

Case No.

1530

Application, Transcript,  
Small Exhibits, Etc.

CHAS. E. RICE Engineering & Operating  
Inc. 100 West Madison St. Water Division  
well through the E. 12th St. well 22-22-22  
215-30E.

**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. 1530  
Order No. R-1269**

**APPLICATION OF RICE ENGINEERING AND  
OPERATING, INC., FOR AN ORDER AUTHORIZING  
A SALT WATER DISPOSAL WELL IN SECTION 32,  
TOWNSHIP 31 SOUTH, RANGE 36 EAST, NMPN,  
LEA COUNTY, NEW MEXICO.**

**ORDER OF THE COMMISSION**

**BY THE COMMISSION:**

This cause came on for hearing at 9 o'clock a.m. on October 23, 1958, at Santa Fe, New Mexico, before Elvis A. Uts, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 28<sup>th</sup> day of October, 1958, the Commission, a quorum being present, having considered the application, the testimony adduced and the recommendations of the Examiner, Elvis A. Uts, 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 and Operating, Inc., seeks an order authorizing the disposal of produced salt water in the San Andres formation through the E-P-E SWD Well No. A-32 to be located 1380 feet from the North line and 1320 feet from the East line of Section 32, Township 21 South, Range 36 East, NMPN, Lea County, New Mexico, with the proposed injection zone from 4250 feet to 4600 feet.

(3) That the applicant should be required to fill the casing-tubing annulus with "sweet" oil as a protective measure.

(4) That the 9 5/8-inch casing should be cemented to the surface and that the 7-inch casing should be cemented back into the annulus between it and the 9 5/8-inch casing.

-2-

Case No. 1530  
Order No. R-1289

(6) That the subject application is in the interest of conservation and should be granted subject to the foregoing conditions:

IT IS THEREFORE ORDERED:

1. That the applicant, Rice Engineering and Operating, Inc., be and the same is hereby authorized to dispose of produced salt water into the San Andres formation through the E-M-E SWD Well No. A-22 to be located 1320 feet from the North line and 1320 feet from the East line of Section 32, Township 21 South, Range 36 East, NEPM, Lea County, New Mexico.

PROVIDED HOWEVER, That the casing-tubing annulus shall be kept full of "sweet" oil to prevent corrosion, and

PROVIDED FURTHER, That the 9 5/8-inch casing shall be cemented to the surface and that the 7-inch casing shall be cemented back into the annulus between it and the 9 5/8-inch casing.

2. That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1119 of the Commission's Rules and Regulations.

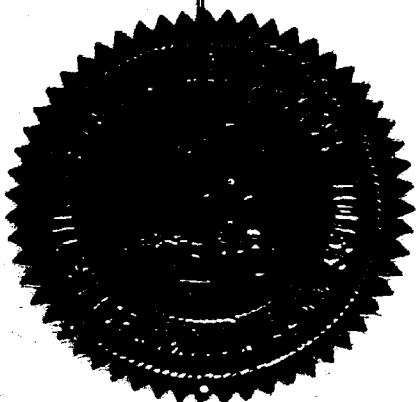
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
EDWIN L. MECHEM, Chairman

  
MURRAY E. MORGAN, Member

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



12/

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

IN THE MATTER OF:

Case No. 1530

TRANSCRIPT OF HEARING

October 22, 1958

DEARNLEY - MEIER & ASSOCIATES  
GENERAL LAW REPORTERS  
ALBUQUERQUE NEW MEXICO  
Phone CHapel 3-6691

2

BEFORE THE  
OIL CONSERVATION COMMISSION  
October 22, 1958

-----:  
IN THE MATTER OF: :

Application of Rice Engineering & Operating, Inc.:  
for an order authorizing a salt water disposal :  
well. Applicant, in the above-styled cause, :  
seeks an order authorizing the disposal of pro- :Case 1530  
duced salt water through its E-M-E SWD Well No. :  
A-32 to be located 1320 feet from the North and :  
East lines of Section 32, Township 21 South, :  
Range 36 East, Lea County, New Mexico. Appli- :  
cant proposes to inject the produced salt water :  
into the San Andres formation in the interval :  
from 4250 feet to 4600 feet. :  
-----:

Mabry Hall  
Santa Fe, New Mexico

BEFORE:

Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: The next case on the docket will be Case 1530.

MR. PAYNE: Case 1530, "Application of Rice Engineering  
& Operating, Inc. for an order authorizing a salt water disposal  
well."

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, Santa Fe,  
appearing in behalf of the applicant. We will have one witness,  
Mr. Abbott.

(Witness sworn in).

W. G. ABBOTT

called as a witness, having been first duly sworn, testified as

follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q State your name, please?

A W. G. Abbott.

Q By whom are you employed, Mr. Abbott?

A Rice Engineering and Operating, Inc., in Hobbs.

Q What is your position?

A Division manager.

Q Mr. Abbott, have you previously testified before this Commission as an expert petroleum engineer and have your qualifications been accepted?

A Yes, sir.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. UTZ: Yes sir, they are.

Q (By Mr. Kellahin) Mr. Abbott, are you familiar with the application in Case Number 1530?

A Yes sir, this application is an application to drill a salt water disposal well in the northeast quarter of Section 32, Township 21 South, Range 36 East to dispose of the water in the San Andres formation.

Q Now, referring to what has been marked as Exhibit A, would you state what that shows?

A Exhibit A is a plat showing the area surrounding this proposed disposal well. There is a half mile radius marked on this

exhibit showing the wells that are within a half a mile of the proposed salt water disposal well and also a cross section, "AA" prime, is marked on this plat and that will be taken up on a later exhibit.

Q Now, is there any particular reason for this high spot location which is indicated on the plat, Mr. Abbott?

A Yes, this disposal will be on the Cities Service State "B" lease and they wanted this salt water disposal located such that in the future if we wanted to convert it for water flood purposes, by plugging back and coming into the Queen formation, we could.

Q Now, the exhibit likewise shows the lease ownership according to your best information?

A Yes, sir.

Q Referring to what has been marked as Exhibit B, will you state what that shows?

