

CASE 6728: CONOCO INC. FOR PRESSURE  
MAINTENANCE EXPANSION, LEA COUNTY, NEW  
MEXICO

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X

Case Number

6728

Application

Transcripts.

Small Exhibits

ETC.



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-2434

March 12, 1980

Mr. Jason Kellahin  
Kellahin & Kellahin  
Attorneys at Law  
Post Office Box 1769  
Santa Fe, New Mexico

Re: CASE NO. 6728  
ORDER NO. R-6277

**Applicant:**

**Conoco Inc.**

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

~~Yours very truly,~~

JOE D. RAMEY  
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD	<u>x</u>
Artesia OCD	<u>x</u>
Aztec OCD	

Other

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

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

CASE NO. 6728  
Order No. R-6277

APPLICATION OF CONOCO INC. FOR  
PRESSURE MAINTENANCE EXPANSION,  
LEA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 14, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 11th day of March, 1980, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Conoco Inc., is the operator of a pressure maintenance project in the Scarborough Yates-Seven Rivers Pool, Lea County, New Mexico, and in this case seeks approval for the expansion of said project by the conversion to water injection into the Yates and Seven Rivers formations of its Eaves "A" Well No. 7 located in Unit J of Section 19, Township 26 South, Range 37 East, NMPM.

(3) That applicant proposes to inject water in said well through 3 1/2-inch internally coated tubing set in a packer at approximately 3030 feet, with perforations from 3082 feet to 3210 feet.

(4) That approval of the proposed pressure maintenance expansion should result in the recovery of additional oil which would otherwise remain unproduced, thereby preventing waste, and will not impair correlative rights, and should be given, provided however, that such expansion should be subject to

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Case No. 6728  
Order No. R-6277

certain provisions to ensure that underground fresh water supplies in the area are not impaired.

(5) That the casing-tubing annulus should be filled with an inert fluid, and that a pressure gauge or other approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(6) That the applicant should be permitted to use its Eaves "A" Well No. 7 for water injection as described above only after the applicant has submitted to the Hobbs District Office and the Santa Fe Office of the Division those items required by the Division pursuant to the provisions of Division Memorandum 3-77, dated August 24, 1977, and only after taking any remedial action deemed necessary by the Hobbs District Supervisor of the Division on wells within one-half mile of said Eaves "A" Well No. 7.

(7) That the injection well or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to 620 psi, but the Division Director should have authority to increase said pressure limitation, should circumstances warrant, and if such pressure increase can be accomplished safely.

(8) That subject to the above conditions, the subject application should be approved, and the project should be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Conoco Inc., is hereby authorized to expand its Scarborough Eaves Pressure Maintenance Project by the injection of water into the Yates and Seven Rivers formations through the perforated interval from 3082 to 3210 feet in its Eaves "A" Well No. 7, located in Unit J of Section 19, Township 26 South, Range 37 East, NMPM, Scarborough Yates-Seven Rivers Pool, Lea County, New Mexico.

(2) That injection shall be through internally coated 3 1/2-inch tubing set in a packer at approximately 3030 feet, and the casing-tubing annulus shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(3) That the injection well herein authorized or the injection pressurization system shall be so equipped as to limit

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Case No. 6728  
Order No. R-6277

injection pressure at the wellhead to no more than 620 psi, provided however, that the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

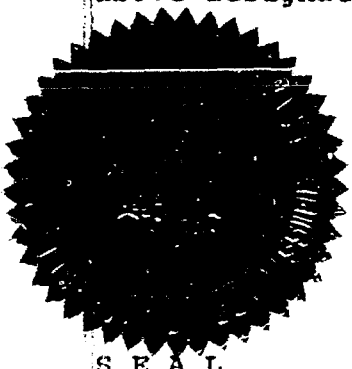
(4) That the operator shall immediately notify the Hobbs District Office of the Division of the failure of the tubing, casing, or packer in any of the project's injection wells, the leakage of water or oil from or around any producing well, or the leakage of water or oil from or around any plugged and abandoned well within the project area, and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(5) That the Conoco Scarborough Eaves Pressure Maintenance Project shall be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations, and monthly reports of the project shall be submitted to the Division in accordance with Rules 704 and 1115 thereof.

(6) That prior to commencement of water injection into its Eaves "A" Well No. 7, applicant shall have submitted to the Hobbs District Office and the Santa Fe Office of the Division those items required pursuant to Division Memorandum No. 3-77 dated August 24, 1977, and shall have taken such remedial action as may be deemed necessary by the Hobbs District Office of the Division on any well within one-half mile of said Eaves "A" Well No. 7.

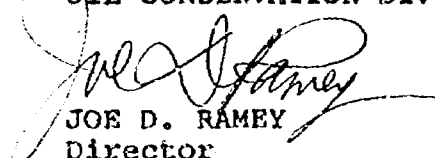
(7) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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



SEAL  
fd/

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
JOE D. RAMEY  
Director

- CASE 6721:** Application of Aminoil USA, Inc. for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Pennsylvanian formations underlying the N/2 of Section 10, Township 24 South, Range 28 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6684:** (Continued from October 31, 1979, Examiner Hearing)  
Application of CO<sub>2</sub>-In-Action, Inc. for creation of a new carbon dioxide gas pool and special pool rules, Harding County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the North Bueyeros-Santa Rosa CO<sub>2</sub> Gas Pool and the promulgation of special pool rules therefor, including a provision for 40-acre spacing and proration units. Said pool would comprise all or parts of Sections 1 thru 4, Township 20 North, Range 30 East, and Sections 8, 9, 10, 15, 16, 17, 20, 21, 22, 27, 28, 32, 33 and 34, Township 21 North, Range 30 East.
- CASE 6722:** Application of Lloyd Davidson for an unorthodox oil well location, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of his Santa Fe Pacific Well No. 1, a Gallup-Entrada-Dakota test 960 feet from the South line and 1230 feet from the East line of Section 29, Township 16 North, Range 6 West, the SE/4 SE/4 of said Section 29 to be dedicated to the well.
- CASE 6723:** Application of Merrion & Bayless for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pictured Cliffs formation underlying the SW/4 of Section 27, Township 24 North, Range 2 West, South Blanco-Pictured Cliffs Pool, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6713:** (Continued from October 31, 1979, Examiner Hearing)  
Application of Depco Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the White Ranch Unit Area, comprising 18,962 acres, more or less, of State, Federal, and fee lands in Townships 12 and 13 South, Ranges 29 and 30 East.
- CASE 6724:** Application of Coquina Oil Corporation for a non-standard gas proration unit and an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 660 feet from the South line and 1650 feet from the East line of Section 7, Township 19 South, Range 32 East, Lusk-Morrow Gas Pool, the S/2 of said Section 7 to be dedicated to the well as a non-standard 320-acre proration unit.
- CASE 6725:** Application of Tenneco Oil Company for three non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 291.23-acre non-standard gas proration unit comprising the W/2 of Section 6 and the NW/4 of Section 7, a 347.58-acre unit comprising the W/2 of Section 19 and the NW/4 of Section 30, and a 375.17-acre unit comprising the SW/4 of Section 30 and the W/2 of Section 31, all in Township 29 North, Range 3 West, Basin-Dakota Pool, each unit to be dedicated to a well to be drilled at a standard location thereon.
- CASE 6726:** Application of Tesoro Petroleum Corporation for a waterflood project, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the South Hospah-Upper Sand Oil Pool by the injection of water into the Upper Hospah Sands through three wells located in Units E and M of Section 5 and Unit I of Section 8, Township 17 North, Range 8 West. Applicant further seeks an administrative procedure for expansion of said project.
- CASE 6727:** Application of Conoco Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in its Anderson Ranch Unit Well No. 8 located in Unit I of Section 11, Township 16 South, Range 32 East, Anderson Ranch Field. Applicant would dispose into the Wolfcamp, Mississippian, and Devonian formations in the overall interval from 9775 feet to 13,620 feet through selective perforations.
- CASE 6728:** Application of Conoco Inc. for pressure maintenance expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the expansion of its Scarborough Eaves PM Project by the conversion of its Eaves "A" Well No. 7 located in Unit J of Section 19, Township 26 South, Range 37 East, to water injection in the Yates-Seven Rivers formations.

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO  
14 November 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Conoco, Inc., for pres-  
sure maintenance expansion, Lea  
County, New Mexico.

CASE  
6728

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
Division:

Ernest L. Padilla, Esq.  
Legal Counsel for the Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87503

For the Applicant:

Jason Kellahin, Esq.  
KELLAHIN & KELLAHIN  
500 Don Gaspar  
Santa Fe, New Mexico 87501

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3020 Plaza Blanca (SSE) 471-2462  
Santa Fe, New Mexico 87501



I N D E X

LOWELL B. DECKERT

Direct Examination by Mr. Kellahin	3
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E X H I B I T S

Applicant Exhibit One, Plat	4
Applicant Exhibit Two, C-108	4
Applicant Exhibit Three, Schematic	5
Applicant Exhibit Four, Schematic	5
Applicant Exhibit Five, Log	6
Applicant Exhibit Six, Structure Map	6
Applicant Exhibit Seven,	6
Applicant Exhibit Eight,	6
Applicant Exhibit Nine, Water Analysis	7

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1 MR. NUTTER: Call Case Number 6728.

2 MR. KELLAHIN: If the Examiner please, Jason  
3 Kellahin, appearing for the applicant, and we have the same  
4 witness.

5 May the record show he has been sworn?

6 MR. NUTTER: He's still under oath.

7 MR. PADILLA: Application of Conoco, Inc.,  
8 for pressure maintenance expansion, Lea County, New Mexico.

9  
10 LOWELL B. DECKERT

11 being called as a witness and having been duly sworn upon  
12 his oath, testified as follows, to-wit:

13  
14 DIRECT EXAMINATION

15 BY MR. KELLAHIN:

16 Q Mr. Deckert, are you familiar with the  
17 application of Conoco, Incorporated, in Case Number 6728?

18 A Yes, I am.

19 Q What does the applicant propose in this  
20 case?

21 A This is application for approval to convert  
22 our Eaves "A" Well No. 7 from a tsi oil well to a pressure  
23 maintenance project well. We are presently injecting pro-  
24 duced water into the Eaves "A" No. 10, a pressure maintenance  
25 well by permission of Order No. R-3487 and 3487-A.

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1 The addition of Well No. 7 as a pressure  
2 maintenance project well should increase the efficiency of  
3 this pressure maintenance project.

4 The Eaves "A" No. 7 was drilled and com-  
5 pleted as a producing well in the Scarborough-Yates-Seven  
6 Rivers Pool in September, 1950. It produced 274,000 barrels  
7 of oil. The well declined below the economic limit, and has  
8 been shut-in since October, 1973. It has no remedial or re-  
9 completion prospects and only use as a service well.

10 Q Now, referring to what has been marked as  
11 the applicant's Exhibit Number One, would you identify that  
12 exhibit?

13 A Exhibit One is a location plat showing the  
14 Eaves "A" lease, which is outlined in red, and an arrow in-  
15 dicating Well No. 7. This is the candidate well for conver-  
16 sion to pressure maintenance well.

17 Well No. 7 is located 1980 feet from the  
18 south line, 2310 feet from the east line of Section 19,  
19 Township 26 South, Range 37 East, Lea County, New Mexico.

20 This plat also shows the Eaves "B-1" lease,  
21 which is outlined in blue. The produced water from this  
22 lease will be injected into this system, as well.

23 Q Now, referring to Exhibit Number Two, would  
24 you identify that exhibit?

25 A Exhibit Two is a copy of Form C-108 for

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1 the Eaves "A" No. 7 Well. As shown on this form, we propose  
2 to inject water, produced water, from the Eaves "A" and "B-1"  
3 leases into the Yates and Seven Rivers formation in the gross  
4 interval from 3082 feet to 3210 through 3-1/2 inch plastic  
5 lined tubing set on a packer approximately 3030 feet.

6 Q Now, referring to Exhibit Number Three,  
7 would you explain that exhibit, please?

8 A Exhibit Three is a wellbore schematic of  
9 the well at present showing all casing strings, sizes, set-  
10 ting depths, cementing data, packer, and so forth.

11 Exhibit Four is a downhole schematic after  
12 the proposed conversion. We believe that this complies with  
13 all the standards set by the NMOCD.

14 Q I believe you said you'd be injecting  
15 through internally coated tubing?

16 A Yes.

17 Q And you will fill the casing-tubing annulus  
18 with inert fluid?

19 A Yes, with an inert fluid, right.

20 Q Now what volume of water will you inject?  
21 Do you know?

22 A Initially, probably something in the order  
23 of 3000 barrels a day.

24 Q Do you have any idea of what the pressure  
25 will be?

1 A Not at this time, no, sir.

2 Q Now, Exhibit Number Five, would you describe  
3 that exhibit?

4 A Okay. Exhibit Five is a copy of the log  
5 for the Eaves "A" No. 7 Well and shows the top of the Yates  
6 at 2864 feet; top of the Seven Rivers at 3136 feet; and  
7 shows the present perforations in the well and also the in-  
8 terval that we propose to inject into in this well.

9 Q Now, referring to Exhibit Number Six, would  
10 you identify that exhibit?

11 A Exhibit Six is a structure map of the  
12 southern portion of the Scarborough Yates-Seven Rivers Pool,  
13 showing the structural tops of the Yates in this particular  
14 area, and incidentally, this is the same structure map that  
15 was used in Case 4198 in August of '69 that led to approval  
16 of the conversion of the Eaves "A" 10 to a pressure mainte-  
17 nance well.

18 Q Now would you go through the remaining  
19 exhibits and explain them, please?

20 A Okay. Exhibit Seven is a decline curve  
21 showing the oil production from the Eaves "A" Lease. The  
22 top line is the actual oil production and the dashed line  
23 is our estimate of the production without the benefit of  
24 this pressure maintenance project.

25 Exhibit Number Eight is a table showing

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1 the volumes of water injected into Well No. 10 during the  
2 past year. Approximately the same total of water will be in-  
3 jected into both Wells Nos. 7 and 10 combined if this appli-  
4 cation is approved. I might point out that we plan to install  
5 some additional submersible pumps so this -- to increase oil  
6 production, so the water production will increase as well.

7 Exhibit Number Nine is a copy of water ana-  
8 lysis for the water to be injected.

9 The producing rates from the wells in this  
10 pool are too high to qualify as a waterflood project. In  
11 my opinion, injection of water into Well No. 7 will have the  
12 effect of maintaining the pressure in the reservoir and will  
13 assist in moving oil to producing wells.

