

CASE 3793; Application of GULF CIE
CORP. FOR SALT WATER DISPOSAL,
EDDY COUNTY, NEW MEXICO.

Case Number

3793

Application
Transcripts.

Small Exhibits

ETC.



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Drawer 1857
Socorro, New Mexico 88201

June 26, 1968

Case 5193

Gulf Oil Corporation
P. O. Drawer 1238
Socorro, New Mexico 88201

Attention: Mr. M. I. Taylor

Gentlemen:

Your letter of May 29 along with a copy of your application to the New Mexico Oil Conservation Commission requests approval to dispose of salt water in the Grayburg formation in Lechane "C" Federal well No. 3, located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 18 S., R. 31 E., lease New Mexico 023778-A, Eddy County, New Mexico. Such well is presently producing approximately five barrels of oil per day from the Grayburg formation and will be converted to a salt water disposal well. The salt water to be disposed of is from an adjoining Federal lease, New Mexico 014103, which is operated by Gulf.

The disposal method described by your application is acceptable to this office, subject to approval by the New Mexico Oil Conservation Commission. A notice to convert the well to water disposal status should be filed with the District Engineer, U. S. Geological Survey, P. O. Drawer U, Artesia, New Mexico 88210, prior to commencing the work.

Sincerely yours,

(ORIG. SGN) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:
Artesia (2) (w/cy appln.)
NMOC, Santa Fe (ltr. only) ✓
Accounts
EHM, Santa Fe (w/cy appln.)
File (2)

68 JUN 28 AM 10

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

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

P. O. BOX 2088
SANTA FE

July 3, 1968

Mr. Bill Kastler
Gulf Oil Corporation
Post Office Box 1938
Roswell, New Mexico 88201

Re: Case No. 3793
Order No. 3794
Applicant: R-3446 & R-3447
Gulf Oil Corporation

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

Carbon copy of order also sent to:

Hobbs OCC x
Artesia OCC x R-3447
Aztec OCC
Other State Engineer Office R-3446 & R-3447

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. 3793
Order No. R-3447

APPLICATION OF GULF OIL CORPORATION
FOR SALT WATER DISPOSAL, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 26, 1968,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 3rd day of July, 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 the applicant, Gulf Oil Corporation, is the owner
and operator of the Keohane "C" Federal Well No. 3, located in
Unit I of Section 21, Township 18 South, Range 31 East, NMPM,
Shugart Yates-Seven Rivers-Queen-Grayburg Pool, Eddy County, New
Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Grayburg formation, with
injection into the perforated interval from approximately 3812
feet to 3900 feet.

(4) That the injection should be accomplished through
2 3/8-inch internally plastic-coated tubing installed in a
packer set at approximately 3780 feet; that the casing-tubing

-2-

CASE No. 3793
Order No. R-3447

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 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:

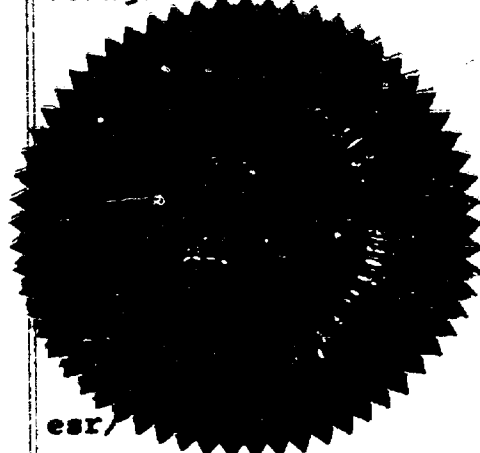
(1) That the applicant, Gulf Oil Corporation, is hereby authorized to utilize its Keohane "C" Federal Well No. 3, located in Unit I of Section 21, Township 18 South, Range 31 East, NMPM, Shugart Yates-Seven Rivers-Queen-Grayburg Pool, Eddy County, New Mexico, to dispose of produced salt water into the Grayburg formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 3780 feet, with injection into the perforated interval from approximately 3812 feet to 3900 feet;

PROVIDED HOWEVER, that the tubing shall be internally plastic-coated; 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 tubing or packer.

(2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

David F. Cargo
DAVID F. CARGO, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

esr

Case 3793

Heard 6-26-68

Rec. 6-27-68,

Grant Gulf request for a SWD
well in the Shugart - Yates - S.P.
Queen & Grayburg. Their location 'C'
Ded. # 3 I-21-185-31E will be con-
verted. Injection will be into the
~~Shugart - Yates - S.P. Queen & Grayburg~~
perforated ~~4855-60 & 5001-02~~ 3812-14 &
3888-3900. Injection will be thru
internally plastic coated tubing &
under a packer to be set at approx.
3780 ft.

Thud C. R.

