CASE 4093: Application of BTA OIL PRODUCERS FOR SALT WATER DISPOSAL LEA CCUNTY, NEW MEXICO.

Case Number. 409

Application Transcripts.

Small Exhibits

NEW MEXICO OIL CONSERVATION COMMISSION

5.2

Santa Fe, New Mexico

June 4, 1969

EXAMINER HEARING

IN THE MATTER OF:

1120 SIMMS BIDG. . P. O. BOX 1092 . PHONE 243-6691 . AIBUQUERQUE, NEW MEXICO

Application of BTA Oil Producers for salt water disposal, Lea County, New Mexico.

Case 4093

BEFORE: DANIEL S. NUTTER, Examiner



. TRANSCRIPT OF HEARING

MR. HATCH: Case 4093, reopened. Application of BTA Oil Producers for salt water disposal, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin & Fox, appearing for the Applicant. We have one witness I would like to have sworn.

If the Examiner please, I would assume, this Case being reopened, that the record in the previous Hearing on this matter will be a part of the Case?

MR. NUTTER: Yes, the record in the previous

Case will be part of this Case. And, as I understand it,

the Commission has authorized these two wells that are

the subject of the Hearing today for salt water disposal,

and that the only thing we arehaving the Hearing on today

is to change the interval of injection?

MR. KELLAHIN: That's correct.

MR. NUTTER: So the new Order will be an amendment to Commission Order R-2378.

(Thereupon, Applicant's Exhibits 1 and 2 were marked for identification.)

JERRY MORITZ

called as a witness by the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q State your name, please?
- A Jerry Moritz.
- Q Are you the same Mr. Moritz who testified in Case 4093 at the previous Hearing?
 - A Yes.
- Ω Are you familiar with the application of BTA
 Oil Producers in this Case?
 - A Yes.
- Q Mr. Moritz, you have testified before the Commission, and your qualifications are a matter of record?
 - A Yes.
- Q You heard the statement made by Mr. Nucter as to the nature of this Case being solely for the purpose of changing the injection interval on the two wells involved?
 - A Yes.

- 5 1/2 inch casing a little higher than previously proposed. This was due to the lost circulation that we had been advised occurred in the Devonian, so we set the pipe a little higher so as not to lose this hole, and we subsequently set a liner across mainly the Woodford section to eliminate any caving or falling in of the Woodford section.
- Q Will the type of completion that you propose to make adequately protect all the formation?
 - A I believe it will.
- Q You will still inject through internally coated tubing under a packer, and with the annulus filled with an inert fluid?
 - A Yes.
 - Q Will you use a gauge at the surface?
 - A Yes.
 - Q Now, will you explain Exhibit No. 2?
- A Exhibit No. 2 is a schematic of the Pray No. 2, showing where the casing is set presently at 12,154, with a new TD of 12,502. We are asking that we be allowed to inject into the full Devonian section from 12,088 to 12,502.
 - Q And originally the Order provided it would go

to what depth? Was it 12,164?

A Yes, to 12,164, and we are just asking that it be extended to 12,502.

- Q Will the completion in the Well No. 2 be the same as was originally proposed?
 - A Yes.
 - Q There are no changes in it?
 - A No.
 - Q What is the reason for asking for this change?
- A Our reasoning was that in getting the total depth in both wells, we did not feel that the Devonian was taking as much water as it should, so we extended the total depth to open up more Devonian porosity, so that we could get more water into the wells. We still feel that we are in the Devonian, though, in both cases.
- Q Were Exhibits 1 and 2 prepared by you or under your supervision?
 - A Yes.

MR. KELLAHIN: At this time, I offer in evidence Exhibits 1 and 2.

MR. NUTTER: Applicant's Exhibits 1 and 2 will be admitted in evidence.

(Thereupon, Applicant's Exhibits 1 and 2 were admitted in evidence.)

CROSS EXAMINATION

BY MR. NUTTER:

O Mr. Moritz, now, with respect to the No. 1 Well, it is my understanding you have a 60 foot overlap of the liner in the 5 1/2 inch easing?

A Yes.

A And then you would be disposing into perforations from 12,233 to 12,305, and in the open hole from 12,305 to 12,500?

A No, we do not have any perforations in the well. Essentially, our disposal interval that is open will be from the bottom of the liner at 12,305 to 12,500.

Q So this original interval from 12,233 to 12,275 won't be used? It will be cased off with the liner?

A Possibly, yes. I think probably that's right, we do have the liner across there. It is not cemented in the hole, though. It is a hung liner.

Q Well, then, the actual disposal could be into the open hole, and also into the interval from clear on up to thecasing shoe on the 5 1/2?

A Yes. We did not, in the drilling of this well, lose any fluids in this interval in the Woodford, or even actually in the top of the Devonian there.

- Q The Woodford shale is opposite your liner?
- A Yes. And from indications while we were drilling and testing the well, we feel that probably this Woodford is going to cave out considerably against this liner, and possibly could act as a pretty good seal there.
- Q So in effect, then your disposal interval will be 12,275 to 12,500?
 - A I don't understand the 12,275.
 - Q Well, that is --
 - A Oh, the old total depths.
- Q Oh, I'm sorry, I was reading the old total depths. See, it looks like it is right opposite that shoe on the liner. But the liner is 12,305?
 - A Right. Bottom of the liner is 12,305.
- Q What you would want would be to authorize injection into the open hole interval 12,305 to 12,500?
 - A Right.
- Q And in the other well, the disposal would be through perforations from 12,088 to 12,154, and open hole from 12,154 to 12,502?
- A Again, this 12,088 is just the top of the Devonian, and we only included this to include all the

Devonian. I don't think there will be any injection above -- yes, 12,154 to be actually cemented in.

- Q You won't perforate this casing, then?
- A No.
- O The previous Order was from 12,088 to 12,164, which would have been a perforated interval, plus ten feet of open hole. Now, we are not talking about the perforations, we are only talking about open hole from 12,154 to 12,502.

A Right.

MR. NUTTER: Any further questions of Mr. Moritz?

You may be excused. Do you have anything further?

MR. KELLAHIN: That is all.

MR. NUTTER: We will take the Case under advisement, and call Case 4144.

INDEX

	PAGE
WITNESS	
JERRY MORITZ	2
Direct Examination by Mr. Kellahin	7
Cross Examination by Mr. Nutter	,

	MARKED	ADMITTED IN EVIDENCE
EXHIBITS		
Aplicant's Exhibits	2	6

. ***

STATE OF NEW MEXICO)

OUNTY OF BERNALILLO)

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

Jamuel A. Holellelle

ass Mexico Oil Conservation Compission

1120 SIMMS BIDG. • P. O. BOX 1092 • PHONE 243-6691 • AIBUQUERQUE, NEW MEXICO

BEFORE THE

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

April 9, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of BTA 011
Producers for salt water
disposal, Lea County,
New Mexico.

Case 4093

BEFORE: DANIEL S. NUTTER, Examiner

TRANSCRIPT OF HEARING



MR. HATCH: Case 4093, application of BTA Oil Producers for salt water disposal, Lec County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin & Fox, appearing for the Applicant. I have one witness.

(Thereupon, Applicant's Exhibit 1 through 7 were marked for identification.)

JERRY MORITZ

called as a witness by the Applicant, having been first duly sworn, was examined and tesified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

- O State your name please?
- A Jerry Mortiz.
- Q By whom are you employed, and in what position?
- A I am with the BTA Oil Producers, and I am a Reservoir Engineer in Midland, Texas.
- Q Have you testified before the Oil Conservation Commission, and made your qualification as a Reservoir Engineer a matter of record?

A Yes.

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

MR. NUTTER: They are.

- O Mr. Moritz, are you familiar with the application of BTA in Case 4093 presently before the Examiner?
 - A Yes.
 - Q What is proposed by BTA in this application?
- A BTA is requesting that they be allowed to dispose of Bough C produced water into two Devonian dryholes in the vicinity of the West Crossroads-Devonian Pool.
- Q Referring to what has already been marked as Applicant's Exhibit 1, would you identify that exhibit?
- A Exhibit 1 is an area plot of West Crossroads-Devonian Pool. This plat shows the ownership in the area, and the location of all wells. The wells that have produced are shown with a colored dot, red being for the Devonian, green for the Bough C Pennsylvanian, and the blue for the San Andres.

Also shown is BTA Geological interpretation of the Devonian structure for this pool. The original oil-water content is shown at a minus 7,950.

Union Oil of California has two salt water disposal wells that are injecting produced water into the Devonian into this pool. They are shown as solid red triangles. Their State Lea H No. 1, located in Unit L of Section 32, 9-36, approved by Administrative Order SWD-52 on May 28, 1965: and their Federal G No. 1, located in Unit G, Section 31, 9-36, was approved by Order R-3210 on March 22, 1967. The H No. 1 has been used to reinject 4,193,206 barrels of salt water; and the G No. 1, 1,609,610 barrels of salt water, for a total of 5,702,916 barrels of water, to 1-1-69. Injection is still on a vacuum.

The two wells that BTA plans to utilize for injection are the Pray No. 1 in F of Section 5, 10-36, and the Pray No. 2 in C, Section 5, 10-36, both of which are shown by dashed red triangles. These two wells are located 222 feet and 83 feet below the original oil water contact, respectively.

- Ω The two Union wells, they are injecting into the same Devonian formation?
 - A Yes.
- Q That is the same formation you propose to inject into?

- A Yes.
- Q Referring to Exhibit 2, would you identify that exhibit?

A Exhibit 2 is a plat of the oil and water production from the west Crossroad-Devonian pool from discovery in October, 1959 to 1-1-69. Gas production is not shown since it has been a fairly negligible amount.

Total production from this pool has been 1,465,290 barrels of oil, and 7,197,487 barrels of water, to 1-1-69, for a total fluid production of 8,663,770 barrels of fluid.

As previously stated, reinjected volume has been 5,702,000, approximately.

Q Now, the water production began quickly after this pool was discovered?

A That's correct. And from the data that we can see, it is indicating that this Devonian reservoir is under an active water drive, and the oil-water contact has steadily moved updip. By 1968, the pool was producing at a 90 percent watercut, with all wells making large volumes of wwater.

The highest well on the structure, the D No.

1, located in P of section 31, produced 9,328 barrels

of oil, plus 121,500 barrels of water, for a 93 percent

watercut. This is in December of 1968.

Q Referring to what has been marked as Exhibits 3 and 4, would you identify those exhibits?

A Exhibits 3 and 4 are well bore schematics of the two wells that BTA proposes to use for injection of produced water into the Devonian.

Exhibit No. 3 shows that BTA plans in the No. 1 Pray to set 5 1/2 inch casing at 12,233, with 500 sacks. Estimated top of the cement will be at 9,330. Injection will be down 2 7/8 inch internally plastic coated tubing set on a packer at 12,000 feet.

The annulus will be filled with a corrosion inhibited fluid, and the surface valve will be left open to detect any communication by the packer.

The various formations encountered in this area are shown. All formations will be protected by casing, or casing and cement. Initial injecting will be at the rate of 10,000 barrels of water per day on vacuum in this well.

As volumes to be injected increase, BTA plans to reenter the Pray No. 2 and complete it in a manner similar to this well.

And Exhibit 4 is the plan for the Pray No. 2.

- Q Again, you will use an internally coated tubing, and the tubing annulus will be filled with an inert fluid?
 - A Yes.
- Q And you will leave the casing tubing annulus open at the surface?
 - A Yes.
- Q Do you anticipate both wells will take the water on a vacuum?
 - A Yes.
- Now, referring to what has been marked as Exhibit No. 5, would you identify that, please.
- A Exhibit 5 is a water analysis of a typical Bough C water produced in the area that we are planning to bring the water from. This shows that this water has a too high water salt content to be fit for domestic use.
 - Q What is the source of the water you will

inject into these two disposal wells?

A It is our leases in the Township to the North that are completed in the Bough C formation.

MR. NUTTER: What pool would that be in?

THE WITNESS: Mainly it is the Middle Allison.
We do have a few undesignated extensions.

MR. NUTTER: Approximately how far away are these wells that are producing water?

THE WITNESS: About 5 1/2 miles to the North.

Q Now, referring to what has been marked as Exhibit No. 6, would you identify that exhibit?

A Exhibit 6 is a reproduced copy of the log run on the Max Pray State E No. 2, which we are calling the Pray No. 2. The various formations encountered are marked along with the total depth. The setting of the casing point, and the location of the packer are shown there in a small schematic, with the top of the Devonian marked.

Q Referring to what has been marked as Exhibit 7 would you identify that Exhibit?

A Exhibit 7 is a letter that we have received from Union Oil of California, which is the only other

operator in the West Crossroads-Devonian Pool, stating that they are not opposed to our application for salt water disposal under Case 4093.

Q Mr. Moritz, from your knowledge of the West Crossroads-Devonian pool, do you believe that the granting of this application will prevent waste?

A Yes, I do.

Q Will the correlative rights of the operators in the area be impaired in any way?

A No. I might make a comment regarding this.

We presently have 16 wells shut in in the Middle Allison pool which would produce 3,200 barrels a day, if we had some place for the water.

MR. NUTTER: 3,200 of cil?

THE WITNESS: Yes, 3,200 barrels of oil.

MR. NUTTER: That would be 200 apiece then?

