

CASE 4004: Appli. of ATLANTIC-
RICHFIELD COMPANY FOR THE AMEND-
MENT OF ORDER NO. R-3507

Index Number

4004

Application

Transcripts.

Small Exhibits

ETC.

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

1120 SHAWNS BLDG. • P. O. BOX 1077 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
December 19, 1968

IN THE MATTER OF:

Application of Atlantic-Richfield
Company for the amendment of
Order No. R-3507, Lea County,
New Mexico.

Case No. 4004

BEFORE: DANIEL S. NUTTER

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case 4004.

MR. HATCH: Application of Atlantic-Richfield Company for the amendment of Order No. R-3507, Lea County, New Mexico.

MR. EATON: Paul Eaton, of the firm of Hinkle, Bondurant and Christy, Roswell, New Mexico, representing the Atlantic-Richfield Company. We have one witness.

(Witness sworn.)

(Applicant's Exhibits 1 through 4 marked for identification.)

* * * * *

J E R R Y T W E E D, called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. EATON:

Q Please state your name, residence, occupation and employer.

A I'm Jerry Tweed, I'm employed by Atlantic-Richfield Company in Roswell, New Mexico, as a Petroleum Engineer.

MR. NUTTER: What is your last name?

THE WITNESS: Tweed, T-w-e-e-d.

MR. NUTTER: Thank you.

Q (By Mr. Eaton) Are you familiar with the application of Atlantic-Richfield in this case?

A Yes, I am.

Q Are you familiar with the property and the proposed injection well involved in this case?

A Yes.

Q Have you previously testified before the New Mexico Oil Conservation Commission as a Petroleum Engineer?

A Yes, I have.

Q Have your qualifications been previously accepted?

A Yes, they have.

MR. EATON: Are the witness's qualifications acceptable?

MR. NUTTER: They are.

Q (By Mr. Eaton) Mr. Tweed, would you first explain what the present Order R-3507 provides?

A This Order provided for the dual completion of our State B H No. 1 located in the northwest quarter of the northwest quarter of Section 13, Township 19 South, Range 34 East, as a producing well through tubing from the interval 5080 to 5136 and a disposal well down the annulus in the interval 4820 to 4830, with a packer set between the two zones.

Q What does Atlantic-Richfield seek by its present application?

A We are making application to abandon the well as

a producer and complete it as a disposal well in the Lower Queen interval 5160 to 5380, while retaining the right to inject into the Upper Queen 4820 to 4830.

Q You are basically seeking an amendment of the existing Order, is that correct?

A Yes, that is right.

Q Would you please refer to what has been marked as Exhibit No. 1 and state what that reflects?

A Exhibit No. 1 is a plat, map of the area showing the completion of the individual wells, the total depth, the producing formation and the lease ownership. Also shown in red are two cross-section locations, the orange arrow points to our proposed disposal well. We have two wells in this Pool, our State B.H. No. 1 which we propose to convert to a disposal well, and our State B. G. No. 1 located in the southeast quarter of the northeast quarter of Section 14, Township 19 South, Range 34 East, which is a producing well.

Q Your State B. H. No. 1 is located in the northwest quarter northwest quarter of Section 13?

A That's right.

Q Now, would you please refer to Exhibit No. 2 and state what that reflects?

A Exhibit No. 2 is a west to east cross-section

through the area which includes our State B. G. No. 1 and our State B. H. No. 1 . The top of the Queen is shown on the cross-section, and the logs are correlated on a minus 1000 subsea depth. It might be noted that our proposed disposal interval is 5160 to 5380 in the State B. H. No. 1. The perforations in the State B. G. No. 1 are 5126 to 5336. The perforations, 5227 to 5323 are in the same relative interval as our proposed disposal interval in the State B. H. No. 1. The State B. G. No. 1 was Bone Springs test to approximately 10,000 feet and was plugged back and completed as a discovery well in the Queen. At the time it was completed the logs were not sufficient to evaluate all Queen zones, therefore they were all perforated. Subsequent development has indicated that the Lower Queen zones are water bearing and are not productive of oil. The State B. G. No. 1 is the only well in the Pool that is perforated in the proposed disposal interval.

