

Case Number.

4259

Application

Transcripts.

Small Exhibits

ETC.

dearnley-meier

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

1120 HUNTER BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 25, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Aztec Oil & Gas
Company for salt water disposal,
Lea County, New Mexico.

Case No. 4259

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date NOVEMBER 25, 1969 TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
Louis C. Ross	Pan American Petroleum	Denver, Colo.
Charles Borge	Pan American Petroleum	Denver, Colo.
JOE E. STARKS	Artec Oil & Gas	DALLAS
L. D. Eaton	Artec Oil & Gas	Dallas
Harry Green	Evans Pacific Oil Co.	Seller
Tom Aylesworth	Texas Pacific Oil Co.	Midland, Texas
R. B. Freels	Texas Pacific Oil Co.	Dallas, Texas
Jason Kellake	Kellake & Fox	Santa Fe
R. H. Denman	Esso Petroleum Corp	San Antonio
Billy R. Henson	TEXACO Inc.	Hobbs
Roy C. Williamson Sr.	Baker, Sipe, Williamson & Associates for Transoceanic	Midland, Texas
JOHNNIE N. PARKER	Union Texas Petroleum	Midland, Texas
Donald B. Wells	Union Texas Petroleum	Midland, Texas
John D. Russell	T. P. Russell & Co.	Midland, Texas
Richard L. McMillan	Montgomery et al	Santa Fe
ALBERT	W. B. K. & Co.	
Walter L. V. H. H.	Plat. P. & Co. Inc.	Midland, Texas

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICOHearing Date NOVEMBER 25, 1969TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
B. C. Sinclair	Pennzoil (United, Inc.	Midland
J. M. Burnett Jr	Rhodes McCallister & Associates	Albuquerque
Jerry Odell	E. M. Kriss	Newport Beach, Calif.
Vma L. Dumas	R. W. Byram	Santa Fe
O. L. Looce	B. M. Knight	Artesia
Gordon Marcum	State Land Office	SANTA FE

MR. UTZ: Case 4259.

MR. HATCH: Case 4259. Application of Aztec Oil and Gas Company for salt water disposal, Lea County, New Mexico.

MR. MORRIS: Mr. Examiner, Dick Morris of Montgomery, Federici, Andrews, Hannahs & Morris of Santa Fe, appearing for the Applicant, Aztec Oil and Gas Company.

Mr. Joe Starks, a member of the Texas Bar, and an attorney for Aztec Oil and Gas Company will present the case for the Applicant.

MR. STARKS: Thank you, Mr. Morris. The Applicant has only one witness, and I don't believe he has yet been sworn -- Mr. Eaton.

(Witness sworn).

(Whereupon, Applicant's Exhibits 1 through 6 were marked for identification.)

MR. UTZ: Any other appearances in this case? You may proceed.

L. D. EATON.

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

DIRECT EXAMINATION

BY MR. STARKS:

Q Will you state your name and the name of your

employer for the record, please?

A My name is L. D. Eaton, and I am employed with Aztec Oil and Gas Company.

Q What is your position with Aztec Oil and Gas Company?

A I'm a petroleum engineer.

Q Mr. Eaton, have you testified before this Commission before as a petroleum engineer?

A Yes, I have.

MR. STARKS: Mr. Examiner, are the witness' qualifications acceptable?

MR. UTZ: Yes, sir -- he has previously been qualified.

Q (By Mr. Starks) Mr. Eaton, for the purpose of this hearing, have you made a detailed study of the area in question, which will be shown in Applicant's Exhibit No. 27?

A Yes, I have.

MR. STARKS: Mr. Examiner, first, I would like to offer in evidence Applicant's Exhibit No. 1, which is a waiver from Sun Oil Company, which is the only offset operator, with the exception of the Applicant. And I believe a copy of that has already been sent to the Commissioner and is part of the file.

At this time, I will also offer Applicant's Exhibit

No. 2 which I believe, the Examiner has a copy, and from which I will ask the witness to testify.

Q Mr. Eaton, what is shown on Applicant's Exhibit No. 2?

A Exhibit 2 shows the four producing wells from the San Andres formation and the Spencer-San Andres Pools -- located in Section 24, Township 17 South, Range 36 East.

Q Please proceed.

A The subject well, Aztec State DS -- rather, State SS, No. 1, which was a dry hole, is to be used, or, that is, our application requests to use this hole from the four producing wells on the State DS lease.

Q Does this plat also show the geological contours?

A Yes -- it shows the geological contours of the San Andres formations in this general area.

Q Mr. Eaton, how many producing wells are there in the Spencer-San Andres pool?

A Just the four wells.

Q And when were these wells drilled?

A During the year of 1969.

Q And when was the SS Well No. 1 drilled, which is the well that the applicant proposes to convert to salt water disposal?

A It was approximately July or September of 1969.

Q Are there any other wells offsetting the lease on which the SS Lease Well is located, producing from the San Andres Formation?

A There is one well in Section 18 of Township 17, Range 37 East, that has produced a small amount of oil from the San Andres Formation -- that is the Texaco State Lease, but it has subsequently been abandoned from that formation.

Q So, there is no wells producing at the present time?

A No.

Q On that formation?

A Yes.