THE WITNESS: Yes.

Q (By Mr. Kellahin) In other words, you would like to get this salt water disposal system into operation as soon as possible, is that correct?

A Yes.

Ω Were Exhibits 1 through 7 prepared by you or

under your supervision?

A Yes.

MR. KELLAHIN: At this time, I will offer Exhibits 1 through 7.

MR. NUTTER: Applicant's Exhibits 1 through 7 will be admitted into evidence.

MR. KELLAHIN: That is all I have under direct examination.

(Thereupon, Applicant's Exhibits 1 through 7 were admitted in evidence.)

CROSS EXAMINATION

BY MR. NUTTER:

Q Apparently, from your map there are three wells presently producing from the Devonian in the pool. Is that correct?

A No, two wells. The one is shown as TD SWD No. 52.

Q That would be in Unit J of 31?

A Yes, is shut in. And the one in A of 6 is shut in, also.

Q Only the discovery well there is the only one

producing?

- A Yes, and it is producing with a subsersible pump.
- Q And Union is disposing of the water produced from that well in the disposal well up here in Unit G of 31?
 - A Yes, plus theone in L of 32.
 - Q They are using both of them?
- A Yes, they are. They are just about splitting it in half.
- O Do you anticipate that -- you mentioned that the first well would take 10,000 barrels a day on a vacuum, you thought?
 - A Yes.
- Q Do you anticipate the other well would take a similar volume?
- A Yes, we actually anticipate that they may take more than this.
- Q What is your current rate of water production in this area to the North? What would it be if you are producing?
 - A It would be about 25,000 barrels a day.

Q And you anticipate, then, you are hoping that both of these wells would take that volume of water?

A Yes. We also have plans in the area to take some in of the other operators that are up in our area.

Q It was my understanding the other day that BTA had been attempting to enter some Devonian well for disposal purposes, and was having trouble getting water into that well. Was that one of these?

A No, this was a well located in Section 6 of 9-36 which is not shown on this map. This map, by the way, does show the leases that will be involved in our salt water disposal that we operate.

Q That is the area that is 5 1/2 miles north, then?

A Right, the 80 acre lease is marked down at the bottom.

Q Where was that disposal well that you were attempting to complete?

A It is in Unit J of Section 6, 9-36. It is shown as the Harris No. 2. We deepened it on to 13,907 feet, andit was a dry hole. We were unable to inject into it.

 Ω But you anticipate higher permeabilities and porosity down here in this area?

A Right, we sure do.

MR. NUTTER: Do you want to offer this one as an Exhibit, too, since we made reference to it?

(Thereupon, Applicant's Exhibit No. 8 was marked for identification.)

MR. NUTTER: Applicant's Exhibit 8 will be admitted into evidence.

(Thereupon, Applicant's Exhibit No. 8 was admitted in evidence.)

Does anyone have any questions of Mr. Moritz?

You may be excused. Do you have anything further?

MR. KELLAHIN: That is all.

MR. NUTTER: Does anyonehave anything they wish to offer in Case 4093? We will take the case under advisement, and call Case 4094.

INDEX

WITNESS	PAGE
JERRY MORITZ	
Direct Examination by Mr. Kellahin	2
Cross Examination by Mr. Nutter	10

EXHIBITS	MARKED	ADMITTED IN EVIDENCE
Applicant's Exhibits 1 through 7	2	10
Applicant's Exhibit	13	13

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILIO)

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

Marie Mariation

I do hereby sertify that the foregoing is a complete record of the proceedings in the brancher bearing of Case No. 4093 heard by re-on- 1969.

Then Harton Oil Conservation Commissed on



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER ALEX J. ARMIJO MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

June 10, 1969

Mr. Jason Kellahin Kellahin & Fox Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico	Re:	Case No Order No Applicant:	4093 R-3727-A
Dear Sir:			
Enclosed herewith are two copies sion order recently entered in t			ferenced Commis-
A.	. h.	ORTER, Jr.	
ALP/ir			
Copy of order also sent to:			
Hobbs OCC X			
Artesia OCC			
Aztec OCC			

State Engineer Office

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE No. 4093 Order No. R-3727-A

APPLICATION OF STA OIL PRODUCERS 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 June 4, 1969, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 10th day of June, 1969, 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 by Order No. R-3727, dated April 15, 1969, the applicant, BTA Oil Producers, was granted authority to dispose of produced salt water into the Devonian formation in the openhole intervals from approximately 12,233 feet to 12,275 feet and 12,088 feet to 12,164 feet, respectively, in its Max Pray State "R" Wells Nos. 1 and 2, located, respectively, in Units F and C of Section 5, Township 10 South, Range 36 East, NMPM, adjacent to the West Crossroads-Devonian Pool, Lea County, New Mexico.
- (3) That the applicant seeks the amendment of said Order No. R-3727, as amended, to permit injection into the open-hole intervals from approximately 12,305 feet to 12,500 feet in said Well No. 1 and from 12,154 feet to 12,502 feet in said Well No. 2 in lieu of the injection intervals authorized by said Order No. R-3727.

-2-CASE No. 4093 Order No. R-3727-A

(4) 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 Order (1) of Order No. R-3727 is hereby amended to read in its entirety as follows:
- "(1) That the applicant, BTA Uil Producers, is hereby authorized to utilize its following-described wells in Section 5. Township 10 South, Range 36 East, NMPM, adjacent to the West Crossroads-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation:

Max Pray State "E" Well No. 1, located in Unit F, injection to be accomplished through 3 1/2-inch tubing installed in a packer set at approximately 11,800 feet, with injection into the open-hole interval from approximately 12,305 feet to 12,500 feet, and

Max Pray State "E" Well No. 2, located in Unit C, injection to be accomplished through 3 1/2-inch tubing installed in a packer set at approximately 12,000 feet, with injection into the open-hole interval from approximately 12,154 feet to 12,502 feet;

PROVIDED HOWEVER, that the tubing of each of the subject wells shall be plastic-lined; that the casing-tubing annulus of each of the subject wells shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus of each of the subject wells at the surface in order to determine leakage in the casing, tubing, or packer."

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

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

STATE OF NEW-MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

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



BTA OIL PRODUCERS 104 SOUTH PECOS MIDLAND, TEXAS 79701

AC 915-662-3753

59 JUN 12 PHIZ

June 3, 1969

In re: Waiver of Objection to Water Disposal Well Section 5, T-10-S, R-36-E, Lea County, New Mexico.

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

The undersigned, being an authorized representative of Midwest Oil Corporation, has been duly informed by BTA Oil Producers of their application for administrative approval to dispose of produced water in the Devonian zone of their Pray #1 SWD well located 1980' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

Midwest Oil Corporation hereby waives all objections to granting approval of BTA Oil Producers' application.

Very truly yours,

For Midwest Oil Corporati



BTA OIL PRODUCERS 104 SOUTH PECOS MIDLAND, TEXAS 79701

3 JUN 12 PH/2 55

June 3, 1969

In re: Salt Water Disposal.
Section 5, T-10-S, R-36-E, Lea County, New Mexico

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

BTA Oil Producers is hereby applying for the administrative approval to dispose of water in the Devonian zone of its Pray #1 SWD located 1980' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

We anticipate disposing of from 5,000 to 15,000 barrels of producing Pennsylvania Bough "C" water per day into the Devonian formation at a depth of approximately 12,305' to 12,500', with a surface pressure of approximately 150 to 1100 psi.

The enclosed data is submitted in support of this application.

Yours very truly,

TLA:bl

For BTA Oil Producers

Log Well Bore Sketch Plat of Area

Enc. NMOCC Form C-108

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR .			ADDRESS					
BTA Oil Producers 104 So. Pecos, Midland, Texas 79701								
LEASE NAME		WELL NO.	FIELD				COUNTY	
Pray #1 SWD 1				_			Lea	
LOCATION				_				
UNIT LETTER	F; we	LL IS LOCATED	1980 FEET FR	ом тне	North	NE AND	1980 FEET FROM THE	
West LINE, SECTION	<u>5</u> τον	VNSHIP 10-S	RANGE 36-E		ч			
NAME OF STRING	SIZE	CASING SETTING DEPTH	AND TUBING DAT					
SURFACE CASING	3126	SETTING DEPTH	SACKS CEMEN		TOP OF CEMENT		TOP DETERMINED BY	
	13-3/8"	345'	275	275			circulated	
INTERMEDIATE					surface			
	8-5/8"	4130'	500		2180'		Est.	
LONG STRING	_							
TUBING	5-1/2"	12095'	300		10220'		Est.	
	2. 1 (21)	11000	1		11,800) ·		
NAME OF PROPOSED INJECTION FORMA	3-1,'2"	11800	TOP OF FURM		11,800		F FORMATION	
Devoni	an		12	,233'		1	12,500'	
IS INJECTION THROUGH TUBING, CASIN		PERFORATION	S OR OPEN HOLE PPR	OPOSED INTER	IVAL(S) OF INJEC			
Tubing			Н		05' to			
IS THIS A NEW WELL DRILLED FOR DISPOSAL?	IF ANSWER 15	NO, FOR WHAT PURPO		ALLY DRILLED	7	HAS WELL ZONE OTHE TION ZONE	EVER BEEN PERFCRATED IN ANY ER THAN THE PROPOSED INJEC-	
NO	S AND SACKS OF CI		1 Well	·			No	
DEPTH OF BOTTOM OF DEEPEST		DEPTH OF BOTTOM OF	F NEXT HIGHER		DEPTH OF TOP			
FRESH WATER ZONE IN THIS AREA	12,023				None			
ANTICIPATED DAILY MINIMUM	I MAXIMUM	OPEN OR CLOS	SEO TYPE SYSTEM	PRESSURE?			APPROX. PRESSURE (PSI)	
5,000 15,000 Closed				Pressure			150 - 1100	
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MIN- ERALIZED TO SUCH A DEGREE AS TO SE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE								
high salinity Penn - Yes							Yes	
Mrs. M. Price, Mr. T. Price, Mrs. R. Baum, Mrs. G. A. Duncan, Mrs. L. B. Gainer								
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF () MILE OF THIS INJECTION WELL								
Union Oil Co. of	Californ	ia. 500 N.	Marienfel	d, Mid	land, Te	exas	79701	
Union Oil Co. of California, 500 N. Marienfeld, Midland, Texas 79701								
Phillips Petroleum Co., Box 3120, Midland, Texas 79701								
1500 7/3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7								
Midwest Oil Corporation, 1500 Wilco Bldg., Midland, Texas 79701								
Humble Oil & Refining Co., P. O. Box 1600, Midland, Texas 79701								
Humble Oll & Rellining Co., F. O. Box 1000, Midiana, Texas 79701								
NOTE* Approval granted per NMOCC Order #R-3727 dated 4-15-69.								
HAVE COPIES OF THIS APPLICATION BE SENT TO EACH OF THE FOLLOWING?	SURFACE OWN	IER	EACH OPERAT	OR WITHIN ON	E-HALF MILE	THE NEW M	MEXICO STATE ENGINEER	
	1	Yes		'Yes		Yes		
ARE THE FOLLOWING ITEMS ATTACHED THIS APPLICATION (SEE RULE 701-B)	į		i i	ELECTRICAL LOG		DIAGRAMMATIC SKETCH OF WELL		
		Yes		Yes		<u> </u>	Yes	
I hereby certify that the information above is true and complete to the best of my knowledge and belief.								
•		Dr	illing Mar	ager		Jui	ne 3, 1969	
(Signature)			(Title)				(Date)	

NOTE: Should waivers from the State Engineer, the surface owher, and all operators within one-half mile of the proposed-injection well.

not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days
from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing,
if the applicant so requests. SEE RULE 701.

