

CASE 5035: Application of TEXACO  
INC. FOR SALT WATER DISPOSAL,  
LEA COUNTY, NEW MEXICO.

CASE No.

5035

Application,

Transcripts,

Small Exhibits

ETC.

dearnley, meier & associates

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
CONFERENCE ROOM, STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO

July 25, 1973

EXAMINER HEARING

IN THE MATTER OF:

Application of Texaco Inc. for  
salt water disposal, Lea County,  
New Mexico.

Case No. 5035

BEFORE: Richard L. Stamets,  
Examiner.

TRANSCRIPT OF HEARING

1 MR. STAMETS: Case 5035: Application of Texaco  
2 Inc. for salt water disposal, Lea County, New Mexico.

3 MR. KELLY: Booker Kelly, of White, Koch, Kelly  
4 and McCarthy, Santa Fe, appearing on behalf of the Applicant.  
5 I have one witness that I ask be sworn.

6 MR. STAMETS: Are there other appearances in this  
7 case?

8 (No response)

9 \* \* \* \*

10 STEPHEN E. SCHLARB,  
11 was called as a witness, and after being duly sworn according  
12 to law, testified as follows:

13 DIRECT EXAMINATION

14 BY MR. KELLY:

15 Q Would you state your name and position and by whom you  
16 are employed?

17 A My name is Stephen Schlarb, and I am a petroleum  
18 engineer for Texaco Inc.

19 Q And where do you live, Mr. Schlarb?

20 A Bel-Air Apartments in Hobbs, New Mexico.

21 Q Have you previously qualified as an expert witness in  
22 the field of petroleum engineering before this  
23 Commission?

24 A No.

25 Q Would you give the Examiner a brief resume of your

1 education and professional background?

2 A I have a degree in petroleum engineering from the  
3 Colorado School of Mines, which I received in 1965.  
4 I was employed by Texaco in February of 1966 as a  
5 petroleum engineer, and I have worked for them since  
6 then in Hobbs, New Mexico and Denver City, Texas.

7 Q Are you personally familiar with the wells involved in  
8 this application?

9 A Yes.

10 MR. KELLY: Are the witness's qualifications  
11 acceptable?

12 MR. STAMETS: They are.

13 Q (By Mr. Kelly) Would you refer to the plat which has  
14 been marked as Exhibit One, and tell us what Texaco  
15 seeks by this application?

16 A Texaco seeks approval to convert Wells No. 1 and 10  
17 on the Texaco B. V. Lynch lease, which is denoted by  
18 the yellow line on the map, and the two wells are  
19 denoted by blue arrows.

20 Texaco seeks approval for these wells to be  
21 converted to salt water disposal wells.

22 Q What formation are you planning to inject the water into?

23 A The Yates-Seven Rivers formation. There are two  
24 formations, the Yates and the Seven Rivers, in the  
25 single pool.

1 Q And is this water from that pool?

2 A Yes.

3 Q From the other Texaco wells on the lease you have  
4 outlined in yellow?

5 A Yes.

6 Q As I understand it, you have two approved salt water  
7 injection wells, is that correct?

8 A That's correct.

9 Q Starting with Well No. 1, would you tell the Examiner  
10 the history and present status of that particular well?

11 A Well No. 1 was completed in June of 1929, and potentialed  
12 at 990 barrels of oil per day and no water. It is  
13 presently producing 14 barrels of oil per day and 554  
14 barrels of water per day. Its accumulative production  
15 history is 2,100,000 barrels of oil. It was the  
16 earliest well completed on that lease.

17 Q How about Well No. 10?

18 A Well No. 10 was completed in August of 1953, and  
19 potentialed at 270 barrels of oil per day and no water.  
20 In January, 1972, the well was producing 4 barrels of  
21 oil and 600 barrels of water per day, which is a  
22 seven hundred percent oil cut, and therefore the well  
23 is uneconomical to operate and is shut in. It's  
24 accumulative production was 147,000 barrels of oil.

25 Q Now, you have Exhibit Number Two which is the proposed

1 casing program. Would you go over Exhibit Two and  
2 Exhibit Three and describe the proposed casing program  
3 for these wells?

4 A The Lynch "J" No. 1 presently has 13 and 3/7 inch casing  
5 set at 1,002 feet. It's cemented top is unknown, that  
6 information is not available from our well records.  
7 There is a second string of casing set at 1475 feet,  
8 and the cemented top is also unknown for this string.  
9 There is a third string of 8 and 5/8 inch casing set  
10 at 3333 feet. It was cemented with 225 sacks of cement,  
11 and the top of the cement is at 2120 feet.

12 The proposed completion will include 2 and 7/8  
13 inch plastic-covered tubing string to be set in a  
14 nickel-plated packer at 3320 feet. There will be a  
15 pressure gauge in the tubing casing annulus, and the  
16 annulus will be filled with inhibited fluid.

17 Q On this particular well, was it ever completed in any  
18 other zone?

19 A No.

20 Q Are there any other producing zones up structure in the  
21 area?

22 A No.

23 Q What is the situation as far as fresh water in the area?

24 A This lease is in the southern end of the Capitan Water  
25 Basin, and I know personally of one fresh water well

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- 1 in operation approximately at the location of Well
- 2 No. 1 producing fresh water from a depth of 250 feet.
- 3 Q Can you locate for the Examiner the other two present
- 4 injection wells on this lease?
- 5 A They are Well No. 8 and Well No. 11, and on the map,
- 6 they are marked with a cross through the well and
- 7 "S.W.D." printed underneath the wells.
- 8 Q Are their injection systems basically the same as you
- 9 have shown on Exhibit Two?
- 10 A Yes, that's correct, except that there is only one
- 11 string of pipe, and it is cement circulated to the
- 12 surface. The tubing, the gauge, and the packer situation
- 13 are the same.
- 14 Q Have you any problem with corrosion or any problem
- 15 with your injection on those wells?
- 16 A No.
- 17 Q Do you know whether or not the cement is circulated
- 18 to the surface in this well?
- 19 A Are we talking about Well No. 1?
- 20 Q Yes.
- 21 A No, I do not. There is no record of where the cement
- 22 top is.
- 23 Q Do you feel that the casing program that you have
- 24 described in Exhibit One will effectively prevent the
- 25 migration of fluid into any other zone or into the



1 fresh water in the area?

