

CASE 3844: Application of RICE
ENGINEERING FOR SALT WATER
DISPOSAL, LEA COUNTY, N. MEX.

*See letter
objection in file -*

Case Number

3844

Application
Transcripts.

Small Exhibits

ETC.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

October 28, 1968

C
Mr. Joe D. Ramey, Supervisor
Oil Conservation Commission
Post Office Box 1980
Hobbs, New Mexico

O
Dear Mr. Ramey:

P
Reference is made to Commission Order No. R-3500, which authorized Rice Engineering & Operating, Inc., to utilize the old Humble S. E. Cain Well No. 1 located in Unit F of Section 30, Township 18 South, Range 39 East, East Hobbs Pool, Lea County, New Mexico, for salt water disposal in the perforated intervals 3962-3992, 5248-5261, and 5980-6064 feet, provided that the perforated interval 3808 - 3834 feet would be squeezed with a minimum of 75 sacks of cement and the 4-inch liner set at 6480 feet would be perforated above 5200 feet and additional cementing of said liner effected to ensure that the annular space is cemented from said liner shoe back into the 5 1/2-inch casing set at 4464.

Y
We have considered the request of Mr. Loy Goodheart of Rice Engineering to delete the latter cementing requirement for the 4-inch liner, and concur with you that inasmuch as the perforations into the San Andres at 4462-4474 have already been squeezed with 100 sacks of cement, there should be no danger to the main pay of the East Hobbs Pool in not squeezing the liner provided that both sets of perforations in the Queen formation (3808'-3834' and 3962'-3992') are squeezed and provided that the disposal tubing be set in a packer at approximately 5225 feet. The annulus should, of course, be filled with a corrosion-inhibited fluid and equipped with a gauge to facilitate detection of leakage in the tubing, casing or packer.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

-2-

Mr. Joe D. Ramey, Supervisor
Oil Conservation Commission
Post Office Box 1980
Hobbs, New Mexico

October 28, 1968

C It is therefore suggested that you exercise the authority granted
you by Rule 1303 of the Commission Rules and Regulations and advise
Rice Engineering in writing that completion of the well in the
above-described manner will be acceptable.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

O
P
Y ALP/DSN/ir

cc: Case No. 3844

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. 3844
Order No. R-3500

APPLICATION OF RICE ENGINEERING
& OPERATING, INC., 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 August 21, 1968,
at Santa Fe, New Mexico, before Examiner Daniel S. Mutter.

NOW, on this 12th day of September, 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, Rice Engineering & Operating, Inc.,
is the owner and operator of the Hobbs East San Andres SWD Well
No. F-30 (formerly the Humble Oil & Refining Company S. E. Cain
Well No. 1), located in Unit F of Section 30, Township 18 South,
Range 39 East, NMPM, Hobbs East San Andres Pool, Lea County,
New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Queen, San Andres, and
Glorieta formations in the perforated intervals at approximately
3808-3834, 3962-3992, 5248-5261, and 5980-6054 feet.

(4) That the injection should be accomplished through 2 1/2-
inch plastic-lined tubing; 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 tubing or casing.

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CASE No. 3844

Order No. R-3500

(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, Rice Engineering & Operating, Inc., is hereby authorized to utilize its Hobbs East San Andres SWD Well No. F-30 (formerly the Humble Oil & Refining Company S. E. Cain well NO. 1), located in Unit F of Section 30, Township 16 South, Range 39 East, NMPM, Hobbs East San Andres Pool, Lea County, New Mexico, to dispose of produced salt water into the Queen, San Andres, and Glorieta formations, injection to be through 2 1/2-inch tubing into the perforated intervals from approximately 3962-3992, 5248-5261, and 5980-6064 feet;

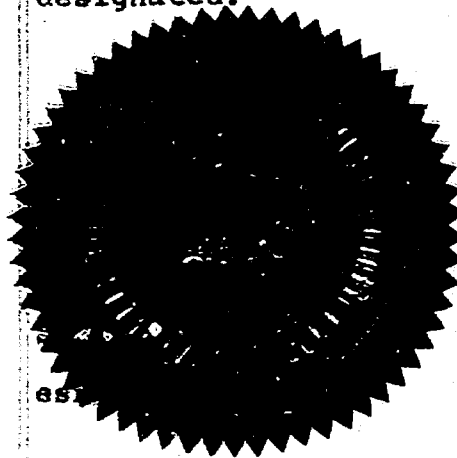
PROVIDED HOWEVER, that prior to said utilization, the applicant shall cause the perforated interval from 3808 feet to 3834 feet in the subject well to be squeezed with a minimum of 75 sacks of cement and the 4-inch liner set at 6480 feet to be perforated above 5200 feet and additional cementing of said liner effected to ensure the annular space is cemented from said liner shoe back into the 5 1/2-inch casing set at 4464 feet;

PROVIDED FURTHER, 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 tubing or casing.

(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 P. GARGO, Chairman

GUSTON E. HARRIS, Member

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

Spur blue p. of

3808-3834 la

sp. in many of the rocks

and that 4 in line from

4320 to 6480 should

be ~~sp~~ ^{sp} above 5200

feet as we cannot

afford to come back

at 5 1/2 - 6 am

Hold for info.

RICE Engineering & Operating, Inc.

Post Office Box 1142

Telephone (505) 393-9174

HOBBS, NEW MEXICO 88240

New Mexico Oil Conservation Commission
P. O. Box 2048
Santa Fe, New Mexico 87501

Attention: Mr. Ben Butler

Re: Case 3844 and 3845

Gentlemen:

At hearing of Case 3844 and 3845, conducted August 21, 1968, it was requested that Rice Engineering furnish sub-sea elevations for producing formations shown on our exhibit "D" presented at the hearing. Attached are the requested sub-sea elevations for Hobbs East San Andres SWD (Case 3844) and Justis SWD (Case 3845). For wells where elevations were not available, the producing interval is shown.

During the examination for Case 3844, the question of how the 4-inch liner was installed or hung in the proposed SWD well was asked by the examiner. Additional information obtained from Humble Oil & Refining Company well files shows that subject liner was set from 4,320 feet to 6,480 feet. The liner was hung @ 4,320 feet with a T1W Type "B" hanger and T1W Type "B" packer with hold downs. The liner was tested to 4200 psi for 30 minutes with no drop in pressure. As stated at the hearing, we would test the liner to whatever pressure the Commission requires.

We hope that this additional information satisfactorily answers your questions concerning the subject cases and that it will expedite the approval of our SWD application. If we have inadvertently omitted anything, please advise.

Respectfully submitted,

RICE ENGINEERING & OPERATING, INC.
ORIGINAL SIGNED BY
L. B. GOODHEART
L. B. Goodheart
Division Manager

LBG/jp

Attachments

EXHIBIT "D"