	· · · · · · · · · · · · · · · · · · ·	orte i la p	· · · · · · · · · · · · · · · · · · ·										
1		1670668 6 78 8 27 79 10 11 78 9 20 38 10 4 74 10 7 73	ta Navigasia	ieni.	tennece 12 10 m		**************************************	140 140 144	1/2/31/03 Accol		e selejis ili Propositi	Farmers #1	
je.	erenteugh erenteugh	Physical S	A SCHOOL ME	Sale Ash	ere dung.	ATA	· · · · · · · · · · · · · · · · · · ·	es consta	(Allies Fo	LL. Deon LL. Deon	Smito F + Ry. A		ĵ₩.
-	SA GREENS	(Meg)	دهره مدر المراق الم		Mar Pearle S	Pon Pun s	P.	In Amer			11.0 50	1 7	Whitehall
	3 75	Rend L 28 71			Color Colors Color Colors Color Colors Color Colors Color Colors	0 - 0 - 70	37 111 00	15411 M/	1 7	20 75	A STA	Mobil	G "Lø1 [a11y]
1		25 21 6 23 23	43334	A 14 Pan Am	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		To drawn a	Tol TraMi			COS LAN SOCO A		to He
j	j ((C B Read) Tennece (d) (e) C ey Cem 10 2 37 P 8 8 8 9 0	Dev Oise Switch	DE THEFT	giri îpijî î Garigi Fiebler Garigi salare Garigi salare	·	LEMO CON	Amer,	R Lowe Est. (-21 - 74 - 1 K-3881 - 1	Tenneco 7 IB. 77		Gulf Mar	Est C31
1	30665 - Ee	11.405.117	(Mobil) - Com	Dine.	GS U.S., MI	Morr	DIA R IN Fulls My of a fin Property of the Library of the Library of the financial Library of th	ke erol, F	1357	//	36 Sonte Fe Ry.	CateFred. Vincen TO:1.320	tidenster Writeboll U.S. M.I
+	ON LEVELBY	3			Renda Bondan	Ford C	l'en A	mer	د در اور احرار	90r (e)	J.O.Sowyer, S	Gulfielet	SIL OIL
	Pan Amer. 3-10-69 3-18-69 3-4-69	Pon Amer. 1-10-68	79 9744	** (Carrie and)	Control All 177 OSSEGTO 2845 HOLES THE ST U.C.	5 1 7 °	tuchian, 8-1) 15 of floto c		Tenneco (11 - 26 - 68	•' [10 1 12 41 2981 784 865 784
1	IB)		Pan Am 045084 65 83	' Y	Tenne 6-79	C Q	CO Meg ().jo.	regnotia				Ven Mer Fed
∬-	Pon Amer.	Pon Amer,	24 Censtal S		1077 to 1	9 ~,	ن. الم	Tenn	·2	Tennoco	2 2 - 2	Mobil	Mobil
#		V.L. Bornes	02575		Ben F. Dui		ا ع ماه در ا	11 · 3"	ļ	11- 26-68	ا أون المادة * 11 أولاً المادة * 12 أولاً	es Combre	• • • · · · · · · · · · · · · · · · · ·
#3	TELEUF JE	etal, Mi oe Barnes, S	U.S., A Tip Barn		Sonto Fe U.D. So	Pc i	John Fe B	gens	Santa Fe U.D. Sa	Ry., MI wyer, S	hiller Santo Fe	ste nyer, s	ii v.
#	Pan mer	Pon Amer,	Courtal States	Coastal States	Tenneco (1 26-68		S D Manage		rca ∂6-68		On Develor	Suarey DX 642)	
1	74 Apriley 3 4 63 1 10 69 3 10 69	377	Constal States	Harding Bras.	પ્રથમ દ		Tenneco Selfo	N33, 62.		[·		رةً ي	Mol
- -	26		Len al Alleneid no	CWKinjehing Mi castal Superior Stores 0-22-68	weite 33	o _	29	# Fann 6000	2	8 500 10	Sonto Fe Beiling	7,	3M [4]
	-	1	1 - 2 - 68 5 4 - 28 - 70 1 4 - 26 - 70 1 - 16 - 70	1	Sontofe	ll Rg, kl Coo:*	i	Pris 2136 Tenneso	1	Tenneco 19 111	Supred	, i	CRO
- 11	1/2 MI	Bertrom B. Bornes, Mi .H. Bornes, S	Iddie Crumb, etal	Ivan R. Lock er, MI I.E.Williamson	1986 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	State 1771	Santo Fe U.D. Sep		Sente F	Cy,MI	Dessie Sawyer,etat	O. Mary	9 150 9 360
		Superior	Ŭ.\$.\$m 7: 11:	ieli.	Coastal KGS	States	L		1 68	Tenneco (n 8-1-73	History 18		Mobil !
1	5 - 1 - 76 0559908	058914	28 13	,	189 A- Z		Vagantie En 17/22-517 Et 1669	ĺ		(Skelly) (Skelly) Sawy'r	2-11-69 About 3 13	1 1	
<u>'</u>	35	ļ	36		(Mobil)	hero Ca Edila)	TB 4955 SR 4864 WA 3 H 58 32	,	Sonta Fe Ry. U.D. Sawyer, S	Sawyer, elai	ا 3 ع ر بريو-	4	301 10
76	ĭ	- 00	755 <i>R0</i> ,		وأونا	9.0	THE STATE OF THE S	1	Union	Hemsecol	Fichter Tempers 5 1 7819 73	•3	Tres Cr. Tres 200 Tres 200 Tres 200 Ut
	U.S., /	MI	CAAN WI MAN VII	("V (,2 V.,2		F1352	Union Tugo I	Menterey Aure Monterey TO 12 HS Abo 1683 e Dev 2099	#1+5: U.S.		US AII	4 U D. Sowyegelo	Perley! F 2007515
=	C.W. Kinsol	lving, S .	i ti in vid i Stot www.e elecuse 3]e		008	Mi	E 8897 I Stat	10(4) 0/42 11 160		swyer, Si	UD.Ses	vyer, etal.(S)	V55 6 19 1
Fă	Superior 8:11:48 k:3564 4719	Superior 1 21-74 KJ883	while electric 31	K-18 3-19	1.39.75 R-4697 1295 B-1991	Union F270	Mu Byer To 4 sez 1 To			Asfee	1 - 15 - 73 1 - 15 - 73 1 - 3p24 54 3	Cities Service 1- 21-74 K3835 - 112-95	BRY II o
+	State	1	Ston		#100 9988 #960 9638 Was 11778 *20 11988	Union F270 1 6897 1 69 WK Byrown 10 7517 12 73 6 K Byrown 10 7517 10 751	HK Byrom (1)	K W.K.Byrom 12-18-72 K 2542		50 B		1 1	Cities : K-3154
	2 ·	·			Mic 12:			i '' -		î l	7.	3 perior 18 70	Pre-Se
		_		_	inder of	WK.Byrom K.3075	07000 4:8:77 K6761 1036	I M.P		W.K.Byrom State T/A 5010	13	ole	ł
	Santa Fe i C.W. Kinsol	Ry., Mr Iving, S	Sonto Fe C.W. Kinso	Ry., MI olving, S	10.73.64	gre 10 23	Sto	I M.P Grace 4 18-77 Fe KG881 1 10 54		91400.53myer(5)	U.D. 5	ionyer,(5)	
:					Chas.	3. Read 20 - 73 3510 19	Bridweil 7 - 21 - 74 K-6258 12 43	Bridwell 2 - 16 - 76 K 3903	3 - 3 2 - 3 k-	E.D.F.Webb 0 10 163	Told 269 Fi	CEO Worrs 10 f M M 2 18 74 4 21 4 K-3319 1 2 3 5 7 5 0	
	Atlantic Tages Belenb	M.I.	Santa Fe C.W. Kins	Ry., MI	397640 Fl 16			k 3963 26♥		W.K. ' 'Byram ' H-16-75'	F.7067 •		
	Superior			a - '	Bridwell	7	, e	ا د	M.P.Grace	Q F-6471 WIK.	b +	10 Leves	Cit. Se 6:16:
7	11 15 70 X-254		E14078 TD13,135 SA4175 Abo78\$35 Dev.12,365 J/A7-77-65	8 · 2 · 76 K · 6102 10 · <u>3</u> !	12 49 K-4259			!	4 - 18 - 77 × e s e i iQ • •			TITECED House	R - 41 18 I
	\$1 <u>86</u> Store	Ween to Est 3	THE GOOD IS	State	No bio	i State	Sec	†•	Sı	(1-15-70 ⊕ 16 K956 153-33 Tole 506-55-59	'TO CI-	(Crossreods (htt) 10 1 14 - 351 10 8 3113 Garages (5)	
Fris -73	Mercan, Safe Depasify Tr G 21 - 10 K-539	Phillips 4: 16:73 7 3205	Del-Lea 6 - 21 - 78 K - \$102	Allied Chemical 3 · 19 · 73	W.M. erritt 7-16-73 K-3408	So Petr. 12-18 72	L.B.H.	0 - 73	Bridwell 2:18:74	⊕ 1.4	Tex Pocific Oil HBP E-7067	M.P. Grace /** 1 4-(\$-77) Keest	
	5184	M.H.Christenson 4-19-73 V.3205		1 K-3134	19474- 20 15	18 34 K-5944	K · š H ·		K-3304 3126		19:100 "U"	10 99	1
) 	 1		3 428	3944 d	i <mark>8</mark>	Ste	7 Samedany	Rale	16 Lowe	Raiph Texas Lowe Pacifi E-6469	1 "St of N.M."	1
:	· [Phillips 4 x 2875	Allied Chemical 2 - 19 - 73 K 3079	, SHO ©	non se		1	Del-Apache)	LOWE ČŘ	OSSROADS I	Lowe Pacifi E-6469 TP St TACT		
	Sio	M M.Christenson 4-16-73 K 3205	Sie	N.C.L	19.74-5 No bid 4-18-771 State	R.E.Boyle 12 - 1 - 69(2) 25 7 5 2) Mortic Price(5)	M.R. And Vada Pryilli	l Jerson, Ml Carrell (S)	Crossro	tote 1500 10	_• <u>'</u> -^ i .	j (Tex Pac) y 20 ispse - 535a	Cities AJ.Cra Joek L
· · ·	Union Pt.	Union	Altied Cliem.	1 Union 3 17 19	T.H McElvoin 8 - 21 - 76	Ja So Pate	R.E. Boyle	Cities Serv.	Ralph (owe at-A	Hoter Corg.	Huber Corp	
in with	5-17-19 Houne -5-5198 / Lan Mayer Union 4-18-79 11-19-70 Hosco	11 15 70 K-955 20 <u>95</u>	20 05 73 K3/373 26 05	AlliedChem.	K-5267	1 12 -16 - 72 1 K-2544 1815	11 - 1 - 69(2) 057051	K-28-72 K-28-7 15 ¹⁹	RALPH L	OWE (OPER)	osisie (51-TP	F326	
iler L	10 or 10 or 10 or	Stote 3	1	1 2 15 73 1 K3079 4 26 25	l wsorf	ı ıg	2	¦ !O	S	oods-Dev * tote 21	Grace 4-10-77 41 Mage 77-11-15 10-29 State 15-15 Hills Meeker	22	
	204:39	Teny Telente 12-1-65(5) 853952	Midwest 2 1-21-79 1-2357 2082 Sec	•	State		}	1	į .	Asunsey, etal jainer, (5)	C. 5222	al 69 Care (6)	}
	1976 F	U.S., MI MLR. Ander-	M.C. daylar and day		1944 of B	E.N. Evans,MI Georgia Ann	U.S., MI Vodo Lee				1.5.	Horris	- Jan
	I SMI Store	:01., \$	Hallew Price S	AVALE BOUM S	PubyE Roum S	Duncan, S	Cornell, S	State Mid Can)	T	ny Mahil etal I Baum	Lela Bei	C. Harris	+
	(1014 A 10 (1014 632) (1014 632)	Sware			irca t		}	Mid Canh Belly Tick man En 1927 Cin Citt And Tack Wig 193 Wing 197	1	by Bourness 1811 Ya M.T. Ciges & M.T.	1 1 2	1.75	
		Eventa Mottie Price	CVSilor		1	Tenneco M 3/8 MI S F. N. Evons, MI 30	1	тойзь	5 - 5 - 63	1.C.Harris	US	Lis Mi Le o Call	9 (
	26	5- 2 -	2	5 (1.50 mg) 1-21-7 1-2157	/ -	30	"	29 31(\)	7 - 20 - 72 10 - 12 - 72 Frank E	28 	Az tec 3 16 75	Cities Stry.	7
Sainer,	Fam Garner,		M.R. Anden-	MD 2011 Inderson	han a dealer	OATUSSET FOR WIT	Phi'lip D. Ar-	Mary D. Claylo	Lelo Rel	lle Gainer, S Aztec 	90 G	K 2738 SND	
4 MI	1/4 MJ Alvin H. Price		Mottie May	Buby E Store	•		Most etal3/8Mi	Tammy C Price, S.	an Hike-	5 Ruby Baym (5)		State	
			Cities 4: 21	Serv.			Teny Teranto it respi		THE STREET		на ER нв	deeker P	J.,
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	142	0.8.0	ine s		133191		Santa Mary D Clayte	Fa farlic on atol Tra ,1/4 S		Fa Ry., MI Pluncon S	4A
	.010	2.3	3	3 6	1144-3	31		To Fe Ry., MI	·	(chenson Est., S		34 1911111	- [
	9512	September 14 14			nma !		U.S., M		r L foot old	lageam	25.6	i Alcero (s. 1000 ingrees (1174 ingrees (1771 ingrees	
_	The man	in of means	· .	i,,te	1	d m by	Bernye for	POPE SI	An in the	R	OF THE	The said of	i Ir ii j



BTA OIL PRODUCERS

104 SOUTH PECOS

MIDLAND, TEXAS 79701

AC 915-682-3753

June 3, 1969

In re: Waiver of Objection to Water Disposal Well Section 5, T-10-S, R-36-E, Lea County, New Mexico

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

The undersigned, being an authorized representative of Union Oil Company, has been duly informed by BTA Oil Producers of their application for administrative approval to dispose of produced water in the Devonian zone of their Pray #2 SWD well located 660' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

Union Oil Company hereby waives all objections to granting approval of BTA Oil Producers' application.

