

CASE 1847: Application of RICE ENGR.
for disposal of produced salt water
through its Hobbs SWD Well No. F-29.

Case No.

1847

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
JANUARY 6, 1960

IN THE MATTER OF:

CASE 1847 Application of Rice Engineering and Operating, Inc. for an order authorizing a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through its Hobbs SWD Well No. F-29 to be located 1880 feet from the North line and 1742 feet from the West line of Section 29, Township 18 South, Range 38 East, Hobbs Pool, Lea County, New Mexico. Applicant proposes to inject the produced salt water into the San Andres formation in the interval from 4700 feet to 5000 feet.

BEFORE:

Daniel S. Nutter, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. NUTTER: Take next Case 1847.

MR. PAYNE: Case 1847. Application of Rice Engineering and Operating, Inc. for an order authorizing a salt water disposal well.

MR. KELLIAHIN: If the Commission please, may the record show the same appearances as in the preceding case?

WILLIAM G. ABBOTT,

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

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PHONE CM 3-6691

ALBUQUERQUE, NEW MEXICO



DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you please state your name, sir?

A My name is W. G. Abbott.

Q Are you the same Mr. Abbott who testified in Case 1846 and sworn and qualified?

A Yes, sir.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, sir.

Q Mr. Abbott, are you familiar with the application in Case 1847?

A Yes, sir.

Q Will you state briefly what is proposed in this application?

A We propose to drill a salt water disposal well to be located on the Amarada State "B" Lease in -- located 1880 feet from the North line and 1742 feet from the West line of Section 29, Township 18 South, Range 38 East, Lea County, New Mexico. This is located in the Hobbs Pool. We propose to drill this well and dispose of salt water in the Lower San Andres formation.

Q The well has not yet been drilled, has it?

A No, sir. This will be a new well drilled for disposal.

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(Thereupon, Applicant's Exhibit A was marked for identification.)

Q Now, referring to what has been marked as Exhibit A, will you discuss that Exhibit?

A Exhibit A is a plat of this area. Also, there is a trace of a cross-section shown as AA Prime in red, and going through the proposed SWD F-29 West. Also, there is a half mile radius circle shown around this proposed salt water disposal well.

(Thereupon, Applicant's Exhibit B was marked for identification.)

Q Now, referring to what has been marked as Exhibit B, will you discuss that Exhibit?

A Exhibit B is the proposed casing program of this well. We propose to set nine and five-eighths inch casing at 400 feet and circulate the cement to the surface, and set seven inch casing at 4700 feet, and then complete for disposal from 4700 to 5050 feet.

Q Will that be open hole completion at that point?

A Yes, it will be open hole completion. We may want to perforate another zone behind the pipe from 4450 to 4650 feet. That hasn't been marked on Exhibit B.

Q What zone would that include, Mr. Abbott?

A Well, this is all the Lower San Andres formation.

Q In regard to your casing and cementing program, do you consider that adequate to protect any fresh water zones that might be encountered?



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A Yes, sir, we believe it is. Besides this casing program, we plan to run five and a half inch casing as tubing in the well, and this casing will be plastic lined. And then behind the five and a half and in the annular space between the five and a half inch and the seven inch we will load that annular space with sweet oil or gasoline or neptha, which should protect the outside of the tubing string and also the inside of the casing. We also do that so we'll have continual history on the disposal zone. We will put a pressure gauge on the tubing casing annulus and record that pressure daily. That way we can tell if we ever get a tubing leak or a casing leak.

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

A That's the Hobbs Pool.

Q Is it corrosive water?

A Mildly corrosive, yes, sir.

Q What volume do you anticipate disposing of in the well?

A We plan for future disposal to be as high as 14,000 barrels a day.

Q Are you familiar with the characteristics of the San Andres formation in this area?

A Yes, sir.

Q In your opinion, will the formation take that volume of water?



A Yes, it will take that volume by gravity.

(Thereupon, Applicant's Exhibit C was marked for identification.)

Q Now, referring to what has been marked as Exhibit C, will you discuss that?

A Exhibit C is a cross-section showing the completion of the wells in this, surrounding this proposed disposal well, and also shown on trace AA Prime of Exhibit A. It runs through the Humble Bowers "A" No. 12, which is a Bowers Well, and that's shown in red on this Exhibit; through the Bowers "A" No. 10 and Amerada "B" 1 through the proposed SWD F-29, and then the Amerada "B" 4 and the Atlantic Grimes No. 1. Those producing zones are marked there in blue for the Grayburg and San Andres zones, and red for the Bowers.

Q Do you have a list of the wells within half a mile radius of the subject well?

A Yes, sir. That's shown on Exhibit D. This shows the operator and the lease and the well number and the completion interval and also the completion zone.

(Thereupon, Applicant's Exhibit D was marked for identification.)

Q A number of those wells are San Andres producers, are they not?

A Yes, sir, a majority of them are San Andres.

Q In your opinion, will the injection of the salt water into this zone enhance the recoveries in those San Andres wells?

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A We don't believe it will affect the pressure.

Q Now, do you have an easement or lease from the lease owner on this well?

A Yes, sir, we have a lease from William Grimes for two acres surrounding this well.

Q What arrangement do you have with Amerada Petroleum Corporation?

A We have a letter from Amerada where they agree to our completion and approve us -- our drilling a well on the lease.

