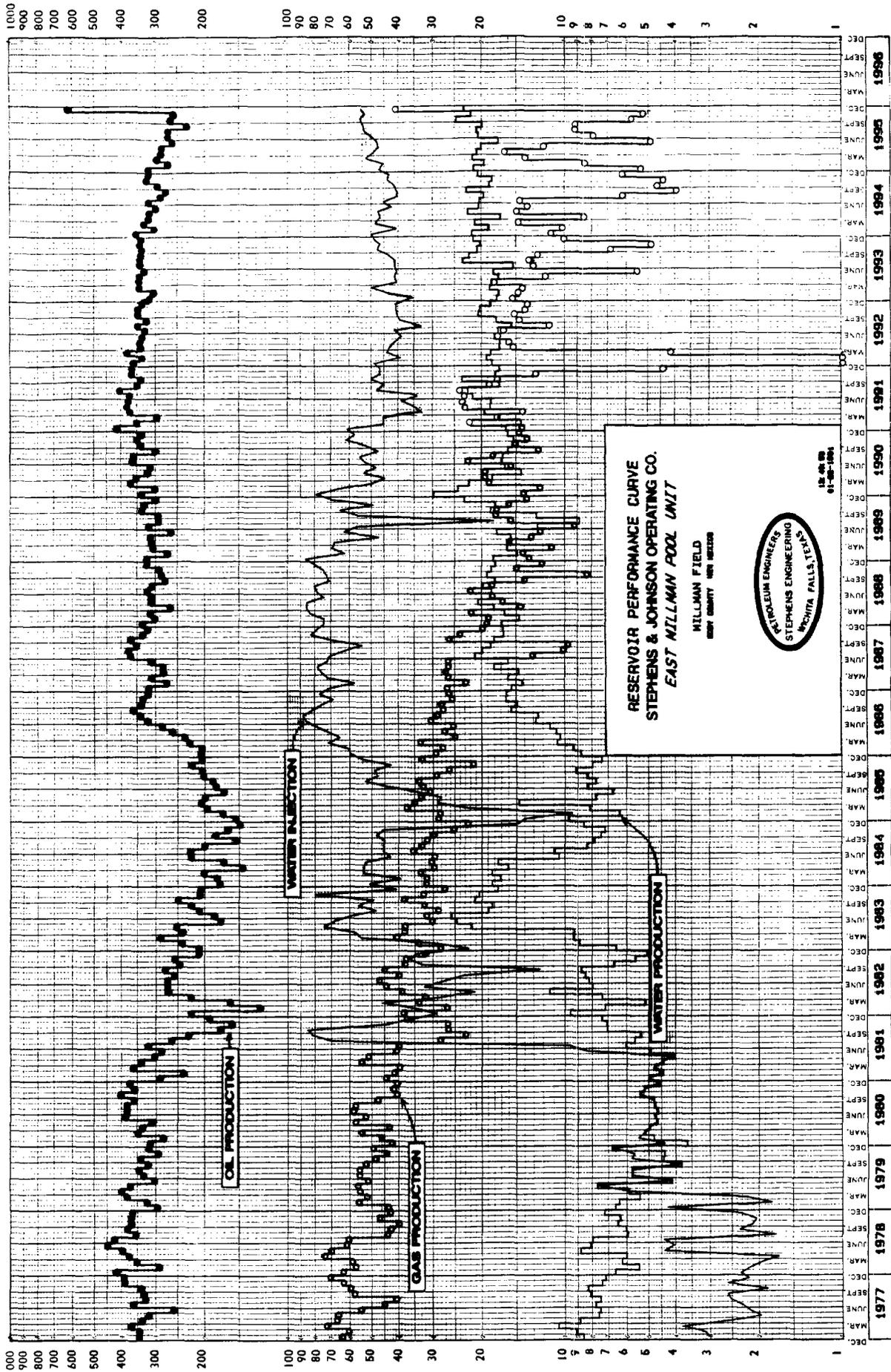
Oil Conservation Division, District II  
811 South 1st Street  
Artesia, New Mexico 88210-2834

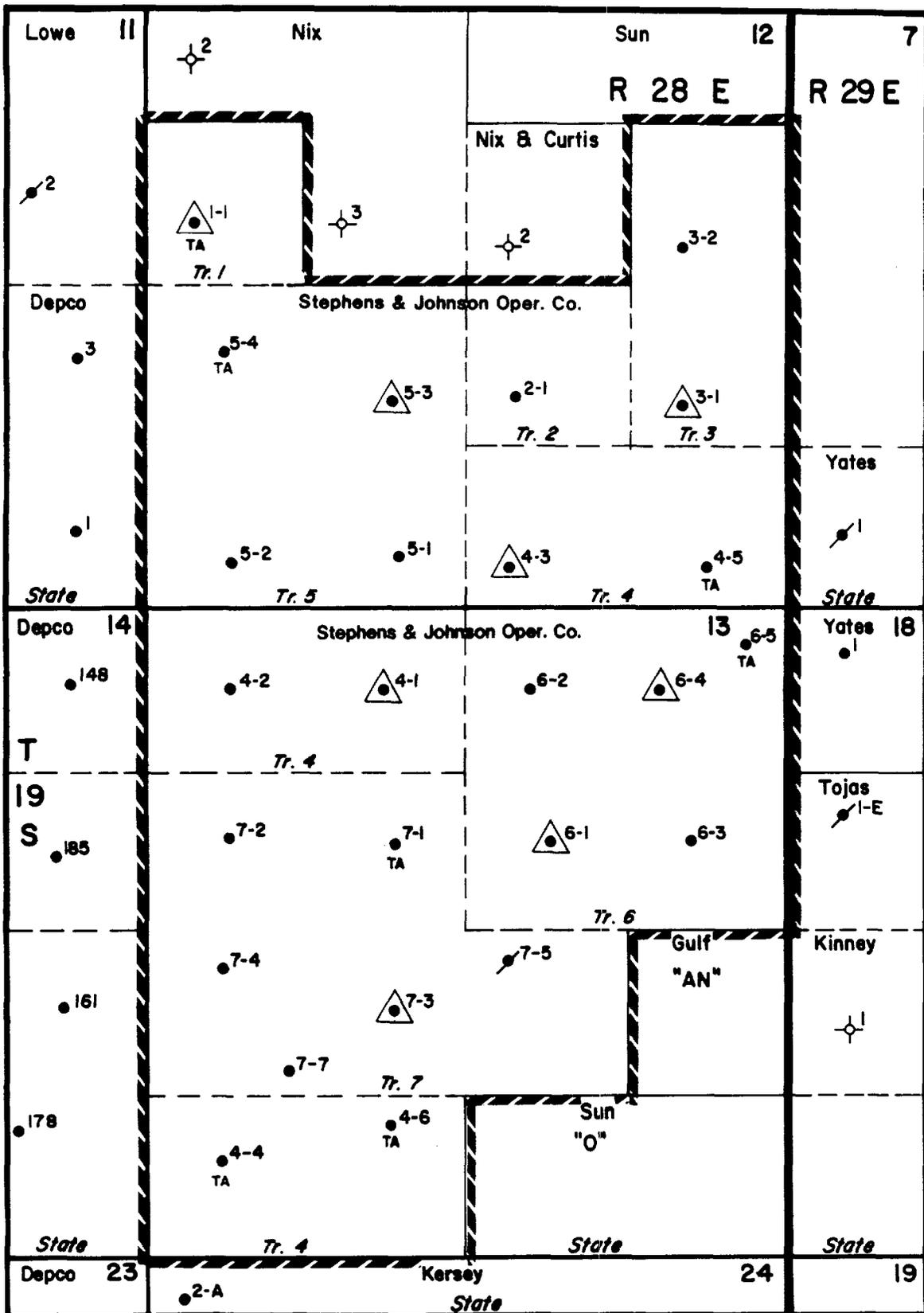
State of New Mexico  
Commissioner of Public Lands  
Oil & Gas Division  
P. O. Box 1148  
Santa Fe, New Mexico 87504-1148

Bureau of Land Management  
Carlsbad Resource Area Headquarters  
P. O. Box 1778  
Carlsbad, New Mexico 88220

— BARRELS OF WATER PRODUCED PER MONTH ( x 1000 )

▲ BARRELS OF WATER INJECTED PER MONTH ( x 1000 )

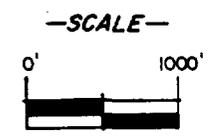




**STEPHENS & JOHNSON OPER. CO.**

**EAST MILLMAN POOL UNIT**  
 EAST MILLMAN (QUEEN,  
 GRAYBURG, SAN ANDRES) FIELD  
 EDDY COUNTY, NEW MEXICO

- LEGEND-**
- PRODUCING OIL WELL
  - ⊗ PLUGGED WELL
  - △ WATER INJECTION WELL
  - ⊕ DRY HOLE
  - LOCATION





6450

State of New Mexico  
Commissioner of Public Lands

310 OLD SANTA FE TRAIL P.O. BOX 1148

SANTA FE, NEW MEXICO 87504-1148

(505) 827-5760  
FAX (505) 827-5766

RAY POWELL, M.S., D.V.M.  
COMMISSIONER

SLO REF NO. OG-1381

March 21, 1994

Stephens & Johnson Operating Company  
811 6th Street  
Suite 300  
P.O. Box 2249  
Wichita Falls, Texas 76307-2249