PRODUCTIVE FORMATIONS OF WELLS WITHIN A
TWO-MILE RADIUS OF PROPOSED JUSTIS SWD WELL H-2

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>FORMATION</u>
Amerada	Wimberly	9	Blinebry, Tubb-Drinkard -2207 to -2790 to -2373' -2871'
"	"	6	Tubb-Drinkard, Fusselman -2770 to -2840' -3840 to -3914'
"	"	16	Seven Rivers-Queen, Blinebry +52 to -153' -2291 to -2375'
"	Cagle "C"	3	Devonian PB to 3600 T/A
"	"	1	Yates, Seven Rivers, Queen +314 to +54'
A P Co.	Dobbs	1	Seven Rivers, Queen +337 to +17'
Atlantic	Carlson Fed.	1	Blinebry, Tubb-Drinkard, -2232 to -2674 to -2855'
"	"	2	-2340' Fusselman squeezed Blinebry, Tubb-Drinkard -2303 to -2835 to -2861'
"	Gregory	1	-2381' Blinebry -2170 to -2320'
El Paso	Carlson "A" Fed.	2	Seven Rivers, Queen -33 to -171'
"	Carlson "B" Fed.	1	Glorieta -1563 to -1769'
"	Bates	1	Yates, Seven Rivers +295 to -157'
Getty	Riggs "A"	1	Seven Rivers, Queen 3210-3346' El. not available
"	"	2	Seven Rivers, Queen 3170-3368' El. not available
"	"	3	Blinebry -2112 to -2361'
"	"	1	Seven Rivers, Queen -262 to -294'
"	Riggs "B"	2	Seven Rivers, Queen -238 to -282'
"	"	3	Seven Rivers, Queen -244 to -287'
"	"	4	Seven Rivers, Queen -248 to -295'
"	"	5	Seven Rivers, Queen T/A Never received allowable-no Perfs.
"	"	6	Blinebry -2062 to -2238'
"	"	7	Blinebry -2110 to -2476'
"	"	8	Blinebry, (Tubb-Drinkard P/A -2081 to -2-21-66) -2372'
Gulf	Arnott Ramsay	3	Glorieta -1696 to -1770'
"	" "	1	Seven Rivers, Queen -7 to -258'
"	" "	4	Blinebry, Tubb-Drinkard -2327 to -2824 to -2852' -2461'
"	" "	5	Blinebry -2163 to -2409'
"	" "	7	Blinebry -1994 to -2427'
"	" "	8	Fusselman -3715 to -3805'
"	" "	9	Blinebry, Fusselman -2125 to -3814 to -2389' -3843'

COMPANY	LEASE	WELL NO.	FORMATION
Gulf Contd.	Arnott Ramsay	10	Blinebry, Fusselman -2271 to -3841 to -3885' -2408'
"	" "	11	Blinebry, Tubb-Drinkard -2167 to -2751 to -2420' -2817'
"	" "	12	Blinebry -2199 to -2406'
"	Vinson Ramsay	1	Blinebry -2303 to -2388'
"	" "	6	Blinebry, (Tubb-Drinkard P/B -2333 to 4-14-65) -2467'
"	" "	7	Blinebry, Tubb-Drinkard -2186 to -2749 to -2341' -2829'
"	" "	8	Blinebry, Tubb-Drinkard -2125 to -2693 to -2411' -2827'
"	" "	9	Blinebry, Tubb-Drinkard -2220 to -2765 to -2366' -2792'
"	" "	10	Blinebry, (Tubb-Drinkard P/B -2205 to 4-14-65) -2283'
"	" "	11	Blinebry, (Tubb-Drinkard P/B -2109 to 9-3-64) -2345'
"	" "	12	Blinebry, (Tubb-Drinkard P/B -2239 to 7-27-65) -2285'
"	Arnott Ramsay	2	Seven Rivers, Queen T/A -206 to -302'
"	Vinson Ramsay	2	Seven Rivers, Queen T/A -225 to -272'
"	" "	3	Seven Rivers, Queen T/A -248 to -282'
"	" "	4	Seven Rivers, Queen T/A -270 to -284'
"	" "	5	Seven Rivers, Queen T/A -235 to -314'
Lowe	M. D. Self	3	Seven Rivers, Queen -171 to -265'
"	"	4	Seven Rivers, Queen -201 to -296'
"	"	5	Blinebry -2089 to -2300'
"	"	6	Blinebry -2148 to -2347'
Pan American	State	1	Seven Rivers, Queen -236 to -250'
"	"	2	Seven Rivers, Queen -261 to -360'
"	"	4	Seven Rivers, Queen -302 to -316'
"	State A. J.	5	Blinebry, (Tubb-Drinkard Abn. -2251 to 6-24-66 -2735 to -2473' -2797'
"	State	6	Blinebry, Fusselman -2103 to -3869 to -2261' -3885'
Reserve Oil	Dobbs	1	Yates, Seven Rivers +456 to +217'
"	"	2	Yates, Seven Rivers +270 to -288'

COMPANY	LEASE	WELL NO.	FORMATION
Solar Oil	Aiton	4	Seven Rivers, Queen -152 to -303'
"	Dobbs	1	Seven Rivers, Queen T/A +77 to -219'
"	"	2	Seven Rivers, Queen T/A -169 to -288'
"	"	3	Seven Rivers, Queen -179 to -310'
Tenneco	Federal #35	1	Blinebry, Drinkard -2037 to -2804 to -2067' -2823'
"	Ginsberg	5	Seven Rivers, Queen +2 to -108'
"	"	6	Seven Rivers, Queen -209 to -292'
"	"	7	Seven Rivers, Queen -244 to -270'
"	"	8	Seven Rivers-Queen, Blinebry -186 to -261' -2094 to -2282'
"	"	9	Blinebry, Fusselman -2104 to -3885 to -2478' -3897'
"	"	10	Blinebry -2204 to -2459'
"	"	11	Blinebry, Fusselman -2217 to -3890 to -2400' -3924'
"	"	13	Seven Rivers-Queen, Blinebry -242 to -276' -2278 to -2400'
"	Leonard	1	Seven Rivers -396 to -412'
"	"	2	Seven Rivers -397 to -437'
"	"	7	Devonian T/A -6397 to -6517'
Texas Pacific	L. L. Gregory	1	Seven Rivers, Queen -33 to -267'
"	Gregory "O"	2	Seven Rivers, Queen -165 to -289'
"	"	3	Seven Rivers, Queen -218 to -268'
Union Texas	Carlson "A"	1	Tubb-Drinkard, Fusselman -2778 to -3826 to -2836' -3880'
"	"	2	Fusselman, Montoya -3764 to -3859 to -3774' -3861'
"	"	3	Blinebry, Tubb-Drinkard -2112 to -2645 to -2533' -2840'
"	"	4	Blinebry, Tubb-Drinkard -2354 to -2734 to -2450' -2758'
"	"	5	Blinebry, Tubb-Drinkard -1976 to -2731 to -2026' -2772'
"	"	6	Blinebry, Montoya -2102 to -3864 to -2528' -3866'
"	Carlson "B"	2	Blinebry, Tubb-Drinkard -2330 to -2708 to -2376' -2746'
"	Henry	3	Seven Rivers, Queen -5 to -47'
"	Gregory "A"	1	Blinebry -2240 to -2339'

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

September 12, 1968

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

Re: Case No. 3844 ✓
Order No. 3845
Applicant:
Rice Engineering & Operating

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC X

Artesia OCC

Aztec OCC

Other R-3500 to Mr. Hugh F. Robinson

State Engineer Office

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

R. W. McFALL
PRESIDENT

SYMBOLS

DL=Day Letter

NL=Night Letter

IT=International Letter Telegram

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination.

(510).

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*SECRETARY DIRECTOR NEW MEXICO OIL CONSERVATION COMMISSION=
STATE LAND OFFICE BLDG SANTA FE NMEX=

1968 AUG 8 PM 4 24

WE OBJECT TO APPLICATION OF RICE ENGINEERING AND
OPERATING INC DATED JULY 30TH 1968 TO DISPOSE OF SALT
WATER AS SET OUT ON FORM C-108 IN WELL LOCATED IN SEC
30 18 SOUTH 39 EAST LEA COUNTY NEW MEXICO EXPLANATORY
LETTER TO FOLLOW=

HUGH F ROBINSON FOR SAM K VIERSON=

MAIN OFFICE

60 AUG 8 PM 4 32

WU1201 (R2-55)

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE



SAM K. VIERSEN, JR.