2 A Yes, because there are three strings of pipe, and with  
3 that in addition to the plastic-covered tubing, I feel  
4 it will.

5 Q Let's go on to No. 10. Will you describe the installation  
6 there which you have shown on Exhibit Three?

7 A The Lynch "A" Well No. 10 has 5 and 1/2 inch casing set  
8 from the surface to 3712 feet. It was cemented with  
9 1200 sacks of cement, and the cement did circulate  
10 itself. We will also have a plastic-coated 2 and 7/8  
11 inch tubing string set above the casing shoe at 3665  
12 feet in a nickel-plated packer.

13 There will also be a pressure gauge on the annulus,  
14 and inhibited fluid in the annular space.

15 Q Are there any fresh water wells around this well?

16 A I don't know of any. I think there are, but I cannot  
17 locate them.

18 Q Can you describe the injection procedures that Texaco  
19 follows in these salt water wells?

20 A Yes. These salt water wells are under the jurisdiction  
21 of the pumper who monitors the lease on a daily basis.  
22 And a foreman who makes periodic checks on the lease  
23 himself, and to whom the pumper directly reports. He  
24 also checks the equipment at the injection pump  
25 installation, and monitors the injection pressure at

1 that point.

2 Q Can you give the Examiner your anticipated injection  
3 pressures and volumes for each of the two wells?

4 A Yes. The anticipated injection rate for Well No. 1 is  
5 2,000 barrels of water per day. The injection rate for  
6 Well No. 10 is 500 per day, with an anticipated injection  
7 pressure of 1,800 PSI.

8 Q Based on your experience with other injection wells on  
9 the lease, do you think you will have a problem operating  
10 at those volumes and at those pressures?

11 A No. Well No. 8 receives between 1,000 and 1,100 barrels  
12 of water per day currently at 1,850 pounds of pressure.  
13 Well No. 11 has the identical amount of water with  
14 the same pressure, and this pressure has not increased  
15 since 1971.

16 Q All right. Exhibit Number Four is a log of your newer  
17 well, is that correct?

18 A That's correct, there was no log run on Well No. 1.  
19 Well No. 10 shows the present completion interval in  
20 the Seven Rivers zone of the Yates-Seven Rivers Pool.  
21 The present open hole interval is marked in red from  
22 3,712 to 3,734 feet.

23 Q In your opinion, will the granting of this application  
24 have an adverse effect on the correlative rights of  
25 other operators in the area?

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1 A No, it will not.

2 Q In your opinion, will the granting of this application --  
3 or the procedures outlined protect any fresh water wells  
4 in the area?

5 A Yes, they will.

6 Q Were Exhibits One through Four prepared by you or under  
7 your supervision?

8 A Yes.

9 MR. KELLY: I move for the introduction of Exhibits  
10 One through Four at this time.

11 MR. STAMETS: Without objection, Applicant's Exhibits  
12 One through Four will be admitted in evidence.

13 (Whereupon Applicant's Exhibits One through Four  
14 were admitted in evidence.)

15 MR. KELLY: We have nothing further on direct, Mr.  
16 Examiner.

17 \* \* \* \*

18 CROSS EXAMINATION

19 BY MR. STAMETS:

20 Q Mr. Schlarb, what are the approximate producing  
21 potentials of the remaining three or four wells on this  
22 lease?--I guess it's about six wells.

23 A Well No. 9 currently produces 17 barrels a day with  
24 720 barrels of water per day. Well No. 3 is producing  
25 2 oil and 3 water per day. Well No. 12 is producing

1 34 barrels of oil and 670 barrels of water per day.  
2 Well No. 7 produces 9 barrels of oil and 72 barrels  
3 of water per day. Well No. 6 produces 16 barrels of  
4 oil and 176 barrels of water per day. The remaining  
5 well is Well No. 2, which produces 10 barrels of oil  
6 and 60 barrels of water per day.

7 Let me point out that the high volume water  
8 producers are completed in the Seven Rivers interval of  
9 the pool, and the low volume producers, such as the  
10 No. 3, are completed only in the Yates interval.

11 Q Mr. Schlarb, is there any individual with Texaco's  
12 Southeastern New Mexico operations who is in charge of  
13 the salt water disposal operations?

14 A Of that whole area?

15 Q Yes.

16 A No, sir.

17 Q So the responsibility would rest with the individual  
18 pumpers and production superintendents for a particular  
19 area?

20 A That's correct.

21 Q Do you know what Texaco's policy is in reporting leaks  
22 in salt water disposal wells on up the management line?

23 A Yes. If the pumper who daily checks the wells discovers  
24 a leak, he reports directly to the production foreman  
25 in the area office, which is in the vicinity of these

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1 leases in question. The production foreman brings it  
2 to the attention of the area engineer who works  
3 regularly in the area, and he also brings it to the  
4 attention of management through the field foreman, who  
5 is in direct contact with the District Office. The  
6 area engineer is responsible for working up a recommendation  
7 for repairing the leak, and he submits this recommendation  
8 through the engineering department on to the management  
9 department of the district.

10 If it requires approval of higher officers, it is  
11 submitted to them. Otherwise it is approved by the  
12 district for remedial action.

13 Q Apparently there is no provision in there for notification  
14 of the Commission of any leaks which may occur?

15 A Not in that system that I have described, unless it is  
16 required. I am not familiar that it is required.

17 Q It isn't, that I know of either.

18 A Okay.

19 Q Wells No. 8 and No. 11 are currently being operated as  
20 injection wells, is that right?

21 A Yes.

22 Q Are the casing annulus in those wells filled with inert  
23 fluid?

24 A Yes.

25 Q Are there operative pressure gauges on those wells?

1 A There are pressure gauges that are supposed to be  
2 operative.

3 Q In your opinion, is there a more foolproof, attention-  
4 attracting way in determining leakage in salt water  
5 disposal wells?

