

CASE 3908: Application of PAN AM.  
FOR SALT WATER DISPOSAL, CHAVES  
COUNTY, NEW MEXICO.

Case Number

3908

Application

Transcripts.

Small Exhibits

ETC.

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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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

October 23, 1968

EXAMINER HEARING

-----  
IN THE MATTER OF: )

Application of Pan American )  
Petroleum Corporation for salt )  
water disposal, Chaves County, )  
New Mexico. )  
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Case No. 3908

BEFORE: Daniel Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Case 3908.

MR. HATCH: Application of Pan American Petroleum Corporation for salt water disposal, Chaves County, New Mexico.

(Whereupon, Applicant's Exhibits 1 through 5 were marked for identification)

MR. RYAN: Gordon D. Ryan, Fort Worth, Texas appearing on behalf of Pan American Petroleum Corporation. The file will reflect a letter from the law firm of Atwood and Malone, Roswell, New Mexico, with whom we are associated in this matter.

MR. NUTTER: Yes, sir. We do have the letter.

MR. RYAN: I have one witness. I will ask him to state his name and address, please.

THE WITNESS: My name is Bill Wells, Fort Worth, Texas. I am employed by Pan American Petroleum as a Petroleum Engineer.

MR. RYAN: Mr. Wells, have you previously testified before this Commission and have your qualifications been accepted as an expert witness?

THE WITNESS: Yes, I have.

MR. RYAN: Will his qualifications be accepted on that basis?

MR. NUTTER: They are.

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

DIRECT EXAMINATION

BY MR. RYAN:

Q Are you familiar with the application that is now before this Commission?

A Yes.

Q Briefly state what is the purpose of this application?

A Pan American is requesting the Commission's approval for our use of our Miller-Federal Well Number 4 to dispose of salt water in the San Andres, in the Tom-Tom Pool, Chaves County, New Mexico.

Q I refer you to what the reporter has marked Exhibit Number 1 and ask you please identify that exhibit.

A Exhibit 1 is a plat showing all miles -- all wells within a two-mile radius of our proposed salt water disposal well in the Tom-Tom area. The proposed well is located in the northwest quarter of the southwest quarter of Section 35. It is indicated by a red arrow. It also shows the six producing wells in the Tom-Tom Pool. They are indicated by red circles. They are all producing from the San Andres.

Q Now, are all those wells in Section 34 and Section 35 Pan American wells?

A Yes. Pan American's Miller-Federal Lease encompasses

the south half of Section 35 and all of Section 34.

Q Now what about the well in Section 2, just below our proposed disposal well?

A Union of Texas State Number 1 is located in the northwest quarter of Section 2, just to the southeast of our wells.

Q Will you please state what the average daily production on the wells is?

A Average daily production from Pan American Miller-Federal Wells are -- is 13 barrels of oil per day. the Union of Texas Well makes about a barrel of oil per day right now. We have cumulatively production from the entire field of about 54,000 barrels of oil. This is from all six wells.

Q What about water?

A Water production from our lease, Miller-Federal Lease at the current time is 13 barrels of water per day. The Union Well makes about 2 barrels of water per day.

Q Do you have anything else to offer on this exhibit?

A No.

Q I now refer you to what the reporter has marked as Exhibit Number 2 and ask you please identify that exhibit.

A Exhibit Number 2 is a gamma ray neutron log of the proposed disposal well, Miller-Federal Well Number 4. The log is posted with the top of the San Andres pay at 3932. It

also has shown the currently perforated intervals, which will be our disposal well.

Q Will you please state what that is?

A There are three intervals, 3932 to 3988, 4098 -- I'm sorry. 3988 to 4002, and 4014 to 4027.

Q I now refer you to the exhibit 3 and ask you to please identify that exhibit and explain it.

A Exhibit 3 is a mechanical diagram of the Miller-Federal Well Number 4 proposed disposal well, as it will be equipped for disposal. It shows 8 and 5/8ths surface casing set at 355 and cement circulated; 4 and 1/2 inch casing set at 4103 with 300 sacks of cement. The calculated top of the cement is 3000 feet. It also shows a tension packer set at 3850; 2 and 3/8ths tubing setting in this packer at 3850. It shows that our annulus will be filled with inhibitive fluid. We will have a pressure gauge on the annulus. It shows that our disposal interval is 3 perforated zones in the interval of 3932 to 4027.