(Thereupon, Applicant's Exhibit E was marked for identification.)

Q Exhibit E, is that a copy of the lease fee land owner?

A Yes, sir.

Q That's the surface owner?

A Yes, sir.

(Thereupon, Applicant's Exhibit F was marked for identification.)

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

A Exhibit F shows all the companies that are making up the Hobbs salt water disposal system.

Q Were Exhibits A through F inclusive prepared by you or under your direction and supervision?

A Yes, sir, they were.

MR. KELLAHIN: At this time we would like to offer



in evidence Exhibits A through F inclusive.

MR. NUTTER: Rice's Exhibits A through F will be entered in evidence.

(Whereupon, Rice's Exhibits A through F were received in evidence.)

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

MR. NUTTER: Does anyone have any questions of the witness?

MR. PAYNE: Yes, sir.

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Abbott, all of the operators in the Hobbs Pool haven't signed up for this disposal, have they?

A I understand there are some other operators that haven't.

Q Now, I believe you testified that the water produced from the Hobbs Pool is mildly corrosive. The water produced from the Gladiola Pool is even more corrosive. Yet, in this well you propose to inject through tubing and fill the annular space with kerosene or some such fluid?

A Yes, sir.

Q Why do you propose to do that in this well and not in the other one?

A Well, the Gladiola, we need the immediate capacity

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of the five and a half inch casing to dispose of water. There are a couple of operators that are already hauling water in the Gladiola Pool; one operator in particular, costs him sixty dollars a day to haul water, and we need that capacity. But we feel that in six months we'll have enough evidence, if there is corrosion, that we'll have to run tubing in the well.

Q For a temporary period of time, at least, it is a matter of urgency in the Gladiola?

A Yes, sir.

Q What size tubing was it that you expect to run in that Gladiola?

A Well, I don't know. We are going to try to run a hydril tubing as large as we can get in the well.

Q Here you plan to use five and a half inch pipe for your tubing?

A Yes.

MR. NUTTER: Mr. Abbott, referring to Exhibit B, you stated you were going to run your seven inch to 4700 and cement it, yet you didn't say how much cement you plan to use.

A We plan to use sufficient cement to bring the cement back to our nine and five-eighths.

MR. NUTTER: I see. After you get the size of the hole calipered, you'll calculate this sufficient volume to come up to the 95?

A Yes, sir.



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Q (By Mr. Payne) Now, you said that you might perforate the well in the interval from 4450 to 4650?

A Yes, sir, 4450 to 4650.

Q Now, how high up on this Exhibit No. C would that extend the green line, then? Is the green line, first of all, the interval of injection?

A That's right, yes, sir.

Q And then you would extend that upward if you would perforate it, would you not?

A Yes, sir. That will extend it up to approximately a minus 850.

Q Minus 850?

A Yes, sir.

Q Referring to Exhibit D, are any of these wells within a half mile radius perforated down as low as minus 850?

A No, sir.

Q So even if you do perforate the higher section in this disposal well, you still wouldn't be injecting water into the interval that is being produced by any of the wells within a half mile radius?

A No, it will still be two to three hundred feet below that.

Q And you don't anticipate any damage to any producing horizon?

A No, sir.



MR. PAYNE: I see.

MR. NUTTER: Are there any further questions of Mr. Abbott? He may be excused.

(Witness excused)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: No.

MR. NUTTER: Does anyone have anything further for Case 1847? We will take that case under advisement.

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STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

I, J. A. Trujillo, Notary Public 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 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, the 5th day of January, 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the hearing of Case No. 1847 heard by me on 1-6, 1960.

Seamus, Examiner
New Mexico Oil Conservation Commission

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PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



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. 1847
Order No. R-1574

APPLICATION OF RICE ENGINEERING
AND OPERATING, INC. FOR A SALT
WATER DISPOSAL WELL IN SECTION
29, TOWNSHIP 18 SOUTH, RANGE 38
EAST, HOBBS POOL, LEA COUNTY,
NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 6, 1960, at Santa Fe, New Mexico, before Daniel S. Nutter, 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 18th day of January, 1960, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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 seeks an order authorizing the disposal of produced salt water into the San Andres formation through the Hobbs SWD Well No. F-29 to be located 1880 feet from the North line and 1742 feet from the West line of Section 29, Township 18 South, Range 38 East, NMPL, Hobbs Pool, Lea County, New Mexico, with the proposed injection zone from 4450 feet to 5050 feet.

(3) That the applicant proposes to complete the said disposal well as follows: 9-5/8 inch OD casing set at 400 feet with cement circulated to the surface, 7-inch OD casing set at 4700 feet and cemented to the base of the 9-5/8 inch casing, with 5 1/2-inch casing as an injection string. The annulus between the 7-inch and the 5 1/2-inch casing will be filled with naptha or kerosene as a protective measure.

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Case No. 1847
Order No. R-1574

(4) That the applicant's proposed salt water disposal program will not jeopardize the production of oil, gas, or fresh water in the area and is consonant with sound conservation practices.

