

CASE 4507: Application of ATLANTIC  
RICHFIELD COMPANY FOR SALT WATER  
DISPOSAL, LEA COUNTY, NEW MEXICO.

CASE  
RECORD  
FILE

#4507

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
209 SIMAS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
February 24, 1971

EXAMINER HEARING

IN THE MATTER OF:	)	
	)	
Application of Atlantic Richfield	)	Case No. 4507
Company for salt water disposal,	)	
Lea County, New Mexico.	)	
	)	

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
 201 JIMMS BLDG., P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103  
 FIRST NATIONAL B'K BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 MR. UTZ: Case 4507.

2 MR. HATCH: Application of Atlantic Richfield Company  
 3 for salt water disposal, Lea County, New Mexico.

4 MR. HINKLE: Clarence Hinkle, Hinkle, Bondurant, Cox  
 5 and Eaton, Roswell, appearing on behalf of Atlantic Richfield.  
 6 We have one witness and eight exhibits, which have all been  
 7 marked.

8 MR. UTZ: Let the record show that their witness was  
 9 sworn in the previous case. Are there other appearances? You  
 10 may proceed.

11 (Whereupon, Exhibits 1 through 8 were marked for  
 12 identification.)

13 E. M. PRINGLE,

14 having been first duly sworn, testified as follows:

15 DIRECT EXAMINATION

16 BY MR. HINKLE:

17 Q State your name, your residence and by whom you are  
 18 employed.

19 A E. M. Pringle. I reside in Roswell, New Mexico. I am  
 20 employed as senior operation's engineer by Atlantic  
 21 Richfield Company.

22 Q You have qualified as a petroleum engineer before the  
 23 Commission?

24 A Yes, sir.

25 Q Your qualifications are a matter of record with the

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103  
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 Commission?

2 A Yes, sir.

3 Q Are you familiar with the application of Atlantic  
 4 Richfield in this case?

5 A I am.

6 Q What are they seeking to accomplish?

7 A Atlantic Richfield Company seeks permission by this  
 8 application to dispose of produced water in the Lea 396  
 9 State Well Number 3 located in Unit "G" of Section 35,  
 10 Township 15 South, Range 36 East, in the Devonian  
 11 Formation, through the interval of approximately 13,690  
 12 feet to 13,726 feet.

13 Q Have you prepared or has there been prepared under your  
 14 direction certain exhibits for introduction in this case?

15 A Yes, sir, there have.

16 Q And these are the exhibits which have been marked 1 through  
 17 8?

18 A Yes, sir.

19 Q Refer to Exhibit 1 and explain what this shows.

20 A Exhibit Number 1 is a plat of the area of Dean Pool showing  
 21 the ownership of the leases, the wells within two miles of  
 22 the proposed salt water disposal well, formations from  
 23 which these wells now produce or have produced.

24 Q Refer to Exhibit Number 2 and explain this.

25 A Exhibit Number 2 is a plat of the Dean Pool showing the

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
 209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103  
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 current producing wells and the formations from which  
 2 they produce. There are eight Permo-Penn producers and  
 3 three Devonian Wells, Atlantic Richfield being the  
 4 operator of the three Devonian Wells. The -- that's all  
 5 I had on that exhibit.

6 Q Refer to Exhibit Number 3 and explain this.

7 A Exhibit Number 3 is a tabulation of production from the  
 8 Dean Pool for the month of December. Again, this infor-  
 9 mation was obtained by telephone conversations and might  
 10 deviate slightly.

11 Atlantic has three Devnoian Wells producing about  
 12 fifty-five barrels of oil per day and 756 barrels of water  
 13 per day and also has three Permo-Penn Wells producing  
 14 about sixty barrels of oil per day and 160 barrels of  
 15 water per day.

16 These are the wells that are currently served by  
 17 the SWD system. As shown, the proposed disposal well,  
 18 Lea 396 Number 3, produces less than ten barrels of oil  
 19 per day along with 155 barrels of water per day from the  
 20 Devonian Formation.

21 Q Exhibit Number 2 shows the current salt water disposal  
 22 well. What disposition would be made of this well?

23 A The current salt water disposal well is the State AW  
 24 Well Number 4 and permission was granted in Case 3781,  
 25 Order 3443 issued June 18th, 1968, to dispose of produced

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-5691 • ALBUQUERQUE, NEW MEXICO 87103  
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 water into the Wolfcamp Formation through perforations  
 2 approximately 10434 to 10488 into this Well State AW  
 3 Number 4.

4 This well is located in Unit "I" of Section 35,  
 5 Township 15 South, Range 36 East. This particular zone  
 6 would not accept -- accept approximately one hundred  
 7 barrels of water per day. Order SWD 113 gave approval  
 8 to dispose of water in the San Andres and Glorieta  
 9 Formations at approximately 4924 feet to 8400 feet in the  
 10 State AW Number 4.

11 This conversion was made in May, 1970, after which  
 12 time the disposal rate was approximately a thousand  
 13 barrels of water per day at some three thousand pounds.  
 14 In January of this year it was discovered that pressure  
 15 was present on the intermediate oil string annuli of  
 16 several offset producing wells.

17 Our current application stems from this and the fact  
 18 that the current salt water disposal well is at capacity  
 19 and the producing wells are not all pumped at their pro-  
 20 ducing capacity.

21 Q All right. Refer to Exhibit Number 4 and explain this.

22 A Exhibit Number 4 is a production graph of the proposed  
 23 disposal well, Lea 390 State Well Number 3. It shows that  
 24 the well is making essentially ten barrels of oil per day  
 25 and about 155 barrels of water per day and for all purposes

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103  
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 is at economic limit.