MR. STARKS: All right. I would like to next offer in evidence Exhibit No. 3, which is a laboratory water analysis.

Q (By Mr. Starks) Will you state what is shown on that lab analysis report, Mr. Eaton?

A This is an analysis of the State DS No. 1 Well, producing water, which indicates that it is non-potable and unfit for human and livestock consumption.

Q Would it be fit for irrigation purposes?

A No, sir.

Q All right. Now, I should have asked you this sooner. How much salt water would you expect from the four DS Wells?

A Approximately one hundred barrels per day at the present time.

Q And that salt water is being trucked out at the present time; isn't that correct?

A Yes, it is.

Q All right. I now refer you to Applicant's Exhibit No. 4, which I believe is an electrical log. Will you explain what that shows?

A This is a lower section of the log, which depicts the entire San Andres Formation as it exists in that area.

Q Now, where would you propose to perforate the well for the purpose of injecting this salt water?

A We propose to perforate from fifty-one-twelve to fifty-one-thirty-eight, which is a subsea elevation of a minus twelve-ninety-seven to a minus thirteen-twenty-three.

Q How would that interval compare with the producing intervals in the four producing DS Wells?

A The uppermost disposal interval would be eighty-eight feet below the lowermost producing area in the field.

Q I now refer you to Applicant's Exhibit No. 5. Would you explain what that exhibit purports to show?

A This is a bore hole sketch of the proposed down hole equipment for the disposal wells, which indicates that two-inch plastic tubing will be installed on the packer, with the annulus filled with corrosion inhibited water, and the pressure gauge at the surface, to indicate any down hole equipment failure.

Q Then, is it your testimony that this well would be equipped in such a manner as to protect a great amount of oil bearing from contamination?

A Yes, it would.

Q All right. I then refer you to Applicant's Exhibit No. 6, and I will ask you to explain to the Examiner what that exhibit purports to show.

A This is a cross sectional picture of the San Andres Formation, as it exists from the south to the north, through the Spencer-San Andres Pool.

It indicates that a probable water-oil contact of approximately minus twelve-hundred fifteen feet, which is below the producing intervals in the four producing wells.

Yet, it is above the top interval to be disposed into the State SS No. 1.

Q Mr. Eaton, let me ask you this. Does the Applicant have any alternative disposal system available to it for the purposes of disposing salt water produced from the DS Wells?

A No.

Q And in your opinion, would the disposal of the water into the SS Well, as proposed by the Applicant, be the best available method of disposing the salt water?

A Yes, it would be.

Q In your opinion, would this conversion of this SS Well No. 1 to a salt water disposal well interfere with the fresh water supply or the producing characteristics of any oil wells in the area?

A No, it wouldn't.

MR. STARKS: At this time, Mr. Examiner, I would like to offer Applicant's Exhibits 1 through 6 into evidence. I have no further questions.

MR. UTZ: Without objections, Exhibits 1 through 6 will be entered in the evidence in this case.

CROSS EXAMINATION

BY MR. UTZ:

Q Now, Exhibit 6 shows that your injection will be below the water-oil contact in this pool; is that

correct?

A Yes, sir.

MR. STARKS: We do have an additional set of these exhibits for information purposes, if you so desire, Mr. Examiner.

MR. UTZ: All right.

Q (By Mr. Utz) Referring to Exhibit No. 4, is the top of the San Andres shown on this?

A Yes.

Q I believe you said this showed the entire section -- I thought it should show the top --

A Forty-nine eighty-two -- I believe on our application, we show it as forty-nine ninety.

MR. UTZ: Any questions of the witness?

Statements in this case? If not, we will take the case under advisement.

I N D E X

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E X H I B I T S

Applicant's Exhibits	
1 through 6	2

I, CA FENLEY, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

of my knowledge, s
Oliver Tucker

 Court

Court Reporter

I do hereby certify that the foregoing is
a complete record of the proceedings in
the transfer hearing of Case No. 42-59,
dated by me on 11-25-1969.
[Signature]
New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

87801

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMISO
MEMBER

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

December 2, 1969

Mr. Richard S. Morris
Montgomery, Federici, Andrews,
Hannahs & Morris
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Re: Case No. 4259
Order No. R-3883
Applicant:
Aztec Oil & Gas Company

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

Copy of order also sent to:

Hobbs OCC. X

Artesia OCC.

Aztec OCC.

Other Mr. Joe Starks

State Engineer Office

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. 4259
Order No. R-3883

APPLICATION OF AZTEC OIL & GAS COMPANY
FOR SALT WATER DISPOSAL, LEA COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 25, 1969, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 2nd day of December, 1969, 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, Aztec Oil & Gas Company, is the owner and operator of the State "SS" Well No. 1, located in Unit F of Section 24, Township 17 South, Range 36 East, NMPM, Spencer-San Andres Pool, Lea 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 5112 feet to 5138 feet.