Kery truly yours,

Union Oil Company of California June 10, 1969



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87801 GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER ALEX J. ARMIJO MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

April 15, 1969

Mr. Jason Kellahin Re:	Case No. 4093
Kellahin & Fox	Order No. R-3727
Attorneys at Law	Applicant:
Post Office Box 1769	BTA OIL PRODUCERS
Santa Fe, New Mexico	
Santa Fe, New Mexico DOCKET MARKED Dear Sir: 5-22-69	
Enclosed herewith are two copies of t sion order recently entered in the su	
Very tr	culy yours,
a.L.	Carter, S.
A. L. F	PORTER, Jr.
Secreta	ary-Director
ALP/ir	
Copy of order also sent to:	
Hobbs OCC X	
Artesia OCC	
Aztec OCC	
Other State Engineer Office	

DEFORE 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. 4093 Order No. R-3727

APPLICATION OF STA OIL PRODUCERS 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 April 9, 1969, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of April, 1969, 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, BTA Oil Producers, is the owner and operator of the Max Pray State "E" Well No. 1 and the Max Pray State "E" Well No. 2, located in Units F and C, respectively, of Section 5, Township 10 South, Range 36 East, NMPM, adjacent to the West Crossroads-Devonian Pool, Lea County, New Mexico.
- (3) That the applicant proposes to utilize said wells to dispose of produced salt water into the Devonian formation, with injection into the intervals as follows:

The open-hole interval from approximately 12,233 feet to 12,275 feet in its Max Pray State "E" Well No. 1, and

The open-hole interval from approximately 12,088 feet to 12,164 feet in its Max Pray State "E" Well No. 2.

-2-CASE No. 6093 Order No. R-3727

- (4) That the injection should be accomplished through:
 - 2 7/8-inch plastic-lined tubing installed in a packer set at approximately 12,000 feet in the Max Pray State "B" Well No. 1, and
 - 2 7/8-inch plastic-lined tubing installed in a packer set at approximately 12,000 feet in the State "E" Well No. 2;

that the casing-tubing annulus of each of the subject wells should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus of each of the subject wells 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, BTA Oil Producers, is hereby authorized to utilize its following-described wells in Section 5, Township 10 South, Range 36 East, NMPM, adjacent to the West Crossroads-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation:

Max Pray State "B" Well No. 1, located in Unit F, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 12,000 feet, with injection into:the open-hole interval from approximately 12,233 feet to 12,275 feet, and

Max Pray State "E" Well No. 2, located in Unit C, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 12,000 feet, with injection into the open-hole interval from approximately 12,088 feet to 12,164 feet;

PROVIDED HOWEVER, that the tubing of each of the subject wells shall be plastic-lined; that the casing-tubing annulus of each of the subject wells shall be filled with an inert fluid;

-3-CASE No. 4093 Order No. R-3727

and that a pressure gauge shall be attached to the annulus of each of the subject wells 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 Pa, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OTL COMMERVATION COMMISSION

DAVID F. CARGO, Chairman

ALEX J. MMIJO, Membe

A. L. PORTER, Jr. Member & Secretary

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 4, 1969

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, Alternate Examiner:

- CASE 4121: (Continued from the May 7, 1969, Examiner Hearing)
 Application of Roger C. Hanks for special pool rules, Lea County,
 New Mexico. Applicant, in the above-styled cause, seeks the
 promulgation of special pool rules for the Bar U-Pennsylvanian
 Pool, Lea County, New Mexico, including a provision for 160acre spacing and proration units and the assignment of 80-acre
 allowables.
- CASE 4143: (Continued from the May 21, 1969, Examiner Hearing)
 Application of Amerada Petroleum Corporation for downhole commingling and special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Eumont Gas Pool and the Skaggs-Grayburg Pool in the wellbore of its Fred Turner, Jr., "A" Well No. 2, the Eumont completion of which is presently classified as a gas completion, located in Unit K of Section 18, Township 20 South, Range 38 East, Lea County, New Mexico. Applicant, further seeks the establishment of a special gas-oil ratio limitation for the subject well.

CASE 3796: (Reopened)

In the matter of Case No. 3796 being reopened pursuant to the provisions of Order No. R-3452, which order established 160-acre spacing units for the Cerca-Upper Pennsylvanian Pcol, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre or 80-acre spacing units.

CASE 4093: (Reopened)

Application of BTA Oil Producers for salt water disposal, hea County, New Mexico. Order No. R-3727, dated April 15, 1969, authorized the applicant to dispose of produced salt water into the Devonian formation in the intervals from approximately 12,233 feet to 12,275 feet in its Max Pray State "E" Well No. 1 and from approximately 12,088 to 12,164 feet in its Max Pray State "E" Well No. 2 located, respectively, in Units F and C of Section 5, Township 10 South, Range 36 East, adjacent to the West Crossroads-Devonian Pool, Lea County, New Mexico. Applicant now seeks authority to extend said Devonian zones of disposal to 12,233 feet to 12,500 feet in said Well No. 1 and 12,088 feet to such depth as is necessary in said Well No. 2.

- CASE 4144: Application of Sam G. Dunn Oil Operations for salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 1910 feet to 1950 feet in its E. Faircloth "C" Well No. 1 located in Unit N of Section 32, Township 7 South, Range 27 East, A me-San Andres Pool, Chaves County, New Mexico.
- CASE [13:: (Continued and readvertical)

 Application of Mallard Petroleum Company for calt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of proluced salt water into the Seven Rivers downables in the conduct in-terval from approximately 3000 feet at a line of the Miller Federal Well No. 4, located in table 5 Pool. 100 Doming. Her Matthews.
- CASE 4145: Application of Tenneco Oil Company for an econotial to Order No. R-3221, as amended, Les and Eddy Counties, assume inc. Applicant, in the above-stylet of the profession to Order No. R-3221, as amended, which ender the the profession to disposal of water produced in conjunction with the profession of oil on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for applicant a Itali Held leases comprising the SW/4 NW/6 of Section 17, lowestic in South, Dange 32 East, Lea County, New Mexico, and the NE/4 of South, Tange 32 East, Lea County, New Mexico, and the NE/4 of South, Tange Applicant seeks authority to dispuse of oath water produced by wells completed on said leases in unlined shall on pits on said leases.
- CASE 4146: Application of V. S. Welch for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico, after Canuary 1, 1969. Said exception would be for the applicants lease comprising the NE/4 of Section 28, Township 18 South, Range 31 East, Shugart Field, Eddy County, New Mexico. Applicant seeks authority to dispose of salt water produced by wells completed on to be completed on said lease in unlined surface pits on said lease.

- CASE 4147: Application of Mobil Oil Corporation for pool reclassification, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to have the North Vacuum-Morrow Pool, Lea County, New Mexico, reclassified from an oil pool to a gas pool.
- CASE 4148: Application of Fannie Lee Mitchell, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Wolfcamp formation in the perforated interval from approximately 10,450 feet to 10,550 feet in the former Southern Petroleum Exploration Co., Inc. Machris State 36-3 Well No. 1 located in Unit W of Section 3, Township 16 South, Range 35 East, Townsend-Wolfcamp Pool, Lea County, New Mexico.
- CASE 4149: Application of Jack L. McClellan for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for applicant's Harris Well No. 1 located in Unit P, Lection 5, Township 16 South, Range 30 East, West Henshaw-Grayburg Pool, Eddy County, New Mexico. Applicant seeks authority to dispose of salt water produced by said well in unlined surface pits in the vicinity of the well.

DOCKETS EXAMINER HEARING - WEDNESDAY - APRIL 9, 1969

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING - SANTA PE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, Alternate Examiner:

- CASE 4092: Application of Phillips Petroleum Company for a capacity allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the assignment of a capacity allowable to its U. S. Minerals Well No. 4 located in the SW/4 SE/4 of Section 30, Township 17 South, Range 33 East, Maljamar Grayburg-San Andres Pool, Lea County, New Mexico. Said well offsets a waterflood project operated by Cities Service Oil Company.
- CASE 4093: Application of BTA Oil Producers for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation in the intervals from approximately 12,240 feet to 12,275 feet in its State "E" Well No. 1 and from approximately 12,088 feet to 12,164 feet in its State "E" Well No. 2 located, respectively, in Units F and C of Section 5, Township 10 South, Range 36 East, adjacent to the West Crossroads-Devonian Pool, Lea County, New Mexico,
- CASE 4094: Application of Cayman Corporation for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4184 feet to 4274 feet in its Hondo-State Well No. 1 located in Unit F of Section 31, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.
- CASE 4095: Application of Tom Schneider for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Rustler formation in the perforated interval from approximately 1320 feet to 1340 feet in his SWD Well No. 1 located in Unit O of Section 16, Township 23 South, Range 36 East, Jalmat Yates-Seven Rivers Pool, Lea County, New Mexico.
- CASE 4096: Application of Kersey & Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project

(Case 4096 continued)

by the injection of water into the Seven Rivers formation through four wells located in Units C, D, and F of Section 25, Township 17 South, Range 28 East, Aid (Yates-Seven Rivers) Pool, Eddy County, New Mexico.

- CASE 4097: Application of Western States Producing Company for a dual completion and salt water disposal, hea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Smelting-State Well No. 1, located in Unit F of Section 9, Township 12 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the East Bagley-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres, Glorieta, Tubb, Abo, and possibly other formations in the interval from approximately 4199 feet to 8931 feet.
- CASE 4098: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Walter J. Nelson and all other interested parties to appear and show cause why the Walter J. Nelson Lee Burns "A" Well No. 1 located in Unit P of Section 31, Township 6 North, Range 8 East, Torrance County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.
- CASE 4078: (Continued from the March 26, 1969 Examiner Hearing)
 Application of J. Gregory Merrion for downhole commingling,
 Rio Arriba County, New Mexico. Applicant, in the abovestyled cause, seeks authority to commingle production from
 the Devils Fork-Gallup Pool and an undesignated Mesaverde
 oil pool in the well-bore of his NCRA State Well No. 3
 located in Unit L of Section 16, Township 24 North, Range 6
 West, Rio Arriba County, New Mexico.



BTA OIL PRODUCERS 104 SOUTH PECOS MIDLAND, TEXAS 79701

AC 915-632-3753

June 3, 1969

In re: Waiver of Objection to Water Disposal Well Section 5, T-10-S, R-36-E, Lea County, New Mexico.

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

Please be advised that we (Mrs. Mattie Price, Mr. Tommy Price, Mrs. Ruby Baum, Mrs. Georgie Ann Duncan, and Mrs. Lela Belle Gainer, surface owners of Section 5, T-10-S, R-36-E, Lea County, New Mexico) have been duly informed by BTA Oil Producers of their application for administrative approval to dispose of produced water in the Devonian zone of their Pray #1 SWD well located 1980' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

We hereby waive all objections to granting approval of BTA Oil Producers' application.

Very truly yours,

Mr. Tommy Price

Mrs. Georgie Ann Duncan

Mrs. Lela Belle Gainer



BTA OIL PRODUCERS 104 SOUTH PECOS MIDLAND, TEXAS 79701

AC 915-682-3753

June 3, 1969

In re: Waiver of Objection to Water Disposal Well Section 5, T-10-S, R-36-E, Lea County, New Mexico.

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

Please be advised that we (Mrs. Mattie Price, Mr. Tommy Price, Mrs. Ruby Baum, Mrs. Georgie Ann Duncan, and Mrs. Lela Belle Gainer, surface owners of Section 5, T-10-S, R-36-E, Lea County, New Mexico) have been duly informed by BTA Oil Producers of their application for administrative approval to dispose of produced water in the Devonian zone of their Pray #2 SWD well located 660' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

We hereby waive all objections to granting approval of BTA Oil Producers' application.

Very truly yours,

Mrs. Mattie Price

Mrs. Ruby Baum

Mrs. Georgie Ann Duncan



BTA OIL PRODUCERS 104 SOUTH PECOS MIDLAND, TEXAS 79701

63 JUN 18 PH] 12

June 3, 1969

In re: Waiver of Objection to Water Disposal Well Section 5, T-10-S, R-36-E, Lea County, New Mexico

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

The undersigned, being an authorized representative of Phillips Petroleum Company, has been duly informed by BTA Oil Producers of their application for administrative approval to dispose of produced water in the Devonian zone of their Pray #2 SWD well located 660' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

Phillips Petroleum Company hereby waives all objections to granting approval of BTA Oil Producers' application.

Very truly yours,

For Phillips Petroleum Co



BTA OIL PRODUCERS

MIDLAND, TEXAS 79701

AC 918-682-3783

June 3, 1969

69 JUN 13 PH 1

In re: Salt Water Disposal

Section 5, T-10-S, R-36-E, Lea County, New Mexico

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

BTA Oil Producers is hereby applying for the administrative approval to dispose of water in the Devonian zone of its Pray #2 SWD well located 660' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

We anticipate disposing of from 4,000 to 15,000 barrels of producing Pennsylvania Bough "C" water per day into the Devonian formation at a depth of approximately 12,154' to 12,502', with a surface pressure of approximately 150 to 1400 psi.

The enclosed data is submitted in support ... this application.