Attn: Mr. Willlliam M. Kincaid

Re: 1994 Plan of Development  
East Millman Pool Unit  
Eddy County, New Mexico

Gentlemen:

The Commissioner of Public Lands has this date approved the above captioned Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the Unit Area and the need for further development of the unit may exist. You will be contacted at a later date regarding these possibilities.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY B. POWELL, M.S., D.V.M.  
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*  
FLOYD O. PRANDO, Director  
Oil and Gas Division  
(505) 827-5744

RBP/FOP/pm  
cc: OCD-Roy Johnson  
BLM



State of New Mexico  
Commissioner of Public Lands

RAY POWELL, M.S., D.V.M.  
COMMISSIONER

310 OLD SANTA FE TRAIL P.O. BOX 1148

(505) 827-5760  
FAX (505) 827-5766

SANTA FE, NEW MEXICO 87504-1148

March 21, 1994

Stephens & Johnson Operating Company  
811 6th Street  
Suite 300  
Wichita Falls, Texas 76307-2249

Attention: Ms. Jo Bumgardner

Re: Resignation/Designation of Successor Unit Operator  
East Millman Pool Unit  
Eddy County, New Mexico

Dear Mr. Bumgardner:

This office is in receipt of a designation of successor unit operator, wherein S & J Operating Company has resigned as unit operator of the East Millman Pool Unit and designated Stephens & Johnson Operating Company as the successor unit operator.

The Commissioner of Public Lands has this date approved the resignation of S & J Operating Company and the designation of Stephens & Johnson Operating Company as the successor unit operator of this unit. This change in operators is effective November 1, 1993. In accordance with this approval, Stephens & Johnson Operating Company is now responsible for all operations and the reporting of all production from the unit.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY B. POWELL, M.S., D.V.M.  
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*  
FLOYD O. PRANDO, Director  
Oil/Gas and Minerals Division  
(505) 827-5744  
RBP/FOP/pm  
encls.

cc: Reader File  
S & J Operating Company  
OCD  
TRD

OIL CONSERVATION DIVISION

811 Sixth Street, Suite 300

Post Office Box 2249

WICHITA FALLS, TEXAS  
76307-2249

1993 JAN 24 07 9 44

January 22, 1993

United States Dept. of the Interior  
Bureau of Land Management  
Roswell District Office  
P. O. Box 1397  
Roswell, New Mexico 88202-1397

Re: East Millman Pool Unit  
Queen-Grayburg Field  
Eddy County, New Mexico  
Annual Review of Operations - 1992  
and Plan of Development - 1993

Gentlemen:

We respectfully submit for your approval the Annual Review of Operations for 1992 and the Plan of Development for 1993 for the East Millman Pool Unit, Queen-Grayburg Field, Eddy County, New Mexico.

I. Annual Review - 1992

This Unit became effective November 14, 1979 with water injection operations commencing on June 1, 1981. Water injection was continuous through 1992 with injection remaining at a steady rate during the year. No major revisions in the waterflooding program were performed during the year 1992.

<u>1992 Production</u>	<u>Daily Average</u>	<u>Yearly Total</u>	<u>Cum. Since Unitization</u>	<u>Cum. Since Discovery</u>
Oil, (Bbls.)	113	41,272	385,379	2,408,915
Water (Bbls.)	599	218,482	2,037,986	2,339,502
<u>Injection</u>				
Water (Bbls.)	1,344	490,483	7,272,767	

II. Well Status (As of 12/31/92)		<u>Total</u>
Oil, Producing	2-1, 3-2, 4-2 5-1, 5-2, 6-2, 6-3, 7-2	8
Oil, Shut in:	4-4, 4-5, 4-6, 5-4, 6-5, 7-1, 7-4	7
Water Injection, Active	3-1, 4-1, 4-3, 5-3, 7-3	5
Water Injection, Shut in:	1-1, 6-1, 6-4	<u>3</u>
Total		23

### III. Plans of Development - 1993

Continued monitoring of the producing wells by individual well tests, fluid level shots, and continued monitoring of injection rates will insure maximum recovery of available oil reserves. Injection profiles will be taken at all injection wells and any possible improvements suggested by the injection profiles will be made in order to obtain optimum oil recovery from the waterflooding program. Stephens Engineering is nearing completion of a waterflood performance study. This study will give insight into additional drilling locations as well as changes which could be made in the water injection program.

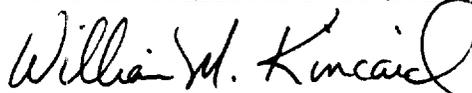
### IV. Attachments

The following attachments are made part of the 1993 Plan and Development:

- A. Production Curve
- B. Unit Tract Boundary Map

Yours very truly,

S & J OPERATING COMPANY



William M. Kincaid  
Petroleum Engineer

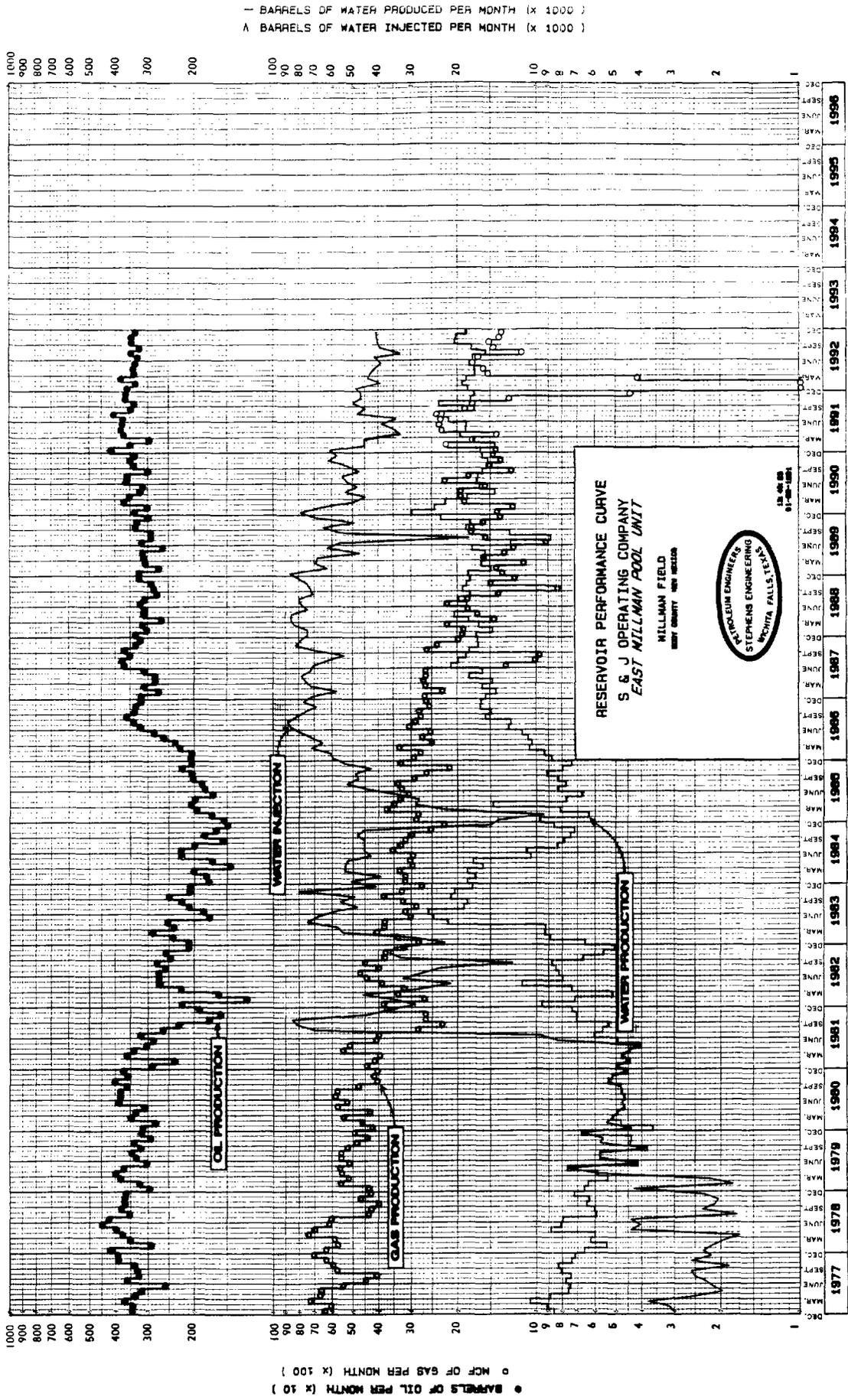
WMK/dk

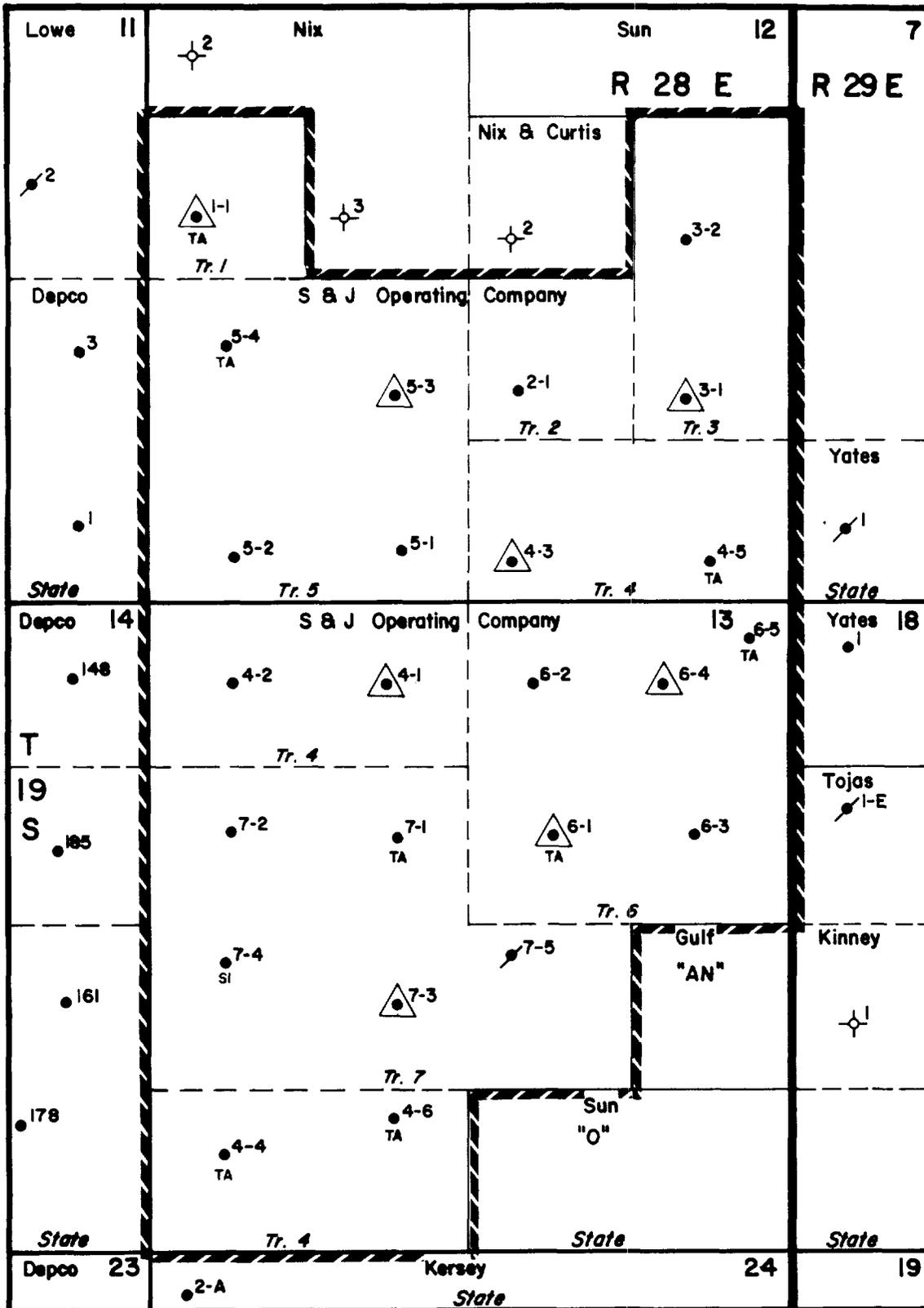
cc: Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Oil Conservation Division, District II  
P. O. Drawer DD  
Artesia, New Mexico 88210

State of New Mexico  
Commissioner of Public Lands  
Oil & Gas Division  
P. O. Box 1148  
Santa Fe, New Mexico 87504-1148

Bureau of Land Management  
Carlsbad Resource Area Headquarters  
P. O. Box 1778  
Carlsbad, New Mexico 88220





**S & J OPERATING COMPANY  
EAST MILLMAN POOL UNIT**

**-LEGEND-**

- PRODUCING OIL WELL
- ⊗ PLUGGED WELL
- △ WATER INJECTION WELL
- ⊕ DRY HOLE

EAST MILLMAN (QUEEN,  
GRAYBURG, SAN ANDRES) FIELD  
EDDY COUNTY, NEW MEXICO

**-SCALE-**



Telephone (817) 723-2166

**STEPHENS & JOHNSON OPERATING CO.**

FAX (817) 723-8113

811 Sixth Street, Suite 300

Post Office Box 2249

WICHITA FALLS, TEXAS  
76307-2249

REGISTRATION DIVISION  
FEB 10 1994

February 9, 1994

United States Dept. of the Interior  
Bureau of Land Management  
Roswell District Office  
P. O. Box 1397  
Roswell, New Mexico 88202-1397

Re: East Millman Pool Unit  
Queen-Grayburg Field  
Eddy County, New Mexico  
Annual Review of Operations - 1993  
and Plan of Development - 1994

Gentlemen:

We respectfully submit for your approval the Annual Review of Operations for 1993 and the Plan of Development for 1994 for the East Millman Pool Unit, Queen-Grayburg Field, Eddy County, New Mexico.

I. Annual Review - 1993

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<u>1993 Production</u>	<u>Daily Average</u>	<u>Yearly Total</u>	<u>Cum. Since Unitization</u>	<u>Cum. Since Discovery</u>
Oil, (Bbls.)	110	40,248	425,627	2,449,163
Water (Bbls.)	631	230,492	2,268,478	2,569,994
<u>Injection</u>				
Water (Bbls.)	1,424	519,745	7,792,512	

II. Well Status (As of 12/31/93)		<u>Total</u>
Oil, Producing	2-1, 3-2, 4-2 5-1, 5-2, 6-2, 6-3, 7-2	8
Oil, Shut in:	4-4, 4-5, 4-6, 5-4, 6-5, 7-1, 7-4	7
Water Injection, Active	3-1, 4-1, 4-3, 5-3, 7-3	5
Water Injection, Shut in:	1-1, 6-1, 6-4	<u>3</u>
Total		23

III. Plans of Development - 1994

Continued monitoring of the producing wells by individual well tests, fluid level shots, and continued monitoring of injection rates will insure maximum recovery of available oil reserves. Injection profiles will be taken at all injection wells and any possible improvements suggested by the injection profiles will be made in order to obtain optimum oil recovery from the waterflooding program. Stephens Engineering is nearing completion of a waterflood performance study. This study will give insight into additional drilling locations as well as changes which could be made in the water injection program.

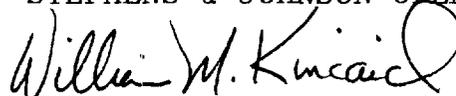
IV. Attachments

The following attachments are made part of the 1994 Plan and Development:

- A. Production Curve
- B. Unit Tract Boundary Map

Yours very truly,

STEPHENS & JOHNSON OPERATING CO.



William M. Kincaid  
Petroleum Engineer

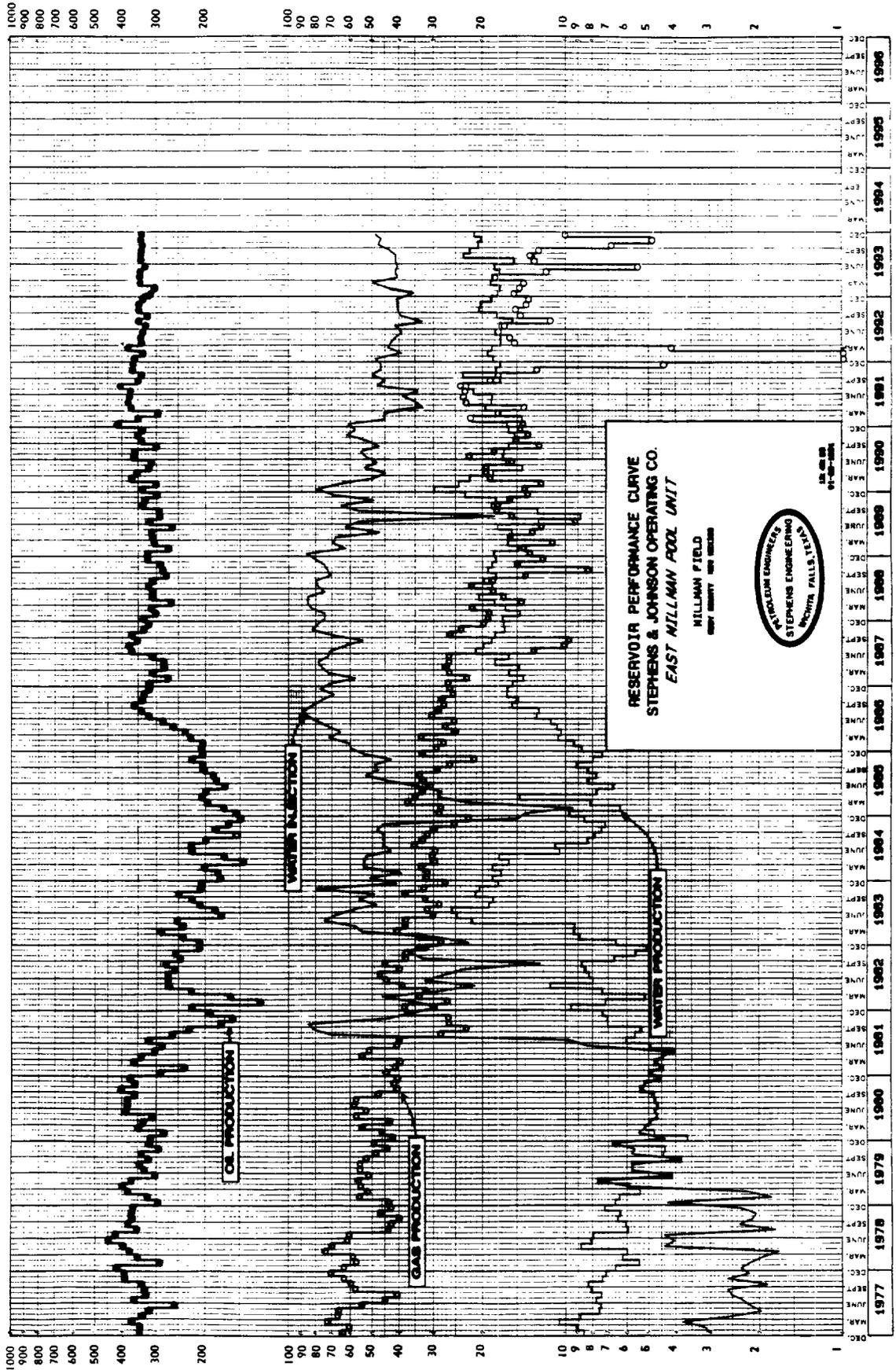
cc: Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Oil Conservation Division, District II  
P. O. Drawer DD  
Artesia, New Mexico 88210