We would like to mention that you will note on the diagram, it is not stated, the tubing will be coated. We anticipate a savings of \$1400.00, due to not coating the tubing. We also anticipate a very short field life. In other words, we don't anticipate erosion problems on our tubing, due to the life of the field. Our next exhibit will show that.

Q Do you feel that the reason you requested not to use coated tubing will be explained by the following exhibit --

A Yes.

Q -- Number 4. Would you please refer to Exhibit 4, which consists of five pages and identify that exhibit and tell what it purports to show?

A This Exhibit, as stated, has 5 declining curves of the Pan American's five Miller-Federal Wells. We show an extremely steep decline on all five wells. Incidentally, recent tests show that this decline is actually much steeper than shown by production posted here. We also show an economic limit of 4.4 barrels of oil per day. The life of the field, based on the declining curves, will be at -- well, one well may last for 25 months. It is doubtful now, from the current date. The average life seems to be in the neighborhood of sixteen to eighteen months. And we expect abandonment of the Field between mid '69 and the first of 1970.

As I mentioned earlier, we have tests that show that in actuality, the wells are declining at a much faster rate than shown here. These are recent tests. Our Miller-Federal Number 4, the declining curve on this well shows that at the present time we are very near the economic limit and this is pretty typical for what these wells are doing.

MR. NUTTER: You don't mean actual production shows



the decline faster than that, do you?

THE WITNESS: No. This decline curve rate is essentially what the rest of them do look like from the tests that we have seen lately. It's dying real quickly. Due to the short life, we don't feel that we can justify \$1400.00 expenditure.

Q (By Mr. Ryan) Do you feel due to the short life of this Field, that by using uncoated tubing, you'll save any money by that, will not cause waste or pollution in this area?

A Yes. Also, when these wells were all completed in mid 1967, new casing was used on all of the wells. We have several Fields in this area producing from the San Andres and we have seen virtually no corrosion problem in our tubular equipment. Some of them produced five and six years, so we don't anticipate problems in this nature.

Q The uncoated tubing will outlast the Field?

A I believe so, yes.

Q I now refer you to Exhibit Number 5 and please identify that.

A Exhibit 5 is a pertinent data sheet showing various data for our application. I believe it is self-explanatory, with the exception of two points I would like to make.

The water analysis of the San Andres water to be

disposed of in our well, shows it has a chloride content of approximately 150,000 parts per million. We anticipate rates ranging from 75 to 150 barrels per day. We believe, actually, this will be 75 barrels every day. We don't ever expect to get much higher than that.

Q In your opinion, will granting of this application have any adverse effects on the Texas Union Wells to the South of our disposal well?

A No. As I said, the Union of Texas well now makes one barrel of oil and two barrels of water. I feel it will probably be abandoned before our -- any effect from our well could be felt.

Q In your opinion, will correlative rights be protected if this application is granted?

A Yes.

Q Will this application be in the interest of conservation and prevention of waste?

A Yes, it will.

Q Were Exhibits 1 through 5 prepared by you, under your direct supervision?

A Yes.

MR. RYAN: Pan American will offer Exhibits 1 through 5 into evidence.

MR. NUTTER: Pan American's Exhibits 1 through 5

will be admitted in evidence.

(Whereupon, Pan American's  
Exhibits 1 through 5 were  
admitted into evidence)

MR. RYAN: I believe that's all we have at this  
time.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Wells, you stated your average production at the  
present time is some 13 barrels of oil per day?

A Yes, sir, on a lease basis.

Q That the Union well is making about one barrel per  
day?

A Yes, sir.

Q Do you happen to know what Union's intentions are  
as far as --

A We approached them to see if they would be interested  
in coming into our disposal well here, and they feel that through  
the low water producing rates and a low magnitude of oil they  
are making, they will probably abandon by the time --

Q They figure they might be abandoned by the first  
of the year?

A Yes.

Q What are the various rates of production on these

five wells that you operate?

A On our five wells. Our Number 5 has a current rate of 12 barrels of oil per day and 50 barrels of water. Number 4, proposed injection makes 7 oil and 64 water per day. The Number 3 is 7 oil and 2 water per day. Number 2, 9 oil and 13 water per day. And our Number 1 makes 32 oil and 11 water per day.

