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SPECIALIZING IN. DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILT COPY, CONVENTIONS

209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-4691 • ALBUQUENGUE, NEW MEXICO

BLIFORE THE HEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico April 29, 1970

EXAMINER HEARING

IN THE MATTER OF:

Application of Texaco Inc. for salt) water disposal, Chaves County, New) Case No. 4344

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING



MR. UTZ: Case 4344.

MR. HATCH: Case 4344. Application of Texaco Inc. for salt water disposal, Chaves County, New Mexico.

MR. KELLY: Let the record show the same appearance on behalf of Texaco and that the witness has been sworn.

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

CHARLES H. FINKAY

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

DIRECT EXAMINATION

BY MR. KELLY:

Q Mr. Finkay, in this case, referring to what has been marked Exhibit 1, would you briefly state what Texaco seeks?

A Exhibit 1 shows a Little Lucky Lake-Devonian Pool where Texaco is the only producer. There are currently four wells producing in this pool, making 1200 barrels of water a day which is being disposed of in a well on the Pan American lease in the northwest quarter of Section 11, 15 South, 30 East.

Permission has been granted by Pan American and by the Commission to dispose of water in the Queen sand.

Water production has increased in this pool and we are installing submersible pumps whereby we cannot dispose of the water in the Oueen formation.

We are asking for permission to deepen this well, set casing and dispose of water in the Devonian formation.

- Q Now, if I understand you, the triangular well that you have shown in the northwest of the northwest of 28 is now approved by this Commission as a salt water injection well in the Queen formation?
 - A This is correct.
- Q You are asking that that order, in effect, be rescinded and you be allowed to go to the Devonian and dispose of your water in that zone?
 - A This is correct.
 - Q Now, this well is owned by Pan American Oil Company?
 - A It's on a Pan American Oil lease.
- Q I see. And have you worked out an agreement with Pan American on using this well?
 - A We have.
 - Q Now, can you give a brief history of this well?
- A This well was drilled by Texaco originally and surface pipe was set at 469, 13 and 3/8 inch and 8 and 5/8 inch was set at 3,000 feet; cement was circulated in both

cases. The well was drilled to a total depth of 11,353 feet and found to be non-commercial. We set plugs in this well and subsequently gave up the lease. Pan American then re-leased this property, including the well.

- Q Now, did they do anything with the well? Did they get any completion out of it?
 - A They did nothing with the well at all.
- Q Now, referring to what has been marked Exhibit No. 2, a sketch, is this the present installation in the well?
- A Exhibit 2 is the present installation as it was plugged and as we are using it for disposal in the Queen's formation.
- Q And what is the rate of injection in the Queen formation?
- A The Queen's formation is 1200 barrels of water a day at 2500 pounds pressure.
 - Q And what do you expect this rate will increase to?
- A We expect this rate to increase to approximately 12,000 barrels a day on vacuum in the Devonian.
- Q Now, referring to what has been marked as Exhibit No. 3, would you explain that to the Examiner?
- A Exhibit No. 3 shows how we will finally dispose of water in the Devonian. We will first squeeze off the

perforations in the Queen formation from 2450 to 2782, clean the well out to the original total depth of 11,353 and drill 150 feet deeper, which will be in a more porous section of the Devonian.

We will then set 4 and a half inch plastic-lined casing at 11,230 feet and cement it back into the surface pipe at 3,000 feet, which is already cemented to the surface. We will then inject directly down the 4 and a half inch casing.

- Q Now, have you had any problems with fresh water or migration as far as injection into the Queen?
 - A No, we haven't.
- Q Do you anticipate any problem in this respect, as far as the injection in the Devonian?
 - A No, we don'c.
- Q Now, this again is the situation where you will be re-injecting Devonian water back into the Devenian?
 - A All Devonian water into the Devonian.
- Q Is there any reason to believe that the Devonian will not take this amount of water?
 - A No, there isn't.
- Q Is there any reason to believe that the Devonian production will be adversely affected or affected at all by the injection of this water?