State of New Mexico  
Commissioner of Public Lands  
Oil & Gas Division  
P. O. Box 1148  
Santa Fe, New Mexico 87504-1148

Bureau of Land Management  
Carlsbad Resource Area Headquarters  
P. O. Box 1778  
Carlsbad, New Mexico 88220

— BARRELS OF WATER PRODUCED PER MONTH (x 1000 )  
 ▲ BARRELS OF WATER INJECTED PER MONTH (x 1000 )



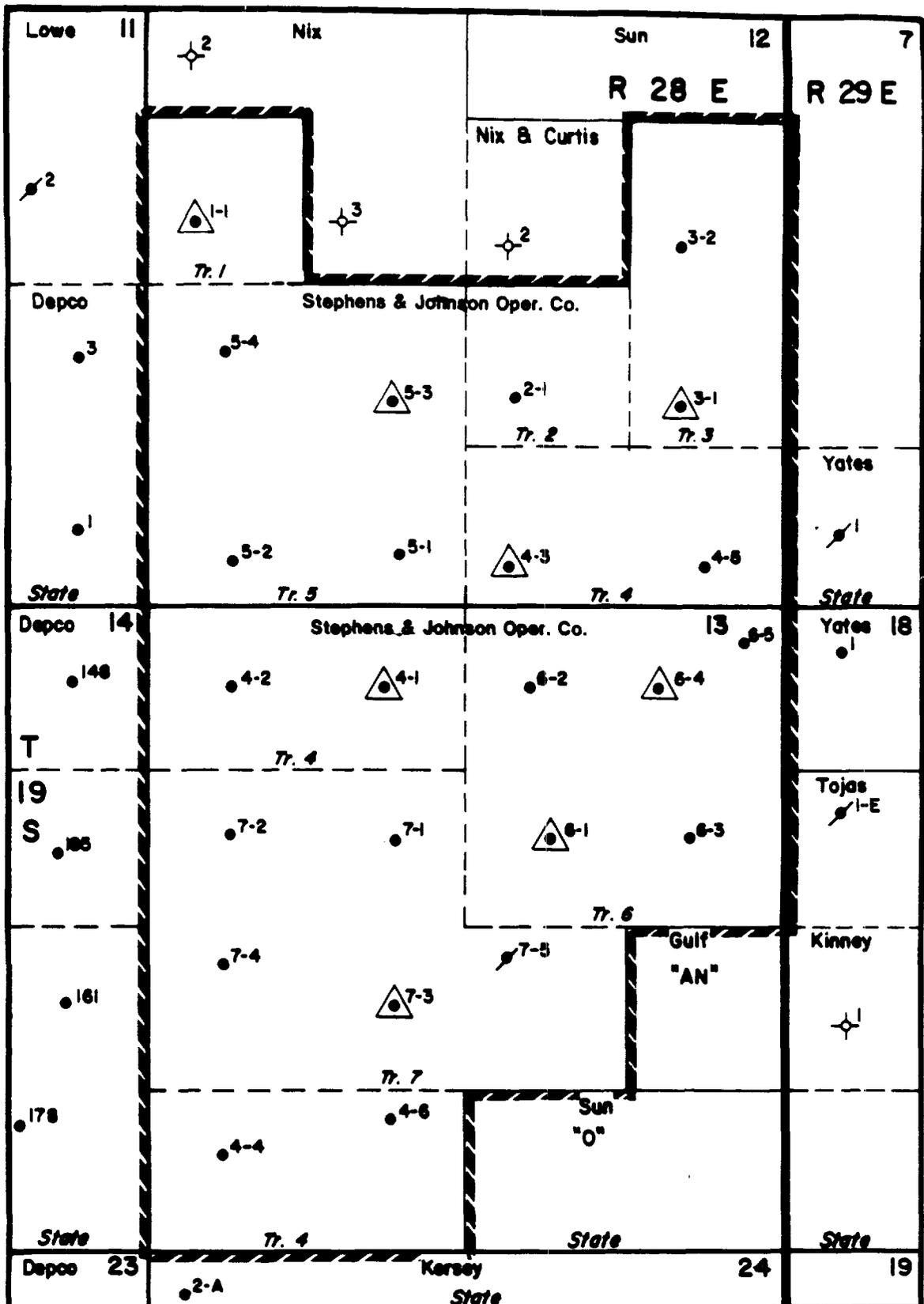
RESERVOIR PERFORMANCE CURVE  
 STEPHENS & JOHNSON OPERATING CO.  
 EAST WILLIAM POOL UNIT

WILLIAM FIELD  
 EAST TARRANT UNIT NUMBER

AN INDEPENDENT ENGINEERS  
 STEPHENS ENGINEERING  
 HOUSTON, TEXAS

10-20-88  
 01-20-88

● BARRELS OF OIL PER MONTH (x 10 )  
 ○ MCF OF GAS PER MONTH (x 100 )



**-LEGEND-**

- PRODUCING OIL WELL
- ⊗ PLUGGED WELL
- ▲ WATER INJECTION WELL
- ⊕ DRY HOLE

**STEPHENS & JOHNSON OPERATING CO.  
EAST MILLMAN POOL UNIT  
EAST MILLMAN (QUEEN,  
GRAYBURG, SAN ANDRES) FIELD  
EDDY COUNTY, NEW MEXICO**

**-SCALE-**



Telephone (817) 723-2166

DIVISION

#6450

**S&J OPERATING COMPANY**

FAX (817) 723-8113

811 Sixth Street, Suite 300

Post Office Box 2249

WICHITA FALLS, TEXAS  
76307-2249

March 10, 1992

United States Dept. of the Interior  
Bureau of Land Management  
Roswell District Office  
P. O. Box 1397  
Roswell, New Mexico 88202-1397

Re: East Millman Pool Unit  
Queen-Grayburg Field  
Eddy County, New Mexico  
Annual Review of Operations - 1991  
and Plan of Development - 1992

Gentlemen:

We respectfully submit for your approval the Annual Review of Operations for 1991 and the Plan of Development for 1992 for the East Millman Pool Unit, Queen-Grayburg Field, Eddy County, New Mexico.

I. Annual Review - 1991

This Unit became effective November 14, 1979 with water injection operations commencing on June 1, 1981. Water injection was continuous through 1991 with injection remaining at a steady rate during the year. No major revisions in the waterflooding program were performed during the year 1991.

<u>1991 Production</u>	<u>Daily Average</u>	<u>Yearly Total</u>	<u>Cum. Since Unitization</u>	<u>Cum. Since Discovery</u>
Oil, (Bbls.)	120	43,848	344,107	2,367,643
Water (Bbls.)	618	225,502	1,819,504	2,121,020
<u>Injection</u>				
Water (Bbls.)	1,389	506,940	6,782,284	

II. Well Status (As of 12/31/91)		<u>Total</u>
Oil, Producing	2-1, 3-2, 4-2 5-1, 5-2, 6-2, 6-3, 7-2	8
Oil, Shut in:	4-4, 4-5, 4-6, 5-4, 6-5, 7-1, 7-4	7
Water Injection, Active	3-1, 4-1, 4-3, 5-3, 7-3	5
Water Injection, Shut in:	1-1, 6-1, 6-4	<u>3</u>
Total		23

### III. Plans of Development - 1992

Continued monitoring of the producing wells by individual well tests, fluid level shots, and injection rates will insure maximum recovery of available oil reserves. Injection profiles will be taken at all injection wells and any possible improvements suggested by the injection profiles will be made in order to obtain optimum oil recovery from the waterflooding program. Stephens Engineering is nearing completion of a waterflood performance study. This study will give insight into additional drilling locations as well as changes which could be made in the water injection program.