PHONE BK 6-8803 -- Box 260
OKMULGEE, OKLAHOMA

HUGH F. ROBINSON, LAND
DONALD A. THOMPSON, AUDITOR

August 9, 1968

Box 3844

New Mexico Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico

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

Gentlemen:

In connection with the telegram we sent you on August 8, we enclose a copy of Form C-108 dated July 30, 1968 sent us by Rice Engineering and Operating, Inc. The proposed injection well referred to in this application is an off-set to our three well Laney Lease which is described as the W/2 SE/4 and SE/4 SE/4 Section 30, 18S-39E, Lea County, New Mexico. During the drilling phase of our No. 2 Laney, we made a drill stem test of the interval 3769' to 3789'. This zone flowed oil in commercial quantities during the two hour test. This well was completed as a single zone producer in the San Andres, but we plan to re-complete in the 3769'-3789' zone before the well is abandoned.

One of the zones proposed for use by Rice Engineering and Operating, Inc. is the interval 3808' to 3814' and we feel that injection into that zone would be detrimental to the pay still behind the pipe in our No. 2 Laney well. Accordingly, we object to the application of Rice Engineering and Operating, Inc. Please advise us of the Hearing date in the event Rice requests a Public Hearing.

Very truly yours,

SAM K. VIERSEN

HR
lc

[Signature]
Hugh F. Robinson

Enclosure

cc: Rice Engineering and Operating, Inc.
Box 1142
Hobbs, New Mexico 88240

Mr. Charles P. Miller
Miller Engineering & Geological Co.
P. O. Box 417
Hobbs, New Mexico 88240

DOCKET MAILED

Date 8-12-68
HR

60 AUG 12 PM 1 00

- CASE 3844: Application of Rice Engineering & Operating, Inc., for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Queen, San Andres and Glorieta formations in the perforated intervals at approximately 3808-3834, 3962-3992, 5248-5261, and 5980-6054 feet in its Hobbs East San Andres SWD Well No. F-30 (formerly the Humble Oil & Refining Company S. E. Cain Well No. 1) located in Unit F of Section 30, Township 18 South, Range 39 East, Hobbs East San Andres Pool, Lea County, New Mexico.
- CASE 3845: Application of Rice Engineering & Operating, 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 Grayburg, San Andres, and Glorieta formations in the open-hole interval from 3540 feet to 5616 feet in its Justis SWD Well No. H-2 (formerly the Resler & Sheldon-Bette Sue Well No. 2) located in Unit H of Section 2, Township 26 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.
- CASE 3846: Application of Bco, Inc., and Harry L. Bigbee for downhole commingling, San Juan County, New Mexico. Applicants, in the above-styled cause, seek authority to commingle production from the Gallup, Greenhorn, Graneros, and Dakota formations in the wellbores of the Harry L. Bigbee Nancy Wells Nos. 3 and 4 located, respectively, in Units N and F of Section 12, Township 24 North, Range 8 West, Escrito-Gallup Oil Pool, San Juan County, New Mexico. Applicants further seek an administrative procedure whereby said commingling may be authorized for additional wells to be drilled in the area comprising all of Sections 12, 13, and the E/2 of Section 14; said township and range.
- CASE 3847: Application of K. K. Amini for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the NE/4 of Section 5, Township 10 South, Range 34 East, Lea County, New Mexico. Said acreage to be dedicated to a well to be drilled in the SW/4 NE/4 of said Section 5, adjacent to the Vada-Pennsylvanian Pool.
- CASE 3848: Application of Continental Oil Company for a non-standard gas proration unit and an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the approval of a 296-acre non-standard gas proration unit comprising all of Lots 3, 4, 5, 6, 11, 12, 13, and 14, Section 2, Township 21 South, Range 25 East, Springs-Upper Pennsylvanian Gas Pool, Eddy County, New Mexico, said unit to be dedicated to its Levers Federal Well No. 1 located at an unorthodox location 1594 feet from the North line and 660 feet from the West line of said Section 2.

dearnley-meier reporting service, inc.

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

1120 SIMAS BLDG. • P. O. BOX 1082 • PHONE 243-6491 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 21, 1968

IN THE MATTER OF:

Application of Rice Engineering &
Operating, Inc., for salt water disposal,
Lea County, New Mexico.

Case No. 3844

BEFORE: D. S. NUTTER,
Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case 3844.

MR. HATCH: Application of Rice Engineering & Operating, Inc., for salt water disposal, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin & Fox, appearing for the Applicant. We will have one witness on this and the following Case 3845. I would like to have him sworn, please.

(Witness sworn.)

(Applicant's Exhibits A through F. marked for identification.)

* * * * *

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A L. B. Goodheart.

Q By whom are you employed and in what position?

A Rice Engineering and Operating, Inc., Division Manager, Hobbs, New Mexico.

Q Have you testified before the Oil Conservation Commission and made your qualifications a matter of record?

A No, sir, not before this, this is the first time.

Q For the benefit of the Examiner would you outline

your education and experience as an engineer?

A I have a degree in Engineering, Geological Engineering from the University of Kansas in 1957; employed by Continental Oil Company fourteen months after graduation. Since 1958, I have been employed by Rice Engineering and Operating, Incorporated, as an engineer.

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

MR. NUTTER: They are.

Q (By Mr. Kellahin) Mr. Goodheart, are you familiar with the application of Rice Engineering and Operating, Inc., in Case 3844?

A Yes, sir.

Q Briefly, what is proposed by this application?

A The purpose of this application is to secure approval for a salt water disposal well in the Hobbs East San Andres Pool. This is to recomplete the plugged and abandoned Humble Oil and Refining Company S. E. Cain no. 1 well, which is located in the southeast quarter of the northwest quarter of Section 30, Township 18 South, Range 39 East, Lea County, New Mexico.

Q What is the status of that well at the present time?

A This is a plugged and abandoned well.

Q In referring to what has been marked as Exhibit A,

would you identify that exhibit, please?

A Exhibit A is a location plat showing the Hobbs East San Andres SWD Well F-30. This is our designation. This well is shown here as the SWD Well F-30 on the plat.

Q That is the Humble Well to which you did refer?

A Yes, sir.

MR. NUTTER: That's the one with the arrow pointing to it, is that correct?

THE WITNESS: Yes, sir.

MR. NUTTER: At the end of the cross section, that would be point A on the cross section?

A Yes, sir, point A.

Q (By Mr. Kellahin) And the other wells listed in the margin, is that the identification of the well shown on another exhibit?

A Yes, sir.

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

A Exhibit B is a proposed completion diagram for the subject well. This shows the eight and five-eighths casing set at 1883 with nine hundred sacks of cement circulated. The five and a half-inch casing set at 4464 with twelve hundred sacks of cement also circulated and a four-inch O D liner

set at 4320 to 6490 with 120 sacks. Top of the cement behind the liner is 5200 feet.

Q The well was perforated in various zones there, was it not?

A Yes, this is true. The perforations are shown at 3808 to 3834; from 3962 to 3992 and from 5248 to 5261.

Q Now, in connection with the proposal to convert this well to salt water disposal, did you receive an objection from a Mr. V-i-e-r-s-e-n?

A Yes, sir, I believe the Commission has a copy of the letter from Mr. Viersen.

Q Did you discuss this situation with Mr. Viersen's engineer?

A Yes, sir, I have been in contact with Mr. Miller, who also submitted a letter which I have handed out with exhibits.

Q What do you propose to do to remove this objection?

A They objected to our leaving the perforations, the perforated interval from 3808 to 3834, open. They pointed out that they had tested this zone and recovered commercial quantities of oil. In my conversation with Mr. Miller, we agreed that we would squeeze this zone.

Q And you have no objection to such a provision being

included in any order entered by the Commission here.

A We have no objection. This zone in the disposal well was tested by Humble and swabbed dry. It's our belief that we could not inject any water in this interval anyhow.

Q Are any of these other zones producing within a two-mile radius of this well?

A There's one zone in the Brunson Laughlin State 32 well. That's a gas well.

Q Is this shown on your Exhibit B?

A This is shown on our Exhibit C.

Q C?

A This appears to be producing just above the second set of perforations.