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 26, 1968

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 A. L. Porter, Jr., Alternate Examiner:

- CASE 3788: Application of Texaco Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formation through its New Mexico State "W" NCT-1 Well No. 1 located in Unit 0 of Section 13, Township 17 South, Range 34 East, Vacuum (Grayburg-San Andres) Oil Pool, Lea County, New Mexico.
- CASE 3789: Application of Tenneco Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Mesa Queen Unit Area comprising 1,040 acres, more or less, of state lands in Township 16 South, Range 32 East, Mesa-Queen Pool, Lea County, New Mexico.
- CASE 3790: Application of Tenneco Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Mesa Queen Unit Area by the injection of water into the Queen formation through 12 wells located in Sections 16, 17, and 20, Township 16 South, Range 32 East, Mesa-Queen Pool, Lea County, New Mexico.
- CASE 3573 (Reopened):
In the matter of Case 3573 being reopened pursuant to the provisions of Order No. R-3240 to permit all interested parties to appear and show cause why the temporary rules for the South Corbin-Strawn Oil Pool, Lea County, New Mexico, which include a provision for 160-acre spacing units and a 4000 to one gas-oil ratio limit, should remain in effect.
- CASE 3791: Application of Kewanee Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Square Lake "12" Unit Area comprising 1,360 acres, more or less, of Federal lands in Township 17 South, Ranges 29 and 30 East, Square Lake Pool, Eddy County, New Mexico.
- CASE 3792: Application of Kewanee Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg formation underlying its Square Lake "12" Unit Area through seven wells located in Sections 1 and 12, Township 17 South, Range 29 East, and Sections 6 and 7, Township 17 South, Range 30 East, Square Lake Pool, Eddy County, New Mexico.

CASE 3793: Application of Gulf Oil Corporation for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Grayburg formation in the interval from approximately 3812 feet to 3900 feet in its Keohane "C" Federal Well No. 3 located in Unit I of Section 21, Township 18 South, Range 31 East, Shugart Yates-Seven Rivers-Queen-Grayburg Pool, Eddy County, New Mexico.

CASE 3794: Application of Gulf Oil Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation adjacent to the Eunice-San Andres Pool in the interval from approximately 4100 feet to 4900 feet in the Warren Petroleum Corporation Eunice Plant SWD Well No. 1, located 2255 feet from the North line and 908 feet from the East line of Section 3, Township 22 South, Range 37 East, Lea County, New Mexico.

CASE 3795: Application of Pan American Petroleum Corporation for a pool creation and discovery allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the Bate-Yates Pool in Lea County, New Mexico, comprising the S/2 of Section 26 and the N/2 of Section 35, both in Township 19 South, Range 33 East, and for the assignment of approximately 16,750 barrels of oil discovery allowable to the discovery well, its Bate Federal Well No. 1 located in Unit N of said section 26.

CASE 3796: Application of The Superior Oil Company for the creation of a new pool, assignment of discovery allowable, and the promulgation of pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new upper Pennsylvanian oil pool for its State D COM Well No. 1 located in Unit G of Section 4, Township 14 South, Range 34 East, Lea County, New Mexico, and for the assignment of an oil discovery allowable in the amount of approximately 52,010 barrels to said well. Applicant further seeks the promulgation of special pool rules for said pool, including a provision for 160-acre proration units.

CASE 3797: Application of Ernest A. Hanson 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 overall interval from approximately 4604 to 5036 feet in his Mescalero Ridge Unit "35" Well No. 11 located in Unit N of Section 35, Township 19 South, Range 34 East, Pearl-Queen Pool, Lea County, New Mexico.

CASE 3798: Application of Ernest A. Hanson 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 the interval from approximately 4177 feet to 4185 feet in his Hanson Federal Well No. 7 located in Unit J of Section 25, Township 26 South, Range 31 East, North Mason-Delaware Pool, Eddy County, New Mexico.

CASE 3799: Application of Amerada Petroleum Corporation for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter and complete as a gas well the State WR "B" Well No. 1 located at an unorthodox location 554 feet from the North line and 2086 feet from the East line of Section 35, Township 12 South, Range 34 East, Ranger Lake-Devonian Gas Pool, Lea County, New Mexico, and to dedicate to said well the E/2 of said section 35.

ir/

Gulf Oil Corporation

EXPLORATION AND PRODUCTION DEPARTMENT--U. S. OPERATIONS
ROSWELL DISTRICT

T. W. Kidd
DISTRICT MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER
F. O. Mortlock
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICES MANAGER

May 29, 1968

P. O. Drawer 1938
Roswell, New Mexico 88201

Case 3793

68 JUN 3 AM 8 14

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

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

Re: Application of Gulf Oil Corporation for
Salt Water Disposal, Shugart Pool,
Eddy County, New Mexico

Unit I

Gentlemen:

Gulf Oil Corporation respectfully requests an Examiner Hearing to consider its application for approval to dispose of salt water in the Keohane "C" Federal Well No. 3 located 1650' FSL and 330' FEL of Section 21-18S-31E, Eddy County, New Mexico.