### IV. Attachments

The following attachments are made part of the 1992 Plan and Development:

- A. Production Curve
- B. Unit Tract Boundary Map

Yours very truly,

S & J OPERATING COMPANY



William M. Kincaid  
Petroleum Engineer

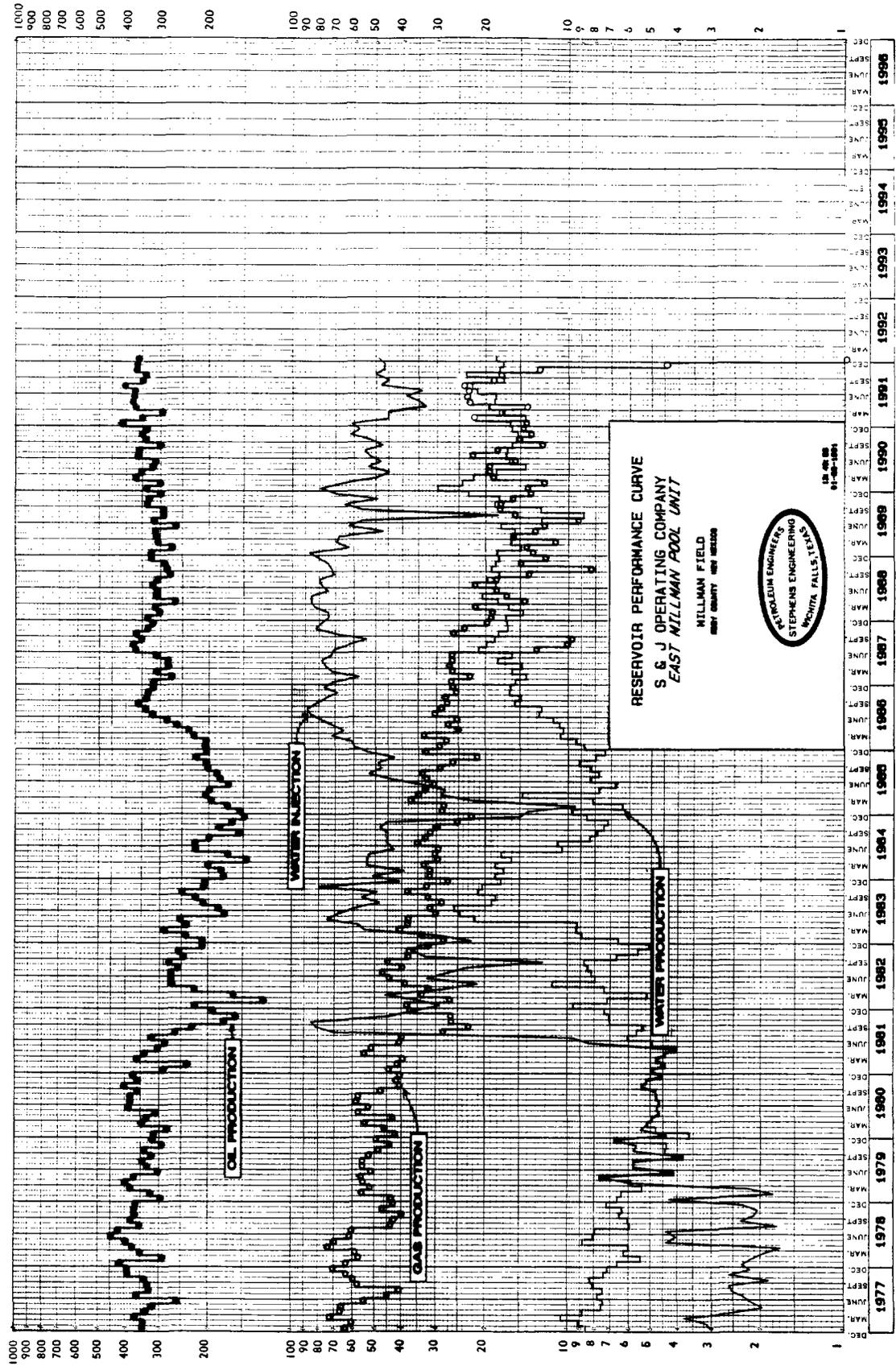
cc: Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Oil Conservation Division, District II  
P. O. Drawer DD  
Artesia, New Mexico 88210

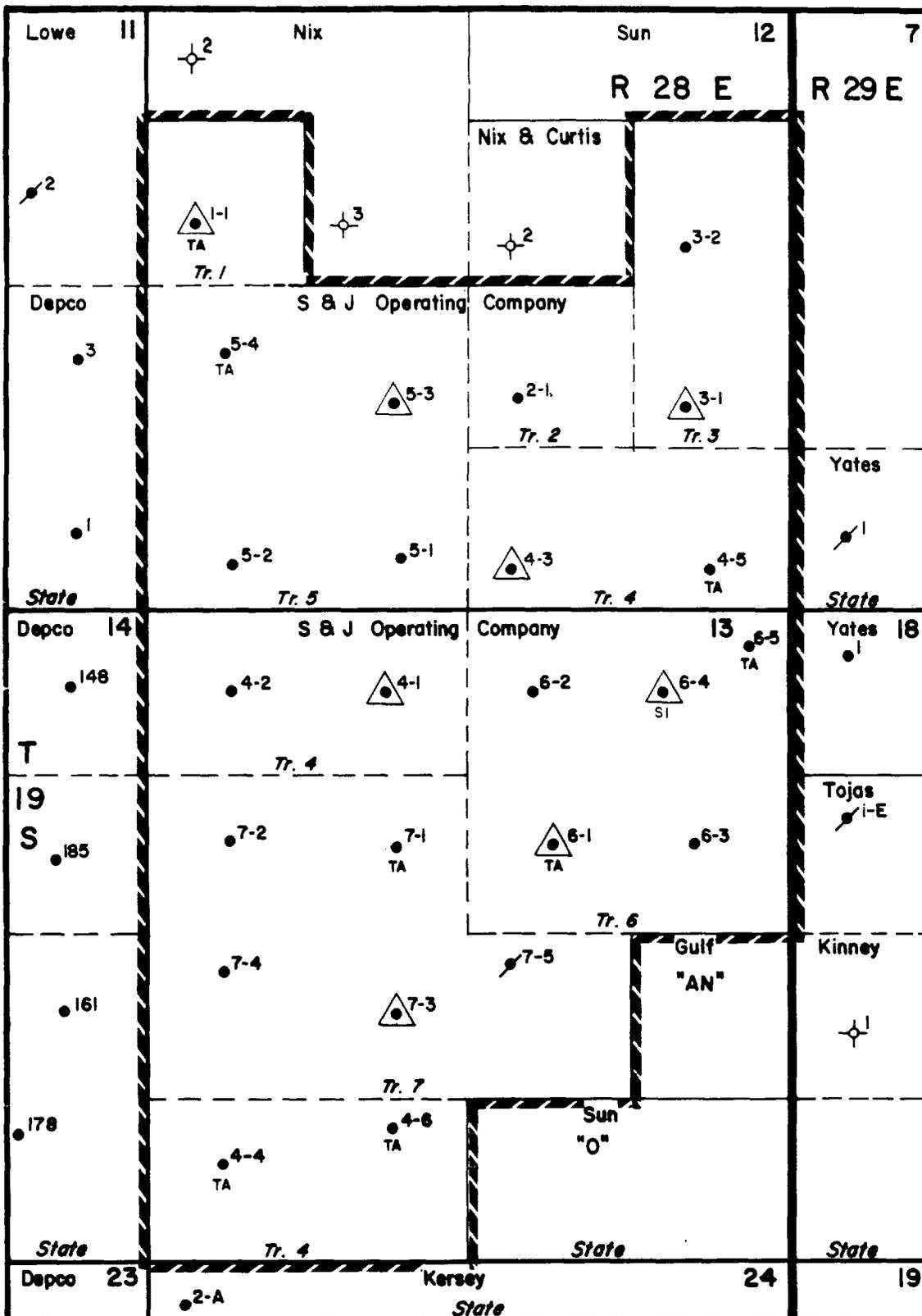
State of New Mexico  
Commissioner of Public Lands  
Oil & Gas Division  
P. O. Box 1148  
Santa Fe, New Mexico 87504-1148

Bureau of Land Management  
Carlsbad Resource Area Headquarters  
P. O. Box 1778  
Carlsbad, New Mexico 88220

— BARRELS OF WATER PRODUCED PER MONTH (x 1000 )  
 ▲ BARRELS OF WATER INJECTED PER MONTH (x 1000 )



● BARRELS OF OIL PER MONTH (x 100 )  
 ○ MCF OF GAS PER MONTH (x 100 )



**-LEGEND-**

- PRODUCING OIL WELL
- / PLUGGED WELL
- ▲ WATER INJECTION WELL
- ⊕ DRY HOLE

**S & J OPERATING COMPANY  
EAST MILLMAN POOL UNIT  
EAST MILLMAN (QUEEN,  
GRAYBURG, SAN ANDRES) FIELD  
EDDY COUNTY, NEW MEXICO**