IT IS THEREFORE ORDERED:

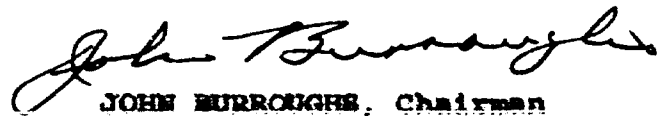
(1) That the applicant be and the same is hereby authorized to dispose of produced salt water into the San Andres formation through the Hobbs SWD Well No. F-29 to be located 1880 feet from the North line and 1742 feet from the West line of Section 29, Township 18 South, Range 38 East, NMPM, Hobbs Pool, Lea County, New Mexico, with the injection interval being between 4450 feet and 5050 feet.

PROVIDED HOWEVER, That disposal shall be through inner casing and that the casing-casing annulus shall be kept full of naptha or kerosene.

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

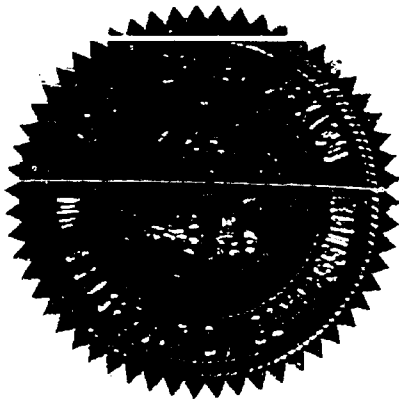
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JOHN BURROUGHS, Chairman


MURRAY E. MORGAN, Member


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



ven/

DOCKET: EXAMINER HEARING JANUARY 6, 1960OIL CONSERVATION COMMISSION - 9 a.m., Mabry Hall, State Capitol, Santa Fe, New Mexico

The following cases will be heard before Daniel S. Nutter, Examiner, or A. L. Porter, Jr., Secretary-Director.

- CASE 1835: Application of Continental Oil Company for two non-standard gas proration units. Applicant, in the above-styled cause, seeks an order establishing two non-standard gas proration units in the Eumont Gas Pool, one consisting of the N/2 of Section 3, the other consisting of the S/2 of said Section 3, Township 20 South, Range 36 East, Lea County, New Mexico. Applicant proposes to dedicate the units respectively to its Reed A-3 Well No. 2, located 1980 feet from the North line and 660 feet from the East line of said Section 3 and to its Reed A-3 Well No. 3, located 1980 feet from the South line and 660 feet from the East line of said Section 3. Applicant further proposes the cancellation of an existing Eumont gas proration unit comprising the E/2 of said Section 3 and presently dedicated to the said Reed A-3 Well No. 3.
- CASE 1836: Application of Continental Oil Company for approval of an automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing it to install an automatic custody transfer system to handle the Arrowhead Pool production from all wells on its State J-2 lease consisting of the N/2 and the SE/4 of Section 2, Township 22 South, Range 36 East, Lea County, New Mexico.
- CASE 1837: Application of Continental Oil Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Baish "A" Well No. 27, located in the NE/4 SE/4 of Section 21, Township 17 South, Range 32 East, Lea County, New Mexico, in such a manner as to permit the production of oil from an undesignated Abo pool and the production of oil from an undesignated Wolfcamp pool through parallel strings of tubing.
- CASE 1838: Application of El Paso Natural Gas Company for a gas-gas dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Huerfano Unit Well No. 111 (GD), located in Unit F, Section 20, Township 26 North, Range 9 West, San Juan County, New Mexico, in such a manner as to permit the production of gas from an undesignated Gallup pool and the production of gas from an undesignated Dakota pool through parallel strings of tubing.
- CASE 1839: Application of Franklin, Aston & Fair, Inc., for permission to commingle the production from three separate leases. Applicant, in the above-styled cause, seeks permission to commingle the Empire-Abo Pool production from three separate State leases, one in Section 6, Township 18 South, Range 28 East, and the other two in Section 31, Township 17 South, Range 28 East, Eddy County, New Mexico.
- CASE 1840: Application of Pan American Petroleum Corporation for a non-standard gas unit. Applicant, in the above-styled cause, seeks an order establishing a 264-acre non-standard gas unit in the Blanco-Pictured Cliffs Pool consisting of the N/2 of Section 6, Township 29 North, Range 9 West, San Juan County, New Mexico, to be dedicated to the Houck Gas Unit Well No. 1, located 1650 feet from the North and East lines of said Section 6.