Q That well is owned by you?

A Yes, that is right.

Q Now, would you refer to Exhibit No. 3 and state what it reflects?

A Exhibit No. 3 is a north to south cross-section of the area. It contains the State B. H. No. 1 and the

three C. B. Reed wells, which along with the State B. G. No. 1 are the remaining producing wells in the field. The top of the Queen is shown on this cross-section. Also this cross-section is hung on a minus 1000 subsea interval. Also shown are the top of the proposed disposal interval and the base of the proposed disposal interval. Each log indicates the existing perforations in the Queen. As can be seen, none of Mr. Reed's wells are perforated in the proposed disposal interval.

Q Mr. Tweed, did you discuss this application with Mr. Reed?

A Yes, sir, I did. He had no objection to the application.

Q Now, Exhibits 2 and 3 both reflect your B. H. proposed injection well?

A Yes, sir.

Q What is the history of the State B. H. Well, with respect to when drilled, production data, production history?

A I don't have the exact date that the well, well, I do, too. The State B. H. No. 1 was completed in 8-28-67. At that time it was pumping at the rate of 38 barrels of oil and 34 barrels of water in 12 hours. The well is currently producing 7 barrels of oil and 26 barrels of water per day, which is near its economic limit. The operating cost for the

first nine months of this year was \$2.60 a barrel for this lease. Therefore, we propose to abandon it as a producer and convert it to a singly completed salt water disposal well.

Q Now, Mr. Tweed, referring to what has been marked as Exhibit No. 4, would you please state what that exhibit reflects?

A It is a schematic diagram of our proposed completion of the disposal well. It shows the surface pipe and the amount of cement, the long string and the amount and top of cement used, the existing perforations and our proposed completion. We propose to inject down 2 and 7/8ths inch O. D. tubing and with a packer set at approximately 5145 feet into the proposed disposal interval 5160 to 5380. We plan to fill the annulus with a non-corrosive fluid, have a pressure gauge on the bradenhead, we plan to inject through a closed system and we do not feel that the water will be corrosive, therefore we do not plan to plastic-coat the tubing.

Q What is the source of the produced water which you propose to inject?

A At the present time, the water that will be injected is the produced water from the State B. G. No. 1 located in the southeast quarter of the northeast quarter of Section

14, Township 19 South, Range 34 East.

Q What volume of salt water do you anticipate will be injected?

A This well makes approximately 70 barrels of water per day.

Q I don't recall whether you stated that the water would be injected under pressure or not?

A It will be injected under pressure.

Q And your company has the equipment necessary to so inject the water?

A Yes.

Q In your opinion, will injection of water in this interval from 5160 to 5380 be detrimental to any existing production in the area?

A It will not be detrimental.

Q In your opinion, is this well cased and cemented in such a manner that there will be no danger to any other oil and gas and fresh water intervals that may be encountered by the well?

A It is so completed.

Q Now, Exhibit No. 4 reflects, I assume, how you propose to complete this well as a disposal well at this time?

A Yes.

Q Now, if you determine that additional disposal capacity is needed, what would you propose to do with this well?

A Then we would propose to squeeze off the producing perforations 5080 to 5136 with cement, perforate and treat the disposal interval 4820 to 30 and then reset the packer less than 100 feet above the top perforation, 4820, and inject into both intervals 4820 to 30 and 5160 to 5380.

Q Now, that disposal interval, 4820 to 4830, is the disposal interval covered by the existing Order, is that correct?

A Yes, it's covered by Order R-3507.

Q Have these exhibits been prepared by you or under your direction?

A Yes, they have.

Q In your opinion, will the approval of this application prevent waste and protect correlative rights?

A Yes, it will.

MR. EATON: Mr. Examiner, we move the admission of Applicant's Exhibits 1, 2, 3 and 4.

MR. NUTTER: Atlantic-Richfield's Exhibits 1 through 4 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1, 2, 3 and 4 offered and admitted in evidence.)