**-SCALE-**





JIM BACA  
COMMISSIONER

State of New Mexico

OFFICE OF THE

Commissioner of Public Lands

Santa Fe

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

SLO REF NO. OG-1132

June 5, 1992

S & J Operating Company  
P.O. Box 2249  
Wichita Falls, Texas 76307-2249

Attn: Mr. William M. Kincaid

Re: 1992 Plan of Development  
East Millman Pool Unit  
Eddy County, New Mexico

RECEIVED

JUN 08 1992

OIL CONSERVATION DIVISION

Gentlemen:

The Commissioner of Public Lands has this date approved the above captioned Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the Unit Area and the need for further development of the unit may exist. You will be contacted at a later date regarding these possibilities.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

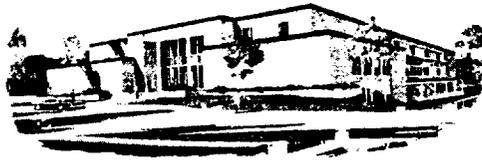
JIM BACA  
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*  
FLOYD O. PRANDO, Director  
Oil and Gas Division  
(505) 827-5744

JB/FOP/pm  
cc: OCD  
BLM

State of New Mexico

#6450



W.R. HUMPHRIES  
COMMISSIONER

Commissioner of Public Lands

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

October 5, 1990

S & J Operating Company  
P.O. Box 2249  
Wichita Falls, TX 76307

Attn: William M. Kincaid

Re: East Millman Pool Unit  
Eddy County, New Mexico  
1990 Plan of Development

Dear Mr. Kincaid:

The Commissioner of Public Lands this date approved the 1990 Plan of Development for the East Millman Pool Unit. Our approval is subject to like approval by all other appropriate agencies. Please forward to this office current copies of both Exhibits A & B.

The possibility of drainage by wells outside of the Unit Area and the need for further development may exist. You will be contacted at a later date regarding these possibilities.

If we may be of further help, please do not hesitate to contact Clyde Langdale at (505) 827-5791.

Sincerely,

W. R. HUMPHRIES

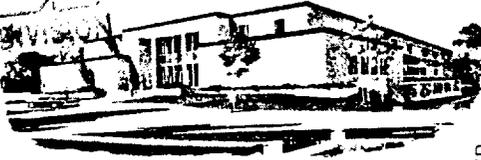
BY:   
Floyd O. Prado, Director  
Oil, Gas & Minerals Division

cc: OCD  
Unit Corresp.  
Unit POD



State of New Mexico

6450



SLO REF. NO. OG-415

W.R. HUMPHRIES  
COMMISSIONER

## Commissioner of Public Lands

September 4, 1987

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

S & J Operating Co.  
P. O. Box 2249  
Wichita Falls, Texas 76307  
Attention: DeWayne Travelstead

Re: East Millman Pool Unit  
1987 Plan of Development  
Eddy County, New Mexico

Gentlemen:

The Commissioner of Public Lands has this date approved the above captioned Plan of Development. Our approval is subject to like approval by all appropriate agencies.

If we may be of further help, please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES  
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*  
FLOYD O. PRANDO, Director  
Oil & Gas Division  
(505) 827-5744

WRH/FOP/ams  
enclosure  
cc: Bureau of Land Management  
Oil Conservation Division

# State of New Mexico



JIM BACA  
COMMISSIONER



## Commissioner of Public Lands

August 26, 1985

S & J Operating Company  
P. O. Box 2249  
Wichita Falls, Texas 76307

#6150  
P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148  
Express Mail Delivery Use:  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87501

Re: Designation of Successor Unit Operator  
East Millman Pool Unit  
Eddy County, New Mexico

ATTENTION: Ms. Sandy Robertson

Gentlemen:

This office is in receipt of your letter of August 8, 1985, together with a document entitled Designation of Successor Unit Operator by Working Interest Owners, East Millman Pool Unit, Eddy County, New Mexico.

The Commissioner of Public Lands has this date approved S & J Operating Company to succeed Sun Exploration and Production Company as Unit Operator of the East Millman Pool Unit.

Our approval is subject to like approval by the New Mexico Oil Conservation Division and the Bureau of Land Management.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

JIM BACA  
COMMISSIONER OF PUBLIC LANDS

BY: *Ray D. Graham*  
RAY D. GRAHAM, Director  
Oil and Gas Division  
AC 505/827-5744

JB/RDG/pm  
encls.

cc: OCD-Santa Fe, New Mexico  
BLM-Albuquerque, New Mexico  
BLM-Roswell, New Mexico

# State of New Mexico



JIM BACA  
COMMISSIONER

## Commissioner of Public Lands

August 9, 1985

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

Express Mail Delivery Use:  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87501

S & J Operating Company  
P. O. Box 2249  
Wichita Falls, Texas 76307

Re: East Millman Pool Unit  
Designation of Successor Operator

ATTENTION: Ms. Sandy Robertson

Gentlemen:

The Bureau of Land Management has notified this office that you have submitted a designation of successor operator for the East Millman Pool Unit.

Article 8 of the East Millman Pool Unit Agreement requires that the Commissioner of Public Lands also approved the Successor Unit Operator.

Please submit a designation of successor operator to this office for our approval.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

JIM BACA  
COMMISSIONER OF PUBLIC LANDS

BY:   
RAY D. GRAHAM, Director  
Oil and Gas Division  
AC 505/827-5744

JB/RDG/pm  
encls.  
cc:

OCD-Santa Fe, New Mexico  
BLM-Albuquerque, New Mexico Attn: Fluids Branch  
BLM-Roswell, New Mexico Attn: Mr. Armando Lopez



# United States Department of the Interior

GEOLOGICAL SURVEY  
P. O. Drawer 1857  
Roswell, New Mexico 88201

MAY 18 1979

Sun Oil Company  
Attention: Mr. J. W. Thornton  
P. O. Box 2880  
Dallas, Texas 75221



6256

Gentlemen:

Your letter of April 9, 1979 transmitted a "Certificate of Effectiveness" for the East Millman Pool unit agreement, Eddy County, New Mexico, establishing the effective date of the unit agreement as April 1, 1979, pursuant to section 23 of the agreement. Copies of such certificate are being distributed to the appropriate Federal offices.

Sincerely yours,

(ORIG. SGD.) JACK WILLOCK

Assistant Oil & Gas Supervisor, SRMA

cc:

BLM, Santa Fe (w/cy cert.)

NMOCD, Santa Fe (ltr. only) ← This Copy for



# United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Box 26124  
Albuquerque, New Mexico 87125

MAR 23 1979

Sun Oil Company  
Attention: Mr. J. W. Thornton  
P. O. Box 2880  
Dallas, Texas 75221

*No. 6450*

Gentlemen:

One approved copy of your Initial Plan of Operation for the East Millman Pool unit agreement, Eddy County, New Mexico, is enclosed. Such plan proposes water injection into the Queen-Grayburg formation utilizing eleven injection wells.

This plan was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

(ORIG. SGD.) JAMES W. SUTHERLAND

Oil and Gas Supervisor, SRMA

Enclosure

cc:  
NMOCD, Santa Fe (1tr. only) - 2-4-79 This Copy for  
Com. Pub. Lands, Santa Fe (1tr. only)





# United States Department of the Interior

GEOLOGICAL SURVEY  
P. O. Box 26124  
Albuquerque, New Mexico 87125

MAR 23 1979

Sun Production Company  
Attention: Mr. J. W. Thornton  
P. O. Box 2880  
Dallas, Texas 75221

*No. 6450*

Gentlemen:

The East Millman Pool unit agreement, Eddy County, New Mexico, was approved on this date effective as of April 1, 1979. Such agreement has been assigned No. 14-08-0001-16924. Please furnish this office with evidence of the effective date of the East Millman Pool unit agreement after the requirements of Article 23 of the unit agreement have been satisfied.

One approved copy of the unit agreement is enclosed. We request that you furnish the New Mexico Oil Conservation Division, the Commissioner of Public Lands for the State of New Mexico and all other interested principals with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SGO.) JAMES W. SUTHERLAND

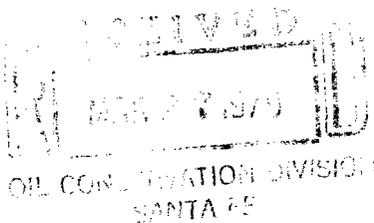
Oil and Gas Supervisor, SRMA

cc:

BLM, Santa Fe (w/cy agr.)

