

Ja CASE 5709: TAHOE OIL & CATTLE
CO. FOR AN EXCEPTION TO THE
PROVISIONS OF ORDER NO. R-3221,
EDDY COUNTY, NEW MEXICO pany

Jack Campbell called -
set this for August 18th

Came to Aug 4th
Redwater and
carrick location
of proposed
disposal pond

CASE NO.

5709

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.



OIL CONSERVATION COMMISSION

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



DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO
September 17, 1976

STATE GEOLOGIST
EMERY C. ARNOLD

Mr. Jack Campbell
Campbell & Bingaman
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Re: CASE NO. 5709
ORDER NO. R-5278

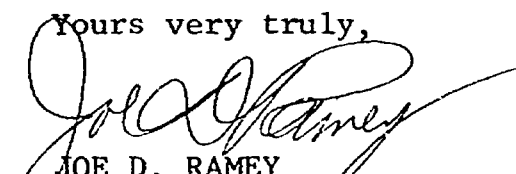
Applicant:

Tahoe Oil and Cattle Co.

Dear Sir:

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

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC X
Artesia OCC X
Aztec OCC

Other J. W. Neal, Jim Maddox

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. 5709
Order No. R-5278

APPLICATION OF TAHOE OIL AND CATTLE
COMPANY FOR AN EXCEPTION TO THE
PROVISIONS OF ORDER NO. R-3221,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 18, 1976, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 16th day of September, 1976, 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, Tahoe Oil and Cattle Company, has acquired a conditional surface lease consisting of the E/2 SW/4 and W/2 SE/4 of Section 2, Township 20 South, Range 30 East, NMPM, Eddy County, New Mexico, for the purposes of salt water disposal.

(3) That Order (3) of Commission Order No. R-3221, as amended, prohibits in that area encompassed by Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, the disposal, subject to minor exceptions, of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground, or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any watercourse, or in any other place or in any manner which would constitute a hazard to any fresh water supplies and said disposal has not previously been prohibited.

(4) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

Case No. 5709
Order No. R-5278

(5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(6) That the applicant seeks as an exception to the provisions of the aforesaid Order (3) to permit the disposal of produced salt water into an unlined surface pit located in the NE/4 SW/4 of said Section 2.

(7) That applicant proposes to dispose of from 1000 to 3000 barrels of water per day in said pit.

(8) That there is fresh water in the vicinity of the above-described unlined pit for which a present or reasonably foreseeable beneficial use is or will be made.

(9) That there is a probability that the beneficial use of said fresh water would be impaired by contamination from the disposal of salt water into the unlined surface pit as requested by the applicant.

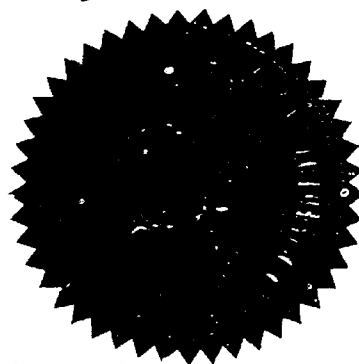
(10) That the subject application should be denied.

IT IS THEREFORE ORDERED:

(1) That the application of Tahoe Oil and Cattle Company for an exception to Order (3) of Commission Order No. R-3221, as amended, to dispose of water produced in conjunction with the production of oil or gas, or both into an unlined surface pit located in the NE/4 SW/4 of Section 2, Township 20 South, Range 30 East, NMPM, Eddy County, New Mexico, is hereby denied.

(2) 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.



S E A L
jr/

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Phil R. Lucero
PHIL R. LUCERO, Chairman

Emery C. Arnold
EMERY C. ARNOLD, Member

Joe D. Ramey
JOE D. RAMEY, Member & Secretary

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 18, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Tahoe Oil and Cattle) CASE
Company for an exception to the) 5709
provisions of Order No. R-3221, Eddy)
County, New Mexico.)

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil	William F. Carr, Esq.
Conservation Commission:	Legal Counsel for the Commission
	State Land Office Building
	Santa Fe, New Mexico
For the Applicant:	Jack M. Campbell, Esq.
	CAMPBELL & BINGHAM
	Attorneys at Law
	P. O. Box 2208
	Santa Fe, New Mexico
For the Snyder Ranches:	J. W. Neal, Esq.
	NEAL & NEAL
	Attorneys at Law
	P. O. Box 278
	Hobbs, New Mexico

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1 APPEARANCES CONTINUED:

2 For Pollution Control, Inc.: James M. Maddox, Esq.
 3 MADDOX, MADDOX & COX
 4 Attorneys at Law
 5 P. O. Box 2508
 6 Hobbs, New Mexico

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1 MR. STAMETS: We will call at this time Case 5709.

2 MR. CARR: Case 5709, application of Tahoe Oil and
 3 Cattle Company for an exception to the provisions of Order
 4 No. R-3221, Eddy County, New Mexico.

5 MR. STAMETS: Call for appearances in this case.

6 MR. CAMPBELL: Jack M. Campbell, Campbell and
 7 Bingaman, P. O. Box 2208, Santa Fe, New Mexico appearing on
 8 behalf of the applicant.

9 MR. STAMETS: Are there other appearances in this
 10 case?

11 MR. NEAL: J. W. Neal of Neal and Neal, Box 278,
 12 Hobbs, New Mexico appearing on a protest of the Snyder Ranches,
 13 Inc.

14 MR. MADDOX: James M. Maddox of Maddox, Maddox and
 15 Cox, attorneys in Hobbs, P. O. Box 2508, appearing on behalf
 16 of Pollution Control, Inc. in protest.

17 MR. STAMETS: Any other appearances? Mr. Campbell,
 18 you may proceed.

19 MR. CAMPBELL: We were in the process, Mr. Examiner,
 20 of marking these exhibits which we haven't completed. We
 21 have, I believe, two sets fully marked which would -- and
 22 we have other sets that are not marked, can we proceed on
 23 that basis?

24 MR. STAMETS: Yes.

25 MR. CAMPBELL: Mr. Examiner, I would like to make a

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1 very brief statement at the outset of this case primarily to
2 ask the Commission to take administrative notice of two
3 orders of the Commission, the first being Order No. R-3221
4 and the other being Order No. R-3221-B. The original order
5 prohibited the disposal of salt water in certain counties
6 in Southeastern New Mexico. Amendment B to that order dated
7 July 25th, 1968 established certain exemptions from that
8 order and I'm asking the Commission particularly to take
9 administrative notice that all of Township 20 South, Range
10 30 East is exempt from that order and to take particular notice
11 of paragraph, parenthesis, Arabic number 4, 5, 8, 10 and 11
12 of its findings in that order R-3221-B.

13 MR. STAMETS: The Examiner will note these orders
14 and findings.

15 MR. CAMPBELL: I now would like to ask that two
16 witnesses appearing on behalf of the applicant be sworn, Mr.
17 Freeman and Mr. Skrabacz.

18 MR. STAMETS: At this time I would like to have
19 anybody who is going to be or might potentially be a witness
20 in this case stand and be sworn.

21 MR. NEAL: Mr. Squires on behalf of Snyder Ranches.
22 Larry, stand up and be sworn, please.

23 (THEREUPON, the witnesses were duly sworn.)

24 MR. CAMPBELL: I would like to call Mr. Freeman
25 first.

KENNETH FREEMAN

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CAMPBELL:

Q Will you state your name and give your residence, please?

A Kenneth Frecman, 2504 Seaboard, Midland, Texas.

Q Are you an official of Tahoe Oil and Cattle Company?

A Yes, I am.

Q What capacity do you have with the company?

A I'm president.

Q Is that company authorized to do business in New Mexico as a corporation?

A Yes, it is.

Q Would you give the Examiner a brief resume, please, of your educational and professional background?

A I graduated from the University of Texas in 1958 with a Bachelor of Science degree in petroleum engineering. I have been employed in the oil and gas industry since graduation. In 1968 I became a Registered Professional Engineer in the State of Texas. I have done hearings in the States of Oklahoma, Texas and New Mexico.

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1 Q Has your experience in the oil and gas industry
2 led you to do work specifically in the State of New Mexico
3 during the course of your career?

4 A Yes, it has.

5 Q What general kinds of activities have you been
6 involved in?

7 A When I was employed by Union Texas Petroleum I
8 was in unitization, worked on secondary recovery units in
9 Southeast New Mexico and I have done consulting work as far
10 as drilling and completing oil and gas wells in Southeast
11 New Mexico.

12 Q Is this your first venture into the arena of waste
13 disposal?

14 A Yes, it is.

15 Q I presume you are acquainted with the application
16 in this case?

17 A Yes, I am.

18 Q Would you explain in general terms at this point
19 what it is you are seeking to do?

20 A We are seeking to get an approved method of
21 disposing of produced water in an area that has highly
22 mineralized water and has been exempt from the no-pit order
23 whereby water from oil and gas wells can be hauled into this
24 area and we will dispose of it and it will primarily be
25 evaporated and I feel that this is a very good way of handling

1 this produced water and getting rid of it.

2 Q Now, Mr. Freeman, I'm going to hand you what has
3 been identified, I believe you have a copy of it before you,
4 as Applicant's Exhibit One in this case. I want to ask you
5 to state what that is and what it reflects?

6 A Exhibit One is a copy of the surface ownership. The
7 area of interest is located in Section 2, Township 20, Range
8 30, Eddy County, New Mexico. From the town of Carlsbad this
9 is approximately twenty-one miles northeast.

10 Q And would you point out for the Examiner where the
11 general disposal site is to be situated? Is that shown on
12 this?

13 A The disposal site will be located in Section 2 which
14 has been outlined and colored in in yellow. In specific, it
15 will be located within the ten-acre tract in the northwest
16 corner of this colored-in hundred-and-sixty-acre tract and
17 it is also marked with an "X".

18 Q Now, are there any other features that do not
19 appear on this map that you would like to identify or call
20 the Examiner's attention to because it will be referred to
21 later in the hearing?

22 A I would like to point out in Sections 9 and 10 there
23 are presently lakes or tailing pond areas of the PCA Company
24 that we may refer to later.

25 Q Is the land shown in yellow on Exhibit One owned in

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1 fee, that is in fee ownership?

2 A. Yes, it is, by Mr. L. H. Bates of Carlsbad, New
3 Mexico.

4 Q. Do you have permission from Mr. Bates to proceed
5 with obtaining the appropriate public agency approvals for
6 this installation?

7 A. Yes, we have Exhibit Number Two.

8 Q. I hand you now Exhibit Number Two and ask you,
9 please, if you will read that for the record?

10 A. Exhibit Number Two is dated April 19th, 1976, it
11 states: (Reading) This document is intended to establish
12 that the property owned by L. H. Bates in the west half of
13 the southeast quarter and the east half of the southwest
14 quarter of Section 2, Township 20 South, Range 30 East,
15 Eddy County, New Mexico, which is patented fee land will be
16 leased to the party asking for a permit to dispose of
17 produced salt water if the State and/or other agencies grant
18 the proper permits and licenses necessary to carry on such
19 a business. (End of reading.)

20 Q. And this is signed by L. H. Bates and by you and
21 witnessed by my secretary?

22 A. Yes.

23 Q. Are there, to your knowledge, any oil and gas
24 leases covering any or all of this tract shown in yellow on
25 Exhibit One?

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1 A. Yes, sir, there is an oil and gas lease in force
2 under this hundred-and-sixty-acre tract and it is owned by
3 Amoco Production Company.

4 Q. Do you have a surface use waiver from Amoco in
5 regard to that oil and gas lease?

6 A. Yes, I do in reference to the ten-acre tract in the
7 northwest corner of this hundred-and-sixty acres.

8 Q. I hand you what has been identified as Exhibit Three
9 and ask you if this is a copy of that surface use waiver?

10 A. Yes, it is.

11 MR. CAMPBELL: Mr. Examiner, we have the originals
12 of these two exhibits. If anyone insists we will put them in
13 and withdraw them, otherwise we will just introduce copies.

14 MR. STAMETS: I think that will be fine, Mr. Campbell.

15 Q. (Mr. Campbell continuing.) Now, Mr. Freeman, I hand
16 you what has been marked as Exhibits Four and Five and ask
17 you to state first what each one of those is?

18 A. Exhibit Number Four is a sketch of a surface pit
19 that if approved would be constructed in the middle of this
20 ten-acre tract that I have referred to in Section 2. It
21 would be approximately two-hundred-and-nine feet square, a
22 foot-and-a-half deep, which would hold approximately, when
23 full, ten thousand barrels of water. This pit would be
24 fenced and kept clean so we could have a maximum evaporation.

25 Q. And what is Exhibit Five?

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1 A. Exhibit Five is a sketch of a tank hook-up, three
2 five hundred barrel tanks. These tanks will be galvanized
3 tanks and they will be internally plastic coated to hold down
4 corrosion from the water that would be trucked in. Their
5 main purpose is to form a skimming system whereby there could
6 be condensate and/or crude oil hauled in with some of the
7 produced water and how this would work, the trucks would pump
8 the fluid into one tank, it would gravity over into the second
9 and the third tank would be used as an accumulator for the
10 hydrocarbons and when enough hydrocarbons would be collected
11 then they would be treated and sold.

12 Q Using Exhibits One and Four and Five now, will you
13 describe to the Examiner exactly how this installation would
14 be set up and function in the event that it became operative?