- A We don't think it will affect the production at all.
- Q How, you have notified all offset operators?
- A Yes, we have.
- Q Now, let's see. Exhibit No. 4 is a log of the injection well. Do you want to comment on that at all?

A Once again this log just goes to the original total depth of 11,353, which shows very little porosity in the Devonian. From our contouring and working in this area, we estimate that drilling another 150 feet we will hit the very porous section of the Devonian which will be our disposal horizon.

- Q Were Exhibits 1 through 4 prepared by you or under your supervision?
 - A Yes, they were.

MR. KELLY: I move the introduction of Exhibits 1 through 4.

MR. UTZ: Without objection, Exhibits 1 through 4 will be entered into the record of this case.

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

MR. KELLY: That completes our direct examination.

CROSS EXAMINATION

BY MR. UT3:

Q According to your Exhibit 3, Mr. Finkay, you are going to cement the four and a half back up to 2500 feet, is that right?

A Yes, into the surface pipe at 3,000 feet. The 8 and 5/8 is set at 3,000 feet and we will entirely cement back into this surface casing which is cemented to the surface and also the 13 and 3/8 is cemented to the surface.

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

MR. HATCH: Do you recall the order number on this original salt water disposal?

THE WITNESS: Order No. SWD 85, dated November 27, 1968.

MR. UTZ: Other questions? The witness may be excused.

Statements? The case will be taken under advisement.

WITNESS		PAGE
CHARLES H. FINKAY		
Direct Examination by Mr. Kelly		2
Cross Examination by Mr. Utz		7
		Oppublic avis
EXHIBIT	MARKED	OFFERED AND ADMITTED
Applicant's l through 4	2	6

STATE OF NEW MEXICO)

COUNTY OF BERNALILLO)

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

NOTARY PUBLIC

My Commission Expires:

March 12, 1973

the fraction of Conservation Conservation



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2066 - SANTA FE 87801

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

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER ALEX J. ARMIJO

MEMBER

May 5, 1970

Re: Case No. 4344
Order No. R-3956
Applicant:

Texaco inc.

White, Gilbert, Koch & Kelly Attorneys at Law Post Office Box 787 Santa Fe, New Mexico

Dear Sir:

Mr. Booker Kelly

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

Copy of order also sent to:

Hobbs OCC x

Artesia OCC x

Aztec OCC

Other State Engineer Office and Bureau of Land Management

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

> CASE No. 4344 Order No. R-3956

APPLICATION OF TEXACO INC. FOR SALT WATER DISPOSAL, CHAVES COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 29, 1970, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 5th day of May, 1970, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises.

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Texaco Inc., is the owner and operator of the B. E. Spencer "B" Federal Well No. 1, located in Unit D of Section 28, Township 15 South, Range 30 East, NMPM, Little Lucky Lake-Devonian Pool, Chaves County, New Mexico.
- (3) That the applicant proposes to utilize said well to dispose of produced salt water into the Devonian formation, with injection into the open-hole interval from approximately 11,230 feet to 11,503 feet.
- (4) That the injection should be accomplished through 4 1/2-inch plastic-lined casing set at approximately 11,230 feet. That said casing should be cemented with sufficient cement and in such a manner as to ensure that the cement shall come back into the intermediate casing approximately 500 feet.

(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, Texaco Inc., is hereby authorized to utilize its B. E. Spencer "B" Federal Well No. 1, located in Unit D of Section 28, Township 15 South, Range 30 East, NMPM, Little Lucky Lake-Devonian Pool, Chaves County, New Mexico, to dispose of produced salt water into the Devonian formation, injection to be accomplished through 4 1/2-inch plastic-lined casing set at approximately 11,230 feet, with injection into the open-hole interval from approximately 11,230 feet to 11,503 feet;

PROVIDED HOWEVER, that said casing shall be cemented with sufficient cement and in such a manner as to ensure that the cement shall come back into the intermediate casing approximately 500 feet.