NMOCOD, Santa Fe (ltr. only) *← This is for*

Com. Pub. Lands, Santa Fe (ltr. only)



Unit Name EAST MILLMAN POOL UNIT-WATERFLOOD  
 Operator Sun Oil Company  
 County Eddy

DATE	OCC CASE NO.	OCC ORDER NO.	EFFECTIVE DATE	TOTAL ACREAGE	STATE	FEDERAL	INDIAN-FEE	SEGREGATION CLAUSE	TERM
APPROVED	6450	R-5935							
Commissioner	Commission		4-1-79	920.00	760.00	160.00	-0-	Yes	So long as
3-21-79		2-28-79							

UNIT AREA

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM  
 Section 12: SW/4NW/4, SE/4NE/4 and S/2  
 Section 13: N/2, SW/4, and NW/4SE/4

REMARKS:

ALL ACREAGE COMMITTED

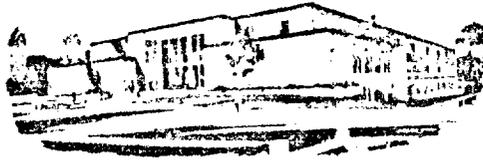
Unit Name EAST MILMAN POOL UNIT-WATERFLOOD  
 Operator SUN OIL COMPANY  
 County EDDY

STATE TRACT NO.	LEASE NO.	INSTI-TUTION	SEC.	TWP.	RGE.	SUBSECTION	RATIFIED DATE	ACRES	ACREAGE NOT RATIFIED	LESSEE
1	E-4397-3	P.B.	12	19S	28E ✓	SW/4NW/4	12-12-78	40.00		Bass Enterprise Prod.Co.
2	E-4397-2	P.B.	12	19S	28E ✓	NW/4SE/4	12-12-78	40.00		Bass Enterprises Prod. Co
3	E-4397-3	P.B.	12	19S	28E ✓	SE/4NE/4, NE/4SE/4	12-12-78	80.00		Perry R. Bass
4	OG-784	P.B.	12	19S	28E	S/2SE/4	5-30-78	240.00		Sun Oil Company
			13	19S	28E	N/2NW/4, S/2SW/4				
5	OG-272-1	P.B.	12	19S	28E	SW/4	11-14-78	160.00		Ralph Lowe (Maralo Inc. & Linda Lowe)
6	<u>FEDERAL TRACT</u>									
7	E-7668	P.B.	13	19S	28E	S/2NW/4, N/2SW/4, NW/4SE/4	7-13-78	200.00		Gulf Oil Corporation

# State of New Mexico



ALEX J. ARMIJO  
COMMISSIONER



## Commissioner of Public Lands

March 21, 1979

P. O. BOX 1148  
SANTA FE, NEW MEXICO 87501

Sun Production Company  
Campbell Centre II  
P. O. Box 2880  
Dallas, Texas 75221

6450

Re: East Millman Pool Unit  
Eddy County, New Mexico

ATTENTION: Mr. J. W. Thornton

Gentlemen:

The Commissioner of Public Lands has this date approved the East Millman Pool Unit, Eddy County, New Mexico. Our approval is subject to like approval by the United States Geological Survey.

Enclosed are Five (5) Certificates of approval.

Within Sixty (60) days after the requirements for commencement of Phase II have been met, the Operator must notify this office of such conversion to Phase II.

Please advise this office when the USGS gives their approval so that we may ascertain the effective date and finish processing same.

We are this date notifying the USGS of our approval.

Very truly yours,

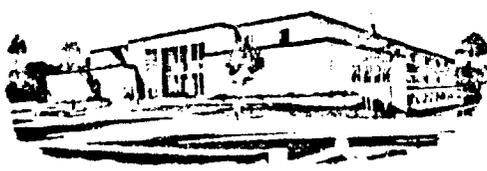
ALEX J. ARMIJO  
COMMISSIONER OF PUBLIC LANDS

BY:  
RAY D. GRAHAM, Director  
Oil and Gas Division

AJA/RDG/s  
encls.

cc:           OCD-Santa Fe, New Mexico ✓  
              USGS-Roswell, New Mexico  
              USGS-Albuquerque, New Mexico

State of New Mexico



Commissioner of Public Lands

March 21, 1979

ALEX J. ARMIJO  
COMMISSIONER

P. O. BOX 1148  
SANTA FE, NEW MEXICO 87501

Sun Oil Company  
P. O. Box 2880  
Dallas, Texas 75221

6450

Re: East Millman Pool Unit  
Eddy County, New Mexico

ATTENTION: Mr. J. W. Thornton

Gentlemen:

Your Initial Plan of Operation for the East Millman Pool Unit Agreement, Eddy County, New Mexico, has this date been approved by the Commissioner of Public Lands. Such plan proposes water injection into the Queen-Grayburg Formation utilizing eleven injection wells.

We are retaining the one copy for our files.

Very truly yours,

ALEX J. ARMIJO  
COMMISSIONER OF PUBLIC LANDS

BY:  
RAY D. GRAHAM, Director  
Oil and Gas Division

AJA/RDG/s  
cc:

- OCD-Santa Fe, New Mexico
- USGS-Roswell, New Mexico
- USGS-Albuquerque, New Mexico



**STEPHENS & JOHNSON OPERATING CO.**

811 Sixth Street, Suite 300

Post Office Box 2249

#  
6450

WICHITA FALLS, TEXAS  
76307-2249

January 20, 1995

United States Dept. of the Interior  
Bureau of Land Management  
Roswell District Office  
P. O. Box 1397  
Roswell, New Mexico 88202-1397

Re: East Millman Pool Unit  
Queen-Grayburg Field  
Eddy County, New Mexico  
Annual Review of Operations - 1994  
and Plan of Development - 1995

Gentlemen:

We respectfully submit for your approval the Annual Review of Operations for 1994 and the Plan of Development for 1995 for the East Millman Pool Unit, Queen-Grayburg Field, Eddy County, New Mexico.

I. Annual Review - 1994

This Unit became effective November 14, 1979 with water injection operations commencing on June 1, 1981. Water injection was continuous through 1994 with injection remaining at a steady rate during the year. No major revisions in the waterflooding program were performed during the year 1994.

<u>1994 Production</u>	<u>Daily Average</u>	<u>Yearly Total</u>	<u>Cum. Since Unitization</u>	<u>Cum. Since Discovery</u>
Oil, (Bbls.)	103	37,484	440,338	2,474,334
Water (Bbls.)	663	242,118	2,554,408	3,954,176
<u>Injection</u>				
Water (Bbls.)	1,450	529,140	8,356,157	

II. Well Status (As of 12/31/94)		<u>Total</u>
Oil, Producing	2-1, 3-2, 4-2 5-1, 5-2, 6-2, 6-3, 7-2, 7-4	9
Oil, Temporarily Abandoned:	4-4, 4-5, 4-6, 5-4, 6-5, 7-1	6
Water Injection, Active	3-1, 4-1, 4-3, 5-3, 6-1, 6-4, 7-3	7
Water Injection, Temporarily Abandoned:	1-1	<u>1</u>
Total		23

### III. Plans of Development - 1995

Continued monitoring of the producing wells by individual well tests, fluid level shots, and continued monitoring of injection rates will insure maximum recovery of available oil reserves. A workover on well No. 6-2 is planned for 1995. Additional Grayburg zones will be perforated and treated which should increase the production and ultimate reserves from the East Millman Unit. It is also planned to perform remedial work on water injection wells No. 6-1 and 6-4. Attempts will be made to improve the injection profiles at these wells which should also increase the production and ultimate reserves from the East Millman Unit. Consideration is also being given to infill drilling on the East Millman Unit. Although the number of wells and timing of infill drilling is not known at this time.

### IV. Attachments

The following attachments are made part of the 1995 Plan of Development:

- A. Production Curve
- B. Unit Tract Boundary Map

Yours very truly,

STEPHENS & JOHNSON OPERATING CO.