MR. EATON: We have no further questions.

MR. NUTTER: Are there any questions of this witness?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Tweed, it's not your intent at this present time to use these upper perforations for disposal?

A No, sir, it is not.

Q You plan to go into the lower zone only?

A Yes, sir.

Q If it will take all the water?

A Yes, sir.

Q Now, if we look at that cross-section, that north-south cross-section that had the Reed perforations on it, I presume that all those perforations would be in the interval opposite the perforated interval here from 5080 to 5136?

A No, they're not all in that interval. This was covered in the previous hearing. They perforated some intervals on above 5080.

Q Their perforated interval, however, does not extend up into the 4820 to 4830 area?

A They did not perforate that particular zone.

They perforated in the vicinity, but they did not perforate this particular zone.

Q None of their perforations are the equivalent of your initial disposal interval 5160 to 5380?

A Yes, sir, that is correct.

Q Now, you mentioned that you weren't going to plastic-coat the tubing, but the system would be a closed system. Do you plan to treat the water in any manner?

A As is our procedure in these particular instances, we run corrosion coupons for a period of time. If the coupons do not indicate severe corrosion, then we do not treat the water. If they do indicate it, then we treat the water. Normally, our procedure is that after a period of time when we have either treated it or not treated it and established a corrosion rate, then we discontinue running coupons.

Q Are you acquainted with the Swearingen ^{*Flood operated by you*} Plug Company?

A Yes, sir, I am.

Q Now, you have been running those corrosion coupon tests out there for a good long while?

A Yes, sir.

Q Do they indicate that any water treatment is necessary out there?

A Yes, they do. We are treating the water.

Q You are treating the water out there?

A The problem is that we are using supply water which has been aerated, and we are using chemicals to deaerate the water. However, the produced water that does mix with the supply water has been slightly corrosive more so than we feel that we want to live with, so we are treating the water with corrosion inhibitor.

Q But here you feel if you keep the system closed and keep the air from getting to it you won't have any big problem?

A That's right.

Q But you will run coupon tests?

A Yes, sir.

MR. NUTTER: Are there any further questions of Mr. Tweed? He may be excused.

(Witness excused.)

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

MR. EATON: No, sir, Mr. Examiner.

MR. NUTTER: Does anyone have anything to offer in Case 4004? We will take the case under advisement, and the Court is adjourned.

DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. BOX 2088
SANTA FE

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

December 26, 1968

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

Re: Case No. 4004
Order No. R-3507-A
Applicant:
Atlantic-Richfield 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.
A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon 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. 4004
Order No. R-3507-A**

**APPLICATION OF ATLANTIC-RICHFIELD COMPANY
FOR THE AMENDMENT OF ORDER NO. R-3507, LEA
COUNTY, NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 19, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Mutter.

NOW, on this 26th day of December, 1968, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That by Order No. R-3507, dated October 2, 1968, the applicant, Atlantic-Richfield Company, was granted authority to complete its State BM Well No. 1, located 660 feet from the North line and 660 feet from the West line of Section 13, Township 19 South, Range 34 East, NMPM, Quail-Queen Pool, Lea County, New Mexico, as a dual completion to produce oil from the Lower Queen formation in the interval from approximately 5080 feet to 5136 feet through 2 7/8-inch tubing and to dispose of produced salt water into the Upper Queen formation through the casing-tubing annulus in the perforated interval from approximately 4820 feet to 4830 feet.

(3) That the applicant now seeks the amendment of said Order No. R-3507 to permit the disposal of produced salt water

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CASE No. 4004

Order No. R-3507-A

into the Lower Queen formation in the interval from approximately 5160 feet to 5380 feet through 2 7/8-inch tubing set in a packer at approximately 5145 feet.

(4) That the applicant no longer proposes to produce the subject well.

(5) That the applicant proposes to also dispose into the previously authorized interval from approximately 4820 feet to 4830 feet but only if the interval from 5160 feet to 5380 feet does not prove to be a satisfactory disposal zone.