(4) That the injection should be accomplished through 2-inch plastic-lined tubing installed in a packer set at approximately 5090 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should

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CASE No. 4259
Order No. R-3883

be attached to the annulus 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:

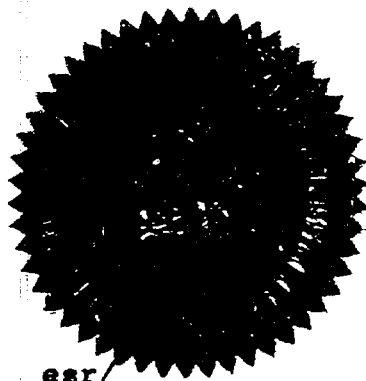
(1) That the applicant, Aztec Oil & Gas Company, is hereby authorized to utilize its State "SS" Well No. 1, located in Unit F of Section 24, Township 17 South, Range 36 East, NMPM, Spencer-San Andres Pool, Lea County, New Mexico, to dispose of produced salt water into the San Andres formation, injection to be accomplished through 2-inch tubing installed in a packer set at approximately 5090 feet, with injection into the perforated interval from approximately 5112 feet to 5138 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 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.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

David F. Cargo
DAVID F. CARGO, Chairman

Alex J. Armijo
ALEX J. ARMIJO, Member

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

Case 4259

Heard 11-25-69

Rec. 11-26-69

Grant Ogle's request to connect
their St. '55' # 11, F-24-17-36. to
Spencer - S.A. pool to an SWD well.
Proposal will be thru 2 7/8" dia.
plastic lined tubing under a packer
set at approx 5090 into S.A. then
perf from 5112 - 38.

Lease at surface on Annulus
+ Annul. fld. in Annulus.

Thurs. 11/26/69

NOTE: DUE TO THE THANKSGIVING HOLIDAY, THIS HEARING IS SCHEDULED FOR TUESDAY RATHER THAN WEDNESDAY AS CUSTOMARY.

Docket No. 32-69

DOCKET: EXAMINER HEARING - TUESDAY - NOVEMBER 25, 1969

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 4259: Application of Aztec Oil & Gas 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 perforated interval from 5112 feet to 5138 feet in its State "SS" Well No. 1 located in Unit F of Section 24, Township 17 South, Range 36 East, Spencer-San Andres Pool, Lea County, New Mexico.

CASE 4260: Application of Tamarack Petroleum Company, Inc. for a water-flood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Northeast Pearl Queen Unit Waterflood Project, Pearl-Queen Pool, by the conversion to water injection one additional injection well, its Unit Well No. 18, located in Unit L of Section 23, Township 19 South, Range 35 East, Lea County, New Mexico.

CASE 4261: Application of Pennzoil United, Inc., for special pool rules and unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Quail Ridge-Morrow Gas Pool, Lea County, New Mexico, including a provision for 320-acre spacing units. Applicant further seeks approval of the unorthodox location in said pool for its Mescalero Ridge Well No. 1 at a location 660 feet from the South line and 660 feet from the West line of Section 20, Township 19 South, Range 34 East.

CASE 4262: Application of Plains Radio Broadcasting Company for an exception to Order No. R-3221, as amended, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for the applicant's White Ranch Well No. 1 located in Unit E of Section 34, Township 11 South, Range 29 East, White Ranch Siluro-Devonian Pool, Chaves County, New Mexico. Applicant seeks authority to dispose of salt

water produced by said well in an unlined surface pit located in the vicinity of said well. In the alternative, applicant seeks authority to dispose of said produced water into the Siluro-Devonian formation in the perforated interval from 8743 feet to 8750 feet in its White Ranch Well No. 3 located in Unit M of said Section 34.

- CASE 4263: Application of Wynn & Brooks for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal "E" Well No. 3, to be located 590 feet from the South line and 1590 feet from the West line of Section 13, Township 27 North, Range 8 West, Blanco-Mesaverde and Basin-Dakota Pools, San Juan County, New Mexico.
- CASE 4264: Application of Wynn & Brooks for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal "J" Well No. 1, to be located 2390 feet from the South line and 2410 feet from the East line of Section 11, Township 27 North, Range 8 West, Blanco-Mesaverde and Basin-Dakota Pools, San Juan County, New Mexico.
- CASE 4265: Application of Union Oil Company of California for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates, San Andres and other formations in the open-hole interval from approximately 4450 feet to 5890 feet in its Midway State Well No. 3 located in Unit J, Section 12, Township 17 South, Range 36 East, Lovington Field, Lea County, New Mexico.
- CASE 4245: (Continued from the November 5, 1969, Examiner Hearing) Application of Texas Pacific Oil Company, Inc., for several non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the dedication and rededication of certain acreage and the establishment of the following non-standard gas proration units in Townships 22 and 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico:

(Case 4245 continued)

A 160-acre unit comprising the W/2 SE/4 and the E/2 SW/4 of Section 8, Township 22 South, Range 36 East, to be dedicated to the State "A" a/c-2 Well No. 56 located in Unit J of said Section 8;

A 200-acre unit comprising the NW/4 and the NW/4 SW/4 of Section 11, Township 22 South, Range 36 East, to be dedicated to the State "A" a/c-2 Well No. 42 located in Unit E of said Section 11;

A 280-acre unit comprising the SE/4, S/2 SW/4, and the NE/4 SW/4 of Section 11, Township 22 South, Range 36 East, to be dedicated to the State "A" a/c-2 Well No. 36 located in Unit M of said Section 11;

A 200-acre unit comprising the N/2 NE/4, the SE/4 NE/4, and the NE/4 NW/4 of Section 15 and the SE/4 SW/4 of Section 10, Township 23 South, Range 36 East, to be dedicated to the State "A" a/c-1 Well No. 31 located in Unit H of said Section 15;