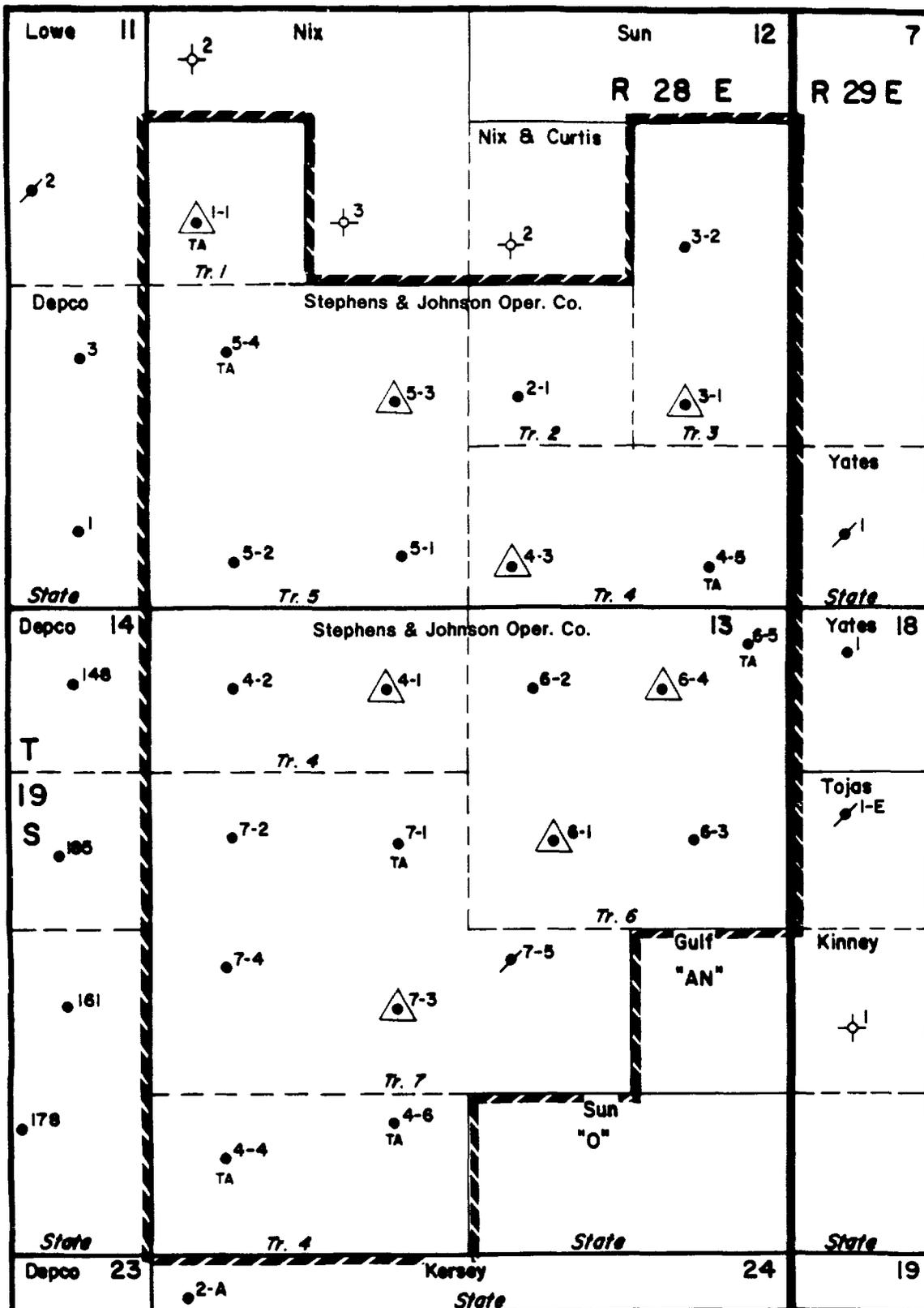
William M. Kincaid  
Petroleum Engineer

cc: Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

Oil Conservation Division, District II  
P. O. Drawer DD  
Artesia, New Mexico 88210

State of New Mexico  
Commissioner of Public Lands  
Oil & Gas Division  
P. O. Box 1148  
Santa Fe, New Mexico 87504-1148

Bureau of Land Management  
Carlsbad Resource Area Headquarters  
P. O. Box 1778  
Carlsbad, New Mexico 88220



**--LEGEND--**

- PRODUCING OIL WELL
- ⊗ PLUGGED WELL
- ▲ WATER INJECTION WELL
- ⊕ DRY HOLE

**STEPHENS & JOHNSON OPERATING CO.**

**EAST MILLMAN POOL UNIT**

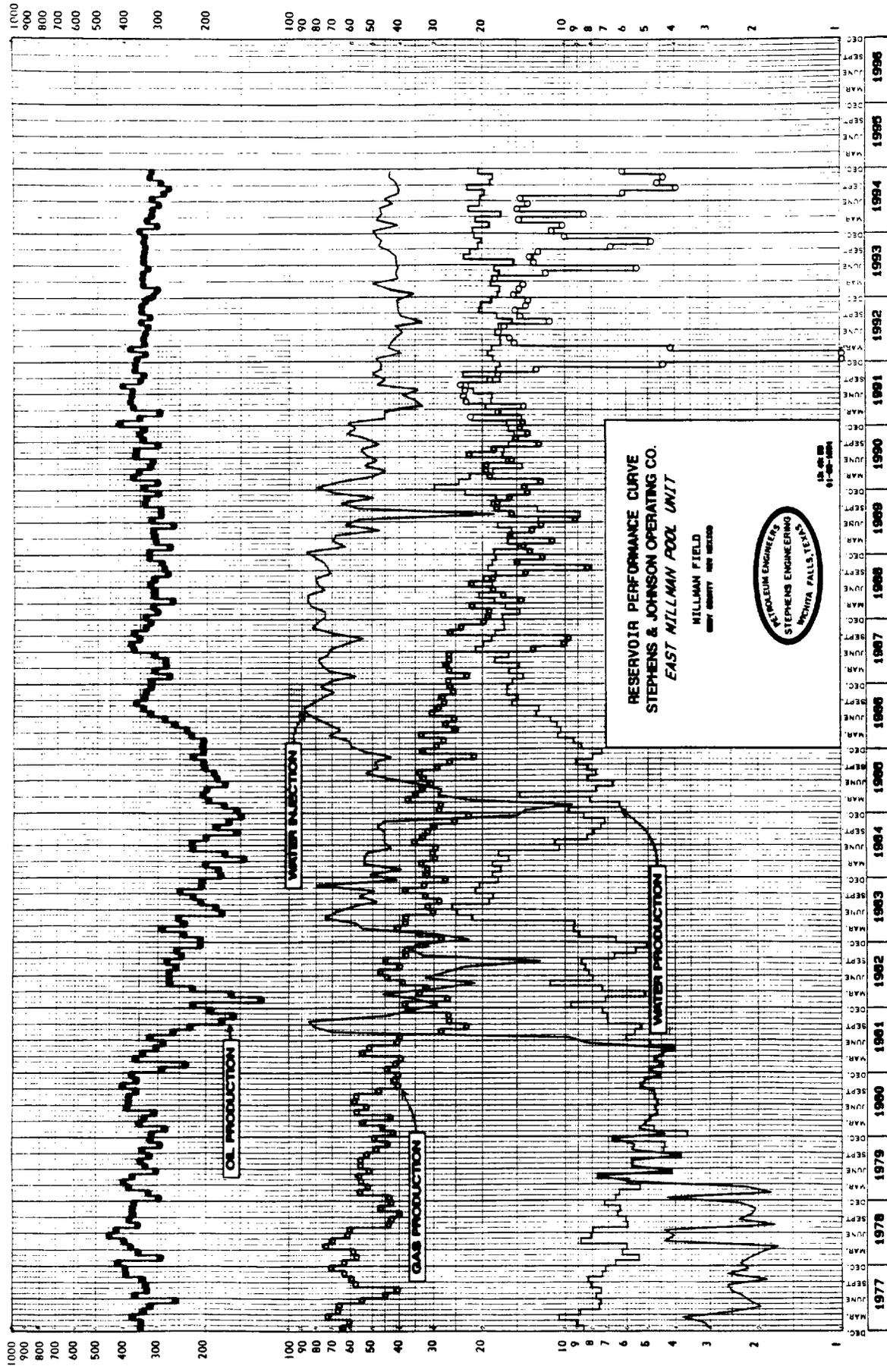
EAST MILLMAN (QUEEN,  
GRAYBURG, SAN ANDRES) FIELD

EDDY COUNTY, NEW MEXICO

**--SCALE--**



— BARRELS OF WATER PRODUCED PER MONTH (x 1000)  
 ▲ BARRELS OF WATER INJECTED PER MONTH (x 1000)



● BARRELS OF OIL PER MONTH (x 10)  
 ○ MCF OF GAS PER MONTH (x 100)



# United States Department of the Interior

GEOLOGICAL SURVEY

SEP 29 1973

SEP 27 1978

Sun Production Company  
Attention: Mr. J. W. Thornton  
P. O. Box 2830  
Dallas, Texas 75221

Gentlemen:

Your application of August 18, 1978, filed with the Oil and Gas Supervisor, Roswell, New Mexico, requests the designation of the East Millman Pool unit area, embracing 920 acres, more or less, Eddy County, New Mexico, as logically subject to exploration and development under the unitization provisions of the Mineral Leasing Act as amended.

Pursuant to unit plan regulations 30 CFR 226, the land requested as outlined on your plat marked "Exhibit 'A', East Millman Pool Unit" is hereby designated as a logical unit area.

Your proposed form of unit agreement with the indicated changes will be acceptable. One copy of the form is enclosed and one copy is being sent to the Oil and Gas Supervisor, Roswell, New Mexico. We hereby concur in the Supervisor's recommendation that the proposed basis for allocating unitized substances be accepted.

If conditions are such that further modification of said standard form is deemed necessary, three copies of the proposed modifications with appropriate justification must be submitted to this office through the Oil and Gas Supervisor for preliminary approval.

In the absence of any other type of land requiring special provisions or of any objections not now apparent, a duly executed agreement identical with said form, modified as outlined above, will be approved if submitted in approvable status within a reasonable period of time. However, notice is hereby given that the right is reserved to deny approval of any executed agreement submitted which, in our opinion, does not have the full commitment of sufficient lands to afford effective control of operations in the unit area.

When the executed agreement is transmitted to the Supervisor for approval, include the latest status of all acreage. In preparation of Exhibits "A" and "B", follow closely the format of the sample exhibits attached to the standard form of unit agreement for unproved areas (1968 reprint).

Inasmuch as this unit agreement involves State land, we are sending a copy of this letter to the Commissioner of Public Lands, Santa Fe, New Mexico. Please contact the State of New Mexico before soliciting joinders regardless of prior contacts or clearances from the State.

Sincerely yours,

  
Regional Conservation Manager  
For the Director

cc:  
NMOCD, Santa Fe, NM  
Com. Pub. Lands, Santa Fe, NM\*

← This Copy for