2 Q Refer to Exhibit Number 5 and explain this.

3 A Exhibit Number 5 is a schematic sketch of the proposed  
 4 salt water disposal well and right here I will say that  
 5 we do plan to plastic coat the tubing. The sketch shows  
 6 the casing sizes, the setting depths of the casing, the  
 7 amounts of cement used and the tops of the cement. It  
 8 shows the existing perforations, the proposed tubing size  
 9 and setting depth and packer setting depth. This well  
 10 is bottomed in the Devonian Formation.

11 Q Did you not anticipate any new perforations?

12 A We are asking for permission to dispose of water from the  
 13 top of the existing perforations which are 13,690 to the  
 14 T. D. of the well which is still in the Devonian Formation  
 15 at 13,726.

16 We really don't anticipate that we will need to add  
 17 perforations, however. The injectivity of this well has  
 18 been now tested with the permission of the Commission  
 19 and it appears that it will accept in the order of fifty  
 20 barrels of water per hour at essentially no pressure.

21 Q Refer to Exhibit 6 and explain this.

22 A Exhibit 6 is an electrical log of the proposed salt water  
 23 disposal well, Lea 396 Well Number 3.

24 Q This is the same log that was filed with the application?

25 A Yes, sir, it is.



dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6891 • ALBUQUERQUE, NEW MEXICO 87109  
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

- 1 Q Refer to Exhibit 7 and explain this.
- 2 A Exhibit 7 is a structure map on the top of the Devonian
- 3 Formation. The significant point here is that Atlantic
- 4 Richfield is the operator of the remaining three Devonian
- 5 producers in the Dean Pool shown by red circles and the
- 6 proposed salt water disposal well is the lowest well still
- 7 producing on structure.
- 8 Q Now, refer to Exhibit Number 8 and explain this.
- 9 A Exhibit Number 8 is a cross section showing the top of the
- 10 Devonian Formation and it's hung on the minus 9800 feet
- 11 subsea. The cross section substantiates the structure
- 12 map.
- 13 Q Shows the continuity of the field?
- 14 A Yes, sir, it does.
- 15 Q In your opinion, if this application is approved, will it
- 16 be in the interest of conservation, prevention of waste
- 17 and tend to protect correlative rights?
- 18 A Yes, sir, it is and will be. It will allow us to continue
- 19 producing the wells in the Dean Pool at a higher rate
- 20 than is now possible because of the lack of SWD capacity
- 21 and will allow us to produce the wells to a higher water
- 22 cut.
- 23 Q Do you have any further comments you would like to make
- 24 to the Commission with respect to this application?
- 25 A No, sir.

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103  
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 MR. HINKLE: We would like to offer in evidence  
 2 Exhibits 1 through 8.

3 MR. UTZ: Without objection, Exhibits 1 through 8  
 4 will be entered into the record of this case.

5 MR. HINKLE: That's all that we have, Mr. Utz.

6 CROSS EXAMINATION

7 BY MR. UTZ:

8 Q How about the annulus, Mr. Pringle?

9 A We will load it with inhibited fluid and install a gauge  
 10 at the surface and we do anticipate a rather lengthy life  
 11 in this well and will install plastic coated tubing and  
 12 also the flow line or injection line to the well is intend-  
 13 ed to be plastic coated.

14 The existing salt water disposal well, I don't believe  
 15 I answered Mr. Hinkle's question sufficiently there, as  
 16 soon as we see that the proposed well, if permission is  
 17 granted, will accept sufficient amount of water we will  
 18 plug and abandon the current salt water disposal well.

19 MR. UTZ: Are there other questions? The witness  
 20 may be excused.

21 (Witness excused.)

22 MR. UTZ: Statements? The case will be taken under  
 23 advisement.  
 24  
 25

dearnley-meier

SPECIALIZING IN: DISPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103  
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

I N D E X

WITNESS

PAGE

E. M. PRINGLE

Direct Examination by Mr. Hinkle

2

Cross Examination by Mr. Utz

8

E X H I B I T S

Nos. 1 through 8

2

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
 209 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO 87103  
 FIRST NATIONAL BANK BLDG. EAST • ALBUQUERQUE, NEW MEXICO 87108

1 STATE OF NEW MEXICO )  
 ) ss  
 2 COUNTY OF BERNALILLO )

3 I, GLENDA BURKS, Court Reporter in and for the County of  
 4 Bernalillo, State of New Mexico, do hereby certify that the  
 5 foregoing and attached Transcript of Hearing before the New  
 6 Mexico Oil Conservation Commission was reported by me; and  
 7 that the same is a true and correct record of the said  
 8 proceedings to the best of my knowledge, skill and ability.  
 9

10 Glenda Burks  
 11 Court Reporter

22 I do hereby certify that the foregoing is  
 23 a correct record of the hearing in  
 24 the New Mexico hearing of No. 4502,  
 25 New Mexico Oil Conservation Commission



## OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO  
P. O. BOX 2088 - SANTA FE  
87501

March 4, 1971

GOVERNOR  
BRUCE KING  
CHAIRMAN  
LAND COMMISSIONER  
ALEX J. ARMIJO  
MEMBER  
STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

Mr. Clarence Hinkle  
Hinkle, Bondurant, Cox & Eaton  
Attorneys at Law  
Post Office Box 10  
Roswell, New Mexico 88201

Re: Case No. 4505, 4506, 4507  
Order No. R-4112, R-4113, R-4114  
Applicant:  
ATLANTIC RICHFIELD COMPANY

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director *ss*

ALP/ir

Copy of order also sent to:

Hobbs OCC X  
Artesia OCC \_\_\_\_\_  
Aztec OCC \_\_\_\_\_

Other State Engineer Office - Santa Fe  
(R-4112 - Bureau of Land Management - Santa Fe)

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. 4507  
Order No. R-4114

APPLICATION OF ATLANTIC RICHFIELD  
COMPANY 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 February 24, 1971, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 4th day of March, 1971, 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, Atlantic Richfield Company, is the owner and operator of the Lea 396 State Well No. 3, located in Unit G of Section 35, Township 15 South, Range 36 East, NMPM, Dean-Devonian Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Devonian formation, with injection into the perforated interval from approximately 13,690 feet to 13,720 feet.