A 160-acre unit comprising the S/2 NW/4, SW/4 NE/4 and the NW/4 NW/4 of Section 15, Township 23 South, Range 36 East, to be dedicated to the State "A" a/c-1 Well No. 33 located in Unit F of said Section 15;

A 240-acre unit comprising the SW/4 of Section 3, and the N/2 NW/4 of Section 10, Township 23 South, Range 36 East, to be dedicated to the State "A" a/c-1 Well No. 35 located in Unit L of said Section 3;

A 160-acre unit comprising the S/2 NW/4 and N/2 SW/4 of Section 10, Township 23 South, Range 36 East, to be dedicated to the State "A" a/c-1 Well No. 37 located in Unit F of said Section 10.

CASE 4266: Application of Texas Pacific Oil Company, Inc., for several non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the dedication and rededication of certain acreage and the establishment of the following non-standard gas proration units in Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico:

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(Case 4266 continued)

A 280-acre unit comprising the SW/4 of Section 9 and the E/2 SE/4 and SW/4 SE/4 of Section 8 to be dedicated to the State "A" a/c-2 Well No. 38 located in Unit K of said Section 9;

A 160-acre unit comprising the E/2 SW/4, SW/4 SW/4 and NW/4 SE/4 of Section 8 to be dedicated to the State "A" a/c-2 Well No. 56 located in Unit J of said Section 8;

A 120-acre unit comprising the S/2 NW/4 and NW/4 SW/4 of Section 8 to be dedicated to the State "A" a/c-2 Well No. 51 located in Unit F of said Section 8;

A 160-acre unit comprising the SW/4 of Section 5 to be dedicated to the State "A" a/c-2 Well No. 41 located in Unit M of said Section 5;

A 160-acre unit comprising the NW/4 of Section 5 to be dedicated to the State "A" a/c-2 Well No. 44 located in Unit F of said Section 5;

A 160-acre unit comprising the SE/4 of Section 5 to be dedicated to the State "A" a/c-2 Well No. 27 located in Unit P of said Section 5.

CASE 4267: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Edward M. Kriss and all other interested parties to appear and show cause why the Edward M. Kriss Little Chama Valley Company Well No. 1, a wildcat well, located 545 feet from the North line and 1530 feet from the West line of Section 2, Township 1 North, Range 2 East, Rio Arriba County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 4268: Application of Texaco Inc., for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the State "JD" Unit Area comprising 160 acres, more or less, of State lands in the NW/4 of Section 27, Township 26 South, Range 37 East, Rhodes (Yates-Seven Rivers) Pool, Lea County, New Mexico.

- CASE 4269: Application of Texaco Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its State "JD" Unit Area by the injection of water into the Yates-Seven Rivers formations through two wells located in Unit D and Unit F of Section 27, Township 26 South, Range 37 East, Rhodes (Yates-Seven Rivers) Pool, Lea County, New Mexico.
- CASE 4270: Application of Byron McKnight for an exception to Order No. R-111-A, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the potash-oil area casing and cementing rules as set forth in Commission Order No. R-111-A. Applicant proposes to drill to a depth of approximately 3800 feet in the Yates formation two exploratory wells located in the SW/4 NE/4 and SE/4 NE/4 of Section 26, Township 19 South, Range 33 East, Lea County, New Mexico, in such a manner as to eliminate the necessity of running the salt protection string required by said Order No. R-111-A provided the production string would be cemented to the surface.
- CASE 4271: Application of Texaco Inc. for a waterflood expansion and amendment of Order No. R-2748, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its waterflood project in the Rhodes (Yates-Seven Rivers) Pool, authorized by Order No. R-2748, by the injection of water through four additional wells in Sections 22 and 27 of Township 26 South, Range 37 East, Lea County, New Mexico. Applicant further seeks amendment of said order to establish a procedure whereby additional injection wells as may be necessary to complete an efficient injection pattern may be approved administratively.
- CASE 4272: Application of Shell Oil Company for an unorthodox oil well location and to directionally drill, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Sanger Well No. 6 at an unorthodox surface location in Unit E 1490 feet from the North line and 330 feet from the West line of Section 27, Township 18 South, Range 38 East, Hobbs (Grayburg-San Andres) Pool, Lea County, New Mexico. Applicant further seeks authority to directionally drill said well in such a manner as to bottom the well in the subject pool at a point in Unit D of said Section 27 approximately 200 feet north of said surface location. Applicant proposes to dedicate said Unit D to the well.

November 25, 1969 - Examiner Hearing

Docket No. 32-69

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CASE 4273: Application of Tesoro Petroleum Corporation for an unorthodox oil well location and amendment of Order No. R-2807-A, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox oil well location of its Well No. 59, formerly classified as a water injection well, located 1430 feet from the South line and 2625 feet from the East line of Section 36, Township 18 North, Range 9 West, Hospah Upper Sand Oil Pool, McKinley County, New Mexico. Applicant further seeks the amendment of Order No. R-2807-A to permit a procedure whereby additional producing and injection wells in its Hospah Unit Area may be approved administratively.