14 The Lower Yates and Seven Rivers have an  
15 active water drive mechanism from the west for the fore reef por-  
16 tion and we propose to inject water into the back reef portion  
17 to supplement the active water drive in that area and help  
18 prevent oil from being trapped in the undeveloped portions of  
19 this lease by the -- as a result of the active water drive  
20 mechanism from the west.

21 Q Now, in your opinion will the approval of  
22 this application result in the prevention of waste?

23 A Yes, in my opinion, it will.

24 Q In your opinion will there be any impairment  
25 of correlative rights as a result of the injection proposed

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1 in this application?

2 A No.

3 Q Will the approval of this application re-  
4 sult in the recovery of oil that would not otherwise be re-  
5 covered?

6 A Yes, in my opinion.

7 Q Were Exhibits One through Eight, Nine, pre-  
8 pared by you or under your supervision?

9 A Yes, sir.

10 MR. KELLAHIN: At this time we offer Ex-  
11 hibits One through Nine, inclusive.

12 MR. NUTTER: Continental Exhibits One  
13 through Nine will be admitted in evidence.

14 MR. KELLAHIN: That's all we have, Mr.  
15 Nutter .

17 CROSS EXAMINATION

18 BY MR. NUTTER:

19 Q Mr. Deckert, I believe when you were dis-  
20 cussing the No. 7, the proposed well, you mentioned you have  
21 3-1/2 inch tubing, and this is borne out, I believe, by Ex-  
22 hibit Number Four; however, Exhibit Number Two states 2-3/8  
23 inch tubing. Which is the size tubing proposed?

24 A The 2-/8ths is what's in the well right  
25 now, but we do plan to use 3-1/2 inch.

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1 Q You'll pull that and install 3-1/2?  
2 A Right.  
3 Q Now, you estimate you'd inject 3000 bar-  
4 rels per day, but you don't know the pressures. How much  
5 are you injecting into the No. 10 Well at the present time?  
6 A It's close to 7000 barrels a day.  
7 Q And what kind of pressure do you need to  
8 inject that much?  
9 A It's my understanding it's somewhere over  
10 2000 pounds right now.  
11 Q Now, on your Exhibit Number Eight, Mr.  
12 Deckert, I'm having a hard time figuring out, here we've  
13 got two columns, it says barrels of water per month allo-  
14 cated to Eaves "A" and Eaves "B-1", then we have total over  
15 here. Those numbers aren't supposed to add up, are they?  
16 A I'm not sure what the reason for the dif-  
17 ference there, I'm sorry.  
18 Q In some cases there doesn't appear to be  
19 a relationship between the total column and the per month  
20 allocation to each of the two leases.  
21 A Well, see, the totals are close, but not  
22 exact.  
23 Q It looks like this total out here is 7000  
24 times the number of days in the month, actually.  
25 A That's what it would appear.



1 Q Could you determine what the score is on  
2 that thing and let us know?

3 A Yes, I will.

4 MR. NUTTER: Are there any questions of  
5 Mr. Deckert? He may be excused.

6 Do you have anything further, Mr. Kellahin?

7 MR. KELLAHIN: That's all, Mr. Nutter,  
8 thank you.

9 MR. NUTTER: Does anyone have anything they  
10 wish to offer in Case Number 6728?

11 We'll take the case under advisement.

12  
13 (Hearing concluded.)  
14

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2036 Plaza Blanca (S98) 471-2462  
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15  
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## REPORTER CERTIFICATE

I, SALLY W. BOYD, a Certified Shorthand Reporter,  
DO HEREBY CERTIFY that the foregoing and attached Transcript  
of Hearing before the Oil Conservation Division was reported  
by me; that the said transcript is a full, true, and correct  
record of the hearing, prepared by me to the best of my  
ability from my notes taken at the time of the hearing.

Sally W. Boyd C.S.R.  
Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is  
a complete report of the proceedings in  
the examination hearing of Case No. 6728  
heard by me on 11/14 1979.  
[Signature], Examiner  
Oil Conservation Division

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STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO  
14 November 1979

EXAMINER HEARING

IN THE MATTER OF:

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CASE  
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BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
Division:

Ernest L. Padilla, Esq.  
Legal Counsel for the Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87503

For the Applicant:

Jason Kellahin, Esq.  
KELLAHIN & KELLAHIN  
500 Don Gaspar  
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I N D E X

LOWELL B. DECKERT

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E X H I B I T S

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Santa Fe, New Mexico 87501

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3026 Plaza Blanca (800) 471-2462  
Santa Fe, New Mexico 87501

1 MR. NUTTER: Call Case Number 6728.  
2 MR. KELLAHIN: If the Examiner please, Jason  
3 Kellahin, appearing for the applicant, and we have the same  
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5 May the record show he has been sworn?  
6 MR. NUTTER: He's still under oath.  
7 MR. PADILLA: Application of Conoco, Inc.,  
8 for pressure maintenance expansion, Lea County, New Mexico.  
9  
10 LOWELL B. DECKERT  
11 being called as a witness and having been duly sworn upon  
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13  
14 DIRECT EXAMINATION  
15 BY MR. KELLAHIN:  
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18 A Yes, I am.  
19 Q What does the applicant propose in this  
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24 duced water into the Eaves "A" No. 10, a pressure maintenance  
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1 The addition of Well No. 7 as a pressure  
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3 this pressure maintenance project.

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6 Rivers Pool in September, 1950. It produced 274,000 barrels  
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8 been shut-in since October, 1973. It has no remedial or re-  
9 completion prospects and only use as a service well.

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17 Well No. 7 is located 1980 feet from the  
18 south line, 2310 feet from the east line of Section 19,  
19 Township 26 South, Range 37 East, Lea County, New Mexico.

20 This plat also shows the Eaves "B-1" lease,  
21 which is outlined in blue. The produced water from this  
22 lease will be injected into this system, as well.

23 Q Now, referring to Exhibit Number Two, would  
24 you identify that exhibit?

25 A Exhibit Two is a copy of Form C-108 for

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3020 Plaza Blanca (606) 471-2462  
Santa Fe, New Mexico 87501

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3020 Plaza Blanca (G05) 471-2462  
Santa Fe, New Mexico 87501

1 the Haves "A" No. 7 Well. As shown on this form, we propose  
2 to inject water, produced water, from the Haves "A" and "B-1"  
3 leases into the Yates and Seven Rivers formation in the gross  
4 interval from 3082 feet to 3210 through 3-1/2 inch plastic  
5 lined tubing set on a packer approximately 3030 feet.

6 Q Now, referring to Exhibit Number Three,  
7 would you explain that exhibit, please?

8 A Exhibit Three is a wellbore schematic of  
9 the well at present showing all casing strings, sizes, set-  
10 ting depths, cementing data, packer, and so forth.

11 Exhibit Four is a downhole schematic after  
12 the proposed conversion. We believe that this complies with  
13 all the standards set by the NMOCD.

14 Q I believe you said you'd be injecting  
15 through internally coated tubing?

16 A Yes.

17 Q And you will fill the casing-tubing annulus  
18 with inert fluid?

19 A Yes, with an inert fluid, right.

20 Q Now what volume of water will you inject?  
21 Do you know?

22 A Initially, probably something in the order  
23 of 3000 barrels a day.

24 Q Do you have any idea of what the pressure  
25 will be?

1 A Not at this time, no, sir.

2 Q Now, Exhibit Number Five, would you describe  
3 that exhibit?

4 A Okay. Exhibit Five is a copy of the log  
5 for the Eaves "A" No. 7 Well and shows the top of the Yates  
6 at 2864 feet; top of the Seven Rivers at 3136 feet; and  
7 shows the present perforations in the well and also the in-  
8 terval that we propose to inject into in this well.

9 Q Now, referring to Exhibit Number Six, would  
10 you identify that exhibit?

11 A Exhibit Six is a structure map of the  
12 southern portion of the Scarborough Yates-Seven Rivers Pool,  
13 showing the structural tops of the Yates in this particular  
14 area, and incidentally, this is the same structure map that  
15 was used in Case 4198 in August of '69 that led to approval  
16 of the conversion of the Eaves "A" 10 to a pressure mainte-  
17 nance well.

18 Q Now would you go through the remaining  
19 exhibits and explain them, please?

20 A Okay. Exhibit Seven is a decline curve  
21 showing the oil production from the Eaves "A" Lease. The  
22 top line is the actual oil production and the dashed line  
23 is our estimate of the production without the benefit of  
24 this pressure maintenance project.

25 Exhibit Number Eight is a table showing

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3020 Plaza Blanca (666) 471-2482  
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SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3020 Plaza Blanca (SOS) 471-2462  
Santa Fe, New Mexico 87501

1 the volumes of water injected into Well No. 10 during the  
2 past year. Approximately the same total of water will be in-  
3 jected into both Wells Nos. 7 and 10 combined if this appli-  
4 cation is approved. I might point out that we plan to install  
5 some additional submersible pumps so this -- to increase oil  
6 production, so the water production will increase as well.

7 Exhibit Number Nine is a copy of water ana-  
8 lysis for the water to be injected.

9 The producing rates from the wells in this  
10 pool are too high to qualify as a waterflood project. In  
11 my opinion, injection of water into Well No. 7 will have the  
12 effect of maintaining the pressure in the reservoir and will  
13 assist in moving oil to producing wells.

14 The Lower Yates and Seven Rivers have an  
15 active water drive mechanism from the west for the fore reef por-  
16 tion and we propose to inject water into the back reef portion  
17 to supplement the active water drive in that area and help  
18 prevent oil from being trapped in the undeveloped portions of  
19 this lease by the -- as a result of the active water drive  
20 mechanism from the west.

21 Q Now, in your opinion will the approval of  
22 this application result in the prevention of waste?

23 A Yes, in my opinion, it will.

24 Q In your opinion will there be any impairment  
25 of correlative rights as a result of the injection proposed

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3010 Plaza Blanca (SOS) 471-2482  
Santa Fe, New Mexico 87501

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in this application?

A No.

Q Will the approval of this application result in the recovery of oil that would not otherwise be recovered?

A Yes, in my opinion.

Q Were Exhibits One through Eight, Nine, prepared by you or under your supervision?

A Yes, sir.

MR. KELLAHIN: At this time we offer Exhibits One through Nine, inclusive.

MR. NUTTER: Continental Exhibits One through Nine will be admitted in evidence.

MR. KELLAHIN: That's all we have, Mr. Nutter.

# CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Deckert, I believe when you were discussing the No. 7, the proposed well, you mentioned you have 3-1/2 inch tubing, and this is borne out, I believe, by Exhibit Number Four; however, Exhibit Number Two states 2-3/8 inch tubing. Which is the size tubing proposed?

A The 2-3/8ths is what's in the well right now, but we do plan to use 3-1/2 inch.

1 Q You'll pull that and install 3-1/2?

2 A Right.

3 Q Now, you estimate you'd inject 3000 bar-  
4 rels per day, but you don't know the pressures. How much  
5 are you injecting into the No. 10 Well at the present time?

6 A It's close to 7000 barrels a day.

7 Q And what kind of pressure do you need to  
8 inject that much?

9 A It's my understanding it's somewhere over  
10 2000 pounds right now.

11 Q Now, on your Exhibit Number Eight, Mr.  
12 Deckert, I'm having a hard time figuring out, here we've  
13 got two columns, it says barrels of water per month allo-  
14 cated to Eaves "A" and Eaves "B-1", then we have total over  
15 here. Those numbers aren't supposed to add up, are they?

16 A I'm not sure what the reason for the dif-  
17 ference there, I'm sorry.

18 Q In some cases there doesn't appear to be  
19 a relationship between the total column and the per month  
20 allocation to each of the two leases.

21 A Well, see, the totals are close, but not  
22 exact.

23 Q It looks like this total out here is 7000  
24 times the number of days in the month, actually.

25 A That's what it would appear.

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
2038 Plaza Blanca, (505) 471-2462  
Santa Fe, New Mexico 87501

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Q Could you determine what the score is on that thing and let us know?

A Yes, I will.

MR. NUTTER: Are there any questions of Mr. Deckert? He may be excused.

Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: That's all, Mr. Nutter, thank you.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 6728?

We'll take the case under advisement.

(Hearing concluded.)

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3038 Plaza Blanca (505) 471-2462  
Santa Fe, New Mexico 87501

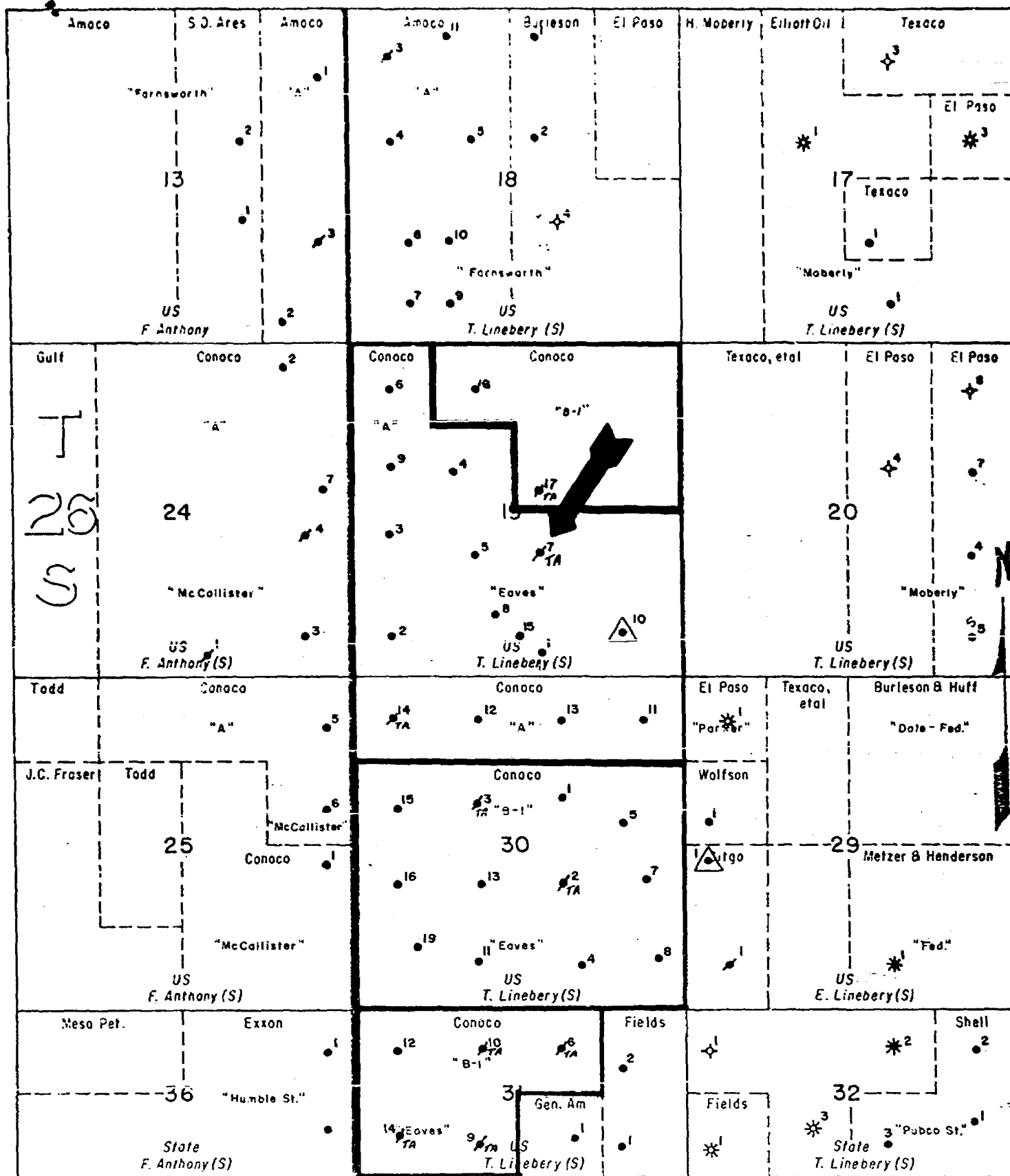
REPORTER CERTIFICATE

I, SALLY W. BOYD, a Certified Shorthand Reporter,  
DO HEREBY CERTIFY that the foregoing and attached Transcript  
of Hearing before the Oil Conservation Division was reported  
by me; that the said transcript is a full, true, and correct  
record of the hearing, prepared by me to the best of my  
ability from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

