

CASE 3736: Application of ERNEST
A. HANSON FOR SALT WATER DISPOSAL,
EDDY COUNTY, NEW MEXICO.

Case Number

3798

Application
Transcripts.

Small Exhibits

ETC.

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 9, 1968

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 3798
Order No. R-3451
Applicant:
ERNEST A. HANSON

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

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. 3798
Order No. R-3451

APPLICATION OF ERNEST A. HANSON
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 9th 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, Ernest A. Hanson, is the owner and
operator of the Hanson Federal Well No. 7, located in Unit J of
Section 25, Township 26 South, Range 31 East, NMPM, North Mason-
Delaware Pool, Eddy County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Delaware formation, with
injection into the open hole interval from approximately 4177 feet
to 4185 feet.

(4) That the injection should be accomplished through
2 3/8-inch internally plastic-coated tubing installed in a
packer set at approximately 4140 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

-2-

CASE No. 3798
Order No. R-3451

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, Ernest A. Hanson, is hereby authorized to utilize his Hanson Federal Well No. 7, located in Unit J of Section 25, Township 26 South, Range 31 East, NMPM, North Mason-Delaware Pool, Eddy County, New Mexico, to dispose of produced salt water into the Delaware formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 4140 feet, with injection into the open hole interval from approximately 4177 feet to 4185 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 his 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

GUYTON E. HAYS, Member

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

Case 3798

Heard 6-26-68

Rec. 6-28-68

Grant Ernest A. Hanson permission
to convert his Hanson Dred #7 in No.
Mason-Delaware, J 25-265-31E. Eddy.
to a S.W.D. well.

Disposal shall be thru 2 7/8" externally
plastic coated tubing and under a packer
set at approx. 4140'. Injection shall
be into the Delaware ~~formation~~ gas
hole from 4177-4185.

Thud. H.

Docket No. 19-68

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 O 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 5 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/

dearnley-meier reporting service, inc.

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6671 • 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 Ernest A. Hanson
for salt water disposal, Eddy
County, New Mexico

CASE NUMBER
3798

BEFORE: ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3798.

MR. HATCH: Case 3798. Application of Ernest A. Hanson for salt water disposal, Eddy County, New Mexico.

MR. KELLAHIN: If the Examiner please, may the record show the appearance of Jason Kellahin for the applicant and the witness has been sworn?

MR. UTZ: This is the same Mr. Kellahin and Mr. Schram as in the previous case?

MR. KELLAHIN: Yes, sir.

HARRY F. SCHRAM

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Harry F. Schram.

Q Are you the same Mr. Schram who testified in Case Number 3797?

A Yes, sir.

Q And you were sworn in that case. Mr. Schram, what is proposed by Ernest A. Hanson in Case 3798?

A We are requesting authority to dispose of producing salt water into the Delaware formation in the interval from

approximately 4177 feet to 4185 feet in the Hanson Federal Well Number 7 located in Unit J of Section 25, Township 26 South, Range 31 East, North Mason-Delaware Pool, Eddy County, New Mexico.

Q What is the present status of the subject well?

A The well is presently shut in.

Q Has it produced from the North Mason-Delaware Pool?

A Yes, sir, it has previously. It has been on, shut in for several years, I understand. We assumed the operations on this particular lease approximately one year ago.

Q Have you ever produced a well?

A We tested the well and it was making about ten barrels of water and just a trace of oil.

Q It was not a commercial well at that time?

A No, sir.

MR. KELLAHIN: If we could have the exhibits attached to the application marked as exhibits, Mr. Utz.

MR. UTZ: Where do you want to start?

MR. KELLAHIN: We will start with the ~~diagrammatic~~ sketch.

MR. UTZ: That's a surveyor's plat.

MR. KELLAHIN: Let's start with that as Number 1.

MR. UTZ: This costs extra when the Examiner marks the exhibits.

MR. KELLIAHIN: Then the diagrammatic sketch we can make Number 2. The water analysis is Number 3 and the log is Number 4.

(Whereupon, Exhibit Numbers 1-4 were marked for identification.)

Q (By Mr. Kellahin) Mr. Schram, referring to what has been marked as Exhibit Number 1, would you identify that exhibit, please?