- CASE 1841: Application of Sinclair Oil & Gas Company for the creation of a new pool in the Potash-Oil Area and for the promulgation of special rules and regulations pertaining thereto. Applicant, in the above-styled cause, seeks an order creating a new pool for Yates production in the Potash-Oil Area as defined by Order R-111-A, said pool to comprise the SE/4 NW/4 of Section 16, Township 20 South, Range 33 East, Lea County, New Mexico, and such other acreage as may reasonably be proven productive from the same common source of supply. Applicant further seeks the promulgation of special rules and regulations for said pool as follows:
- A. Cable Tool Casing Program.
Same as Order R-1078 for Teas Pool.
 - B. Rotary Tool Casing Program.
Surface casing set at 600 feet and cement circulated. No salt protection string. Production casing to be set through pay from 3146 feet to 3232 feet (approximately) with cement circulated to at least 50 feet into surface casing.
- CASE 1842: Application of Skelly Oil Company for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks permission to commingle the production from the Langlie-Mattix Pool and the Drinkard Pool from all wells on its Baker "A" lease comprising the NW/4 of Section 26, Township 22 South, Range 37 East, Lea County, New Mexico.
- CASE 1843: Application of Roy H. Smith Drilling Company for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks permission to commingle the production from the Maljamar-Yates Pool and the Pearsall Pool from all wells on its Walker "A" lease, comprising the S/2 NE/4 of Section 5, Township 18 South, Range 32 East, Lea County, New Mexico.
- CASE 1844: Application of Texaco Inc. for permission to commingle the production from two separate pools and for permission to install an automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Justis-Ellenburger and Justis-McKee Pools from all wells on its C. E. Penny lease consisting of the NW/4 of Section 19, Township 25 South, Range 38 East, Lea County, New Mexico, and for permission to install an automatic custody transfer system to handle said commingled production.
- CASE 1845: Application of Western Natural Gas Company for an oil-gas dual completion and for an unorthodox gas well location. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Bonnie Schlosser Federal Well No. 1, located 790 feet from the North line and 1980 feet from the West line of Section 10, Township 27 North, Range 11 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from an undesignated Gallup pool and the production of gas from an undesignated Dakota pool through parallel strings of tubing. Applicant further seeks an unorthodox Dakota gas well location for the said Bonnie Schlosser Federal Well No. 1.

CASE 1846: Application of Rice Engineering and Operating, Inc. for an order authorizing a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing it to recompleate the Lowe Oberholtzer Well No. 2 as a salt water disposal well. Said well is located 1980 feet from the North and East lines of Section 8, Township 12 South, Range 38 East, Gladiola Pool, Lea County, New Mexico. Applicant proposes to inject the produced salt water in the Devonian formation in the interval from 12,223 feet to 12,500 feet.

CASE 1847: Application of Rice Engineering and Operating, Inc. for an order authorizing a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through its Hobbs SWD Well No. F-29 to be located 1880 feet from the North line and 1742 feet from the West line of Section 29, Township 18 South, Range 38 East, Hobbs, Pool, Lea County, New Mexico. Applicant proposes to inject the produced salt water into the San Andres formation in the interval from 4700 feet to 5000 feet.

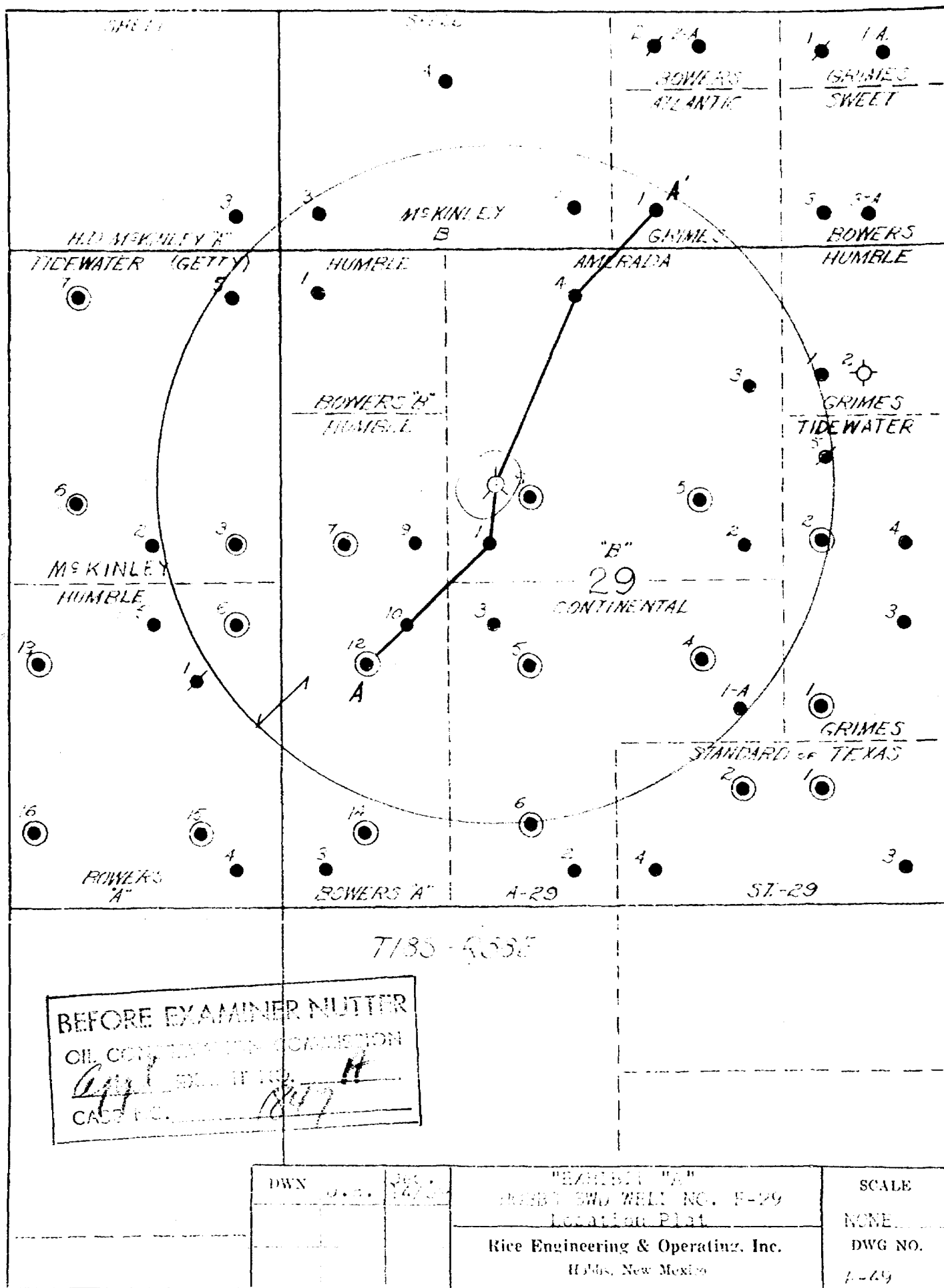
CASE 1848: Application of El Paso Natural Gas Company for an exception to Paragraph 3 of Order R-1065. Applicant, in the above-styled cause, seeks an extension of time to make up the accrued underproduction of the Jones 4-A Well (a pressure build-up test well), located in Unit B, Section 13, Township 28 North, Range 8 West, Blanco-Mesaverde Pool, San Juan County, New Mexico.