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

(7) That Order No. R-3507 should be superseded in its entirety.

IT IS THEREFORE ORDERED:

(1) That the applicant, Atlantic-Richfield Company, is hereby authorized to utilize its State BH Well No. 1, located 660 feet from the North line and 660 feet from the West line of Section 13, Township 19 South, Range 34 East, NMPM, Quail-Queen Pool, Lea County, New Mexico, to dispose of produced salt water into the Lower Queen formation into the perforated interval from approximately 5160 feet to 5380 feet through 2 7/8-inch tubing set in a packer at approximately 5145 feet, and if necessary to also dispose into the Upper Queen formation in the perforated interval from approximately 4820 feet to 4830 feet;

PROVIDED HOWEVER, that the casing-tubing annulus shall be filled with an inert fluid; that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer; and that coupon corrosion tests shall be conducted continuously on said well and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission;

PROVIDED FURTHER, that the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations;

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CASE No. 4004

Order No. R-3507-A

PROVIDED FURTHER, that prior to utilization of the subject well to dispose of produced salt water into the Upper Queen formation, the applicant shall cause the perforations from 5080 feet to 5136 feet to be squeezed with sufficient cement to ensure that said perforations are properly sealed off and shall dispose through 2 7/8-inch tubing set in a packer as near as is practicable to the uppermost perforation at 4820 feet.

(2) That Order No. R-3507 is hereby superseded.

(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


GUYTON B. HAYS, Member


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

esr/

Docket No. 40-68

DOCKET: EXAMINER HEARING - THURSDAY - DECEMBER 19, 1968

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

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

CASE 4000: Application of Coastal States Gas Producing 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 Delaware Sand formation in
the perforated interval from 5051 feet to 5055 feet in its
Conoco-Federal Well No. 2 located in Unit B of Section 15,
Township 26 South, Range 33 East, Salado Draw-Delaware
Pool, Lea County, New Mexico.

CASE 4001: Application of Tamarack Petroleum Company, Inc. for salt
water disposal, Lea County, New Mexico. Applicant, in the
above-styled cause, seeks authority to dispose of produced
salt water into the Queen formation in the perforated
interval from approximately 4862 feet to 4892 feet in its
Union State Well No. 2, located in Unit K of Section 15,
Township 19 South, Range 35 East, Pearl-Queen Pool, Lea
County, New Mexico.

CASE 4002: Application of Marathon Oil Company for a unit agreement,
Chaves County, New Mexico. Applicant, in the above-styled
cause, seeks approval of the Dallas Ranch Unit Area
comprising 8,929 acres, more or less, of State lands in
Township 9 South, Ranges 26 and 27 East, Chaves County,
New Mexico.

CASE 3968: (Continued and Readvertised)

Application of Texaco, Inc. for salt water disposal, Lea
County, New Mexico. Applicant, in the above-styled cause,
seeks authority to dispose of produced salt water into the
Devonian formation in the open-hole interval from approxi-
mately 12,400 feet to 12,550 feet in its U. D. Sawyer Well
No. 4 located in Unit O of Section 34, Township 9 South,
Range 36 East, Crossroads-Devonian Pool, Lea County, New
Mexico.

December 19, 1968, Examiner Hearing

Docket No. 40-68

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CASE 4003: Application of Morris R. Antweil 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 formation in the perforated and open-hole interval from 3049 feet to 3159 feet in his Martha Forrest Well No. 1 located in Unit L of Section 24, Township 25 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

3776
CASE 4004: Application of Atlantic-Richfield Company for the amendment of Order No. R-3507, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3507 to permit the disposal of produced salt water into the Lower Queen formation in the interval from 5160 feet to 5380 feet, as well as the previously authorized interval from 4820 feet to 4830 feet in the Upper Queen formation, in its State BK Well No. 1, located in Unit D of Section 13, Township 19 South, Range 34 East, Quail-Queen Pool, Lea County, New Mexico.