A Exhibit B is a proposed--it's a diagramatic sketch of the proposed casing program for this well. You will notice that they have the nine and five eighths inch casing set at fifteen hundred feet and we propose to circulate the cement to the surface and then set the seven-inch casing at 4250 and then complete the salt water disposal well on that hole from 4250 to 4600.

Q Will that type of casing program, in your opinion, adequately protect any fresh water zones which might be penetrated by this well?

A Yes sir, and then we will equip this salt water disposal well with tubing string and behind that tubing string we will put a light oil, sweet oil, so that it will protect the outside tubing string and the inside of the casing and we believe with that method of completion, there will be no danger to the fresh water or to the casing.

Q Will that type of completion by the use of tubing and filling the annular space with a sweet oil give you a better control over your injection well?

A Yes sir, we believe that by completing our salt water disposal wells in this manner, that we can put a pressure gauge on the tubing casing annulus and by watching the pressure in relation to the volumes injected, that we can determine when the wells or well is plugged up, or if we get any leaks in the future, we will notice it on the pressure gauge immediately.

Q Referring to what has been marked as Exhibit C, would you state what that shows?

A Exhibit C is a cross section, a completion cross section. It shows up on this Exhibit A as AA prime and this shows the wells that are on this cross section, AA prime, and it shows where those wells are completed and also shows where the salt water disposal well, A-32, will be completed.

Q There are no completions at that depth at the present time?

A No sir, all the wells in that area are in the Eumont pool and most of them are completed either in the Seven Rivers or

Queen formation.

6

Q Referring to what has been marked as Exhibit D, would you state what that shows?

A That is a tabulation of all the wells in that half mile radius that is drawn on Exhibit A, and it also shows the completion interval, subsea completion interval, and the completion zone of all the wells in that circle.

Q You are referring to the circle which appears on Exhibit A?

A Yes, sir.

Q Actually, there is no production from the San Andres formation for a considerable distance, is that correct?

A That is right. I don't know exactly how close the closest San Andres formation is produced in that area, but it is a considerable distance.

Q It would be in excess of two miles?

A Yes, sir.

Q Now, referring to what has been marked as Exhibit E, would you state what that is?

A Exhibit E is a list of all the operators with addresses that belong to this Eunice-Monument-Eumont salt water disposal system.

Q Rice Engineering and Operating, Inc., is designated as the operator of the salt water disposal system, is that correct?

A Yes, sir.

Q And you are appearing then as an operator of the salt water disposal system in this case?

A Yes, sir.

Q Now, referring to what has been marked as Exhibit F, would you state what that shows?

A Exhibit F is an agreement between Cities Service Oil Company and Rice Engineering and Operating, Inc., setting out certain things that both companies are agreed on for making that salt water disposal well on the Cities Service State B lease.

Q The well then will be drilled by Cities Service?

A Yes sir, Cities Service agreed to drill the well and then sell it to Rice Engineering for the operators in this E-M-E SWD System.

Q At the present time, do you have any log on the San Andres formation available in this area?

A No sir, I do not have a log. We will furnish the Commission with one when we drill the well.

Q What volumes of water do you propose to dispose of in this well?

A We propose to dispose of approximately 15,000 barrels a day in this well.

Q What is the source of this water?

A Well, it will be the Eumont Pool and the Eunice Pool waters, and I believe that's all, the two pools.

Q Has an analysis been run on these waters?

A Yes, we do have an analysis.

Q And in your opinion, they are not potable waters?

A No, they are not potable.

Q And in your opinion, is it necessary that a disposition of this type be made of that water --

A Yes, sir.

Q In the interests of conservation?

A Yes, sir.

Q In your opinion, is the formation you propose to inject this water into, of sufficient permeability and porosity to handle the volumes of water contemplated?

A From all the information we can gather, the San Andres formation will be the best disposal formation in this area. It is very porous, it is a limestone so that it can be acidized at intervals to increase its injectivity and there have been wells in this general area completed in the San Andres for disposal wells, but not in the immediate area.

Q Have those wells been effective as disposal wells?

A Yes, they have been very effective. Pan American has a well in the Hobbs pool that was tested at 909 barrels an hour by gravity into the San Andres formation, and there are two others, two or three other wells completed there in the San Andres formation for disposal.

MR. KELLAHIN: That's all the questions I have, Mr. Examiner.

MR. UTZ: Do you wish to introduce your exhibits?

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

MR. UTZ: Without objection, the exhibits will be accepted. Are there questions of the witness?

MR. FISCHER: Yes, sir.

MR. UTZ: Mr. Fischer?

CROSS EXAMINATION

BY MR. FISCHER:

Q Mr. Abbott, you think you can get your 15,000 barrels per day into that well under gravity?

A Yes, we feel that if the San Andres is as porous in that area as we think it is, we will be able to get 15,000 barrels a day.

Q As I understand your tubing program, you are going to set a packer and sweet oil above in the --

A No, we will not set a packer. We will just set the tubing and load the annular space with sweet oil.

Q What size tubing?

A We will probably use five-inch casing as tubing.

MR. FISCHER: That's all.

CROSS EXAMINATION

BY MR. UTZ:

Q You say you will use seven-inch casing as tubing?

A No, the seven-inch casing will be the case and then we will use five-inch casing as a tubing string.

Q Five-inch casing?

A Yes, sir.

MR. UTZ: Mr. Irby?

MR. IRBY: Frank Irby, State Engineer's Office.

CROSS EXAMINATION

BY MR. IRBY:

Q On your Exhibit B, Mr. Abbott --

A Yes, sir?

Q Does the cement in the annulus around your seven-inch casing extend into the annulus between that casing and the nine and five eighths?

A Yes, it will probably come up and cover that annulus, too.

Q Is this 1500 feet at which the nine and five eighths sets below any known fresh waters?

A Yes sir, it is.

MR. IRBY: Thank you.

MR. UTZ: Any other questions of the witness?

(No response).

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Abbott, this sweet oil that you are going to use for taking protective measures, will that just be in the annulus above the salt water?

A That is right, it will be on top of the salt water.