Q In your opinion, will the injection of water into this zone cause any loss of production to the well producing there?

A No, sir, it is our opinion that it will not influence this well.

Q And it will not have any adverse effect on any other well in the area, is this your opinion?

A No, sir.

Q You will inject your water through a plastic-lined tubing, is that correct?

A Yes, sir; as shown on Exhibit B, we propose to

drill out to the plug found at 5715, I believe.

Q Will you use a packer in the well?

A We will not use a packer.

Q Will you fill the casing tubing and annulus with an oil, or an inert fluid?

A The annulus will be filled with oil, positive pressure will be maintained at the surface with a pressure gauge to insure that we have no casing leaks in the annulus or in the tubing.

Q Do you have any further comment in regard to Exhibit C?

A Exhibit C shows a plug at 6130, I believe. Yes, there's a conflict in Exhibit B and Exhibit C.

Q Which is correct?

A Exhibit B shows the cast iron bridge plug at 5715. We propose to drill this out if necessary and utilize the cast iron bridge plug at 61 --

Q At 5261?

A --no, 6130.

Q That is not shown on your Exhibit B is it?

A No, sir.

Q That is shown on your Exhibit C?

A Yes.

Q You will utilize a cast iron bridge plug at that

point?

A Yes, I would like Exhibit B to be amended.

MR. NUTTER: Mr. Goodheart, so we can follow what you are talking about there, what are the refootages on Exhibit C? We have the sub-sea footages; would you give us what those are?

THE WITNESS: The top interval there is 3808 to 34; this is the interval we propose to squeeze in compliance with the request of Mr. Viersen. The second interval shown is 3962 to 92.

MR. NUTTER: So this minus 400, probably 4,000 foot line then?

THE WITNESS: Right.

MR. NUTTER: The next minus 8, would be 4800?

THE WITNESS: Is 5248 to 61.

MR. NUTTER: And then the next one?

THE WITNESS: There's another interval that is not shown on this Exhibit C. The perforations, 5960 to 6054.

MR. NUTTER: Now, this little cross on here, is that the bridge plug that's mislocated?

THE WITNESS: This is the cast iron bridge plug at 6136.

MR. NUTTER: And it will be drilled out?

THE WITNESS: It will remain in place.

MR. NUTTER: Oh, that one will remain in place?

THE WITNESS: Right; see, on Exhibit B, we had shown the cast iron bridge plug at 5715.

MR. NUTTER: So this is the one that is in error --

THE WITNESS: This is the one in error.

MR. NUTTER: This 5715 should be changed to 6130?

THE WITNESS: Right. The perforated interval from 5980 to 6054 is also not shown on Exhibit B.

MR. KELLAHIN: Did you have another question, Mr. Nutter?

MR. NUTTER: Then, the upper one on Exhibit C which is the one that Viersen objected to will be squeezed.

THE WITNESS: Yes, sir, we agreed to do this.

MR. NUTTER: O. K., proceed.

Q (By Mr. Kellahin) Now, referring to what has been marked as Exhibit D, would you identify that exhibit?

A Exhibit D is a list of productive formations within a two-mile radius of the proposed SWD well F-30.

Q You will be injecting into the San Andres, will you not?

A Yes, sir.

Q And you do have production from the San Andres?

A Yes, sir.

Q In your opinion, what will prevent the injection of water in your disposal well from interfering with production from other San Andres wells in the area?

A Our injection interval in the San Andres formation is well below the producing interval. We feel there are barriers between the producing formations and the proposed injection interval.

Q Are any of the wells listed on Exhibit D producing from the zone in which you propose to inject water?

A No, sir.

Q Now, referring to what has been marked as Exhibit E, would you identify that exhibit, please?

A Exhibit E, this is the application to dispose of salt water.

Q That is the application that was filed with the Commission, is that correct?

A Yes, sir.

Q And Exhibit F, would you identify that exhibit?

A The letter from Mr. Viersen dated August 9th, 1968, objecting to our proposed injection interval 3808 to 3834.

Q And you have stated that you have agreed to squeeze that zone?

A Yes.

Q Were Exhibits A through E prepared by you or under your supervision?

A Yes, sir.

Q And the Exhibit F is a copy of a letter you received from Mr. Viersen?

A Yes, sir.

MR. KELLAHIN: At this time, I would like to offer in evidence Exhibits A through F.

MR. NUTTER: Without objection, the Exhibits A through F will be admitted.

(Whereupon, Applicant's Exhibits A through F offered and admitted in evidence.)

Q (By Mr. Kellahin) Mr. Goodheart, what is the source of water you will be injecting into this?

A From the Hobbs-San Andres pool.

Q Is it a potable water?

A No, sir, salty.

Q What volumes will be disposed of?

A Approximately 1600 barrels a day; this will all be from the Hobbs-San Andres Pool.

Q That is the minimum you propose to inject in there, is that correct?

A Yes.

Q But will the well handle more water than that in your opinion?

A We think that this well will handle more water than this by gravity.

Q You anticipate it will take water on gravity?

A Yes, sir.

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

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Goodheart, do you have a tabulation there of the producing interval that the wells as shown on Exhibit D would be producing from?

A The Texaco 2-G which is shown on Exhibit C is perforated 4452 to 62, our perforated interval will be somewhat below that; 5248 to 5261 will be our top injection interval below this producing formation. The other wells, Gulf, Martindale 2-J, the Gulf well is producing from approximately the same interval. The Martindale-Davis is a Blinberry producer. It's open hole from 6388 to 6433.

MR. KELLAHIN: That would be below your bridge plug?

THE WITNESS: This is below our bridge plug and the proposed interval at --

Q (By Mr. Nutter) Let's put it this way, Mr. Goodheart.

When you get home, could you prepare a sub-sea perforated interval for each of the wells that is shown on Exhibit D and send it to us?

A Yes, sir.

Q That would be all the wells that are shown on Exhibit D and I presume these are all the wells within this two-mile area?

A Yes.

Q If you could send us a list of what each of the perforated intervals are, we would appreciate it.

A All right.

MR. NUTTER: Are you through with your direct?

MR. KELLAHIN: Yes.

Q (By Mr. Nutter) Mr. Goodheart, referring to your Exhibit B, it appears to have eight and five-eighths surface pipe at 1883 circulated, correct?

A Correct.

Q We have five and a half-inch pipe at 4464 circulated?

A Yes, sir.

Q Then there's a four-inch liner installed in here at 6480?

A Yes, sir.

Q And the top of the cement on it is at 5200?

A Yes.

Q So there is no cement from 5200 on up to the shoe of the five and a half-inch pipe?

A This is correct.

Q Now, you do have this high drill liner set. Now is there a liner hanger there and is that hanger pressure proof since there is no cement coming up into the five and a half-inch pipe?

A I am not familiar with how this well was completed or how the liner was hung.

Q Well, is it possible that any wells are completed in this pool in the interval between the top of the cement at 5200 and the four-inch, or the five and a half-inch casing shoe at 4464, because since there's not cement there, if it's not pressure proof, you could have some leakage into these other wells, if they are completed in that interval.

A Yes, sir.

MR. KELLAHIN: Are there other wells completed in that interval?

THE WITNESS: Well, they're around the 4400 foot interval, this is where some of the production is from in this pool.

Q (By Mr. Nutter) Can this be remedied in some way? Can you perforate that and squeeze that liner?

A We could pressure test the liner before completion, straddle this zone and pressure test it.

Q There still wouldn't be any assurance that it won't leak later, though. It appears they just didn't get enough cement in there on the four-inch when they ran it. They cemented it with 120 sacks, but it only came up to 5200.

A Well, it would be our promise to test this to see if it would stand a pressure test. We had no plans to perforate and squeeze behind the liner.

Q Well, what do you think of the proposition?