ATLANTIC RICHFIELD COMPANY
EXHIBIT NO. 4
SCHEMATIC DRAWING
STATE "NM" NO. 1
QUAIL QUEEN POOL
LEA COUNTY, NEW MEXICO

Tubing - 2-7/8" O.D.

Surface casing 8-5/8"
O.D. set @ 426' and cemented
w/220 sacks. Circulated cement.

Production casing 5-1/2"
O.D. set @ 5397' and cemented
w/276 sacks. Top of cement @
3900' by temperature survey.

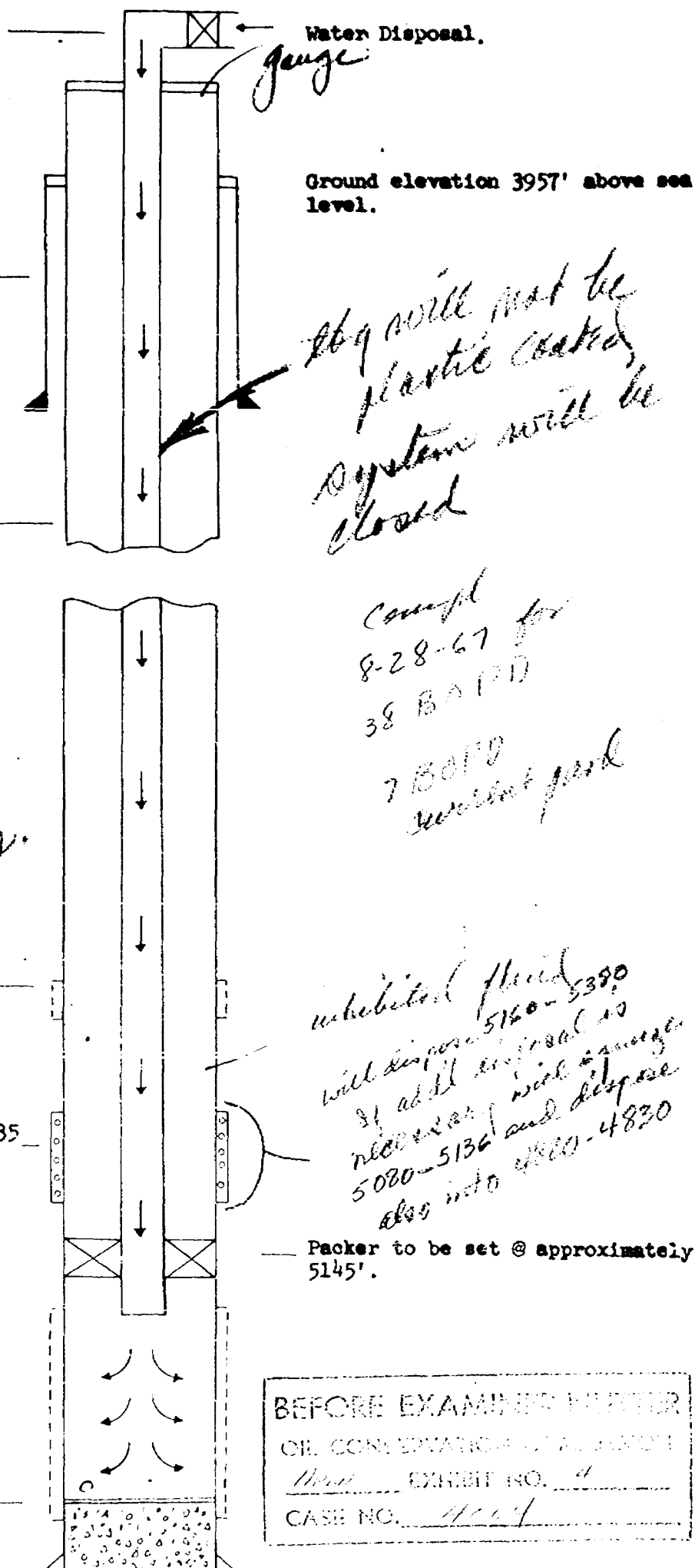
Alternate disposal zone covered
by Order No. R-3507. 4820-30'

Perforations: 5080, 5081, 5082,
5123, 5124, 5125, 5133, 5134, 5135
and 5136. Depleted oil zone.