15 A. Number one, it will depend upon the approval
16 naturally, by this agency. Then we would go to the Bureau of
17 Land Management and attempt to acquire a special land use
18 permit which would be on the east side of Highway 31, which is
19 shown on Exhibit One, wherever this could be obtained. Then
20 we would construct a turn-around system where the trucks
21 can drive in and turn around to have access to these three
22 tanks to put the water into. Then the water would go into a
23 plastic line, this plastic line will go from the tanks
24 approximately a mile-and-a-quarter east to the proposed
25 disposal site. Now, this would be a plastic that would be

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1 buried a foot-and-a-half in depth. The reason we have plastic
2 is because corrosion will not attack it and so forth and
3 there would be no damage whatsoever to any of the land from
4 the tank site to the pit site in Section 2.

5 Q And through this pipeline then, after the skimming
6 takes place, the water will go into this dug pit, is that
7 correct?

8 A That is correct.

9 Q Have you done any research on the evaporation rate
10 and so forth in the area?

11 A Yes, I have.

12 Q Could you comment to the Examiner how you see that
13 working in terms of the size of the pit and so forth, do
14 you think this is adequate for your purposes at this time?

15 A The one-acre pit for the amount of water we
16 anticipate would be placed in the pit will be adequate. We
17 feel like the evaporation rate based on this location would
18 be eighty plus inches per year.

19 Q Do you believe that by this process, in addition to
20 disposing of produced waste water that you can recover oil and
21 condensate by this process that might not otherwise be
22 recovered?

23 A Yes, I do. I base this on the Dean Fenick
24 disposal operation in the Cheyenne Draw in Winkler County,
25 Texas. He accumulates from three to six hundred barrels of

1 oil per month from the water that is trucked into his disposal
2 system and I assume that this would be a like operation as
3 near as I can tell.

4 Q Based upon your experience that you have recited
5 in oil and gas production matters in New Mexico, is it your
6 opinion, or what is your opinion with regard to the relation-
7 ship between this installation, this facility, and the ultimate
8 recovery of the maximum reserves of oil and gas in this area?

9 A In my opinion there will be additional reserves
10 recovered if the operators have a similar type place to put
11 or dispose of their produced water. In these older fields the
12 water ratio will increase and has increased to the point where
13 it will have to be disposed of. Secondly in this Morrow
14 drilling in the Carlsbad area with three-hundred-and-twenty
15 acre spacing it is very difficult for operators to come up
16 with a disposal system, so it will almost require that the
17 water in the later life of the wells will have to be trucked
18 and it is a matter of economics as far as distance from the
19 well to where the water can be disposed of as to what the
20 cost will be.

21 Q What kind of an investment are you anticipating
22 making in this installation iniatially?

23 A Our AFE and so forth on the equipment and construct-
24 ing the pit, the line and so forth would be forty thousand
25 dollars.

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1 Q That's exclusive of costs of right-of-way and the
 2 legal fees?

3 A Yes.

4 Q And expert witness fees and that sort of thing?

5 A Yes.

6 MR. CAMPBELL: I think that's all I have. I would
 7 like to offer Exhibits One through Five in evidence,
 8 Mr. Examiner.

9 MR. STAMETS: Any objection?

10 MR. NEAL: No objection.

11 MR. MADDOX: No objection.

12 MR. STAMETS: These exhibits will be admitted.

13 (THEREUPON, Applicant's Exhibits One through
 14 Five were admitted into evidence.)

15 MR. STAMETS: Are there questions of the witness?

16 MR. NEAL: I would like to ask a few questions.

17 MR. STAMETS: Mr. Neal.

18

19

CROSS EXAMINATION

20 BY MR. NEAL:

21 Q Mr. Freeman, has there been any research by your
 22 company as to the subsurface water in that immediate area?

23 A Yes, there has.

24 Q Who did that for you?

25 A Ed Reed and Associates.

1 Q And is he here to testify today?

2 A Yes, he is.

3 Q Okay. Now, directing your attention to Exhibit
4 Number Four, would you explain to me what the construction of
5 the bottom of that pit will be?

6 A This pit will simply be dug a foot-and-a-half deep
7 and we have a bore hole analysis that will be presented later
8 that will show you the actual formation which is primarily
9 clays.

10 Q At this time there is no intention to seal the
11 bottom then with any plastic or concrete or anything of
12 that nature?

13 A No, there is not.

14 Q Now, as I understand it you have testified
15 that the evaporation rate in this size tank would be
16 sufficient. What do you do in the event you have a large rain
17 that would start an overflow of this tank onto the surface?

18 A Well, if there is a large rain we will have to quit,
19 shut down the hauling of water into the system until the
20 evaporation rate can take care of it and I do not anticipate
21 that it will get to the point of where -- we would have to have
22 like a six-inch rain for this to overflow because we will
23 present a map that will show the ground level elevations and
24 so forth and this is high for the general area or one of the
25 higher places.

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1 MR. NEAL: What number is this?

2 MR. CAMPBELL: Seven, I believe.

3 THE WITNESS: Seven, but it's not in yet.

4 MR. NEAL: I understand that but I want to ask him

5 if he is familiar with it.

6 Q (Mr. Neal continuing.) Mr. Neal, are you familiar

7 with what has been marked by your attorney as Exhibit Number

8 Seven which has not been introduced in evidence yet. Are

9 you familiar with that map?

10 A Yes, I am.

11 Q Now, I direct your attention to an area adjacent to

12 the State Highway situated in Section 16, that shows approxi-

13 mately a three thousand, seventeen foot contour.

14 MR. STAMETS: Hold it a second. Okay, you are

15 talking about along State Road 31 in Section 16, Township 20

16 South, 30 East?

17 MR. NEAL: Yes, sir.

18 Q (Mr. Neal continuing.) Now, isn't there from

19 your location in Section 2 on a contour, doesn't the natural

20 draw on a thirty-two, oh, eight contour come down into the

21 area of the northwest portion of Section 15 and the northeast

22 of 16?

23 A Yes.

24 Q Isn't that correct?

25 A Yes.

1 Q And so if an overflow did occur at your disposal
2 site then that brackish water would flow in that direction
3 towards those sections would it not?

4 A Yes, but I believe that it would also flow to this
5 lake that is here. This is an existing lake.

6 Q But it could also flow the other direction,
7 couldn't it?

8 A Yes, it could.

9 Q Now, have you made any plans to construct a round
10 tank as a safeguard where that would not occur, where that
11 overflow would not drain in that direction?

12 A No, we have not. We felt like we would limit
13 this by the amount of water that we would have trucked in.
14 In other words, if we had thirty days of rain the system will
15 be shut down.

16 Q Well, what would you do if the pit was full and
17 we happened to have a southeastern rain that drops two inches
18 of water immediately and this tank is brim full, it is going
19 to have to overflow, is it not?

20 A I would like to go back to my Exhibit Number One,
21 referring to Sections 9 and 10 and if you will see on this
22 topographic map, listed number seven, in the northwest corner
23 there is a lake there, at this point here. I'm saying that
24 if we have conditions like this that this lake will also
25 overflow and go down this direction, so will this lake. We

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1 have the water condition that is in this lake which the
2 dissolved solids are in excess of what we will be putting
3 into this pit and you will not be able to determine from
4 this water here which we will introduce in testimony later,
5 what the content of this is. It's the lake of the PCA that
6 would also flow back to Section 16 that you are referring to.

7 Q Well, is it a fact that PCA has constructed some
8 dikes to avoid the movement of that water down into Sections
9 15 and 16 in order to avoid that flow, in order to keep from
10 polluting this Snyder Ranches' property anymore than it has
11 been in the past.

12 MR. CAMPBELL: Could we identify, Mr. Neal, for
13 my information where the Snyder Ranch property is? Are you
14 just concerned about Sections 15 and 16, is that correct?

15 MR. NEAL: If we may have a minute I'll show --

16 MR. CAMPBELL: Go off of the record a moment.

17 (THEREUPON, a discussion was held
18 off the record.)

19 MR. STAMETS: Okay, back on the record.

20 Q (Mr. Neal continuing.) Now, situated down in the
21 northwest portion of Section 15 and also of the northeast of
22 16, there are a couple of springs, are there not, where
23 cattle are watering, if you know?

24 A I do not know. We have tested a water well, a
25 windmill water in this area that another witness will get into

1 later here.

2 Q You are unaware that there is a spring in that
3 Section 16 where cattle have a watering?

4 A I'm not aware of the spring in Section 16.

5 Q Now, back to your construction again, will these
6 sides be of dirt or will they be concreted or how will they
7 be constructed?

8 A They are going to be dirt which is primarily clay.

9 Q As I understand it then, the trucks will come up,
10 empty into a gathering barrel?

11 A Tanks, five hundred barrel tanks.

12 Q Then you will have your separation of your oil and
13 water and the water will run through a plastic pipeline over
14 to this evaporation pit?

15 A Correct.

16 Q All right now, I noticed in your application, it
17 was also that you would transport water. Will you furnish
18 trucks to move this water at a fee?

19 A At this time we are not going to transport water
20 ourselves.

21 Q In paragraph three of your application it states
22 that you will enter into contracts with producers of
23 produced water for a fee to collect, transport and dispose
24 of said water?

25 A Yes, sir.

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1 Q You are not intending to do any transportation?

2 A Not under the name of Tahoe Oil and Cattle Company.

3 Q What will that be done under, what name?

4 A That will be under third-party people.

5 Q Has Tahoe Oil and Cattle Company made an application
6 with the State Corporation Commission for a Certificate of
7 Public Convenience and Necessity?

8 A No, sir.

9 Q At this time do you have any contracts with
10 producers for this water, to dispose of this water?

11 A No, we do not until we have the thing approved.

12 Q Approximately within the immediate area, within
13 a range of fifteen miles, let's say, have you made any
14 estimate of the amount of water that needs to be disposed of?

15 A Yes, I have.

16 Q And what have you found that to be?

17 A I would say six truck loads per day, hundred and
18 thirty barrel loads.

19 Q Where is the water at this time being disposed of?

20 A I really don't know. Some of it is being hauled
21 over to Pollution Control Lake, other is being put into
22 disposal wells. I understand that they are having problems
23 with a number of these disposal wells pressuring up and it
24 has been indicated to me that there is a need closer by this
25 area whereby to haul this water.

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1 Q Approximately how far is this disposal area which
 2 you propose from Pollution Control?

3 A As the crow would fly this site would be approximately
 4 twelve miles to the west.

5 Q And that is in a site, I believe, that heretofore
 6 has been approved by this Oil Conservation Commission?

7 A Correct.

8 Q In regard to the people you have indicated that are
 9 disposing now with Pollution Control, do you know whether or
 10 not they have contracts with Pollution Control?

11 A I do not know their arrangements.

12 Q So, you do not know whether or not this business
 13 that is presently going to Pollution Control would be
 14 available to you then.

15 MR. CAMPBELL: Mr. Examiner, I would like to get
 16 an understanding of what this line of questioning is intended
 17 to do. This is not a hearing on a Certificate of Public
 18 Convenience and Necessity. This Commission not only sure
 19 doesn't want to get into that but has no authority to get
 20 into it. If it is a competitive question we are engaged in
 21 here then I think we need to clarify that.

22 MR. NEAL: If the Examiner please, my position is
 23 this that I represent a rancher that has land immediately to
 24 the south of this proposed location. We also have land around
 25 the ranch also extends over to another salt water disposal

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1 lake which is owned by Pollution Control and if the services
2 are not needed in this application we do not propose, we do
3 not see why from the ranchers' standpoint this other area
4 could not be used. We are not involved in competition or
5 anything else we are engaged in the cattle business.

6 MR. CAMPBELL: In exploring this further, may I
7 ask, did I understand it from you that the other disposal area
8 is on the ranch?

9 MR. NEAL: It's around it, yes, sir.

10 MR. CAMPBELL: Well, is it in the interior of the
11 periphery of the ranch?

12 MR. NEAL: It's not on this ranch it's on another
13 one.

14 MR. CAMPBELL: The same company?

15 MR. NEAL: Yes.

16 MR. CAMPBELL: The same company, managed by the
17 same people?

18 MR. NEAL: Yes, Mr. Squires will testify.

19 MR. CAMPBELL: May I ask one more question? Does
20 the ranch or the management of the ranch have any ownership
21 interest in the other case?

22 MR. NEAL: Mr. Squires individually, not the ranch,
23 has a minute interest in Pollution Control.

24 MR. CAMPBELL: It seems to me, Mr. Examiner, and
25 I'm not going to make a big issue of it here but I just want

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1 to call to the attention of the Commission that it appears,
2 at least in part, to be a question of public convenience or
3 necessity to me and we're here before this Commission with
4 a proposed private investment on private land and to the
5 extent that it affects or is affected by the jurisdiction of
6 this Commission having to do with conservation of oil and gas,
7 prevention of waste and protection of correlative rights or
8 to the extent that this Commission administratively has some
9 obligations on the environmental side we are prepared to
10 respond to those but we don't intend to if the Commission
11 doesn't require us to to get engaged in a market survey here
12 and decide whether somebody is going to take contracts away
13 from someone else.

14 MR. STAMETS: The market factors, of course, can-
15 not be considered in this particular hearing. The Commission
16 would be concerned with questions of waste and the protection
17 of fresh waters that would be relevant in this particular
18 case. Mr. Neal, only so far as these contracts might affect
19 those two particular questions would there be any point in
20 pursuing it.

21 MR. NEAL: I was about ready to quit anyway on that
22 particular point. That's all I have.

23 MR. MADDOX: I have no questions of the witness at
24 this time.

25 MR. STAMETS: I have a question or two.

CROSS EXAMINATION

BY MR. STAMETS:

Q What is the total daily amount of water that you expect to handle through this system, the maximum perhaps?