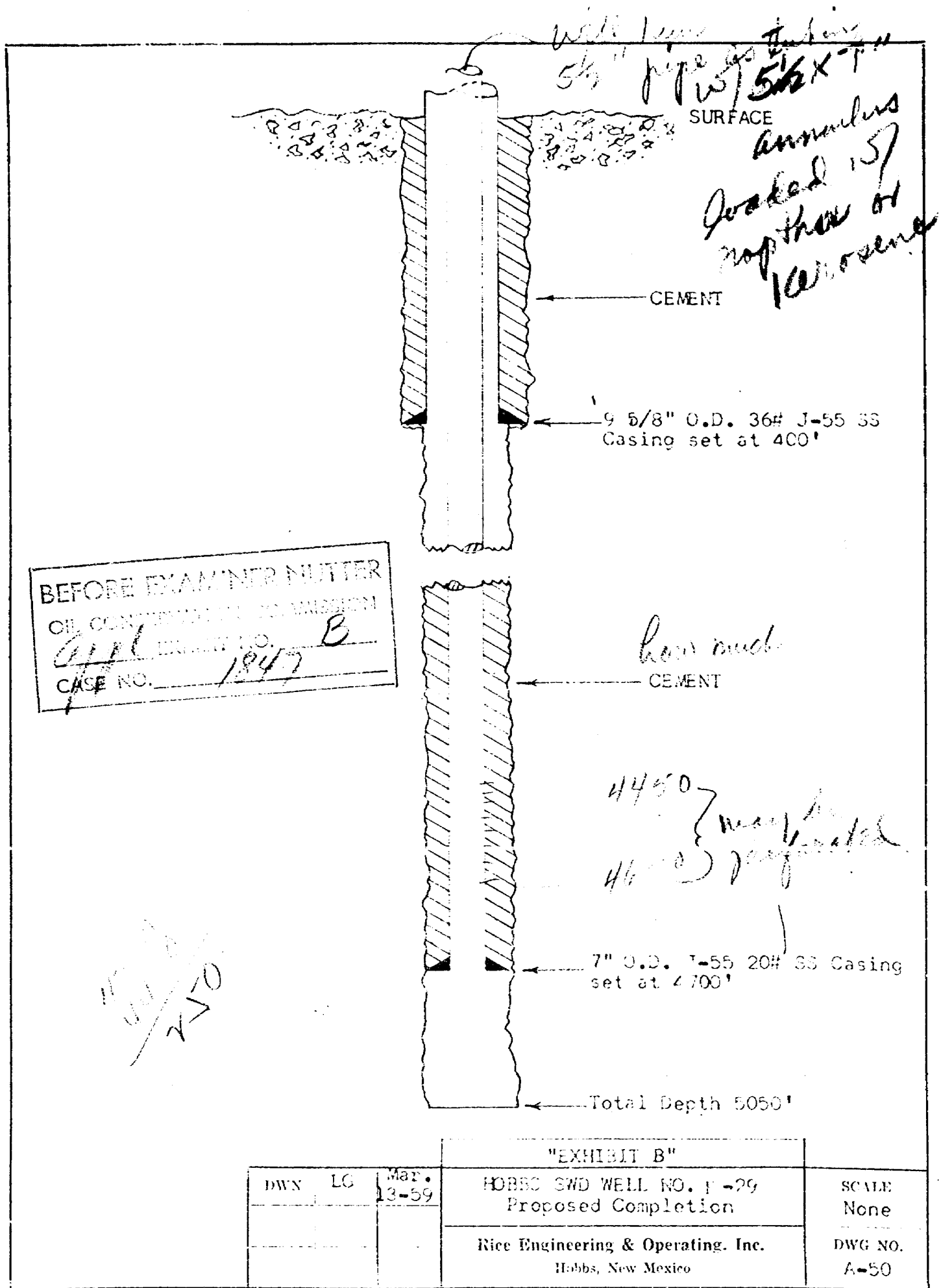
CASE 1849: Application of Western Natural Gas Company for an exception to the over-production shut-in provisions of Order R-520, as amended by Order No. R-967, for 3 wells in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order permitting the following-described gas wells in the Jalmat Gas Pool, Lea County, New Mexico, to compensate for their overproduced status without being completely shut-in in order to prevent possible waste.