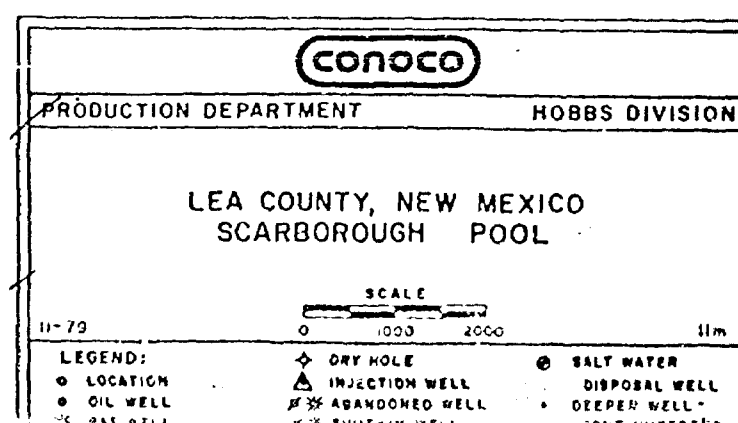
I do hereby certify that the foregoing is  
a complete and correct transcript of the proceedings in  
the Examiner hearing of Case No. 6728,  
heard by me on 11/14, 1979,  
[Signature], Examiner  
Oil Conservation Division

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
2020 Plaza Blanca (S.E.) 471-2482  
Santa Fe, New Mexico 87501



R 36 E

R 37 E



## NEW MEXICO OIL CONSERVATION COMMISSION

## APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Conoco Inc.		ADDRESS P.O. Box 460 - Hobbs, NM 88240			
LEASE NAME Eaves A	WELL NO. 7	FIELD NMFU	COUNTY Lea		
LOCATION UNIT LETTER <u>J</u> ; WELL IS LOCATED <u>1980</u> FEET FROM THE <u>south</u> LINE AND <u>2310</u> FEET FROM THE <u>east</u> LINE. SECTION <u>19</u> TOWNSHIP <u>26S</u> RANGE <u>37E</u> NMPM.					
CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	9 5/8	1159'	465	0	Circulation
INTERMEDIATE					
LONG STRING	7	3215'	740	0	Circulation
TUBING	2 3/8	3076'	NAME, MODEL AND DEPTH OF TUBING PACKER Baker AD-1 Tension Packer 3030'		
NAME OF PROPOSED INJECTION FORMATION Scarborough-Yates Seven Rivers		TOP OF FORMATION 2864'		BOTTOM OF FORMATION 3210' (Open)	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES? perforations		PROPOSED INTERVAL(S) OF INJECTION 3082' - 3210'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil producing		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? yes	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 3206-12: 50 sacks 3174-78: 50 sacks 3142-50: 50 sacks 3110-20: 50 sacks 3192-3200: 50 sacks 3156-68: 50 sacks 3126-36: 50 sacks 3100-06: 50 sacks					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 1100'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBL'S.)	MINIMUM 1000	MAXIMUM 8000	OPEN OR CLOSED TYPE SYSTEM closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure	APPROX. PRESSURE (PSI) 900
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -			WATER TO BE DISPOSED OF yes	NATURAL WATER IN DISPOSAL ZONE yes	ARE WATER ANALYSES ATTACHED?
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Tom & Evelyn Linebery - Box 1536 - Midland, TX 79701					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Texaco Inc. - P.O. Box 728 - Hobbs, NM 88240					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? No					
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) *		ELECTRICAL LOG *These are included in the Exhibits for this case.		DIAGRAMMATIC SKETCH OF WELL	

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

Assistant Division Manager

November 1, 1979

(Signature)

(Title)

(Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

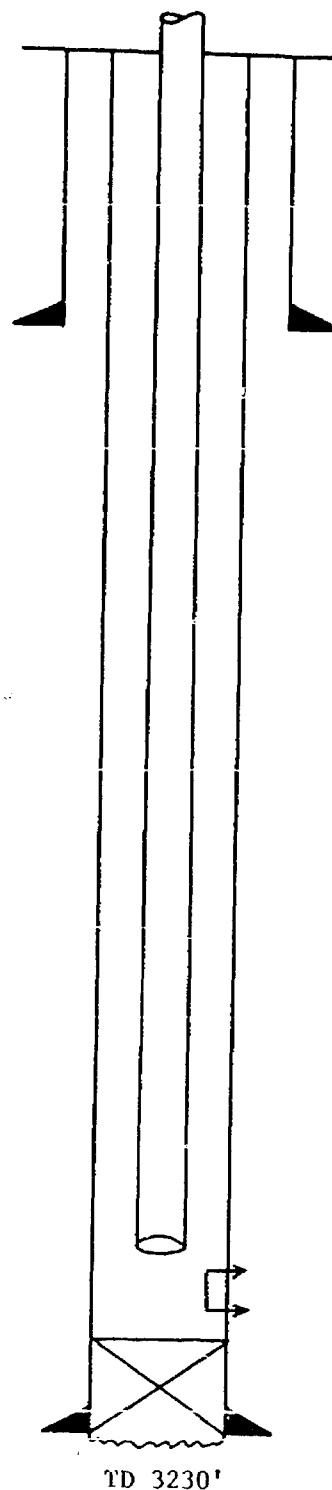
EXHIBIT NO. 2

BEFORE EXAMINER NUTTER  
OIL CONSERVATION DIVISIONConoco Inc. EXHIBIT NO. 2  
CASE NO. 6728

Elevation LF-2954'  
"O" - 10' ALF

Eaves "A" No. 7  
1980' FSL & 2310' FEL  
of Sec. 19, T-26S, R-37E  
Lea County, New Mexico

Completion:  
10-15-50 - Test 9 sets  
of perfs from 3100' to TD.  
Squeezed all off. Perf'd  
3082' - 90' and 3093' - 96'  
w/4 JSPF. Acidized perfs  
w/500 gals acid.  
10-9-61 - Set pumping unit  
6-1-71 - Shut in



1159' - 9 5/8" J-55 casing  
w/465 sx circulated

2995' - 2 3/8" EUE 8rd Tbg 96 jts  
3082' to 3090' w/4 JSPF  
3093' to 3096' w/4 JSPF  
3098' PBTD

3215' - 1" 22# J-55 casing  
w/740 sx circulated

EAVES "A" NO. 7  
(Present Completion)

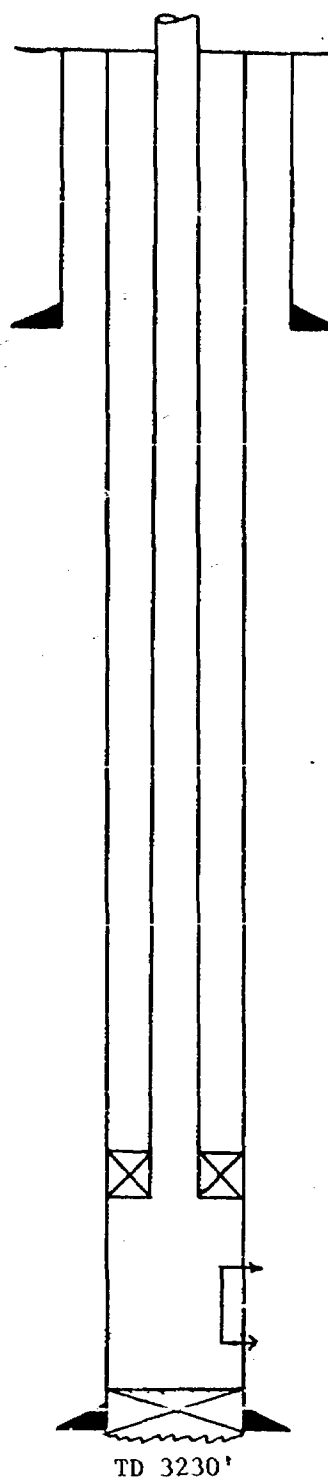


Elevation LF-2954'  
"O" - 10' ALF

Eaves "A" No. 7  
1980' FSL & 2310' FEL  
of Sec. 19, T-26S, R-37E  
Lea County, New Mexico

Completion:

10-15-50 - Test 9 sets of  
perfs from 3100' to TD.  
Squeezed all off. Perf'd  
3082' - 90' and 3093' - 96'  
w/4 JSPF. Acidized perfs  
w/500 gals acid.  
10-9-61 - Set pumping unit  
6-1-71 - Shut in



1159' - 9 5/8" 36# J-55 casing  
w/465 sx circulated

3030' - 3 1/2" EUE 3 rd internally  
coated tubing.

3082' to 3210' w/4 JSPF.

PBD 3212'

3215' - 7" 22# J-55 casing  
w/740 sx circulated

TD 3230'

EAVES "A" NO. 7  
(Proposed Completion)

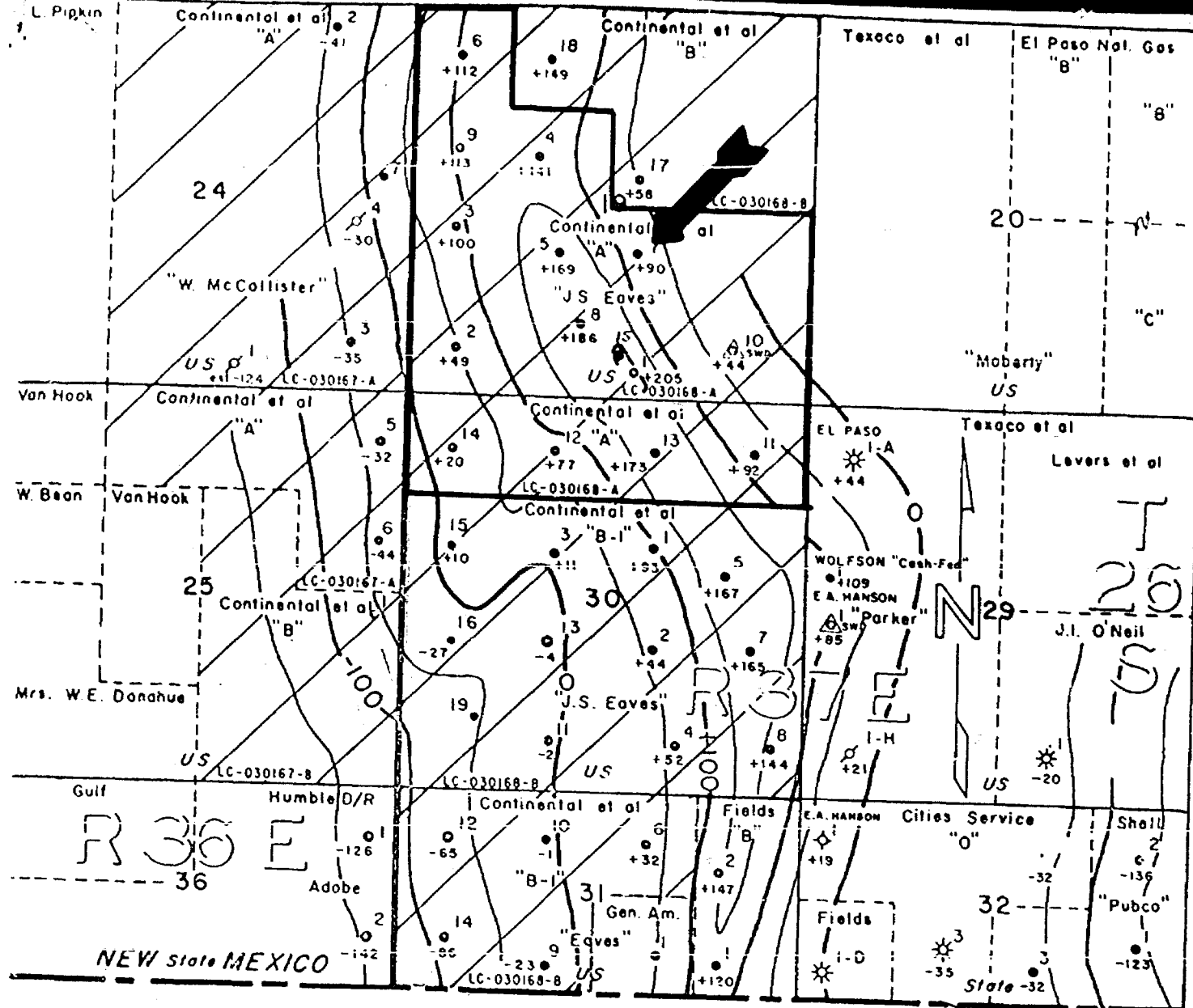
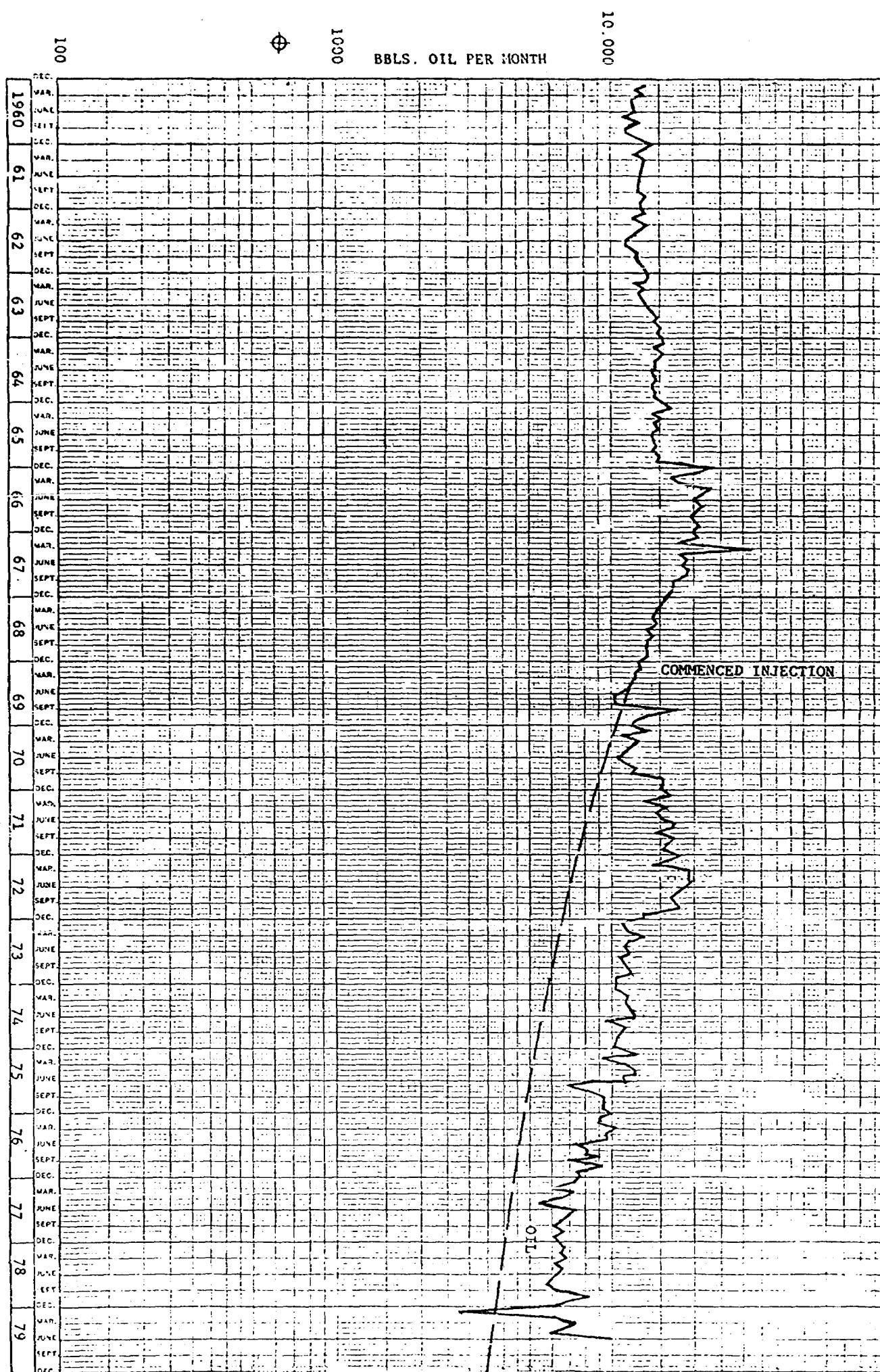


