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CASE 4106: Appli. of SOUTHLAND  
ROYALTY CO. FOR SALT WATER  
DISPOSAL, LEA COUNTY, NEW MEXICO

Case Number.

4106

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Application

Transcripts.

Small Exhibits

ETC.

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

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
April 23, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Southland Royalty  
Company for salt water disposal,  
Lea County, New Mexico.

Case No. 4106

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 4106.

MR. HATCH: Case 4106. Application of Southland Royalty Company for salt water disposal, Lea County, New Mexico.

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

MR. UTZ: Appearances?

MR. HINKLE: Clarence Hinkle, Hinkle, Bondurant and Christy, Roswell, appearing on behalf of Southland Royalty Company. We have one witness, Mr. Harvey Carr, we would like to have sworn.

(Witness sworn.)

MR. UTZ: Other appearances?

MR. HINKLE: I have five exhibits; these have already been marked.

HARVEY CARR

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

DIRECT EXAMINATION

BY MR. HINKLE:

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

A My name is Harvey Carr. I live in Midland, Texas and I'm employed by the Southland Royalty Company.

Q What is your position with the Southland?

A I'm district engineer.

Q How long have you been with Southland?

A Nine years.

Q Have you previously testified before this Commission?

A No, I have not.

Q Would you give a brief resume of your educational background and professional experience?

A I have a Bachelor of Science degree from Texas A and M University in 1950 and have been engaged in engineering since that time.

Q Are you familiar with the area which is involved in this case?

A Yes, I am.

Q And have made a study of it?

A Yes, sir.

Q Are you familiar with the application of Southland in this case?

A Yes.

Q What is Southland seeking to accomplish?

A We are attempting to obtain approval of a disposal -- approval of disposal produced water into the Permo-Pennsylvanian formation in the perforated interval of from approximately 9485 feet down to 9713 feet in our Guye Well No. 4 which is located in Unit F of Section 12, Township 11 South, Range 33 East, in the Inbe Permo-Penn field, Lea County.

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

A Yes. I'll refer to Exhibit No. 1.

Q Explain what this is and what it shows.

A This is a plat which shows the location of the proposed salt water disposal well and it also shows all the wells which are producing within a radius of two miles of this disposal well and also notes the formation from which there are producing and Exhibit No. 1 also shows the ownership of the lease hold interest within the area shown on the plat and the character of the lands involved, such as fee land, federal or state land, and

it also shows the location of an existing -- of our existing salt water disposal well to the north of the north Bagley field and we gather water from the south end of this Inbe Permo-Penn field and also from various operators in the Inbe Permo-Penn and also from the north Bagley field and dispose of it into this existing salt water disposal well.

Q Is Southland the owner of leases in the Inbe field?

A Yes, Southland now has several leases in the Inbe Permo-Penn field and also we have the leases that cover all of this section twelve, township eleven south, range thirty-three east.

Q That is where the proposed injection well is located?

A Yes, that's correct.

Q What is the exact location of the Guye No. 4?

A Our Guye No. 4 is located 1980 feet from the north line and 1980 feet from the west line of this section twelve.

Q What is the present status of this well?

A The well presently produces approximately five barrels of oil and approximately fifteen barrels of water per day out of the Bough C Permo-Penn formation.

Q Does Southland intend to convert this well to an injection well?

A Yes. I refer to Exhibit No. 2. This is a structural map contoured on top of the Bough C formation. Top of the Bough C varies from a minus 4900 feet sub C in the north Bagley field and grades on down to a minus 5700 feet sub C over on the east side of the Inbe field. Contour intervals generally run north-south and there's actually not any structure or not much of a structure as such.

Q It's more or less of a stratigraphic trap?

A Yes, that's right.

Q Is the proposed injection well on the edge of the Inbe pool ---

A Yes, it is.

Q -- on the west edge?

A West, yes. I have an Exhibit No. 3 ---

Q Refer to Exhibit 3 and explain what that is and what it shows.

A It's an isopachous map of the Rough C formation. Our proposed disposal well is shown. The isopachous shows that the zone thickness there on the west side of the field is zero and it grades up from that; the vicinity of the number four well, is approximately fifteen feet in thickness and grades on up to twenty feet in the middle of the field there and then grades back on down to a minus ten feet or approximately five feet over on the east side of the field.