Wells Federal No. 1 Well, SW/4 NE/4 of Section 6,
T-26-S, R-37-E.

Guthrie No. 1 Well, SW/4 SE/4 of Section 34,
T-23-S, R-36-E.

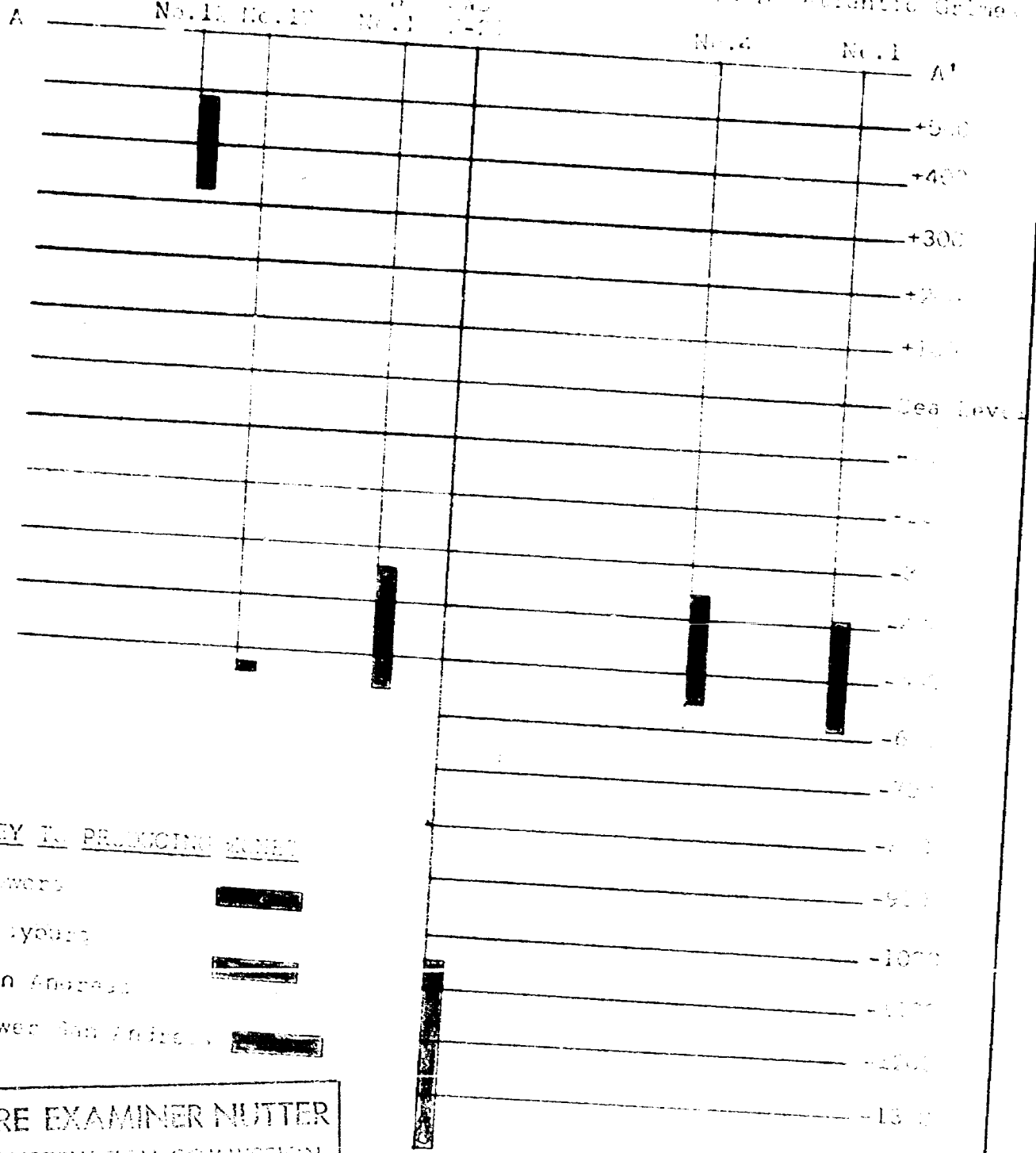
State McDonald A-15 Well No. 1, NW/4 SW/4 of Section 15,
T-22-S, R-36-E.





Hobbs, New Mexico
 "D" Atlantic Grings
 No. 12 No. 10 No. 11 No. 13

"D" Atlantic Grings



KEY TO PROVING UNIT

- Bowers
- Graystone
- San Andres
- Lower San Andres

BEFORE EXAMINER NUTTER
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. C
 CASE NO. 1847

DWN	1-50	Section A-1' Exhibit "C"	SCALE
		Hobbs, New Mexico	None
		Rice Engineering & Operating, Inc.	DWG NO.
		Hobbs, New Mexico	A-80

