

Case Number

4291

Application  
Transcripts.

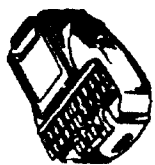
Small Exhibits

ETC.

dearnley-meier

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

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



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
January 7, 1970

EXAMINER HEARING

-----  
IN THE MATTER OF: )  
 )  
 )

Application of Atlantic Richfield )  
Company for salt water disposal, )  
Lea County, New Mexico. )  
 )  
 )  
-----

Case No. 4291

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case 4291.

MR. HATCH: Case 4291. Application of Atlantic Richfield Company for salt water disposal, Lea County, New Mexico.

MR. HINKLE: Clarence Hinkle, Hinkle, Bondurant and Christy, Roswell, representing Atlantic Richfield.

MR. HATCH: I think the record will show he has already been sworn.

(Witness sworn).

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

JERRY TWEED

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, residence, by whom you are employed.

A Jerry Tweed and I reside in Roswell, New Mexico, and I am employed by Atlantic Richfield Company as petroleum engineer.

Q Are you familiar with the application of Atlantic

Richfield in this case?

A Yes, I am.

Q You have previously testified and qualified as a petroleum engineer before the Commission?

A Yes, I have.

Q What is Atlantic Richfield seeking to accomplish by this application?

A We are proposing to convert to salt water disposal our Hannigan, W. F. Hannigan No. 4, located some two thousand one hundred seventy-three feet from the south line and two thousand one hundred seventy-three feet from the west line of Section 12, Township 25 South, Range 36 East, to disposal well in the Jalmat Formation.

Q Have you prepared or have there been prepared under your direction certain exhibits for introduction into this case?

A Yes, there has.

Q Refer to Exhibit No. 1 and explain what this is and what it shows.

A Exhibit No. 1 shows the location of our Hannigan No. 4, being a left hand red circle there. Also shows the location of Tenneco's No. 2 Well, the right hand red circle, which has previously been approved for salt water disposal

in the Jalmat Formation.

Also shown here are all producing wells within a two-mile radius.

Q Does it also show the acreage of ownership in the area?

A Yes, it does.

Q Now, refer to Exhibit 2 and explain what that is.

A Exhibit 2 is a log of the proposed disposal well, Gamma Ray Neutron.

Q Do you have any particular comments with respect to the log?

A No. This will be covered on the next exhibit.

Q This is a copy of the log that was filed with the application?

A Yes, it is.

Q Now, refer to Exhibit 3.

A This is a cross section as shown on the Exhibit No. 1 plat map in red. From our Atlantic Richfield Company, W. F. Hannigan No. 4 to Tenneco Oil Company's E. J. Wells No. 2.

Shown here is the proposed injection interval for our well and it is in between the two solid blue lines,

which is an interval 2892 to 3164. Also shown is Tenneco's -- the log of Tenneco's Wells along with the perforations that are open.

This Tenneco Well currently being a disposal well.

Q Now, refer to Exhibit 4 and explain this to the Commission.

A Exhibit 4 is a schematic drawing of our intended completion of the Hannigan No. 4, as disposal well. It shows the perforated interval, the setting depth of the casing along -- the two casing strings, along with the amount of cement and top of cement and the open hole interval.

As shown here, we propose to dispose of water down two and three eighths inch plastic-lined tubing with a packer set at approximately 2850 feet in the perforation, 2892 to 2914 and open hole 2917 to 3164.

We plan to install a non-corrosive fluid in the annulus between the tubing and casing.

Q Will you have a gauge at the top of the well?

A Yes, we will.

Q In your opinion, completing this well as an

injection well in the manner you have testified will confine injected water to the formation indicated?

A It will.

Q What is the source of the water that you propose to inject into this well?

A The source of the water is our W. F. Hannigan No. 3. This well is located some 330 feet north and 990 feet from the west line of Section 12, Township 25 South, Range 36 East.

This well currently makes some twenty-nine barrels of oil and one hundred fifty barrels of water per day.

Q Is that the maximum water that you intend to dispose of in this well?

A That is our current plans. Mr. LaNear contacted us when we sent him a waiver and expressed an interest in the disposing of his water in our well, also.

We told him that at this time we could not comment one way or the other, that we would have to see how good of a disposal well our well would be and what it would take before we could commit to the taking of additional water.

Q But, if the well will take it, then you might be disposed to take his water, too?

A Yes. We will dispose of it.

Q In your opinion, will the disposal of water in this proposed well tend to violate correlative rights in any way?

A No, it will not.

Q Will it, in your opinion, damage any of the wells in the vicinity?