Proposed disposal interval
5160' to 5380'.

Plug back depth 5360'.

Total depth 5397'.



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
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600 HINKLE BUILDING
ROSWELL, NEW MEXICO 88201

December 12, 1968

MIDLAND, TEXAS OFFICE
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OF COUNSEL: HIRSH M. DOW

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 an amendment to Order R-3507 to permit the disposal of produced salt water into the Lower Queen formation in the Atlantic State BH well No. 1 located in Unit D, Section 13, Township 19 South, Range 34 East, Quail Queen Pool, Lea County, which is docketed as Case No. 4004 for the examiner's hearing of December 19.

Yours very truly,

HINKLE, BONDURANT & CHRISTY

By 

CEH:cs
Enc.

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

APPLICATION OF ATLANTIC RICHFIELD)
COMPANY FOR AN AMENDMENT TO COMMISSION)
ORDER R-3507 ORIGINALLY ISSUED IN CASE)
NO. 3778 AUTHORIZING THE COMPLETION OF)
STATE BH WELL NO. 1 IN THE QUAIL QUEEN)
POOL, LEA COUNTY, NEW MEXICO, AS A DUAL)
COMPLETION. APPLICANT SEEKS THE AMEND-)
MENT OF ORDER R-3507 TO PERMIT THE DIS-)
POSAL OF PRODUCED SALT WATER INTO THE)
QUAIL QUEEN FORMATION IN THE INTERVAL)
FROM 5,160 FEET TO 5,380 FEET, AS WELL)
AS THE PREVIOUSLY AUTHORIZED INTERVAL)
FROM 4,820 FEET TO 4,830 FEET IN THE)
UPPER QUEEN FORMATION OF SAID WELL)
LOCATED IN UNIT D OF SECTION 13, TOWN-)
SHIP 19 SOUTH, RANGE 34 EAST)

No. 4004

Oil Conservation Commission
Box 2088
Santa Fe, New Mexico

Comes Atlantic Richfield Company, acting by and through the undersigned attorneys, and hereby makes application for an Amendment to Commission Order R-3507 originally issued in Case No. 3778 authorizing the completion of State BH Well No. 1 in the Quail Queen Pool, Lea County, New Mexico, as a dual completion. Applicant seeks the amendment of Order R-3507 to permit the disposal of produced salt water into the Quail Queen formation in the interval from 5,160 feet to 5,380 feet, as well as the previously authorized interval from 4,820 feet to 4,830 feet in the upper Queen formation of said well located in Unit D of Section 13, Township 19 South, Range 34 East. In support of such application, applicant respectfully shows:

1. That Order R-3507 was issued on October 2, 1968 in Case No. 3778 pursuant to the application of Atlantic Richfield Company for authority of applicant to complete its State BH well No. 1

located 660 feet from the north line and 660 feet from the west line of Section 13, Township 19 South, Range 34 East, N.M.P.M. in the Quail Queen Pool, Lea County, New Mexico as a dual completion to produce oil from the Lower Queen formation in the interval from approximately 5,080 feet to 5,136 feet through 2 7/8" tubing and to dispose of produced salt water into the Upper Queen formation through the casing-tubing annulus in the perforated interval from approximately 4,820 feet to 4,830 feet.

2. That since said order was entered on October 2, 1968, applicant has decided to abandon the production of oil in the zone which is perforated in the well from 5,080 feet to 5,136 feet as the production of oil from said zone is no longer economical. Applicant feels that said well can best be used for the disposal of water primarily in the Lower Queen formation in the interval from 5,160 feet to 5,380 feet and that said well should be conditioned for such purpose. There is attached hereto, made a part hereof and for purposes of identification marked Exhibit "A", a schematic drawing of the well showing all casing strings, including diameters and setting depths; quantities used and tops of cement; perforated interval; tubing string, including diameter and setting depth; and location of packer.