The salt water to be disposed of is produced from the Shugart (Yates, Seven Rivers, Queen, Grayburg) Pool and the Shugart Delaware Pool on applicant's Littlefield "AB" Federal Lease, described as Section 22-18S-31E. The attached plat shows the Keohane "C" Federal and Littlefield "AB" Federal Leases outlined in red and the proposed injection well is circled and colored in red. It is proposed to dispose of this produced salt water in the interval 3812'-3900'. A schematic diagram of the proposed salt water disposal well is attached.

The disposal of this produced salt water underground is necessary to comply with the Commission's Order R-3221, which prohibits surface disposal after January 1, 1969.

A copy of this application has been furnished to offset operators and to the United States Geological Survey.

Respectfully submitted,

GULF OIL CORPORATION

M. I. Taylor
M. I. Taylor



Attachments
JHH:dch

DOCKET MAILED

Date 6/13/68

Oil Conservation Commission

Page 2

May 29, 1968

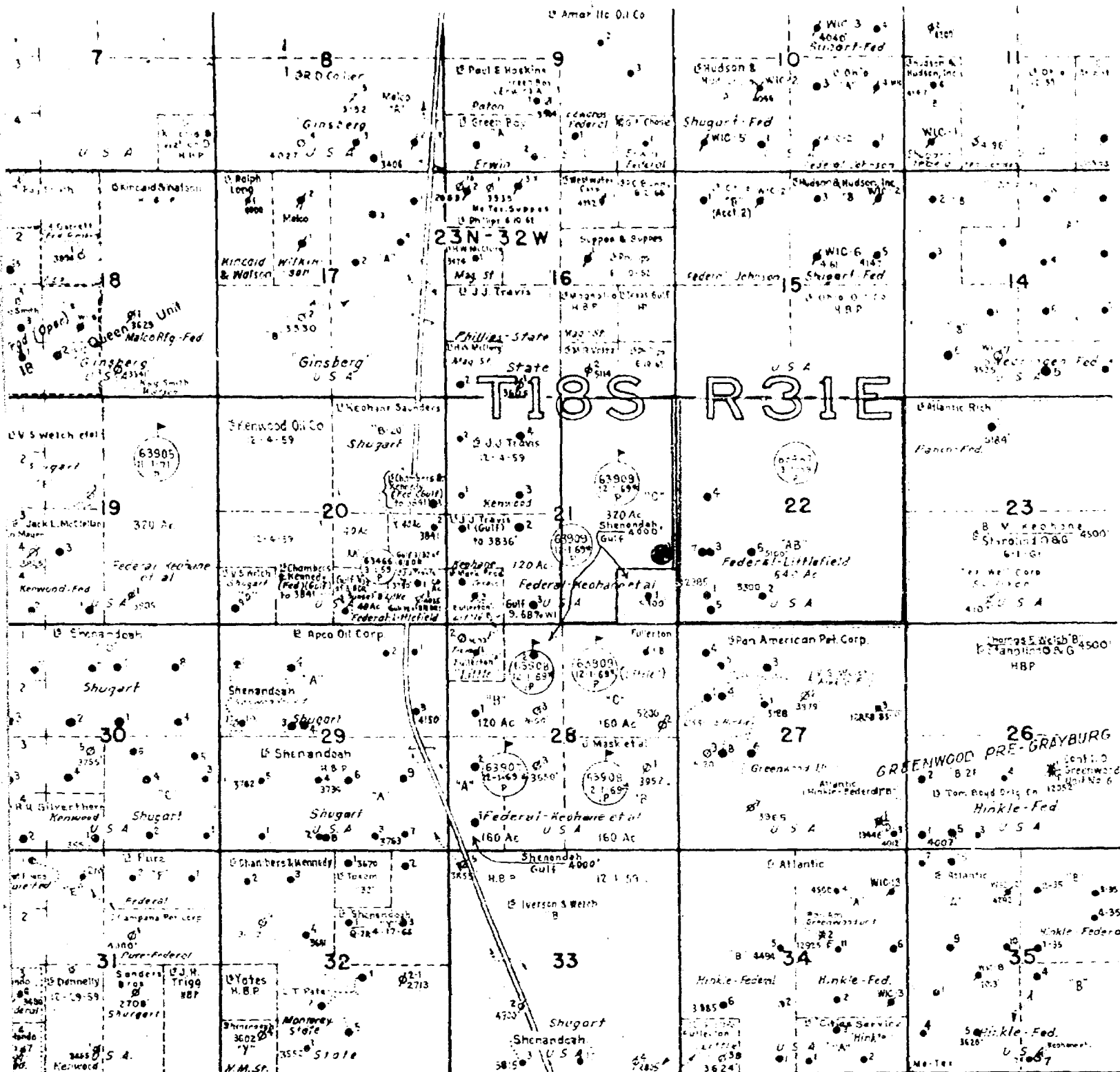
cc: New Mexico Oil Conservation Commission
Post Office Drawer DD
Artesia, New Mexico 88210