A What we anticipate is three thousand barrels a day would be the maximum when we start off, we anticipate a thousand barrels or under but in essence the way I see it, it will increase over a period of years as the wells get in the latter stages of depletion of the Morrow gas wells and also of the various oil producing fields around that area.

Q Is this three thousand barrels of water per day the maximum that you intend to dispose of in this area or is this just a maximum for this first stage?

A Well, what I would say at this point is, it's the maximum first stage and if there is going to be much more water later, we would just have to come back with another application.

Q So three thousand barrels of water per day is the limit for this application?

A We'll settle on that.

Q Will your other witness go into the calculations of the evaporation rate that you mentioned of eighty inches a year?

A Yes, he can.

Q Okay. Now, I believe you indicated that the water would come from the Carlsbad area gas wells, are there other

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1 areas that you know about at this time?

2 A. Well, I've been told there are certain fields from
 3 the Abo and so forth that have a water problem, that water is
 4 currently being trucked and naturally there would be water
 5 from these areas if they wanted to dispose of it there and I
 6 feel that they will because there is a need.

7 Q. Do you have some particular leases in mind at the
 8 present time that would be trucked to this site if it were
 9 approved?

10 A. I could give you a better -- I have talked to
 11 trucking contractors like IW out of Artesia and he indicated
 12 to me that he would have two or three loads of water per day,
 13 that this would be a much more convenient place for him to
 14 dispose of the water. Now, I do not know where he is trucking
 15 the water from.

16 Q. By and large this would be water that is currently
 17 being trucked to some other site at the present time?

18 A. Yes.

19 Q. I believe this Pollution Control lake that has been
 20 referred to would be one of the ones that was approved by
 21 Commission Order R-3725, Laguna Plata and Laguna Gatuna?

22 A. Yes, sir.

23 MR. STAMETS: I believe that's all the questions
 24 I have at this time, I may have somemore at a later time.

25 MR. CAMPBELL: Yes, we may want to recall this witness

1 on rebuttal, I don't know, but he will be available either
2 way.

3 MR. NEAL: May I ask one question in view of the
4 Examiner's question.

5 MR. STAMETS: Yes, sir, Mr. Neal.

6
7 RECROSS EXAMINATION

8 BY MR. NEAL:

9 Q In this three thousand barrels a day, will that
10 be metered or how do you keep a record of that or do you?

11 A Yes, sir, we plan on having -- well, in other
12 words, a truck will handle a hundred and thirty barrels, a
13 hundred and thirty to thirty-five barrels per load and they
14 would fill out a ticket and we would keep track of the company
15 that hauls it in.

16 Q And would those records be available to the Oil
17 Conservation Commission for inspection?

18 A Yes, sir, they would.

19 Q Or do you know, is there any requirement that you
20 furnish this information to the Oil Conservation Commission?

21 A It's my understanding that we have to keep track of
22 the number of barrels that are hauled in every month.

23 MR. NEAL: Thank you.

24 MR. STAMETS: Any other questions of the witness?

25 He may be excused.

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(THEREUPON, the witness was excused.)

MR. CAMPBELL: Mr. Skrabacz.

CHESTER SKRABACZ

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CAMPBELL:

Q Would you please state and spell your name?

A My name is Chester Skrabacz, spelled S-k-r-a-b-a-c-z and I reside at 2407 Stanolind, Midland, Texas.

Q By whom are you employed and in what capacity?

A I have been employed in the capacity of geologist with Ed L. Reed and Associates since 1962.

Q Would you give us a brief description of the corporate activities of Ed L. Reed and Associates, please?

A E. L. Reed and Associates are primarily hydrologists that serve the southwest, including New Mexico. We have worked for the cities of Jal, Lovington, Carlsbad and we have done some work in this area for Mr. Larry Squires, which is Pollution Control now and for Barlow Pipeline Company which is a surface disposal put in northwest Lea County so we have been exposed to that work but we deal mainly with ground water or surface water problems in this whole southwest area.

1 Q Would you give a brief background of your own
2 educational and professional career?

3 A I got out of school in 1947 with a B.S. in Geology
4 and I have worked with major and minor oil companies in West
5 Texas and Southwest New Mexico from '47 to '62 as an explora-
6 tion geologist and development geologist and since '62 I have
7 done some consulting work in the oil field and have gone into
8 association with Ed L. Reed.

9 Q In your association with Ed L. Reed are you called
10 upon to conduct hydrological studies as well as geological
11 ones?

12 A Yes, sir, they go hand in hand.

13 Q Has your company been employed by Tahoe Oil and
14 Cattle Company in this matter?

15 A Yes, sir.

16 Q Have you for Ed L. Reed and Associates done the
17 work?

18 A Yes, personally.

19 Q All right, I'm going to hand you a set of a series
20 of exhibits and ask you to identify each of these. You have
21 before you what has been identified as Exhibit Number Six,
22 will you state what that is and what it reflects in general?

23 A Exhibit Number Six is what I call the basic data
24 map. It encompasses about six square miles or seven square
25 miles centered around the hundred-and-sixty acres of Tahoe

1 Oil and Cattle Company. It's located in Section 2, 20 South,
2 30 East and the little symbols you see in the various
3 sections are abandoned water wells, lake sites, it is an
4 area that I have personally visited and sampled water or have
5 measured the water level, plus the fact that I have incorpora-
6 ted information from published report, Eddy County Report
7 Number Three, published 1952 and some information from the
8 State Engineer Office of Inventory in 1971.

9 This map will again tell you the location of these
10 test holes or water wells or sites of examination. It will
11 give you a chemical analysis on these locations, total depth
12 of the water wells or abandoned holes and elevations of the
13 area and whatever published information or information I
14 gathered.

15 I will go through some of these. Seep No. 1 in the
16 southeast quarter of Section 4 is a seep or I should say a
17 pretty good little flow. I would estimate five to eight
18 hundred gallons per minute heading from the tailing ponds in
19 Sections 4 and 9 flowing toward a lake in the northeast quarter
20 of Section 3. The seep had a total solids of three hundred
21 and sixty-one thousand, four hundred and sixty parts
22 milligrams per liter.

23 Well No. 2 located in the southeast quarter of
24 Section 3 is an old stock well owned by Mr. Bates at a total
25 depth of sixty feet, the static water level was one point four

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1 feet below ground level, the total solids is twelve thousand,
2 one forty-eight milligrams per liter.

3 Immediately above location two is a dug water site
4 and its total solids was twenty thousand, one fifty milligrams
5 per liter.

6 Location Number Four is part of a lake body that
7 encompasses the northwest quarter of Section 3 and its total
8 solids are fifty thousand milligrams per liter. There is an
9 abandoned dug well in the northeast quarter of Section 3,
10 labeled Number Five. It is interesting to note that in 1948
11 the water level below land surface was minus six feet.
12 Presently that lake level, I would say from judgment by
13 observation is about a plus five feet above ground level.

14 I also visited Location Number Seven in Section 16
15 and got a water level. The well is broken down, there is
16 nothing but corrosion in the tanks. They are evidently not
17 used for stock anymore and in Section 8 was another well that
18 the State measured and got a water level of fifty-two feet
19 and the one in 7 was fifteen feet.

20 I have not sampled the well but in 1950 one of these
21 wells was sampled by the State and I believe the analysis
22 called for about -- in 1950 the total solids were thirty-
23 three, seventy. I do not know what the total solids are
24 today.

25 Q Is that on Number Eight?

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1 A. No, Number Seven in Section 16.

2 Now, generally in measuring the hydrologic gradient
3 from Seven and Eight towards this lake in Section 3, the
4 water movement locally could be going toward the north and
5 from the base of Well No. 9 in Section 25, Hackberry Lake
6 windmill, a water measurement made in 1971 by the State of
7 nineteen point five feet showed a hydrologic gradient to the
8 south and a well in Section 10, 19, 31, measured by the State
9 in 1950 showed a water level of a hundred and one feet and
10 probably typical Triassic water of thirty-three, forty total
11 solids.

12 That's all the information we could gather in this
13 immediate area other than an industrial well used by the
14 Potash Company in the southwest quarter of Section 4. The
15 water level was eighty-two feet static level in 1960. It is
16 probably a Rustler well with a capacity of a thousand gallons
17 per minute and an estimated total solids of minimum twenty
18 thousand milligrams per liter.

19 We have some test holes, No. 21, No. 166 and 97 in
20 Section 2 which I will present in a subsequent cross section.
21 However, there is a Well No. 6 in the yellow painted area.
22 It was a well drilled by Mr. Bates back in the early forties
23 to a total depth of a hundred and thirty feet and he was
24 looking for some irrigation water and all he found was ten
25 gallons per minute and he said it was very gypsy water and he

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1 could not use it and he plugged it. This is only verbal
2 information.

3 Q You have made reference, I believe, to the lake,
4 dug well in lake, in the north part of Section 3. Can you
5 orient to that where the potash operation is and the tailing
6 commences there?

7 A Yes, the tailing pond is immediately west one-and-a-
8 half miles from the Section 2. It is actually in the south
9 half of 4 and the north half of 9, which I can show you
10 better on the next exhibit.

11 Q And you did test the solids in that pond?

12 A Yes, sir.

13 Q Did you give us those?

14 A Well, I got it from the seep. It is a seep that
15 is coming possibly from the tailing ponds and from the lakes
16 in the area and the total solids were three hundred and
17 sixty-one thousand, four hundred and sixty milligrams per
18 liter.

19 Q All right, I now hand you what has been identified
20 as Exhibit Number Seven which you have before you and I ask
21 you to state what that is.

22 A Exhibit Number Seven is a topographic map slightly
23 enlarged from the standard government map. Again the one-
24 hundred-and-sixty acres is marked in yellow in Section 2 and
25 the contour interval on this map is ten feet. The proposed

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1 pit or disposal is in the northwest of that yellow marking at
2 an elevation of approximately thirty-two hundred plus feet.
3 The lake below it is fifteen to twenty feet lower. In my
4 opinion the water would go in that direction.

5 Q In other words, if there happened to be an overflow
6 in this dug pit, your opinion is that it would move toward
7 the existing lake?

8 A Yes, sir.

9 Q You have heard, I believe, since you have been
10 present in the room, questions concerning the risks of an
11 overflow moving down through Sections 10 and 11 to Sections
12 15 and 16, have you not?

13 A Yes, sir.

14 Q What is your opinion with regard to that possibility?

15 A Well, I feel certain that the water would move
16 down dip and that would be in the direction of the lake to
17 the west that's located in the east half of Section 3.

18 I would also like to point out the location of the
19 tailing pond again, it's the circular hachured-type insignia,
20 it's in the south half of 4 and north half of 9 and the
21 stippled area west in Section 8 is a lake probably formed from
22 the tailing operation and also there is another little lake
23 in the northeast of 9 and the northwest of 10, which I
24 believe is kind of dammed up from the surface operation.

25 Q But the area to which you think water if it over-

1 flows would move, you are referring to the lake in Section 3,
2 are you not?

3 A Yes, sir. I'm talking about surface water at this
4 time.

5 Q Yes, I understand that.

6 Now, I refer you to what has been identified as
7 Exhibit Number Eight and ask you please to state what that is
8 and what it reflects?

9 A These drillers' logs, test hole logs, are of public
10 record and the copies are stapled on here and it shows
11 the geology of the area down to five hundred and seventy
12 feet.

13 Particularly P 21 is located immediately northwest
14 of the proposed disposal site. Now, it has about twenty feet
15 of what we call quaternary alluvium which is some sandy
16 formation with a lot of clay, a little caliche lime.
17 The next hundred-and-eighty feet is of Triassic age, shale
18 with calcareous material in it and a very limited amount of
19 sand carrying a very limited amount of water and from two
20 hundred feet to five hundred and roughly forty feet is the
21 Rustler formation which has mainly Red Bed, some sand zones,
22 approximately a hundred feet of Dolomite with stringers of
23 Anhydrite, which is an aquifer for the area of highly
24 mineralized water.

25 There is no information on the water in these holes

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1 but I'll refresh your memory in Section 2 where the
2 location 166 is spotted. Mr. Bates drilled Well No. 6,
3 labeled Well No. 6, a test hole and he had ten gallons
4 per minute not deeper than one-hundred-and-thirty feet which
5 would probably check that alluvium section that's
6 pictured here.

7 So the area has lots of clay awful near the surface
8 except for pockets of alluvium in low depressions and it would
9 be normally mineralized water. The presence of fresh water
10 is very limited to the east of here, probably in the Ogallala
11 formation which does not exist here.

12 Q I now refer you to what has been identified as
13 Exhibit Number Nine and ask you to state what that is and
14 what it reflects.

15 A Number Nine is a copy from the Ground Water Report
16 Three, Eddy County, New Mexico, 1952. The disposal site is
17 labeled in there north of Highway 180 and east of Highway 31
18 in the north central part of this map and it is located
19 geologically in the Triassic Dockum formation and the other
20 formation on this plat is the Permian Rustler and Castile
21 which is located west. There is no Ogallala in this area
22 which is Tertiary.

23 Q What does that mean in terms of the possibilities
24 of the existence of any fresh water?

25 A Well, this is a very general area but the area

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1 around the disposal site, I found no fresh water or potable
2 water or even cattle water, which I will go into a little
3 later on.

4 Q Now, I refer you to what has been identified as
5 Exhibit Nine-A and ask you to state what that is and what it
6 reflects.