- (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 MEN MEXICO
OIL COMPENVATION COMMISSION

DAVID F. CARGO,

ALEX J. ARMIJO, Meni

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

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DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 29, 1970

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

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

- CASE 4340: Application of Tesoro Petroleum Corporation for three water-flood projects and unorthodox injection well locations, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute three waterflood projects in the South Hospah Upper Sand Oil Pool by the injection of water through nine injection wells to be drilled at unonthodox locations in Section 1, Township 17 North, Range 9 West, and in Sections 6 and 7, Township 17 North, Range 8 West, McKinley County, New Mexico. Applicant further seeks a procedure whereby additional injection wells and producing wells at unorthodox locations within the project areas may be approved administratively.
- CASE 4341: Application of Pan American Petroleum Corporation for two non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of two non-standard gas proration units for its State "C" Tract 13 Well No. 5, a dual completion, located 1980 feet from the North line and 660 feet from the West line of Section 36, Township 21 South, Range 37 East, Lea County, New Mexico, said units to be comprised as follows:

Blinebry Gas Pool - 240 acres - NW/4 and W/2 NE/4 Tubb Gas Pool - 200 acres - W/2 NW/4, NE/4 NW/4 and W/2 NE/4

CASE 4342: Application of Dearing, Wright, Gibbins, and Church, doing business as New Mexico Petroleum Company, for authority to operate an oil treating plant, Lea County, New Mexico.

Applicants, in the above-styled cause, seek authority to install and operate a chemical and heating process oil treating plant in the vicinity of Tatum, New Mexico, for the reclamation of sediment oil to be obtained from tank bottoms, waste pits, and drip tanks.

- CASE 4343: 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 perforated and open-hole interval from 11,194 feet to 11,278 feet in its New Mexico "BB" State (NCT-1) Well No. 2 located in Unit N of Section 11, Township 12 South, Range 32 East, East Caprock-Devonian Pool, Lea County, New Mexico.
- CASE 4344: Application of Texaco Inc. for salt water disposal, Chaves 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 11,230 feet to 11,503 feet in its B. E. Spencer "B" Federal Well No. 1 located in Unit D of Section 28, Township 15 South, Range 30 East, Little Lucky Lake-Devonian Pool, Chaves County, New Mexico.
 - CASE 4345: Application of Yates Drilling 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 Seven Rivers and possibly other formations in the open-hole interval from 68 feet to 100 feet in its Galvin Well No. 8 and from 68 feet to 90 feet in its Galvin Well No. 14, both located in Unit N of Section 12, Township 20 South, Range 26 East, West McMillan-Seven Rivers Pool, Eddy County, New Mexico.
 - CASE 4346: Application of Yates Drilling Company for a pressure maintenance expansion and promulgation of rules therefor, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand the S. P. Yates West McMillan Anderson Pressure Maintenance Project in the West McMillan Seven Rivers-Queen Pool, Eddy County, New Mexico, authorized by Order No. R-3852, by the conversion to water injection of two additional wells located in Units O and P. Section 11, Township 20 South, Range 26 East. Applicant further seeks the designation of a project area, promulgation of rules governing said project, and a procedure whereby other methods of flooding in the subject project may be outhorized administratively.
 - CASE 4347: Application of Yates Drilling Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Yates North Vacuum (San Andres) Unit Area comprising 800 acres, more or less, of State lands in Sections 1, 2, 11, and 12, Township 17 South, Range 34 East, Vacuum Grayburg-San Andres Pool, Lea County, New Mexico.

- CASE 4348: Application of Tates Drilling Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its North Vacuum (San Andres) Unit Area by the injection of water into the San Andres formation through 9 wells located in Sections 1, 2, 11, and 12, Township 17 South, Pange 34 East, Vacuum Grayburg-San Andres Pool, Lea County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of well response.
- CASE 4349: Application of Tenneco Oil Company for a waterflood expansion and unorthodox injection well locations, McKinley County, New Mexico. Appplicant, in the above-styled cause, seeks to expand the waterflood project in its South Hospah Unit Area by the injection of water into the South Hospah Upper Sand Oil Pool, McKinley County, New Mexico, through two additional injection wells at uncerthodox locations in Section 12, Township 17 North, Range 9 West, as follows:

Unit: Well No. 41 - 5 feet from the North line and 1650 feet from the East line;

Unit Well No. 42 - 3000 from the North line and 5 feet from the East line.

