

CASE 4064: Application of ATLANTIC
RICHFIELD CO. FOR SALT WATER DIS-
POSAL, ROOSEVELT COUNTY.

- dse Number

4064

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
February 26, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Atlantic Richfield) Case No. 4064
Company for salt water disposal,)
Roosevelt County, New Mexico.)

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTE: Case 4064.

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

MR. HINKLE: Mr. Examiner, I am Clarence Hinkle, of Hinkle, Bondurant and Christy, representing Atlantic Richfield Company. We have one witness we would like to have sworn.

(Witness sworn)

JERRY TWEED,

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q We have four exhibits and these have already been marked -- and these are the official exhibits, and here's another copy. State your name, your residence, and by whom you are employed?

A I'm Jerry Tweed, and I reside in Roswell, and I'm employed by Atlantic Richfield Company, as an Operations Engineer.

Q Have you previously testified before the Oil Conservation Commission?

A Yes, I have.

Q And your qualifications as a Petroleum Engineer are a matter of record with the Commission?

A Yes, sir.

Q Are you familiar with the application of Atlantic Richfield in this Case 4064?

A Yes, sir.

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

A We are making application to dispose of produced salt water into the San Andres formation in our Tucker Number Four. Produced water will come from our Tucker Wells Number One, Two and Three. Tucker One and Three are located in the north half of the southwest quarter of Section Twenty-four. The Tucker Number Two Well is located in the southeast quarter of the southeast quarter of Section Twenty-three, and the Tucker Number Four Well is located in the southwest quarter of the southeast quarter of Section Twenty-three, Township Seven South, Range Thirty-two East.

Q Have you prepared, or has there been prepared under your direction, certain exhibits for introduction in this case?

A Yes; there has.

Q Refer to Exhibit Number One and explain what this is and what it shows.

A It shows the location and producing horizons of the wells in the general area of our Tucker Number Four, which is in Chaveroo Pool, Roosevelt County, New Mexico. It shows our Tucker Number Four, with an orange arrow pointing to it, which can be seen, as on the west edge of the pool, there are no producing wells to the west of our Number Four Well. Also, shown on the exhibit, in red, is our cross-section location.

Q The two wells which you have circled in red are the other two Atlantic Wells, which you just testified to?

A Yes.

Q All right.

A Which I included- -

Q Are all the wells in the Chaveroo Field shown by Exhibit One?

A All of the wells in the vicinity of the Tucker Number Four. The exhibit does not include the entire Chaveroo- -

Q I see. It extends on farther south?

A Yes. East.

Q These are all the wells within two miles though?

A Yes.

Q Of the injection well?

A Yes.

Q Now, refer to Exhibit Number Two and explain what this is.

A This is a Gamma-Ray Neutron Log of our Tucker Number Four Well -- it might be noted that on the log the perforated intervals are shown. The well was perforated with one shot -- one selective shot per foot at selected intervals. Perforations being 4207 to 4286.

Q As noted by the red arrows?

A Yes. Each shot is noted by the red arrow.

Q Is this the same log that was filed with the Commission with the application?

A Yes, it is.

Q Now, refer to Exhibit Number Three- -

A Exhibit Number Three is a diagrammatic sketch of the proposed completion of the Disposal Well. We plan to dispose down two and three-eighths inch tubing, with a packer set at, approximately, 4150, above the perforations, and to dispose down the tubing into perforations 4207 to 4286. The annulus -- we plan to fill the annulus with a non-corrosive fluid, and have a pressure gauge on the braden head annulus.

Q What is the history of this well? Was it completed as an oil well or- -

A We attempted to complete the well as an oil well, but were unsuccessful. It tested twenty barrels of salt water per hour from the existing perforations. We, consequently, temporarily abandoned the well.

Q It hasn't actually been plugged then?

A No, it has not.

Q Is there any other remarks- -

A The diagrammatic sketch does show the two -- the surface casing to be set at 398 feet, with cemented with 250 sacks, and the cement circulated. The produc-

tive string, which is four-and-a-half-inch casing, was set at 4500, cemented with 500 sacks, and the calculated top of the cement is 2750 feet.

MR. UTZ: Did you say whether or not it was coated?

THE WITNESS: No, sir. We do not plan to coat the tubing.

MR. HINKLE: Why do you not- -

A The water has not proved to be corrosive. As long as we maintain a closed system, we do not feel that the water will be corrosive, and we have a very minor volume of water to be injected into this well, also. Also, it might be pointed out -- with a pressure gauge on the braden head, should we get a tubing leak, it would be readily known, and we would pull the tubing and repair the tubing leak at that time.