Q And you will put a pressure gauge on that at the surface?

A Yes, sir. When the pressure increases for a known volume injected, or known rate injected, it will rate your pressure. If the pressure increases, then you know that the formation is plugged up.

Q How would you be able to determine from that pressure whether it was the formation that was plugged up or the casing?

A Well, if you had a casing leak, your pressure would drop. It would --

Q And if it builds up, the formation is plugging up?

A Yes, sir.

Q In the event there is oil or gas going through the casing, the pressure would still drop, wouldn't it?

A Yes, sir.

Q What is the top of the San Andres zone in this section?

A Let me see --

Q Your Exhibit Number C, does that show the top of your permeable zone?

A No, that's the top of the permeable in that area. Let's see if we have it on this other--we estimate the top at approximately 4200 feet.

Q There is no production, I believe you said, between the first producing zone above this, which would be the Queen, is that right?

A That is right.

Q And there is no production between the Queen and the area that you intend to dispose at?

A No, sir.

Q What is the next producing horizon below the San Andres zone that you intend to dispose of?

A In that area, I don't think there is any production below that. To the west, oh, five or six miles, it would probably be the Drinkard Pool.

Q And in your opinion, there would be no communication between this San Andres disposal zone and the Drinkard zone that is nearest to this area?

A No, sir.

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

(No response).

MR. UTZ: If not, the witness may be excused.

(Witness excused).

MR. UTZ: Are there any other statements to be made in this case?

(No response).

MR. UTZ: If there are none, the case will be taken under advisement.

Let's take a ten-minute recess.

(Short recess).

I, JERRY MARTINEZ, 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 in stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record, to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 24th day of October, 1958,  
in the City of Albuquerque, County of Bernalillo, State of New  
Mexico.

Notary Public

My Commission Expires:  
January 24, 1962

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 1530,  
heard by me on October 22, 1958.  
*[Signature]*  
Examiner  
New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION  
P. O. BOX 871  
SANTA FE, NEW MEXICO

October 29, 1958

C  
O  
P  
Y

Mr. Jason Kellahin  
Kellahin & Fox  
Box 1713  
Santa Fe, New Mexico

Dear Mr. Kellahin:

On behalf of your client, Rice Engineering and Operating, Inc., we enclose two copies of Order R-1269 issued October 28, 1958, by the Oil Conservation Commission in Case 1530, which was heard on October 22nd at Santa Fe before an examiner.

Very truly yours,

A. L. Porter, Jr.  
Secretary - Director

bp  
Encls.

*Order Mailed to  
Frank L. Kellahin  
10-29-58 SP*

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Date 10-23-55

CASE NO. 1530

HEARING DATE 10-22-55

My recommendations for an order in the above numbered case(s) are as follows:

1. Approve Rice Eng. & Operating Inc. SWD well as requested.
2. Sweep oil in annulus for casing-tubing protection.
3. 9 5/8" ~~to the~~ casing cemented to surface and 7" liner cemented back into 9 5/8" x 7" Annulus. 8
4. Injection shall be thru 5" casing to T.D.



Staff Member

Case 153C

**MAURICE Engineering & Operating, Inc.**

1958 SEP 12

Post Office Box 1142

Telephone EXpress 3-9174

AM 8:55 HOBBS, NEW MEXICO

September 12, 1958

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

Re: Rule 701. Permit for  
Injection of Water  
(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 drill and complete a salt water disposal well on the Cities Service Oil Company State "D" lease in Section 32, Township 21 South, Range 36 East, Eumont Field, Lea County, New Mexico. The proposed disposal well will be known as Rice Engineering & Operating, Inc., E-M-E SWD Well A-32.

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

- A. That said well is to be located 1320 feet from the North Line and 1320 feet from the East Line of Section 32, Township 21 South, Range 36 East, N.M.P.M. (See Exhibit "A")
- B. That said well will be drilled through the porous zone of the San Andres formation.
- C. That said well will have 9 5/8" OD 36# H-40 SS casing set on the Anhydrite at approximately 1500 feet and cement circulated. Seven inch OD J-55 SS casing will be set and cemented at approximately 4250 feet, with total depth of 4600 feet. (See Exhibit "B")
- D. That said well by agreement between Rice Engineering & Operating, Inc. and Cities Service Oil Company shall be drilled under the supervision of Cities Service Oil Company and upon completion shall be turned over to

*Docket mailed  
10-8-58  
BP*

*4w. This given complete set  
of exhibits & copy of application  
10-23-58 E.P.*

N.M.O.C.C.

-2-

September 12, 1958

Rice Engineering & Operating, Inc. to utilize as a disposal well for the Eunice - Monument - Eumont Salt Water Disposal System.


- E. That the salt water to be injected is produced in the Eunice and Eumont Pools.
- F. That the volume of salt water to be disposed shall be approximately 15,000 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 Rice Engineering & Operating, Inc., E-M-E SWD Well A-32.

Respectfully submitted,

RICE ENGINEERING & OPERATING, INC.