A Yes. This is a map showing the Ernest A. Hanson Hanson Federal lease in Section 25, Township 26 South, Range 31 East.

Q Does it also show the ownership of the wells offsetting this particular acreage?

A Yes, sir. All the wells surrounding the Number 7 Well, which is the proposed disposal well, belongs to Ernest A. Hanson.

Q Would that be including all the wells, then, in Section 25?

A Yes, sir.

Q What's the situation as to the wells in Section 36 to the south?

A The wells in Section 36 belong to Keith and Haines. However, there is a dry hole between our Number 7 and their

Number 2 Well which is the closets well, which is approximately a half a mile distant.

Q Now, the dry hole, was that dry in the Delaware formation?

A Yes, sir.

Q Are the Keith and Maines wells producing from the Delaware formation?

A Yes, sir, they are.

Q What is the situation on Section 26?

A That would be to the west.

Q West.

A This is being produced by Texaco in the southeast quarter and we have two producing wells between our proposed disposal well and the Texaco lease.

Q It is also producing from the Delaware, is that correct?

A Yes.

Q And the Continental acreage to the south?

A The same thing. Those wells are producing from the Delaware Sand.

Q Is there any production over to the east?

A Yes, sir. However, that is another pool and with a dry hole in between our lease and the Charlie Read lease in Section 31.

Q Has that been designated by the Commission as a separate pool?

A Yes, sir.

Q So the only acreage we are talking about that's in the North Mason-Delaware in this area is in Sections 25, 36 and 26 and 35?

A Yes, sir.

Q As shown on the plat, is that correct?

A Yes, sir.

MR. UTZ: Are those wells to the east in the Delaware?

THE WITNESS: Yes, sir.

MR. UTZ: What pool is it?

THE WITNESS: Is that what they call Battleaxe Delaware?

MR. UTZ: I don't know.

THE WITNESS: I'm not sure.

MR. UTZ: We can find out.

THE WITNESS: I believe that's what they call that pool.

Q (By Mr. Kellahin) But all of the wells immediately offsetting the disposal well are owned and operated by Ernest A. Hanson, is this correct?

A Yes, sir, this is correct.

Q Referring to what has been marked as Exhibit 2, would you discuss that exhibit, please?

A This is the proposed disposal well. It's a ~~diagrammatic~~ sketch of that well. The surface casing was 935 foot of eight and five-eighths set at 340 feet, and the cement was reported to have been circulated. This well was originally drilled by Ibex Corporation in Breckenridge, Texas. Then they drilled down to 4177 and set five-and-a-half-inch casing with 125 sacks of cement.

Then they drilled in open hole from 4177 to 4185, which is the present total depth. The cement, there is no record of where that top of that cement came. However, I would suspect that it would have come up to the base of the salt on the long string.

MR. UTZ: You suspected or did you calculate it?

THE WITNESS: Well, it will calculate out to be higher than the base of the salt in there. The base of the salt is roughly 200 feet above the casing. Very seldom that that cement ever gets above that point down there.

We propose to run tubing with a Halliburton R-3 packer to 4140 with the annulus filled with an inhibited fluid and the meter at the surface to be able to check on the pressure difference should there develop a leak in the well.

We would be injecting or we will dispose of the water into that open hole section at 4177 to 4185.

Q (By Mr. Kellahin) What kind of tubing are you going to use in the well, Mr. Schram?

A Just plain two-and-three-eighths-inch J-55 tubing.

Q You do not plan to use a coated tubing?

A No, sir. We do not plan to use it.

Q What is the source of water that will be disposed of in this pool?

A It is out of the Delaware Sand and it is from the same section that we propose to inject back into.

Q Have you had any corrosive problems with that water?

A Not with anything on that lease down there. However, it is considerably saltier than the last case. The chlorides were 130,800 parts per million. The sulphate acids were 55,800.

MR. UTZ: Pretty salty?

THE WITNESS: Real salty.

Q (By Mr. Kellahin) What volumes of water do you anticipate you will inject in this well?

A Approximately forty to fifty barrels of water per day from the Federal Hanson lease.

Q Do you think this will be under pressure or can you do it under vacuum?

A I think it would be under pressure, based on the unsuccessful waterflood to the south of us.

Q There is a waterflood to the south?