A Well, this would be an additional expense we wouldn't propose to go to. However, if it's the Commission's recommendation that we do this, I am sure that this would be done.

MR. NUTTER: Thank you. Does anyone have anything further from this witness?

MR. KELLAHIN: I have one question.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q Do you know how the top of the cement was determined as being at 5200 feet. Is that calculated or surveyed?

A This was a temperature survey.

MR. KELLAHIN: That's all I have.

MR. NUTTER: The applicant's exhibits will be admitted in evidence. Does anyone have anything further to offer in Case 3844? We will take the case under advisement.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

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

WITNESS my hand this 30th day of August, 1968.

Ada Dearnley
ADA DEARNLEY

I do hereby certify that the foregoing is
a true and correct record of the proceedings in
the public hearing of Case No. 3844
dated 8/21/68, at
New Mexico Oil Conservation Commission

I N D E X

WITNESS	PAGE
<u>L. B. GOODHEART</u>	
Direct Examination by Mr. Kellahin	2
Cross Examination by Mr. Nutter	11
Redirect Examination by Mr. Kellahin	15

<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's A through F	2	11

RICE Engineering & Operating, Inc.

Post Office Box 1142

Telephone (505) 393-9174

HOBBS, NEW MEXICO 88240

July 30, 1968

68 JUL 31 AM 8 35

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico 87501

Case 3844

Re: Rule 701, Injection of
Fluids into Reservoirs
(Salt Water Disposal)

Gentlemen:

Rice Engineering & Operating, Inc., of Hobbs, New Mexico, hereby applies for a hearing to be held before the New Mexico Oil Conservation Commission for the purpose of securing a permit under Rule 701 to recomplete the plugged and abandoned Humble Oil & Refining Company-S. E. Cain No. 1 well, located in the SE/4 NW/4 of Section 30, Township 18 South, Range 39 East, Lea County, New Mexico, as a salt water disposal well. The proposed disposal well will be known as the Rice Engineering & Operating, Inc. Hobbs East San Andres SWD Well F-30.

Rice Engineering & Operating, Inc. further deposes and states the following:

- A. That said well is located 1980 feet from the North line and 2310 feet from the West line of Section 30, Township 18 South, Range 39 East, N.M.P.M., Lea County, New Mexico. (See Exhibit A)
- B. That said well was drilled, plugged and abandoned as a dry hole and depleted San Andres producing well on July 11, 1966, by Humble Oil & Refining Company.
- C. That said well has 8-5/8" O.D. casing set at 1,883 feet, 5 1/2" O.D. casing set at 4,464 feet and a 4" O.D. liner from 4,317 feet to 6,480 feet. (See Exhibit B)
- D. That said well will be completed as a disposal well in the Queen-San Andres-Glorieta by (1) clean-out to the top of a C I bridge plug at 6,130 feet and (2) disposing of produced brine in the perforated intervals from 3,808'-34', 3,962'-92', 5,248'-61' and 5,980'-6,054'.

DOCKET MARKED

Date 8-8-68

Page 2 - NMOCC - July 30, 1968

- E. That the salt water to be injected is produced in the Hobbs East San Andres Pool.
- F. That the volume of salt water to be disposed shall be approximately 1,600 barrels per day.

Therefore, Rice Engineering & Operating, Inc. requests that the Secretary of the New Mexico Oil Conservation Commission set a date for this application to be heard, and after said hearing, to grant this permit to dispose of salt water in the Humble Oil & Refining Company-S. E. Cain No. 1 well. It is further requested that this hearing be set for August 21, 1968.

Respectfully submitted,

RICE ENGINEERING & OPERATING, INC.

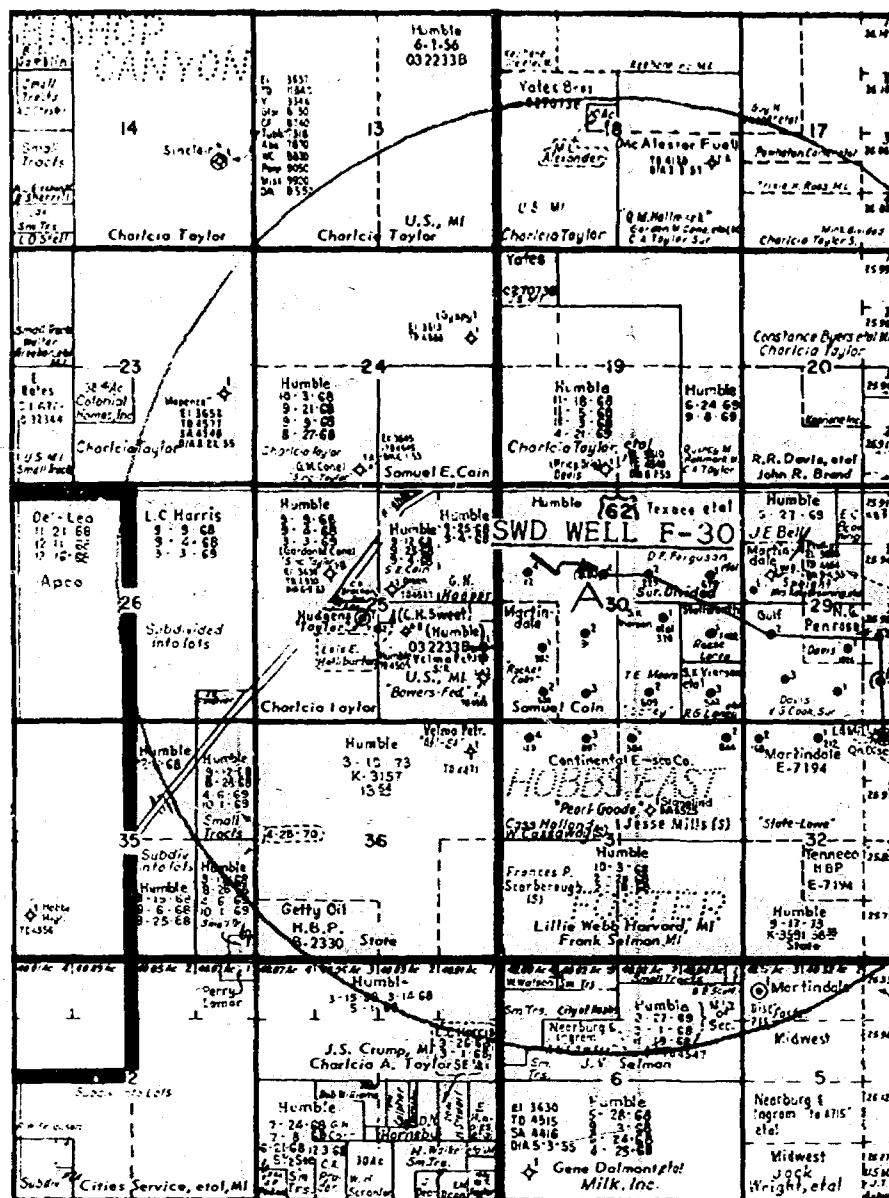
By: L. B. Goodheart
L. B. Goodheart
Division Manager