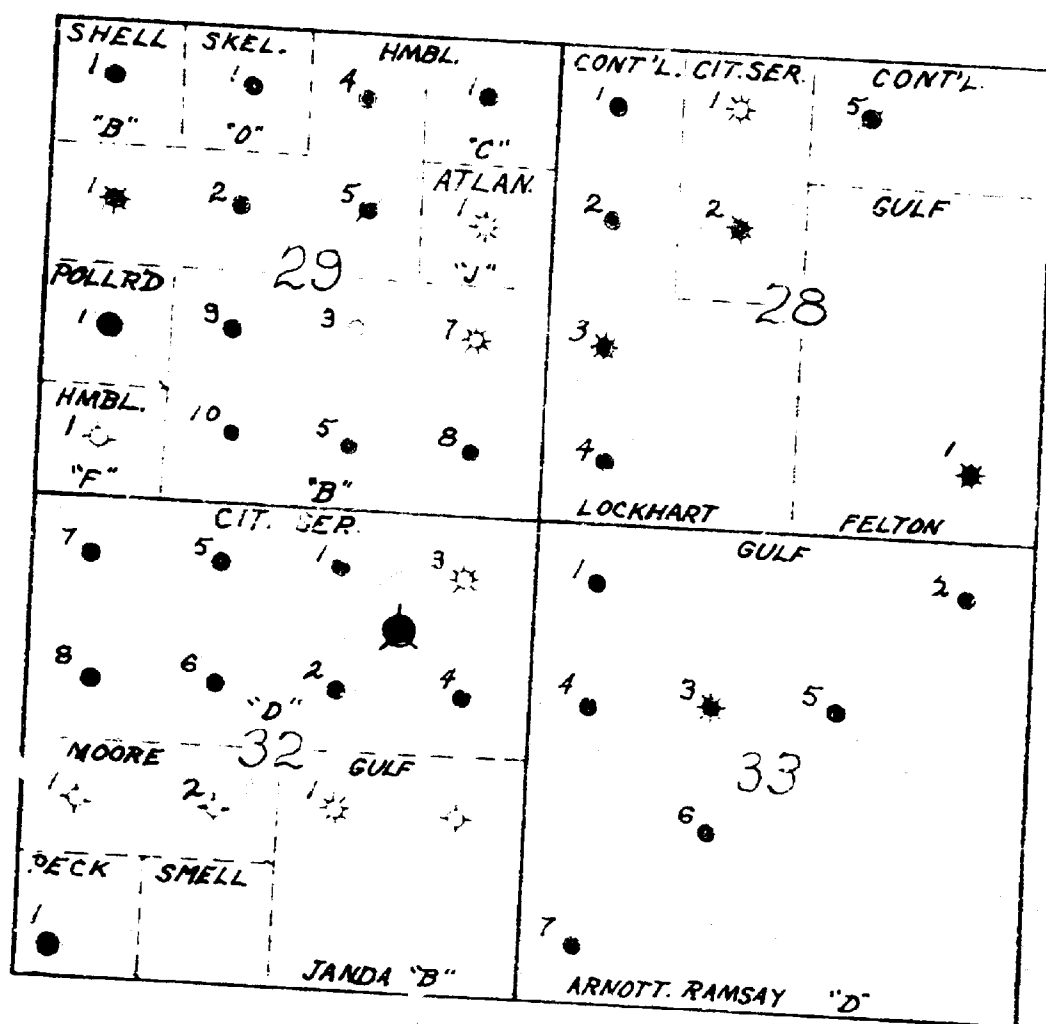
BY

  
BENJAMIN I. ROUTH  
General Manager

IMR/js

Attachments:

Exhibit "A"  
Exhibit "B"



T 21 S

R 36 E

EXHIBIT A APPLICATION FOR HEARING			SCALE 1"=2000'
DWN	D.B.	9/12/53	
RICE ENGINEERING & OPERATING INC. EME NOA32 PROPOSED SWD WELL LOCATION			DWG NO. A-18
Rice Engineering & Operating, Inc. Hobbs, New Mexico			