Q Do you have a log of the proposed injection well?

A Yes, I do. Our Exhibit No. 4 which is a gamma ray sonic log of the Cuve No. 4 and I have marked on the log the zones that are perforated in red and --

Q What is the top and bottom of the perforations?

A The top of the perforations in which we propose to inject is at 9485 and the bottom of the open perforations are 9713.

Q Now, refer to Exhibit No. 5 and explain what this is and what it shows.

A This is a schematic drawing of our Guey No. 4 well as we proposed to rig it up. We presently have 354 feet of 13 and 3/8 surface casing with cement circulated and there is four thousand feet of 8 and 5/8 casing in the hole with cement calculated -- the top of the cement calculated at 2050 feet and we have 5 and a half set at 9781 with top of the cement by temperature survey at eight thousand feet and we show the perforations that are existing in the well now. We propose to set a Baker Model D packer at 9450 and run 2 and 7/8 plastic coated tubing and land in our Baker Model D packer.

Q In your opinion in completing the injection well in the manner shown here, will it confine the water to be injected to the Bough C formation?

A Yes.

Q How much water do you anticipate will be disposed of in this well?

A We presently in the Inbe field gather from our

own wells, as well as other operators, approximately 900 to a 1000 barrels a day and as talked about while ago we ship all that water over to the north Bagley where it joins a gathering system over there and on to the disposal well north of the north Bagley field and we have experienced, due to the volume of the water, and we have had some friction problems with our lines in this field and also have some scale and paraffin problems and due to the high pressure, the heater treaters of various operators have failed to put the water down the line or puts it in the tank or possibly overflows on the ground at times; due to their scaling and occasionally we have had to shut down and acidize our lines, pig our lines and also acidize our existing disposal well so therefore we would like a relief well in which we could put water from time to time in this proposed disposal well. It's more of a mechanical problem and that's why we want to get this additional disposal well.

Q In your opinion by the disposal of water in this proposed injection well, will it violate any correlative rights?

A No.

Q In your opinion will it be in the interest of conservation and the prevention of waste?

A Yes.

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

MR. UTZ: Without objection, Exhibits 1 through 5 will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 1 through 5 were admitted in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Carr, where did you say you were taking this water at the present time?

A We are presently taking it to a Devonian disposal well marked on Exhibit 1 to the north of the north Badley field. Do you see it marked on your exhibit? All of the water from both fields are going into that particular well.

Q That is from 900 to 1000 barrels?

A That's just from the Inbe Permo-Penn.

We also gather from the north Bagley field. We have three to four thousand barrels a day going into this one well.

Q But, you are going to continue to try to use that well and this is just a stand-by well, is that it?

A Yes, sir.

Q Have you made any tests on this well? Do you know how much water it will take?

A No, we haven't. We haven't tested it in any way. We are hoping we can get perhaps a thousand barrels a day in it; due to the mechanical hook-up, we -- 2 and 7/8 tubing would limit you as to your volume, what you might get in, but we haven't tested it, no.

Q Did you say whether or not you intend to plastic coat your tubing?

A Yes, sir, we do.

Q I notice the perforations in the annulus above packer. What about them?

A Those are -- involved a work-over. They are -- we perforated that zone. It's, I believe, in the lower wolf camp zone and acidized those perforations and swab

tested them and that zone appeared to be dry and we couldn't get any fluid out of it.

Q You intend to just leave them as they are?

A We would like to, yes, and run a packer below them.

Q You feel that the annulus will hold the inhibited water that you intend to put behind it with these perforations in there?

A Yes. It's a -- they are acidizing jobs; appear to be exceedingly tight.

Q You intend to put a pressure gauge at the surface, the annulus or leave it open or how do you intend to complete that?

A On the annulus?

Q On the annulus, yes.

A I would say we would put a pressure gauge on it.

Q How salty is this water; do you have any idea?

A We have some records, water analyses on this and I didn't bring them. I believe it's in the range of eighty thousand parts per million.

MR. UTZ: Are there other questions of the witness?

He may be excused.