CASE 4274: Application of Pan American Petroleum Corporation for an unorthodox oil well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Navajo Tribal "N" Well No. 11 at an unorthodox location 1150 feet from the West line and 560 feet from the North line of Section 17, Township 26 North, Range 18 West, Tocito Dome-Pennsylvanian "D" Oil Pool, San Juan County, New Mexico.

PRENTICE WATTS
VICE PRESIDENT
PRODUCTION

AZTEC OIL & GAS COMPANY

2000 FIRST NATIONAL BANK BUILDING

DALLAS, TEXAS 75202

November 3, 1969

NOV 10 1969

gm
Case 4259
file

Mr. A. L. Porter, Jr.
New Mexico Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Application to Dispose of
Salt Water
Aztec Oil & Gas Company's
State SS No. 1
Spencer-San Andres Field
Lea County, New Mexico

Gentlemen:

This will serve as our waiver of hearing for Aztec Oil & Gas Company's request for permission to dispose of salt water in their State SS Well No. 1, Spencer-San Andres Field, Section 24, T-17S, R-36E, Lea County, New Mexico.

Very truly yours,

SUN OIL COMPANY - DX DIVISION
Company Name

By:

J. J. Northcutt
J. J. Northcutt
Division Engineer



SUN OIL COMPANY

DX DIVISION

1101 WILCO BUILDING, MIDLAND, TEXAS 79701



November 6, 1969
PG-6

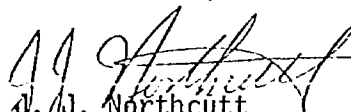
Mr. L. D. Eaton
Aztec Oil & Gas Company
2000 First National Bank Bldg.
Dallas, Texas

Re: Spencer-San Andres Field
Lea County, New Mexico

Gentlemen:

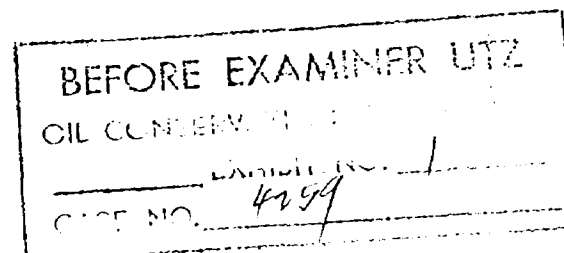
We are returning to you a copy of the approved letter waiving objection to your application for salt water disposal. As also requested in your letter of November 3, 1969, we have sent a copy to the New Mexico Oil Conservation Commission in Santa Fe.

Yours very truly,


J. J. Northcutt
Division Engineer

dmp
Enclosure

cc: C. T. McClanahan w/encl.



PRENTICE WATTS
VICE PRESIDENT
PRODUCTION

AZTEC OIL & GAS COMPANY

2000 FIRST NATIONAL BANK BUILDING
DALLAS, TEXAS 75202

November 3, 1959

Mr. A. L. Porter, Jr.
New Mexico Oil Conservation Commission
Post Office Box 2083
Santa Fe, New Mexico 87501

Re: Application to Dispose of
Salt Water
Aztec Oil & Gas Company's
State SS No. 1
Spencer-San Andres Field
Lea County, New Mexico

Gentlemen:

This will serve as our waiver of hearing for Aztec Oil & Gas Company's request for permission to dispose of salt water in their State SS Well No. 1, Spencer-San Andres Field, Section 24, T-17S, R-36E, Lea County, New Mexico.

Very truly yours,

SUN OIL COMPANY - DX DIVISION
Company Name

By: 

J. J. Northcutt
Division Engineer

7341 A

HALLIBURTON DIVISION LABORATORY
HALLIBURTON COMPANY
MIDLAND DIVISION

LABORATORY WATER ANALYSIS No. W1-278-69

To Astec Oil & Gas Company

Date 7/24/69

Box 847

Hobbs, New Mexico

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by _____

Date Rec. 7/24/69

Well No. State DS #1 Depth 4990 - 5003

Formation San Andres

County Lea

Field W/C

Source Swab

Resistivity .080

Oil

Specific Gravity 1.035

pH 7

Calcium (Ca) 12,000

*MPL

Magnesium (Mg) 500

Chlorides (Cl) 50,500

Sulfates (SO₄) very light

Bicarbonates (HCO₃) _____

Soluble Iron (Fe) Trace

API Gravity _____

35.0 @ 60 F

Remarks:

*Milligrams per liter

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION

EXHIBIT NO. 2

CASE NO. 4299

Respectfully submitted,

Analyst: _____

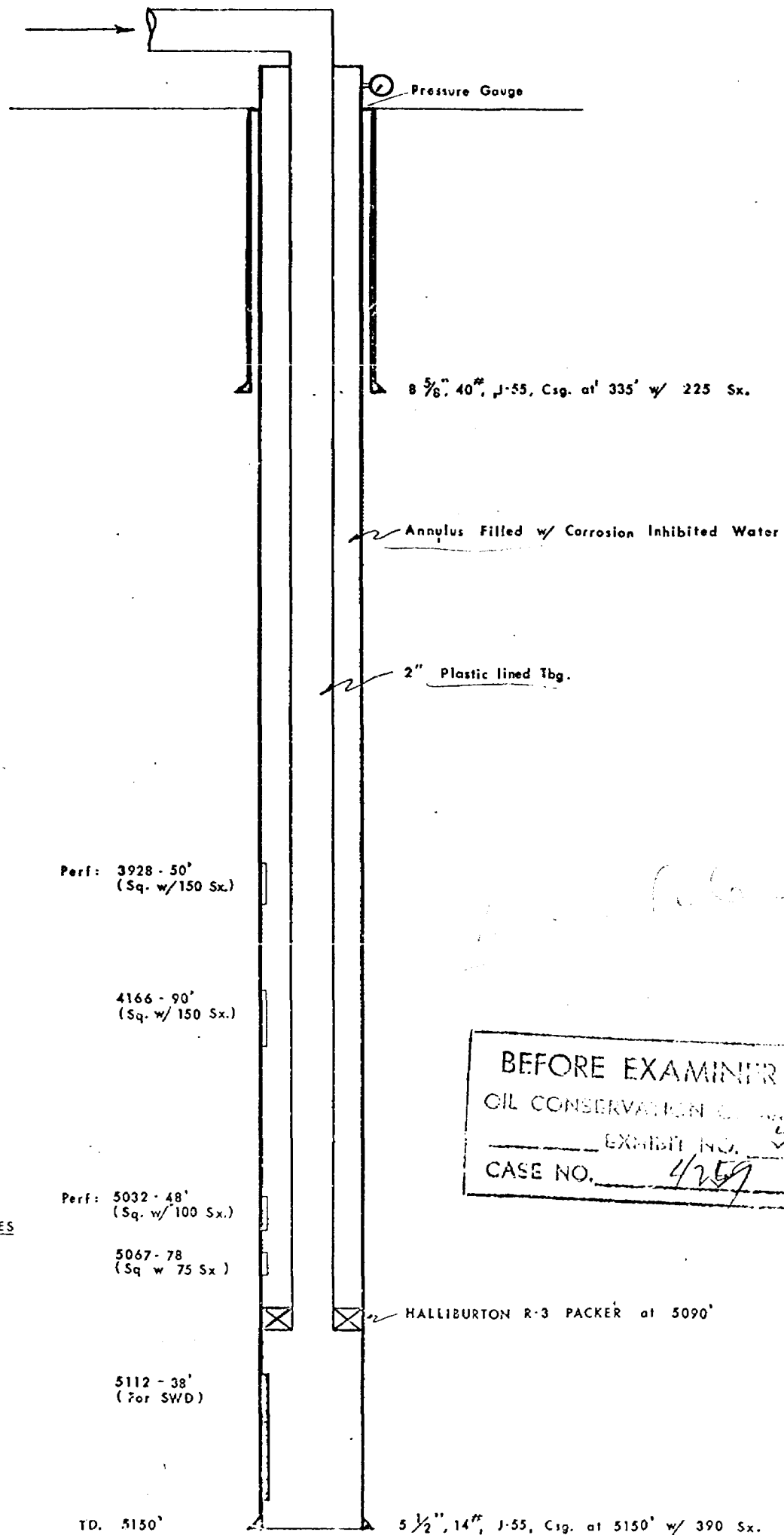
cc: _____

HALLIBURTON COMPANY
By Frank White
DIVISION CHEMIST

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

AZTEC OIL & GAS CO.
STATE "SS" NO.1 SWD



QUEEN SD.

SAN ANDRES

BEFORE EXAMINER USE

OIL CONSERVATION COMMISSION

EXHIBIT NO. 5

CASE NO. 4259

NOV 5 1969

PRENTICE WATTS
VICE PRESIDENT
PRODUCTION

AZTEC OIL & GAS COMPANY
2000 FIRST NATIONAL BANK BUILDING
DALLAS, TEXAS 75202

November 3, 1969

Mr. A. L. Porter, Jr.
New Mexico Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico

Can 4259

Re: Application to Dispose of
Salt Water
Aztec Oil & Gas Company's
State SS #1
Spencer-San Andres Field
Lea County, New Mexico

Dear Sir:

Under provisions of Statewide Rule 701, Aztec Oil & Gas Company hereby makes application for approval to dispose of salt water, produced from the San Andres formation in Aztec's State "DS" lease into the lower San Andres formation of Aztec's adjoining State "SS" Well No. 1, Section 24, T-17S, R-36E, Lea County, New Mexico.

The State "SS" No. 1 was drilled to a total depth of 5150' and tested in the San Andres and Queen formations prior to temporary abandonment. We propose to squeeze all existing perforations and perforate the lower waterbearing San Andres formation at -1297' to -1323'. Injection will be through plastic lined 2-3/8" tubing below a packer to minimize pressure on the 5-1/2" casing and protect from possible corrosion. The annulus will be filled with inhibited water and a pressure gauge installed at the surface to detect any subsurface equipment failure.

In support of this application, we submit the following:

1. Three copies of Form C-108, Application to Dispose of Salt Water into a Porous Formation.
2. Three copies of a plat showing the location of the proposed injection well, all other wells within a 2 mile radius with producing zones indicated and structure of the San Andres in vicinity of this well.
3. Three copies of the electric log.