LBG/jp

Attachments: Exhibits "A", "B", "C" & "D"
Form C-108

R 38 E

R 39 E



T
18
S
L.C. Harris
Humble
Martindale
Davis
A'
N. Brunson, Jr.
& EE, Laughlin

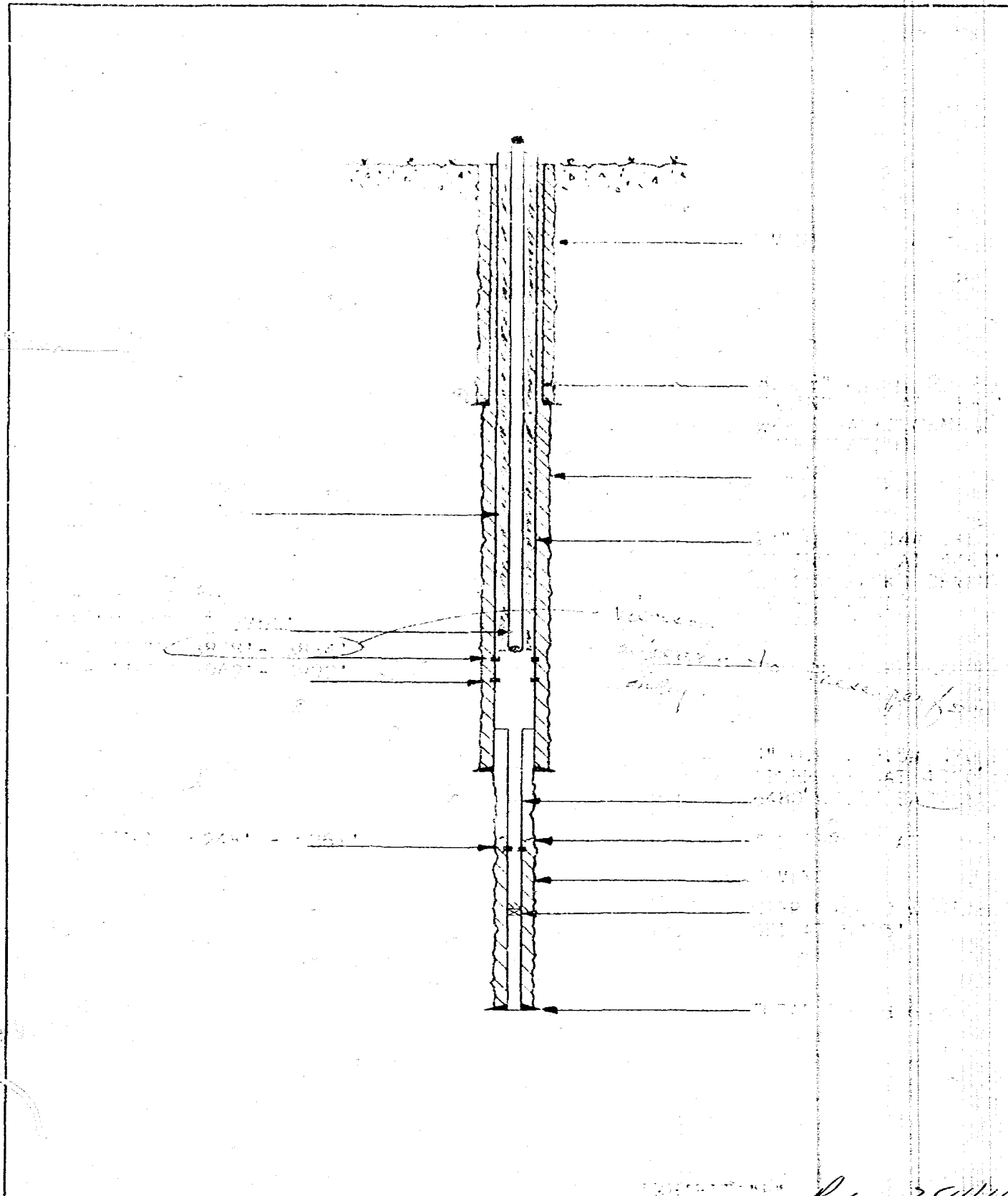
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LEA COUNTY, NEW MEXICO

EXHIBIT "A"

Case 3844

DWN	ACL	7-68	LOCATION PLAT HOBBS EAST SAN ANDRES SWD WELL F-30	SCALE 1" = 4000'
			Rice Engineering & Operating, Inc. Hobbs, New Mexico	DWG NO. A-421



DWN	4/2	1-10	Case 3844	SCALE
			Rice Engineering & Operating, Inc.	DWG NO.
			Hobbs, New Mexico	

EXHIBIT "D"

PRODUCTIVE FORMATIONS OF WELLS WITHIN A
TWO-MILE RADIUS OF PROPOSED HOBBS EAST SAN ANDRES SWD WELL F-30

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>FORMATION</u>
Brunson & Laughlin	State 32	1	Penrose
Continental- Emsco Co.	Pearl Goode	1	San Andres
"	" "	2	San Andres
"	" "	3	San Andres
"	" "	4	San Andres
Gulf	Davis	1	San Andres
"	"	2	San Andres
"	"	3	San Andres
Humble	Samuel Cain	2	San Andres
"	" "	3	San Andres
Martindale	Rocket Cain	1	San Andres
"	" "	2	San Andres
"	Davis	1	San Andres
"	"	2	Blindbry
"	Ralph Lowe State	1	San Andres
"	" "	2	San Andres
"	Foster	1	San Andres
Penrose	Davis	1	San Andres
Stallworth	Reese	1	San Andres
Texaco	Ferguson	1	San Andres
"	"	2	Queen
Viererson	Laney	1	San Andres
"	"	2	San Andres
"	"	3	San Andres

Page 3844

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

OPERATOR Rice Engineering & Operating, Inc.		ADDRESS Box 1142, Hobbs, New Mexico 88240			
LEASE NAME Hobbs East San Andres SWD	WELL NO. F-30	FIELD Hobbs East San Andres	COUNTY Lea		
LOCATION UNIT LETTER <u>F</u> ; WELL IS LOCATED <u>2310</u> FEET FROM THE <u>West</u> LINE AND <u>1980</u> FEET FROM THE <u>North</u> LINE, SECTION <u>30</u> TOWNSHIP <u>18 South</u> RANGE <u>39 East</u> NMPM.					
CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	8-5/8"	1883'	900	circulate	
INTERMEDIATE	5 1/2"	4464'	1200	circulate	
Liner	4"	4317' to 6480'	120	5200'	temperature survey
TUBING	2 1/2"	3750'	NAME, MODEL AND DEPTH OF TUBING PACKER		
NAME OF PROPOSED INJECTION FORMATION Queen-San Andres-Glorieta		TOP OF FORMATION 3808'		BOTTOM OF FORMATION 6054'	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES Perforations		PROPOSED INTERVAL(S) OF INJECTION 3808'-3814', 3962'-3992', 5248'-5261' & 5980'-6054'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil well		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 4462'-4474' squeezed w/100 sacks of cement					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 200'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 3810'		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA 6388'	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.)	MINIMUM 1600	MAXIMUM 2200	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Gravity	APPROX. PRESSURE (PSI) -
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNSUIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE Yes			WATER TO BE DISPOSED OF Yes		
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Verdie E. Humble, Sterling City, Texas; Ellis V. Cain, Mountaineer, New Mexico; Lavita Joy Sullivan, Norman, Oklahoma			NATURAL WATER IN DISPOSAL ZONE Yes		
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-8) Yes			ARE WATER ANALYSES ATTACHED? No		
PLAT OF AREA Yes			ELECTRICAL LOG No		
THE NEW MEXICO STATE ENGINEER No			DIAGRAMMATIC SKETCH OF WELL Yes		
I hereby certify that the information above is true and complete to the best of my knowledge and belief.					
(Signature) L. B. Goodheart			Division Manager		July 30, 1968
			(Title)		(Date)

NOTE: Should waivers 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.

RICE Engineering & Operating, Inc.

Post Office Box 1142

Telephone (505) 393-9174

HOBBS, NEW MEXICO 88240

August 26, 1968

New Mexico Oil Conservation Commission
P. O. Box 2083
Santa Fe, New Mexico 87501

Attention: Mr. Van Meter

Re: Case 3844 and 3845

Gentlemen:

At hearing of Case 3844 and 3845, conducted August 21, 1968, it was requested that Rice Engineering furnish sub-sea elevations for producing formations shown on our Exhibit "D" presented at the hearing. Attached are the requested sub-sea elevations for Hobbs East San Andres SWD (Case 3844) and Justis SWD (Case 3845). For wells where elevations were not available, the producing interval is shown.