Yours very truly,

T. L. ALVEY

For BTA Oil Producers

TLA:b)

Enc. NMOCC Form C-108

Log

Well Bore Sketch Plat of Area

NEW MEXICO OIL CONSERVATION COMMISSION

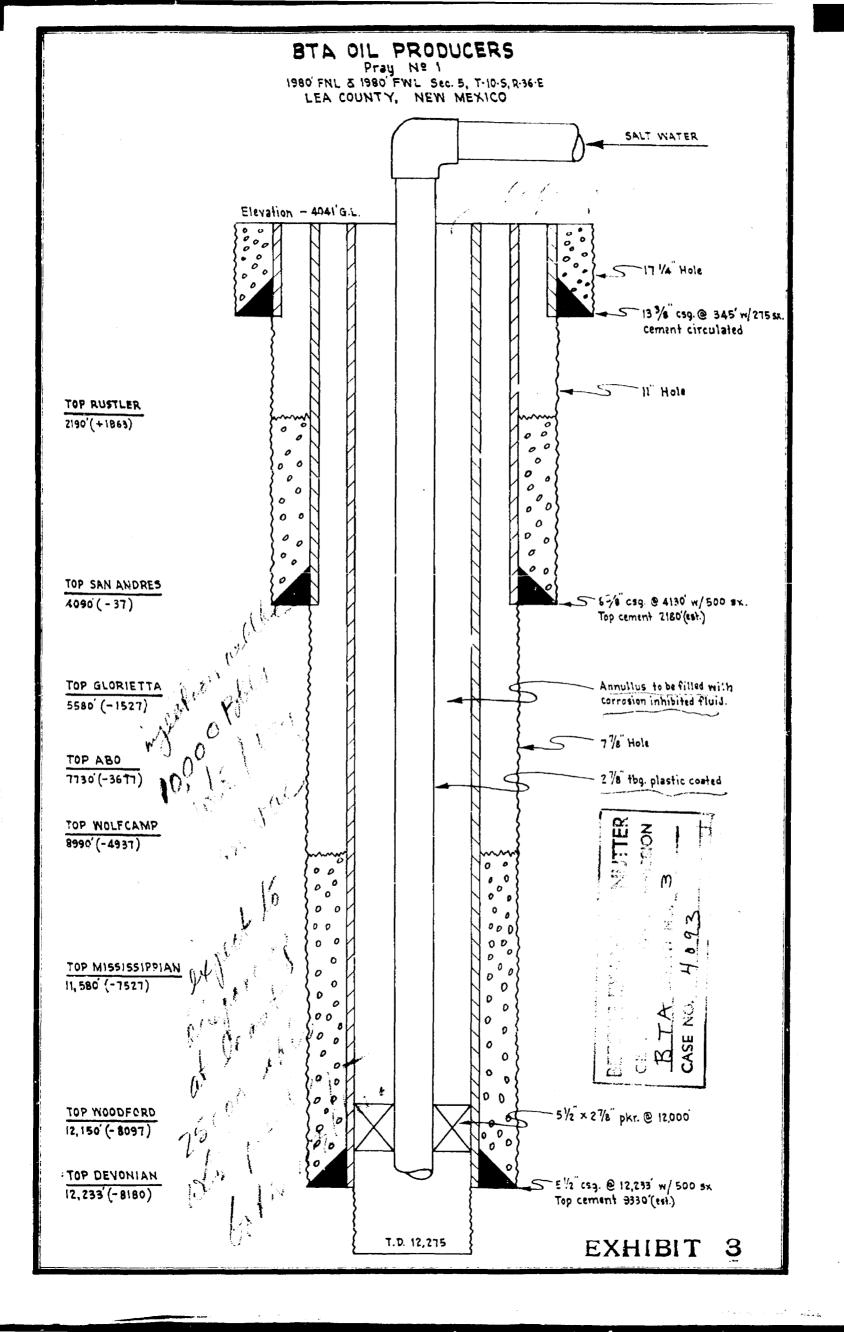
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

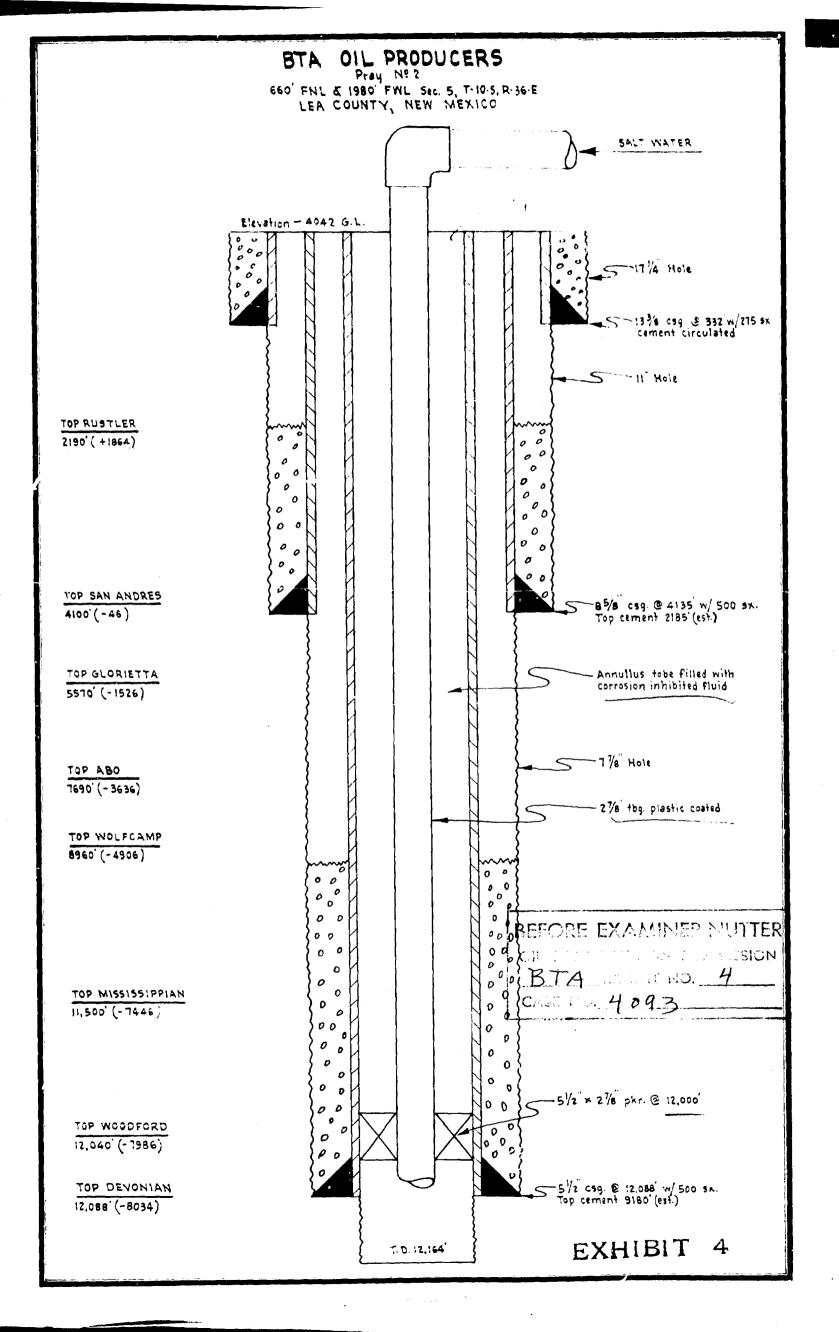
OPERATOR			ADDRESS						
BTA Oil Producers	3	-		o. Pe	ecos,	Midla	and, Te		
		WELL NO.	FIELD			-		COUNTY	
Pray #2 SWD	· · · · · · · · · · · · · · · · · · ·	2						Le	ea
	C , w.r.	. 6	60		Nor	th	IE AND1	980	ı
UNIT LETTER	; we	LL 15 LOCATED	PEET	FROM THE		UI	1E AND	<u></u>	FEET PROM THE
West LINE, SECTION	5 tow	NSHIP 10-S	RANGE 36	5-E	нмрм,				
			AND TUBING D						
NAME OF STRING	SIZE	SETTING DEPTH	SACIIS CEN	MENT	TOP	OF CEMEN	17 7	OP DET	ERMINED BY
	13-3/8"	332'	275	5	Su	rface	ļ	Circ	ılated
INTERMEDIATE	13-3/6				- 54	13400		<u> </u>	<u> </u>
	8-5/8"	4135'	500)	2	185'		Est.	
LONG STRING									
TUBING	5-1/2"	12,154'	300		10,2			Est.	
-,	3-1/2"	12,000'				2,000	ı		
NAME OF PROPOSED INJECTION FORMAT	3-1/4"	12,000	TOP OF FO	DRMATION	<u> </u>	2,000	BOTTOM OF F	ORMATION	,
Devonian			{	12,0				2,50	2 '
IS INJECTION THROUGH TUBING, CASING	OR ANNULUS?	PERFORATION	S OR OPEN HOLE!	}		•			
Tubing			.н.			4' to	12,502		
IS THIS A NEW WELL DRILLED FOR	I. ANSWER IS	NO, FOR WHAT PURPO		GINALLY DI	HLLED?		TION ZONE?	THAN THE	PERFORATED IN ANY PROPOSED INJEC-
NO	S AND SACKS OF JE		l Well	ACH			· 	N	0
	-								
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA		DEPTH OF BOTTOM O	F NEXT HIGHER		De	PTH OF TOP	OF NEXT LOW	ER	
3	00'		12,02		1				None
ANTICIPATED DAILY MINIMUM INJECTION VOLUME 1 (BBLS.)	MAXIMUM	1	SED TYPE SYSTEM	15 IN. PRESS		BE BY GRAY)		ESSURE (PSI)
4,000	15,0		losed	OF NATIV		essure			- 1400
ERALIZED TO S'CH A DEGREE AS TO BE STOCK, IRRIGATION, OR OTHER GENERA	UNFIT FOR DOMES	T1C, I	Penn	I SAL Z	ONE	_		Yes	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
NAME AND ADDRESS OF SURFACE OWNE			NO)						
Mrs. M. Price, Mr.					. A.	Duncar	n,Mrs.	L. B	. Gainer.
LIST NAMES AND ADDRESSES OF ALL O		• • • • • • • • • • • • • • • • • • • •							
Union Oil Co. of	Californ	<u>ia, 500 N.</u>	Marienf	eld,	Midla	nd, To	exas 7	9701	
			1100 1111	1 3	m	- 70	7.01		
Phillips Petrole	um Co., P	. 0. Box 3	112U, M10	land.	Texa	S_19	/		
Midwest Oil Corp	oration.	1500 Wilco	Bldg.,	Midla	nd, T	exas	79701		
Humble Oil & Ref	ining Co.	, Box 1600), Midlan	d, Te	xas	79701			
Note* Approval	granted n	er NMOCC C	order #R-	3727	dated	4-15	-69.		
HAVE COPIES OF THIS APPLICATION BE	EN TSURFACE OWN	IER TVITOCC C	EACH OPE	RATOR WIT	HIN ONE-HA		THE NEW ME	XICO STAT	E ENGINEER
SENT TO EACH OF THE FOLLOWING?	t t	Yes) OF THIS V	Ye	s		!]	Yes	
ARE THE FOLLOWING ITEMS ATTACHED THIS APPLICATION (SEE RULE 701-B)	TO PLAT OF ARE	A	ELECTS :	AL LOG		······································	DIAGRAMMAT	IC SKETC	OF WELL
	<u> </u>	Yes		Ye	S		l *	Yes	
I hereby ce	rtify that the inf	ormation above is	true and compl	ete to th	e best of	my knowl	edge and be	lief.	
			D×1111×-	M			Tuno	2 1	969
(Signature)			Drilling Tide		ger		June	J, L (Dat	
in its analysis of the state of									

NOTE: Should waivers from the State Engineer, the surface owher, and all operators within one-half mile of the proposed-injection well.

not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days
from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing,
if the applicant so requests. SEE RULE 701.