7 A Exhibit Nine-A contoured on top of the salt beds,
8 it is a sub-surface contour map covering the area in question
9 again and it is a reproduction from Report Number Three,
10 Eddy County, New Mexico, 1952 publication. The salt formation
11 in this area in Section 2 is approximately five hundred feet
12 and immediately north there is a deep depression of approxi-
13 mately a two hundred foot drop showing the area having the
14 salt slumps and the possibility exists that very little or no
15 water will be getting out of this slump area.

16 Q Now, I refer you to what has been identified as
17 Exhibit Ten and ask you to state what this is?

18 A Number Ten is a Historical Chemical Quality listing
19 of the Clayton Well No. 2 which is located in the northeast
20 quarter of the southeast quarter of Section 3, Township 20,
21 30 East, Eddy County.

22 We have the dates, specific conductance and a
23 breakdown of all various chemical qualities in milligrams
24 per liter.

25 The two columns I want particularly to pay attention

1 to are the chlorides and the total dissolved solids. Now
2 this is ground water. On May 1st, 1950, Well No. 2, which I
3 talked about earlier, the water level right now is one point
4 four feet below ground level. The chlorides were two, fifty-
5 five milligrams per liter and the total dissolved solids
6 were twenty-nine, thirty, which is slightly above human
7 consumptive recommendation but probably adequate for animals,
8 stock.

9 Now, the subsequent times and chemical analysis
10 were furnished to us by the Potash Company of America who
11 have come to this particular well and sampled this periodically
12 and this is their findings, this is their chemical analysis.

13 As you have noticed, the chlorides are progressively
14 increasing in time and total dissolved solids.

15 Then turning to the next page, in June 23, '76, I
16 personally sampled that well and examined the chlorides at
17 the laboratory where the analysis showed fifty-four hundred
18 and thirty-six milligrams per liter of chlorides and total
19 dissolved solids of twelve thousand, one hundred and
20 forty-eight milligrams per liter.

21 The following pages are the analysis made by
22 Southwestern Lab and the Potash Company of America.

23 In my opinion, twelve thousand, one hundred and
24 forty-eight ground water is above the accepted water for
25 cattle, animal life.

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1 Q Now, I refer you to Exhibit Eleven and ask you to
2 state what that is, please?

3 A Exhibit Number Eleven is a hydrograph which
4 measures the static water level in a particular well over a
5 period of time. This gives you an idea of what is happening
6 to the water level. Normally it goes down because of use
7 in the area. This Well No. 2 is the one I just read the
8 chemical analysis of and it is very close to this lake and
9 located in Section 3.

10 A water level recorded in 1950 by the State showed
11 the depth of the water to be eight-and-a-half feet below
12 ground level. In 1960 Mr. Bates who had installed equipment
13 in the hole told me that he knew the water level to be nine
14 feet below ground level and in 1968, a few months after
15 that, the State measured that and came up with a water level
16 of three point six feet below ground level and the State
17 measured it in 1971 and again came up with a water level of
18 about one point nine feet below ground level. I measured
19 the same well in June of '76 and the water level was one
20 point four feet below ground level, which in my opinion,
21 shows that the influx of water from the area had increased
22 the ground water roughly eight to nine feet in the last
23 twenty-six to twenty-seven years.

24 Q Where do you think that water is coming from and
25 what would the quality be?

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1 A. Well, I believe most of this water could be
2 coming from the potash operation, possibly some rainfall and,
3 well, we know the quality of this particular well. Presently
4 the total solids are twelve thousand, one forty-eight.

5 Q. I refer you now to Exhibit Twelve, the last
6 exhibit, and ask you to state what that is and briefly what
7 it reflects?

8 A. Exhibit Number Twelve is a Composite Chemical
9 Analysis of Produced Water in the General Area of Section 2,
10 20 South, 30 East. This information was obtained from "The
11 Oil and Gas Fields of Southeastern New Mexico", a publication
12 by the Roswell Geological Society, Volume 1956 and 1960,
13 plus other reputable sources.

14 The first column shows the formation which is of
15 the different horizons of produced oil and water in the
16 area and this is primarily dealing with the water: Yates,
17 Seven Rivers, Queens, Premier, Grayburg-San Andres, the
18 Delaware Sand, Bone Spring, Abo, Wolfcamp, Strawn, Atoka,
19 Morrow and Devonian.

20 The column next to it is the Total Dissolved Solids,
21 again it is the factor we are dealing with primarily and
22 they range from roughly thirty thousand parts per million
23 to in some cases as much as three hundred thousand parts per
24 million.

25 Q. How are those relevant to potable and non-potable

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1 water?

2 A. Well, all of this is above. Potable water, in most
3 instances, five hundred to a thousand total solids is accepted
4 for human consumption and up to ten thousand total solids for
5 animal life.

6 Q Are there any other particular references?

7 A. Well, the Morrow sand I believe is the target of
8 Tahoe Oil and its total solids is sixty-one thousand. The
9 lake presently shows fifty thousand, the lake sample.

10 Q Now, were all of these exhibits prepared by you
11 or under your supervision?

12 A. Yes, they were all prepared by me.

13 MR. CAMPBELL: I would like to offer these exhibits
14 in evidence.

15 MR. NEAL: No objection.

16 MR. MADDOX: No objection.

17 MR. STAMETS: These exhibits will be admitted.

18 (THEREUPON, Applicant's Exhibits Six through
19 Twelve were admitted into evidence.)

20 MR. CAMPBELL: I have only about two or three
21 more questions, short ones, for this witness and he will be
22 ready for cross examination. I don't know what the intention
23 of the Examiner is, shall I go ahead and finish with him?

24 MR. STAMETS: Go ahead and finish with him and then
25 we will break for lunch.

1 Q (Mr. Campbell continuing.) Now, based upon the
2 studies that you have referred to here and the data that you
3 have collected and the analyses that you have made, do you
4 feel that you have adequate information upon which to base
5 a professional opinion as to the water situation in the area
6 that you have described here in which the proposed facility
7 would be operated?

8 A In this immediate area I have adequate information.

9 Q Would you express that opinion with regard to
10 the fresh water versus non-fresh water, humans and animals
11 and so forth?

12 A The lake located in the northeast quarter of
13 Section 3 had a minimum total solids of fifty thousand, which
14 is unfit for animal or human and the ground water as found
15 in Well No. 2 has total solids of twelve thousand, one forty-
16 eight which again is unfit for human or animal life.

17 Q Do you believe that with your knowledge of the
18 situation in the area that this installation would significantly
19 affect either the water supply or the quality of water in
20 the immediate area we have been talking about?

21 A I don't think it will affect anything.

22 MR. CAMPBELL: That's all of the questions.

23 MR. STAMETS: At this time we will take a recess
24 until one-fifteen.

25 (THEREUPON, the hearing was in recess.)

AFTERNOON SESSION

MR. STAMETS: The hearing will come to order.

Do you have anything further from this witness,

Mr. Campbell?

MR. CAMPBELL: Not at this time.

MR. STAMETS: Any questions of the witness.

MR. NEAL: Yes, sir, I have a few questions.

MR. STAMETS: Mr. Neal.

CROSS EXAMINATION

BY MR. NEAL:

Q Would you direct your attention to Exhibit Six in which you have testified as to the various wells that you have inspected and the total water levels, is that correct?

A. Yes, sir.

Q Now, comparing that with Exhibit Seven, the Potash Mine Company of America lake lies over immediately west in a portion of Section 8 and Section 9, does it not?

A. Yes, sir.

Q And it also has another lake that is up in Section 3, I believe, isn't that correct?

A. Yes, sir.

Q Now, isn't it true or did you observe, I understand that you were on the premises, did you observe up in 3 that the Potash Company had constructed a barrier or dike in

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1 regard to water flowing to the southeast down this draw.

2 A. No, sir, I haven't investigated all of that.

3 Q. You didn't look at it that close and you don't
4 know?

5 A. No, sir, I just went down this road to the water
6 well.

7 Q. You didn't go over and look at their facilities
8 then as to what they had constructed there?

9 A. No.

10 Q. Now, directing your attention to Exhibit Seven,
11 in Section 15, did you drive down in that area?

12 A. In 16 only.

13 Q. You did not go over into 15?

14 A. No, sir.

15 Q. Isn't it a fact, if you know, that in 15 there is
16 a draw that comes through there that is quite marshy?

17 A. From the topographic map I am observing that.

18 Q. And that would indicate that on the map, wouldn't
19 it?

20 A. Yes, sir.

21 Q. Now, I'm directing your attention directly west to
22 a round circle of the marshy area in the northeast of 16, did
23 you go to that spot there?

24 A. No, sir.

25 Q. Do you know that that is a watering for cattle?

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- 1 A. No, sir, I haven't been to that location.
- 2 Q. So, therefore, you couldn't take any samples there?
- 3 A. No, I didn't.
- 4 Q. Were you aware that there was any water there?
- 5 A. No, sir.
- 6 Q. You have done work for Mr. Squires before, your
- 7 company?
- 8 A. My company, yes, sir.
- 9 Q. And in connection with further to the east?
- 10 A. Yes, sir.
- 11 Q. And you also knew that this ranch is being operated
- 12 by Mr. Squires?
- 13 A. No, sir.
- 14 Q. You did not know the owner?
- 15 A. No, sir.
- 16 Q. Did you make any investigation as to who owned it?
- 17 A. No, sir.
- 18 Q. Did you observe the headquarters of this ranch
- 19 approximately a mile to the west of the road there, down in
- 20 a draw?
- 21 A. Yes.
- 22 Q. Did you go over and contact the ranch foreman?
- 23 A. No.
- 24 Q. Did you contact anybody on that ranch concerning
- 25 the various cattle waterings in this immediate area?

1 A. No, sir. I talked to Mr. Bates and he told me where
2 they got the cattle water from.

3 Q. Mr. Bates' ranch lies to the north, does it not?

4 A. Yes, sir.

5 Q. Now, in regard to these elevations or water levels
6 that you have testified to, where is the source of that water
7 coming from; why are those water levels coming up?

8 A. They seem to be coming up because of the influx of
9 water into Section 3.

10 Q. That would be from the lake of the Potash Company
11 of America?

12 A. Yes.

13 Q. And that would be underground seepage, would it not,
14 underground movement?

15 A. Yes, sir.

16 Q. And that underground movement running from the
17 northeast of 3 in a southeasterly direction or a south
18 direction?

19 A. In that location it is going southeast, it's
20 rising.

21 Q. And that would materially affect, would it not,
22 the Sections 10 and 15 and Section 16?

23 A. Possibly.

24 Q. Probably?

25 A. Yes, I haven't checked anything on those sections.

1 Q But the water is coming and moving to the south or
2 southwest?

3 A The water is just rising underground in all
4 directions.

5 Q All right and the principal source of that water,
6 is it not, is from Section 3 or the lake over in Section 8?

7 A Yes, sir.

8 Q Now, did you inquire into the past history of these
9 ranches as to the Clayton well which is shown on your Exhibit
10 Seven?

11 A No. 2 or 3?

12 Q I believe it's up in No. 3, it's number 5, I believe.

13 A 2 and 5 are called Clayton wells by the State.

14 Q Right and isn't it true that at one time that was
15 the principal watering place for the Bates ranch?

16 A Yes, sir.

17 Q Do you know whether or not that's on the Bates
18 ranch or the Snyder ranch?

19 A Well, we did not survey that location and Mr. Bates
20 said it belonged to him so I assumed that was his.

21 Q And the cattle used to water there all of the time?

22 A Yes, sir.

23 Q But there is a definite relationship between the
24 lake in Section 3 and in Section 8 as to the water table that
25 is existing down in Section 15 and Section 16, there is a

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1 definite relationship, is there not?

2 A. I believe there is.

3 Q. Now, what is there in Section 2 that will stop
4 water that is being placed into a proposed pit also from
5 migrating to the south and southeast?

6 A. Nothing.

7 Q. In other words, it's going to seep, it's not going
8 to be a straight evaporation pit, is it?

9 A. Mostly it is evaporation but there could be some
10 downward migration, true.

11 Q. There will be a substantial part of it, will there
12 not?

13 A. Not necessarily.

14 Q. Have you made any figures as to the amount of
15 acres or gallons that can evaporate daily, assuming that
16 you had three hundred and sixty-five days a year that would
17 be the same?

18 A. Yes, sir.

19 Q. And what does that figure out?

20 A. I believe it is about two-and-a-half inches a
21 day evaporation.

22 MR. STAMETS: Excuse me a second, I would like to
23 clarify that. I believe the first witness said eighty inches
24 a year and for three hundred and sixty-five days, I don't
25 believe that's going to work out to two-and-a-half inches.

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1 THE WITNESS: It won't? One point nine or something.

2 MR. STAMETS: Eighty inches a year, if you divide
3 eighty by three, sixty-five I don't think you would get one.

4 THE WITNESS: Point two four, I'm sorry, point two
5 four. He did the figuring and I just repeated what he told
6 me.

7 Q (Mr. Neal continuing.) You haven't made the
8 calculations yourself then?

9 A No, I observed it and I must not have observed
10 the decimal.

11 MR. NEAL: In other words --

12 MR. CAMPBELL: He'll be available.

13 MR. NEAL: I understand, so we will just call him
14 back in a minute.

15 Q (Mr. Neal continuing.) All right, now, there will
16 in your opinion be seepage from this pit to the south and
17 southwest down in, as reflected on this map, 15 and 16?

18 A Yes, sir.

19 Q Okay. Have you had an opportunity, as a matter of
20 curiosity, to do any work of this nature over in Sections,
21 about 13 or 24, in the area of the Duvall Potash Mine?