(4) That the injection should be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set at approximately 13,640 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should

-2-

CASE No. 4507

Order No. R-4114

be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

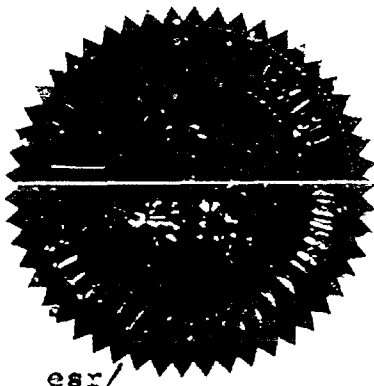
(1) That the applicant, Atlantic Richfield Company, is hereby authorized to utilize its Lea 396 State Well No. 3, located in Unit G of Section 35, Township 15 South, Range 36 East, NMPM, Dean-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 13,640 feet, with injection into the perforated interval from approximately 13,690 feet to 13,720 feet;

PROVIDED HOWEVER, 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 at the surface in order to determine leakage in the casing, tubing, or packer.

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

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

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



esr/

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*Bruce King*  
BRUCE KING, Chairman

ALEX J. ARMILLO, Member

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

Case 4507

Order 2-26-71

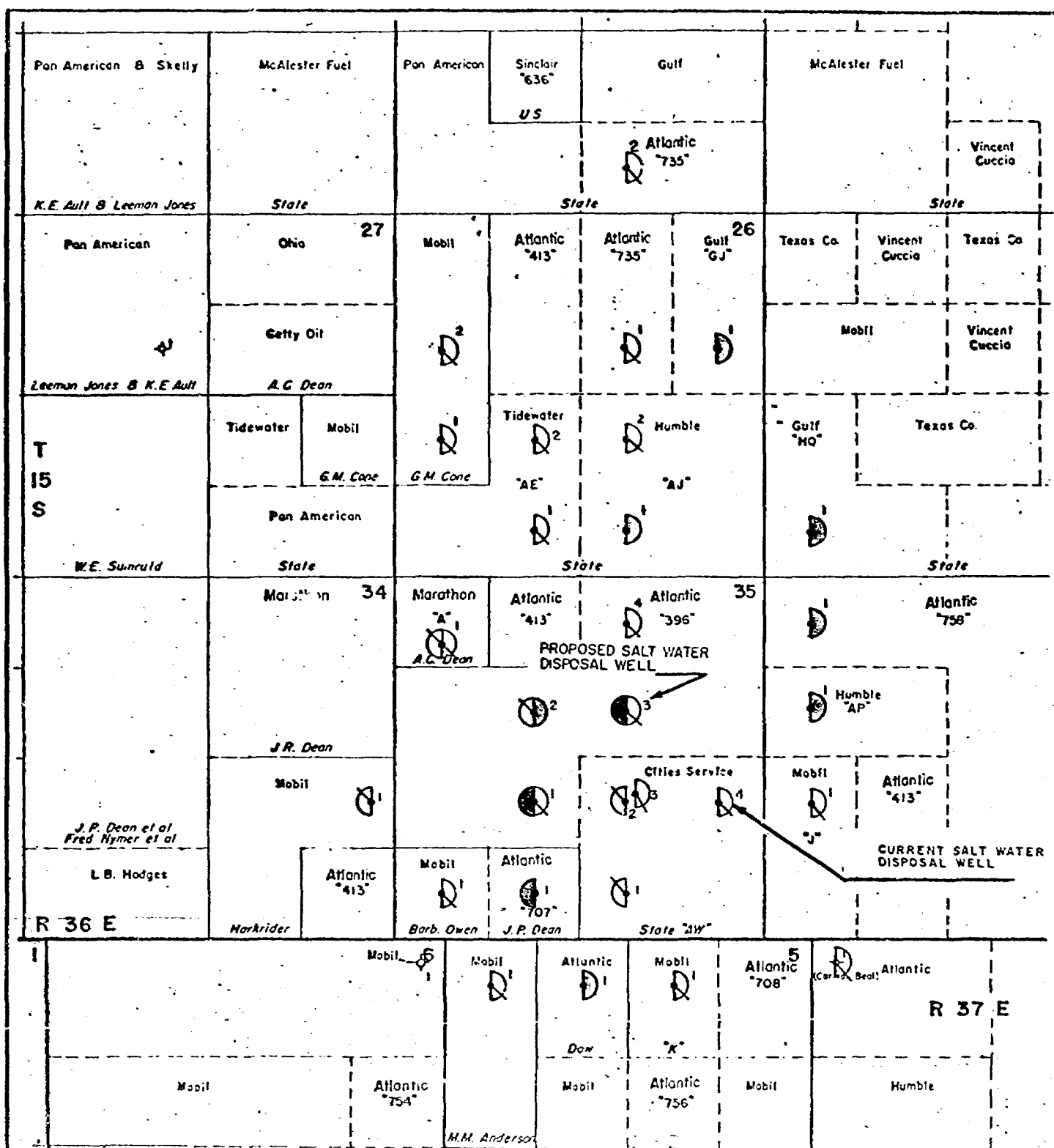
Rec. 2-26-71

Grant Attention request for permission to convert their Log # 346 #3 A-35-15-36 to an S.W. Dr. well. Inside or shall be thru Perf. 13690 & 720, under a packer to be set at approx 13640. Tubing to surface shall be externally plastic coated and the annulus shall be filled with inert fluid with a pressure gauge at the surface.