During the examination for Case 3844, the question of how the 4-inch liner was installed or hung in the proposed SWD well was asked by the examiner. Additional information obtained from Humble Oil & Refining Company well files shows that subject liner was set from 4,320 feet to 6,480 feet. The liner was hung @ 4,320 feet with a TLW Type "D" hanger and TLW Type "D" packer with hold downs. The liner was tested to 4200 psi for 30 minutes with no drop in pressure. As stated at the hearing, we would test the liner to whatever pressure the Commission requires.

We hope that this additional information satisfactorily answers your questions concerning the subject cases and that it will expedite the approval of our SWD application. If we have inadvertently omitted anything, please advise.

Respectfully submitted,

RICE ENGINEERING & OPERATING, INC.

ORIGINAL SIGNED BY

L. B. GOODHEART
L. B. Goodheart
Division Manager

LBG/jp

Attachments

EXHIBIT "D"

PRODUCTIVE FORMATIONS OF WELLS WITHIN A
TWO-MILE RADIUS OF PROPOSED HOBBS EAST SAN ANDRES 379 WELL C-30

COMPANY	LEASE	WELL NO.	FORMATION
Brunson & Laughlin	State 32	1	Penrose -358 to -334'
Continental-Emsco Co.	Pearl Goode	1	San Andres -832 to -849'
"	" "	2	San Andres -820 to -849'
"	" "	3	San Andres -854 to -860'
"	" "	4	San Andres -864 to -867'
Gulf	Davis	1	San Andres -822 to -874'
"	"	2	San Andres -822 to -873'
"	"	3	San Andres -811 to -861'
Humble	Samuel Cain	2	San Andres -834 to -846'
"	" "	3	San Andres -828 to -850'
Martindale	Rocket Cain	1	San Andres -834 to -855'
"	" "	2	San Andres -842 to -852'
"	Davis	1	San Andres -855 to -940'
"	"	2	Blinbry -2795 to -2840'
"	Ralph Lowe State	1	San Andres -828 to -875'
"	" "	2	San Andres -818 to -866'
"	Foster	1	San Andres -862 to -868'
Penrose	Davis	1	San Andres -844 to -858'
Stallworth	Reese	1	San Andres - 792 to -845'
Texaco	Ferguson	1	San Andres -834 to -857'
"	"	2	Queen 3790 - 3810' El. not available
Vierzon	Laney	1	San Andres -774? to -829'?
"	"	2	San Andres -791 to -841'
"	"	3	San Andres -786 to -841'

Memo

From
D. S. NUTTER
CHIEF ENGINEER

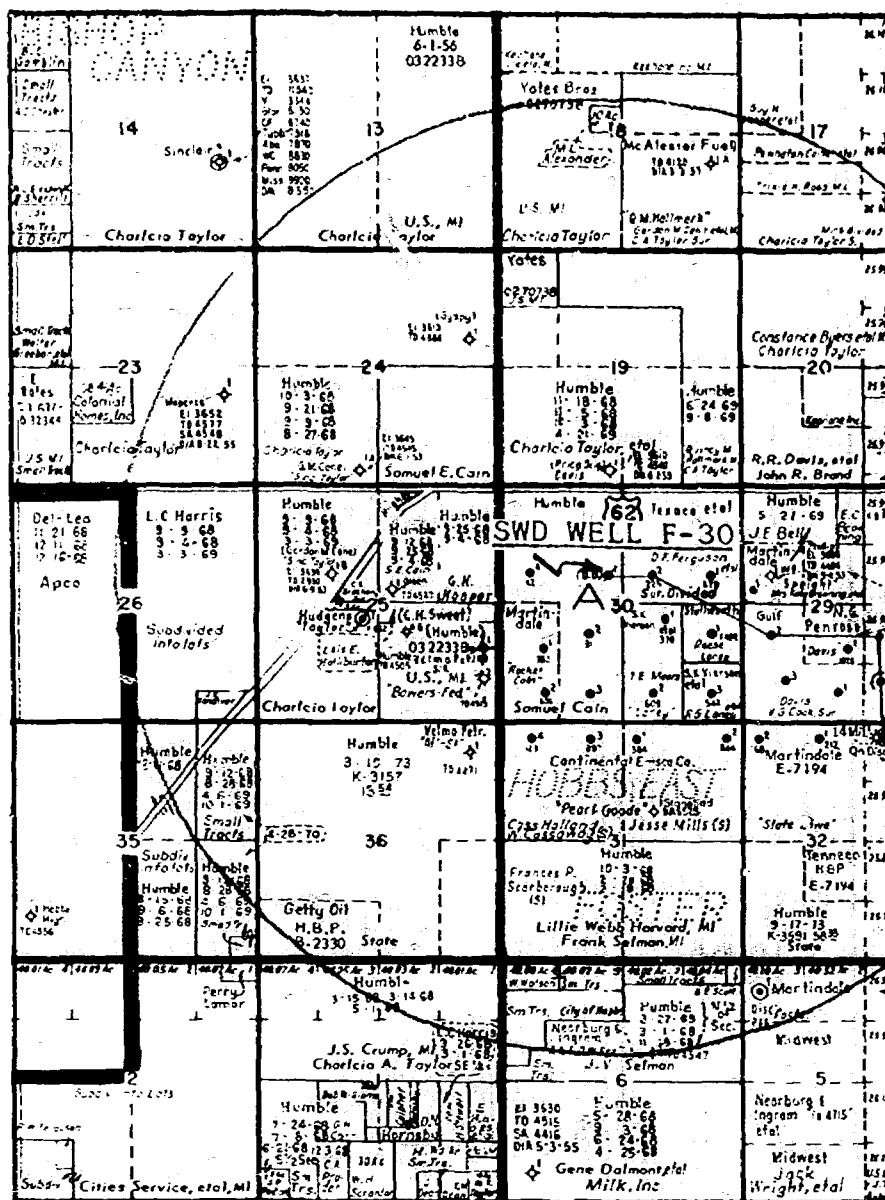
To File -

Talked w/ Joe Ramsey
re Rice Engrg's request that
they not be required to
squeeze the 4" liner.

Told Joe that pursuant
to Rice 1303 he should advise
Rice that we would
not require the liner to be
cemented provided that both
Queen perfs were squeezed
and that tubing be set in
a packer at 5225' (halfway
between top cement and uppermost
perf) also that the annulus must
be loaded w/ inert fluid and capped
with a gage.