Q So, in effect, what you are doing, you are taking the biggest water producer off the production?

A We will eliminate about 60 barrels per day of water production.

Q I see.

MR. NUTTER: Are there any other questions of Mr. Wells? You may be excused.

(Witness excused)

MR. NUTTER: Do you have anything further, Mr. Ryan?

MR. RYAN: I just want to state the fact about the use of this uncoated tubing; we do request that due to the shortness of life of this field, we realize that it is not a good practice to use that sort of tubing, but under the circumstances, we do request that.

MR. NUTTER: Now, you stated that new casing was installed. Was the tubing new when this well was completed?

THE WITNESS: The tubing was not new, but it was relatively recent age. It was pressure-tested. We would be -- gladly pressure-test it whenever we convert the injection.

MR. NUTTER: You recognize the fact that if corrosion should occur and leakage evidenced by pressure increase on that annulus, you might have to replace the tubing?

THE WITNESS: Yes, sir. Right.

MR. NUTTER: Does anyone else have anything in which to offer in Case 3908? The case will be taken under advisement, and we will call Case 3909.

I N D E X

WITNESS  
BILL WELLS

Direct Examination by Mr. Ryan  
Cross Examination by Mr. Nutter

PAGE

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9

E X H I B I T S

MARKED

OFFERED AND  
ADMITTED

EXHIBIT

Applicant's 1  
through 5

2

9

Brenda Burks  
Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Brazilian hearing of Case No. 3908 heard by me on 10/23, 1968.

*[Signature]* Chairman  
New Mexico Oil Conservation Commission

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

State of New Mexico  
**Oil Conservation Commission**



LAND COMMISSIONER  
GUYTON B. HAYS  
MEMBER

STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

P. O. BOX 2083  
SANTA FE

November 5, 1968

Mr. Gordon Ryan  
Pan American Petroleum Corporation  
Post Office Box 1410  
Fort Worth, Texas 76101

Re: Case No. 3908

Order No. R-3548

Applicant:

Pan American Petroleum Corp.

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC X

Artesia OCC X

Aztec OCC       

Other Bureau of Land Management, Santa Fe

State Engineer Office, Santa Fe



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. 3908  
Order No. R-3548

APPLICATION OF PAN AMERICAN PETROLEUM  
CORPORATION FOR SALT WATER DISPOSAL,  
CHAVES COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 23, 1968,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 4th day of November, 1968, 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, Pan American Petroleum Corporation,  
is the owner and operator of the Miller Federal Well No. 4,  
located in Unit L of Section 35, Township 7 South, Range 31 East,  
NMPM, Tom-tom San Andres Pool, Chaves County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the San Andres formation,  
with injection into the perforated interval from approximately  
3932 feet to 4027 feet.

(4) That the injection should be accomplished through  
2 3/8-inch tubing installed in a packer set at approximately  
3850 feet; that the casing-tubing annulus should be filled with

-2-

CASE No. 3908

Order No. R-3548

an inert fluid and that a pressure gauge should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Pan American Petroleum Corporation, is hereby authorized to utilize its Miller Federal Well No. 4, located in Unit L of Section 35, Township 7 South, Range 31 East, NMPM, Tom-tom San Andres Pool, Chaves County, New Mexico, to dispose of produced salt water into the San Andres formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 3850 feet, with injection into the perforated interval from approximately 3932 feet to 4027 feet;

PROVIDED HOWEVER, that the casing-tubing annulus shall be filled with an inert fluid and that a pressure gauge shall be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

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

(3) 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.



STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*David E. Cargo*  
DAVID E. CARGO, Chairman

*Guyton B. Hays*  
GUYTON B. HAYS, Member

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

ATWOOD & MALONE  
LAWYERS

P. O. DRAWER 700  
TELEPHONE 505 622-6221  
SECURITY NATIONAL BANK BUILDING  
ROSWELL, NEW MEXICO  
88201

JEFF D. ATWOOD (883-1980)  
CHARLES F. MALONE  
RUSSELL D. MANN  
PAUL A. COOTER  
BOB F. TURNER  
ROBERT A. JOHNSON  
JOHN W. BASSETT  
ROBERT E. SAGIN

October 16, 1968

60 OCT 17 AM 8 39

Mr. A. L. Porter, Jr., Director  
Oil Conservation Commission  
State Land Office  
Santa Fe, New Mexico 87501