Q You will obtain a closed system, though- -

A Yes, sir.

Q Approximately, what quantities of water do you intend to inject in this well?

A At the present time, the three producing wells are making five barrels of water per day.

Q Do you anticipate that will increase as time goes on?

A We anticipate there will be some increase in water production, however, the water volume -- in the future, will still not -- will be less than 100 barrels a day.

Q So, there will not be a great quantity of water disposed of?

A Yes; that is right.

Q All right. Refer to Exhibit Number Four and explain this to the Commission.

A Exhibit Four is a west to east cross-section, which includes our Tucker Number Four Well, which we plan to convert to disposal. The Tucker Number Two and the Tucker Number Three Well -- the wells were -- the sketch is tied to a sub-surface -- sub-sea depth of a plus 200 feet, and the top of the San Andres Slaughter Zone is also shown. It might be pointed out that across the -- the cross section -- that the -- relatively, structurally, flat from one well to the next, without too much structural relief. In fact, the Tucker Number Four is flat, or slightly higher than

the Number Three Well. Therefore, this leads us to the conclusion that Tucker Number Four is outside the San Andres Chaveroo Field, or else it would have contained oil in the interval perforated. Therefore, we do not feel like the -- that there's any connection in between the perforated interval and this well -- it's not connected with the producing horizon in the Chaveroo Field.

Q In your opinion, will the injection of the water into the Tucker Number Four affect the correlative rights of any of the parties in the vicinity?

A It will not -- it won't affect the correlative rights.

MR. HINKLE: We would like to offer Exhibits One through Four. And that's all the direct testimony.

MR. UTZ: Without objection, Exhibits One through Four will be admitted into the Record in this cause.

(WHEREUPON Exhibits One through Four were marked and received in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Tweed, how long do you expect that you will inject water into this well?

A Approximately, seven to eight years.

Q Have you investigated the cost of plastic coating?

A Yes -- to a degree; yes, sir.

Q What is the cost?

A I don't know what the exact cost is -- I think it's about forty cents a foot.

Q Is this well completed now?

A Yes, sir. It has existing perforations 4207 to 86.

Q Is there tubing in the well?

A No, sir.

Q Pull the tubing- -

A Yes, sir.

Q - -and shut it out?

A Yes- -

Q Are there any more questions to the witness?

You may be excused.

MR. HINKLE: Thank you very much.

* * * * *

I N D E X

WITNESS

JERRY TWEED

Direct Examination by Mr. Hinkle. . . . 2 - 9


Cross Examination by Mr. Utz. 9 -10

EXHIBITSOFFERED AND
ADMITTEDApplicants
1 through 4

9

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

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.


 CA FENLEY - COURT REPORTER

I do hereby certify that the foregoing is
 a complete record of the hearing of
 the Executive Hearing of the New Mexico Oil Conservation
 Commission held by me on Feb. 24, 1969.
4064
69
 New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

87501

March 4, 1969

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

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

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

Re: Case No. 4064
Order No. R-3695
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,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other State Engineer Office

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. 4064
Order No. R-3695

APPLICATION OF ATLANTIC RICHFIELD
COMPANY FOR SALT WATER DISPOSAL,
ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 26, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 4th day of March, 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, Atlantic Richfield Company, is the
owner and operator of the Tucker Well No. 4, located in Unit O
of Section 23, Township 7 South, Range 32 East, NMPM, Chaveroc-
San Andres Pool, Roosevelt 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
4207 feet to 4286 feet.

(4) That the injection should be accomplished through
2 3/8-inch plastic-lined tubing installed in a packer set at
approximately 4150 feet; that the casing-tubing annulus should
be filled with an inert fluid; and that a pressure gauge should

-2-

CASE No. 4064
Order No. R-3695

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 Tucker Well No. 4, located in Unit 0 of Section 23, Township 7 South, Range 32 East, NMPM, Chaveroo-San Andres Pool, Roosevelt 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 4150 feet, with injection into the perforated interval from approximately 4207 feet to 4286 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.

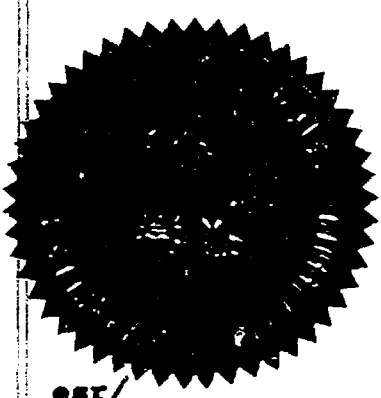
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


ALEX J. ANLIJO, Member


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



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.
MICHAEL R. WALLER

STUART D. SHANOR
C. D. MARTIN
PAUL J. KELLY, JR.