United States Geological Survey
Post Office Box 1857
Roswell, New Mexico 88201

Pan American Petroleum Corporation
Post Office Box 1410
Fort Worth, Texas 76101

Shenandoah Oil Corporation
1018 Commerce Building
Fort Worth, Texas 76102

Mr. J. J. Travis
Petroleum Life Building
Midland, Texas 79701



PLAT
GULF OIL CORPORATION
KEOHANE "C" FEDERAL
AND
LITTLEFIELD "AB" FEDERAL LEASES
SHUGART FIELD
EDDY COUNTY, NEW MEXICO

- LEGEND -

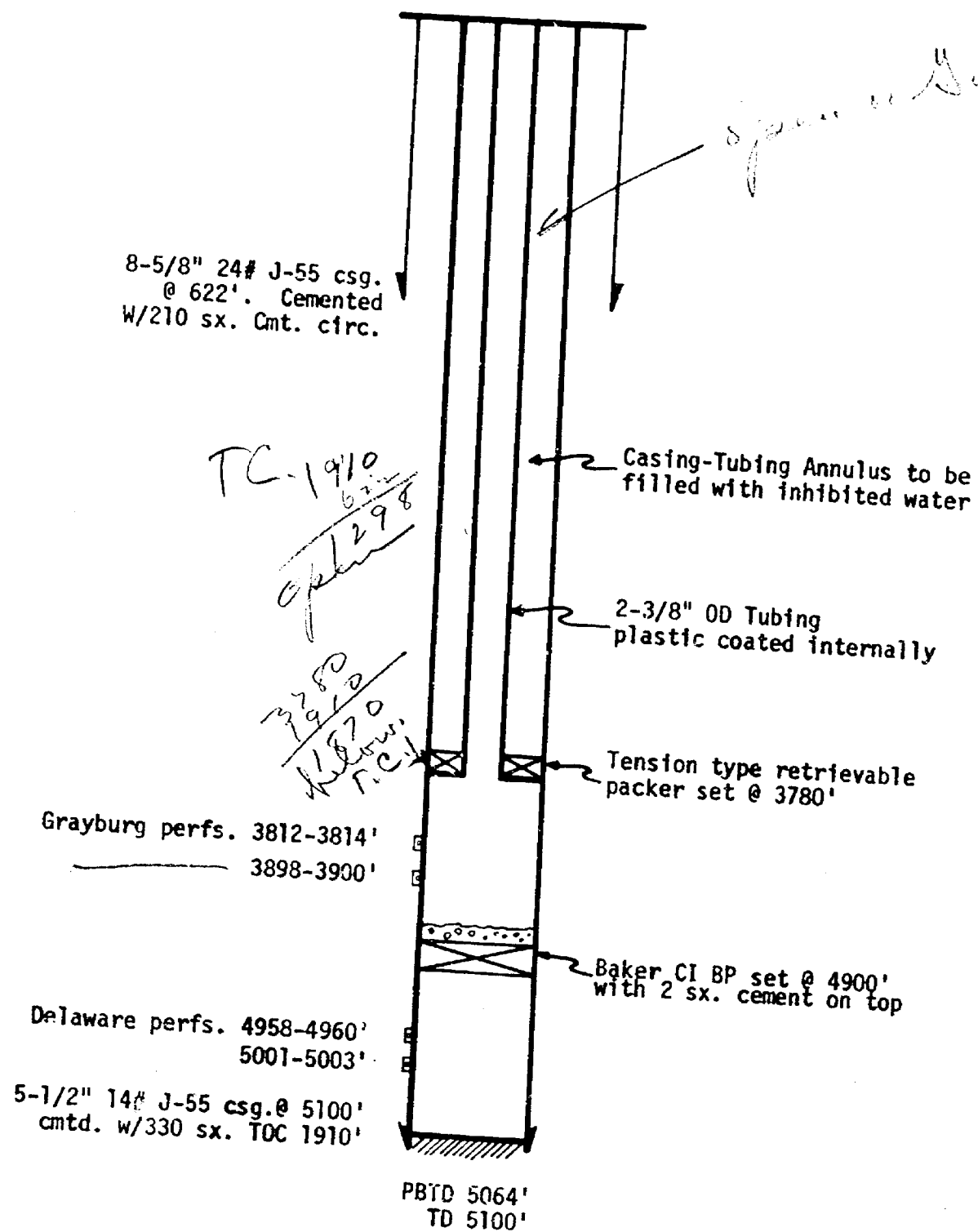


PERTINENT WELL



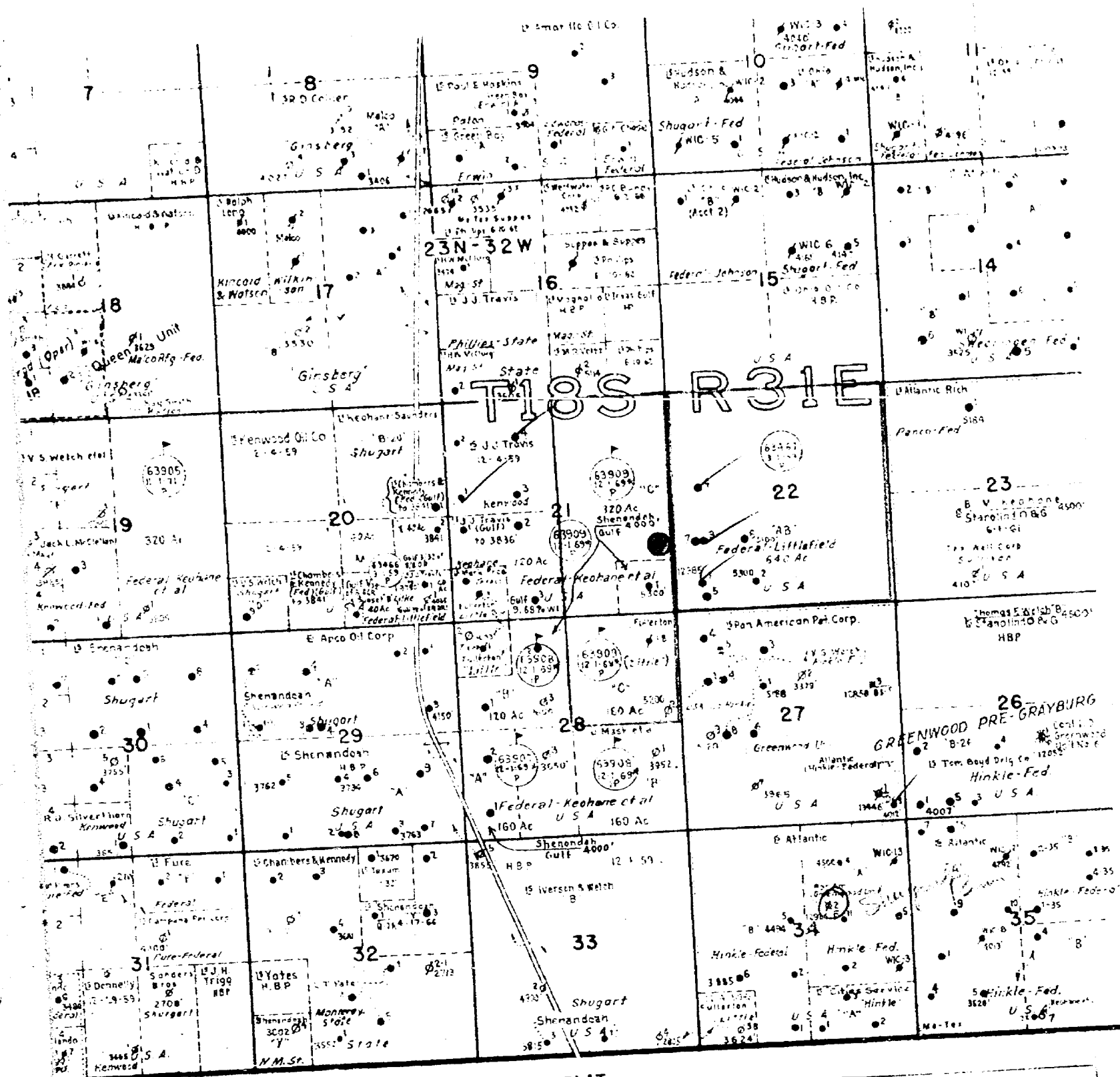
PERTINENT LEASES

Case 3793



DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL
GULF OIL CORPORATION
KEOHANE "C" FEDERAL NO. 3
SHUGART POOL
EDDY COUNTY, NEW MEXICO

Case 2793.