6 A I have a few suggestions, but I would like to preface  
7 my remarks with the statement that this is my personal  
8 opinion as a petroleum engineer, and I have no authority  
9 to recommend action on behalf of Texaco Inc. in this  
10 manner.

11 Q Fine.

12 A One measure would be to rig up a pressure key pump  
13 shut-off based on the annulus pressure in each injection  
14 well. The only shortcoming with this is it would  
15 require considerable expense. Perhaps a more practical  
16 method would be to rig up annulus pressure regulated  
17 with a large light enclosed in a protective encasement.  
18 This would eliminate the need for an extended lead line  
19 to the plant, and the pumper would be able to see daily  
20 whether the light was lit or not. I would estimate  
21 the cost of this to be about \$300.00 per well for this  
22 installation.

23 This is just my own rough guess at this time.

24 Another method would be to use stab-in gauges  
25 instead of screwed-in gauges to override the

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possibility of corrosion over the years, which make the permanent gauges useless.

Another suggestion might be to leave the annulus open as has been previously suggested. It should be pointed out that although this would work, you would have the disadvantage that if the well should spring a leak in the middle of the night, it could result in quite a bit of salt water being let loose over the countryside before it was discovered in the morning. But certainly it would call attention to the fact that there was a leak.

Another method would be an annual OCC inspection of the salt water disposal wells, or as often as could be directed.

Q The annual inspection would work on injection wells where there was a certain amount of pressure at the well head.

A Speaking about this case or most cases where it takes some injection pressure to get the salt water into the zones it is supposed to be going into, if it entered another zone at any reduced pressure, it would be detected at the injection pump site simply by looking at the pressure gauge on the pump.

Q How about casing where the injection well had been taking the fluid on vacuum for a number of years and

1 the tubing may have been eaten up and corroded where  
2 it couldn't even be pulled out of the well?

3 A If it were not reflected in the pressure, it seems to  
4 me you almost have to run a survey to find out where  
5 it is going.

6 Q In a case like that, some pressure could be applied  
7 to the annular space to make that determination,  
8 especially if it were filled with fluid?

9 A That's correct.

10 Q The majority of injection wells and disposal wells do  
11 require some pressure?

12 A Yes, they do.

13 Q So this would be a minimum number of wells we are  
14 talking about.

15 A That's correct.

16 Q The Examiner will take into account that you are making  
17 these recommendations or these ideas known on a personal  
18 basis and are not speaking for Texaco.

19 Is Texaco currently working over any salt water  
20 disposal wells, to your knowledge?

21 A I am sure they are somewhere in the district, but as  
22 far as firsthand knowledge, I don't know of any specific  
23 ones.

24 Q I was curious as to whether it was ever brought to your  
25 attention that they were leaking, but since you don't



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1 know if there are any, I can't ask you that question.  
2 MR. STAMETS: Are there any other questions of  
3 this witness?  
4 (No response)  
5 MR. STAMETS: He may be excused.  
6 (Witness excused.)  
7 MR. STAMETS: Is there anything further in this case?  
8 (No response)  
9 MR. STAMETS: The case will be taken under advisement.  
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1 STATE OF NEW MEXICO )  
 ) SS  
 2 COUNTY OF BERNALILLO )  
 3

4 I, RICHARD E. McCORMICK, a Certified Shorthand  
 5 Reporter, in and for the County of Bernalillo, State of New  
 6 Mexico, do hereby certify that the foregoing and attached  
 7 Transcript of Hearing before the New Mexico Oil Conservation  
 8 Commission was reported by me; and that the same is a true  
 9 and correct record of the said proceedings to the best of  
 10 my knowledge, skill and ability.  
 11

12 *Richard E. McCormick*  
 13 CERTIFIED SHORTHAND REPORTER  
 14  
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22 I do hereby certify that the foregoing is  
 23 a complete record of the  
 24 the Examiner hearing of Case No. 5035  
 25 heard by me on July 25, 1973  
*Richard E. McCormick*  
 New Mexico Oil Conservation Commission

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I N D E XWITNESSPAGE

STEPHEN E. SCHLARB

Direct Examination by Mr. Kelly

3

Cross Examination by Mr. Stamets

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E X H I B I T SEXHIBITADMITTEDOFFERED

Applicant's #1

Plat

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Applicant's #2

Proposed casing program

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Applicant's #3

Proposed casing program

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Applicant's #4

Log

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## OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO  
P. O. BOX 2088 - SANTA FE  
87501

August 14, 1973

I. R. TRUJILLO  
CHAIRMAN  
LAND COMMISSIONER  
ALEX J. ARMIJO  
MEMBER  
STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

Mr. Booker Kelly  
White, Koch, Kelly & McCarthy  
Attorneys at Law  
Post Office Box 787  
Santa Fe, New Mexico

Re: CASE NO. 5035

ORDER NO. R-4612

Applicant:

Texaco Inc.

Dear Sir:

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

Very truly yours,

*A. L. Porter, Jr.*

A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x  
Artesia OCC \_\_\_\_\_  
Aztec OCC \_\_\_\_\_

Other State Engineer Office and  
Bureau of Land Management

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 5035  
Order No. R-4612

APPLICATION OF TEXACO INC. FOR  
SALT WATER DISPOSAL, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 25, 1973,  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 13th day of August, 1973, the Commission,  
a quorum being present, 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 Commission has jurisdiction of this cause and the sub-  
ject matter thereof.

(2) That the applicant, Texaco Inc., is the owner and  
operator of the B. V. Lynch "A" Federal Well No. 1, located in  
Unit J of Section 34 and its B. V. Lynch "A" Federal Well No. 10,  
located in Unit C of Section 34, both in Township 20 South,  
Range 34 East, NMPM, Lynch Yates-Seven Rivers Pool, Lea County,  
New Mexico.