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

January 31, 1969

MIDLAND, TEXAS OFFICE
521 MIDLAND TOWER
(915) MU 3-4591
OF COUNSEL: HIRAM M. DOW

TELEPHONE (505) 622-6510
POST OFFICE BOX 10

4064
Case 4054

Mr. A. L. Porter, Jr.
Secretary - Director
Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Porter:

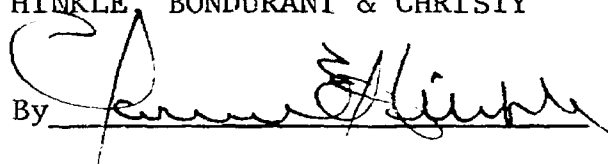
There is enclosed herewith in triplicate application of Atlantic Richfield Company for approval of a salt water disposal well in the Chaveroo pool in Roosevelt County. You will also find enclosed the exhibits referred to in the application.

We would like to have this matter included on the examiner's docket for February 26.

Yours sincerely,

HINKLE, BONDURANT & CHRISTY

By



CEH:cs
Enc.

DOCKET MAILED

Date 2-13-69

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 26, 1969

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

The following cases will be heard before Elms A. Utz, Examiner, and Daniel S. Nutter, Alternate Examiner:

- CASE 4052: Application of Mobil Oil Corporation for a pool creation and discovery allowable, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the Lightcap-Pennsylvanian Pool in Chaves County, New Mexico, comprising the NE/4 NE/4 of Section 7, Township 8 South, Range 30 East, and for the assignment of approximately 35,650 barrels of oil discovery allowable to the discovery well, its C. L. O'Brien Well No. 1 located in Unit A of said Section 7.
- CASE 4036: (Continued from the February 5, 1969, Examiner Hearing) Application of Mobil Oil Corporation for a dual completion, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its C. L. O'Brien Well No. 1 located in Unit A of Section 7, Township 8 South, Range 30 East, Chaves County, New Mexico, to produce oil from an undesignated Pennsylvanian oil pool and the Lightcap (Devonian) Pool through parallel strings of tubing.
- CASE 4053: Application of El Paso Products Company for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the Gallegos-Gallup Pool, San Juan County, New Mexico, including provisions for the classification of oil and gas wells, 80-acre spacing for oil wells, and 320-acre spacing for gas wells.
- CASE 4054: Application of Amerada Petroleum Corporation for an unorthodox oil well location and amendment to Order No. R-2197, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a producing oil well at an unorthodox location 1250 feet from the West line and 2220 feet from the South line of Section 28, Township 24 South, Range 37 East, in its Langlie Mattix Wellworth Unit Waterflood Project, Langlie-Mattix Pool, Lea County, New Mexico. Applicant also seeks the amendment of Order No. R-2197, which order authorized said waterflood project, to establish an administrative procedure whereby said project could be expanded to include additional lands and injection wells and producing wells at orthodox and unorthodox locations as may be necessary to complete an efficient injection and producing pattern without the necessity of showing well response.

- CASE 4055: Application of Albert Gackle for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation in the open-hole interval from approximately 3290 feet to 3620 feet in his George Etz Well No. 3 located in Unit N of Section 27, Township 23 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.
- CASE 4056: Application of Albert Gackle for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Lower Queen formation in the perforated interval from approximately 3642 feet to 3699 feet in his Sinclair "A" State Well No. 5 located in Unit I of Section 23, Township 23 South, Range 36 East, Langlie-Mattix Pool, Lea County, New Mexico.
- CASE 4057: Application of Charles B. Read for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the Quail-Queen Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.
- CASE 4058: Application of Hiram W. Keith and Dalton Haines for salt water disposal, Lea County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the Seven Rivers formation in the open-hole interval from approximately 3874 feet to 3951 feet in their State Well No. 2 located in Unit K of Section 16, Township 21 South, Range 34 East, West Wilson Pool, Lea County, New Mexico.
- CASE 4059: Application of Hiram W. Keith and Dalton Haines for salt water disposal, Eddy County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the Delaware formation in the open-hole interval from approximately 4030 feet to 4158 feet in their Eddy "AGA" State Well No. 2 located 660 feet from the North line and 1650 feet from the West line of Section 36, Township 26 South, Range 31 East, North Mason-Delaware Pool, Eddy County, New Mexico.
- CASE 4060: Application of Sidney Lanier for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates-Seven Rivers formations in the open-hole interval from approximately 3402 feet to 3650 feet in his I. B. Ogg "A" Well No. 5 located in Unit J of Section 35, Township 24 South,

(Case 4060 continued)

Range 36 East, Jalmat Yates-Seven Rivers Pool, Lea County, New Mexico.