A Yes, sir.

Q You say it was unsuccessful?

A Well, it has been to this date.

Q That's across the line in the State of Texas?

A Yes.

Q Who is operating that?

A Marathon.

Q Are they having to put the water in under pressure?

A Yes, sir.

Q Into the Delaware formation?

A Yes, sir.

Q Referring to what has been marked as Exhibit Number 4, would you identify that exhibit, please?

A This was the log, it is a log of the Number 7 Well which is the proposed disposal well, showing the top of the Delaware lime, the top of the Delaware sand and the top of the -- or the bottom of the five-and-a-half-inch casing.

Q And the injection, of course, would be through the

open hole interval --

A Yes, sir.

Q -- in the lower part of the well?

A Yes, sir.

Q Do you anticipate that the well will take the volumes of water you propose to inject in it?

A Yes, sir.

Q Would it have a capacity for taking more than that?

A Yes, sir, I believe it would.

Q In your opinion, will the injection of water in the volumes you propose to inject in the Delaware formation have any adverse effect on the producing characteristics of the wells offsetting it?

A No, sir, I don't believe that they would.

Q Would it have any beneficial effect on it?

A I don't believe there would be any effect whatsoever.

Q Were Exhibits 1 through 4 prepared by you or under your supervision?

A Yes, sir.

MR. KELLAHIN: At this time, I offer in evidence Exhibits 1 through 4, inclusive.

MR. UTZ: Exhibits 1 through 4 will be admitted into the record of this case.

(Whereupon, Exhibit Numbers 1-4
were offered and admitted in
evidence.)

MR. KELLAHIN: That's all I have on direct
examination, Mr. Utz.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Schram, how much more does plastic-coated
tubing run?

A Very little. Price has very little to do with it.
I think it's around eighteen to twenty-two cents a foot, if
I'm not mistaken.

Q You don't think that it might be a good idea to
use plastic-coated tubing in view of the brine content, the
chloride content of this?

A Well, I would put it this way: If we are requested
to, we'll be very glad to. Normally, we wouldn't use it in
these wells. Primarily we think it causes more harm than
good because, well, I have never seen a plastic-coated piece
of pipe that gave you a real good seal at the threads and
just from then on it's just nothing but trouble unless it's
plastic-coated in place, which we do with flow lines very
frequent.

MR. PORTER: That's after the threads have been
connected?

THE WITNESS: Yes, sir.

Q (By Mr. Utz) Why do all these people use it?

A Well, I don't know. We have got, in fact, we have plastic-coated tubing in stock that we purchased when we maybe bought out some leases or something like that and we have never used it for anything except flow lines.

So, really, with us it's a matter of just the experience that we have had with it and the way we feel about it.

MR. KELLAHIN: If the Commission requires plastic-coated tubing in either one or both of these wells, would you use it?

THE WITNESS: Yes, sir.

MR. UTZ: Are there any other questions?

CROSS EXAMINATION

BY MR. PORTER:

Q Mr. Schram, you mentioned one unsuccessful waterflood on the Texas side of this pool. Has anybody tried waterflooding on the New Mexico side?

A No, sir. We have discussed it with Continental. In fact, I have discussed it, oh, several times over the past year with them.

Q This has no bearing on the case, but what do you expect out of the primary down there, recovery factor?

A I don't.

Q Approximately?

A I couldn't answer that. I haven't even investigated that end of it. We have got rather extensive studies of the North Mason Pool, both in Texas and New Mexico, on waterflood, though.

Q If this Texas flood ever proved successful, it might change your thinking?

A Well, in any case, regardless of what Marathon does, eventually I think we will probably try it ourselves. But at this point, we do not feel that, at least on our own, that it's economical because we are still doing pretty well on primary.

Q The volumes that you anticipate injecting here probably wouldn't have any effect, anyway, ever?

A No, sir, I don't believe that they would.

MR. PORTER: That's all.

RE-CROSS EXAMINATION

BY MR. UTZ:

Q What pressure did you say you might have to use on this?

A Well, I would say 500 pounds. However, I noticed on the application just now that it says 1500 pounds. I think that probably your maximum would be 500 pounds.

Q What volume was it, 500?

A Less than fifty barrels a day. We have checked these

wells several times between forty and fifty barrels a day.