Thos. O. [Signature]







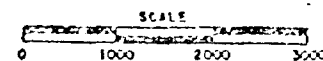
# CURRENT PRODUCERS

- D Penno Penn.
- D Devonian
- D No Recent Production or P&A

DEAN POOL  
LEA COUNTY,  
NEW MEXICO

ATLANTIC RICHFIELD COMPANY

EXHIBIT NO. 2



BEFORE

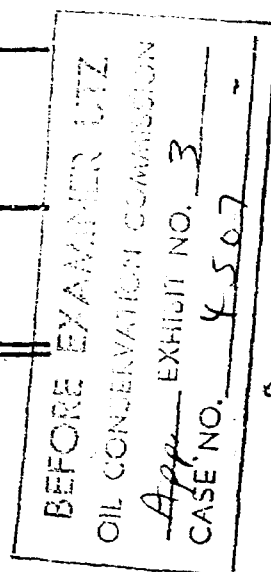
OF COURT

CASE

ATLANTIC RICHFIELD COMPANY  
Dean Pool Production Data  
December 1970

<u>OPERATOR</u>	<u>LEASE AND WELL</u>	<u>LOCATION</u>	<u>MONTHLY OIL</u>	<u>MONTHLY WATER</u>
<u>Dean Devonian</u>				
Atlantic Richfield Co.	J. P. Dean No. 1	N-35-15-36	. 940	14,100
	Lea 396 State No. 1	K-35-15-36	462	4,754
	Lea 396 State No. 3	G-35-15-36	291	4,771
	Company and Pool Total		1,693	23,635
<u>Dean Permo Penn</u>				
Atlantic Richfield Co.	Dow Fed. Com. No. 1	C-5-16-37	1,359	1,158
	Lea 396 State No. 2	F-35-15-36	303	3,872
	Lea 758 State No. 1	D-36-15-36	181	0
	Company Total		1,843	5,030
Gulf Oil Corporation	Lea GJ State No. 1	H-26-15-36	499	95
	Lea HQ State No. 1	M-25-15-36	439	0
	Company Total		938	95
Humble Oil & Refining Co.	New Mexico AJ State No. 1	O-26-15-36	1,053	0
	New Mexico AP State No. 1	E-36-15-36	498	0
	Company Total		1,551	0
Mobil Oil Corporation	New Mexico J No. 1	L-36-15-36	0	0
	POOL TOTAL		4,332	5,125