- GASE 4350: Application of Cities Service Oil Company for an exception to Order No. R-3221, as amended, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for applicant's Snyder Federal lease comprising the S/2 NE/4 and N/2 SE/4 of Section 26, Township 15 South, Range 29 East, Sulimar-Queen Pool, Chaves County, New Mexico. Applicant seeks authority to dispose of salt water produced by wells on said lease in an unlined surface pit located in Unit H of said Section 26.
- CASE 4351: Application of Humble Oil & Refining Company for well reclassification and simultaneous dedication of acreage, Lea
 County, New Mexico. Applicant, in the above-styled cause,
 seeks the reclassification of its New Mexico "G" State Well No.
 5 from an oil well in the Eumont Pool to a gas well in said
 pool. Applicant further seeks the dedication of a standard
 640-acre gas promation unit comprising all of Section 23, Township 21 South, Range 36 East, Lea County, New Mexico, to said
 Well No. 5 and to applicant's New Mexico "G" State Well No. 9,

located, respectively in thits E and G of said Section 23, and authority to produce the Whlowable assigned to said unit from either of said walks in any proportion.

CASE 4352: Application of Jack I. McClellan for the meation of a new gas pool or, in the alternative, the establishment of public rules for two existing pools, chaves and Lea Counties, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Queen gas pool comprising the following-described acreage:

CHAVES COUNTY, NEW MEXICO

Township 15 South, Range 29 East Section 11: SE/4 Section 12: SW/4 Section 13: NW/4 Section 14: E/2 Section 23: NE/4 and SW/4

In the alternative applicant seeks the promulgation of special rules for the Sulimar-Queen Pool, Chaves County, and Double L-Queen Pool, Chaves and Dea Counties, New Mexico, as separate or as consolidated pools, including provisions for the classification of oil and gas wells, spacing and well location requirements for oil and gas wells, and an allocation formula for withdrawals by oil wells and gas wells.

CASE 4353: Application of Lone Star 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 Tres Papalotes-Pennsylvanian Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 4344

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DEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

App EXHILIT NO. 3

CASE NO. 43 4 4

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PRODUCING DEPARTMENT - UNITED STATES
MIDLAND DIVISION

April 3, 1970

TEXACO INC.
P. O. BOX 3109000
MIDLAND, TEXAS 76-01

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REQUEST FOR EXAMINER HEARING SALT WATER DISPOSAL

B. E. SPENCER "B" FEDERAL WELL NO. 1 LITTLE LUCKY LAKE DEVONIAN POOL CHAVES COUNTY, NEW MEXICO

Care 4344

State of New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

It is requested that an examiner hearing be scheduled for April 29, 1970 at Santa Fe, New Mexico, to consider the application of Texaco Inc. for permission to dispose of produced salt water in the Little Lucky Lake Devonian Pool, Chaves County, New Mexico.

At this hearing Texaco will ask for permission to dispose of produced salt water into their B. E. Spencer "B" Federal Well No. 1 located in Unit D of Section 28, T-15-S, R-30-E, Chaves County, New Mexico. Disposal will be into the Devonian through open hole 11,230 feet to 11,503 feet. This disposal well will be cleaned out to the old total depth of 11,353 feet and deepened to 11,503 feet. Plastic lined $4\frac{1}{2}$ " O.D. casing will be set at 11,230 feet. Initial disposal rates will be 1200 BWPD which will go into the Devonian on gravity.

Included with this request for a hearing are three copies of the following exhibits:

- 1. Plat of the area with the SWDW designated
- 2. Log of the proposed disposal well
- 3. Diagrammatic sketch of the present SWDW
- 4. Diagrammatic sketch of the proposed SWDW

DOCKET MAILED

Date 4-17-70

-5-

Copies of this letter are being sent to the offset operators and the U.S. Geological Survey with exhibits.