MR. UTZ: Any other questions? Witness may be excused.

(Witness excused.)

MR. UTZ: Any statements? The case will be taken under advisement and the hearing is adjourned.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
HARRY F. SCHRAM	
Direct Examination by Mr. Kellahin	2
Cross Examination by Mr. Utz	11
Cross Examination by Mr. Porter	12
Re-Cross Examination by Mr. Utz	13

E X H I B I T S

<u>NUMBER</u>	<u>MARKED FOR IDENTIFICATION</u>	<u>OFFERED AND ADMITTED IN EVIDENCE</u>
Exhibits 1-4	4	11

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 9th day of July, 1968.

Ada Dearnley
 NOTARY PUBLIC

My Commission Expires:

June 19, 1971

I do hereby certify that the foregoing is a complete record of the proceedings in the Bernalillo hearing of Case No. 3288 heard by me on June 26, 1968.
Ada Dearnley, Notary
 New Mexico Oil Conservation Commission

Form C-108
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Ernest A. Hanson		ADDRESS P. O. Box 1515, Roswell, New Mexico	
LEASE NAME Hanson Federal	WELL NO. 7	FIELD No. Mason Delaware	COUNTY Eddy
LOCATION UNIT LETTER J ; WELL IS LOCATED 1650 FEET FROM THE South LINE AND 2310 FEET FROM THE East LINE, SECTION 25 TOWNSHIP 26-S RANGE 21-E NMPM.			
CASING AND TUBING DATA			
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT
SURFACE CASING	8-5/8"	935'	340
INTERMEDIATE			
LONG STRING	5-1/2"	4177'	125
TUBING	2-3/8"	4140'	NAME, MODEL AND DEPTH OF TUBING PACKER Halliburton R-3 @ 4140'
NAME OF PROPOSED INJECTION FORMATION Delaware sand		TOP OF FORMATION 4163'	BOTTOM OF FORMATION Unknown
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLE? Open hole	PROPOSED INTERVAL(S) OF INJECTION 4177-4185'
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Producing oil well		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH			
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA Unknown		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA Unknown	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA Unknown
ANTICIPATED DAILY INJECTION VOLUME (BBL/DAY) MINIMUM 50 MAXIMUM 500	OPEN OR CLOSED TYPE SYSTEM Open	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 1500
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - Yes		NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? Yes
NAME AND ADDRESS OF SURFACE OWNER (OR LESSOR, IF STATE OR FEDERAL LAND) Buck Jackson, Box 671, Pecos, Texas		BEFORE EXAMINER UTZ OIL CONSERVATION COMMISSION EXHIBIT NO. _____ CASE NO. _____	
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Continental Oil Co., Box 460, Hobbs, New Mexico			
C. B. Read, Box 1822, Roswell, New Mexico			
Keith & Haines, 400 E. Austin, Kermit, Texas			
DOCKET MAILED Date 6-13-68 '68 MAY 22 AM 8 50			
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?	SURFACE OWNER Yes	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	THE NEW MEXICO STATE ENGINEER Yes
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)?	PLAT OF AREA Yes	ELECTRICAL LOG Yes	DIAGRAMMATIC SKETCH OF WELL Yes

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Ernest A. Hanson Exploration Manager May 17, 1968
(Signature) (Title) (Date)

NOTE: Should warrants from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

U.S.

AMER. PETROFINA

WILSON

ERNEST A. HANSON

RUSSELL FED.

CONTINENTAL

26 WHITE FED. TEXACO

WHITE FED.

CONTINENTAL

35

RUSSELL FED.

LEA COUNTY, NEW MEXICO

30

BEFORE EXAMINER UTZ
CIL CONSERVATION COMMISSION
EXHIBIT NO. 7
CASE NO. 3798

RUSSELL FED.

CONTINENTAL

C. B. READ

RUSSELL FED.

CONTINENTAL

RUSSELL FED.

LOVING COUNTY, TEXAS

KEITH & HAINES

HANSON FED.