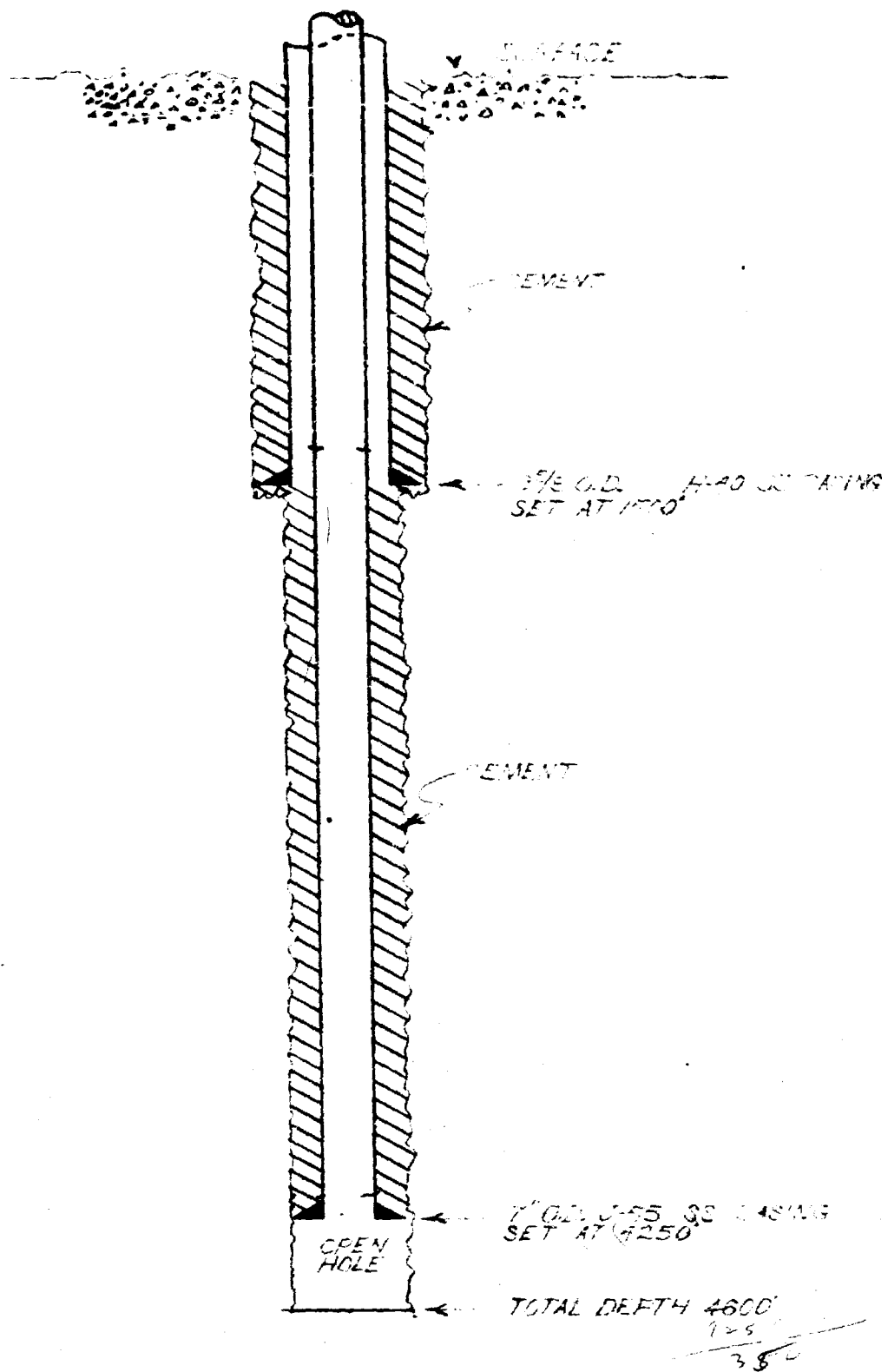


			EXHIBIT B APPLICATION FOR HEARING	
DWN	DATE	PAGE	RICE ENGINEERING & OPERATING INC.	
			EME NO-A-32	
			PROPOSED COMPLETION	
			Rice Engineering & Operating, Inc.	
			Hobbs, New Mexico	
			SCALE	DWG NO.
			NONE	A-19

**CLASS OF SERVICE**  
This is a fast message  
unless its deferred char-  
acter is indicated by the  
proper symbol.

# WESTERN UNION TELEGRAM

W. P. MARSHALL, President

**SYMBOLS**  
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NL=Night Letter  
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Letter Telegram

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

LA119 SSH182

1938 OCT 17 PM 3:00

L HBA069 PD=HOBBS NMEX 17 211PM=

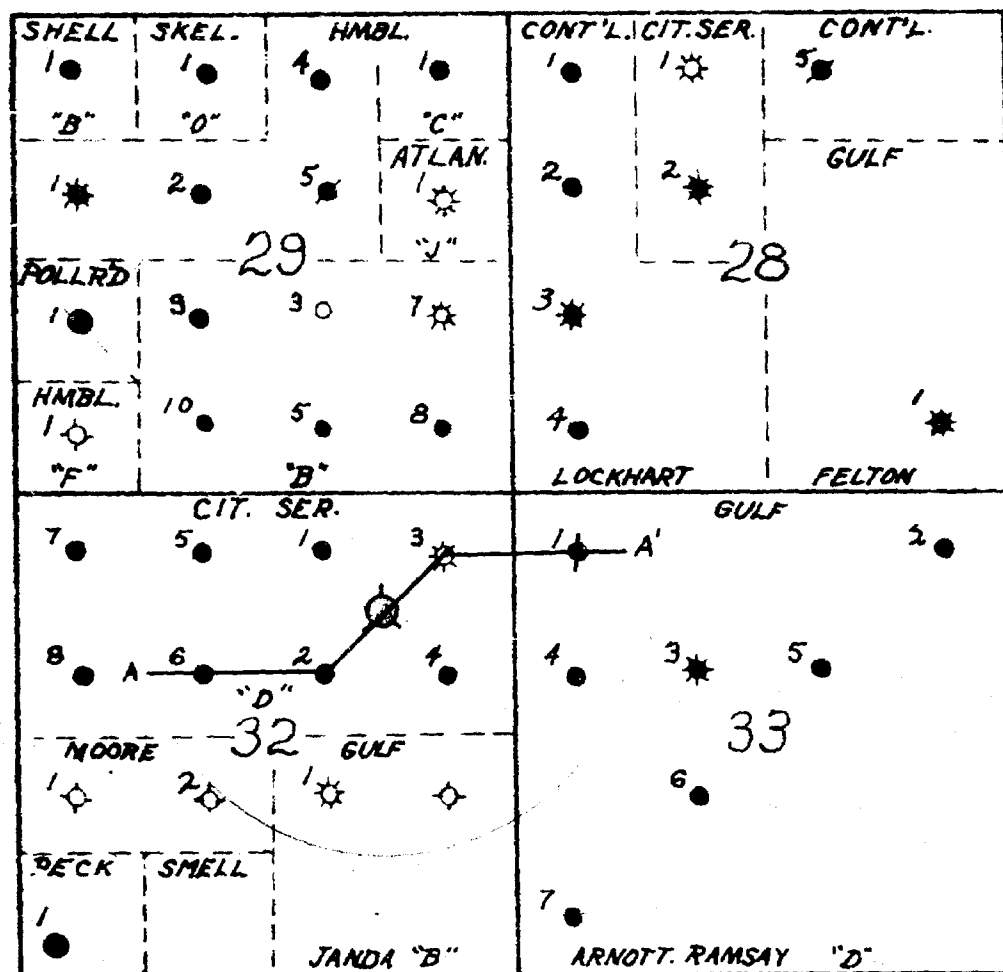
NEW MEXICO OIL CONSERVATION COMMISSION=

BOX 871 ATTN ELVIS UTZ SANTA FE NMEX=

=REFER CASE 1530 CITIES SERVICE OIL COMPANY HAS GIVEN  
RICE ENGINEERING AND OPERATING COMPANY INCORPORATED  
PERMISSION TO DRILL A DISPOSAL WELL ON THE STATE D  
LEASE AND ARE WILLING TO COOPERATE WITH RICE IN THIS  
MATTER=

D D BODIE DIVN SUPT CITIES SERVICE OIL CO=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