A No.

Q Have you notified all of the offset owners of your intention to use this well as a disposal?

A Yes, sir, we have. We have notified all of the offset operators, owners. Shown as Exhibit 5 are waivers that we received from Continental Oil Company, Sidney LaNear and Tenneco Oil Company. We have had no response from Low Petroleum Company one way or another.

Q But, you did send him a copy?

A Yes, sir. We sent him a waiver.

MR. HINKLE: We would like to offer in evidence Exhibits 1 through 5.

MR. NUTTER: Applicant's Exhibits 1 through 5 will be admitted in evidence.

MR. HINKLE: Do you have any further testimony?



THE WITNESS: No.

MR. HINKLE: That's all.

MR. NUTTER: Does anyone have any questions  
of Mr. Tweed? He may be excused.

(Witness excused).

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

MR. HINKLE: That's all.

MR. NUTTER: Does anyone have anything else  
they wish to offer in Case 4291? We will take the case  
under advisement.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
JERRY TWEED	
Direct Examination by Mr. Hinkle	2

E X H I B I T S

Applicant's Exhibits	
1 through 5	2

STATE OF NEW MEXICO )  
 ) ss  
COUNTY OF BERNALILLO )

I, GLENDA BURKS, 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.

Glenda Burks  
Notary Public

My Commission Expires:

March 12, 1973

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4296, heard by me on 1/7, 1970.  
Glenda Burks Examiner  
New Mexico Oil Conservation Commission



# OIL CONSERVATION COMMISSION

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

**GOVERNOR  
DAVID F. CARGO  
CHAIRMAN**

**LAND COMMISSIONER  
ALEX J. ARMJO  
MEMBER**

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

**January 14, 1970**

**Mr. Clarence Hinkle  
Hinkle, Bondurant & Christy  
Attorneys at Law  
Post Office Box 10  
Roswell, New Mexico 88201**

Re: Case No. 4291  
Order No. R-3908  
Applicant:  
Atlantic Richfield Co.

**Dear Sir:**

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

Very truly yours,

G. L. Parker, Jr.

**A. L. PORTER, Jr.**  
**Secretary-Director**

**A.T.D./ir**

copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other 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. 4291  
Order No. R-3908

APPLICATION OF ATLANTIC RICHFIELD 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 January 7, 1970, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 14th day of January, 1970, 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, Atlantic Richfield Company, is the owner and operator of the W. F. Hanagan Well No. 4, located 2173 feet from the South line and 2173 feet from the West line of Section 12, Township 25 South, Range 36 East, NMPM, Jalmat Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Yates and Seven Rivers formations, with injection into the perforated and open-hole interval from approximately 2892 feet to 3164 feet.

(4) That the injection should be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set at approximately 2850 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should

-2-

CASE No. 4291

Order No. R-3908

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:

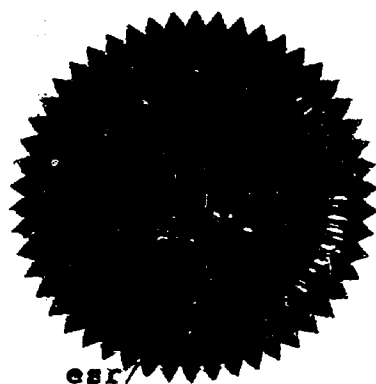
(1) That the applicant, Atlantic Richfield Company, is hereby authorized to utilize its W. F. Hanagan Well No. 4, located 2173 feet from the South line and 2173 feet from the West line of Section 12, Township 25 South, Range 36 East, NMPM, Jalmat Pool, Lea County, New Mexico, to dispose of produced salt water into the Yates and Seven Rivers formations, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 2850 feet, with injection into the perforated and open-hole interval from approximately 2892 feet to 3164 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