22 A No, sir.

23 MR. NEAL: I'll pass the witness.

24 MR. STAMETS: Are there other questions of the
25 witness?

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MR. MADDOX: Just a few.

CROSS EXAMINATION

BY MR. MADDOX:

Q Are you aware of the location characteristics of the Laguna Gatuna and Laguna Plata lakes?

A I've read over the report but not in detail.

Q But your firm studied that area?

A Yes, sir.

Q Do you know the approximate size of those lakes?

A Yes, they cover more than a section. They are very large.

Q And, therefore, in your opinion would they hold almost unlimited amounts of water under those circumstances?

A Yes, sir.

MR. MADDOX: No other questions.

CROSS EXAMINATION

BY MR. STAMETS:

Q I would like to get back to the evaporation rate. What is the evaporation rate in this area?

A Well, I have not really checked on that.

MR. CAMPBELL: Could we use the other witness? I'm going to call him back if you don't have any objection to that, the engineering witness, he has the data.

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1 MR. STAMETS: Okay, I'll tell you what --

2 MR. CAMPBELL: Oh, you need it to follow through?

3 MR. STAMETS: Yes, I need this to follow through so
4 why don't we just go ahead and go back and ask the original
5 witness about that and he may answer from his seat.

6 Where did this evaporation rate come from and what
7 is it?

8 MR. FREEMAN: This is based on information from the
9 Carlsbad weather information where they say that the annual
10 evaporation rate is between eighty to eighty-five inches per
11 year.

12 MR. STAMETS: Eighty to eighty-five inches a year.
13 You say the Carlsbad weather service, is this the U. S.
14 Government office there?

15 MR. FREEMAN: Yes.

16 MR. STAMETS: Okay, now, if I convert that eighty
17 inches a year what does that come out to a day?

18 MR. NEAL: I got point zero one eight.

19 MR. STAMETS: Point zero one eight.

20 MR. NEAL: That's the acre foot a day.

21 MR. STAMETS: I did just a little bit of
22 calculating during the lunch hour and if anybody disagrees
23 with these figures let me know. The surface area of the pit
24 is about one acre or forty-three thousand, six hundred and
25 some square feet. Eighty inches a year, I divided that by

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1 twelve, I got six point six six feet. I multiplied the
2 surface area by six point six six and I came up with a
3 figure of two hundred and ninety-one thousand plus cubic feet
4 of evaporation from that pit in a year. One barrel of water
5 is about five point six one five four cubic feet and I
6 divided that figure into two hundred and ninety-one thousand
7 and got an evaporation rate of a hundred and forty-two
8 barrels a day, more or less.

9 Does anybody disagree with those figures?

10 Now, if the evaporation rate is a hundred and
11 forty-two or a hundred and fifty barrels of water a day
12 what is going to happen to the other eight hundred and fifty
13 barrels of water a day?

14 MR. FREEMAN: We have asked for this ten-acre
15 area and if the evaporation does not take place we were
16 going to put up in essence a fire wall type installation and
17 then that would be increased times a factor of ten. Either
18 that or we have got to cut back the amount of water that
19 will actually evaporate. I feel that more water will evaporate
20 than that but that is the actual figure that the Weather
21 Bureau has given us.

22 MR. STAMETS: I better quit asking this witness
23 questions, I would like to get back to Mr. Skrabacz.

24 Q. (Mr. Stamets continuing.) Did you make any study
25 of the amount of rainfall in this particular area?

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1 A. In general only.

2 Q. In general only, what did that come out to?

3 A. Well, I just know generally. I thought it was
4 about twelve to fourteen inches a year. I did not make any
5 studies.

6 Q. What happens to this rainfall, where does it go?

7 A. Towards the Pecos River.

8 Q. In other words, what we are talking about right
9 here in this area that's under consideration here today, the
10 water that falls in this area goes to the Pecos River if there
11 is enough of it?

12 A. Yes, towards the River, correct.

13 Q. And then the same thing would be true of the water
14 from this PCA lake, would that go to the river as well?

15 A. If it's not dammed, I guess, it's a lesser
16 elevation. I believe the river's elevation is about -- I
17 don't have it here, I really don't have the elevation of the
18 river but I imagine it is lower.

19 Q. In other words, in general the sub-surface
20 drainage in the area is towards the Pecos River.

21 A. Are we talking about subsurface or surface?

22 Q. Let's talk about the surface first.

23 A. Well, generally the surface is lower at the Pecos
24 River.

25 Q. Okay. Now, I see on your Exhibit Number Seven that

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1 there are some closed drainage basins. Let's take for
2 example in Section 11, it looks like there is a low spot
3 right near the center of the section. Now, would the water
4 there drain into that low spot?

5 A. Locally, yes.

6 Q And then up in Section 3, what has been identified
7 as the Clayton wells there is a large depression, surface
8 water would drain into there?

9 A. Yes, sir.

10 Q Now, let's talk about subsurface water, where does
11 it go?

12 A. Well, generally overall and on a regional basis it
13 would go towards the Pecos River to the southwest.

14 Q So, it would follow in general the surface drainage
15 as well?

16 A. Yes, sir, that is correct.

17 Q Now, when you were in the area did you observe any
18 surface fracturing resulting from secondary mining in the
19 PCA mine?

20 A. No, sir, I just drove across this road here and
21 picked up samples from the various wells. I did not observe
22 any fracturing on the surface.

23 Q Did you make a detailed study of this area,
24 commonly known as the Nash Draw Clayton Basin area?

25 A. No, sir.

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1 Q So you would not be able to testify in a general
2 nature what the water system here, where the normal flows
3 are from and to and what happens to the water on its way to
4 the Pecos?

5 A No, sir, not in general other than what I've read
6 in the State Engineer's report. Locally I made this study
7 pertaining to Section 2, 3, Section 16 and right along the
8 highway there in Section 4. That's where I picked up the
9 samples and measured the water levels and that was the end
10 of my study for that area.

11 Q Did you make any study to determine how impermeable
12 a pit would be located in Section 2?

13 A No, sir, no clay studies, I just observed it. It
14 is very red clay.

15 Q So you wouldn't be able to tell what type of
16 percolation was there?

17 A Percolation and permeability, no, sir.

18 Q Let's just make some assumptions here for the
19 purposes of study. Let's assume that eight hundred and
20 fifty barrels of water a day would percolate out the bottom
21 of this pit, where would that water go?

22 A Gradually towards the Pecos River.

23 Q Now, could that be mixed in with the natural
24 rainfall in the area and cause contamination of that water
25 to a greater degree?

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1 A. Contaminate the natural rainfall?

2 Q. Yes.

3 A. Yes, sir.

4 Q. Okay, now, we have made this assumption, let's go
5 back to the real world. Can you tell us that this will or
6 will not happen?

7 A. Well, if the brine water percolates into the
8 formation, eventually it would move toward the Pecos River.

9 Q. But can you tell us whether it will percolate from
10 a pit in this area?

11 A. I say that a small portion of it possibly would. I
12 have not made any detailed clay studies.

13 Q. Did you recommend the size of the pit?

14 A. No, sir, I had nothing to do with that.

15 Q. Referring to Exhibit Number Nine which is a map
16 from the Ground Water Report Number Three, did you read the
17 contents of that entire report?

18 A. Yes, I have, generally.

19 Q. Did that report indicate that water could be found
20 in the Triassic in parts of Eddy County?

21 A. Yes, sir.

22 Q. What about this general area?

23 A. There are waters in the Triassic sands, definitely.

24 Q. So somehow or another waters have gotten into the
25 Triassic which is shown here on your Exhibit Number Eight?

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1 A. Yes, sir.

2 Q. Below the surface sands?

3 A. Yes, there are some waters. I said in that exhibit
 4 there was no mention of water but I'm sure there is water
 5 there.

6 Q. If water is added to this system that we have here
 7 where water flows to the Pecos River, subsurface or on the
 8 surface, if water is added to that system where will it go,
 9 to the Pecos River?

10 A. Yes, sir.

11 Q. Is it your opinion that we would add to the sum
 12 total of water entering the Pecos River at the Malaga Bend
 13 area?

14 A. Yes.

15 Q. And if that water is of poorer quality than the
 16 Pecos River what will that do?

17 A. It will make it poorer.

18 Q. Now, there was an exhibit somewhere here that
 19 listed a lot of different waters and the contents?

20 A. The brine waters?

21 Q. Yes, is that Exhibit Twelve?

22 A. Twelve, yes, sir.

23 Q. Okay. Do you know if this water is generally
 24 better or poorer than the Pecos River water?

25 A. Well, I don't think the Pecos River is of this

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1 mineralization at all. I don't know offhand because it
 2 varies as it goes along. I don't know offhand what the Pecos
 3 River solids are.

4 MR. STAMETS: Any other questions of this witness?

5 MR. CAMPBELL: Yes, I have a couple.

6

7

REDIRECT EXAMINATION

8 BY MR. CAMPBELL:

9 Q You have testified that the water that might be
 10 added by this installation if it flowed over the surface
 11 southward or if it flowed subsurface southward would add to
 12 the volume of water that is moving that direction toward the
 13 Pecos River underground. To what extent do you think this
 14 operation would impact the already existing situation in the
 15 area?

16 A Well, if the surface would go toward a lake there
 17 would be no problem at all and the ground water in the
 18 immediate area is highly mineralized now.

19 Q Haven't you testified that if it was on the surface
 20 under the present circumstances it would go to the lake in
 21 Section 3?

22 A Correct.

23 Q Now, what I'm trying to get at is if you have an
 24 opinion with regard to the magnitude of the impact of this
 25 facility on the general situation in that area, is it

1 significant, is it minimal, what is your opinion as to that?

2 A. I think it's minimal right now.

3 Q. Do you believe that there are ways in an engineering
4 sense that the direction of the flow can be affected?

5 A. Correct, on the surface.

6 Q. On the surface.

7 MR. CAMPBELL: Well, I'll ask the engineer this
8 other question. That's all I have.

9 MR. STAMETS: Mr. Neal.

10
11 RECROSS EXAMINATION

12 BY MR. NEAL:

13 Q. The surface work would involve lining of the pit
14 or something of that nature, in other words, where it could
15 not seep down?

16 A. Yes.

17 Q. That could be done?

18 A. Yes.

19 Q. And the dikes could be built around to take care
20 of any overflow or anything of that nature?

21 A. Yes, sir.

22 Q. And that would limit the effect of any adverse
23 effects on further downstream or down to the south?

24 A. On the surface, yes, sir.

25 Q. And if you had the pit lined to where there could not

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1 be any seepage then it would not be compounding the problem
 2 that is already there, would it?

3 A. No.

4 MR. NEAL: Thank you, sir.

5 MR. STAMETS: Any other questions of the witness?

6 He may be excused.

7 (THEREUPON, the witness was excused.)

8 MR. CAMPBELL: Do you want me to call the engineer
 9 back for your benefit?

10 MR. STAMETS: Yes, if you will bring him back to
 11 the stand.

12 MR. CAMPBELL: All right, Mr. Freeman, will you
 13 take the stand again, please?

14 I'll ask him a couple of questions, Mr. Examiner,
 15 on rebuttal here, I guess.

16
 17 KENNETH FREEMAN

18 recalled as a witness, having been previously sworn, was
 19 examined and testified as follows:

20
 21 REDIRECT EXAMINATION

22 BY MR. CAMPBELL:

23 Q. Mr. Freeman, you have been present here and
 24 listened to the testimony and the questions and the answers,
 25 have you not?

1 A. Yes, I have.

2 Q. And you are aware that there is a concern on the
3 part of one of the parties to the proceeding that surface
4 and underground movement may take place that could adversely
5 affect the water situation in Sections 15 and 16 and that
6 there has been a broader areal discussion of the impact
7 farther to the south to the Pecos River, you have heard that,
8 have you not?

9 A. Yes, I have.

10 Q. Now, from an engineering point of view, this is
11 a legitimate and substantial concern of the Commission when
12 weighed against the waste disposal problem and the requirement
13 for doing something with waste somewhere. If that is a
14 serious problem can the area be engineered in such a way that
15 the chance of the surface -- first, movement could be
16 minimized or could be directed more clearly and definitely
17 toward the lake in Section 3, for example?

18 A. Well, the original plan was to construct a three-
19 acre pond and it has been decreased to one acre because of
20 the amount of water we felt that the evaporation would be
21 higher. However, it has also been considered to put a dike
22 or a fire wall around this ten acres that is located on the
23 northwest corner of this hundred-and-sixty acres and if there
24 is high rainfall and so forth, this would contain the water
25 into this ten acres.

1 Q Completely contain it or direct it somewhere else,
2 could it be done either way?

3 A Well, the thinking was we would like to have a
4 three-foot wall pushed up on three sides and then as it dips
5 towards the west to the lake that could be two-foot so if
6 there is any overage it would go to the lake.

7 Q Well, in answer to my question you are saying that
8 there are engineering ways in which this matter could be
9 addressed in terms of the construction of the facility and
10 the general location?

11 A Yes, there are.

12 Q To address the question of the underground possi-
13 bilities, do you as a petroleum engineer have any personal
14 knowledge or opinion as to the possibilities of seepage,
15 either whether or not it will occur or at what rate it will
16 occur with the storage of this water in the pit you are
17 proposing, do you have any opinion as to that?

18 A No, I really have no opinion other than the fact
19 that from this hydrograph the water level is supposed to be
20 one-and-a-half foot or something like that from the surface
21 and this was the reason for the pit not being any deeper
22 than what it is.