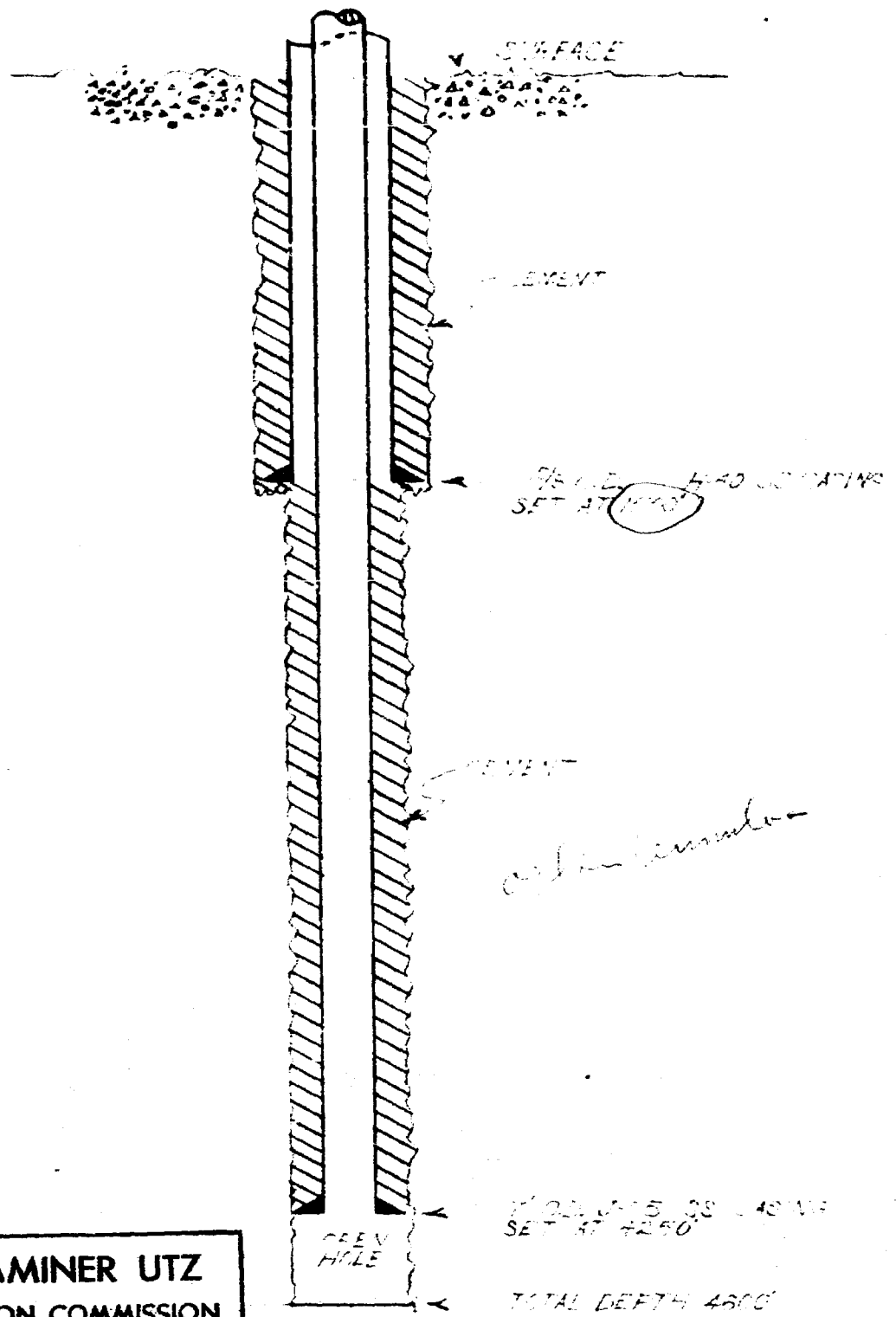


T 21 S

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. A  
CASE NO. 1530

R 36 E

CASE NO. <u>1530</u>			EXHIBIT A APPLICATION FOR HEARING	
DWN	D.B.	9/12/58	RICE ENGINEERING & OPERATING INC. EME NOA-32 PROPOSED SWD WELL LOCATION	SCALE 1"=2000'
			Rice Engineering & Operating, Inc. Hobbs, New Mexico	DWG NO. A-18