3. That in connection with the original application in Case No. 3778 a plat was furnished showing the location of the proposed injection well and the location of all other wells within a radius of 2 miles from the well and the formation from which said wells are producing, which was also introduced in evidence in the case, together with a log of the proposed injection well, all in accordance with Rule 701 of the rules and regulations of the Commission.

4. Applicant proposes to dispose of approximately 70 barrels of water per day being produced from applicant's State BG well No. 1 located in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 14, Township 19 South, Range 34 East and would also like to have the right, if sufficient water cannot be disposed of in the Lower Queen formation, to re-condition said well to dispose of water into the Upper Queen formation through perforations from approximately 4,820 feet to 4,830 feet as originally authorized under Order R-3507.

Applicant requests that this matter be set down for hearing
at the examiner's hearing to be held on December 19, 1968.

Respectfully submitted,

ATLANTIC RICHFIELD COMPANY

By 

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

DRAFT

GMH/esr
12-20-68

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. 4004

Order No. R-3507-A

APPLICATION OF ATLANTIC-RICHFIELD COMPANY
FOR THE AMENDMENT OF ORDER NO. R-3507, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 19, 1968,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of December, 1968, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That by Order No. R-3507, dated October 2, 1968, the
applicant, Atlantic-Richfield Company, was granted authority to
complete its State BH Well No. 1, located 660 feet from the
North line and 660 feet from the West line of Section 13, Town-
ship 19 South, Range 34 East, NMPM, Quail-Queen Pool, Lea County,
New Mexico, as a dual completion to produce oil from the Lower
Queen formation in the interval from approximately 5080 feet to
5136 feet through 2 7/8-inch tubing and to dispose of produced
salt water into the Upper Queen formation through the casing-
tubing annulus in the perforated interval from approximately
4820 feet to 4830 feet.

(3) That the applicant now seeks the amendment of said Order No. R-3507 to permit the disposal of produced salt water into the Lower Queen formation in the interval from approximately 5160 feet to 5380 feet ~~through 2 3/8 inch tubing set in a packer at approximately 5145 feet.~~ ^{through 2 3/8 inch tubing set in a packer at approximately 5145 feet.} ~~as well as the previously authorized interval from 4820 feet to 4830 feet in the Upper Queen formation.~~

(4) That the applicant no longer proposes to produce the subject well.

(5) That the applicant proposes to ^{also} dispose into the previously authorized interval from approximately 4820 feet to 4830 feet ^{but} only if the interval from 5160 feet to 5380 feet does not prove to be a satisfactory disposal zone.

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

(7) That Order No. R-3507 should be superseded in its entirety.

IT IS THEREFORE ORDERED:

(1) That the applicant, Atlantic-Richfield Company, is hereby authorized to utilize its State BH Well No. 1, located 660 feet from the North line and 660 feet from the West line of Section 13, Township 19 South, Range 34 East, NMPM, Quail-Queen Pool, Lea County, New Mexico, to dispose of produced salt water into the Lower Queen formation ~~through 2 3/8 inch tubing~~ ^{through 2 3/8 inch tubing set in a packer at approximately 5145 feet} into the perforated interval from approximately 5160 feet to 5380 feet, ^{to also dispose} and if necessary ¹ into the Upper Queen formation in the perforated interval from approximately 4820 feet to 4830 feet;

PROVIDED HOWEVER, that the casing-tubing annulus shall be filled with an inert fluid; that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer; and that coupon corrosion tests shall be conducted continuously on said well and

the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission;

PROVIDED FURTHER, that the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations;

PROVIDED FURTHER, that prior to utilization of the subject well to dispose of produced salt water into the Upper Queen formation, the applicant shall cause the ^{perforations} ~~perforated interval~~ from 5080 feet to 5136 feet to be squeezed with sufficient cement to ensure that said ^{perforations are} ~~zone is~~ properly sealed off *and shall dispose through 2 1/2 inch tubing set in a packer*

(2) That Order No. R-3507 is hereby superseded.

(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.

as near as is practicable to the uppermost perforation at 4820 feet..