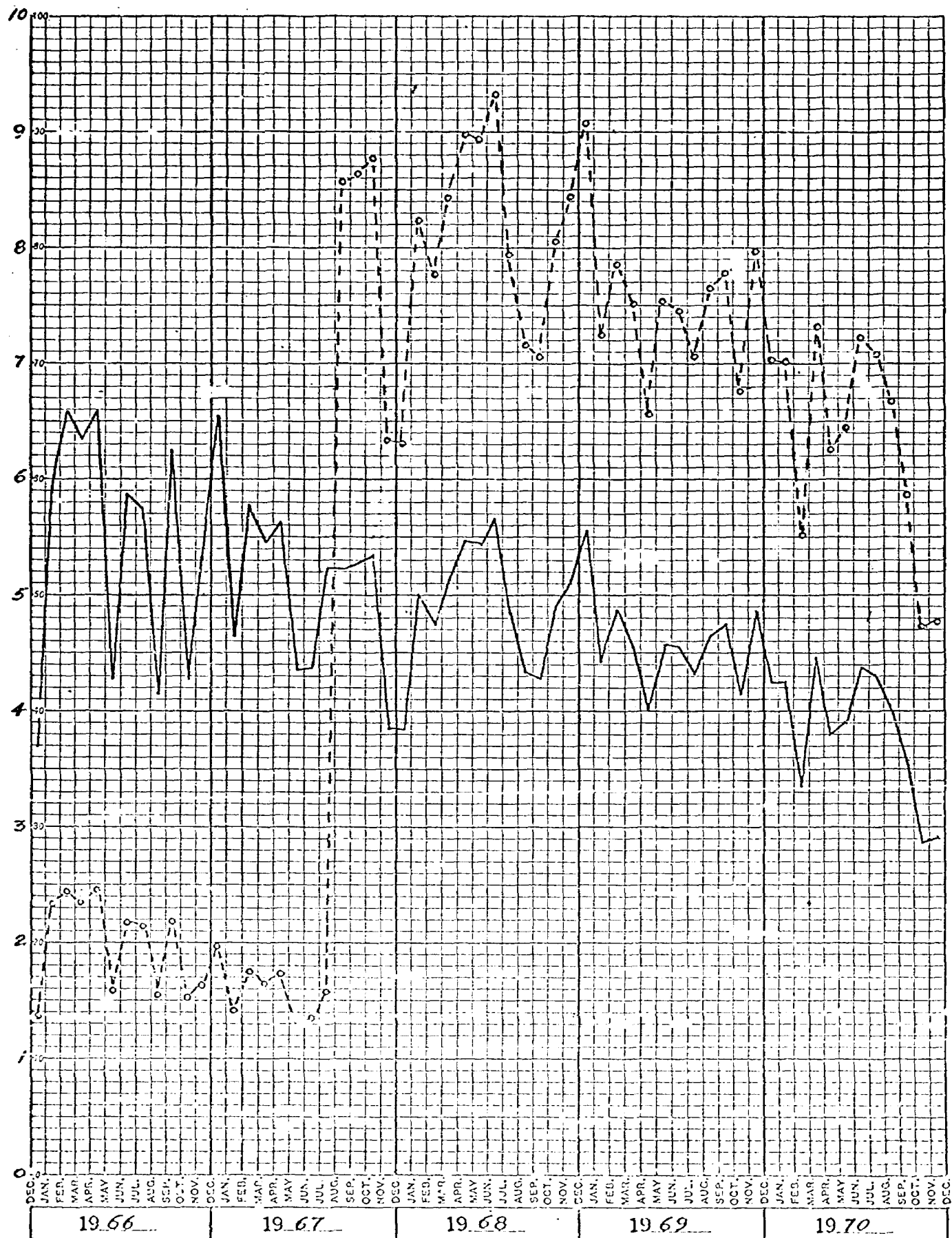
EXHIBIT NO. 3



ATLANTIC RICHFIELD COMPANY  
 PRODUCTION GRAPH  
 IEA 396 STATE WELL NO. 3

EXHIBIT NO. 1

--- Monthly Oil Production (100's of bbls.)  
 --- Monthly Water Production (1000's of bbls.)



ATLANTIC RICHFIELD COMPANY  
 SCHEMATIC SKETCH OF PROPOSED SALT WATER DISPOSAL WELL  
 LEA 396 STATE WELL NO. 3, UNIT G, SEC. 35, T-15-S, R-36-E  
 DEAN POOL, LEA COUNTY, NEW MEXICO

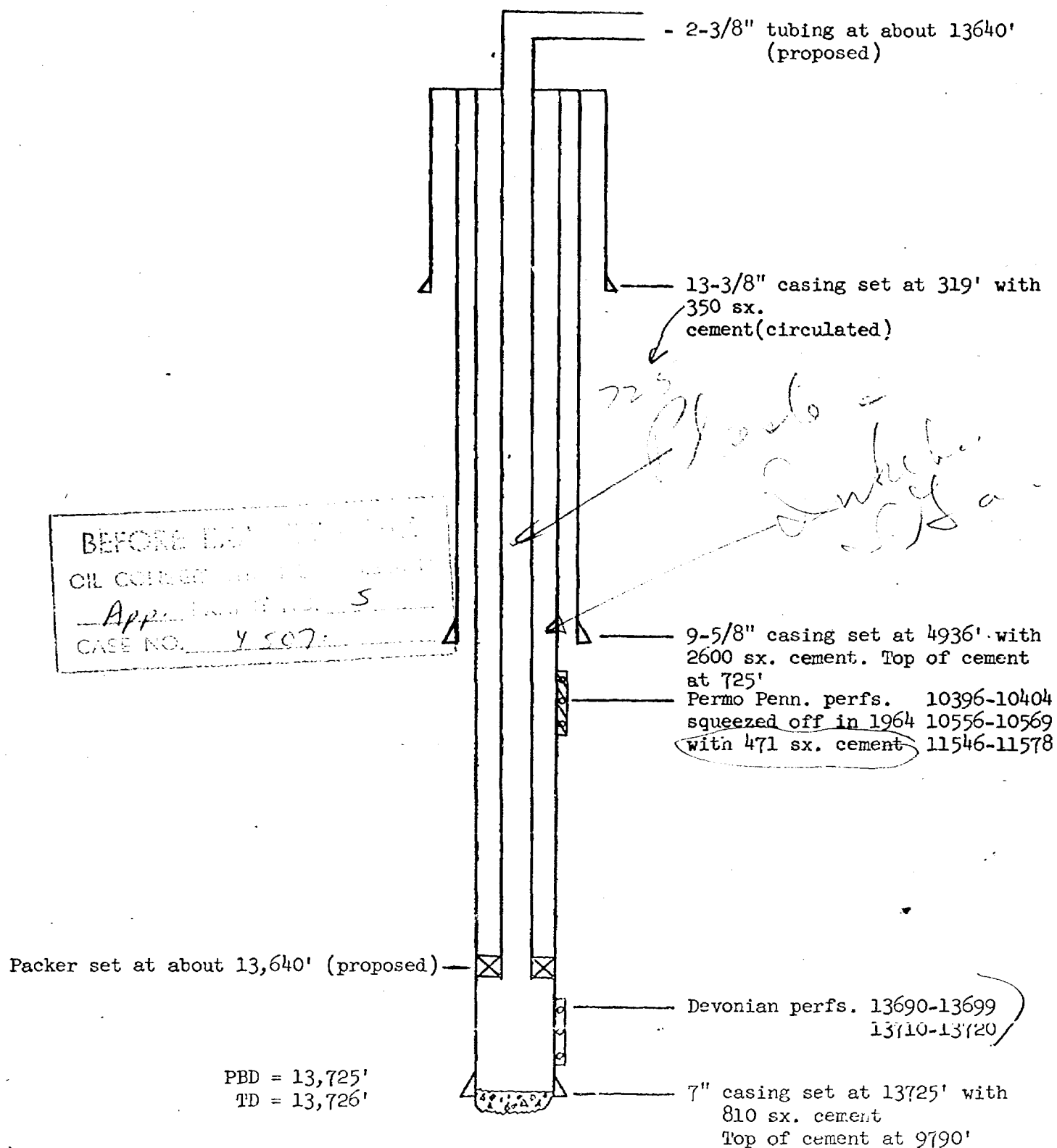
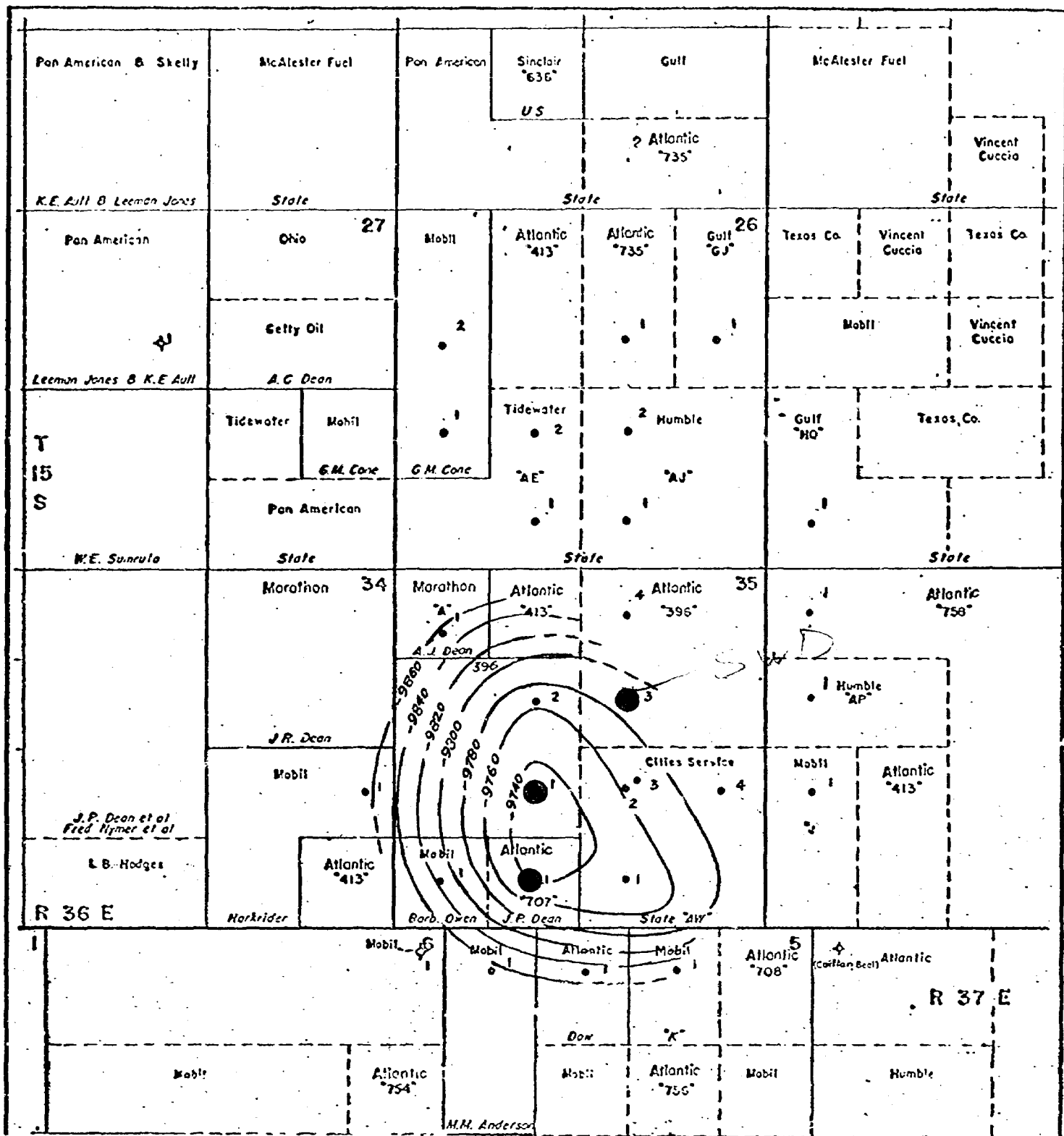