EXHIBIT "D" PA 1000 E
Wells Within 1/2 Mile of SWD F-29
HOBBS SWD SYSTEM

Operator	Lease	Well No.	Completion Interval Elevation	Completion Zone	Remarks
Amerada Pet. Corp.	St. B	1	-334 to -551	Grayburg-San Andres	
" " "	" "	2	-330 to -542	" " "	
" " "	" "	3	-437 to -457	" " "	
" " "	" "	4	-341 to -548	" " "	
" " "	" "	5	+519 to +431	Bowers	
" " "	" "	6	+517 to +435	Bowers	
Atlantic Ref. Co.	Grimes	1	-382 to -580	Grayburg-San Andres	PBTD -529
Continental Oil Co.	St. A-29	1	-274 to -523	Grayburg-San Andres	
" " "	" " "	3	-523 to -537	" " "	
" " "	" " "	4	+490 to +482	Bowers	
" " "	" " "		+467 to +463	"	
" " "	" " "	5	+489 to +469	"	
" " "	" " "	6	+494 to +486	"	
" " "	" " "		+498 to +466	Bowers	
Humble Oil & Ref.	Bowers "A"	6		"	P & A (1-17-56)
" " "	" "	7	+547 to +451	"	
" " "	" "	9	-320 to -444	Grayburg-San Andres	
" " "	" "			" " "	Liner Sct @ -562
" " "	" "	10	-522 to -534	" " "	
" " "	" "			Bowers	P & A (4-24-57)
" " "	" "	12	+512 to +473	"	
Humble Oil & Ref.	Bowers "B"	1	-332 to -497	Grayburg-San Andres	PBTD -497

<u>Operator</u>	<u>Lease</u>	<u>Well No.</u>	<u>Completion Interval Elevation</u>	<u>Completion Zone</u>	<u>Remarks</u>
Humble Oil & Ref.	Grimes	1	-445 to -470	Grayburg- San Andres	PBTD -49
Tidewater (Getty)	McKinley	2	-453 to -489	" " "	
"	"	3	+413 to +364	Bowers	
"	"	5	-384 to -565	Grayburg- San Andres	
Tidewater Oil Co.	Grimes	2	+512 to +405	Bowers	P & A (7-12-51)
"	"	5			P & A
Shell Oil Co.	McKinley	2	-323 to -493	Grayburg- San Andres	PBTD -493
Shell Oil Co.	"	3	-313 to -540	Bowers	

21005

SALT WATER DISPOSAL LEASE AND EASEMENT

THIS AGREEMENT, made and entered into this 13th day of October 1959, between

William Cecil Grimes, dealing in his sole and separate name,
hereinafter called Lessor (whether one or more), and

RICE ENGINEERING & OPERATING, INC.
called Lessee.

WITNESSETH:

That Lessor, for and in consideration of Two Hundred (\$200.00) Dollars, the receipt of which is hereby acknowledged, does hereby demise, lease and let unto Lessee, its successors or assigns, the following described tract of land located in Lea County, New Mexico:

All that certain parcel or tract of land in the SE/4 of the NW/4 of Section 29, Township 18 South, Range 38 East, Lea County, New Mexico, being fully described as follows: Beginning at a point from which the Southeast corner of said Section 29 bears S. 23° 18' E. 2103.7 feet, thence S. 89° 57' E. 2640.0 feet, thence S. 0° 02' W. 1320.0 feet; from the above described point of beginning thence West 212.18 feet to a point, the South-west corner of this tract; thence North 295.16 feet to a point, the North-west corner of this tract; thence East 295.16 feet to a point, the North-east corner of this tract; thence South 295.16 feet to a point, the South-east corner of this tract, thence West 82.98 feet to the point of beginning and contains 2.00 acres more or less.

together with the right of ingress and egress to and from the leased premises, for the uses and term hereinafter set forth:

1. Lessee shall have the exclusive right to use the leased premises and a disposal well to be located thereon, in connection with the injection and disposal of oil field brine and other waste water and their injection into the substrata of land; and for the digging of pits; for the erection of tanks and receptacles necessary in receiving, treating and disposing of said brine and waste water, and for the erection of structures, appliances, engines and machinery necessary in connection with the operation of the well as a salt water disposal input well. Lessor grants Lessee the right to lay such pipelines as may be necessary to accomplish the purpose for which this lease is executed.

2. This lease shall terminate on the 13th day of October, 1960, unless on or before said date Lessee pays or tenders to Lessor or deposits to Lessor's credit in the New Mexico Bank and Trust ~~Bank~~ Company at Hobbs, New Mexico the sum of Two Hundred (\$200.00) Dollars which shall be considered as a rental, continuing the lease in effect for one year thereafter. Upon like annual payments or tenders, Lessee may continue the lease in effect from year to year for a period of twenty (20) years from the lease date and so long thereafter as the tract is used for salt water disposal. All payments and tenders may be made by draft or check of Lessee deposited in any post office in an envelope with sufficient postage, addressed to Lessor or the bank named above. No change in the ownership of the above described land shall be binding on Lessee until and unless it shall have first been furnished a certified or photostatic copy of the recorded conveyance effecting such transfer of title.

3. Lessee shall have the right to use the leased premises and the disposal well for the injection of oil field brine and waste water into the substrata of said lands, whether produced on lands operated for oil and gas by Lessee or those so operated by others.

4. Lessee agrees to pay Lessor for damages to growing crops arising out of or incident to the exercise of the rights granted by this lease. Lessee shall bury its pipelines below

5. Lessee shall

or within 90 days thereafter, to remove from the leased premises all materials, equipment and other personal property placed thereon by Lessee.

6. Lessee, in operating the disposal well, shall not inject the brine or other waste water into fresh water bearing sands or oil and gas bearing strata.