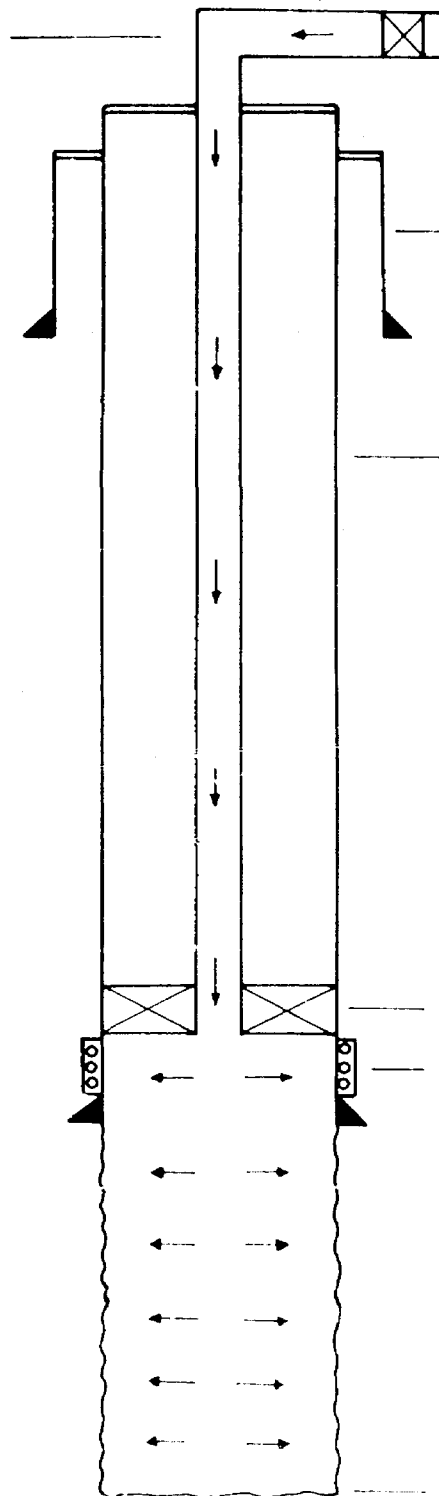
*David F. Cargo*  
DAVID F. CARGO, Chairman

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

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

ATLANTIC RICHFIELD COMPANY  
W. F. HANAGAN NO. 4  
PROPOSED SALT WATER DISPOSAL WELL  
JALMAT FIELD  
LEA COUNTY, NEW MEXICO  
2173' FSL & 2173' FWL  
Sec. 12-T<sub>25</sub>S-R36E

Tubing 2-3/8" OD  
Plastic Lined.



Disposal Water.

Surface Casing 13-3/8" OD set at  
260' with 250 sacks of cement  
circulated to surface.

Casing 7" OD set at 2917' with 500  
sacks of cement. Top of cement  
at 935'.

Packer to be set at about 2850'.

Perforated 2892'-2914' w/4 jsf.

Open hole 2917' to 3164'.

Total depth 3164'.

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 4  
CASE NO. 2592

Richfield Company North American Producing Division  
New Mexico-Arizona District  
Post Office Box 1978  
Roswell, New Mexico 88201  
Telephone 505 622 4041  
  
W. P. Tomlinson  
District Engineer



December 23, 1969

Continental Oil Company  
P.O. Box 460  
Hobbs, New Mexico 88240  
Attention: Mr. L. P. Thompson

Mr. Sidney Lanier  
P.O. Box 3284  
Midland, Texas 79701

Lowe Petroleum Company  
P.O. Box 832  
Midland, Texas 79701  
Attention: Mr. D. H. Rose

Tenneco Oil Company  
P.O. Box 1031  
Midland, Texas 79701  
Attention: Mr. F. J. McDonald

Re: Proposed Salt Water Disposal Well  
W.F. Hanagan No. 4  
2173 FSL & 2173 FWL Section 12-18S-31E  
Lea County, New Mexico

Gentlemen:

Atlantic Richfield Company plans to convert the above described well to a salt water disposal well in the Jalmat Pool in the interval from 2892' to 3164'. This well is currently a gas well in the Jalmat Pool. We expect to inject approximately 140 BWPD with a surface pressure of about 300 psi. This water will be produced water from the ARCo W.F. Hanagan No. 3, a Langlie Mattix oil well.

Enclosed for your convenience are copies of the exhibits which we plan to present at the January 7, 1970 hearing of the New Mexico Oil Conservation Commission. As you will note these exhibits include a base map of the area, a wellbore diagram showing the proposed completion, and a cross section correlating our proposed SWD well with Tenneco's SWD well. Tenneco obtained authorization to use the E. J. Wells Well No. 2 as a SWD well in November, 1968 by Commission Order No. R-3567 and has been disposing of water in this well for several months.

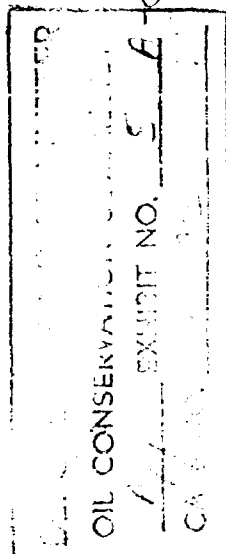
If you have no objections to this application, we would appreciate your signing and returning one copy of this waiver to the undersigned for presentation at the hearing.