(3) That the applicant proposes to utilize said wells to  
dispose of produced salt water into the Yates-Seven Rivers  
formation, with injection into the open-hole interval from  
approximately 3,373 feet to 3,731 feet in its B. V. Lynch "A"  
Federal Well No. 1 and 3,712 feet to 3,734 feet in its B. V.  
Lynch "A" Federal Well No. 10.

(4) That the injection should be accomplished through  
2 7/8-inch plastic-lined tubing installed in a packer set at  
approximately 3,320 feet in its B. V. Lynch "A" Federal Well  
No. 1 and injection should be accomplished through 2 7/8-inch  
plastic-lined tubing installed in a packer set at approximately  
3,665 feet in its B. V. Lynch "A" Federal Well No. 10; that  
the casing-tubing annulus of each well should be filled with an  
inert fluid; and that an approved pressure gauge or leak detection  
device should be attached to the annulus of each well in order

-2-

Case No. 5035  
Order No. R-4612

to determine leakage in the casing, tubing, or packer; that the operator shall take such other steps as may be necessary to ensure that the injected water enters only the formation proposed for injection.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Texaco Inc., is hereby authorized to utilize its B. V. Lynch "A" Federal Well No. 1, located in Unit J of Section 34 and its B. V. Lynch "A" Federal Well No. 10, located in Unit C of Section 34, both in Township 20 South, Range 34 East, NMPM, Lynch Yates-Seven Rivers Pool, Lea County, New Mexico, to dispose of produced salt water into the Yates-Seven Rivers formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 3,320 feet in its B. V. Lynch "A" Federal Well No. 1 and injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 3,665 feet in its B. V. Lynch "A" Federal Well No. 10, with injection into the open-hole interval from approximately 3,373 feet to 3,731 feet in its B. V. Lynch "A" Federal Well No. 1 and from approximately 3,712 feet to 3,734 feet in its B. V. Lynch "A" Federal Well No. 10;

PROVIDED HOWEVER, that the tubing in each well shall be plastic-lined; that the casing-tubing annulus of each well shall be filled with an inert fluid; and that a pressure gauge or approved leak detection device shall be attached to the annulus of each well in order to determine leakage in the casing, tubing, or packer.

(2) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing or packer in either of said injection wells, the leakage of water or oil from around any nearby producing well, or the leakage of water or oil from any plugged and abandoned well within the B. V. Lynch "A" lease and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(3) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

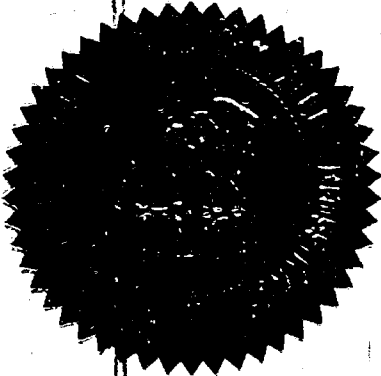
(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

-3-

Case No. 5035  
Order No. R-4612

DONE at Santa Fe, New Mexico, on the day and year herein-  
above designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



*I. R. Trujillo*  
I. R. TRUJILLO, Chairman

*Alex J. Armijo*  
ALEX J. ARMILLO, Member

*A. L. Porter, Jr.*  
A. L. PORTER, Jr., Member & Secretary

S E A L

dr/

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 25, 1973

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Elvis A. Utz, Alternate Examiner:

CASE 5028: Application of Great Basins Petroleum for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Antebellum Unit Area comprising 3840 acres, more or less, of State and Federal lands in Township 23 South, Range 34 East, Lea County, New Mexico.

CASE 5029: Application of Amoco Production Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Old Indian Draw Unit Area comprising 3,128 acres, more or less, of Federal and fee lands in Township 22 South, Range 28 East, Eddy County, New Mexico.

CASE 5030: Application of Yates Drilling Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Artesia Metex Unit Area comprising 2,000 acres, more or less, of State lands in Township 18 South, Ranges 27 and 28 East, Eddy County, New Mexico.

CASE 5031: Application of Yates Drilling Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute waterflood project in its Artesia Metex Unit Area by the injection of water into the Grayburg formation through 14 wells located in Sections 24, 25, 26, 35, and 36 of Township 18 South, Range 27 East, and Sections 19 and 30 of Township 18 South, Range 28 East, Eddy County, New Mexico.

Applicant further seeks an administrative procedure whereby the locations of said wells can be changed without further notice and hearing.

CASE 5032: Application of Anadarko Production Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Burnham GSA Unit Area by the injection of water into the Grayburg-San Andres formation through six wells in Section 2, Township 17 South, Range 30 East, Square Lake Pool, Eddy County, New Mexico.

CASE 5033: Application of Continental Oil Company for a special gas-oil ratio limit or in the alternative, a lease casinghead gas allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of the special pool rules for the Bell Lake-Bone Spring Pool to provide a gas-oil ratio limit of 5000 to 1 or in the alternative to provide for lease casinghead gas allowable in said pool.