Yours very truly,

Darrell Smith
Division Manager

Ву

C. L. Whigham Division Proration Engineer

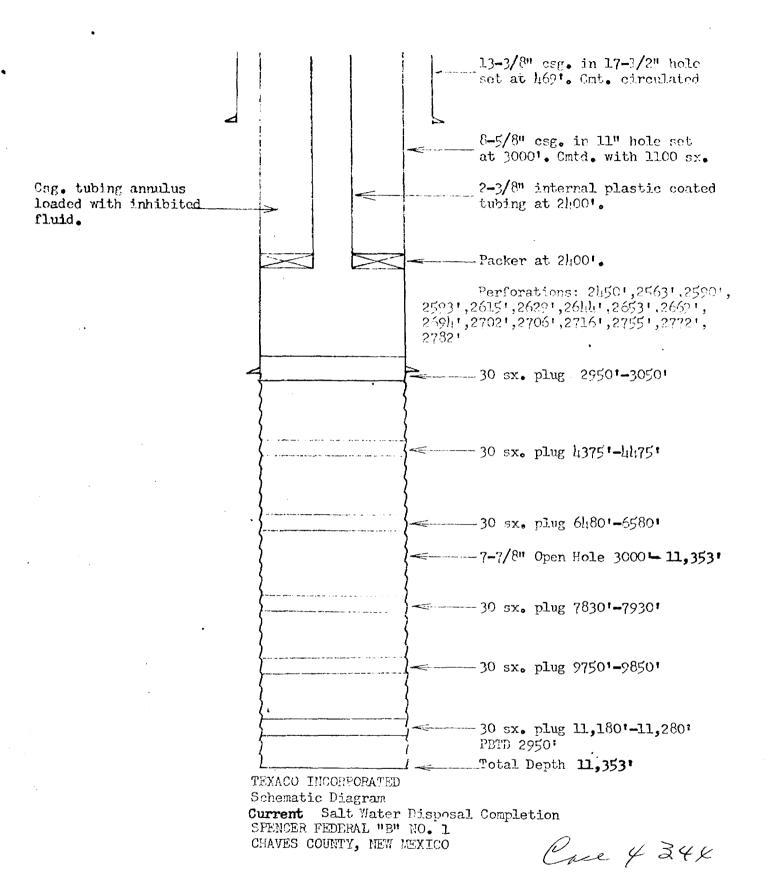
CHF/pw Attachments

cc: U. S. Geological Survey
Department of Interior
Federal Building
Roswell, New Mexico 88201

W. R. Carter 4715 Pershing El Paso, Texas 79900

Pan American Petroleum Co. P. O. Box 1410 Ft. Worth, Texas 76101

Erving Wolf 308 Lincoln Tower Denver, Colorado 80220



13-3/8" csg. in 17-1/2" hole set at 469'. Cmt. circulated Perforations 2450' to 2782' cement squeezed. 8-5/8" csg. in ll' hole set at 3000'. Cmtd with 1100 sx. h-1/2" csg. to be cemented with sufficient volume to fill back to 25001. h-1/2" plastic coated csg. in 7-7/8" hole set at 11,230" -7-7/8" open hole 11,230'-11,503' Total Depth 11,503 TEXACO INC. Schematic Diagram Proposed Salt Water Disposal Completion SPENCER FEDERAL "B" NO. 1 CHAVES COUNTY, NEW MEXICO

Cace 4344

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:

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CASE No. 4344

Order No. R- 3955
3956

APPLICATION OF TEXACO INC. FOR SALT WATER DISPOSAL, CHAVES COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on <u>April 29</u>, 19670, at Santa Fe, New Mexico, before Examiner <u>Elvis A. Utz</u>.

NOW, on this <u>day of May</u>, 19670, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

- (4) That the injection should be accomplished through

 Coning installed in a packer set at

-2-CASE No. 4344

approximately 1/230 feet, that the casing-tubing demulas should Clauseld with Auflicent Clauseld and in Such the filled with an inert flift; and that a pressure gauge should be a manuel as to ensure that the Clause the attached to the annulus for the annulus left open at the surface in shall lamb to feel mit the intermediate Common order to determine leakage in the casing, tubing, or packer up beginning. See the

the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

- (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 necessar,.

DCNE at Santa Fe, New Mexico, on the day and year hereinab. A designated.