CASE 4061: Application of Millard Deck 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 Seven Rivers and Queen formations in the open-hole interval from approximately 3752 feet to 3872 feet in its Atha Well No. 1 located in Unit M of Section 31, Township 21 South, Range 36 East, South Eunice Pool, Lea County, New Mexico.

CASE 4062: Application of Kersey & Company for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Queen formation in the perforated interval from approximately 1835 feet to 1870 feet in the Bass Well No. 3 located in Unit F of Section 12, Township 19 South, Range 28 East, East Millman Queen-Grayburg Pool, Eddy County, New Mexico.

CASE 4063: Application of Kerr-McGee Corporation for the creation of a new gas pool and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for the production of gas from the Morrow formation by its Nix Well No. 1 located in Unit L of Section 11, Township 19 South, Range 26 East, Eddy County, New Mexico, and for the promulgation of special pool rules therefor, including a provision for 640-acre spacing.

CASE 4064: Application of Atlantic Richfield Company for salt water disposal, Roosevelt 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 4207 feet to 4286 feet in its Tucker Well No. 4 located in Unit O of Section 23, Township 7 South, Range 32 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 4065: Application of Humble Oil & Refining Company for an unorthodox oil well location and reclassification of a water well to an oil well, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to have its New Mexico State "S" Water Source Well No. 4 (CP-427), located at an unorthodox oil well location 650 feet from the West line and 175 feet from the

South line of Section 2, Township 22 South, Range 37 East, Lea County, New Mexico, reclassified as an oil well for the production of oil an undesignated San Andres Oil Pool and authority to produce same as an oil well.

- CASE 4066: Application of Humble Oil & Refining Company for the consolidation of two non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the consolidation of two existing non-standard 320-acre gas proration units into one standard 640-acre unit comprising all of Section 26, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be dedicated to its New Mexico State "G" Wells Nos. 2 and 4 located in Units P and G, respectively, of said Section 26. Applicant further seeks authority to produce the allowable assigned to said unit from either of said wells in any proportion.
- CASE 4067: Application of Benson-Montin-Greer Drilling Corporation for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the La Plata-Gallup Pool, San Juan County, New Mexico, including a provision for 160-acre spacing and proration units. Applicant further requests that said special rules provide that the unit allowable for a 160-acre unit in said pool be allocated on the basis of four times the normal unit allowable for Northwest New Mexico, and that no credit be given for depth factors. Applicant further requests that said special rules be limited in their application to the exterior boundaries of the La Plata-Mancos Unit Area.
- CASE 4068: Application of Martin Yates III for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation in its Yates & Hanson McCord Well No. 1 located in Unit E of Section 22, Township 23 South, Range 26 East, Dark Canyon Field, Eddy County, New Mexico. Applicant further seeks a procedure whereby its Cordie King Well No. 2 located in Unit K of said Section 22 may be approved for the disposal of salt water without the requirement of notice and hearing.

-5-
Examiner Hearing
February 26, 1969

CASE 4045:

(Continued from the February 5, 1969 Examiner Hearing)
Application of H & S Oil Company for an amendment to Order No. R-3357, as amended by Order No. R-3357-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3357, as amended by Order No. R-3357-A, which order authorized the H & S West Artesia Unit Waterflood Project. Applicant proposes to substitute the Roach Drilling Company-Leonard Well No. 18 located in Unit D of Section 17 as a water injection well in said project in lieu of the Cities Service-Mell Well No. 17 located in Unit M of Section 8, both in Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico.

CASE 4069:

Application of Union Oil Company of California for the creation of a new pool, assignment of discovery allowable, and the promulgation of special pool rules, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks the creation of a new Devonian oil pool for its Midway State Well No. 1 located in Unit F of Section 12, Township 17 South, Range 36 East, Lea County, New Mexico, and for the assignment of an oil discovery allowable in the amount of approximately 57,380 barrels to said well. Applicant further seeks the promulgation of special pool rules for said pool, including a provision for 80-acre proration units.

CASE 4070:

Application of C. E. LaRue and B. N. Muncy, Jr., for salt water disposal, Lea County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the salt and Yates formations in the open-hole interval from approximately 1254 feet to 3000 feet in the La Rue-Muncy John "B" Well No. 2 located in Unit A of Section 35, Township 17, South, Range 32, East, Maljamar Grayburg-San Andres Pool, Lea County, New Mexico.

Case 4064
Hend 2-26-69
Rec 12-28-69.