Statements in this case? The case will be  
taken under advisement.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
HARVEY CARR	
Direct Examination by Mr. Hinkle	2
Cross Examination by Mr. Utz	10

<u>EXHIBIT</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's 1 through 5	2	10

STATE OF NEW MEXICO    )  
                                   ) ss  
 COUNTY OF BERNALILLO    )

I, GLENDA BURKS, Notary Public 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.

Witness my Hand and Seal this 2nd day of May, 1969.

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. 4106 heard by me on April 23, 1969.  
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. ARMIJO  
MEMBER

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

April 29, 1969

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

Re: Case No. 4106  
Order No. R-3739  
Applicant:  
Southland Royalty

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. 4106  
Order No. R-3739

APPLICATION OF SOUTHLAND ROYALTY 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 April 23, 1969,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 28th day of April, 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, Southland Royalty Company, is the  
owner and operator of the Guye Well No. 4, located in Unit F of  
Section 12, Township 11 South, Range 33 East, NMPM, Inbe Permo-  
Pennsylvanian Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the Permo-Pennsylvanian  
formation, with injection into the perforated interval from  
approximately 9485 feet to 9713 feet.

(4) That the injection should be accomplished through  
2 7/8-inch plastic-lined tubing installed in a packer set at  
approximately 9450 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. 4106  
Order No. R-3739

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, Southland Royalty Company, is hereby authorized to utilize its Guye Well No. 4, located in Unit F of Section 12, Township 11 South, Range 33 East, NMPM, Inbe Permo-Pennsylvanian Pool, Lea County, New Mexico, to dispose of produced salt water into the Permo-Pennsylvanian formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 9450 feet, with injection into the perforated interval from approximately 9485 feet to 9713 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.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
DAVID F. CARGO, Chairman

ALEX J. ARMISTEAD, Member

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

esr/

Case 4106

Heard 4-23-69

Rec. 4-24-69

Grant Scotland Royally  
permission to convert their  
J. D. Gage #4, F 12-115-33 E.  
into - Perm Perm Pool. Do a  
SW D. well.

Injection shall be thru  
int. Plastic coated tubing  
under a packer set at approx.  
9450+ into the Perm. fm.  
thru perms from 9485-9713.

Well is to be used as a  
back up well for a larger  
SW D system in the Duke  
area.

Annulus to be filled w/  
inhib. fluid w/ Pressure  
gauge at surface.

Thush. H.

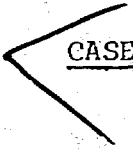
Docket No. 12-69

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 23, 1969

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

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

- CASE 4079: (Continued from the March 26, 1969, Examiner Hearing)  
Application of Robert B. Holt for the creation of a new pool, assignment of a 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 Middle Pennsylvanian oil pool for his Aztec State Well No. 2 located in Unit A of Section 26, Township 13 South, Range 32 East, Lea County, New Mexico, and for the assignment of an oil discovery allowable in the amount of approximately 48,715 barrels to said well. Applicant further seeks the promulgation of special pool rules for said pool, including a provision for 160-acre proration units and the assignment of 80-acre allowables.
-  CASE 4106: Application of Southland Royalty 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 Permo-Pennsylvanian formation in the perforated interval from approximately 9485 feet to 9713 feet in its Guye Well No. 4 located in Unit F of Section 12, Township 11 South, Range 33 East, Inbe Permo-Pennsylvanian Pool, Lea County, New Mexico.
- CASE 4107: Application of Coastal States Gas Producing Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the West Sawyer-San Andres Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.
- CASE 4108: Application of Humble Oil & Refining Company for the rededication of acreage, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to recomplete its New Mexico "V" State Well No. 5, a non-commercial Wantz-Abo oil producer, to a Tubb gas producer and to consolidate the 40 acres presently dedicated to said well with the 120 acres presently dedicated to its New Mexico "V" State Well No. 11, a Tubb gas producer, to form a standard 160-acre proration unit comprising the SW/4 of Section 10, Township 21 South, Range 37 East, Tubb Gas Pool, Lea County, New Mexico. Applicant further seeks authority to produce the allowable assigned to said unit from either of said wells in any proportion.
- CASE 4109: Application of Humble Oil & Refining Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the South Lea Unit Area comprising 8,324.16 acres, more or less, of State, Federal, and Fee lands in Township 26 South, Range 36 East, Lea County, New Mexico.