FIGURE II

<b>CONOCO</b>	
PRODUCTION DEPARTMENT	HOBBS DIVISION
LEA COUNTY, NEW MEXICO YATES STRUCTURE MAP CI: 50'	
SCALE 0 1000' 2000'	
EGS 7-70	BY

BEFORE EXAMINER NUTTER  
OIL CONSERVATION DIVISION

Conoco Inc. EXHIBIT NO. 6  
CASE NO. 6728



SCARBOROUGH YATES 7 RIVERS POOL  
CONOCO INC.  
EAVES "A" LEASE

## EAVES "A" PRESSURE MAINTENANCE PROJECT

INJECTION WELL: EAVES "A" NO. 10

YEAR	MONTH	ALLOCATED		TOTAL	BARRELS OF WATER CUMULATIVE INJECTION
		BARRELS WATER PER MONTH EAVES "A"	EAVES "B-1"		
1978	September	113,639	74,828	210,000	14,183,629
1978	October	153,828	66,676	217,000	14,400,629
1978	November	121,482	71,963	210,000	14,610,629
1978	December	112,271	52,013	217,000	14,827,629
1979	January	49,308	91,818	SI 12-78	14,827,629
1979	February	109,261	88,196	196,000	15,023,629
1979	March	132,525	84,892	SI 02-79	15,023,629
1979	April	128,891	76,085	210,000	15,233,629
1979	May	103,413	72,917	217,000	15,450,629
1979	June	168,758	24,697	210,000	15,660,629
1979	July	128,107	70,336	217,000	15,877,629
1979	August	140,626	60,558	217,000	16,094,629
1979	September	137,390	77,473	210,000	16,304,629



Home Office 707 N. Leech, P. O. Box 1499 / Hobbs, NM 88240 / Ph. 505/393-7751, TWX 910/986-0010

Company Conoco

Field Scarborough Yates - 7 Rivers

Lease Eaves A-8, SWD #10 Sampling Date 11-2-79

Type of Sample Pump Discharge

## WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	20.50	410
Magnesium (Mg++)	19.46	234
Sodium (Na+)	(CALCULATED) 102.59	2,359
Iron (Total)		0.31
Bicarbonate (HCO <sub>3</sub> -)	26.19	1,598
Carbonate (CO <sub>3</sub> -)	Not	Found
Hydroxide (OH-)	Not	Found
Sulphate (SO <sub>4</sub> -)	10.24	492
Chloride (Cl-)	106.12	3,763
Total Dissolved Solids		8,855
7.30 pH c 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO <sub>3</sub>	39.96	1,998
Carbonate Hardness as CaCO <sub>3</sub> (temporary)	26.19	1,310
Non-Carbonate Hardness as CaCO <sub>3</sub> (permanent)	13.77	688
Alkalinity as CaCO <sub>3</sub>	26.19	1,310
Specific Gravity c 68° F 1.007		

\* mg/l = milligrams per Liter

\* me/l = milliequivalents per Liter

CaCO<sub>3</sub> S.I. positive @ 86°F (1.17)

CaSO<sub>4</sub> S.I. negative (0.45)

U LAB 31 (REV. 6/78)

BEFORE EXAMINER NUTTER  
OIL CONSERVATION DIVISION

*Conoco Inc.* EXHIBIT NO. 9  
CASE NO. 6728

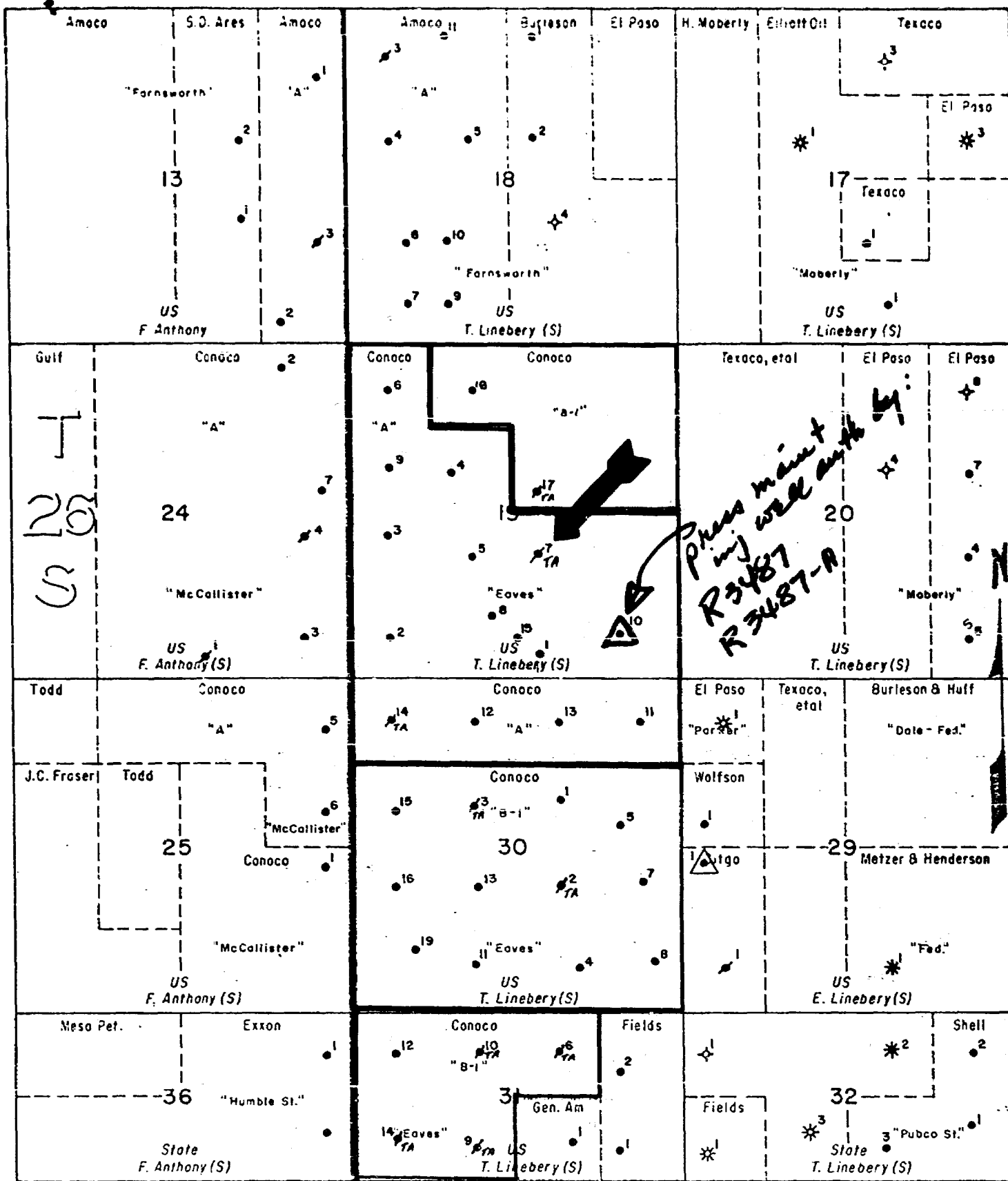
EXHIBIT NO. 9

EAVES "A" PRESSURE MAINTENANCE PROJECT

INJECTION WELL: EAVES "A" NO. 10

<u>YEAR</u>	<u>MONTH</u>	<u>ALLOCATED</u> <u>BARRELS WATER PER MONTH</u>		<u>TOTAL</u>	<u>BARRELS OF WATER</u> <u>CUMULATIVE INJECTION</u>
		<u>EAVES "A"</u>	<u>EAVES "B-1"</u>		
1978	September	113,366	74,829	188,195	15,593,450
1973	October	153,828	66,676	220,504	15,813,954
1973	November	121,482	70,374	191,856	16,005,810
1973	December	108,009	52,013	160,022	16,165,832
1979	January	49,308	91,818	141,126	16,306,958
1979	February	109,261	88,196	197,457	16,504,415
1979	March	132,525	84,892	217,417	16,721,832
1979	April	128,891	76,085	204,976	16,926,808
1979	May	103,413	72,917	176,330	17,103,138
1979	June	168,758	24,697	193,455	17,296,593
1979	July	128,107	70,336	198,443	17,495,036
1979	August	140,626	60,558	201,184	17,696,220
1979	September	137,390	77,473	214,863	17,911,083

BEFORE EXAMINER NUTTER  
OIL CONSERVATION DIVISION  
*Conoco Inc.* EXHIBIT NO. 8  
CASE NO. 6728



R 36 E

R 37 E

REPORT NUMBER  
 CONOCO  
 NO. 6728

**CONOCO**  
 PRODUCTION DEPARTMENT HOBBS DIVISION  
 LEA COUNTY, NEW MEXICO  
 SCARBOROUGH POOL  
 SCALE  
 LEGEND:  
 ○ LOCATION  
 ● OIL WELL  
 ★ SALT WATER DISPOSAL WELL  
 ▲ INJECTION WELL  
 ✕ ABANDONED WELL  
 ✖ SHUT-IN WELL

NEW MEXICO OIL CONSERVATION COMMISSION  
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR <b>Conoco Inc.</b>		ADDRESS <b>P.O. Box 460 - Hobbs, NM 88240</b>	
LEASE NAME <b>Eaves A</b>	WELL NO. <b>7</b>	FIELD <b>NMPU</b>	COUNTY <b>Lea</b>
LOCATION UNIT LETTER <b>J</b> WELL IS LOCATED <b>1980</b> FEET FROM THE <b>south</b> LINE AND <b>2310</b> FEET FROM THE <b>east</b> LINE. SECTION <b>19</b> TOWNSHIP <b>26S</b> RANGE <b>37E</b> NMPM.			
CASING AND TUBING DATA			
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT
SURFACE CASING	<b>9 5/8</b>	<b>1159'</b>	<b>465</b>
INTERMEDIATE			
LONG STRING	<b>7</b>	<b>3215'</b>	<b>740</b>
TUBING	<b>2 3/8</b>	<b>3076'</b>	
NAME OF PROPOSED INJECTION FORMATION <b>Scarborough-Yates Seven Rivers</b>		NAME, MODEL AND DEPTH OF TUBING PACKER <b>Baker AD-1 Tension Packer 3030'</b>	
TOP OF FORMATION <b>2864'</b>		BOTTOM OF FORMATION <b>3210' (Open)</b>	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>Tubing</b>		PERFORATIONS OR OPEN HOLE? <b>perforations</b>	
PROPOSED INTERVAL(S) OF INJECTION <b>3082' - 3210'</b>			
IS THIS A NEW WELL DRILLED FOR DISPOSAL? <b>No</b>	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? <b>Oil producing</b>		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>yes</b>
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH			
<b>3206-12: 50 sacks 3174-78: 50 sacks 3142-50: 50 sacks 3110-20: 50 sacks</b>			
<b>3122-3200: 50 sacks 3156-68: 50 sacks 3126-36: 50 sacks 3100-06: 50 sacks</b>			
DEPTH OF BOTTOM OF OFFSET FRESH WATER ZONE IN THIS AREA <b>1100'</b>		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA <b>None</b>	
ANTICIPATED DAILY INJECTION VOLUME (BBL/S.) <b>1000</b>	MAXIMUM <b>8000</b>	OPEN OR CLOSED TYPE SYSTEM <b>closed</b>	IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>pressure</b>
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - <b>yes</b>		NATURAL WATER IN DISPOSAL ZONE <b>yes</b>	
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) <b>Tom &amp; Evelyn Linebery - Box 1536 - Midland, TX 79701</b>		APPROX. PRESSURE (PSI) <b>900</b>	
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL			
<b>Texaco Inc. - P.O. Box 728 - Hobbs, NM 88240</b>			
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?			
SURFACE OWNER <b>No</b>		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL <b>No</b>	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) <b>*</b>		ELECTRICAL LOG <b>No</b>	
PLAT OF AREA <b>*These are included in the Exhibits for this case.</b>		DIAGRAMMATIC SKETCH OF WELL	