RE: In the matter of the application of Pan American  
Petroleum Corporation for Salt Water Disposal,  
Chaves County, New Mexico - No. 3908

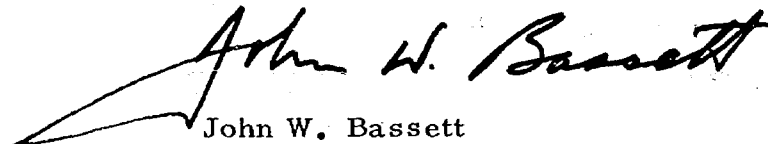
Dear Mr. Porter:

On behalf of Pan American Petroleum Corporation, the applicant in the  
above numbered case, we enclose herewith our Entry of Appearance and  
request that it be filed in the appropriate place.

Thank you and with regards, we are,

Very truly yours,

ATWOOD & MALONE

  
John W. Bassett

JWB:sah

Encl.

cc: J. K. Smith, Esquire (w/encl.)  
Guy Buell, Esquire (w/encl.)

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION )  
OF PAN AMERICAN PETROLEUM COR- ) No. 3908  
PORATION FOR SALT WATER DISPOSAL, )  
CHAVES COUNTY, NEW MEXICO. )

50 OCT 17 1968

ENTRY OF APPEARANCE

The undersigned, Atwood & Malone, licensed to practice law in  
New Mexico, hereby enter their appearance herein as co-counsel with  
Guy Buell, Esquire, and Gordon Ryan, Esquire, of Fort Worth, Texas,  
in behalf of Pan American Petroleum Corporation.

DATED at Roswell, New Mexico, this 16th day of October, 1968.

ATWOOD & MALONE

By

*John W. Bassett*  
Post Office Drawer 700  
Roswell, New Mexico 88201

Docket No. 31-68

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 23, 1968

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  
Elvis A. Utz, Alternate Examiner:

CASE 3894: Application of Signal Oil and Gas Company for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a non-standard oil proration unit comprising the W/2 NE/4 and the N/2 SE/4 of Section 17, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico, said unit to be dedicated to its State AP Well No. 1 located 1980 feet from the South line and 660 feet from the East line of said Section 17.

CASE 3895: Application of Sun Oil Company for a pressure maintenance project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in its New Mexico State "H" Lease by the injection of water into the San Andres formation through its New Mexico State "H" Well No. 13 located in the SE/4 SE/4 of Section 16, Township 8 South, Range 30 East, Cato-San Andres Pool, Chaves County, New Mexico. Applicant further seeks the promulgation of special rules to govern operation of said pressure maintenance project.

CASE 3887: (Continued from the October 9, 1968, Examiner Hearing)

Application of Kersey & Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Premier sand of Grayburg formation through two wells to be located in Units E and K of Section 12, Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico. Applicant further proposes to produce oil from the Upper Grayburg through parallel strings of tubing, if said zones are productive in the subject wells.

CASE 3896: Application of Kersey & Hanson, Yates Drilling Company, and John H. Trigg for several waterflood projects, Eddy County, New Mexico. Applicants, in the above-styled cause, seek authority to institute several cooperative waterflood projects by the injection of water into the Queen and Grayburg formations through four injection wells located in Sections 21

CASE 3896 continued

and 28, Township 18 South, Range 29 East, Turkey  
Track Queen-Grayburg Pool, Eddy County, New Mexico.

CASE 3897: Application of Kersey-Wittkopp and E. A. Hanson for two  
waterflood projects, Eddy County, New Mexico. Applicants,  
in the above-styled cause, seek authority to institute two  
cooperative waterflood projects by the injection of water  
into the Queen formation through two injection wells loca-  
ted in the NW/4 SE/4 and the SW/4 SE/4 of Section 6, Town-  
ship 19 South, Range 31 East, Shugart Pool, Eddy County,  
New Mexico.

CASE 3898: Application of Tenneco Oil Company for salt water disposal,  
Lea County, New Mexico. Applicant, in the above-styled  
cause, seeks authority to dispose of produced salt water  
into the Queen formation in the open-hole interval from  
approximately 3258 feet to 3341 feet in its Ginsberg-Federal  
Well No. 6 located in Unit E of Section 31, Township 25  
South, Range 38 East, Langlie-Mattix Field, Lea County, New  
Mexico.