BEFORE EXAMINER UTZ-I
OIL CONSERVATION COMMISSION
EXHIBIT NO. _____
CASE NO. _____

PLAT
GULF OIL CORPORATION
KEOHANE "C" FEDERAL
AND
TLEFIELD "AB" FEDERAL LEASES
SHUGART FIELD
EDDY COUNTY. NEW MEXICO

- LEGEND -

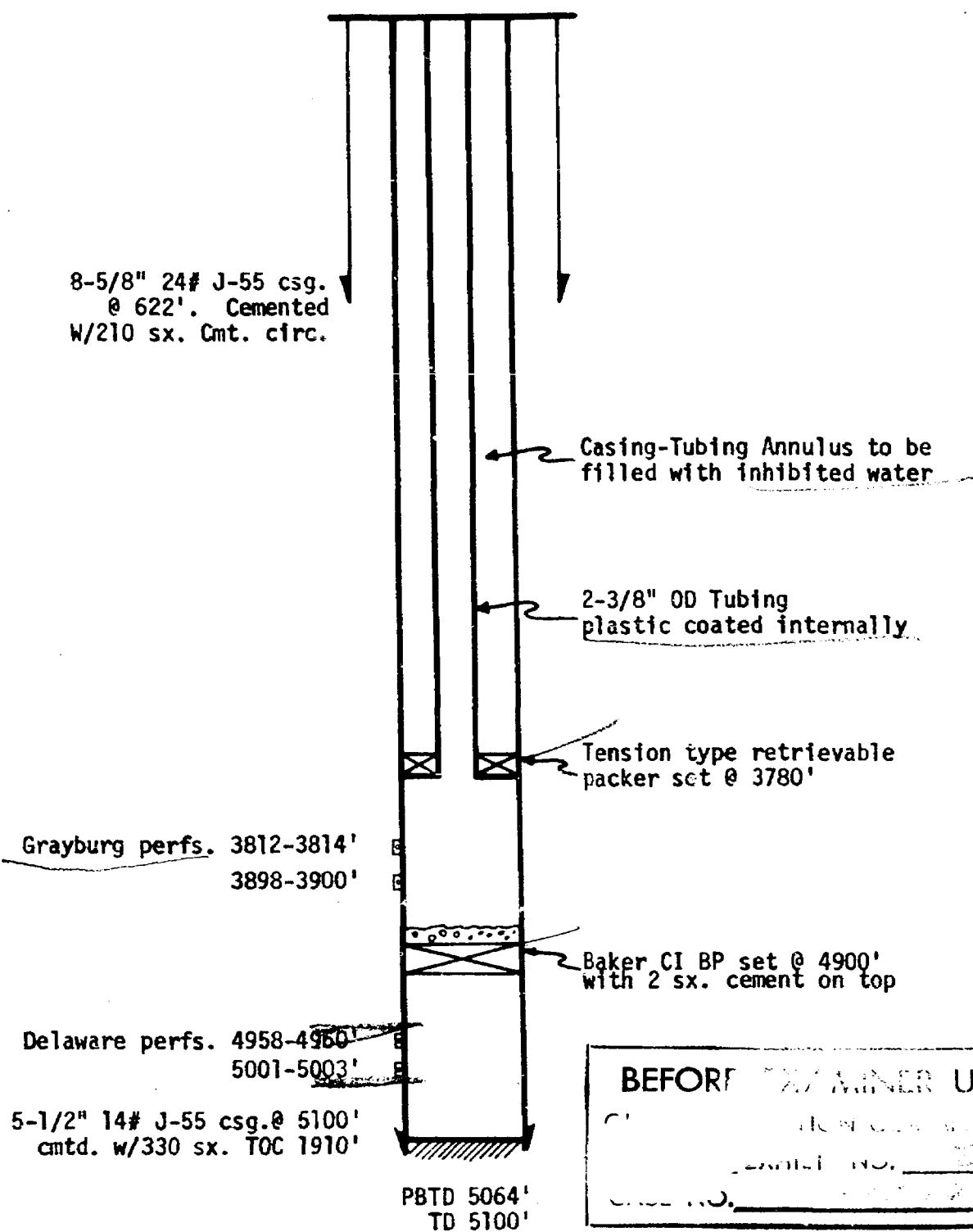
PERTINENT WELL

11

PERTINENT LEASES

BEFORE EXAMINER UTZ
OBSERVATION
ES
EXHIBIT NO.
NO. 3713

Case No. 3793
Exhibit No. 1
June 26, 1968



BEFORE EXAMINER UTZ
CASE NO. _____
EXHIBIT NO. _____

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL
GULF OIL CORPORATION

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
_____ EXHIBIT NO. _____
CASE NO. _____

KEOHANE "C" FEDERAL NO. 3
SHUGART POOL
EDDY COUNTY, NEW MEXICO

Case No. 3793
Exhibit No. 2
June 26, 1968

dearnley-meier reporting service, inc.

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
June 26, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil
Corporation for salt water
disposal, Eddy County, New
Mexico.

CASE NUMBER
3793

BEFORE:

ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3793.

MR. HATCH: Application of Gulf Oil Corporation for salt water disposal, Eddy County, New Mexico.

MR. KASTLER: If the Examiner please, I am Bill Kastler from Roswell with Gulf Oil Corporation, representing Gulf and our witness in this case will be Mr. John H. Hoover, production engineer.

(Witness sworn.)

(Whereupon, Exhibits 1, 2 and 3 were marked for identification.)

MR. UTZ: Are there any other appearances? You may proceed.