EXHIBIT NO. 5



Present Devonian Producers

BEFORE IDAHO  
OIL COMPANY  
Happ  
ON 4.507

ATLANTIC RICHFIELD COMPANY

Structure on Top of Devonian  
Contour Interval 20'  
Dean Pool

EXHIBIT NO. 7

CLARENCE E. HINKLE  
W. E. BONDURANT, JR.  
LEWIS C. COX, JR.  
PAUL W. EATON, JR.  
CONRAD E. COFFIELD  
HAROLD L. HENSLEY, JR.  
STUART D. SHANOR  
C. D. MARTIN  
PAUL J. KELLY, JR.

LAW OFFICES  
HINKLE, BONDURANT, COX & EATON  
600 HINKLE BUILDING  
POST OFFICE BOX 10  
ROSWELL, NEW MEXICO 88201

TELEPHONE (505) 622-6510

MIDLAND, TEXAS OFFICE  
521 MIDLAND TOWER  
(915) MU 3-4691

February 19, 1971

Oil Conservation Commission  
Box 2088  
Santa Fe, New Mexico 87501

Gentlemen:

We enclose herewith application of Atlantic Richfield Company for approval of salt water disposal in the Devonian formation of the Dean Pool, which has been placed on the examiner's docket for February 24 as Case No. 4507.

Yours very truly,

HINKLE, BONDURANT, COX & EATON

By Clarence E. Hinkle  
CH

CEH:cs  
Enc.

DOCKET # 4507

2-11-71  
Date

BEFORE THE OIL CONSERVATION COMMISSION  
STATE OF NEW MEXICO

APPLICATION OF ATLANTIC RICHFIELD )  
COMPANY FOR APPROVAL OF CONVERSION )  
OF THE LEA STATE 396 WELL NO. 3 )  
LOCATED IN UNIT G SECTION 35, TOWN- )  
SHIP 15 SOUTH, RANGE 36 EAST, LEA )  
COUNTY FOR THE PURPOSE OF DISPOSING )  
OF PRODUCED SALT WATER IN THE )  
DEVONIAN FORMATION OF THE DEAN )  
POOL THROUGH PERFORATIONS FROM )  
13,690 to 13,726 FEET )

Case No. 4507

Oil Conservation Commission  
Box 2088  
Santa Fe, New Mexico 87501

Comes Atlantic Richfield Company, acting by and through the undersigned attorneys, and hereby makes application for approval of the conversion of the Lea State 396 Well No. 3 located in Unit G, Section 35, Township 15 South, Range 36 East, Lea County for the purpose of disposing of produced salt water in the Devonian formation of the Dean Pool through perforations from 13,690 to 13,726 feet, and in support thereof respectfully shows:

1. There is attached hereto, made a part hereof, and for purposes of identification marked Exhibit "A", a plat showing the location of the proposed injection well and the location of all other wells within a radius of 2 miles and the formations from which said wells are producing or have produced. Said plat also indicates the ownership of the leases within said 2 mile radius.