- CASE 5034: Application of Mark Production Company for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Red Lake-Pennsylvanian Pool, Eddy County, New Mexico, including a provision for 320-acre drilling and proration units. In the absence of objection, this pool will be placed on 320-acre spacing rather than the present 160-acre spacing.
- CASE 5035: Application of Texaco Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates-Seven Rivers formation in the open-hole interval from 3373 feet to 3731 feet in its B. V. Lynch "A" Fed Well No. 1 and from 3712 feet to 3734 feet in its Well No. 10 located in Units J and C, respectively, Section 34, Township 20 South, Range 34 East, Lynch Yates-Seven Rivers Pool, Lea County, New Mexico.
- CASE 5036: Application of The Wil-Mc Oil Corporation for salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the San Andres formation in the perforated interval from 4208 feet to 4282 feet in its Champlin State Well No. 1 located in Unit M of Section 3, Township 8 South, Range 33 East, Chaveroo-San Andres Pool, Chaves County, New Mexico.
- CASE 5037: Application of David Fasken for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying Section 31, Township 20 South, Range 25 East, Indian Basin-Morrow Gas Pool, Eddy County, New Mexico, to be dedicated to a well to be drilled in Unit J of said Section 31. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and up to 200 percent charge for risk involved in drilling said well.
- CASE 5038: Application of Twinlakes Oil Company for a dual completion and salt water disposal exception, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its O'Brien "C" Well No. 3 located in Unit K of Section 1, Township 9 South, Range 28 East, Chaves County, New Mexico, as a dual completion (tubingless) to produce oil from the Twin Lakes-San Andres Pool and gas from an undesignated Cisco gas pool through parallel strings of 2 7/8" casing cemented in a common wellbore. Said well was formerly dually completed for San Andres production and Devonian salt water disposal pursuant to Order No. R-4497. Applicant further seeks the amendment of Order No. R-3636 which authorized, as an exception to Order R-3221, the disposal of Devonian and San Andres water production in unlined surface pits; applicant seeks authority to also dispose of water produced from the aforesaid Cisco gas pool in said pits.

CASE 5039: Southeastern nomenclature case calling for an order for the abolishment and extension of certain pools in Lea County, New Mexico.

(a) Abolish the East Brunson-Granite Wash Pool in Lea County, New Mexico, described as:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM

Section 13: W/2

Section 24: W/2 and SE/4

Section 25: NW/4

TOWNSHIP 22 SOUTH, RANGE 38 EAST, NMPM

Section 19: SW/4

(b) Extend the Wantz-Granite Wash Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM

Section 13: W/2

Section 24: W/2 and SE/4

Section 25: NW/4

TOWNSHIP 22 SOUTH, RANGE 38 EAST, NMPM

Section 19: SW/4

(c) Abolish the North Lynch Yates-Seven Rivers Pool in Lea County, New Mexico, described as:

TOWNSHIP 20 SOUTH, RANGE 34 EAST, NMPM

Section 17: SW/4

Section 18: E/2

Section 19: NE/4

Section 20: NW/4

(d) Extend the Teas Yates-Seven Rivers Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 34 EAST, NMPM

Section 17: SW/4

Section 18: E/2, SW/4, and E/2 NW/4

Section 19: NE/4

Section 20: NW/4

(e) Extend the Antelope Ridge-Atoka Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 34 EAST, NMPM

Section 2: N/2

Section 3: N/2

(f) Extend the Eunice-Monument Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM

Section 7: NW/4

(g) Extend the Justis-Blinebry Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM  
Section 12: N/2

(h) Extend the Maljamar Grayburg-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM  
Section 35: NW/4

(i) Extend the West Sawyer-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 37 EAST, NMPM  
Section 23: E/2 SW/4

TOWNSHIP 10 SOUTH, RANGE 37 EAST, NMPM  
Section 5: NW/4  
Section 6: N/2 and SE/4

(j) Extend the Triple X-Delaware Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 32 EAST, NMPM  
Section 1: SE/4

(k) Extend the North Vacuum-Abo Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM  
Section 17: SW/4  
Section 18: SE/4  
Section 21: NW/4

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Docket No. 21-73

DOCKET: REGULAR HEARING - TUESDAY - AUGUST 7, 1973

OIL CONSERVATION COMMISSION - 9 A.M. - MORGAN HALL, STATE LAND OFFICE  
BUILDING - SANTA FE, NEW MEXICO

CASE 5007: (Continued from the June 28, 1973, Regular Hearing)

Application of Belco Petroleum Corporation for a drilling permit in the Potash-Oil Area, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its proposed Felmont Federal Well No. 1 to test the Morrow formation adjacent to the South Salt Lake-Morrow Gas Pool at a location 660 feet from the North line and 1980 feet from the East line of Section 25, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico, said location being within the boundaries of the Potash-Oil Area as defined by Commission Order No. R-111-A, and having been objected to by the owners of potash leases in the area.

Tubing-Casing Annulus loaded  
with inhibited fluid.

Pressure Gauge →

13-3/8" csg. set at 1002'. Cmt.  
top unknown.

10" csg. set at 1475'. Cmt.  
top unknown.

8-5/8" csg. set at 3373'. Cmt.  
with 225 sacks. Top of cement  
at 2120'.

2-7/8" Plastic Coated tubing  
at 3320'.

Nickle Plated Tension Packer  
at 3320'.

OPEN HOLE:  
3373'-3731'

Injection Interval

BEFORE EXAMINER STAMETS  
OIL CONSERVATION COMMISSION

TEXACO EXHIBIT NO. 2

CASE NO. 5035

Submitted by

Hearing Date 7/25/73

Proposed Salt Water Disposal Completion  
TEXACO INC.

B.V. LYNCH "A" FEDERAL WELL NO. 1  
LYNCH SEVEN RIVERS YATES POOL  
LEA COUNTY, NEW MEXICO

2000 BWPD  
1500 PSI

Tubing-Casing Annulus loaded  
with inhibited fluid.

Pressure Gauge →

← 5-1/2" csg. set at 3712'. Cmt. with  
1200 sacks. Cement circulated.

← 2-7/8" Plastic Coated tubing at 3665'.

BEFORE EXAMINER STAMETS OIL CONSERVATION COMMISSION	
TEXACO EXHIBIT NO.	3
CASE NO.	5035
Submitted by	
Hearing Date	7/25/73

1500 BWID  
1800 PSI

← Nickle Plated Tension Packer at 3665'.