JOHN H. HOOVER

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

DIRECT EXAMINATION

BY MR. KASTLER:

Q Mr. Hoover, have you previously appeared before the New Mexico Oil Conservation Commission hearings and testified as an expert petroleum engineer?

A Yes, sir.

MR. KASTLER: Are the witness's qualifications satisfactory?

MR. UTZ: Yes, they are.

Q (By Mr. Kastler) Would you please explain what Gulf is seeking in this case?

A We are asking for authority to dispose of produced salt water into the Grayburg formation in our Keohane "C" Federal Well Number 3 in the Shugart Pool, Eddy County, New Mexico. The disposal of this produced salt water is necessary to comply with the Commission's Order R-3221 which prohibits surface disposal after January 1, 1969.

Q Would you please explain what is shown on Exhibit Number 1?

A Yes. Exhibit Number 1 is a plat showing Gulf leases in the Shugart-Yates-Seven Rivers-Queen-Grayburg Pool and the Shugart-Delaware Pool from which this salt water is produced. The leases are outlined in red. The Littlefield "AB" Federal lease is described as all of Section 22. The Keohane "C" Federal lease is described as the east half of Section 21 and the northeast quarter Section 28, Township 18 South, Range 31 East, Eddy County, New Mexico. The southeast quarter, southeast quarter of Section 21 is operated by Shenandoah Oil Company on an assignment from Gulf to 4,000 feet.

The proposed injection well, being the Keohane "C" Federal Well Number 3, is circled and colored in red and is located 1650 feet from the south line and 330 feet from the east

line of Section 21.

All of the wells on this plat are in the Shugart-Yates-Seven Rivers-Queen-Grayburg Pool except for eight wells which are as follows: In Section 22, Gulf has three wells in the Shugart-Delaware Pool, being Well Number 1 in Unit "M", Well Number 3 in Unit "L" and Well Number 4 in Unit "E". In Section 27, there are two Shugart-Delaware wells. These are Pan American's Greenwood Unit Well Number 4 in Unit "D" and their Hinkle Federal Number 1 in Unit "E". Also in Section 27 in Unit "H" --

MR. UTZ: What was that last one?

THE WITNESS: The Hinkle Federal Well Number 1 in Unit "E". Also in this Section 27 in Unit "H", as a Shugart Penn gas well, and in Unit "P" of Section 27 is another, is a Siluro-Devonian gas well.

In Section 34 in Unit "G" is another Shugart Penn gas well. All the other wells on this plat are in the Shugart Pool which includes the Yates, Seven Rivers, Queen and Grayburg formations.

MR. UTZ: You didn't show that very good on Section 24, did you?

MR. KASTLER: Section 34.

MR. UTZ: 34. I thought you said 24.

THE WITNESS: No, sir. 34.

MR. UTZ: What well was it?

THE WITNESS: Section 34 Unit "G" is Pan American Greenwood Well Number 2 which is a Shugart Penn gas well, Mr. Utz.

Q (By Mr. Kastler) What is shown on Exhibit Number 2?

A Exhibit Number 2 is a schematic diagram of the proposed salt water disposal well, being our Keohane "C" Federal Well Number 3. This shows that the well has eight-and-five-eighths casing set at 622 feet. The cement was circulated. We have five-and-a-half-inch casing at 5100 feet, cemented with 330 sacks, the top of the cement 1910 feet. The total depth is 5100 feet. It's plugged back to 5,064 feet. We will have two-and-three-eighths-inch OD tubing which will be plastic-coated, internally set on a retrievable packer at 3780 feet.

The casing tubing annulus will be loaded with inhibited water. We have a Baker plug set at 4900 feet with two sacks of cement on top.

The Grayburg perforations that are open at the present time are shown on the exhibit, 3812 to 3814 feet, 3898 to 3900 feet. This well originally was in the Delaware, but it is abandoned.

Q Will you now please explain what is shown on Exhibit

Number 3?

A Exhibit Number 3 is a log of the proposed injection well, and on the log we have shown the tops of the various formations. The top of the Yates is marked at 2,098 feet; the top of the Seven Rivers, 2574 feet; the top of the Queen, 3252 feet; the top of the Grayburg, 3740 feet; and we show the perforations in the Grayburg as they are now, 3812 feet to 3814 and 3898 feet to 3900 feet. The top of the Delaware is marked at 4487 feet.

MR. UTZ: Is the Delaware a part of the San Andres, geologically?

THE WITNESS: I don't believe so, but I will not answer that as an expert, but I don't believe it is.

MR. UTZ: I'm not sure.

Q (By Mr. Kastler) Mr. Hoover, what is the volume of salt water that you plan to dispose of in this application if approved?

A The Shugart-Delaware Pool on our Littlefield "AB" Federal lease produces approximately seventeen barrels of water per day and the Shugart-Yates-Seven Rivers-Queen-Grayburg Pool on this lease produces approximately seven barrels of water per day.