R 38 E

R 39 E



T
18
S
L.C. Harris
Humble
Martindale
Davis

A
N. Brunson, Jr.
& E.E. Laughlin

T
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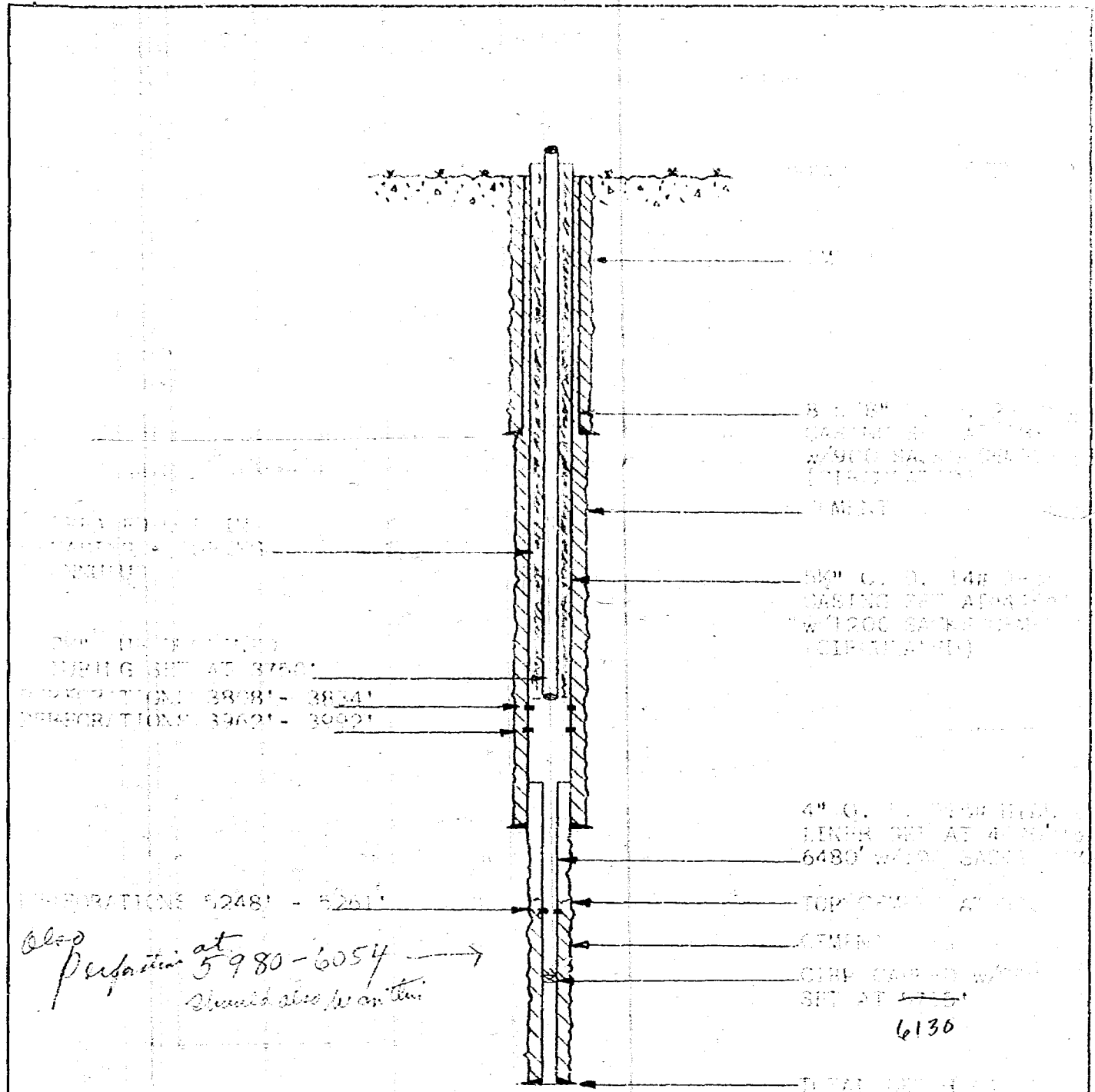
LEA COUNTY, NEW MEXICO

PLAT EXAMINED BY

app. A
CASE NO. 3844

EXHIBIT "A"

DWN	ACL	7-68	LOCATION PLAT HOBBS EAST SAN ANDRES SWD WELL F-30	SCALE 1" = 4000'
			Rice Engineering & Operating, Inc. Hobbs, New Mexico	DWG NO. A-421



*Also
perforations at 5980-6054
should also be on this*

BEFORE EXAMINED MUTTER

CL. APP EXAM. NO. B

CASE NO. 3644

EXHIBIT "B"

DWN	AJA	7-68	PRODUCED BY RICHARD N. HOBBS PART 244 ANDREW HOBBS DRILL #30	SCALE 1" = 10'
			Rice Engineering & Operating, Inc. Hobbs, New Mexico	DWG NO. A-425

BEFORE EXAMINER NUTTER

CIL CONCENTRATION OF 1.1

EXAMINER NO. C

CASE NO. 3844

at 6130

Proposed
Infection zone

DWN	11A	7-52

HOBBS DIST. SAN. DEPT. OF P.W.
HOBBS, N.M.
Cross-section A-A'
Rice Engineering & Operating, Inc.
Hobbs, New Mexico

SCALE
DWG NO.

PROCEEDINGS OF THE BOARD OF EXAMINERS FOR THE STATE OF TEXAS
 P-20

NAME	STATE	VEHICLE NO.	EXAMINATION
Continental	State 32	2	Pearce
Exsco Co.	Pearl Cooke	1	San Andres
"	" "	2	San Andres
"	" "	3	San Andres
"	" "	4	San Andres
Gulf	Davis	1	San Andres
"	"	2	San Andres
"	"	3	San Andres
Humble	Samuel Cain	2	San Andres
"	"	3	San Andres
Martindale	Rocket Cain	1	San Andres
"	"	2	San Andres
"	Davis	1	San Andres
"	"	2	Blindery
"	Ralph Lowe State	1	San Andres
"	"	2	San Andres
"	Zoster	1	San Andres
Pearce	Davis	1	San Andres
Stallworth	Reese	1	San Andres
Texaco	Ferguson	1	San Andres
"	"	2	Queen
Vickson	Laney	1	San Andres
"	"	2	San Andres
"	"	3	San Andres

EXAMINER NUTTER
 EXP. NO. 3844
 CASE NO. 3844

MILLER ENGINEERING & GEOLOGICAL CO.

POST OFFICE BOX 417

ZIP CODE 88240

HOBBS, NEW MEXICO

August 19, 1968

Rice Engineering & Operating, Inc.,
Broadmoor Building
Hobbs, New Mexico

Attn: Mr. Loy Goodheart

Dear Sir:

As agent for Sam K. Viersen in the matter of produced water disposal in the East Hobbs Field I am protesting the input of produced salt water through a perforated section between depths of 3808 feet and 3834 feet in the former Humble Oil & Refining Company #1 Sam Cain, located in unit F section 30, township 18 South, range 39 East, Lea County, New Mexico.

It seems apparent that input of waste water into the above described section will, at the present time, prove detrimental to successful production of oil from a corresponding zone in the Sam K. Viersen #2 Laney, located in the E $\frac{1}{2}$ SW $\frac{1}{4}$ of the above mentioned section 30.

A drill stem test was taken during August of 1953 on Laney #2 between depths of 3769 feet and 3787 feet. Results of said test; which follow; will offer evidence to support the protest made herein. The tool on this test was open 185 minutes. Gas came to the surface in 15 minutes and oil followed after tool had been opened 31 minutes. Flow was diverted to pits for 34 minutes then turned into test tanks for 2 hours. During this 2 hour period the well flowed 131 barrels of oil with a daily gas volume of 488,000 cubic feet. Initial bottom hole flow pressure was 600 pounds and final bottom hole flow pressure was 1252 pounds. A final 30 minute bottom hole shut in pressure showed 1489 pounds. Gravity of oil was 32 degrees.

In order to protect the oil reserve around Viersen #2 Laney we believe that the proposed input zone in the former Humble Oil & Refining Company #1 Sam Cain; between depths of 3808 feet to 3834 feet; should be squeezed off and that positive tests thereafter be made to prove that said zone has been isolated from any possible input of water, or other waste material.

Your fullest cooperation in this matter will be appreciated.

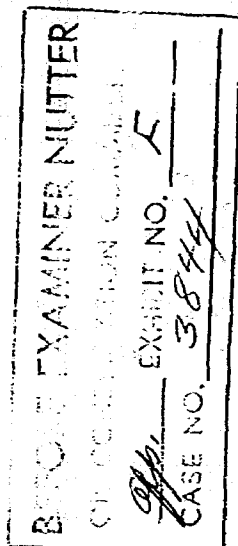
cpm.
cc:

Sam K. Viersen
Okmulgee, Oklahoma

Yours very truly,

Charles P. Miller
Charles P. Miller

Acting Agent for Sam K. Viersen



RECEIVED

AUG 19 1968

RISE ENGINEERING & OPERATING, INC.