Respectfully yours,

*W. P. Tomlinson*  
W. P. Tomlinson

Company Continental Oil Company  
Date December 31, 1969

Signed by *[Signature]*  
Title Asst. Division Manager





Atlantic Richfield Company North American Producing Division  
New Mexico-Arizona District  
Post Office Box 1978  
Roswell, New Mexico 88201  
Telephone 505 622 4041

W. P. Tomlinson  
District Engineer



December 23, 1969

Continental Oil Company  
P.O. Box 460  
Hobbs, New Mexico 88240  
Attention: Mr. L. P. Thompson

Mr. Sidney Lanier  
P.O. Box 3284  
Midland, Texas 79701

Lowe Petroleum Company  
P.O. Box 832  
Midland, Texas 79701  
Attention: Mr. D. H. Rose

Tenneco Oil Company  
P.O. Box 1031  
Midland, Texas 79701  
Attention: Mr. F. J. McDonald

Re: Proposed Salt Water Disposal Well  
W.F. Hanagan No. 4  
2173 FSL & 2173 FWL Section 12-18S-31E  
Lea County, New Mexico

Gentlemen:

Atlantic Richfield Company plans to convert the above described well to a salt water disposal well in the Jalmat Pool in the interval from 2892' to 3164'. This well is currently a gas well in the Jalmat Pool. We expect to inject approximately 140 BWPD with a surface pressure of about 300 psi. This water will be produced water from the ARCo W.F. Hanagan No. 3, a Langlie Mattix oil well.

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If you have no objections to this application, we would appreciate your signing and returning one copy of this waiver to the undersigned for presentation at the hearing.

Respectfully yours,

*W. P. Tomlinson*  
W. P. Tomlinson

Company Sidney Lanier  
Date December 29, 1969

Signed by *Sidney Lanier*  
Title Owner-Operator

Atlantic Richfield Company North American Producing Division  
New Mexico-Arizona District  
Post Office Box 1978  
Roswell, New Mexico 88201  
Telephone 505 622 4041

W. P. Tomlinson  
District Engineer

JCT



December 23, 1969

Continental Oil Company  
P.O. Box 460  
Hobbs, New Mexico 88240  
Attention: Mr. L. P. Thompson

Mr. Sidney Lanier  
P.O. Box 3284  
Midland, Texas 79701

Lowe Petroleum Company  
P.O. Box 832  
Midland, Texas 79701  
Attention: Mr. D. H. Rose

Tenneco Oil Company  
P.O. Box 1031  
Midland, Texas 79701  
Attention: Mr. F. J. McDonald

Re: Proposed Salt Water Disposal Well  
W.F. Hanagan No. 4  
2173 FSL & 2173 FWL Section 12-18S-31E  
Lea County, New Mexico

Gentlemen:

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Enclosed for your convenience are copies of the exhibits which we plan to present at the January 7, 1970 hearing of the New Mexico Oil Conservation Commission. As you will note these exhibits include a base map of the area, a wellbore diagram showing the proposed completion, and a cross section correlating our proposed SWD well with Tenneco's SWD well. Tenneco obtained authorization to use the E. J. Wells Well No. 2 as a SWD well in November, 1968 by Commission Order No. R-3567 and has been disposing of water in this well for several months.

If you have no objections to this application, we would appreciate your signing and returning one copy of this waiver to the undersigned for presentation at the hearing.

Respectfully yours,

*W. P. Tomlinson*  
W. P. Tomlinson

Company Tenneco Oil Co.  
Date 1-5-70

Signed by *F. J. McDonald*  
Title District Engineer

CLARENCE E. HINKLE  
W. E. BONDURANT, JR.  
S. B. CHRISTY IV  
LEWIS C. COX, JR.  
PAUL W. EATON, JR.  
CONRAD E. COFFIELD  
HAROLD L. HENSLEY, JR.  
STUART D. SHANOR  
C. D. MARTIN  
PAUL J. KELLY, JR.

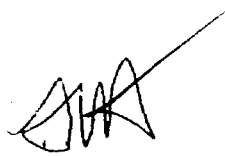
LAW OFFICES  
HINKLE, BONDURANT & CHRISTY  
600 HINKLE BUILDING  
ROSWELL, NEW MEXICO 88201

DEC 30 1969

MIDLAND, TEXAS OFFICE  
521 MIDLAND TOWER  
(915) MU 3-4691

December 29, 1969

TELEPHONE (505) 622-6510  
POST OFFICE BOX 10



Oil Conservation Commission  
Box 2088  
Santa Fe, New Mexico 87501

Gentlemen:

We enclose herewith in triplicate application  
of Atlantic Richfield Company for salt water disposal  
in the Jalmat Pool, Lea County.