- CASE 4110: Application of Atlantic-Richfield Company for a waterflood project and unorthodox injection well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Queen formation through one well to be drilled at an unorthodox location 100 feet from the North and West lines of Section 23, Township 18 South, Range 31 East, Shugart Pool, Eddy County, New Mexico.
- CASE 4111: Application of Tenneco Oil Company for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Morton Federal Well No. 1, located in Unit A of Section 12, Township 9 South, Range 35 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Vada-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres, Abo and possibly other formations in the open-hole interval from approximately 4050 feet to 8120 feet.
- CASE 4112: Application of P-M Drilling 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 formation in the perforated interval from approximately 5062 feet to 5100 feet in its James Federal Well No. 1 located in Unit A of Section 35, Township 23 South, Range 32 East, Triste Draw-Delaware Pool, Lea County, New Mexico.
- CASE 4113: Application of Texas Pacific Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its State "D" A/c-1 Well No. 1 located in Unit A of Section 2, Township 12 South, Range 33 East, in lieu of its State "C" A/c-1 Well No. 1 located in Unit B of said Section 2 as the producing well for the proration unit comprising the N/2 NE/4 of said Section 2, Bagley-Siluro-Devonian Pool, Lea County, New Mexico.
- CASE 4114: Application of Gulf Oil Corporation for two unorthodox oil well locations and amendment to Order No. R-2729, Lea County, New Mexico. Applicant in the above-styled cause, seeks authority to drill two producing oil wells at unorthodox locations in Township 19 South, Range 35 East, as infill wells in the West Pearl Queen Unit Waterflood Project, Pearl Queen Pool, Lea County, New Mexico, said wells to be located as follows:

West Pearl Queen Unit Well No. 164 to be located 1325 feet from the North line and 2635 feet from the West line of Section 32;

West Pearl Queen Unit Waterflood Well No. 165 to be located 1420 feet from the South line and 1325 feet from the West line of Section 29;

(Case 4114 continued)

Applicant also seeks the amendment of Order No. R-2729, which order authorized the aforesaid waterflood project, to establish a procedure whereby additional injection wells and producing wells at unorthodox infill locations, as may be necessary to complete an efficient injection and producing pattern, may be approved administratively.

CASE 4115: Application of Southern Union Production Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the W/2 of Section 16, Township 29 North, Range 9 West, Basin-Dakota Pool, San Juan County, New Mexico. Said acreage to be dedicated to a well to be drilled at a standard location in the W/2 of said Section 16. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4116: Application of Tesoro Petroleum Corporation for the amendment of Order No. R-2797 and for the extension of the South Hospah-Upper Sand Pool, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-2797, which order approved the Hospah Unit Agreement, to delete from said unit agreement 233.87 acres in the Southeast portion of Section 1, Township 17 North, Range 9 West, McKinley County, New Mexico. Applicant also seeks the extension of the South Hospah-Upper Sand Pool to include a portion of the Southeast quarter of said Section 1.

CASE 4117: Application of Eastern Petroleum Company for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the Rattlesnake-Dakota Pool, San Juan County, New Mexico, permitting the drilling of wells on 2½-acre spacing provided that no well be located nearer than 50 feet to the outer boundary of the quarter-quarter section and no nearer than 165 feet to another well producing from the same pool, and provided further, that a 40-acre proration unit would be subject to a 40-acre allowable regardless of the number of wells on the unit.

CASE 4118: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle gas production from undesignated Fruitland and Pictured Cliffs gas pools in the well-bore of its Federal "I" Well No. 4, located in the NE/4 NW/4 of Section 1, Township 29 North, Range 14 West, San Juan County, New Mexico.

CASE 4096: (Continued from the April 5, 1969, Examiner Hearing)

Application of Kersey & Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority

-4- Examiner Hearing - April 23, 1969

Docket No. 12-69

to institute a waterflood project by the injection of water into the Seven Rivers formation through four wells located in Units C, D, and F of Section 25, Township 17 South, Range 28 East, Aid (Yates-Seven Rivers) Pool, Eddy County, New Mexico.