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

(Signature) Assistant Division Manager (Title) November 1, 1979 (Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

EXHIBIT NO. 2

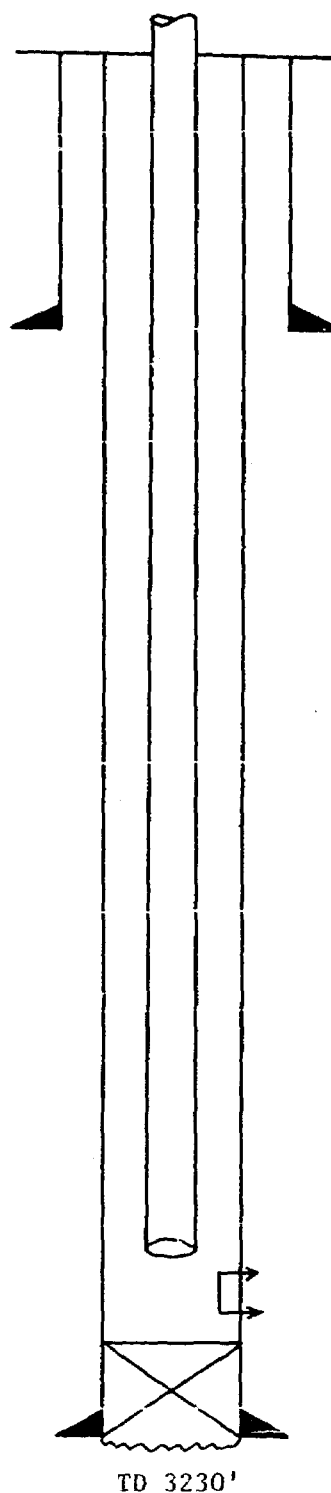
BEFORE EXAMINER NUTTER  
OIL CONSERVATION DIVISION  
Conoco Inc. EXHIBIT NO. 2  
CASE NO. 6728



Elevation LF-2954'  
"0" - 10' ALF

Eaves "A" No. 7  
1980' FSL & 2310' FEL  
of Sec. 19, T-26S, R-37E  
Lea County, New Mexico

Completion:  
10-15-50 - Test 9 sets  
of perfs from 3100' to TD.  
Squeezed all off. Perf'd  
3082' - 90' and 3093' - 96'  
w/4 JSPF. Acidized perfs  
w/500 gals acid.  
10-9-61 - Set pumping unit  
6-1-71 - Shut in



1159' - 9 5/8" J-55 casing  
w/465 sx circulated

2995' - 2 3/8" EUE 8rd Tbg 96 jts  
3082' to 3090' w/4 JSPF  
3093' to 3096' w/4 JSPF  
3098' PBD

3215' - 7" 22# J-55 casing  
w/740 sx circulated

EAVES "A" NO. 7  
(Present Completion)

Elevation LF-2954'  
"0" - 10' ALF

Eaves "A" No. 7  
1980' FSL & 2310' FEL  
of Sec. 19, T-26S, R-37E  
Lea County, New Mexico

**Completion:**

10-15-50 - Test 9 sets of  
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Squeezed all off. Perf'd  
3082' - 90' and 3093' - 96'  
w/4 JSPF. Acidized perfs  
w/500 gals acid.  
10-9-61 - Set pumping unit  
6-1-71 - Shut in

1159' - 9 5/8" 36# J-55 casing  
w/465 sx circulated

Will my  
3000 BPD  
does not know  
pressure

1157 970 307 3-55 casing  
w/465 sx circulated

2 inert  
fluid  
presently in about  
7000 BPD;  
injecting 2000  
2000 psi into  
#10

3030' - 3 1/2" EUE 8 rd internally  
coated tubing.



3082' to 3210' w/4 JSPF

PBD 32129

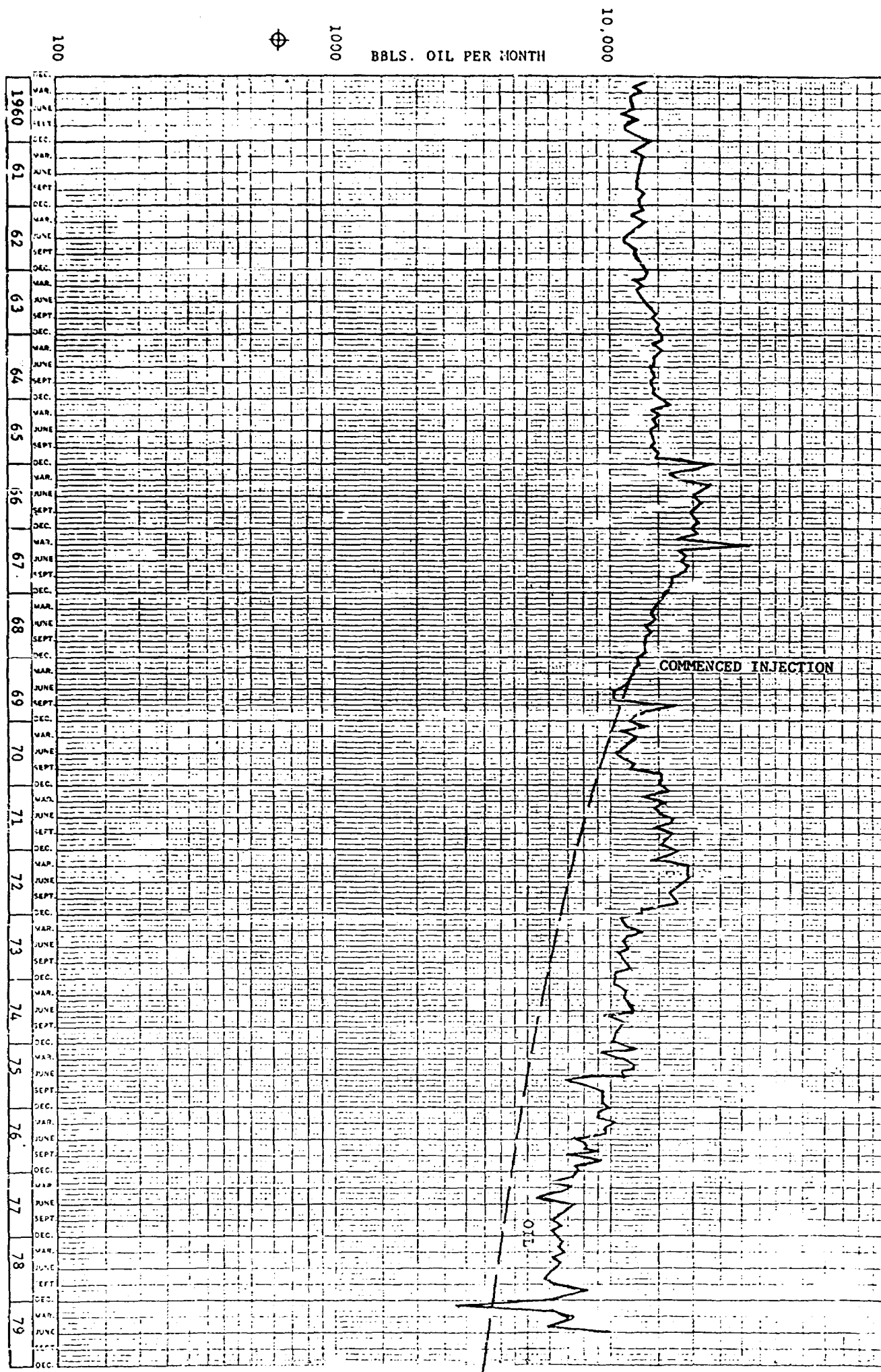
3215' - 7" 22# J-55 casing  
w/740 sx circulated

TD 3230'

EAVES "A" NO. 7  
(Proposed Completion)

	
PRODUCTION DEPARTMENT	HOBBS DIVISION
LEA COUNTY, NEW MEXICO YATES STRUCTURE MAP CI: 50'	
	
EGS 7-70	67

Conoco Inc. EXHIBIT NO. 6  
CASE NO. 6728



SCARBOROUGH VALLEY 7 RIVERS POOL  
CONOCO INC.  
EAVES "A" LEASE

EAVES "A" PRESSURE MAINTENANCE PROJECTINJECTION WELL: EAVES "A" NO. 10

<u>YEAR</u>	<u>MONTH</u>	<u>ALLOCATED</u> <u>BARRELS WATER PER MONTH</u>		<u>TOTAL</u>	<u>BARRELS OF WATER</u> <u>CUMULATIVE INJECTION</u>
		<u>EAVES "A"</u>	<u>EAVES "B-1"</u>		
1978	September	113,639	74,828	210,000	14,183,629
1978	October	153,828	66,676	217,000	14,400,629
1978	November	121,482	71,963	210,000	14,610,629
1978	December	112,271	52,013	217,000	14,827,629
1979	January	49,308	91,818	SI 12-78	14,827,629
1979	February	109,261	88,196	196,000	15,023,629
1979	March	132,525	84,892	SI 02-79	15,023,629
1979	April	128,891	76,085	210,000	15,233,629
1979	May	103,413	72,917	217,000	15,450,629
1979	June	168,758	24,697	210,000	15,660,629
1979	July	128,107	70,336	217,000	15,877,629
1979	August	140,626	60,558	217,000	16,094,629
1979	September	137,390	77,473	210,000	16,304,629



Home Office 707 N. Leech, P. O. Box 1499 / Hobbs, NM 88249 / Ph. 505/393-7751, TWX 910/986-0010

Company Conoco  
Field Scarborough Yates - 7 Rivers  
Lease Eaves A-B, SWD #10 Sampling Date 11-2-79  
Type of Sample Pump Discharge

## WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	20.50	410
Magnesium (Mg++)	19.46	234
Sodium (Na+) (CALCULATED)	102.59	2,359
Iron (Total)		0.31
Bicarbonate (HCO <sub>3</sub> -)	26.19	1,598
Carbonate (CO <sub>3</sub> -)	Not	Found
Hydroxide (OH-)	Not	Found
Sulphate (SO <sub>4</sub> -)	10.24	492
Chloride (Cl-)	106.12	3,763
Total Dissolved Solids		8,855
7.30 pH c 68° F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO <sub>3</sub>	39.96	1,998
Carbonate Hardness as CaCO <sub>3</sub> (temporary)	26.19	1,310
Non-Carbonate Hardness as CaCO <sub>3</sub> (permanent)	13.77	688
Alkalinity as CaCO <sub>3</sub>	26.19	1,310
Specific Gravity c 68° F 1.007		

\* mg/l = milligrams per Liter

\* me/l = milliequivalents per Liter

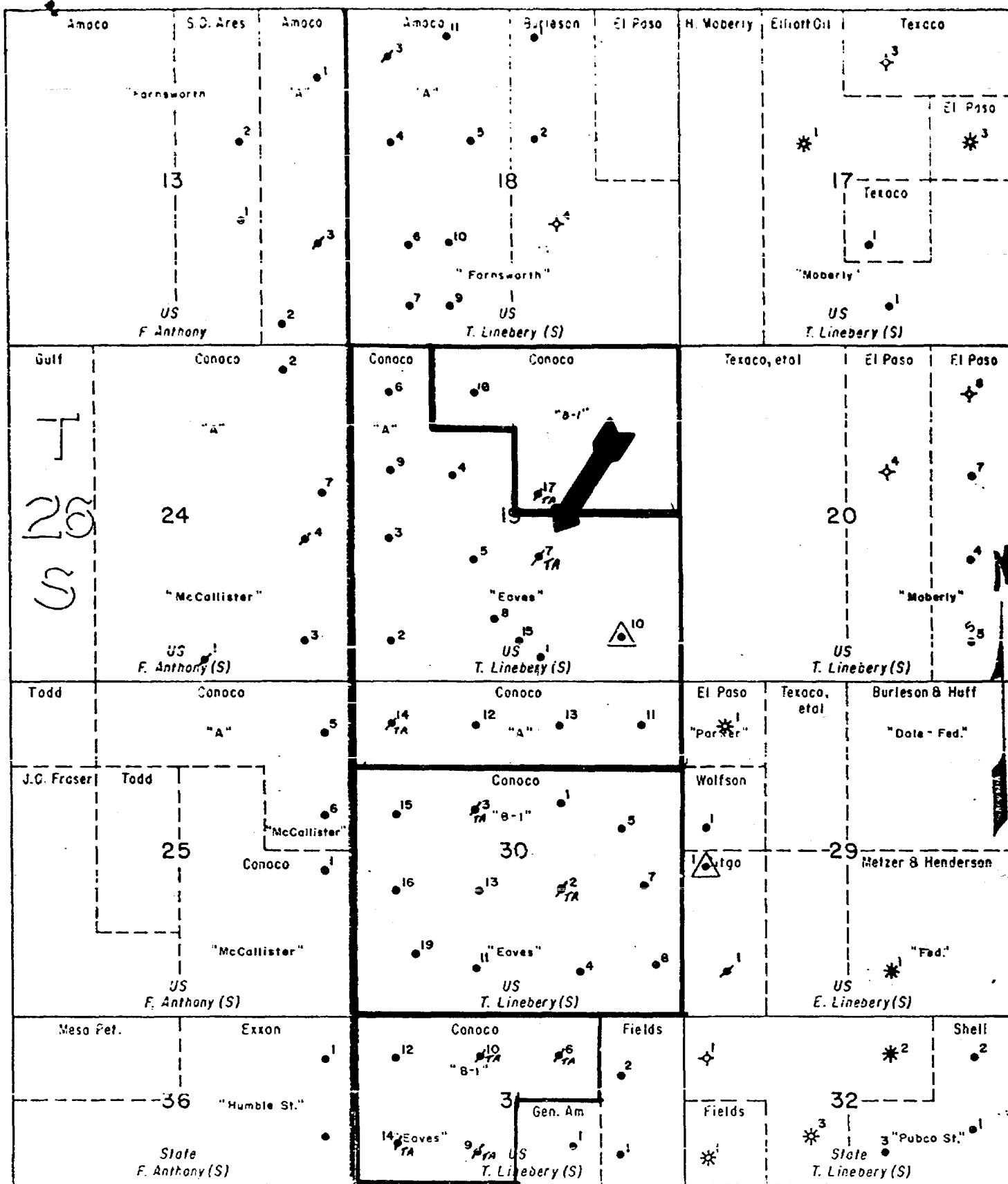
CaCO<sub>3</sub> S.I. positive @ 86°F (1.17)