OPEN HOLE:  
3712'-3734'

— Injection Interval

Proposed Salt Water Disposal Completion  
TEXACO INC.  
B.V. LYNCH "A" FEDERAL WELL NO. 10  
LYNCH SEVEN RIVERS YATES POOL  
LEA COUNTY, NEW MEXICO

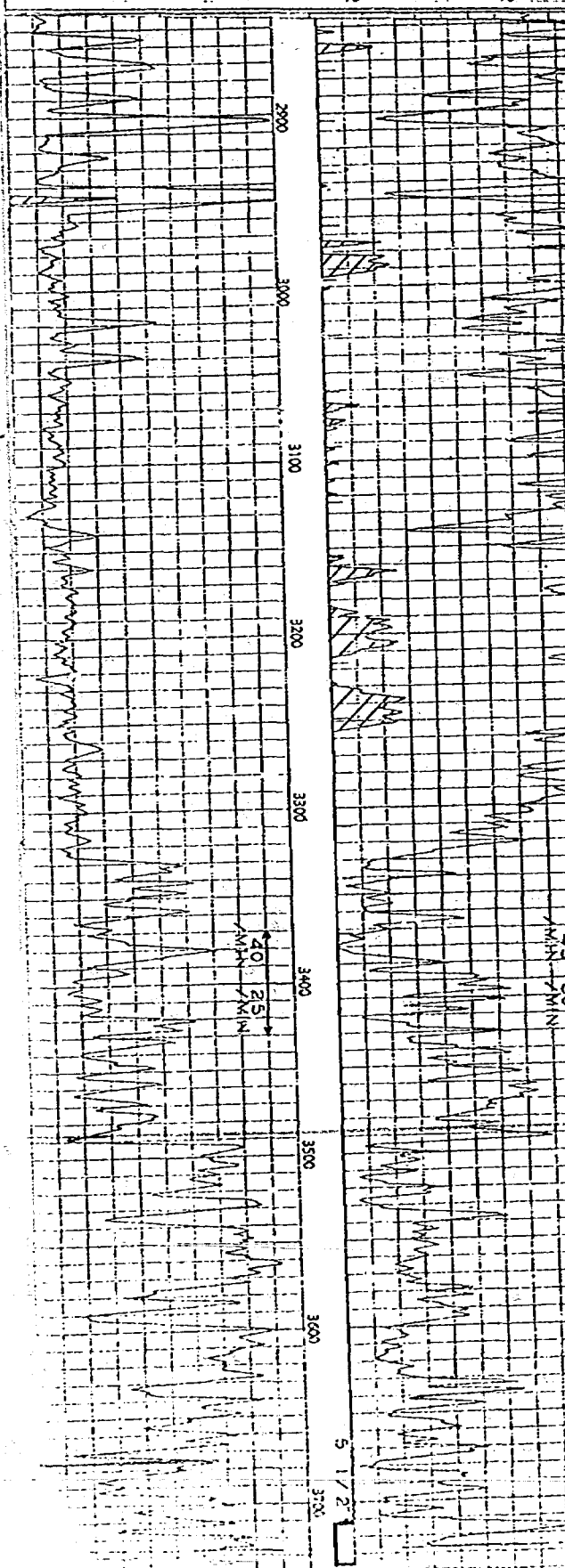
# LOG WELLS COMPANY

Location of Well <i>File</i>	COMPANY: THE TEXAS COMPANY WELL: B. V. LYNCH "A" NO. 10 FIELD: LYNCH COUNTY: LEA STATE: N. MEX. LOCATION:	FILE NO. WELL: B. V. LYNCH "A" NO. 10 FIELD: LYNCH COUNTY: LEA STATE: N. MEX. LOCATION:
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LOG MEAS. FROM DERRICK FLOOR ELEV. 3726  
 ORIG. MEAS. FROM DERRICK FLOOR ELEV. \*  
 PERM. DATUM DERRICK FLOOR IS 3' ABOVE ELEV. 3723 (4)

TYPE OF LOG	GAMMA RAY	NEUTRON	
RUN NO.	ONE-37	ONE-37	
DATE	7-28-53	7-28-53	
TOTAL DEPTH (DRILLER) WIRE LINE	3734	3734	
EFFECTIVE DEPTH (DRILLER)	3734	3734	
TOP OF LOGGED INTERVAL	SURFACE	SURFACE	
BOTTOM OF LOGGED INTERVAL	3727	3727	
TYPE OF FLUID IN HOLE	OIL	OIL	
FLUID LEVEL	995	995	
MAXIMUM RECORDED TEMP.		600X	
NEUTRON SOURCE STRENGTH & TYPE		8.25	
SOURCE SPACING - IN.		9"	
LENGTH OF MEASURING DEVICE - IN.	33"	3 5/8"	
O.D. OF INSTRUMENT - IN.	5.0	4.0	
TIME CONSTANT - SECONDS	25-50	30-50	
LOGGING SPEED FT. MIN.			
STATISTICAL VARIATION - IN.			
SENSITIVITY REFERENCE	274	275	
RECORDED BY	SCHWITZER	SCHWITZER	
WITNESSED BY	SCHWITZER	SCHWITZER	

CASING RECORD			
RUN NO.	BIT SIZE	CASING WT. - LB.	FROM WELL RECORD FROM R/A LOG
ONE	6"	5 1/2"	SURFACE TO 3709 SURFACE TO 3712
ONE	4 3/4"		3709 TO 3734 3712 TO 3729
			TO TO
			TO TO
			TO TO