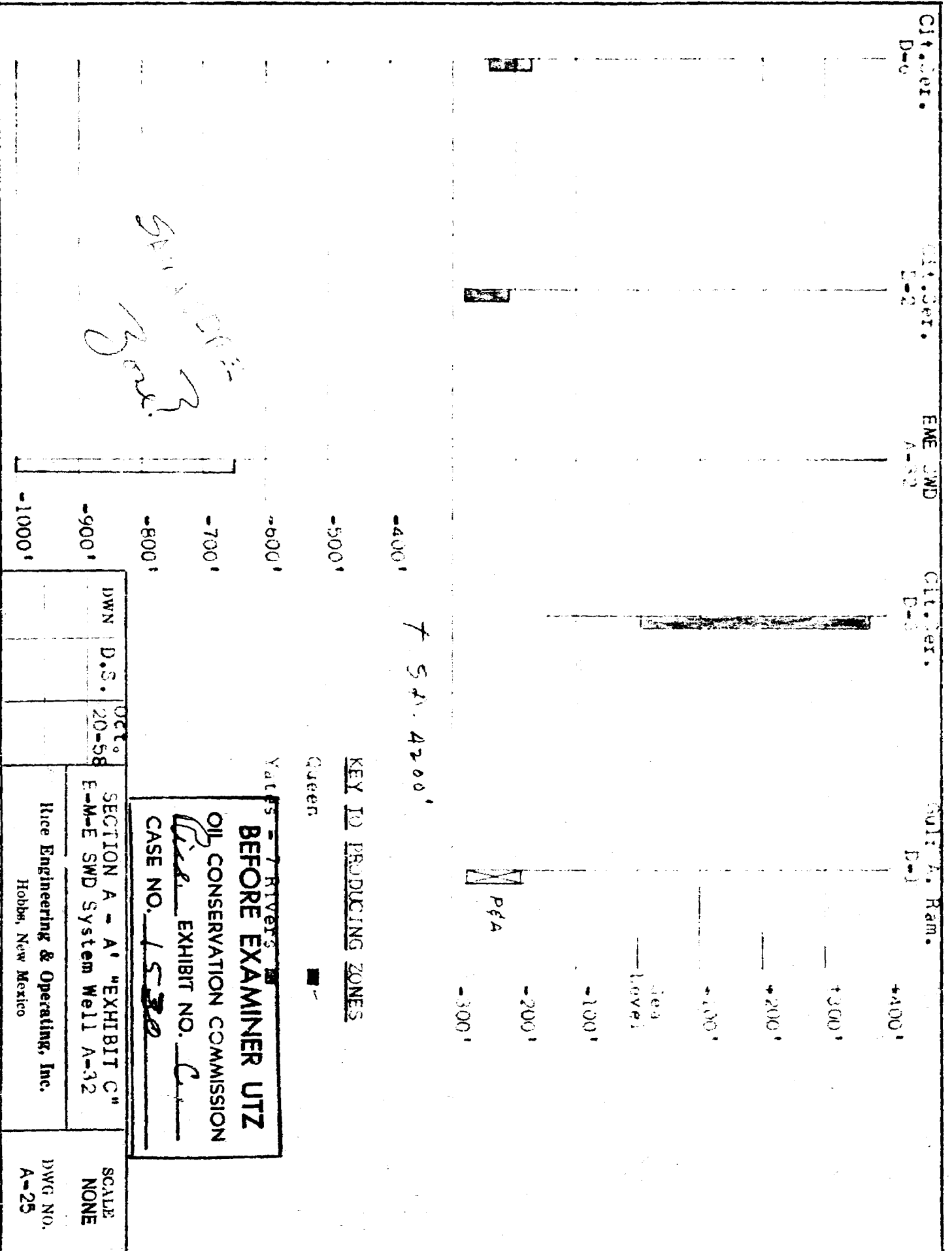


BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
*Rice* - EXHIBIT NO. B  
CASE NO. 1530

DWN	25	1

EXHIBIT P APPLICATION FOR HEARING  
RICE ENGINEERING & OPERATING, INC.  
EME NO. A-32  
PROPOSED COMPLETION  
Rice Engineering & Operating, Inc.  
Hobbs, New Mexico

SCALE  
NONE  
DWG NO.  
- J



Clt. Ser.  
D-6

Clt. Ser.  
E-2

EME SMD  
A-32

Clt. Ser.  
D-6

Salt A. Ram.  
D-1

7 S.A. 4200'

KEY TO PRODUCING ZONES

Queen

Valley - 7 Rivers

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. C

CASE NO. 1530

SECTION A - A' EXHIBIT C'

E-M-E SMD System Well A-32

Rice Engineering & Operating, Inc.

Hobbs, New Mexico

SCALE  
NONE

DWG NO.  
A-25

Exhibit D

Wells Within 1/2 Mile of SWD A-32  
E-M-E - SWD System

Operator	Lease	Well No.	Completion Interval Elevation	Completion Zone	Remarks
Cities Service	"D"	1	-215 to -275	Queen	
"	"	2	-210 to -282	Queen	
"	"	3	+372 to +5	Yates-7 River	Gas
"	"	4	-212 to -293	Queen	
"	"	5	-222 to -226	Queen	
"	"	6	-174 to -244	Queen	
Continental	Lockhart B-28	4	-231 to -276	Queen	
Gulf	Janda "B"	1	-141 to -304	Queen	
"	"	5	-40 to -215	Queen	
"	A. Ramsey "D"	1	-190 to -277	Queen	P & A
"	"	4	-201 to -306	Queen	
Humble	"B"	5	-209 to -260	Queen	P & A
"	"	8	-175 to -241	Queen	
"	"	10	-186 to -228	Queen	

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
<i>Rice</i>	EXHIBIT NO. <i>D</i>
CASE NO.	<i>1520</i>

Exhibit E

EUNICE - MONUMENT - EUNICE

MAILING LIST

Amerada Petroleum Corporation, Drawer D., Monument, New Mexico  
Anderson-Frithard Oil Corporation, Box 1859, Midland, Texas  
Atlantic Refining Company, The, Box 1038, Denver City, Texas  
Aztec Oil & Gas Company, Box 847, Hobbs, New Mexico  
W. K. Byrom, 1000 N. Dal Paso, Hobbs, New Mexico  
Cities Service Oil Company, Box 97, Hobbs, New Mexico  
Continental Oil Company, Box 427, Hobbs, New Mexico  
General Crude Oil Company, 314 Commerce Bldg., Abilene, Texas  
Getty Oil Company, Box 547, Hobbs, New Mexico  
Gulf Oil Corporation, Box 2167, Hobbs, New Mexico  
Hudson & Hudson, Inc., 1810 Electric Bldg., Fort Worth, Texas  
Humble Oil & Refining Company, Box 2347, Hobbs, New Mexico  
Stuart Hunt, Trustee, 1507 Mercantile Nat'l. Bank Bldg., Dallas, Texas  
Magnolia Petroleum Company, Box 2406, Hobbs, New Mexico (Jerry Young)  
Ohio Oil Company, The, Box 2107, Hobbs, New Mexico  
Nolen & Byrom, Box 326, Hobbs, New Mexico  
Pan American Petroleum Corporation, Box 899, Roswell, New Mexico  
Pan American Petroleum Corporation, Box 68, Hobbs, N. M. (Tom Hayes)  
Neville G. Penrose, Inc., 1815 Fair Bldg., Fort Worth, Texas  
Phillips Petroleum Company, Box 2105, Hobbs, New Mexico  
Shell Oil Company, Box 845, Roswell, New Mexico  
Sinclair Oil & Gas Company, 520 E. Broadway, Hobbs, New Mexico  
Sinclair Oil & Gas Company, Box 521, Tulsa, Oklahoma (F. H. Rhees)  
Sinclair Oil & Gas Company, Box 1470, Midland, Texas (R. E. Powers)  
Sinclair Oil & Gas Company, Box 1470, Midland, Tex. (H.F. Defenbaugh)  
Skelly Oil Company, Box 38, Hobbs, New Mexico  
Standard Oil Company of Texas, Box 698, Monahans, Texas  
Sun Oil Company, Box 1861, Midland, Texas  
Sunray Mid-Continent Oil Co., 11th Floor Wilco Bldg., Midland, Texas  
The Superior Oil Company, Box 510, Midland, Texas  
The Texas Company, Box 352, Midland, Texas  
Tidewater Oil Company, Box 547, Hobbs, New Mexico  
Southern Petroleum Exploration, Inc., Box 176, Eunice, New Mexico  
Southern Petroleum Exploration, Inc., Box 1017, Roswell, N. M. (J. B. Headley)

10/20/58

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
<i>Rice</i>	EXHIBIT NO. <u>E</u>
CASE NO. <u>1530</u>	

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
<i>Rice</i>	EXHIBIT NO. <i>F</i>
CASE NO.	<i>1530</i>

A G R E E M E N T

AGREEMENT made this 12th day of September, A. D., 1958 between CITIES SERVICE OIL COMPANY, A Corporation, of the one part, hereinafter referred to as CITIES SERVICE, and RICE ENGINEERING & OPERATING, INC., A Corporation, of the other part, hereinafter referred to as RICE.