CaSO<sub>4</sub> S.I. negative (0.45)

U-LAB 31 (REV. 6/78)

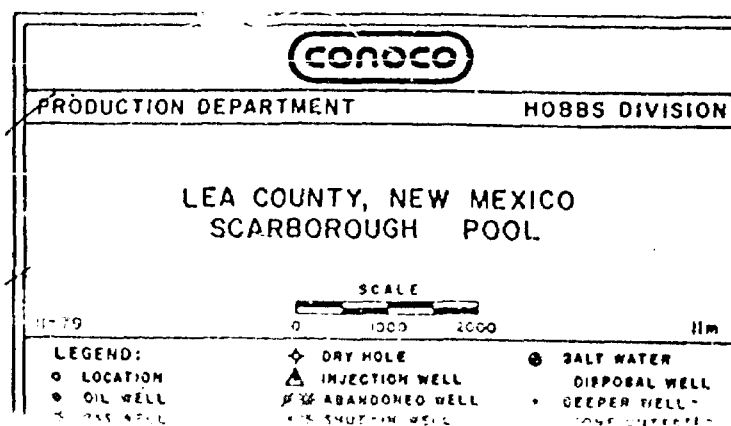
BEFORE EXAMINER NUTTER  
OIL CONSERVATION DIVISION

*Conoco Inc.* EXHIBIT NO. 9  
CASE NO. 6728



R 36 E

R 37 E



NEW MEXICO OIL CONSERVATION COMMISSION  
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Conoco Inc.		ADDRESS P.O. Box 460 - Hobbs, NM 88240			
LEASE NAME Eaves A		WELL NO. 7	FIELD NMFU		COUNTY Lea
LOCATION UNIT LETTER <u>J</u> WELL IS LOCATED <u>1980</u> FEET FROM THE <u>south</u> LINE AND <u>2310</u> FEET FROM THE <u>east</u> LINE, SECTION <u>19</u> TOWNSHIP <u>26S</u> RANGE <u>37E</u> NMPM.					
CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	9 5/8	1159'	465	0	Circulation
INTERMEDIATE					
LONG STRING	7	3215'	740	0	Circulation
TUBING	2 3/8	3076'	NAME, MODEL AND DEPTH OF TUBING PACKER Baker AD-1 Tension Packer 3030'		
NAME OF PROPOSED INJECTION FORMATION Scarborough-Yates Seven Rivers			TOP OF FORMATION 2864'		BOTTOM OF FORMATION 3210' (Open)
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLE? perforations		PROPOSED INTERVAL(S) OF INJECTION 3082' - 3210'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil producing		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? yes	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH					
3206-12: 50 sacks 3174-78: 50 sacks 3142-50: 50 sacks 3110-20: 50 sacks					
3192-3200: 50 sacks 3156-68: 50 sacks 3126-36: 50 sacks 3100-06: 50 sacks					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 1100'		DEPTH OF TOP OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBL/S.) 1000		MAXIMUM 8000		OPEN OR CLOSED TYPE SYSTEM closed	
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -		WATER TO BE DISPOSED OF yes		IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure	
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Tom & Evelyn Linebery - Box 1536 - Midland, TX 79701		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL No		APPROX. PRESSURE (PSI) 900	
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Texaco Inc. - P.O. Box 728 - Hobbs, NM 88240		ELECTRICAL LOG No		NATURAL WATER IN DISPOSAL ZONE yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) *		PLAY OF AREA *These are included in the Exhibits for this case.		DIAGRAMMATIC SKETCH OF WELL	

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

Assistant Division Manager

November 1, 1979

(Signature)

(Title)

(Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

EXHIBIT NO. 2

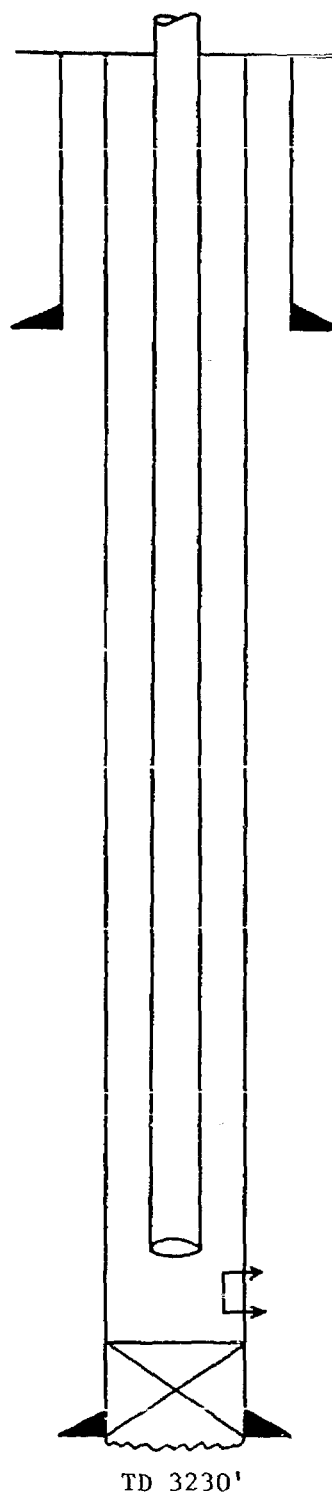
BEFORE EXAMINER NUTTER  
OIL CONSERVATION DIVISIONConoco Inc. EXHIBIT NO. 2  
CASE NO. 6728



Elevation LF-2954'  
"O" - 10' ALF

Eaves "A" No. 7  
1980' FSL & 2310' FEL  
of Sec. 19, T-26S, R-37E  
Lea County, New Mexico

Completion:  
10-15-50 - Test 9 sets  
of perfs from 3100' to TD.  
Squeezed all off. Perf'd  
3082' - 90' and 3093' - 96'  
w/4 JSPF. Acidized perfs  
w/500 gals acid.  
10-9-61 - Set pumping unit  
6-1-71 - Shut in



1159' - 9 5/8" J-55 casing  
w/465 sx circulated

2995' - 2 3/8" EUE 8rd Tbg 96 jts  
3082' to 3090' w/4 JSPF  
3093' to 3096' w/4 JSPF  
3098' PBTD

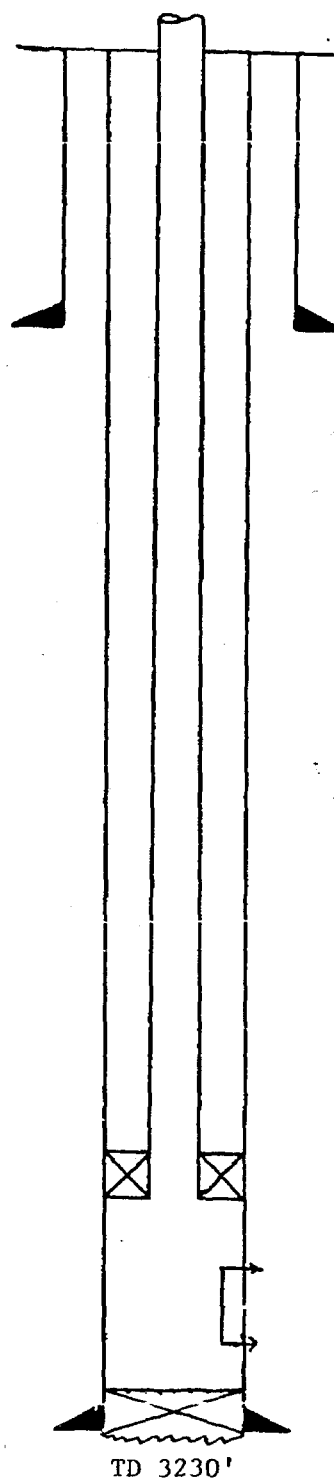
3215' - 7" 22# J-55 casing  
w/740 sx circulated

EAVES "A" NO. 7  
(Present Completion)

Elevation LF-2954'  
"O" - 10' ALF

Eaves "A" No. 7  
1980' FSL & 2310' FEL  
of Sec. 19, T-26S, R-37E  
Lea County, New Mexico

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10-15-50 - Test 9 sets of  
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w/500 gals acid.  
10-9-61 - Set pumping unit  
6-1-71 - Shut in



1159' - 9 5/8" 36# J-55 casing  
w/465 sx circulated

3030' - 3 1/2" EUE 8 rd internally  
coated tubing.

3082' to 3210' w/4 JSPF

PBD 3212'

3215' - 7" 22# J-55 casing  
w/740 sx circulated

TD 3230'

EAVES "A" NO. 7  
(Proposed Completion)

CONOCO

PRODUCTION DEPARTMENT      HOBBS DIVISION

LEA COUNTY, NEW MEXICO

YATES STRUCTURE MAP

CI: 50'

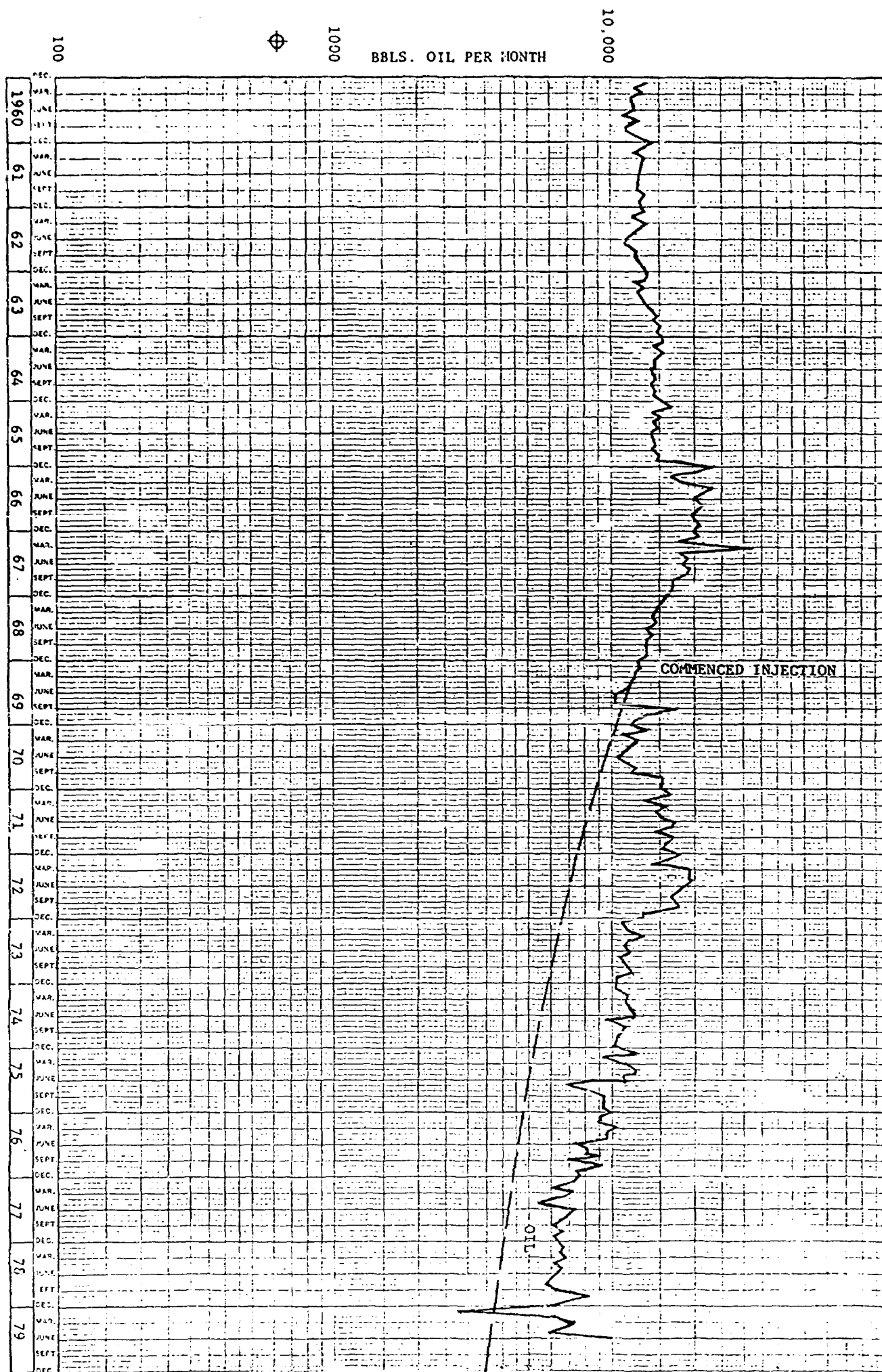
SCALE

0'      1000'      2000'

EGS 7-70

EFW

Conoco Inc. EXHIBIT NO. 6  
CASE NO. 6728



SCARBOROUGH YATES 7 RIVERS POOL  
CONOCO INC.  
EAVES "A" LEASE

## EAVES "A" PRESSURE MAINTENANCE PROJECT

INJECTION WELL: EAVES "A" NO. 10

YEAR	MONTH	ALLOCATED BARRELS WATER PER MONTH		TOTAL	BARRELS OF WATER CUMULATIVE INJECTION
		EAVES "A"	EAVES "B-1"		
1978	September	113,639	74,828	210,000	14,183,629
1978	October	153,828	66,676	217,000	14,400,629
1978	November	121,482	71,963	210,000	14,610,629
1978	December	112,271	52,013	217,000	14,827,629
1979	January	49,308	91,818	SI 12-78	14,827,629
1979	February	109,261	88,196	196,000	15,023,629
1979	March	132,525	84,892	SI 02-79	15,023,629
1979	April	128,891	76,085	210,000	15,233,629
1979	May	103,413	72,917	217,000	15,450,629
1979	June	168,758	24,697	210,000	15,660,629
1979	July	128,107	70,336	217,000	15,877,629
1979	August	140,626	60,558	217,000	16,094,629
1979	September	137,390	77,473	210,000	16,304,629