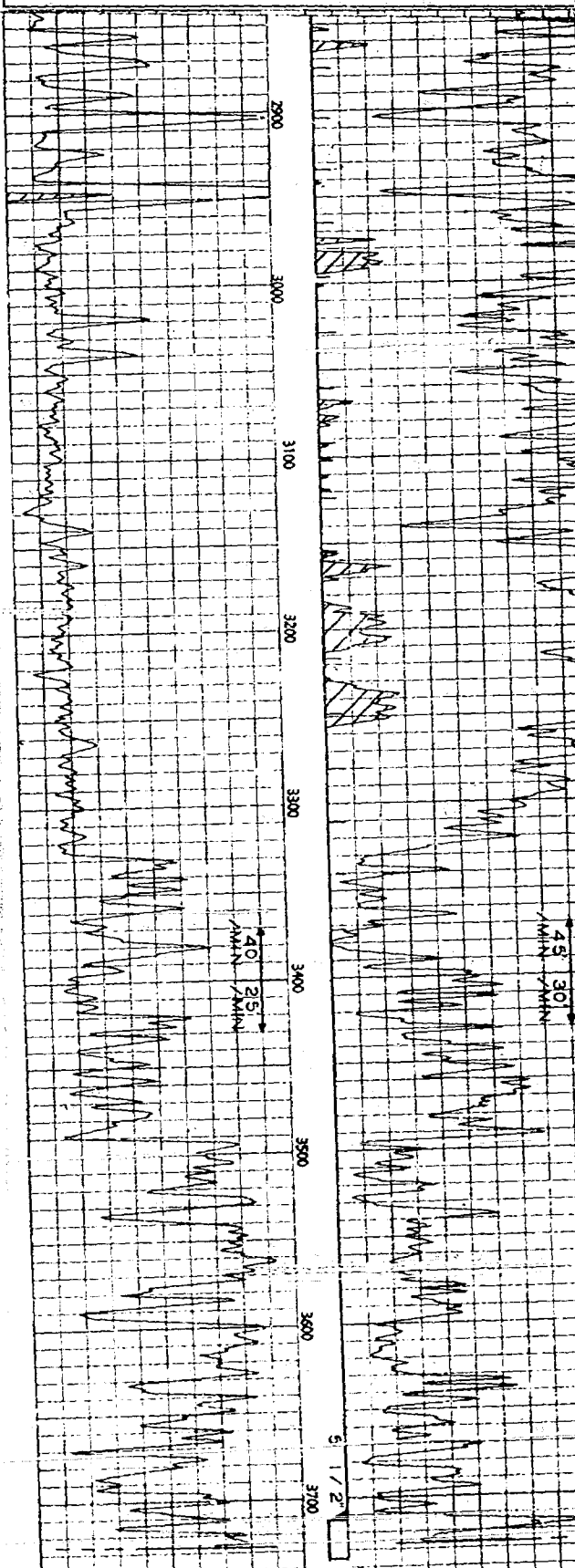


# LANE RADIOACTIVITY LOG WELLS COMPANY

Location of Well <i>July</i>	COMPANY: THE TEXAS COMPANY WELL: B. V. LYNCH "A" NO. 10 FIELD: LYNCH COUNTY: LEA STATE: N. MEX. LOCATION: #	FILE NO. WELL: B. V. LYNCH "A" NO. 10 COUNTY: LEA LOCATION: # STATE: N. MEX.
LOG MEAS. FROM DERRICK FLOOR	ELEV. # 3724	
DRG. MEAS. FROM DERRICK FLOOR	ELEV. #	
PERM. DATUM DERRICK FLOOR IS 3' ABOVE ELEV. # 3724 (+)		

TYPE OF LOG	GAUSS RAY	NEUTRON
RUN NO.	ONE-W	ONE-W
DATE	7-26-53	7-26-53
TOTAL DEPTH (DRILLER) WIRE LINE	3734	3734
EFFECTIVE DEPTH (DRILLER)	3734	3734
TOP OF LOGGED INTERVAL	SURFACE	SURFACE
BOTTOM OF LOGGED INTERVAL	3727	3727
TYPE OF FLUID IN HOLE	OIL	OIL
FLUID LEVEL	995	995
MAXIMUM RECORDED TEMP.		600N
NEUTRON SOURCE STRENGTH & TYPE		8.25
SOURCE SPACING - IN.		9"
LENGTH OF MEASURING DEVICE - IN.	36"	3 5/8"
O.D. OF INSTRUMENT - IN.	5.0	4.0
TIME CONSTANT - SECONDS	25-50	30-80
LOGGING SPEED FT. MIN.		
STATISTICAL VARIATION - IN.	274	275
SENSITIVITY REFERENCE	SCHLOTTERBACK	SWEITZER
RECORDED BY	SWEITZER	SWEITZER
WITNESSED BY		

CASING RECORD			
RUN NO.	BIT SIZE	CASING WT. - LB.	FROM WELL RECORD
ONE	6"	5 1/2"	SURFACE TO 3709
ONE	4 3/4"		3709 TO 3734
			TO 3712
			TO 3729
			TO
			TO
			TO





PETROLEUM PRODUCTS

June 20, 1973

TEXACO INC.  
DRAWER 728  
HOBBS, NEW MEXICO 88240

*Case 5025*

New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: Request for Examiner Hearing  
for Salt Water Disposal  
B. V. Lynch 'A' Federal Wells No. 1 & 10  
Lynch Seven Rivers Yates Pool  
Lea County, New Mexico

Gentlemen:

It is requested that an examiner hearing be scheduled to consider the application of Texaco Inc. for disposal of produced water in the Lynch Seven Rivers Yates Pool, Lea County, New Mexico.

At this hearing, Texaco will request permission to dispose of produced water into the B. V. Lynch 'A' Federal Wells No. 1 and 10 located in Unit J and C respectively, Section 34, T-20-S, R-34-E, Lea County, New Mexico. Disposal will be via plastic coated tubing into the open hole interval from 3373' to 3731' in Well No. 1 and 3712' to 3734' in Well No. 10. The initial disposal rate will be approximately 2000 barrels of water per day.

Enclosed with this request are three copies of a plat of the area showing the proposed salt water disposal wells, three copies of a diagrammatic sketch of the proposed disposal wells and three copies of a log for Well No. 10.

Yours very truly,

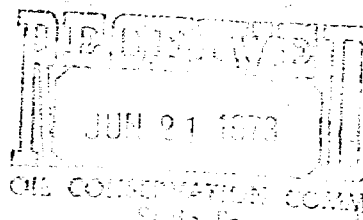
*J. V. Gannon*  
J. V. Gannon  
District Superintendent

BRH-BH

CC: NMOCC - Hobbs  
USGS - Hobbs

MAS, Jr.  
JSR

Attachments



DOCKET MAILED

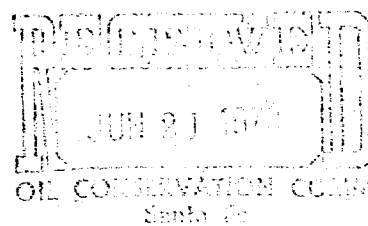
Date 7-13-73



Case 5-835

Tubing-Casing Annulus loaded  
with inhibited fluid.