CASE 3899: Application of Cities Service Oil Company for salt water  
disposal, Lea County, New Mexico. Applicant, in the above-  
styled cause, seeks authority to dispose of produced salt  
water into the San Andres formation in the interval from  
approximately 4087 feet to 4176 feet in its State AD Well  
No. 8 located in Unit J of Section 22, Township 10 South,  
Range 32 East, Mescalero-San Andres Pool, Lea County, New  
Mexico.

CASE 3900: Application of Continental Oil Company for downhole commin-  
gling, Lea County, New Mexico. Applicant, in the above-  
styled cause, seeks authority to commingle production from  
the Vacuum Wolfcamp Pool and the North Vacuum Ato Pool in  
the well-bore of its State H-35 Well No. 7 located 660 feet  
from the North line and 1780 feet from the East line of  
Section 35, Township 17 South, Range 34 East, Lea County,  
New Mexico.

CASE 3901: Application of Continental Oil Company for salt water dis-  
posal, Lea County, New Mexico. Applicant, in the above-  
styled cause, seeks authority to dispose of produced salt  
water into the Yates-Seven Rivers formations in the perforated  
interval from approximately 3330 feet to 3552 feet in its  
Lynn A-28 Well No. 6 located in Unit H of Section 28, Township

(CASE 3901 continued)

23 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

CASE 3902: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Queen formation through its Stevens "B" Well No. 8 located in Unit A of Section 12, Township 23 South, Range 36 East, Langlie-Mattix Pool, Lea County, New Mexico.

CASE 3903: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Delaware formation in the perforated intervals from approximately 4675 feet to 4765 feet in its Payne Well No. 11 and from 4666 feet to 4740 feet in its Payne Well No. 12 located 660 feet from the South line and 1650 feet from the West line of Section 30, 1935 feet from the North line and 2090 feet from the West line of Section 31, respectively, Township 26 South, Range 33 East, El Mar-Delaware Pool, Lea County, New Mexico.

CASE 3904: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Delaware formation through its Thompson Federal 19 Well No. 2 located in Unit F of Section 19, Township 26 South, Range 32 East, North Mason-Delaware Pool, Lea County, New Mexico.

CASE 3905: Application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation in the open-hole interval from approximately 12,269 feet to 12,541 feet in its State "O" Well No. 1 located in Unit J of Section 15, Township 10 South, Range 36 East, South Crossroads-Devonian Pool, Lea County, New Mexico.

CASE 3906: Application of Skelly Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation through its Mattix "A" Well No. 4 located in Unit K of Section 2, Township 24 South, Range 37 East, Langlie-Mattix Oil Pool, Lea County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of well response.

CASE 3907: Application of Skelly Oil Company for a waterflood project, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the San Andres formation through its Hobbs "W" Well No. 9 located in Unit F of Section 29, Township 7 South, Range 34 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of well response.

CASE 3908: Application of Pan American Petroleum Corporation for salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 3932 feet to 4027 feet in its Miller Federal Well No. 4 located in Unit L of Section 35, Township 7 South, Range 31 East, Tom-Tom San Andres Pool, Chaves County, New Mexico.

CASE 3909: Application of Champlin Petroleum Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into San Andres formation, Chaveroo-San Andres pool, Roosevelt County, New Mexico, through the following two wells located in Township 7 South, Range 33 East:

Champlin Lauck-Federal Well No. 12,  
Unit J of Section 29; Disposal Interval -  
4202 feet to 4404 feet;

Champlin State 32-7-33 Well No. 5, Unit J  
of Section 32; Disposal Interval - 4303  
feet to 4425 feet.



CASE 3910:

Application of Atlantic Richfield Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SW/4 of Section 17, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to a well located in the NE/4 SW/4 of said Section 17.

CASE 3911:

Application of Atlantic Richfield Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SE/4 of Section 8, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to a well located in the NW/4 SE/4 of said Section 8. In the alternative applicant seeks approval of a non-standard oil proration unit comprising the E/2 SE/4 of said Section 8 and the W/2 SW/4 of Section 9, said Township and Range, said unit to be dedicated to a well to be drilled in the NE/4 SE/4 of said Section 8.