í	[\$ 5 5]	\$18 8 8 8 8 8 8	ارد امريم دارد درد والاستان		Tenneco 12-1 70 KGS 10-7	1-25 27 0 ¹ -	ne rapha	2 t 34 0 0554703		Tenneco 9 25 13 8 29 10 6 11 73 8 25 72	provers to a n n a system of the	Tranera 61	17
2	Che Kerkilly	\$00,000	A STATE OF THE STA	तुरुग्रहोती _{है।}	Harris Burgon	ANT OCAMA		Missis energy	Tes Be	Sifornie Inc.		Tennen Tennen	
	Tenneco #	ectentoush	No. of the Post	an Amer.	A-f Acting	Pon Pon	оме (р.	on Amer 1 - 71 45411	ratural.	nner o 20 - 75	10 00 00 00 00 00 00 00 00 00 00 00 00 0	Mobil	Whileholf
	\$ 3:33	(8 Rest 2 A 21 Tenneco \$ 25 73 A 23 73 \$ 19 73	•2 ·	76543 Floor fed - 13 141	33 131 FA	3.1.70		S #/.		K-5117	7.8-46()	- (") " • () • () • ()	Entry "E
	who allen	(C.B. Prod)	Ocenitise .	TO ITEM WORTH	Signal Pichter	اً	Pought Cist	Amer.	7 1 R.Lowe Est. 1 - 21 - 74	Temnéco	692 CA 3000 P	5	Pik Cit
İ	, 	Tennece by Long ey Com This 30 Preseso UMObilt stop	51	A Disc.	6975 14994 14774 41 16874 61 44	Mory J.L.	Wyrie fin Vicakie Dieli 24 K	ike 4 ke etal, MI	13 L	9	36 Sente / • Ry.	Case Prod.	rideuntee workernoon
× 1	OK Love	Pan Amer	Unbil TD12	060 AT B	direction Services	Ford Reed	Y Top Pres	ner 70	Tenneco	1405.(8)	U.D.Sowyer, Si tennech	Gulfielel	U.S. M.I.
i.	Pan Amer.	9-10-66	41 19914 7 Pan Ar 1 04509	(Cepps Fed)	Secretal 2845 101 BY THESE U.S. FEMAL 2	055980	Tenneco Man	evit (3)	11 - 56 - 66		11 26 40	,	1265 Tá
	Fon Anier	3	65 45 Constal	4	9 22 Tanan T 1	"	(20 Mobil) - 5(100001) - 5(100001)		Mogration Santa is est to 19395 Par Paris 50	<u> </u>	. 5:	Sh t Million Jetol	PMOTY ACT
1	3 19 88	Pon Amer. 3 · 4 · 69 W. L. Borner	5 · 1 · 0257	72	Ben F. Dul	e etol, Mi	Ctone Est	Tenneco II- 76 68 (0:1 0ev)		Tennoco 1 11- 26 na 1	110 - 110 Z	Mebil ••	М•Ы1 •
1 1	ELEJE ENTE Street	etal, MI Jee Barnes, S		nes, Sun	Santa Fe U D. Sa	Pacific wiers)	Sprony Sente Te	ر مين و مين	Sonto Fi U.D. S	Ry, MI	1111 11056	wydr.s	**, °
	Fan and	Pon Amer. 3 - 4 - 63	Country States 2 18 18 18 18 18 Jas. Black.et 1			Mognation Santo	Socony Mobil 12.0 Mingn Tenneco Serie		Tennico 11- 26 68	!	15 7 15 mm	Sunrey OX 904	M,
	310 69 3 10 69	(1.00 21) 13.14 71) 13.26 71)	Lan . Callan . (a)	Locker"			11-16-60	A CONTRACTOR		8 Sounds	Section of the	(4) (4)	
			1 7 68	States Superior States 9-22-68	Santa Fe	II 26 68 Magnotio	1	M Mines Devised Da 6 17 56 Tenneco		tenneco.		\$ 200 Sign	CR'A
	Jerry Curtis, 1/2 MI Jet H. Bornes	Bertrom B. Bornes, MI J.H. Bornes,S	Addie Crumb, etal	Ivan R. Lock	10 85 4 6	States NTO 2750	Santa Fe U.D. San	11 · 26 · 68		dayers	Dessie Sawer, etal	O Serve	9340
	E.A. Hanson 5 · 1 · 76	Superior	U. S. S. 7 · 21 86 Sec	melf. · 69	1384 / Coastal Coastal KGS States Bull	States Coastal States 8-1-73			Tenneco II- 26 68	Tenneco	Cities Service		Мовії
	0359808	056914	1619		H H	I	Magnolia Endligs St. El 4660 Th 4955 SA 4669		Santa Fe Rs.	Mobil (Skein) Sewer To 3 741		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	, I
- ec	3	1	36				700-0-1-H		unio	11enneco	P.J.	•3	Tree C
•••	u.s.		755/70 MEGT	ALA	शिश्रक दें े	111	Union Hap	Aure Monterey Aure Monterey Abo 1613 Ber 1889	(2.7) × (1.5)		15 1 78 1 73 73 79 29 4 1 5 1 7 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 • Al	Perleul 2 1 75
	C.W. Kins	rest e 2 mae 7 Superior	G W. L. A. J. I Sto.	de er ze z u erze / Wurshy Core / 12 Lb S8	Acardo do sele 1	wyer.S	111 11 11 11 11 11 11	C(2) D/A 2 . 11 . 00	U.D. 5	owyer, S	UD Sci	vyer, etatis) See of 2 3194 Cities Service	K35 6 191
13	17 世 17 世 17 世	1 21-74 K J 033 35 <u>3</u> 3		12 16 58 K-28 3787	KART TOWN STREET	£ 8697	E 5577 Juna Fray	381		Az lec 7 - 19 - 75 K- 596 50 12	1 15 73	K \$835 - 112 99	BRY II
	Sta	2	Stor		57777 6 - Mid	TOTAL 1 1 1 2 73 WK Byrom	WK BUTTON TO STORY	K 2042		4		i 3 perior	Cifies K. 31
ļ.				•	12 - 1	WKByrem	A M. P. Oroce A 1007 K 6 101	(_M;p		W.K Byrom State 1/A 5010	K to	19 75 16 4 6 25	}
-	Santa Fa C.W. Kins	Ry., MI solving, S	Santa Fe C.W. Kins	Ry., MI olving, S	Sta	16 102	Stor	MP Grece 4 18-77 Hedget 10-52		*************************************	U.O. S	ofe onyer, (5)	_
					Chas. E 8 - 2 X - 3 3+76 ac ft 16 L	0 · 73	Bridwell 7 - 21 - 74 R-4250 12 dR	Bridwel! 2 - 18 - 74 K 3503 26**		ELD E.Webb	TOIL 200 TI	CEO Worts 670 K3319 1750 1750	
	Toony Beter	ic M.I. baugh, S&MI	C.W. Kins	3	10300 11	,	 			18yram '	E-7067 #125	⊗. ¦	
•	Superior 11-15-70 16-954		Humb'e ⊕	Del-Lea 6 · 21 · 76 K · 6102 10.31	Bridwell 7 21 - 74 12 49 8-4250	!			M P.Grace 4 · 18 · 77 K « 9 @ 1	T06000 Byrom	SA Disc:	TERCES UNION)	Cit. S 6-16 K-2 18
	31 <u>80</u> State	LH Wents Est h	SA 4175 Abo 7835 Dev 17 705 DIA 7 77 63 L H Wen 2 Z Est MMI M.C. Gandy (SJ	State	Nobid	lote	Sec	10		Union & DE Webl 11 - 13 - 70 @16 K B S	K-2943	(Crossranda (b.)) (0.4 1.15 -3.5)	
rid 73 82	Mercon. Safe Deposit & Tr G-21-70 K-539	Phillips 4: 16-73 × 3205	Det-Lea 6 - 21 - 78 K - 6102	Allied Chemical 3 19 73	MMerritt 7-16-78 K-3406	So Petr. 12:18:72 K-2844	L.8 Ho a - 21 K - 31 II I 3) · 73	Bridwell 2-18-74 K 3004	⊗ ∙.	E-7067	M P. Grace /* 4-18-77 / Y 6-861 /	1477
1	2110	M.H.Christenson 4-18-73 K-3205	10.31	K.3134	19474 · 20 12	K-2844 18324 	Sto		3126		0.4 (0-1) 0.1 40 (0-1) 10.1 10 (0-1) 10.1 10 (0-1) 10.1 40 (0	(Tex.Poc)	
		Phillips 4 : 19 : 73 K 3205	Allied Chemical 2 · 13 · 73	3 QARO	Jean d (8		Samedanks 12 - 19 - 68 Del-Apachek	E LOWER OF	OSSROADS	Ralph Texas Lowe Pacifi	15	* '
3		M.H.Christenson 4-16-73 K 3205	K 3079	W.C.	No 6:01 4-18-771	R E Boyle 12 1 69(2) 4601 6 67(1-10)	M.R. And	erson, MI	DEV Crosse	UNIT cade Dev" lare 1960 C	TPSE L'AC	Ibisc.) Islam Pach Islam 20 rate spe	ETHIC AJ.C.
1,0	Maine & D.	tt	Allied Cliem.	Union 3 : 17 : 69	Store Tree. 1. H McEtvain, 8 - 21 - 78		N E. Boyle	Cities Serv.	Raiph i	owe of-A	Huter Corg	(Huber Cers	Jock P. Roder Sonto
iniek yer io	3 · 13 · 63 ! Nounie 25 5 2 2 2 ! E Len 25 5 2 2 2 ! Moyer Union 4 1 2 77 11 · 15 · 70 ! × 68 co X 2 5 5 1 (# 25	20 225	26 05	Atlied Chem	K-5747 Hessar : 1111	X 2544 18 14	057051	12.18 K-3.985	*Crossr	OWE OPER	4: 10:77	Sonto Fe Py Joek Lewish	3
£	C.STOUT -2	State 3 Isny Talenta 11-1-69(8)	- Mighest 2	1 K 2079 4 26 22	D+114 31	.	2	o		71	1049 State		1
	7134199 Tolento 12-1-69621	U.S., MI			State Hiller at	E.N. Evans,MI	U.S., MI	,		Mounsey, etai Gainer, (5)	Lelo B.	Goiner(S)	552
	Is Arice Store	201., 5	M.C. Arderson Phillips Majthew Price S	Avbut Roym. S	S. A. C. Bearing	Georgia Ann Duncan, S	Yodo Lee Correll, S	State Mid (en)	1	ny Mobiletai y Boum		General	+-
	15-1-69(2) 15-1-69(2)	Swam			was t	Tenneco		Cris 4847 Cris 6170 Aug 7865 Wrig 7865	· J4:	by Baumin obil Ya M I. Ceres, & M.	43	11.73	
	US MI : AH Arica : 2	Actie Price	CVS./or.	5 (1.50m)	Poby Els Boum, S		2	707 344 9 341 5 53	5+5+69 5+5+69 E.C. Harris 7+28+72 10+12-72	1.C.Harris 11.11.71 28	Artec	27	6 1
			M.R. Ander-	Me 2377	THE MEDIEN D	A TOUR ON WIT		Mary D. Claytor	Fronk (Lela Rei	D. Boss, MI He Gainer, S Aztec	5 16 75 K-4600 90 93	Cities Serv. 1 9 - 18 - 72 1 K - 7738 1 5812	
4 MI	Tem Gainer, 1/4 MI Alvin H. Price	1 2	enn etel, Mi Matrie May Price, 5	Public State	Serre A	aram s	Phillip D. Ar- mour stal3/8MI Vallis Price, et al	Iommy C Frice, S.	AN HS Kom	S Ruby Baums		fate	_
		14	Cities 4 21 F 40	40	10 War 1		Teny Teichte 12 1-8902 858981		10/2.4		ма п.н вян		17
-	ļ , 	1	148	: ` 6		31	ļ <u>i</u>	o Fe Ry., MI	Mary D Clayte	Fe Ferilic onetal Trs., 1/4 ! Ickanson Est., 5 :33	Georgie	Ry., MI Ancon S	T
	المنابعة المنابعة	الما الما الما الما الما الما الما الما	,	·••		, ,	U.S., MI	i i i	TL ingram	oo Ingram	2000 100 100 100 100 100 100 100 100 100	BICOTO LA	
	14 60 - 46												
-	77.00	r a shi	1	rel 4	man f	d an by	Secta Becomes foot	: Folky Wi March Try	(A) Table	, , R 3	CE IN	14 . 13 . 15 . 16 . 16	77





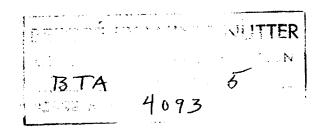
Case No. 4093 BTA Oil Producers

WATER ANALYSIS

Middle Allison - Produced Water

Lea County, N. M.

	PPM_
Calcium	5440
Magnesium	1075
Sodium	33 560
Iron	59
Sulphate	568
Chloride	64000
Bicarbonate	183
Carbonate	None
Hydroxide	None
Specific Gravity PH	1.060 @ 68 ⁰ F. 6.6



Telephone (915) MU 4-8231

union

April 3, 1969

Mr. R. L. Halvorsen BTA 0il Producers 104 South Pecos Midland, Texas 79701

Dear Mr. Halvorsen:

This is to inform you that the Union Oil Company of California, an operator in the West Crossroads Devonian Field, Lea County, New Mexico, is not opposed to your application for salt water disposal under Case #4093.