2. That on April 28, 1970 the Oil Conservation Commission granted administrative approval under Order SWD-113 for water injection in Atlantic Richfield's State AW Well No. 4 located in Unit I of Section 35, Township 15 South, Range 36 East, N.M.P.M., said water to be disposed of in the Glorieta formation. Applicant proposes to abandon said well as a salt water disposal well and to convert its 396 well No. 3 located in Unit G of Section 35, Township 15 South, Range 36 East to a salt water disposal well for disposal in the Devonian formation. Atlantic Richfield is the only operator of wells producing from the Devonian formation in the Dean Pool.



3. Applicant proposes to inject from the top of the present perforations at 13,690 feet to the total depth of 13,726 feet. It is anticipated that the injection rate will be between 750 and 2,000 barrels of water per day.

4. There is attached hereto as Exhibit "B" a diagrammatic sketch of the proposed injection well showing all casing strings, including diameters and setting depths, quantities used and tops of cement, perforated or open hole intervals, tubing strings, including diameters and setting depths, and location of the packer to be used. It will be noted that the Permo-Penn perforations were squeezed off in 1964. Applicant contemplates using plastic coated tubing in connection with the injection well.

5. There is filed herewith an electrical log of the proposed injection well.

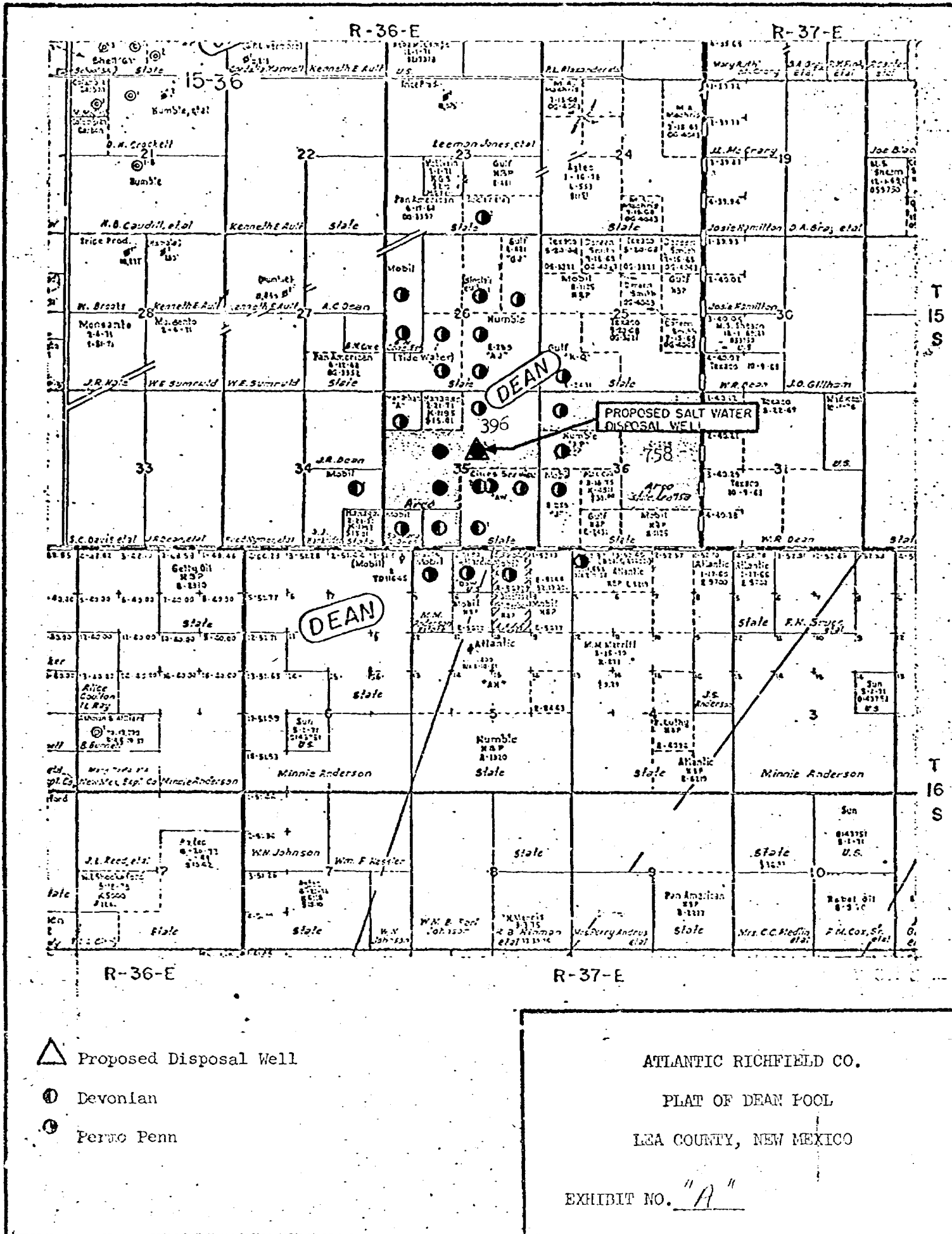
6. Applicant requests that this matter be included on the docket for the next examiner's hearing.