Mr. A. L. Porter

-2-

November 3, 1969

4. Three copies of a schematic diagram indicating casing depths, perforated interval and the proposed subsurface equipment details.
5. Three copies of a water analysis of produced water from the State DS No. 1
6. Three copies of a letter to offset operators, surface owner and state engineering office giving notice of this application and requesting waivers of hearing.

We would appreciate your setting this request for hearing on the next scheduled docket.

Very truly yours,

AZTEC OIL & GAS COMPANY

L. D. Eaton

L. D. Eaton

LDE:bjr

Enclosures as noted above.

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

OPERATOR Aztec Oil & Gas Company		ADDRESS 2000 First National Bank Building Dallas, Texas	
STATE State "SS"	WELL NO. 1	FIELD Socorro-San Andres	COUNTY Lea
LOCATION UNIT LETTER <u>F</u> ; WELL IS LOCATED <u>1980</u> FEET FROM THE <u>North</u> LINE AND <u>1930</u> FEET FROM THE <u>West</u> LINE, SECTION <u>24</u> TOWNSHIP <u>17S</u> RANGE <u>36E</u> NEPM.			
CASING AND TUBING DATA			
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT
Surface Casing	8-5/8"	332'	225
INTERMEDIATE			
LONG STRING	5-1/2"	5150'	390
TUBING	2-3/8"	5090'	Halliburton R-3 @ 5090'
PROPOSED INJECTION FORMATION San Andres		TOP OF FORMATION 4990' (-1175')	BOTTOM OF FORMATION 5150' (-1335')
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLE? Perforations	PROPOSED INTERVAL(S) OF INJECTION 5112-38' (-1297 to 1323)
IS THIS A NEW WELL DRILLED FOR No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil production, D & T.A.	
HAS WELL EVER BEEN PERFORATED IN ANY 25' FEET OTHER THAN THE PROPOSED INJECTION ZONE? Yes			
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 5112-16' w/12 sx; 5067-78' w/75 sx; 5032-48' w/100 sx; 4166-90' w/150 sx; 3928-50' w/150 sx			
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 300'		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA 5030' (-1209')	
ANTICIPATED DAILY INJECTION VOLUME (BBL/DAY) 75		MINIMUM 200	
MAXIMUM 200		OPEN OR CLOSED TYPE SYSTEM Closed	
IS INJECTION TO BE BY GRAVITY OR PRESSURE? Gravity		APPROX. PRESSURE (PSI) -	
WATER TO BE DISPOSED OF Yes		NATURAL WATER IN DISPOSED SAL ZONE Yes	
ARE WATER ANALYSES ATTACHED? Yes			
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) U-Bar Ranch, Box 538, Midland, Texas 79701			
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Sunray DX, 1101 Wilco Building, Midland, Texas 79701 Sun Oil Company, Midland Tower Building, Midland, Texas 79701			
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? Yes			
SURFACE OWNER Yes			
EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes			
THE NEW MEXICO STATE ENGINEER Yes			
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) Yes			
PLAN OF AREA Yes			
ELECTRICAL LOG Yes			
DIAGRAMMATIC SKETCH OF WELL Yes			

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

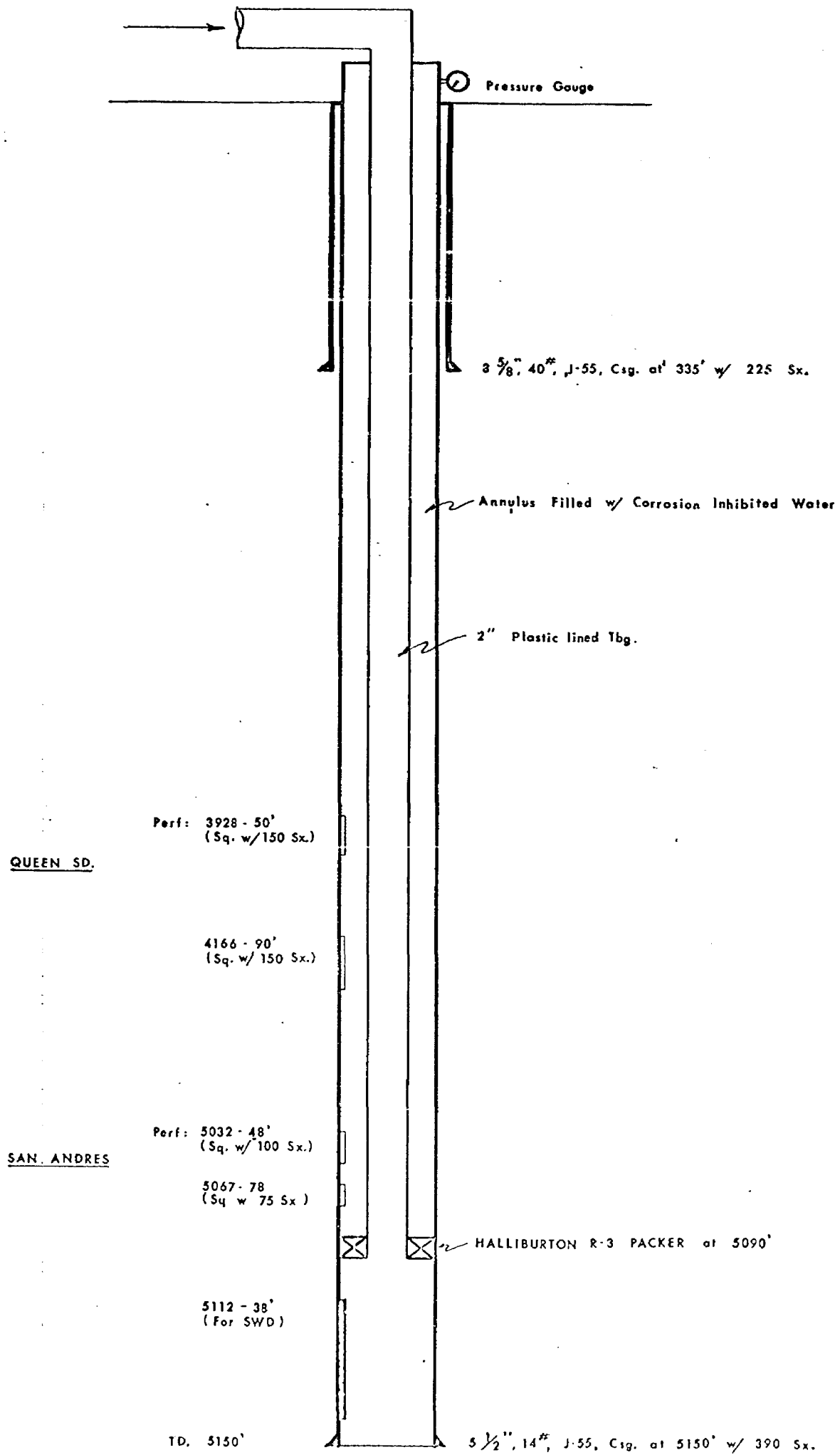
[Signature]
(Signature)