We have discussed this matter with Dan Nutter  
and it appears on the docket for January 7 as Case No.  
4291.

Yours very truly,

HINKLE, BONDURANT & CHRISTY

By Clarence E. Hinkle  
(s)

CEH:cs  
Enc.

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

APPLICATION OF ATLANTIC RICHFIELD )  
COMPANY FOR SALT WATER DISPOSAL IN )  
THE JALMAT POOL, LEA COUNTY, NEW )  
MEXICO. APPLICANT SEEKS AUTHORITY )  
TO DISPOSE OF PRODUCED SALT WATER )  
INTO THE YATES FORMATION IN ITS )  
W. F. HANAGAN NO. 4 WELL LOCATED )  
2173 FEET FROM THE SOUTH LINE AND )  
2173 FEET FROM THE WEST LINE OF )  
SECTION 12, TOWNSHIP 25 SOUTH, RANGE )  
36 EAST INTO THE PERFORATED INTERVAL )  
FROM 2892 FEET TO 2914 FEET AND IN )  
THE OPEN HOLE INTERVAL BETWEEN 2917 )  
FEET AND 3164 FEET )  
\_\_\_\_\_ )

Oil Conservation Commission  
Box 2088  
Santa Fe, New Mexico 87501

Comes Atlantic Richfield Company, acting by and through the undersigned attorneys, and hereby makes application for authority to dispose of produced salt water into the Yates formation in its W. F. Hanagan No. 4 well located 2173 feet from the south line and 2173 feet from the west line of Section 12, Township 25 South, Range 36 East into the perforated interval from 2892 feet to 2914 feet and in the open hole interval between 2917 feet and 3164 feet, and in support thereof respectfully shows:

1. There is attached hereto, made a part hereof, and for purposes of identification marked Exhibit "A", a plat showing the location of the proposed injection well above referred to which is now producing as a marginal gas well from the Yates formation. The proposed injection well is circled in red and there is also circled in red a similar well which has heretofore been approved by the Commission as a salt water disposal well on a lease owned by Tenneco Oil Company. Said plat also shows all of the producing wells and wells which have been drilled within a radius of 2 miles of the proposed injection well.


2. There is also attached log of the proposed injection well, together with a diagrammatic sketch of the proposed injection well showing all casing strings, including diameters and setting depths, quantities used and tops of cement, perforated and open hole intervals, as well as tubing string, including diameters and setting depths and the location of the packer to be used.

3. Applicant proposes to dispose of salt water being produced from applicant's Hanagan No. 3 well located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$  said Section 12 in the Langlie Mattix pool and it is estimated that approximately 150 barrels of water per day will be disposed of.

4. Applicant requests that this matter be set down to be heard at the examiner's hearing to be held on January 7, 1970.

Respectfully submitted,

ATLANTIC RICHFIELD COMPANY

By   
Member of the Firm of  
HINKLE, BONDURANT & CHRISTY  
Box 10  
Roswell, New Mexico  
Attorneys for Applicant

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. 4291

Order No. R- 3908

APPLICATION OF ATLANTIC RICHFIELD 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 January 7, 19670, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this \_\_\_\_\_ day of January, 19670, 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, Atlantic Richfield Company, is the owner and operator of the W. F. Hanagan Well No. 4, 2173 feet from the South line and 2173 feet from the West line located ~~xxxxxxx~~ of Section 12, Township 25 South, Range 36 East, NMPM, Jalmat Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Yates ~~and Allen~~ Allen formation, with injection into the perforated and open-hole interval from approximately 2892 feet to 3164 feet.

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

approximately 2850 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, Atlantic Richfield Company, is hereby authorized to utilize its W. F. Hanagan Well No. 4, 2173 feet from the South line and 2173 feet from the West line located/~~xxxxxxx~~ of Section 12, Township 25 South, Range 36 East, NMPM, Jalmat Pool, Lea County, New Mexico, to dispose of produced salt water into the Yates and <sup>Seven Rivers</sup> formations, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 2850 feet, with injection into the perforated and open-hole interval from approximately 2892 feet to 3164 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 hereinafter designated.

Atlantic Richfield

SWD W. F. Hanson #4

2173' FSL 2173' FWL

12 185 36E

Journal Pool Lea

perfs 2892' to 2914' E

open hole 2917' to 3164'

gate form 150 hopt.