Respectfully submitted,

ATLANTIC RICHFIELD COMPANY

By 

Member of the Firm of  
HINKLE, BONDURANT, COX & EATON  
P.O. Box 10  
Roswell, New Mexico 88201  
Attorneys for Applicant



ATLANTIC RICHFIELD COMPANY  
 SCHEMATIC SKETCH OF PROPOSED SALT WATER DISPOSAL WELL  
 LEA 396 STATE WELL NO. 3, UNIT G, SEC. 35, T-15-S, R-36-E  
 DEAN POOL, LEA COUNTY, NEW MEXICO

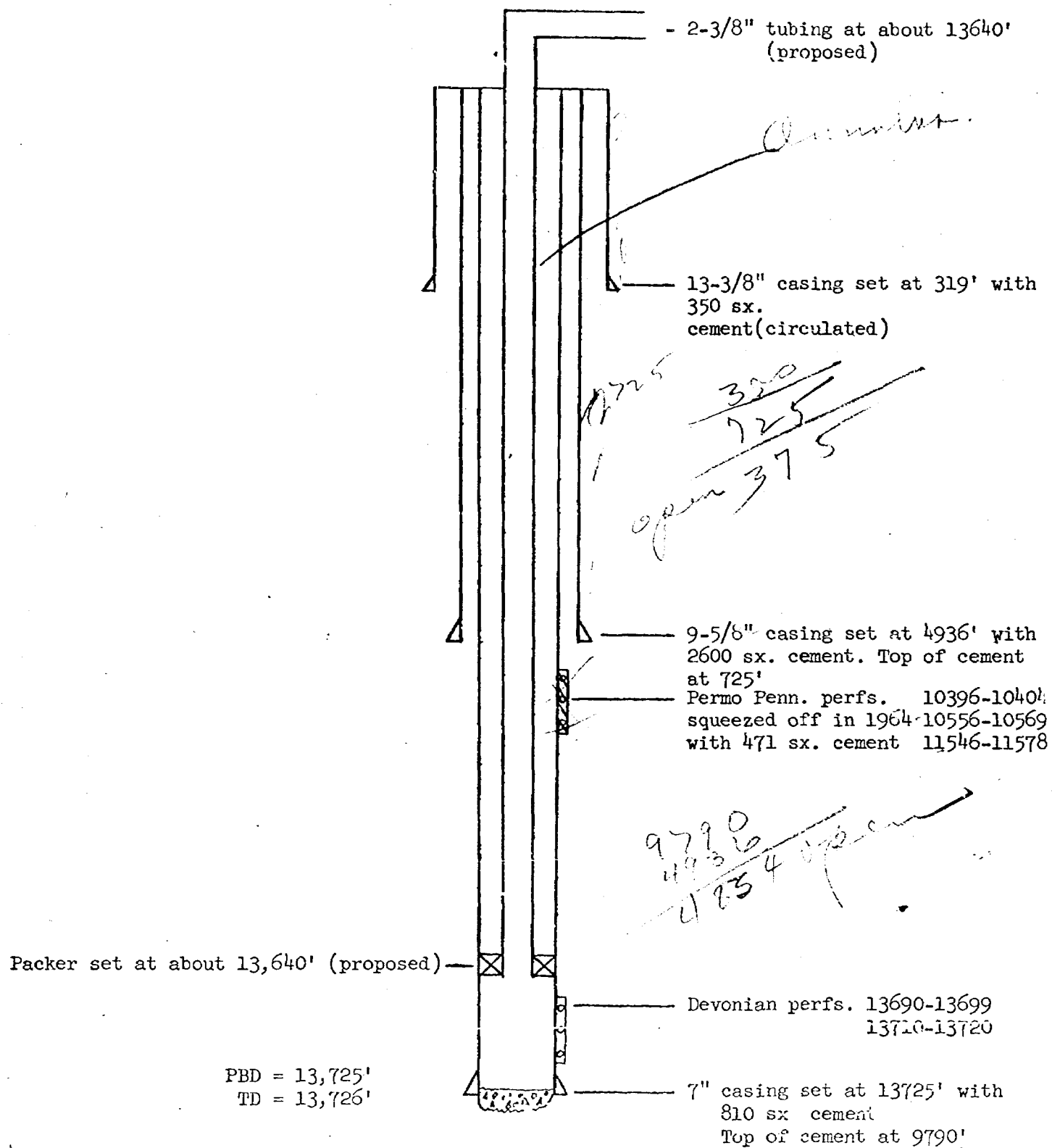


EXHIBIT NO. "B"

DRAFT

GMH/esr

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. 4507

Order No. R- 4114

APPLICATION OF ATLANTIC RICHFIELD  
COMPANY 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 February 24, 1971,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 24th day of February, 1971, 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, Atlantic Richfield Company,  
is the owner and operator of the Lea State 396 Well No. 3,  
located in Unit G of Section 35, Township 15 South, Range  
36 East, NMPM, Dean-Devonian Pool, Lea  
County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the Devonian  
formation, with injection into the perforated interval  
from approximately 13,690 feet to 13,726 feet.

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

approximately 13640 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus ~~or the annulus left open~~ at the surface in order to determine leakage in the casing, tubing, or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Atlantic Richfield Company, is hereby authorized to utilize its Lea (State 396) Well No. 3, located in Unit G of Section 35, Township 15 South, Range 36 East, NMPM, Dean-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 13640 feet, with injection into the perforated interval from approximately 13,690 feet to 13,720 <sup>13,726</sup> feet;

PROVIDED HOWEVER, 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 casing, tubing, or packer.

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

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

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

CASE 4508: Appli. of CONTINENTAL  
for discovery allowable and  
special pool rules, Lea County.