Home Office 707 N. Leech, P. O. Box 1499 / Hobbs, NM 88240 / Ph. 505/393-7751, TWX 910/986-0010

Company Conoco  
 Field Scarborough Yates - 7 Rivers  
 Lease Eaves A-B, SWD #10 Sampling Date 11-2-79  
 Type of Sample Pump Discharge

## WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	20.50	410
Magnesium (Mg++)	19.46	234
Sodium (Na+) (CALCULATED)	102.59	2,359
Iron (Total)		0.31
Bicarbonate (HCO <sub>3</sub> -)	26.19	1,598
Carbonate (CO <sub>3</sub> -)	Not	Found
Hydroxide (OH-)	Not	Found
Sulphate (SO <sub>4</sub> -)	10.24	492
Chloride (Cl-)	106.12	3,763
Total Dissolved Solids		8,855
7.30 pH c 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO <sub>3</sub>	39.96	1,998
Carbonate Hardness as CaCO <sub>3</sub> (temporary)	26.19	1,310
Non-Carbonate Hardness as CaCO <sub>3</sub> (permanent)	13.77	688
Alkalinity as CaCO <sub>3</sub>	26.19	1,310
Specific Gravity c 68° F 1.007		

\* mg/l = milligrams per liter

\* me/l = milliequivalents per liter

CaCO<sub>3</sub> S.I. positive @ 86°F (1.17)

CaSO<sub>4</sub> S.I. negative (0.45)

U-LAB 31 (REV. 6/78)

BEFORE EXAMINER NUTTER	
OIL CONSERVATION DIVISION	
Conoco Inc.	EXHIBIT NO. 9
CASE NO. 6728	

EXHIBIT NO. 9

EAVES "A" PRESSURE MAINTENANCE PROJECTINJECTION WELL: EAVES "A" NO. 10

<u>YEAR</u>	<u>MONTH</u>	<u>ALLOCATED</u>		<u>TOTAL</u>	<u>BARRELS OF WATER CUMULATIVE INJECTION</u>
		<u>BARRELS WATER PER MONTH EAVES "A"</u>	<u>EAVES "B-1"</u>		
1978	September	113,366	74,829	188,195	15,593,450
1978	October	153,828	66,676	220,504	15,813,954
1978	November	121,482	70,374	191,856	16,005,810
1978	December	108,009	52,013	160,022	16,165,832
1979	January	49,308	91,818	141,126	16,306,958
1979	February	109,261	88,196	197,457	16,504,415
1979	March	132,525	84,892	217,417	16,721,832
1979	April	128,891	76,085	204,976	16,926,808
1979	May	103,413	72,917	176,330	17,103,138
1979	June	168,758	24,697	193,455	17,296,593
1979	July	128,107	70,336	198,443	17,495,036
1979	August	140,626	60,558	201,184	17,696,220
1979	September	137,390	77,473	214,863	17,911,083

BEFORE EXAMINER NUTTER  
OIL CONSERVATION DIVISION

*Conoco Inc.* EXHIBIT NO. 8  
CASE NO. 6728



Production Department  
Hobbs Division  
Western Hemisphere Petroleum Division

Conoco Inc.  
P. O. Box 480  
1001 North Turner  
Hobbs, NM 88240  
(505) 393-4141

November 20, 1979

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

Attention Mr. Dan Nutter

Gentlemen:

Case No. 6728 - Examiner Hearing November 14, 1979 - Eaves "A" Well No. 7

In reference to the above-named examiner hearing, we are forwarding three copies of corrected Exhibit No. 8. The exhibit you now have shows a "total" injected volume based on an estimated 7,000 barrels per month. The attached correction shows actual volumes and should replace the previous exhibit.

I am sorry for any inconvenience this might have caused. Should there be any questions concerning this corrected exhibit, I would appreciate a call.

Very truly yours,

H. A. Ingram  
Conservation Coordinator

rej  
Enc



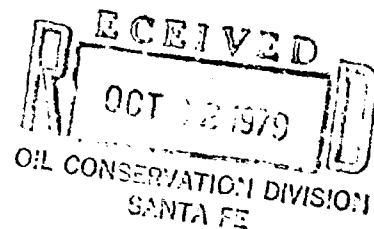
EAVES "A" PRESSURE MAINTENANCE PROJECTINJECTION WELL: EAVES "A" NO. 10

<u>YEAR</u>	<u>MONTH</u>	<u>ALLOCATED</u>		<u>TOTAL</u>	<u>BARRELS OF WATER CUMULATIVE INJECTION</u>
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BEFORE EXAMINER NUTTER  
OIL CONSERVATION DIVISION  
*Conoco Inc.* EXHIBIT NO. 8  
CASE NO. 6728

BEFORE THE OIL CONSERVATION DIVISION  
ENERGY AND MINERALS DEPARTMENT  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF  
CONOCO INC. FOR APPROVAL TO CONVERT  
THEIR EAVES "A" WELL NO. 7, LOCATED  
1980' FSL AND 2310' FEL OF SECTION  
19, T-26S, R-37E, LEA COUNTY, NEW  
MEXICO, FROM A TEMPORARY SHUT-IN OIL  
WELL TO A PRESSURE MAINTENANCE PROJECT  
WELL IN THE SCARBOROUGH YATES SEVEN  
RIVERS POOL



*Case 6728*

A P P L I C A T I O N

Applicant, CONOCO INC., respectfully requests approval to convert its Eaves "A" Well No. 7 from a temporary shut-in oil well to a pressure maintenance project well in the Scarborough Yates Seven Rivers Pool, such well being located in Unit J, 1980' FSL and 2310' FEL of Section 19, T-26S, R-37E, Lea County, New Mexico, and in support thereof will show:

1. Applicant is operator and co-owner of the Eaves "A" Lease consisting of the S/2, S/2 NW/4, NW/4 NW/4 Section 19, and N/2 N/2 Section 30, T-26S, R-36E, Lea County, New Mexico.

2. That the Eaves "A" Well No. 7 was drilled and completed as a producing oil well in the Scarborough Yates Seven Rivers Pool in September 1950.

3. That after producing 274,320 barrels of oil, the well declined below the economic limit and last produced in September 1973, and since October 1973, has been classified as a shut-in oil well, with no remedial or recompletion prospects.

4. That Order Nos. R-3487 and R-3487-A approved the conversion of the Eaves "A" Well No. 10, located in Unit P of Section 19, T-26S, R-37E, Lea County, New Mexico, to a pressure maintenance well, and that injection pressures in that well have increases such that a second injection well is needed.

5. That the proposed conversion is in the best interest of conservation and should result in greater ultimate recovery of oil, thereby preventing waste.

6. That granting this application will not impair correlative rights of any party.

Application  
Eaves A No. 7  
October 19, 1979

WHEREFORE, applicant respectfully requests this application be set for hearing before the Division's duly appointed Examiner and, upon hearing, an order be entered authorizing the conversion of the Eaves "A" Well No. 7 to a pressure maintenance project injection well.

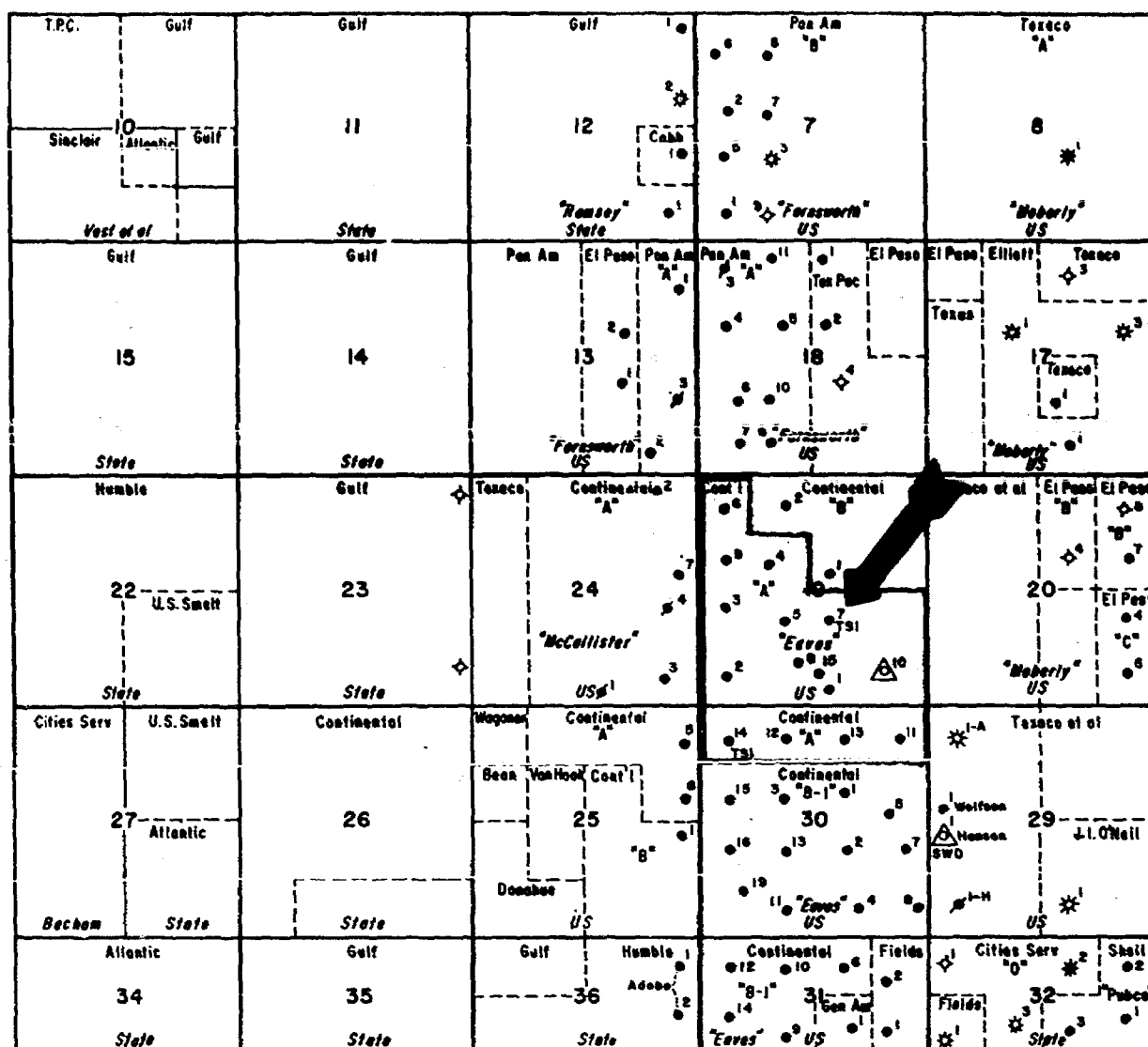
Respectfully submitted,

CONOCO INC.

By John R. Kemp  
JOHN R. KEMP  
Assistant Division Manager  
of Production  
Hobbs Division

HAI:rej

R37E

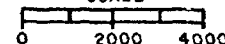


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26  
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PRODUCTION DEPARTMENT - HOBBS DIVISION

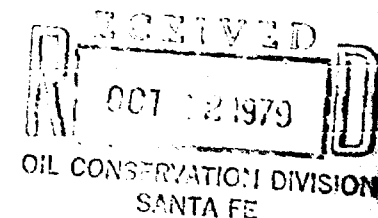
SCARBOROUGH POOL  
LEA COUNTY, NEW MEXICO

SCALE



BEFORE THE OIL CONSERVATION DIVISION  
ENERGY AND MINERALS DEPARTMENT  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF  
CONOCO INC. FOR APPROVAL TO CONVERT  
THEIR EAVES "A" WELL NO. 7, LOCATED  
1980' FSL AND 2310' FEL OF SECTION  
19, T-26S, R-37E, LEA COUNTY, NEW  
MEXICO, FROM A TEMPORARY SHUT-IN OIL  
WELL TO A PRESSURE MAINTENANCE PROJECT  
WELL IN THE SCARBOROUGH YATES SEVEN  
RIVERS POOL



Case 6728

A P P L I C A T I O N

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1. Applicant is operator and co-owner of the Eaves "A" Lease consisting of the S/2, S/2 NW/4, NW/4 NW/4 Section 19, and N/2 N/2 Section 30, T-26S, R-36E, Lea County, New Mexico.
2. That the Eaves "A" Well No. 7 was drilled and completed as a producing oil well in the Scarborough Yates Seven Rivers Pool in September 1950.
3. That after producing 274,320 barrels of oil, the well declined below the economic limit and last produced in September 1973, and since October 1973, has been classified as a shut-in oil well, with no remedial or recompletion prospects.
4. That Order Nos. R-3487 and R-3487-A approved the conversion of the Eaves "A" Well No. 10, located in Unit P of Section 19, T-26S, R-37E, Lea County, New Mexico, to a pressure maintenance well, and that injection pressures in that well have increases such that a second injection well is needed.
5. That the proposed conversion is in the best interest of conservation and should result in greater ultimate recovery of oil, thereby preventing waste.
6. That granting this application will not impair correlative rights of any party.

Application  
Eaves A No. 7  
October 19, 1979

WHEREFORE, applicant respectfully requests this application be set for hearing before the Division's duly appointed Examiner and, upon hearing, an order be entered authorizing the conversion of the Eaves "A" Well No. 7 to a pressure maintenance project injection well.