36

STATE

DISPOSAL WELL

3143

3147

3148

3149

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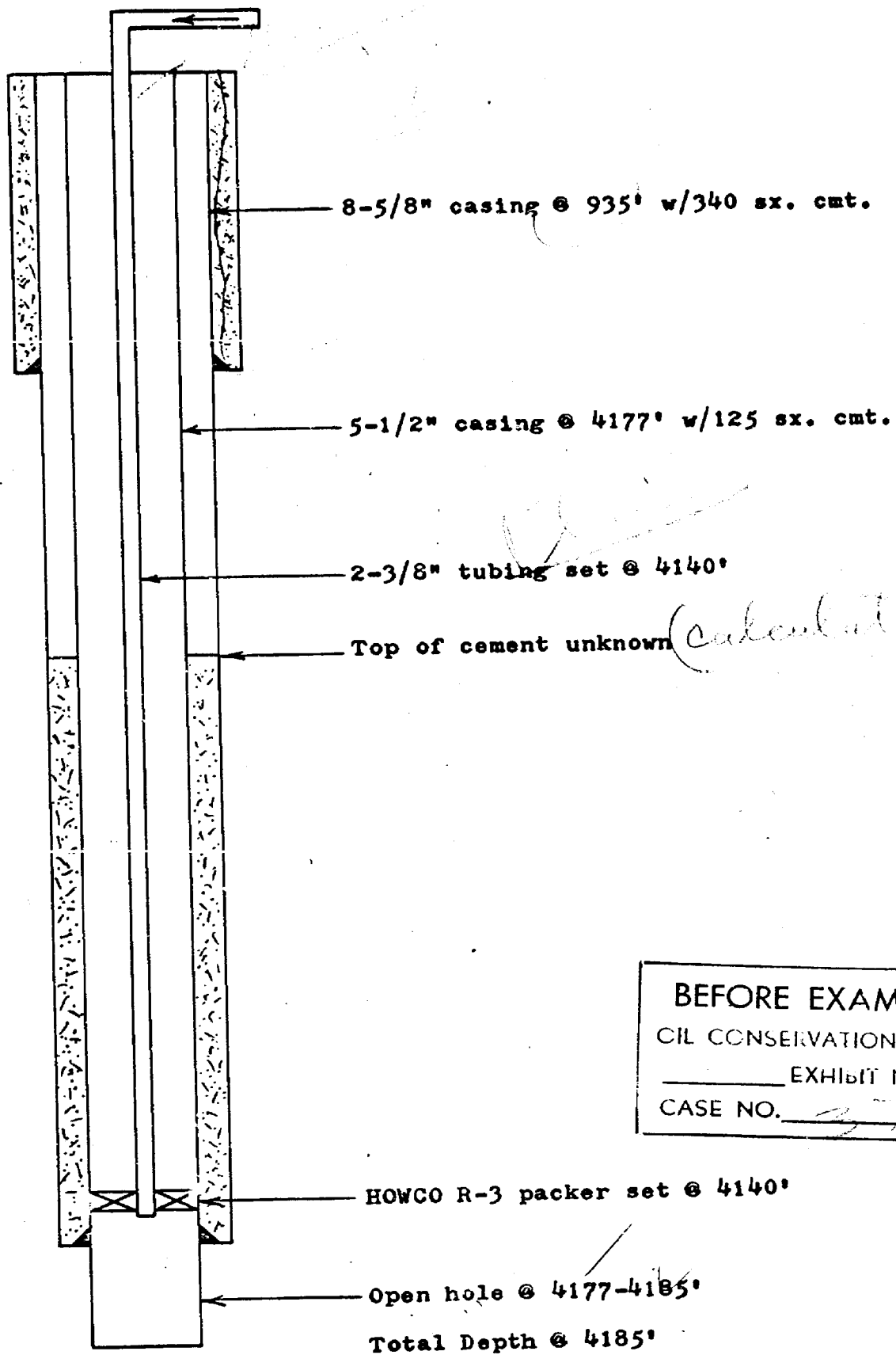
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DIAGRAMMATIC SKETCH
Salt Water Disposal Well



BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	<u>2</u>
CASE NO.	<u>3798</u>

Case 3798

SAMPLE NO. _____

THE WESTERN COMPANY
Service Laboratory

Case 3798

WATER ANALYSIS

Operator	Hanson Oil Company	Date Sampled	
Well		Date Received	5-17-68
Field	North Mason	Submitted by	Hobbs District
Formation	Delaware	Worked by	Koehl
Depth		Other Description	Tank Battery
County	Lea, New Mexico		