23 Q Well, but you are saying that you don't know what
24 the seepage would be, if any, into the underground basins?

25 A Yes, that's what I'm saying.

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1 Q Now, if the Commission believes that there might
2 be or is concerned that there might be significant underground
3 seepage that could then move inexorably, I guess, with the
4 rest of this gluck that's in that area down toward the Pecos
5 River and that a lining would at least alleviate some of the
6 concerns about that, would you have objection to lining
7 this pit?

8 A No, it could be lined and I know that the Commission
9 in previous orders has set out approved methods of lining.

10 Q Do you know what the cost of those would be?

11 A I do not know that. This would have to be considered.

12 Q But obviously if the Commission required it you
13 would either do it or not go ahead with the project?

14 A Yes.

15 MR. CAMPBELL: All right, that's all of the
16 questions that I have right now.

17 MR. STAMETS: Are there other questions of Mr.
18 Freeman?

19 MR. NEAL: I would like to ask one question.

20

21 RECROSS EXAMINATION

22 BY MR. NEAL:

23 Q From your earlier testimony, when this water is
24 put into the tanks and then the water drains off into this
25 holding tank or pond, isn't it true that in those type of

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1 systems that you sometimes develop, depending on the quality
2 of the water mixed with oil, that you develop a skim, oil
3 skim across that holding pond, isn't that true?

4 A Not if you are running a good operation it isn't.
5 They have chemicals that you can add to the water that will
6 break the surface tension so the oil will separate from the
7 water and if you are starting to notice this you will add
8 chemicals so it will break out.

9 Q Is it true that if a skim does occur on this
10 holding pond that this materially affects the evaporation,
11 does it not?

12 A That would be true.

13 Q In other words, whether or not a skim gets out
14 there, you will control that by chemicals?

15 A Yes, if you would notice any then a prudent
16 operator would treat the system so that the oil would break
17 out.

18 Q And that would require, would it not, daily
19 attention?

20 A Yes.

21 Q Do you intend to have someone on the premises here
22 all of the time?

23 A We are intending to employ a person, yes.

24 Q That's to keep your records as to how much water
25 is going to be going in?

1 A. For the trucks coming in, et cetera, to make sure
2 the tickets are signed.

3 MR. NEAL: That's all.

4 MR. MADDOX: I have no questions.

5

6 RECROSS EXAMINATION

7 BY MR. STAMETS:

8 Q Mr. Freeman, getting back to the evaporation rate.
9 Now, if the eighty inches a year is correct and you can only
10 evaporate a hundred and fifty barrels of water a day, would
11 you be able to build a pit of sufficient size on those ten
12 acres to handle all of that three thousand barrels?

13 A. If those numbers are correct, no, sir.

14 Q Have you done any study on the permeability of
15 the material there that the pit would be constructed out of?

16 A. You mean like the various linings?

17 Q No, of the natural material.

18 A. All I have seen is the core analysis that says that
19 this upper part is high in clay contents, it's a sandy clay
20 which usually the clay will tend to swell and seal off has
21 been my experience.

22 Q But as far as this particular size is concerned
23 there are no tests, no scientific analysis as to permeability
24 or impermeability?

25 A. No, there are not.

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1 Q You could not state at this time as to whether
2 this would be an impermeable pit?

3 A No, sir, I could not testify to that.

4 Q If a pit lining were required and was within the
5 realm of financial possibility, I presume that would be put
6 in in accordance with the Commission order, one of the
7 3221 orders, B or E. If a lining were required would you be
8 agreeable to installing a lining in accordance with that
9 particular order?

10 A Yes. Our position on this is, if a lining is
11 required we will have to make a cost setting, what it will
12 be. Probably we will ask at that point, if we are going to
13 do it, for a three-acre pit to be lined so it would increase
14 our evaporation rate and work the costs out on that basis and
15 if at that point it is just an economic situation whether we
16 would do it or not.

17 MR. STAMETS: Any other questions of this witness?

18 He may be excused.

19 (THEREUPON, the witness was excused.)

20 MR. CAMPBELL: I don't have any other witnesses.

21 I would like to make a statement at the conclusion of the
22 other statements and the other witnesses.

23 MR. STAMETS: Are you going to put a witness on,

24 Mr. Neal?

25 MR. NEAL: Yes, I would like to put Mr. Squires

1 on for a few minutes.

2

3

LARRY C. SQUIRES

4 called as a witness, having been first duly sworn, was
5 examined and testified as follows:

6

7

DIRECT EXAMINATION

8

BY MR. NEAL:

9

Q State your name, please?

10

A Larry C. Squires.

11

Q What is your business or profession?

12

A Professionally I'm a veterinarian, I'm engaged now

13

in operating the Snyder Ranches, which has some ranches in

14

Lea and Eddy County.

15

Q And you are a licensed veterinarian in the State

16

of New Mexico are you not?

17

A Yes, sir.

18

Q Now, you have been present during this hearing all

19

morning, have you not?

20

A Yes, sir.

21

Q Now, directing your attention to Applicant's

22

Exhibit Number One, the Snyder Ranches is the owner and

23

operator of a ranch that one of the north boundary lines is

24

across Sections 15 and 16, I believe that's Township 20, 30,

25

Sections 15 and 16?

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1 A. Yes, that's true.

2 Q. Then does the ranch proceed in a northerly direction
3 up to Section 3?

4 A. Yes.

5 Q. The property in which this application is made is
6 operated by Mr. Les Bates, is it not?

7 A. Yes.

8 Q. Now, directing your attention, Doctor Squires, to
9 Exhibit Seven, will you tell the Commission, the Examiner,
10 where the waterings are on the Snyder Ranch that are being
11 used?

12 A. About the only watering we have for cattle in the
13 immediate area is circled right -- well, it's this little
14 sump right here in Section 16, in the northeast quarter of
15 Section 16. Then, of course, as it has been testified
16 earlier there is a windmill down on the road about a half-a-
17 mile south of there. This windmill has been shut off. We
18 are just about out of water in this area because of pollutants
19 of, industrial pollutants. The water that we do have and is
20 being used there, cattle do drink this water, it tastes pretty
21 bad but cattle do drink it and that's in this area here in
22 16.

23 Q. Would you explain to the Commission on the same
24 exhibit, there is a darker, closer contour, the surface
25 conditions as exist there to the east of the watering?

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1 A. Well, over in Section 15 there as indicated earlier,
2 this water that is standing along the road and these sump
3 areas along there in 15, cattle don't drink this water, they
4 don't drink that water at all. It is real marshy and some
5 days there will be a lot of water standing there and the
6 next day it will be just wet and the next day there may be six
7 or eight inches of water there. We do find in our areas when
8 we get our normal rainfall, twelve to fourteen inches, that's
9 a little above normal really, but if we do get this much
10 rainfall, this spring we pointed out in 16 does get much
11 better, the quality of the water does get much better.

12 MR. STAMETS: The spring in Section 16, where is
13 that located?

14 A. It's right up there in the northeast quarter.

15 MR. STAMETS: That low spot up there?

16 A. Yes, right. This pasture is called spring trap and
17 this mill has been called spring mill forever.

18 MR. STAMETS: That would be a very shallow spring
19 rather than a deep up-welling of water?

20 A. Oh, yes, it's a -- well, it's a lower area that
21 has got water in it that the cattle drink and it has been
22 called a spring for years.

23 MR. STAMETS: Is it a spring or just a tank --

24 A. It's just a hole full of water that cattle drink.
25 They don't do real good on it but they drink it and the reason

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1 they do drink it is because they are forced to. If they
2 had any good water, quote good water, in the area they would
3 not drink this water but they are forced to it and they do
4 survive and they do produce minimal on this water. I wish
5 it were better water but it isn't but it's all the water we've
6 got and we would hate to see anymore salt put in it.

7 Q (Mr. Neal continuing.) Now, proceeding in a
8 northwesterly direction from the marshy area, there is a
9 draw that proceeds up towards the Potash Company of America
10 lake when you are actually on the surface out there on the
11 premises?

12 A Well, yes. Actually there is a hill between there
13 and the water seems to go underground and come up down here
14 in 15 really.

15 Q And that is also up in the area of Section 2
16 where this proposed location is?

17 A Yes.

18 Q Do you have a strong feeling, Mr. Squires, that
19 any pit that is placed in Section 2 would cause a seepage
20 to the south and southwest down to 15 and 16 on your ranch?

21 A Yes, obviously I do because that's why I'm here.
22 We have experienced and our ranch covers quite a bit of area
23 between the PCA mine and Duvall mine in this immediate area
24 and since the Commission's order, an exception to allow
25 surface disposal of water in that area we have approximately

1 five water wells, including this one that the gentleman
2 testified earlier had been shut off, that have gone bad in
3 the last five years and we cannot use them at all. We feel
4 like it's a combination of potash waste and oil field waste
5 and we are in the process of trying to do something about it.
6 If the Commission had jurisdiction of the potash mine we would
7 have already been here but we have to seek other areas there
8 to fight this pollution.

9 Q Now, there was earlier reference and earlier
10 testimony of your obtaining Mr. Reed and Associates for work
11 here a few years ago. Would you explain to the Commission
12 the circumstances under how that came about?

13 A Well, yes, back over at the Laguna Gatuna and the
14 other salt water disposal lakes that have been brought into
15 this prior to this. My interest in this was purely from a
16 landowners and ranchers point of view. Originally there were
17 some businessmen and independent producers in the Lea County
18 area at about that time that were on the ground looking for
19 some lake to dispose of brine water in and I decided that
20 if there was any water going to be disposed of on these
21 ranches I was going to have an active part in it and to see
22 that it was done where it would not pollute any water. This
23 is my reason for coming before the Commission originally and
24 seeking to get these salt lakes exempt from the order because
25 I hired Mr. Reed and Associates to study the area. They assured

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1 me that it was a natural basin, that there was no outward
2 flow from the area. They will hold millions of barrels of
3 water. Actually they are two or three sections in size and six
4 to eight feet deep which will hold a lot of water which will
5 give it some room to evaporate. And since I got this order
6 I sold my interest in this to other people, I retained part
7 of it.

8 Q But the original intent of going in was to ascertain
9 whether or not there would be any water pollution of water
10 on the ranch?

11 A That is entirely correct. We are primarily
12 ranchers and we wanted to protect the water that was in the
13 area.

14 Q And that's your reason for appearing here today?

15 A That's my reason for being here today.

16 MR. NEAL: Pass the witness.

17 MR. STAMETS: Any questions of this witness?

18 MR. CAMPBELL: I have a couple of questions.

19
20 CROSS EXAMINATION

21 BY MR. CAMPBELL:

22 Q Mr. Squires, you stated that you were instrumental
23 in arranging for the use of the disposal area, I guess now
24 owned by Pollution Control, Inc., one of the protestants in
25 this case?

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1 A. Yes.

2 Q. Was it originally yours, was the permit issued to
3 you?

4 A. The permit was issued to me personally.

5 Q. When was that?

6 A. I don't remember, it has been five or six years
7 ago.

8 Q. And when did you dispose of your interest?

9 A. Soon after that. I don't recall offhand but it
10 was soon after that.

11 Q. What did you retain, what interest do you have?

12 A. Twenty percent.

13 Q. You have twenty percent interest in the entire
14 activity of Pollution Control, Inc.?

15 A. Twenty percent of the bills and profit.

16 Q. And the profit, is that correct?

17 A. That's correct, twenty percent of the liability.

18 MR. CAMPBELL: I think that's all.

19 MR. STAMETS: Any other questions of this witness?

20 He may be excused.

21 (THEREUPON, the witness was excused.)

22 MR. NEAL: We have nothing further to offer, Mr.
23 Stamets.

24 MR. CAMPBELL: I wish to make a statement but I
25 want to follow and close, if I may.

1 MR. STAMETS: You may make your statement last.

2 MR. CAMPBELL: Thank you.

3 MR. MADDOX: I just have a short statement on
4 behalf of Pollution Control, Inc. I think there is evidence
5 in the case as to the position of Pollution Control and its
6 operators and the two natural facilities to dispose of
7 salt water and it is our position very simply that the
8 obligation of the Commission under the Statutes is to conserve
9 oil and gas in New Mexico and also to regulate the disposition
10 of water produced or used in connection with drilling or
11 producing of oil or gas or both on the surface and subsurface
12 in such a manner as to afford reasonable protection against
13 contamination of fresh water supplies as designated by the
14 State Engineer. It is apparent from evidence presented in
15 this case that there is a risk and there is also in the
16 evidence in the case and in the order with the Commission
17 that there exists a massive almost unlimited capacity facility
18 in this immediate area that has been approved and exempt
19 from the rules that is operated by Pollution Control that will
20 fulfill the Commission's obligation in conserving oil and in
21 being able to dispose of this water also consistent with the
22 reasonable protection against contamination and for this
23 reason and the other evidence presented in this case we
24 would submit that the Commission reject the application
25 tendered by Tahoe Oil and Cattle Company.

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1 MR. STAMETS: Mr. Neal.

2 MR. NEAL: Well, aside from Pollution Control, I
3 think that the critical statement made by Snyder Ranches that
4 we are ranchers and even though Mr. Squires himself has some
5 interest in Pollution Control, this area is our primary
6 concern because we are ranchers.

7 Now, I'm not under oath but I have been out on that
8 ranch for many years.

9 MR. CAMPBELL: There is nothing there, you are
10 testifying without being under oath.

11 MR. NEAL: You know, I learned that from a real
12 good teacher, Mr. Campbell.

13 But anyway, there is a definite, even under the
14 testimony that has been introduced here, there is a definite
15 situation by which there will be seepage from this proposed
16 location down onto the Snyder Ranch. It will affect not only
17 the surface water from the rains, it is possible that it will
18 affect the subsurface water.