CASE 3882:

(Continued from the October 9, 1968, Examiner Hearing)  
Application of Solar Oil Company for a special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 506 of the Commission Rules and Regulations to provide for a limiting gas-oil ratio of 6,000 cubic feet of gas per barrel of oil in the Teague Blinbry Pool, Lea County, New Mexico.

CASE 3883:

(Continued from the October 9, 1968, Examiner Hearing)  
Application of Solar Oil Company for a special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 506 of the Commission Rules and Regulations to provide for a limiting gas-oil ratio of 6,000 cubic feet of gas per barrel of oil in the Imperial Tubb-Drinkard Pool, Lea County, New Mexico.

PERTINENT DATA

MILLER FEDERAL LEASE SWD  
TOM TOM POOL  
CHAVES CO., NEW MEX.

I) a) Disposal Interval - San Andres

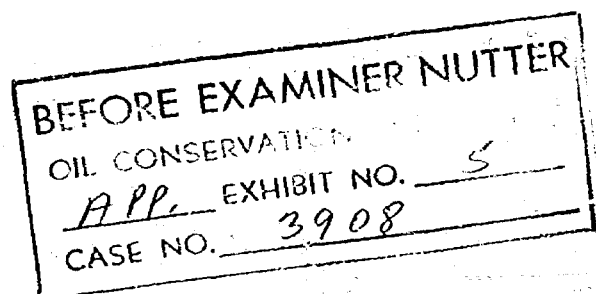
b) Depth: 3932-4027

II) Fluid to be injected.

a) Produced water with a chloride content of approx. 150,000 PPM.

b) Anticipated rates: 75-150 BWPD

c) Source of Produced Water: Pan American Petroleum Corporation  
Miller Federal Wells Nos. 1, 2, 3, and 5  
(All San Andres Producers)



**PAN AMERICAN PETROLEUM CORPORATION**

OIL AND GAS BUILDING

P. O. BOX 1410

FORT WORTH, TEXAS—76101

October 1, 1968

*Case 3908*D. L. RAY  
DIVISION ENGINEER

File: GHF-505-986.510.1

Subject: Salt Water Disposal into San Andres  
Pan American Petroleum Corporation's  
Miller Federal Well No. 4  
Tom-Tom San Andres Pool  
Chaves County, New MexicoNew Mexico Oil Conservation Commission (3)  
Post Office Box 871  
Santa Fe, New Mexico 87501

Gentlemen:

Pan American Petroleum Corporation respectfully requests that a hearing be docketed to consider our application for salt water disposal into the San Andres interval in our Miller Federal Well No. 4 located in Unit L, Section 35, T-7-S, R-31-E, Tom-Tom San Andres Pool, Chaves County, New Mexico. Attached are exhibits to be used at this hearing including:

- 1) Plat showing location of proposed disposal well and all wells within a two-mile radius.
- 2) Log of proposed injector.
- 3) Diagrammatic sketch of mechanical configuration of wellbore as equipped for disposal.
- 4) Pertinent data sheet.

Yours very truly,

*D. L. Ray ghr*WCW:jn  
Attachments

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Date 10-11-68

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(2)

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. 3908

Order No. R-3548

APPLICATION OF PAN AMERICAN PETROLEUM  
CORPORATION FOR SALT WATER DISPOSAL,  
CHAVES COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 21, 1968,  
at Santa Fe, New Mexico, before Examiner Daniel S. Mutter.

NOW, on this Nov. day of 1968, 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, Pan American Petroleum Corporation,  
is the owner and operator of the Miller Federal Well No. 4  
located in Unit L of Section 35, Township 7 South, Range  
31 East, NMPH, Tom-Tom San Andres Pool, Chaves  
County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the San Andres  
formation, with injection into the perforated interval  
from approximately 3932 feet to 4027 feet.

(4) That the injection should be accomplished through  
2 3/8-inch ~~plastic-lined~~ tubing installed in a packer set at

approximately 3850 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus ~~or the annulus left open at the surface in~~ order to determine leakage in the casing, tubing, or packer.

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Pan American Petroleum Corporation, is hereby authorized to utilize its Miller Federal Well No. 4, located in Unit L of Section 35, Township 7 South, Range 31 East, NMPM, Tom-~~Tom~~ San Andres Pool, Chaves County, New Mexico, to dispose of produced salt water into the San Andres formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 3850 feet, with injection into the perforated interval from approximately 3932 feet to 4027 feet;

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

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

(3) 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.