CASE 4078: (Continued from the April 9, 1969, Examiner Hearing)

Application of J. Gregory Marrion for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Devils Fork-Gallup Pool and an undesignated Mesaverde oil pool in the wellbore of his NCRA State Well No. 3 located in Unit L of Section 16, Township 24 North, Range 6 West, Rio Arriba County, New Mexico.

SOUTHLAND ROYALTY COMPANY  
 EXHIBIT NO. 8  
 SCHEMATIC DRAWING  
 J.D. GUYE NO. 4  
 INBE FIELD  
 LEA COUNTY, NEW MEXICO

9685' 2 7/8" J Tubing, plastic coated and landed in Baker Model D Pkr

Water Disposal

Ground Elevation 4205'

354' 13 3/8" Surface Casing Cemented w/ 400 sx.

4000' 8 5/8" Protection string, 24 & 32" J, Cemented w/ 200sx 1/1 Poz. & 150 sx regular, calculated top cement at 2050'

9781' 5 1/2", 15.5 & 17 # J & N Oil String, Cemented w/ 300 sx 1/1 Poz & 40 sx Latex, Top cement 8000'

5 1/2" X 2 7/8" Annulus filled with inhibited water.

Perforations: 9391', 9396, 9401, 9404 & 9408  
 Swab dry  
 Lower Wolfcamp

Packer 9450'

Perforation 9485'  
 Bough "A"

BEFORE EXAMINER UTZ  
 OIL CONSERVATION COMMISSION  
 App. EXHIBIT NO. 5  
 CASE NO. 4106

Perforations: 9547, 9578, 9598, 9608, 9624, 9639, 9653, 9661, 9672'  
 Bough "B"

9547'

9672'

Perforated 9699' to 9713', w/ 2 Jets per foot.

9699' Bough "C" Producing Perfs.

9713'

Plug back TD 9753'

TD 9781', 5 1/2" on bottom

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

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

March 17, 1969

299 MAR 19 11 13 AM '69

MIDLAND, TEXAS OFFICE  
521 MIDLAND TOWER  
(915) MU 3-4691  
OF COUNSEL: HIRAM N. DOW

TELEPHONE (505) 622-6510  
POST OFFICE BOX 10

Oil Conservation Commission  
Box 2088  
Santa Fe, New Mexico 87501

*Case 4106*

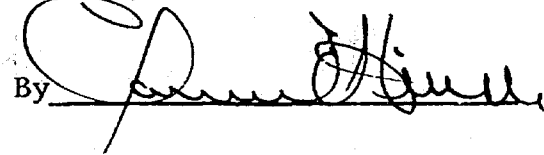
Gentlemen:

We enclose herewith in triplicate application of Southland Royalty Company for salt water disposal in the Inbe Field, Lea County.

We would appreciate your placing this matter on the docket for the examiner's hearing on April 23.

Yours very truly,

HINKLE, BONDURANT & CHRISTY

By 

CEH:cs  
Enc.

DOCKET MAILED

~~4-10-69~~

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

APPLICATION OF SOUTHLAND ROYALTY )  
COMPANY FOR SALT WATER DISPOSAL )  
INBE FIELD, LEA COUNTY, NEW MEXICO, )  
APPLICANT SEEKS AUTHORITY TO DISPOSE )  
OF PRODUCED SALT WATER INTO THE PERMO- )  
PENNSYLVANIAN FORMATION IN ITS GUYE )  
NO. 4 WELL LOCATED IN THE SE $\frac{1}{4}$ NW $\frac{1}{4}$  )  
SECTION 12, TOWNSHIP 11 SOUTH, RANGE )  
33 EAST IN THE PERFORATED INTERVAL )  
FROM 9,485 FEET TO 9,713 FEET. )

*Case 4106*

Oil Conservation Commission  
Box 2088  
Santa Fe, New Mexico

Comes Southland Royalty 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 Permo-Pennsylvanian formation in its Guye No. 4 well located 1980 feet from the North and West lines of Section 12, Township 11 South, Range 33 East in the Inbe Field in Lea County, New Mexico, in the perforated interval from 9,485 feet to 9,713 feet, and in support thereof respectfully shows:

1. That Southland Royalty Company is the owner and operator of certain leasehold interests in the Inbe Field, Lea County, New Mexico including Section 12, Township 11 South, Range 33 East. Applicant's Guye No. 4 well is located 1980 feet from the North and West lines of said Section 12 and is presently producing approximately 5 barrels of oil per day and 15 barrels of water from the Bough "C" (Permo-Pennsylvanian) formation and it is proposed to convert said well into an injection well for the purpose of disposing of produced water from the Bough "C" formation.