Grant Atlantic permission to
convert its Junker #4, Chavero
S.A. Pool to an S.W.D. well.
Injection shall be thru 2 $\frac{3}{8}$ Plastic
lined tubing under a packer &
into the S.A. from 4207-86.
thru perfor.
Annulus shall be filled with
inert fluid.

— Jim & [Signature]

Jerry Dwyer called 2-28-69
5:30 P. & gave oral approval,
[Signature]

ATLANTIC RICHFIELD COMPANY
EXHIBIT NO. 3
SCHEMATIC DRAWING
TUCKER NO. 4
CHAVEROO POOL
ROOSEVELT COUNTY, NEW MEXICO

Tubing - 2-3/8" O.D.

Water Disposal

Ground elevation 4458' above
sea level.

Surface casing 8-5/8"
O.D. set @ 398' and
cemented w/250 sacks.
Circulated Cement.

Production casing 4-1/2" O.D.
set @ 4500' and cemented w/
500 sacks. Top of cement @
2750' calculated.

2716
*Insert
fluid.*

Packer to be set at
approximately 4150'.

Perforations: 4207', 4210', 4213',
4224', 4226', 4228', 4230', 4240',
4256', 4264', 4272', 4279', 4282'
and 4286'.

Plug back depth 4300'.

Total depth 4500'.

RECEIVED
CASE NO. 4064 3

BEFORE THE OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

APPLICATION OF ATLANTIC RICHFIELD
COMPANY FOR SALT WATER DISPOSAL,
CHAUVEROO POOL, ROOSEVELT COUNTY,
NEW MEXICO. APPLICANT SEEKS AUTHORITY
TO DISPOSE OF PRODUCED SALT WATER INTO
THE SAN ANDRES FORMATION IN ITS TUCKER
NO. 4 WELL LOCATED 660 FEET FROM THE
SOUTH LINE AND 1980 FEET FROM THE EAST
LINE OF SECTION 23, TOWNSHIP 7 SOUTH,
RANGE 32 EAST IN THE PERFORATED INTERVAL
FROM 4,207 FEET TO 4,286 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 to the Oil Conservation Commission for authority to dispose of produced salt water into the San Andres formation in its Tucker No. 4 well located 660 feet from the south line and 1980 feet from the east line of Section 23, Township 7 South, Range 32 East in the Chauveroo Pool, Roosevelt County in the perforated interval from 4,207 feet to 4,286 feet, and in support thereof respectfully shows:

1. That Atlantic Richfield has heretofore drilled and attempted to complete its Tucker No. 4 well located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23, Township 7 South, Range 32 East, N.M.P.M. in the San Andres formation in the Chauveroo Pool, Roosevelt County, New Mexico but was unable to complete said well as a producing well and the same has been temporarily abandoned. Atlantic Richfield has 3 producing wells, being its Nos. 1, 2 and 3 wells located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 23 and the N $\frac{1}{2}$ SW $\frac{1}{4}$ Section 24, Township 7 South, Range 32 East, N.M.P.M. and it proposes to dispose of water produced from said wells into the said Atlantic Richfield Tucker No. 4 well.

3 JUL 8 1969

4064
Close 4064

2. That 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 and the location of all other wells within a radius of 2 miles from said proposed injection well, all of which are producing from the San Andres formation. The plat also indicates the lessees within said 2 mile radius.

3. There is also filed herewith a Schlumberger Neutron Porosity Log of the injection well, which indicates the zone into which the water will be disposed.

4. There is also filed herewith a diagrammatic sketch of the proposed injection well showing all casing strings, including diameters and setting depths, quantities used and tops of cement and also the perforated interval.

Applicant requests that this matter be set down for the examiner's hearing to be held on February 26.

ATLANTIC RICHFIELD COMPANY

By



Member of the Firm of
HINKLE, BONDURANT & CHRISTY
Attorneys for Applicant
Box 10
Roswell, New Mexico 88201

DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 4064

Adm
Order No. R- 3695

APPLICATION OF ATLANTIC RICHFIELD
COMPANY FOR SALT WATER DISPOSAL,
ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 26, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 26th day of February, 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, Atlantic Richfield Company,
is the owner and operator of the Tucker Well No. 4,
located in Unit 0 of Section 23, Township 7 South, Range
32 East, NMPM, Chaveroo-San Andres Pool, Roosevelt
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 4207 feet to 4286 feet.

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

approximately 4150 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 Tucker Well No. 4 located in Unit 0 of Section 23, Township 7 South, Range 32 East, NMPM, Chaveroo-San Andres Pool, Roosevelt 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 4150 feet, with injection into the perforated interval from approximately 4207 feet to 4286 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.