Pressure Gauge →



← 5-1/2" csg. set at 3712'. Cmt. with  
1200 sacks. Cement circulated.

← 2-7/8" Plastic Coated tubing at 3665'.

← Nickle Plated Tension Packer at 3665'.

OPEN HOLE:  
3712'-3731'

— Injection Interval

Proposed Salt Water Disposal Completion  
TEXACO INC.

B.V. LYNCH "A" FEDERAL WELL NO. 10  
LYNCH SEVEN RIVERS YATES POOL  
LEA COUNTY, NEW MEXICO

Tubing-Casing Annulus loaded  
with inhibited fluid.

Pressure Gauge →

13-3/8" csg. set at 1002'. Cmt.  
top unknown.

10" csg. set at 1175'. Cmt.  
top unknown.

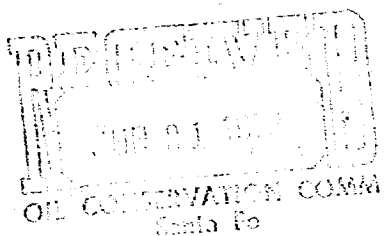
8-5/8" csg. set at 3373'. Cmt.  
with 225 sacks. Top of cement  
at 2120'.

2-7/8" Plastic Coated tubing  
at 3320'.

Nickle Plated Tension Packer  
at 3320'.

OPEN HOLE:  
3373'-3731'

Injection Interval



Proposed Salt Water Disposal Completion  
TEXACO INC.

B.V. LYNCH "A" FEDERAL WELL NO. 1  
LYNCH SEVEN RIVERS YATES POOL  
LEA COUNTY, NEW MEXICO

Case 5025

DRAFT

dr/

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

(Dr)  
IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

APPLICATION OF TEXACO INC. FOR SALT  
WATER DISPOSAL, LEA COUNTY, NEW  
MEXICO.

CASE NO. 5035

Order No. R-4612

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 25, 1973,  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this \_\_\_\_\_ day of \_\_\_\_\_, 1973 the Commission,  
a quorum being present, 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 Commission has jurisdiction of this cause and the subject  
matter thereof.

(2) That the applicant, Texaco Inc., is the owner and operator  
of the B. V. Lynch "A" Fed <sup>oral</sup> Well No. 1, located in Unit J of  
Section 34 and its B. V. Lynch "A" Fed <sup>oral</sup> Well No. 10, located in  
Unit C of Section 34, both in Township 20 South, Range 34 East,  
NMPM, Lynch Yates-Seven Rivers Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said wells to dispose of produced salt water into the Yates-Seven Rivers formation, with injection into the open-hole interval from approximately 3,373 feet to 3,731 feet in its B. V. Lynch "A" Fed<sup>eral</sup> Well No. 1 and 3,712 feet to 3,734 feet in its B. V. Lynch "A" Fed<sup>eral</sup> Well No. 10.

(4) That the injection should be accomplished through 2 7/8-inch plastic-lined tubing installed in a packer set at approximately 3320 feet in its B. V. Lynch "A" Fed<sup>eral</sup> Well No. 1 and injection should be accomplished through 2 7/8-inch plastic-lined tubing installed in a packer set at approximately 3665 feet in its B. V. Lynch "A" Fed<sup>eral</sup> Well No. 10; that the casing-tubing annulus<sup>of each well</sup> should be filled with an inert fluid; and that <sup>an approved</sup> ~~A~~ pressure gauge<sup>or leak detection device</sup> should be attached to the annulus<sup>of each well</sup> ~~the annulus left open at the surface~~ in order to determine leakage in the casing, tubing, or packer; <sup>That the operator shall take such other steps as may be necessary</sup> to ensure that the injected water enters only the formation proposed for injection.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Texaco Inc., is hereby authorized to utilize its B. V. Lynch "A" Fed<sup>eral</sup> Well No. 1, located in Unit J of Section 34 and its B. V. Lynch "A" Fed<sup>eral</sup> Well No. 10, located in Unit C of Section 34, both in Township 20 South, Range 34 East, NMPM, Lynch Yates-Seven Rivers Pool, Lea County, New Mexico, to dispose of produced salt water into the Yates-Seven Rivers formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 3320 feet in its B. V. Lynch "A" Fed<sup>eral</sup> Well No. 1 and injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 3665 feet in its B. V. Lynch "A" Fed<sup>eral</sup> Well No. 10, with injection into the open-hole interval from approximately 3,373 feet to 3,731 feet in its B. V. Lynch "A" Fed<sup>eral</sup> Well No. 1 and from approximately 3,712 feet to 3,734 feet in its B. V. Lynch "A" Fed<sup>eral</sup> Well No. 10;

*in each well*  
PROVIDED HOWEVER, that the tubing shall be plastic-lined;  
*of each well*  
that the casing-tubing annulus shall be filled with an inert  
*or approved leak detection device*  
fluid; and that a pressure gauge shall be attached to the annulus  
*of each well*  
~~or the annulus left open at the surface~~ in order to determine  
leakage in the casing, tubing, or packer.

2 → (3) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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

*lease*  
(2) (a) That the operator shall immediately notify the supervisor of the Commission's ~~district~~ *Hobbs* district office of the failure of the tubing or packer in ~~any~~ *either* of said injection wells, the leakage of water or oil from around any *nearby* producing well, or the leakage of water or oil from any plugged and abandoned well within the ~~project area~~ *B.V. Lynch* and shall take such timely steps as may be necessary or required to correct such failure or leakage.