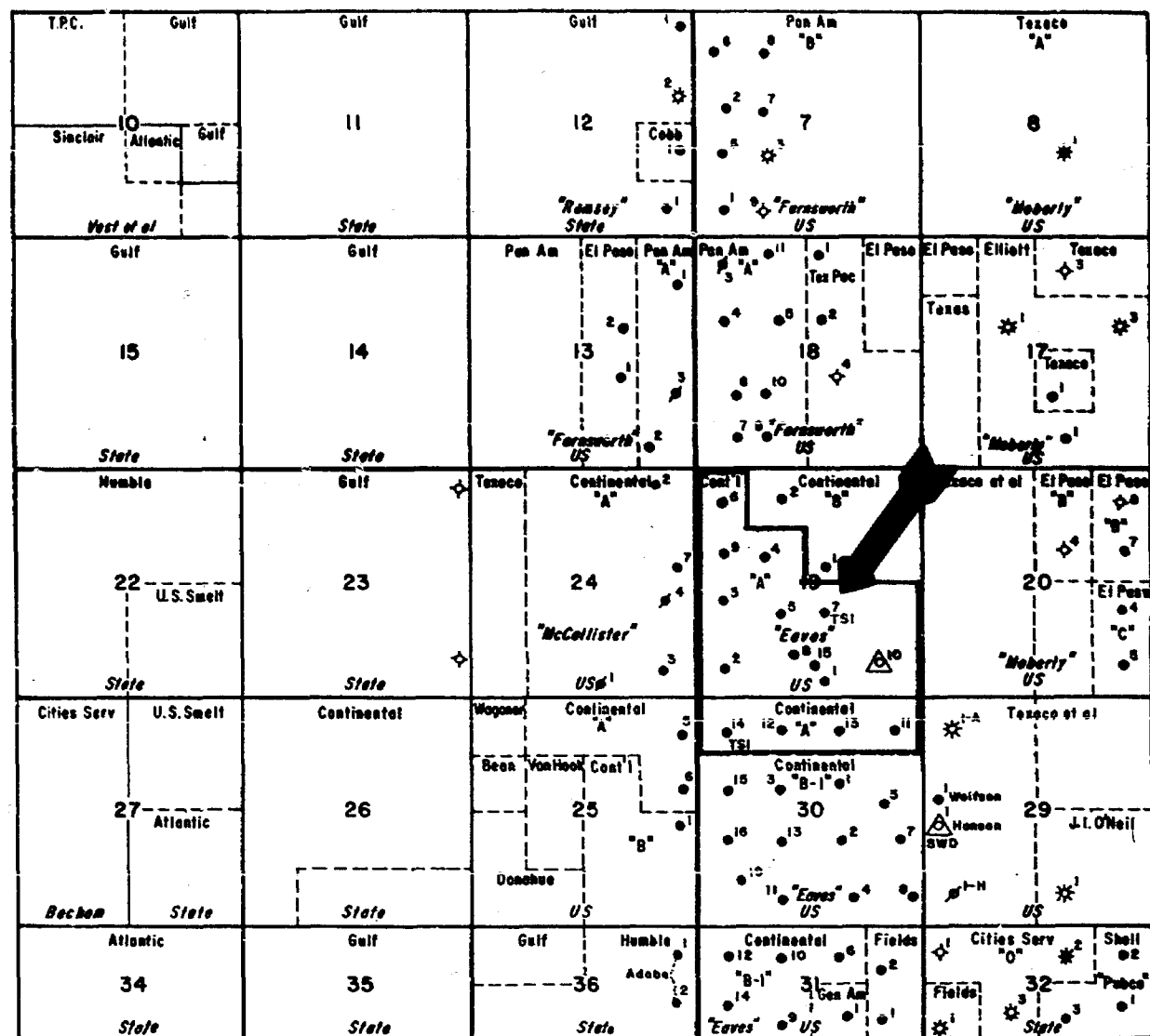
Respectfully submitted,

CONOCO INC.

By John R. Kemp  
JOHN R. KEMP  
Assistant Division Manager  
of Production  
Hobbs Division

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# CONTINENTAL OIL COMPANY

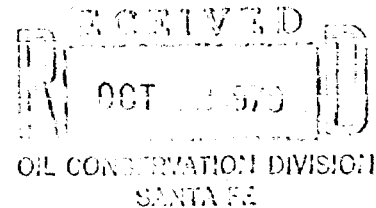
## PRODUCTION DEPARTMENT—HOBBS DIVISION

SCARBOROUGH POOL  
LEA COUNTY, NEW MEXICO

SCALE  
0 2000 4000

BEFORE THE OIL CONSERVATION DIVISION  
ENERGY AND MINERALS DEPARTMENT  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF  
CONOCO INC. FOR APPROVAL TO CONVERT  
THEIR EAVES "A" WELL NO. 7, LOCATED  
1980' FSL AND 2310' FEL OF SECTION  
19, T-26S, R-37E, LEA COUNTY, NEW  
MEXICO, FROM A TEMPORARY SHUT-IN OIL  
WELL TO A PRESSURE MAINTENANCE PROJECT  
WELL IN THE SCARBOROUGH YATES SEVEN  
RIVERS POOL



Case 6728

A P P L I C A T I O N

Applicant, CONOCO INC., respectfully requests approval to convert its Eaves "A" Well No. 7 from a temporary shut-in oil well to a pressure maintenance project well in the Scarborough Yates Seven Rivers Pool, such well being located in Unit J, 1980' FSL and 2310' FEL of Section 19, T-26S, R-37E, Lea County, New Mexico, and in support thereof will show:

1. Applicant is operator and co-owner of the Eaves "A" Lease consisting of the S/2, S/2 NW/4, NW/4 NW/4 Section 19, and N/2 N/2 Section 30, T-26S, R-36E, Lea County, New Mexico.

2. That the Eaves "A" Well No. 7 was drilled and completed as a producing oil well in the Scarborough Yates Seven Rivers Pool in September 1950.

3. That after producing 274,320 barrels of oil, the well declined below the economic limit and last produced in September 1973, and since October 1973, has been classified as a shut-in oil well, with no remedial or recompletion prospects.

4. That Order Nos. R-3487 and R-3487-A approved the conversion of the Eaves "A" Well No. 10, located in Unit P of Section 19, T-26S, R-37E, Lea County, New Mexico, to a pressure maintenance well, and that injection pressures in that well have increases such that a second injection well is needed.

5. That the proposed conversion is in the best interest of conservation and should result in greater ultimate recovery of oil, thereby preventing waste.

6. That granting this application will not impair correlative rights of any party.



Application  
Eaves A No. 7  
October 19, 1979

WHEREFORE, applicant respectfully requests this application be set for hearing before the Division's duly appointed Examiner and, upon hearing, an order be entered authorizing the conversion of the Eaves "A" Well No. 7 to a pressure maintenance project injection well.

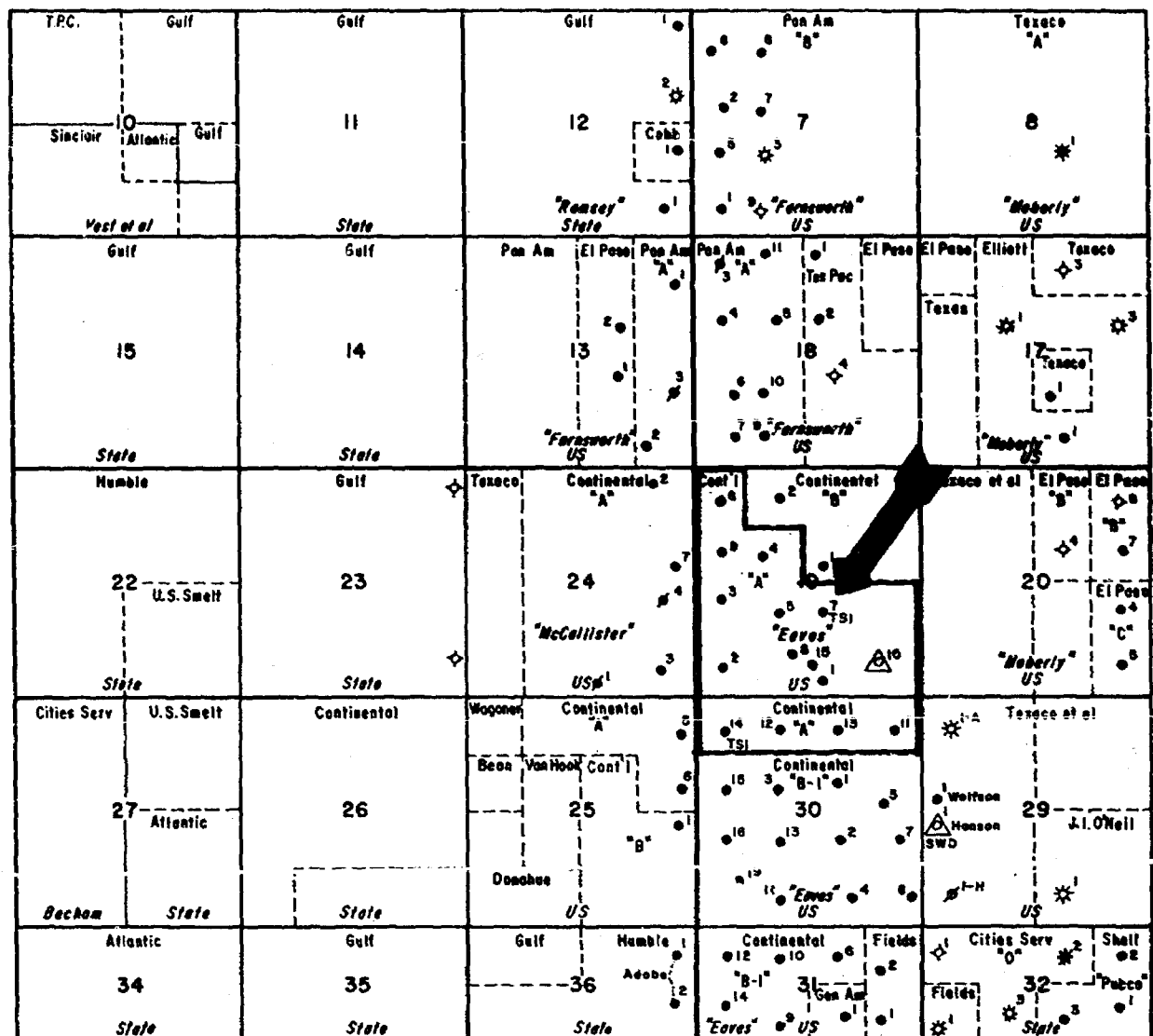
Respectfully submitted,

CONOCO INC.

By John R. Kemp  
JOHN R. KEMP  
Assistant Division Manager  
of Production  
Hobbs Division

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SCARBOROUGH POOL  
LEA COUNTY, NEW MEXICO





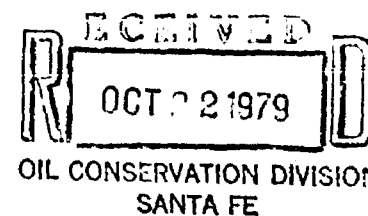
L. P. Thompson  
Division Manager

John R. Kemp  
Assistant Division Manager

Production Department  
Hobbs Division  
North American Production

Conoco Inc.  
P. O. Box 460  
1001 North Turner  
Hobbs, NM 88240  
(505) 393-4141

October 19, 1979



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

Attention Mr. Dan Nutter

Gentlemen:

Applications for Conversion to Pressure Maintenance Project Well and  
Salt Water Disposal Well, Eaves "A" Well No. 7 and Anderson Ranch  
Unit Well No. 8, Respectively, Lea County, New Mexico

Enclosed are three (3) copies each of the above-named applications.  
It is respectfully requested that these two cases will be placed  
on the earliest available docket.

Very truly yours,

HAI:rej  
Enc

*Case 6728*

ROUGH

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

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

CASE NO. 6728

Order No. R-6277

*Application of Conoco Inc.  
for pressure maintenance  
expansion - Lea County, New Mexico*

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on Nov. 14  
19 79, at Santa Fe, New Mexico, before Examiner DSN  
NOW, on this Nov Feb day of 19 80, the  
Division Director, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

(1) That due public notice having been given as required  
by law, the Division has jurisdiction of this cause and the  
subject matter thereof.

(2) That the applicant, Conoco, Inc., is the operator of a pressure maintenance project in the Scarborough Yates-Seven Rivers Pool, Lea County, New Mexico, and in this case seeks approval for the expansion of said project by the conversion to water injection into the Yates and Seven Rivers formations of its Eaves "A" Well No. 7 located in Unit J of Section 19, Township 26 South, Range 37 East, NMPM.

(3) That applicant proposes to inject water in said well through 3 1/2-inch internally coated tubing set in a packer at approximately 3030 feet, with perforations from 3082 feet to 3210 feet.

(4) That approval of the proposed pressure maintenance expansion should result in the recovery of additional oil which would otherwise remain unproduced, thereby preventing waste, and will not impair correlative rights, and should be given, provided however, that such expansion should be subject to certain provisions to ensure that underground fresh water supplies in the area are not impaired.

(5) That the casing-tubing annulus should be filled with an inert fluid, and that a pressure gauge or other approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(6) That the applicant should be permitted to use its Eaves "A" Well No. 7 for water injection as described above only after the applicant has submitted to the Hobbs District Office and the Santa Fe Office of the Division those items required by the Division pursuant to the provisions of Division Memorandum 3-77, dated August 24, 1977, and only after taking any remedial action deemed necessary by the Hobbs District Supervisor of the Division on wells within one-half mile of said Eaves "A" Well No. 7.

(7) That the injection well or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to 620 psi, but the Division Director should have authority to increase said pressure limitation, should circumstances warrant, and if such pressure increase can be accomplished safely.

(8) That subject to the above conditions, the subject application should be approved, and the project should be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Conoco, Inc., is hereby authorized to expand its Scarborough Eaves Pressure Maintenance Project by the injection of water into the Yates and Seven Rivers formations through the perforated interval from 3082 to 3210 feet in its Eaves "A" Well No. 7, located in Unit J of Section 19, Township 26 South, Range 37 East, NMPM, Scarborough Yates-Seven Rivers Pool, Lea County, New Mexico.

(2) That injection shall be through internally coated 3 1/2-inch tubing set in a packer at approximately 3030 feet, and the casing-tubing annulus shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(3) That the injection well herein authorized or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 620 psi, provided however, that the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(4) That the operator shall immediately notify the Hobbs District Office of the Division of the failure of the tubing, casing, or packer in any of the project's injection wells, the leakage of water or oil from or around any producing well, or the leakage of water or oil from or around any plugged and abandoned well within the project area, and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(5) That the Conoco Scarborough Eaves Pressure Maintenance Project shall be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations, and monthly reports of the project shall be submitted to the Division in accordance with Rules 704 and 1115 thereof.

(6) That prior to commencement of water injection into its Eaves "A" Well No. 7, applicant shall have submitted to the Hobbs District Office and the Santa Fe Office of the Division those items required pursuant to Division Memorandum No. 3-77 dated August 24, 1977, and shall have taken such remedial action as may be deemed necessary by the Hobbs District Office of the Division on any well within one-half mile of said Eaves "A" Well No. 7.

(7) Jurisdiction  
DONE at