Therefore, we anticipate the volume to be approximately

twenty-five barrels per day.

Q What is the quality of the water to be injected?

A An analysis of the produced water from the Littlefield "AB" Federal Well Number 1 in the Shugart-Delaware showed the chloride content to be 131,000 parts per million. Well Number 2 in this pool on this lease showed a chloride content of 135,200 parts per million in the produced water. An analysis of the produced water from our Keohane "A" Federal lease in the Shugart-Yates-Seven Rivers-Queen-Grayburg Pool showed a chloride content of 133,600.

Therefore, we will be injecting brackish water into the formation on our Keohane "C" Federal lease which is also brackish.

Q You refer to this proposal as salt water disposal and not as a waterflood, even though you are injecting into the producing formation. Is there any particular reason for this?

A Due to the requirement that we cannot surface dispose the water after January 1, 1969, by the Order R-3221, we need to dispose of this produced salt water underground and this well will be available.

Therefore, it is really salt water disposal. The injected volume of approximately twenty-five barrels per day

is so small we don't anticipate any oil production increase.

Q Is the Keohane "C" Federal Well Number 3, the proposed injection well, still producing?

A Yes, it is. The well produces approximately five barrels of oil and thirteen barrels of water per day from the Shugart Pool. Since it is necessary to dispose of this water underground to comply with the Order R-3221, we have determined that this well should be converted for use as a salt water disposal well on or before January 1, 1969.

Q Were the offset operators notified of Gulf's application for this salt water disposal?

A Yes, they were. We have received no indication of any objections. We also furnished a copy of our application to the United States Geological Survey's, Roswell office, and asked if they had any objections and we received no objections from them.

Q Do you have anything further to add in this case?

A No, sir.

Q Were Exhibits 1, 2 and 3 prepared by you or at your direction and under your supervision?

A Yes, they were.

MR. KASTLER: This completes our questioning on direct, Mr. Examiner. I would like at this time to have Exhibits 1, 2 and 3 admitted in evidence.

MR. UTZ: Without objection Exhibits 1, 2 and 3 will

be entered into the record of this case.

(Whereupon, Exhibits 1, 2 and 3 were offered and admitted in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q How many Shugart-Yates wells are producing in this area, did you say, Mr. Hoover?

A I didn't say.

Q Well, under the same formation that you are going to inject into, which is -- well, it's a Yates-Queen-Grayburg, according to my notes, is that correct?

A The formation that we will inject to in that Keohane "C" Federal Well Number 3 is Grayburg.

Q What's producing in the area?

A Well, everything.

Q The Yates-Queen-Grayburg?

A Yes. That Shugart Pool covers all these formations and some wells are producing out of the Queen, some Grayburg, some the Yates-Seven Rivers and some, all of them. Our records, we had no way of knowing or cannot tell from what we have, what all these wells on this map in the Shugart Pool, which covers all these formations, exactly what formation they are producing. Our wells are from the Grayburg. There are some wells offsetting there; that Shenandoah Well, it's from the Queen.

MR. PORTER: Did Gulf drill those wells or did they acquire them from someone else?

THE WITNESS: On our wells?

MR. PORTER: Yes.

THE WITNESS: We drilled them, yes, sir.

Q (By Mr. Utz) So that you do have some Grayburg production in the near vicinity?

A Yes, sir.

Q It's your opinion that only twenty-five barrels per day will not water out any of the Grayburg production?

A No, sir.

Q Neither do you think it will help?

A No, sir. The well we're going into produces thirteen barrels per day, itself, so we'll be shutting off thirteen barrels and adding twenty-five barrels. So, in effect, we will only be injecting twelve barrels, net.

MR. KASTLER: You mean, thirteen barrels of water?

THE WITNESS: Water, yes.

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

The witness may be excused.

(Witness excused.)

MR. UTZ: Are there any statements? The case will be taken under advisement.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
JOHN H. HOOVER	
Direct Examination by Mr. Kastler	2
Cross Examination by Mr. Utz	9

<u>NUMBER</u>	<u>E X H I B I T S</u>	<u>MARKED FOR IDENTIFICATION</u>	<u>OFFERED AND ADMITTED IN EVIDENCE</u>
# 1, 2 and 3		2	9

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

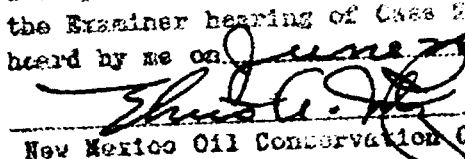
I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings,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

Witness my Hand and Seal this 6th day of July, 1968.


 NOTARY PUBLIC

My Commission Expires:

June 19, 1971

I do hereby certify that the foregoing is a complete record of the proceedings at the Examiner hearing of Case No. 3293, heard by me on June 26, 1968.

 Examiner
 New Mexico Oil Conservation Commission