W I T N E S S E T H:

WHEREAS, CITIES SERVICE is a party to an agreement commonly known as the EUNICE-MONUMENT-EUMONT SALT WATER DISPOSAL SYSTEM, and RICE, in such agreement, is the Operator, and to the end of establishing such salt water disposal system, CITIES SERVICE agrees to drill, or cause to be drilled, a salt water disposal well on land leased to CITIES SERVICE as lessee by the Land Commissioner of the State of New Mexico, which lease is known as CITIES SERVICE STATE "D" lease, and embraces the North Half of Section 32, Township 21 South, of Range 36 East, N.M.P.M., Lea County, New Mexico, and

NOW, THEREFORE, IT IS MUTUALLY AGREED BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. CITIES SERVICE agrees to drill, or cause to be drilled, a salt water disposal well at 1320 feet from the North line, and 1320 feet from the East line of said Section, and upon completion thereof, transfer title and ownership of same to RICE, who is to acquire title to and own same as TRUSTEE for the parties to such Agreement as specifically set forth in such EUNICE-MONUMENT-EUMONT SALT WATER DISPOSAL SYSTEM, which Articles of Agreement are hereby adopted as a part of this Agreement by reference for the purpose of determining the legal title, rights, liabilities, and obligations relating to the parties hereto,

and hereinafter, when pertinent, shall be designated as the Articles of Agreement.

2. CITIES SERVICE agrees to obtain at least three (3) bona fide bids from drilling contractors for the drilling of such well, and submit copies of each bid to RICE for approval before executing the contract for drilling of such well.

3. The well is to be drilled under the control and supervision of CITIES SERVICE, and charges for such supervisory services and the materials furnished are hereby established as those charges provided for in Exhibit C of the aforesaid adopted Articles of Agreement.

4. CITIES SERVICE will furnish to RICE detailed statements of all expenditures, charges, costs, and credits, upon completion of the well, and at such time as RICE has effected collection from all parties to the said Articles of Agreement, it will pay same to CITIES SERVICE, and simultaneously therewith CITIES SERVICE is to execute and deliver a conveyance to RICE as TRUSTEE for the said parties to the Articles of Agreement.

5. CITIES SERVICE is to drill, or have the said well drilled, in accordance with the attached procedure made a part hereof, as "Exhibit A", and is to furnish RICE with daily drilling and operation reports.

WITNESS our hands and seals this 29<sup>th</sup> day of  
September, A. D., 1958.

RICE ENGINEERING & OPERATING, INC.

BY: Benjamin I. Routh  
VICE PRESIDENT

CITIES SERVICE OIL COMPANY

BY: Alvin  
Vice-President

STATE OF NEW MEXICO )  
SS  
COUNTY OF LEA )

On this 14<sup>th</sup> day of October, A. D., 1958 before  
me appeared Benjamin I. Routh, to me personally known, who  
being by me duly sworn, did say that he is the VICE PRESIDENT of  
RICE ENGINEERING & OPERATING, INC., and that the seal affixed to  
said instrument is the corporate seal of said corporation, and  
that said instrument was signed and sealed in behalf of said  
corporation by authority of its Board of Directors, and said VICE  
President acknowledged said instrument to be the free act and  
deed of said corporation.

WITNESS my hand and official the day and year first  
above written.

John A. Lander  
NOTARY PUBLIC

MY COMMISSION EXPIRES:

12.16.59

STATE OF \_\_\_\_\_ )  
SS  
COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of September, A. D., 1958 before me  
appeared \_\_\_\_\_, to me personally known, who, being  
by me duly sworn, did say that he is the \_\_\_\_\_ of  
CITIES SERVICE OIL COMPANY, and that the seal affixed to said  
instrument was signed and sealed in behalf of said corporation  
by authority of its Board of Directors, and said \_\_\_\_\_  
acknowledged said instrument to be the free act and deed of said  
corporation.

WITNESS my hand and official seal the day and year  
first above written.

John A. Lander  
NOTARY PUBLIC

MY COMMISSION EXPIRES:

\_\_\_\_\_

**"EXHIBIT A"**

**PROCEDURE TO DRILL AND COMPLETE  
EUNICE-MONUMENT-EUMONT SALT WATER  
DISPOSAL WELL A-32 ON CITIES SERVICE  
STATE "D" LEASE IN SECTION 32 - TWP 21 S, R 36 E**

1. Location staked 1320 feet from the North Line and 1320 feet from the East line of Section 32 - TWP 21S - R 36 E by John West, Registered Land Surveyor on September 11, 1958.

2. The following procedure will be followed as near as practical:

- (a) Level location and dig pits.
- (b) Dig cellar deep enough to have tubing tee 3 feet below grade level.
- (c) Drill 12 3/4" hole to 1500' or top of anhydrite.
- (d) Run caliper survey.
- (e) Run 9 5/8" O.D. 36# H-40 SS casing to approximately 1500' and circulate cement. Cement to consist of approximately 300 sacks of neat cement on bottom and the remainder to be 50-50 Pozmix with 4% Gel added.
- (f) Drill 8 3/4" hole through porosity zone in San Andres (Est. Top @ 4200') to Total Depth of approximately 4600'.
- (g) Run Gamma Ray-Neutron Logs.
- (h) Run and set 7" O.D. 20#J-55 SS casing at approximately 4250' and cement with 300 sacks of neat cement on bottom and 400 sacks 50-50 Pozmix on top. Use Halliburton packer shoe.
- (i) Run temperature survey.
- (j) Drill out cement and take injection test.
- (k) Acidize if required.
- (l) Take injection test.