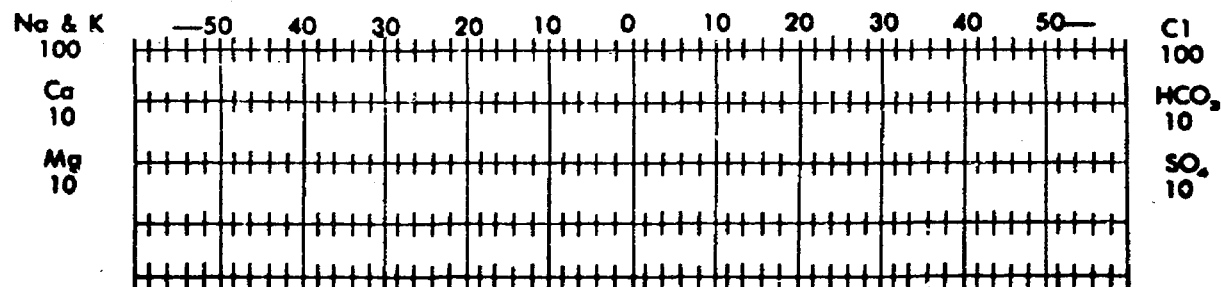
CHEMICAL DETERMINATIONS

Density	1.150 @ 72°F	pH	6.0
Iron	Faint Trace	Hydrogen Sulfide	None
Sodium and Potassium	55,500 ppm	Bicarbonate	134 ppm
Calcium	20,000 ppm	Sulfate	800 ppm
Magnesium	4,140 ppm	Phosphate	ppm
Chloride	130,800 ppm	as Sodium Chloride	ppm

Remarks:

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 3798

for Stiff type plot (in meq./l.)



Per _____

Case 3798



Log

COMPANY: THE IBEX COMPANY
WELL: HAWSON NO. 7
FIELD: NORTH MASON DELAWARE
COUNTY: EDDY STATE: N MEX.
LOCATION:

COMPANY: THE IBEX COMPANY
WELL: HAWSON NO. 7
FIELD: NORTH MASON DELAWARE
COUNTY: EDDY STATE: N MEX.
LOCATION: 1650' FSL & 2310' FEL OF SE
1/4 OF SECTION 25, T-26-S, R-31-E

Location of Well

LOG MEAS. FROM TOP ROTARY TABLE ELEV. 3116
DRIG. MEAS. FROM TOP ROTARY TABLE ELEV. 3116
PERM. DATUM GROUND LEVEL ELEV. 3131

TYPE OF LOG
RUN NO.
DATE
TOTAL DEPTH (DRILLER) RACK
EFFECTIVE DEPTH (DRILLER)
TOP OF LOGGED INTERVAL
BOTTOM OF LOGGED INTERVAL
TYPE OF FLUID IN HOLE
FLUID LEVEL
MAXIMUM RECORDED TEMP.
SOURCE STRENGTH & TYPE
SOURCE SPACING — IN.
LENGTH OF MEASURING DEVICE — IN.
O.D. OF INSTRUMENT — IN.
TIME CONSTANT — SECONDS
LOGGING SPEED FT. MIN.
STATISTICAL VARIATION — IN.
SENSITIVITY REFERENCE
RECORDED BY
WITNESSED BY

GAMMA RAY ONE-NEW 8-25-55
1185
1185
SURFACE 1166
WATER FULL
NEUTRON ONE-NEW 8-25-55
1185
1185
SURFACE 1175
WATER FULL
36" 3 5/8" 3 5/8" 20-40
5.0 4.0 20-40
274 SCHLOTTERBACK ROCHELLE
275 ROCHELLE

RECORDED SIMULTANEOUSLY

WELL RECORD

RUN NO. BIT SIZE CASING WT.—LB. FROM WELL RECORD FROM LOG
ONE 12 1/4" 8 5/8" 24 SURFACE TO 934 SURFACE TO 933
ONE 7 7/8" 5 1/2" 24 SURFACE TO 1177 SURFACE TO 1174
ONE 1 3/4" SURFACE TO 1177 SURFACE TO 1174