Staff Engineer
(Title)

November 3, 1969
(Date)

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

AZTEC OIL & GAS CO. STATE "SS" NO.1 SWD



Line 7229

HALLIBURTON DIVISION LABORATORY
HALLIBURTON COMPANY
MIDLAND DIVISION

LABORATORY WATER ANALYSIS No. W1-278-69

To Aztec Oil & Gas Company
Box 847
Hobbs, New Mexico

Date 7/24/69

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Submitted by _____ Date Rec. 7/24/69

Well No. State DS #1 Depth 4990 - 5003 Formation San Andres

County Lea Field W/C Source Swab

Resistivity	<u>.080</u>	<u>Oil</u>
Specific Gravity	<u>1.035</u>	
pH	<u>7</u>	
Calcium (Ca)	<u>12,000</u>	<u>*MPL</u>
Magnesium (Mg)	<u>500</u>	
Chlorides (Cl)	<u>50,500</u>	
Sulfates (SO ₄)	<u>very light</u>	
Bicarbonates (HCO ₃)		
Soluble Iron (Fe)	<u>Trace</u>	
API Gravity		<u>35.0 @ 60 F</u>

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: _____
cc: _____

HALLIBURTON COMPANY
By Frank White
DIVISION CHEMIST

NOTICE

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Case 4259

PRENTICE WATTS
VICE PRESIDENT
PRODUCTION

AZTEC OIL & GAS COMPANY

2000 FIRST NATIONAL BANK BUILDING

DALLAS, TEXAS 75202

November 3, 1969

Sunray DX
1101 Wilco Building
Midland, Texas 79701

U-Bar Ranch
Post Office Box 538
Midland, Texas 79701

Sun Oil Company
Midland Tower Building
Midland, Texas 79701

State Engineer Office
Box 1079
Santa Fe, New Mexico

Re: Application to Dispose of Salt Water
Aztec Oil & Gas Company's
State SS No. 1
Spencer-San Andres Field
Lea County, New Mexico

Gentlemen:

Enclosed please find a copy of our Application for Salt Water Disposal for the captioned well in accordance with Statewide Rule 701. We are also furnishing three copies of a letter waiving hearing for this application. If you have no objection, we would appreciate your executing and forwarding the original to the New Mexico Oil Conservation Commission at your earliest convenience and returning one copy to this office.

Very truly yours,

L. D. Eaton
L. D. Eaton

LDE:bjr

Encls.

Done
11.7.69

DRAFT

GMH/esr

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. 4259

Order No. R- 3883

APPLICATION OF AZTEC OIL & GAS COMPANY
FOR SALT WATER DISPOSAL, LEA COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 25, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 22 day of November, 1969, 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, Aztec Oil & Gas Company,
is the owner and operator of the State "SS" Well No. 1,
located in Unit F of Section 24, Township 17 South, Range
36 East, NMPM, Spencer-San Andres Pool, Lea
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 5112 feet to 5138 feet.

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

approximately 5090 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, Aztec Oil & Gas Company, is hereby authorized to utilize its State "SS" Well No. 1 located in Unit F of Section 24, Township 17 South, Range 36 East, NMPM, Spencer-San Andres Pool, Lea County, New Mexico, to dispose of produced salt water into the San Andres formation, injection to be accomplished through 2-inch tubing installed in a packer set at approximately 5090 feet, with injection into the perforated interval from approximately 5112 feet to 5138 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.

CASE 4260: Appli. of TAMARACK
PETROLEUM FOR A WATERFLOOD
EXPANSION, LEA COUNTY, N. M.