19 Now, if this permit is granted whereby the acreage
20 is maintained and where there is an adequate safeguard for
21 the surface so contamination could not occur or whereby the
22 pits are lined where there will be no seepage, then obviously
23 we have no concern because then it will not affect us.

24 The way it is proposed to be constructed directly
25 affects us and we object thereto and if it is going to be

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1 constructed without any restrictions we ask that it be denied.

2 On the other hand we are not trying to stop free
3 enterprise or anything else. If the man will construct the
4 facility where it will not affect us, that's fine but put
5 the safeguards in where it will not affect us, that's what
6 we are asking for.

7 MR. STAMETS: Mr. Campbell.

8 MR. CAMPBELL: Mr. Examiner, I'm not going to
9 testify, I'm going to make a very short speech.

10 This question of the disposal of waste of all kinds
11 and by the very nature of resource development and use we
12 humans produce unbelievable amounts of waste at home and
13 everywhere else and somehow or other it has to be disposed
14 of and recently environment for disposing of waste has become
15 a very, very difficult one, something we all wish would go
16 away and consequently we just resist any kind of an effort to
17 eliminate the problem or at least minimize it.

18 I dare say, though I don't know, but I dare say that
19 if the hearing on the Squires' application five or six years
20 ago were held today that, you know, the same kind of
21 questions, maybe differently framed, would be under considera-
22 tion here.

23 There is no way to dispose of waste without creating
24 some kind of a problem and the question is the trade offs.
25 The question is the cost and benefits, the question is, how

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1 do we do it in the least harmful way and still retain some
2 degree of economic sense about it. It was our position and
3 it is our position that this area, this immediate area is
4 admittedly clearly already seriously, probably irretrievably
5 contaminated. There is no way you can restore the fresh
6 water in the immediate area of this facility and that
7 furthermore the experience that we are getting with under-
8 ground disposal through injection wells is a terrible worry
9 if not a disaster and that the disposal on the surface is the
10 soundest way to do it provided whatever safeguards the
11 Commission requires are complied with and we are prepared to
12 comply with those.

13 If this Commission believes from this evidence that
14 there is a sufficient danger to justify the economic cost we
15 are prepared to examine that and hopefully it won't eliminate
16 the facility. If engineering-wise we can either work with
17 the Commission or with the ranchers to eliminate, if possible,
18 the chance of surface migration we will do that but we filed
19 a good faith application here, we know, although we didn't
20 feel it appropriate here to talk about our market examination,
21 we didn't feel that it was relevant but we wouldn't be
22 spending the money if we didn't feel there is a market here
23 so I think it is a matter of the Commission coming to task
24 with this serious question of how do we dispose of the
25 waste and what are the least harmful ways to do it because you

1 can't sweep it under a rug somewhere and it will go away and
2 how can you do that in the best interest of the ultimate
3 recovery of the oil and gas, the protection of the ranchers,
4 the protection of the fresh water for other uses and we are
5 conscious of that, we are prepared to cooperate with this
6 Commission in any way we can within economic limits to bring
7 that about and to make a contribution I hope, to the disposition
8 of these wastes in the oil and gas areas of New Mexico.

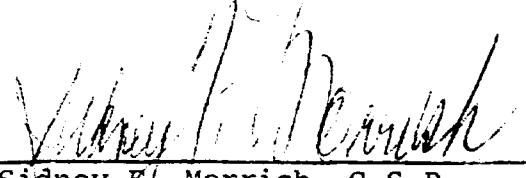
9 MR. STAMETS: If there is nothing further this case
10 will be taken under advisement.
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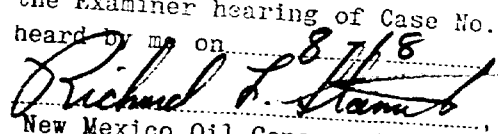
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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.


Sidney F. Morrish, C.S.R.

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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5709
heard by me on 8/18/76 1976

Richard L. Stamm, Examiner
New Mexico Oil Conservation Commission

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 7, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Tahoe Oil and Cattle
Company for an exception to the pro-
visions of Order No. R-3221, Eddy County)
New Mexico.

CASE
5709

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil	William F. Carr, Esq.
Conservation Commission:	Legal Counsel for the Commission
	State Land Office Building
	Santa Fe, New Mexico

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1 MR. NUTTER: The hearing will come to order, please.
2 The first case we will call this morning will be Case
3 Number 5709.

4 MR. CARR: Case 5709, application of Tahoe Oil and
5 Cattle company for an exception to the provisions of Order
6 No. R-3221, Eddy County, New Mexico.

7 Mr. Examiner, due to an error in the application we
8 have received a request that this application be continued to
9 the first Examiner Hearing to be held in August of 1976.

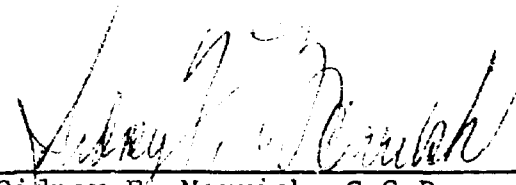
10 MR. NUTTER: Case Number 5709 will be continued to
11 the Examiner Hearing scheduled to be held at this same place
12 at nine o'clock A.M., August 4, 1976 and the case will be
13 readvertised.

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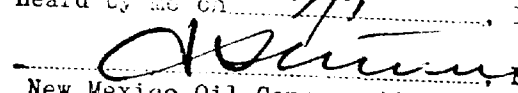
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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.


Sidney F. Morrish, C.S.R.

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I do hereby certify that the foregoing is
a complete and correct report of the proceedings in
the Emergency Hearing of Case No. 5709,
heard by me on 7/7, 1976.

Examiner
New Mexico Oil Conservation Commission

LAW OFFICES OF
MADDOX, MADDOX & COX
POST OFFICE BOX 2508
HOBBS, NEW MEXICO 88240

DON MADDOX
JAMES M. MADDOX
DONALD C. COX

August 11, 1976

BROADMOOR BUILDING
505 / 393-7723

New Mexico Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico 87501

Re: Tahoe Oil and Cattle Company
Case 5709

Gentlemen:

Pollution Control, Inc. wishes to intervene in the
captioned case and to testify at the hearing on
August 18, 1976.

Yours very truly,


Don Maddox

DM:ds

cc: D. L. Garey
Pollution Control, Inc.

- CASE 5735: Application of Continental Oil Company to amend Order No. R-1234, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Rule 19 of the Special Rules for the Warren Tubb Gas Pool promulgated by Order No. R-1234, to provide for an increase in the gas-oil ratio limitation for oil wells in said pool to some figure not to exceed 10,000 to one.
- CASE 5736: Application of BCO Inc. for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Basin Dakota Gas Pool and Lybrook-Gallup Oil Pool and undesignated Greenhorn and Mancos production in the wellbore of its Dunn Well No. 2, located in Unit F of Section 10, Township 23 North, Range 7 West, Rio Arriba County, New Mexico.
- CASE 5737: Application of Howard Boatright Company for amendment of Order No. R-5208, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5208 which authorized salt water disposal into the Delaware formation through applicant's State CS Well No. 1 located in Unit L of Section 17, Township 21 South, Range 27 East, Eddy County, New Mexico. Applicant seeks to increase the maximum wellhead injection pressure for said well from 400 psi to 800 psi.
- CASE 5709: Application of Tahoe Oil and Cattle Company for an exception to the provisions of Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to construct and operate an earthen salt water disposal pit in the NE/4 SW/4 of Section 2, Township 20 South, Range 30 East, Eddy County, New Mexico.
- CASE 5738: Application of Hayes Oil Company for a non-standard proration unit and an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 240-acre non-standard gas proration unit comprising the NE/4 and N/2 SE/4 of Section 18, Township 20 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a Morrow test well proposed to be drilled at an unorthodox location for said unit at a point 1980 feet from the South line and 660 feet from the East line of said Section 18.
- CASE 5739: Application of William G. McCoy for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its McCord Well No. 1 to be drilled at a point 660 feet from the North and East lines of Section 22, Township 23 South, Range 26 East, South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico.
- CASE 5740: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying Section 28, Township 24 South, Range 26 East, Eddy County, New Mexico, to be dedicated to applicant's White City Penn Gas Com. Unit No. 3 Well No. 1, to be drilled at a point 2310 feet from the North and West lines of said Section 28. 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 5741: Application of Gulf Oil Corporation for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority for the directional drilling of three wells on its Central Drinkard Unit, Drinkard Pool, Lea County, New Mexico, all in Section 33, Township 21 South, Range 37 East, as follows: Well No. 406, surface location 2200 feet from the South line and 1470 feet from the East line, bottom-hole location 2390 feet from the South line and 870 feet from the East line; Well No. 407, surface location 1475 feet from the South line and 1440 feet from the East line, bottom-hole location 1110 feet from the South line and 700 feet from the East line; Well No. 420, surface location 2300 feet from the South line and 1520 feet from the East line, bottom-hole location 1790 feet from the North line and 1030 feet from the East line. All of the above wells would be bottomed within 100 feet of the above-described bottom-hole locations.
- CASE 5742: Application of Gulf Oil Corporation for a non-standard gas proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard Blinberry gas proration unit comprising the S/2 NW/4 and W/2 NE/4 of Section 28, Township 21 South, Range 37 East, Lea County, New Mexico, to be simultaneously dedicated to applicant's Eunice King Wells Nos. 5 and 24, located, respectively, 1874 feet from the North and West lines, and 2086 feet from the North line and 760 feet from the West line of said Section 28. Applicant further seeks authority to later substitute its Eunice King Well No. 15, located 2086 feet from the North and West lines of said Section 28 for the aforesaid Well No. 5 in the above-described simultaneous dedication.
- CASE 5743: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit John W. Adams, Executor of Estates of R. W. and June Adams; and Ruth McGahey, Fred McGahey and David McGahey dba Adams & McGahey, American Employers' Insurance Company, and all other interested parties to appear and show cause why the following wells located in Township 21 North, Range 30 East, Harding County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program:
- Gonzales Well No. 2, located in Unit P of Section 9; Adams & McGahey Well No. 1, located in Unit B of Section 16; and Gonzales "A" Well No. 1, located in Unit H of Section 32.

Dockets Nos. 21-76 and 22-76 are tentatively set for hearing on August 4 and August 18, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARINGS - THURSDAY - JULY 7, 1976
9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

CASE 5704: Application of Gulf Oil Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Drinkard and Blinebry production in the wellbore of its H. T. Mattern (NCT-B) Well No. 16 located in Unit D of Section 31, Township 21 South, Range 37 East, Lea County, New Mexico. Applicant further seeks an administrative procedure for approval of additional commingling authority on this lease.

CASE 5705: Application of Gulf Oil Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Drinkard and Blinebry production in the wellbore of its H. T. Mattern (NCT-C) Wells Nos. 5 and 8, located, respectively, in Units I and A of Section 18, Township 21 South, Range 37 East, Lea County, New Mexico. Applicant further seeks an administrative procedure for approval of additional commingling authority on this lease.

CASE 5706: Application of Gulf Oil Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Drinkard and Blinebry production in the wellbore of its William A. Ramsay (NCT-B) Well No. 6 in Unit H of Section 25, Township 21 South, Range 36 East, Lea County, New Mexico. Applicant further seeks an administrative procedure for approval of additional commingling authority on this lease.

CASE 5707: Application of Harrington Transportation Inc. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its Llano Inc. Terry Well No. 1, to be drilled at a point 1650 feet from the North line and 1980 feet from the East line of Section 14, Township 18 South, Range 26 East, Atoka-Pennsylvanian Gas Pool, Eddy County, New Mexico.

CASE 5708: Application of Roger C. Hanks for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation through the approximate interval from 10,300 feet to 10,550 feet in his King Disposal Well No. 1 located in Unit C of Section 9, Township 20 South, Range 25 East, Eddy County, New Mexico.

CASE 5709: Application of Tahoe Oil and Cattle Company for an exception to the provisions of Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to construct and operate an earthen salt water disposal pit in the ~~NW 1/4 SW 1/4~~ of Section 2, Township 20 South, Range 30 East, Eddy County, New Mexico.

NW 1/4 SW 1/4

CASE 5710: Application of Benson-Montin-Greer Drilling Corporation for two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the two following described non-standard gas proration units in Township 32 North, Range 13 West, Ute Dome-Dakota Gas Pool, San Juan County, New Mexico:

a 250.64-acre unit comprising the N/2 of Section 30 to be dedicated to applicant's La Plata F-30 Well No. 2, located 900 feet from the North line and 827 feet from the West line of said Section 30;

a 250.80-acre unit comprising the S/2 of Section 30 to be dedicated to applicant's La Plata K-30 Well No. 1 located 1503 feet from the South line and 825 feet from the West line of said Section 30.

CASE 5691: (Readvertised and Reopened)

Application of Hanson Oil Corporation for an unorthodox oil well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 990 feet from the North line and 2600 feet from the West line of Section 25, Township 26 South, Range 31 East, North Mason-Delaware Pool, Eddy County, New Mexico.

CASE 5702: Application of Cities Service Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Tubb Gas Pool and Drinkard Oil Pool production in the wellbore of its Brunson "B" Well No. 7 located in Unit N of Section 3, Township 22 South, Range 37 East, Lea County, New Mexico.

CAMPBELL AND BINGAMAN, P. A.