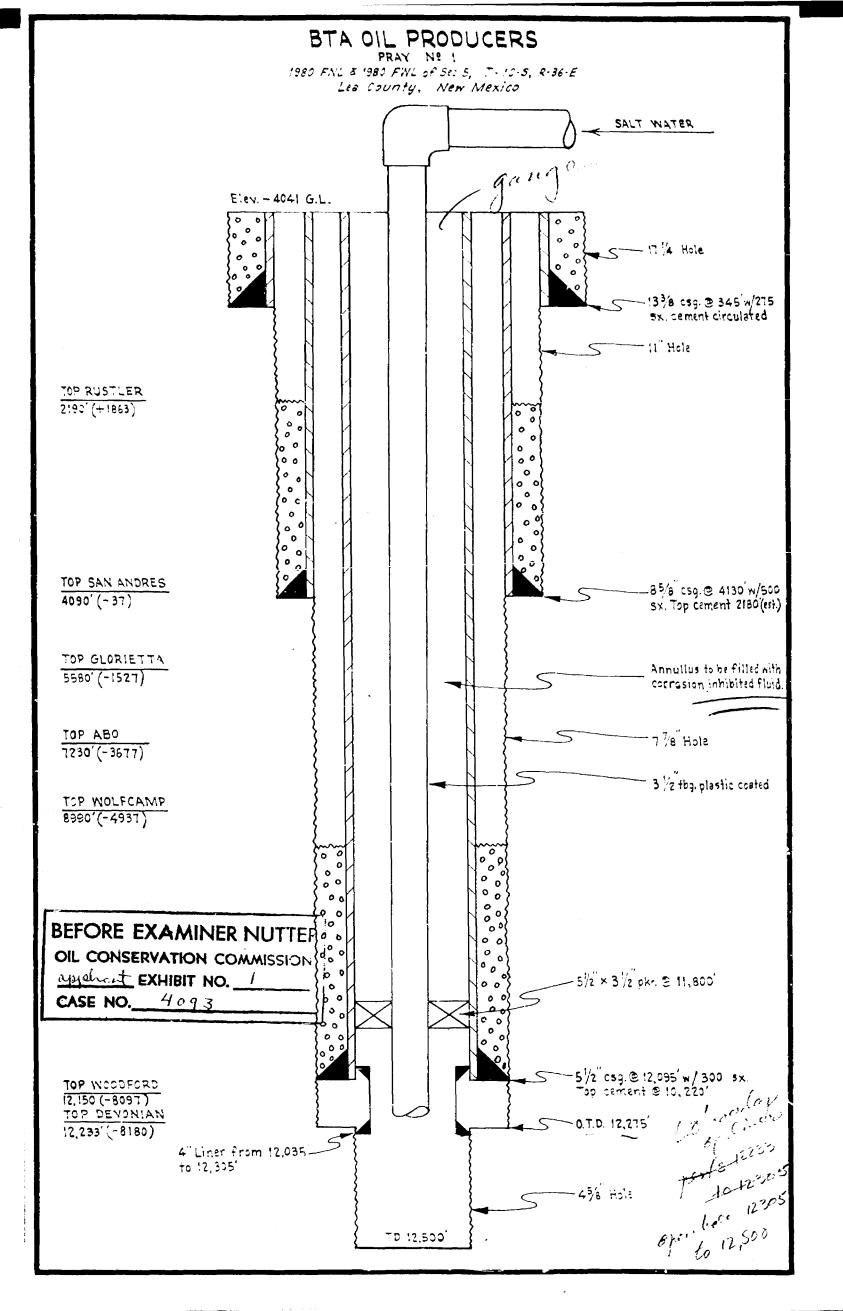
Very truly yours

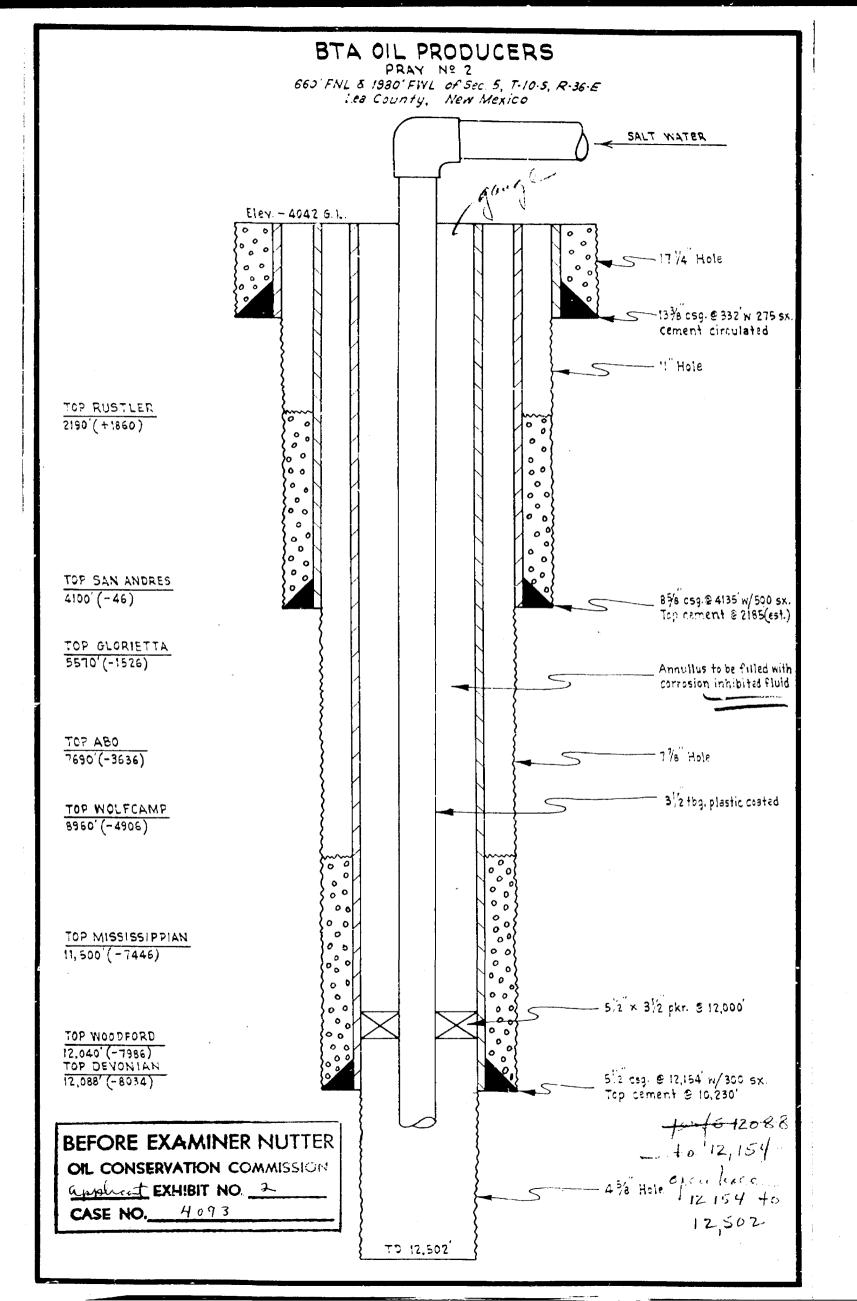
Marvin L. Zollar

Regional Development Geologist

MLZ:sk

BTA HO93







φ, 自ta O质 PRODUCERS 104 SOUTH PECOS MIDLAND, TEXAS 79701 AG 015-682-3753

June 3, 1969

In re: Salt Water Disposal. Section 5, T-10-S, R-36-E, Lea County, New Mexico

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

BTA Oil Producers is hereby applying for the administrative approval to dispose of water in the Devonian zone of its Pray #1 SWD located 1980' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

We anticipate disposing of from 5,000 to 15,000 barrels of producing Pennsylvania Bough "C" water per day into the Devonian formation at a depth of approximately 12,305' to 12,500', with a surface pressure of approximately 150 to 1100 psi.

The enclosed data is submitted in support of this application.

Yours very truly,

For BTA Oil Producers

TLA:bl

Enc. NMOCC Form C-108 Log

Well Bore Sketch Plat of Area

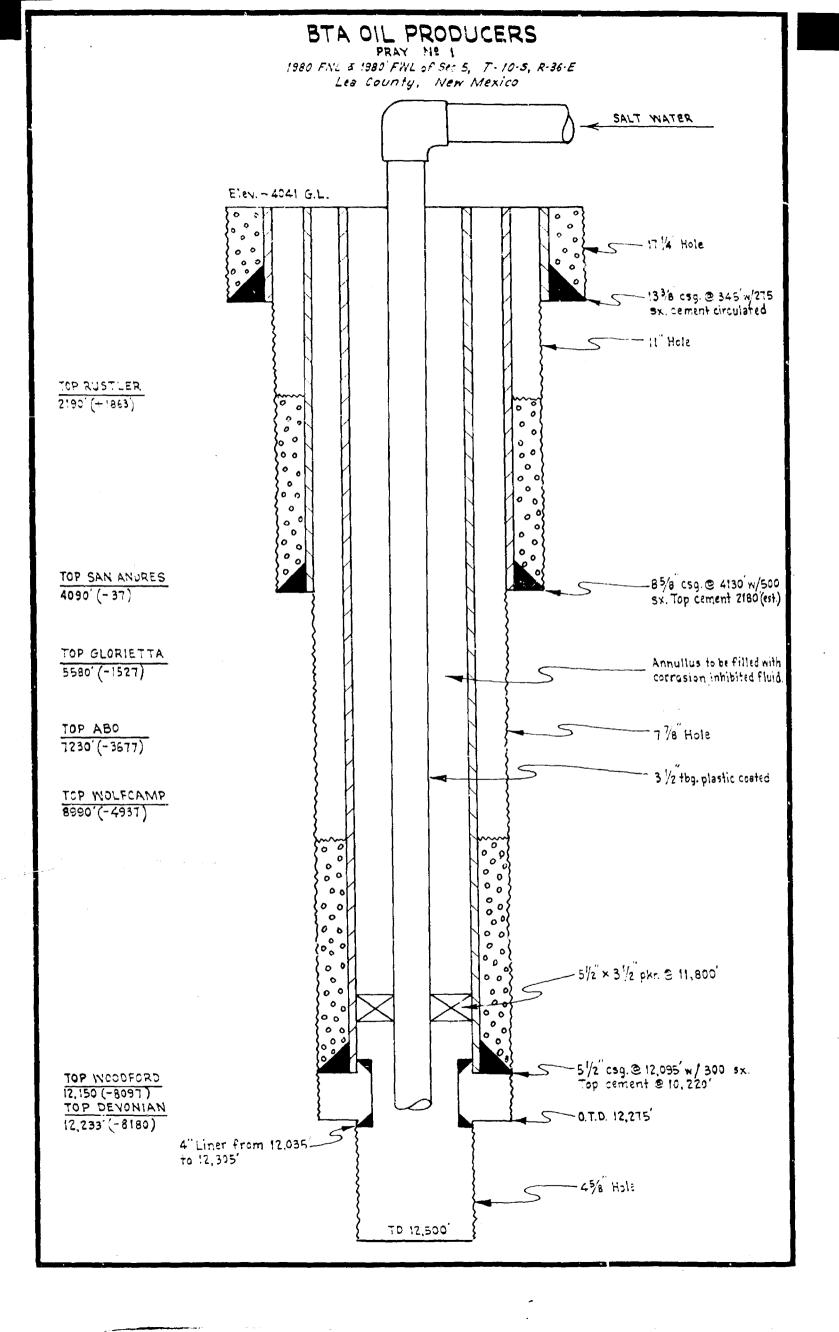
Form C-108 Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION

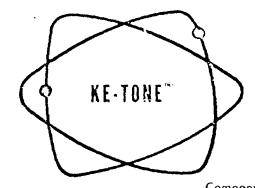
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR			ADDRESS			
BTA Oil Pro	ducers			Pecos, Mid	lland, Texas	
Pray #1 SWD		WELL NO.	FIELD		COUNT	Lea
LOCATION TI DITE		L				304
UNIT LETTER	; we	LL IS LOCATED	1980 FEET FROM	THE North	1980	FEET FROM THE
West LINE, SECTION	, 5 том	VNSHIP 10-S	RANGE 36-E	NMPM.		
			AND TUBING DATA			
NAME OF STRING SURFACE CASING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMI	ENT TOP DE	ERMINED BY
INTERMEDIATE	13-3/8"	345'	275	surface	circu	lated
	8-5/8"	4130'	500	2180'	Es	t.
LONG STRING	5-1/2"	12095'	300	10220'	Es	t.
TUBING			NAME, MODEL AND DEPT	H OF TUBING PACKER		
	3-1/2"	11800	Arrow	SC-2 11,80		
NAME OF PROPOSED INJECTION FO	RMATION		TOP OF FORMATI	ON	BOTTOM OF FORMATIO	N
Devo		T	12,2	233'	12,500) 1
IS INJECTION THROUGH TUBING, "			OR OPEN HOLE PROPO			
Tubin IS THIS A NEW WELL DRILLED FOR DISPOSAL?	G I F ANSWER IS	NO FOO WHAT PURPO	H SE WAS WELL ORIGINALL	12,305' to		DESCRIPTION IN ANY
	, , , , , , , , , , , , , , , , , , , ,	_		Y DRICEEO;	HAS WELL EVER BEEN ZONE OTHER THAN THE TION ZONE?	
NO LIST ALL SUCH PERFORATED INTE	RVALS AND SACKS OF CE		1 Well		1 1	10
	_					1
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA		DEPTH OF BOTTOM OF	NEXT HIGHER		OP OF NEXT LOWER	
	00'	OIL OR GAS ZONE IN	12,023'	OIL OR GAS	ZONE IN THIS AREA	Ione
ANTICIPATED DAILY MINIMUM	MAXIMUM	OPEN OR CLOS	ED TYPE SYSTEM IS	INJECTION TO BE BY GR		RESSURE (PSI)
(BBLS.) 5,0	00 15,00	0 Clo	_	Pressure	150) - 1100
ANSWER YES OR NO WHETHER THE	FOLLOWING WATERS AR	E MIN- WATER	TO BE DISPOSED OF NA		ARE WATER ANALYSES	
STOCK, IRRIGATION, OR OTHER GE high	salinity	1	Penn	-	Yes	
NAME AND ADDRESS OF SURFACE (C A Duna	an Mag T	P. Cainor
Mrs. M. Price,				G. A. Dulle	an, Mrs. L.	b. Garner
LIST NAMES AND ADDRESSES OF A		-				
Union Oil Co.	of Californ	<u>iia, 500 N.</u>	<u>Marienfeld</u>	, Midland, S	<u> Texas 79701</u>	
		2100		20201		
Phillips Petro	leum Co., E	30x 3120, M	idland, Texa	as 79701		
Widnest Oil Co	manation	1500 Wilas	pla~ Mia	land mayar	79701	
Midwest Oil Co	rporacion,	1300 MIIGO	Brug., Mru.	Lanu, Texas	79701	
Humble Oil & R	efining Co	D O BO	v 1600 Miði	Payar hasi	79701	
Homble Oll & K	erining co.	, F. O. BO	X 1000, Mid.	Tana, Texas	73701	
svorggA *3TON	l granted r	er NMOCC O	rder #R-372	7 dated 4-1	5-69.	ĺ
HAVE COPIES OF THIS APPLICATION	N SEEN SURFACE OW	NER .	EACH OPERATOR	WITHIN ONE-HALF MILE	THE NEW MEXICO STA	TE ENGINEER
		Yes		Yes	Yes	
ARE THE FOLLOWING ITEMS ATTA-	CHED TO PLAT OF ARE		ELECTRICAL LOG		DIAGRAMMATIC SKET	H OF WELL
		Yes	1	Yes	Yes	
I hereb	y certify that the in	ermation above is	true and complete to	the best of my know	vledge and belief.	
Deffer	in the				_ ^	3.060
	11111	Dr	illing Mana	ger	June 3,	
(Signatur	e)		(Title)		(Da	te)