7. Lessee agrees to conduct its operations in accordance with rules and regulations of the Conservation Commission, or other proper authority.

8. The terms of this lease shall extend to and be binding on the parties hereto, their heirs, successors or assigns.

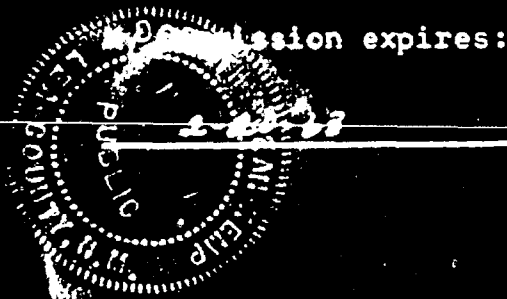
EXECUTED this 13th day of October, 1959.

William Cecil Grimes
William Cecil Grimes

STATE OF NEW MEXICO }
COUNTY OF LEA }

Before me, the undersigned, a Notary Public in and for said County and State, on this 13th day of October, 1959, personally appeared WILLIAM CECIL GRIMES dealing in his sole and separate property, to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth, and in the capacity therein stated.

Given under my hand and seal the day and year last above written.



Notary Jean Kemp
Notary Public

STATE OF NEW MEXICO
COUNTY OF LEA
FILED

OCT 23 1959

3:50 o'clock P M
and Recorded in Book 1253

Page 387
VERGE LOWE, County Clerk
By W. L. Deputy

RECEIVED

OCT 23 1959

SEE LAST PAGE

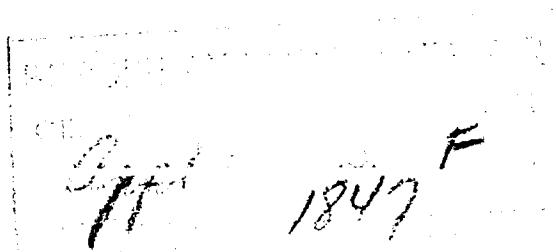
Shuster
Box 1142
26-10

HOBBS SALT WATER DISPOSAL SYSTEM

MAILING LIST

Amerada Petroleum Corporation, Drawer D., Monument, N.M.
Atlantic Refining Company, The, Box 1028, Denver City, Texas
Cities Service Oil Company, Box 97, Hobbs, N.M.
Continental Oil Company, Box 427, Hobbs, N.M.
Gulf Oil Corporation, Box 2167, Hobbs, N.M.
Humble Oil & Refining Company, Box 2347, Hobbs, N.M.
Mobil Oil Company, Box 2406, Hobbs, N.M.
Ohio Oil Company, The, Box 2107, Hobbs, N.M.
Pan American Petroleum Corporation, Box 268, Lubbock, Texas
Samedan Oil Corporation, Box 2137, Hobbs, N.M.
Shell Oil Company, Box 845, Roswell, N.M.
Skelly Oil Company, Box 1650, Tulsa, Okla. (Mr. Ira G. Myers)
Sinclair Oil & Gas Company, 520 East Broadway, Hobbs, N.M.
Southern Petroleum Exploration, Inc., Box 515, Hobbs, N.M.
Standard Oil Company of Texas, Box 698, Monahans, Texas
Sun Oil Company, Box 1861, Midland, Texas
Sunray Mid-Continent Oil Company, 1101 Wilco Building, Midland, Texas.
(V.M. Williams)

C. H. Sweet, Box 1115, Hobbs, N.M.
Texaco, Inc., Box 352, Midland, Texas
Texas Pacific Coal and Oil Company, Box 1688, Hobbs, N.M.
Tidewater Oil Company, Box 547, Hobbs, N.M.
W. K. Byron, Box 326, Hobbs, N.M.



1/4/60

EXHIBIT "F"

RICE Engineering & Operating, Inc.

Post Office Box 1142

Telephone EXpress 3-9174

HOBBS, NEW MEXICO

December 14, 1959

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

Gentlemen:

Re: Rule 701 - Permit for Injection of Water
(Salt Water Disposal)

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 Amerada State "B" Lease in Section 29, Township 18 South, Range 38 East, Hobbs Pool, Lea County, New Mexico. The proposed disposal well will be known as Rice Engineering & Operating, Inc. Hobbs SWD Well F-29.

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

- A. That said well is to be located 1880 feet from the north line and 1742 feet from the west line of Section 29, Township 18 South, Range 38 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 inch OD H-40 SS casing set at approximately 400 feet and cement circulated. Injection casing will be 7 inches OD J-55 SS set at approximately 4700 feet, with total depth of 5050 feet (See Exhibit "B").
- D. That said well by agreement between Rice Engineering & Operating, Inc. and Amerada Petroleum Corporation shall be utilized by the Hobbs Salt Water Disposal System as a disposal well.
- E. That the salt water to be injected is produced in the Hobbs Field.

*Hobbs
Mailed
12-27-59
JMN*

RICE ENGINEERING & OPERATING, INC.

-2-

December 14, 1959

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., Hobbs SWD Well F-29.

Respectfully submitted,

RICE ENGINEERING & OPERATING, INC.

by W. G. Abbott
W. G. Abbott
Division Manager

DGS/lo

Attachments:
Exhibit "A"
Exhibit "B"