2. 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, the location of all other wells within a radius of 2 miles from the proposed injection well and the formations from which said wells are producing. The plat also indicates the lessees of record within said 2 mile radius. There is also filed herewith a Sonic-Gamma Ray log of the proposed injection well. There is also attached hereto, made a part hereof and for purposes of identification marked Exhibit "B", a diagrammatic sketch of the proposed injection well showing all casing strings, including diameters and setting depths, quantities used and tops of cement, perforated or open hole intervals, tubing string, including diameter and setting depth, and the location of packer.

3. That applicant owns and operates a water disposal system, referred to as the Inbe- North Bagley Salt Water Disposal System, through which water produced from its wells in the Inbe field is presently being disposed of, but due to the relatively large volume being handled applicant would like to convert the above mentioned well to an additional injection well for the purpose of disposing of part of the water which has heretofore been disposed of through said disposal system. The proposed injection well would be in the nature of a relief well to take peak loads and to use as a back-up for applicant's regular Devonian disposal well if it is necessary to acidize or workover the same from time to time.

4. Applicant requests that this matter be set down for the examiner's hearing to be held on April 23.

Respectfully submitted,

SOUTHLAND ROYALTY COMPANY

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

SOUTHLAND ROYALTY COMPANY  
EXHIBIT NO.  
SCHEMATIC DRAWING  
J.D. GUYE NO. 4  
INBE FIELD  
LEA COUNTY, NEW MEXICO

9685' 2 7/8" 6.50# J Tubing, plastic coated and landed in Baker Model D Pkr

Water Disposal

Ground Elevation 4205'

354' 13 3/8" Surface Casing  
Cemented w/ 400 sx.

4000' 8 5/8" Protection string, 24 & 32# J, Cemented w/ 200sx 1/1 Poz. & 150 sx regular, calculated top cement at 2050'

9781' 5 1/2", 15.5 & 17 # J & N Oil String, Cemented w/ 300 sx 1/1 Poz & 40 sx Latex, Top cement 8000'

Perforations : 9391', 9396, 9401, 9404 & 9408'  
Swab dry.

5 1/2" X 2 7/8" Annulus filled with inhibited water.

Packer 9450'

Perforation 9485'

9547'

Perforations : 9547, 9578, 9598, 9608, 9624, 9639, 9653, 9661, 9672'

9672'

Perforated 9699' to 9713', w/ 2 Jets per foot.

9699' Bough "C" Producing Perfs.

9713'

Plug back TD 9753'

TD 9781', 5 1/2" on bottom

Case 4106  
EXHIBIT "B"

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. 4106

Order No. R-3729

APPLICATION OF SOUTHLAND ROYALTY COMPANY  
FOR SALT WATER DISPOSAL, LEA COUNTY, NEW  
MEXICO.

4-24-69

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 23, 1969,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this        day of April, 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, Southland Royalty Company,  
is the owner and operator of the Guye Well No. 4,  
located in Unit F of Section 12, Township 11 South, Range  
33 East, NMPM, Inbe Permo-Pennsylvanian Pool, Lea  
County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the Permo-Pennsylvanian  
formation, with injection into the perforated interval  
from approximately 9485 feet to 9713 feet.

(4) That the injection should be accomplished through  
2 7/8 -inch plastic-lined tubing installed in a packer set at

approximately 9450 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, Southland Royalty Company, is hereby authorized to utilize its Guye Well No. 4, located in Unit F of Section 12, Township 11 South, Range 33 East, NMPM, Inbe Permo-Pennsylvanian Pool, Lea County, New Mexico, to dispose of produced salt water into the Permo-Pennsylvanian formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 9450 feet, with injection into the perforated interval from approximately 9485 feet to 9713 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.