LAWYERS

JACK M. CAMPBELL
JEFF BINGAMAN
BRUCE D. BLACK

Handwritten: JMC 7-8-76

POST OFFICE BOX 2208
JEFFERSON PLACE
SANTA FE, NEW MEXICO 87501
TELEPHONE 505 988-4486

July 8, 1976

Mr. William F. Carr
Oil Conservation Commission
State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Oil Conservation Commission Application
Tahoe Oil & Cattle Company
Case No. 5709

Dear Bill:

Pursuant to telephone conversations, this is to advise you that the Application on which notice was published in the captioned case contained an erroneous description in that it described the location of the disposal pit in the NW/4 SW/4 when it should have been in the NE/4 SW/4 of Section 2, Township 20 South, Range 30 East, Eddy County, New Mexico.

We would appreciate it if you would re-publish the notice with the description corrected and ask that the matter be set down for your examining hearing on August 18. Your cooperation in this regard is appreciated.

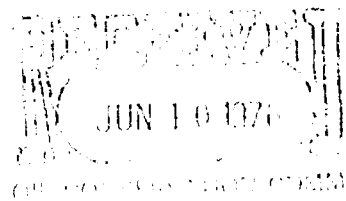
Very truly yours,

Handwritten signature: JMC
Jack M. Campbell

JMC:bf

CAMPBELL AND BINGAMAN, P. A.
LAWYERS

JACK M. CAMPBELL
JEFF BINGAMAN
BRUCE D. BLACK



POST OFFICE BOX 2208
JEFFERSON PLACE
SANTA FE, NEW MEXICO 87501
TELEPHONE (505) 988-4486

June 9, 1976

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

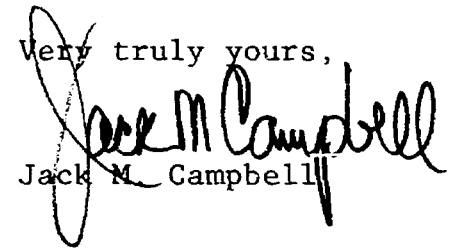
Re: Application of Tahoe Oil and Cattle Company

Gentlemen:

Enclosed for filing please find three copies of an Application of Tahoe Oil and Cattle Company for authority to construct and operate a produced water disposal pit in Eddy County, New Mexico.

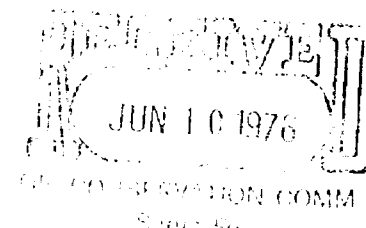
We would appreciate it if you would set this matter down for hearing and advertise it as provided by law.

Very truly yours,


Jack M. Campbell

JMC:bf

cc: Mr. Kenneth Freeman



BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF TAHOE OIL AND CATTLE
COMPANY FOR PERMISSION TO CONSTRUCT
AND OPERATE A SALT WATER DISPOSAL PIT
IN THE NORTHWEST QUARTER/SOUTHWEST
QUARTER OF SECTION 2, TOWNSHIP 20 SOUTH,
RANGE 30 EAST, EDDY COUNTY, NEW MEXICO

No. 5709

APPLICATION

COMES NOW Applicant Tahoe Oil and Cattle Company, a
corporation authorized to do business in the State of New Mexi-
co, and states:

1. It is the owner of legal rights to use a portion of
the surface of the NW/4 SW/4 of Section 2, Township 20 South,
Range 30 East, Eddy County, New Mexico, for the construction
and operation of an evaporation pit to dispose of water pro-
duced from oil and gas wells in Eddy and Lea Counties, New Mexi-
co.

2. Said proposed disposal pit is located in that area
defined in Commission Order R-3221-B, dated July 25, 1968, as
an area in which "...the purpose of Order No. R-3221, to afford
reasonable protection against contamination of fresh water sup-
plies by surface disposal of produced water, would not be ad-
vanced by the enforcement of said Order as to the above-described
area." (Paragraphs (3), (4), (5), (8), (10), (11)).

3. It seeks to enter into contracts with producers of
said produced water, for a fee, to collect, transport and dispose
of said water in the said pit.

4. Said pit will cover approximately ten surface acres
and be of a depth of approximately three feet from the surface.

5. It seeks authority to dispose of a maximum of 7500 barrels of produced water per day into said pit.

6. Skim tanks will be installed to separate and capture any oil that might be remaining with the disposable water, and the pit will be constructed in such a manner that the water will be retained and confined to the above-described area to allow evaporation.

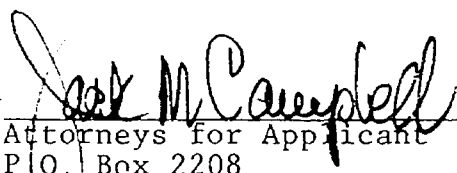
7. There is no existing surface or ground fresh water in the area, all water being used in said area for livestock or human consumption being piped into the area.

8. In order to permit the continued production of oil and gas in Eddy and Lea Counties, New Mexico, and thereby to prevent waste without the violation of any correlative rights, Applicant should be permitted to construct said pit and dispose of water produced from oil and gas wells in Eddy and Lea Counties.

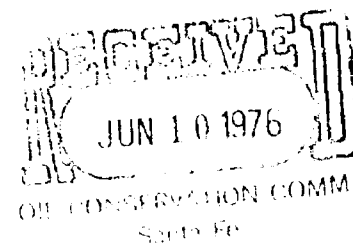
WHEREFORE, Applicant respectfully requests the Commission to set this matter down for examiner hearing, and after notice and hearing, to enter its order permitting the construction and operation of an evaporation pit for the disposal of water produced from oil and gas wells in Eddy and Lea Counties, New Mexico, in the NW/4 SW/4 of Section 2, Township 20 South, Range 30 East, Eddy County, New Mexico.

Respectfully submitted,
TAHOE OIL AND CATTLE COMPANY
CAMPBELL AND BINGAMAN, P.A.

By


Attorneys for Applicant
P.O. Box 2208
Santa Fe, New Mexico 87501

Dated: 9 June 1976



BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF TAHOE OIL AND CATTLE
COMPANY FOR PERMISSION TO CONSTRUCT
AND OPERATE A SALT WATER DISPOSAL PIT
IN THE NORTHWEST QUARTER/SOUTHWEST
QUARTER OF SECTION 2, TOWNSHIP 20 SOUTH,
RANGE 30 EAST, EDDY COUNTY, NEW MEXICO

No. 5709

APPLICATION

COMES NOW Applicant Tahoe Oil and Cattle Company, a
corporation authorized to do business in the State of New Mexi-
co, and states:

1. It is the owner of legal rights to use a portion of
the surface of the NW/4 SW/4 of Section 2, Township 20 South,
Range 30 East, Eddy County, New Mexico, for the construction
and operation of an evaporation pit to dispose of water pro-
duced from oil and gas wells in Eddy and Lea Counties, New Mexi-
co.

2. Said proposed disposal pit is located in that area
defined in Commission Order R-3221-B, dated July 25, 1968, as
an area in which "...the purpose of Order No. R-3221, to afford
reasonable protection against contamination of fresh water sup-
plies by surface disposal of produced water, would not be ad-
vanced by the enforcement of said Order as to the above-described
area." (Paragraphs (3), (4), (5), (8), (10), (11)).

3. It seeks to enter into contracts with producers of
said produced water, for a fee, to collect, transport and dispose
of said water in the said pit.

4. Said pit will cover approximately ten surface acres
and be of a depth of approximately three feet from the surface.

5. It seeks authority to dispose of a maximum of 7500 barrels of produced water per day into said pit.

6. Skim tanks will be installed to separate and capture any oil that might be remaining with the disposable water, and the pit will be constructed in such a manner that the water will be retained and confined to the above-described area to allow evaporation.

7. There is no existing surface or ground fresh water in the area, all water being used in said area for livestock or human consumption being piped into the area.

8. In order to permit the continued production of oil and gas in Eddy and Lea Counties, New Mexico, and thereby to prevent waste without the violation of any correlative rights, Applicant should be permitted to construct said pit and dispose of water produced from oil and gas wells in Eddy and Lea Counties.

WHEREFORE, Applicant respectfully requests the Commission to set this matter down for examiner hearing, and after notice and hearing, to enter its order permitting the construction and operation of an evaporation pit for the disposal of water produced from oil and gas wells in Eddy and Lea Counties, New Mexico, in the NW/4 SW/4 of Section 2, Township 20 South, Range 30 East, Eddy County, New Mexico.

Respectfully submitted,
TAHOE OIL AND CATTLE COMPANY
CAMPBELL AND BINGAMAN, P.A.

By Jack M. Campbell
Attorneys for Applicant
P.O. Box 2208
Santa Fe, New Mexico 87501

Dated.

9 June 1976

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF TAHOE OIL AND CATTLE
COMPANY FOR PERMISSION TO CONSTRUCT
AND OPERATE A SALT WATER DISPOSAL PIT
IN THE NORTHWEST QUARTER/SOUTHWEST
QUARTER OF SECTION 2, TOWNSHIP 20 SOUTH,
RANGE 30 EAST, EDDY COUNTY, NEW MEXICO

No. 5709

APPLICATION

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and be of a depth of approximately three feet from the surface.

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6. Skim tanks will be installed to separate and capture any oil that might be remaining with the disposable water, and the pit will be constructed in such a manner that the water will be retained and confined to the above-described area to allow evaporation.

7. There is no existing surface or ground fresh water in the area, all water being used in said area for livestock or human consumption being piped into the area.

8. In order to permit the continued production of oil and gas in Eddy and Lea Counties, New Mexico, and thereby to prevent waste without the violation of any correlative rights, Applicant should be permitted to construct said pit and dispose of water produced from oil and gas wells in Eddy and Lea Counties.

WHEREFORE, Applicant respectfully requests the Commission to set this matter down for examiner hearing, and after notice and hearing, to enter its order permitting the construction and operation of an evaporation pit for the disposal of water produced from oil and gas wells in Eddy and Lea Counties, New Mexico, in the NW/4 SW/4 of Section 2, Township 20 South, Range 30 East, Eddy County, New Mexico.

Respectfully submitted,
TAHOE OIL AND CATTLE COMPANY
CAMPBELL AND BINGAMAN, P.A.

By Jack M. Campbell
Attorneys for Applicant
P.O. Box 2208
Santa Fe, New Mexico 87501

Dated: 9 June 1976

ROUGH DRAFT

dr/

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. 5709

Order No. R- 5278

APPLICATION OF TAHOE OIL AND CATTLE COMPANY
THE PROVISIONS OF
FOR AN EXCEPTION TO ORDER NO. R-3221,

~~AS AMENDED~~ EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 18,
19 76, at Santa Fe, New Mexico, before Examiner Richard L. Stamets
NOW, on this September day of August, 1976, 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, Tahoe Oil and Cattle Company
has acquired a conditional surface lease consisting
of the E/2 SW/4 and W/2 SE/4
located in Unit of Section 2, Township 20 South,
Range 30 East, NMPM, Eddy County, New Mexico. for the purposes of salt water disposal.

(3) That Order (3) of Commission Order No. R-3221, as amended,
prohibits in that area encompassed by Lea, Eddy, Chaves, and
Roosevelt Counties, New Mexico, the disposal, subject to minor
exception, of water produced in conjunction with the production
of oil or gas, or both, on the surface of the ground, or in any
pit, pond, lake, depression, draw, streambed, or arroyo, or in
any watercourse, or in any other place or in any manner which
would constitute a hazard to any fresh water supplies and said
disposal has not previously been prohibited.

(4) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

(5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(6) That the applicant seeks as an exception to the provisions of the aforesaid Order (3) to permit the disposal of ^{produced} salt water ~~produced by applicant's above described well~~ into an unlined surface pit located in ^{the NE/4 SW/4} ~~XXXXXXX~~ of said Section 2 ____.

(7) That applicant ~~proposes to dispose of from 1000~~ ^{to} produces approximately 3000 barrels of water per day in said pit

(8) That there appears to be no shallow fresh water in the vicinity of the subject pit for which a present or reasonably foreseeable beneficial use is or will be made that would be impaired by contamination from the subject pit.

(9) That the nature of the reservoir of said _____ Pool is such that reinjection of produced water into said reservoir would result in greater ultimate recovery of oil and gas therefrom thereby preventing waste.

(10) That to prevent the waste of oil and gas in said _____ Pool, permanent authority to dispose of produced water from applicant's _____ in an unlined surface pit on said lease should not be granted.

REMANUED
(11) That the user of said fresh water appeared and objected to the approval of said unlined disposal pit.

(8) That there is fresh water in the vicinity of the above-described unlined pit for which a present or reasonably foreseeable beneficial use is or will be made.

(9) That there is a probability that the beneficial use of said fresh water would be impaired by contamination from the disposal of salt water into the unlined surface pit as requested by the applicant.

(10) That the subject application should be denied.

~~drainage or percolation of water from the proposed unlined pit(s) would not be toward nor affect said fresh water.~~

~~(11) That to protect said fresh water from the potential harmful effects of the surface disposal of produced salt water in said pit(s) the subject application should be denied.~~

IT IS THEREFORE ORDERED:

(1) That the application of Tahoe Oil and Cattle Company for an exception to Order (3) of Commission Order No. R-3221, as amended, to dispose of water produced in conjunction with the production of oil or gas, or both ~~to~~ into an unlined surface pit located in the NE 1/4 SW 1/4 located of Section 2, Township 20 S., Range 30 East, NMPM, Eddy County, New Mexico, ~~in unlined surface pits located in the vicinity of said~~ ~~area~~ is hereby denied.

(2) 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.