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



		le in any party	12		1	T And	.1							
	700 (000) 0 0 70 0 0 20 0 0 10 0 0 10 0	16 25 10 1 22 16 25 10 1 22 16 25 10 1 22	All houses and the second seco	$z_{LJ} = 0$	Tenneco IV I To Non In P	3 - 3 E 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	',)	523163 1 523163 1	017429	Herial Old	# 21 15 X 5 1 1 1	emiese (m. 6.0) 1. g. g. fallos (h.) 1. g. g. fallos (h.) 10. fallos (d.)	7 75 71 9	, •1
	See bedalf efectough holgs & N. 121 C.1	Marakin [Collins of the same of the sam	tio I	in a función al fridation al finalism Kartagaria	DAYZECAN	,		there shelld	(oll suppo Res	L.L. Doon	Smin!f . Ry.,	10 10 69	* . ; (100
	1ennece	etterbough	Ton Am	Sil 1	Fat 1 6 1 1 1 6 1 1 1 1 1 1 1 1 1 1 1 1 1	Fon Pon Amer, 8-8-70			mAmer !	to Te		10 0000 11 400 CA	Mobil	Whileholl (
	\$: 4 : 33 − }	Tennece	Mand Fed Bit Line		32312 FC2			HU Pond	Amer. 1:29 0:24:31	•		7.0.484		ratiy) "(e
]-	mandien	(C.8 Read)	Oper Dier Man	12 10 10 10 10 10 10 10 10 10 10 10 10 10	6 15 16 17 16 18 18 18 18 18 18 18 18 18 18 18 18 18	B .	Eovigh	C Crewing	Polyra MI	1 R.Lowe Est. 1 - 21 - 74		(12 LV 3667)	5	Tit Cil
		Penners of Congrey Com Possess Possess Unabel Fig.	4 8 4 3 DE DISE		()) 1 1 2 2 2 2 2 2 2 2	'		Par Euglo Rycin I in Dien is S	Amer. Re Re te erel, MI	K-3001	(10)	36	Getofred.	Tremster Whitehold
1	izadsa · O ir Leve	Learned	Cores fed (1)		Hends Bonds (Ford Res		iep Preu	,,,,,,,	UD 519	. (e)	Sonte Fe Ry U.D.Sowyer, S	1011.320 41 ML Vinesmatel	US MI
11	Pon Amer. 3-10-69 3-18-69	Pan Amer. 9-18-88	Corps For. TO 12 060	(cata tan)	101 10 10 10 10 10 10 10 10 10 10 10 10	1 0555811	19 47 4	on (1-1) Stille i Top tri	76 c/al M/ evit (5)	Tenneco II- 26-68		Tenneco II - 78 - 80	Gulf, efcl	10 1 72.A
- (® `'		Pon Amer. 0450449 65.53	ł	6- 55 (640	600	fenne II: 76	CO Magni	"'	Magnotic Sonto Fr & C to 10205 DAF 19 SO			1 M.L.Vinson,elo	Ver MA Fee
- -	Fon Amer.	Pon Amer.	Constal State			19 (Marren)	G. No	رانغ الر	Tenneco 11 - 28 - 68			2	Mobil	Webit
- <u>- </u>	Tust	W.L. Bornes etel, MI	0257673 U.S., Mi		With a strict field	As erel, Mi Tenneco III (Cente)	- Clere!	Sentele	(011 014) U.MI.	. Sonta Fo	l ^L Ry , MI	Odlan Santa	· Facilit	, s
#	THE Server	Jee Bornes, S	Tin Bornes,	300	3000 T	owyers)	1//	Ulisan	me-5	U.D. Se Tenneca	wyer, S	tyn UOS		" v
1	Panamer Panamer	Pon Amer. 3 · 4 · 63 			Tenneco II- 26-66 Sep4 <i>E</i>	Mograti Sonte	72-6 Tenn 11 - 21	Mindre Seal of		11- 26-68	 	In this passes	Sunrey OK SAA	Ma
IP H	3:019 3:8 69		Constal States 0700	Kinsplane Mi	,,,,, <u>,</u> , , ,	30		29	Ø		8 500070	Suntage Parker	(4) (15)	, M
-			1 2 69 5'0' 4 26 70 1 25	es 6 22 60	Santul	Tenneco II- 26 - 68 Maga	cha Fe		Corlina Profits Tenneco		Tenneco	Sunto	1 650 1	CRA
	Jorry Curtis, 1/2 Ml Joe N. Bornas	Bertram B. Barnes, MI	1 16-14 Ivan 13die Crumb, Hol Tip Barnes, Sur. A E.M	R Lock	Pura HBO US	States NO 5	1-0	Sonto Fa	11-26-60 Ry., Mi www. 5	B	1	Dessie Sawyer,elat	O Server	3 15
#	E.A. Honson I	Superior	U.S. Smelt. P· 11-69		costel Kas	l States Coas	lol es		<u></u>	Tenneco II- 28- 68	Tenneco (-1v 8-1-73	Wint Dogs	reni) Texase el	моы
`}	8-1-78 0389908	0 5 8 9 1 4	# H		States 3-1-77 05604 149.0- 2 2051		5 KARS	. 1		Sonta Fa Ry.	100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	57		s Sa
-	35	5	36		435W 3	Spiern Cald	17:	32	2	U.D. Sowyer, S	3 Sawyer, etal	P.J. 1	34	Preside Preside
	•	GR	ISSROA.	DS ,	, , ,	on	Union	•	Monterey Aure Monterey To 12118	Unio 12 · 1 · 97 8 S	(9 (2) OZ(688)		4	Terleut 3
		iofving, S .	State		118	SMI "C	1 689	, Stat	er(8)0/47*17*60	U.S U.D. S	., MI awyer, S		U D Sawyerek wyer,etalis)	X35 5 121
5 12	9 11 68	Superior 1 71-74 KJ889	ware electric 3 as as 12		W. AST	Union pa	70 Hu. L 889	De Carro	A CASE	par vara	Aztee	420/46 4"35 mar Huber Corp. 1 - 15 - 73 K-3024 5839	1 Cilies Service 1- 21-74 K 5838 	BAIL!
	47 H - 310	31 [2]	Seens	1	1: 40 to 5 Ph 2278 Brite 9010 Proc. 4041 Was 1:311 Text - 1444 Brite 410 1	Phillips	mem Price 278 TD439	TSlote of	(Grace (A. 1877) (A. 1884) (A. 1884)		50.35	559	1 1	Cities :
	· · · · · · · · · · · · · · · · · · ·	2					Chace Wester	P)	; ' 		1	1	3 perior 19-70 Kr64	1 100.0
į	Santa F	e Ry., MI	Sonto Fe Ry.		of Mac. of	WK Byra K Sogs	m 10000	، د.	1 M.P Grace 4 18-77 Kdeel 1 10 50		W.K.Byrom Stote 1/A Solo ;		os is Tota	
4	C.W. Kini	selving, \$	C.W. Kinsolvii	ng, S	The Ches	tate 1022 B. Read	Brie	Sto dwell	Bridwell	Union	iqie _{U.O.Somyeris} E.DEA	Later foot 1	Sawyen,(S) Jeek roso Warres	-
					Bonne et 16	20 -73 - 5510 5 jt	12	21 - 74 135 9 41	2 · 10 · 74 # 3503 26 **		W, K. 1	Total 2 as a second of	1.67% 2.1671 1371 759 1371 759	
	Toony Bete	ric M.I. nbough, S&MI ————————	Sonto Fe Ry C.W. Kinsolvi	ing, S	hogaga, di	-7		ام مار			:8yram ; 11-16-751	E-7067 1275	·- ⊗'	Cit. Se
7	Superior 11-15-70 - K-364		1: 3:05 (P)	Uel-Lea 6 · 21 · 76 K · 6102	Bridwell 7 21 74 12 42 8-4250	Ì			j -	M P.Grace 4: i8: 77 K 6861 10:55	12 10 10 10 10 10 10 10 10 10 10 10 10 10	SA O	Ø Magairies	1 187
	\$1 <u>80</u> Store	₩ <i>પામદાનુકા</i> ક	Certifices ONATO S L HWen'z Est MM M.C. Grangy (S)	State	3334	T Signa		S+	die		dew IG-snoinu. OF-E1-11 OF-E1-11 OF-E1-11 OF-E1-11	K-2343	(Cross prostle)	
'ris	Mercon. Sefa Deposite Tr 6 71 - 70		Def-Leo	Allied hemical	1. Whereitt T- 16-73 K-3406	So Petr. 12-18-72		L.B.H	0 - 73			Tex Pacific Di	M P Grace	
••	K-515 2 (M)	M.H.Christmass 4: 18:73 V 3205	10.31	· 19· 73 K·3134 es G	1941. SQ (2	K-2044		ni ni Sta		2-16-74 K-3064 3-16] # 1 (*** "D"	Tex. Foct (Tex. Foct (AS () "St of N.M."	Ì
		Phillips K3215	Allied 3	© Tro	1911 d	18			Samedanka	F.	SROADS	Ralph Texa Lowe Paci	· 15 ·	-
		M. H. Christenso	Chemical 2 - 19 - 79 K 3072	R.HO	No bid	A.E.Boyle	3		Del-Apache	Crasse	onds Der	1 4	Der 1 Coc. Coc. Pac.)	Cities
	Unun i #{	4-15-73 Store × 3225	State	Union	4-18-171 State	Marrie F	1	lado Pruitt	derson, MI Carrell(S)		State 1360 1	36	Stote 1350 Stote 1350	Jock L
13 1 124 K	1 - 11 - 13 Major - 1 - 13 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	Union 11 15 70 1 315 78 20 23	K3979 ~-	\$17 - 69 6 5 1 6 0	T.H McElvali E - 21 - 78 K - 8247 Ms44 - 2 11 1	N/R SoPati 1 12 -16 - 1 K-2544 1835	72 (1.4 01	E. Boyle 1 · 63(2) 57852	Cities Serv. #-26-72 K-2662	A	LOWE OPER	B 03:3:6 (57-7)	Sonta Fe	
ij,	1 213 1 10 21	9·11	;	lliedChem. 2.19-73 K 2079 26. <u>95</u>		1		٠	i	Crossi	cads Dev	4-10-77 d	Santa Fe Ri	Ø.
	1000	Isny felente stricesors essent	Midwest 24	N 22	51010 5 4 134(, s			20 -	Neicia	Mounsey, etal Gainer, (S)		Forest Tali kg Coker	
	Sept. Sept.	U.S. MI.		Anderson ele[M/	laicae di Repubbasmussen	E.N. Ever Georgia	Ann V	I.S., MI		[1 1.0	R. Griner(S) . Hagris ! 19103	Species
	leag Talanta	1019, 5	William Ange S Au	sut Boum 3	Aby E Roum	Duncan	, 3	orrell, S	State Mid Cent Brights man		ny Mobil etal y Roum	Lete Be	<i>C.</i> Horris	
	1 (27)	Swam Cubantia			wee t	Tenneco			Complete and a comple	i	Coces evi	- 6	349109	
	US MI :	Price 26	CYSiler,	A.liguest	Permusen de Duty Etz Beum 11947		-MI	á	29 7073	99	28	<i>US</i>	27	/hr 1
			M.R. Ander-	0 1-51-73 1-3157 2011	1	A Del musson els	_		Mory D. Clayte	Frank Lela Re	D. Boss, MI He Garner, S	Artec 5-16-75 K-4000 90 U	Cities Serv. 9 - 18 - 78 1 K 2738 583	
ainer, MI	Tum Garner, 1/4 MI Aluen H. Pei	co C.V. Silor of	son ethi, Mi Mottie May	derson ist Mi iby E sums Store	George	A Amons	PH	llip D. An Letal3/8Mi lig Pries.	stol Ten. All	n by His Kin	Aztec 5 i - 7i 2120145 5 Robe Raumi	<u>ا</u> الع	State	
			Cities Se	Kra.	11 M 11		fan 1996 11-1-1	19 CE		in the Search		3 H-H E	Meaker SP	
		23	# 4034 1422	•	79 Mar 1	v	155	(1)	ita Fe Ry., MI	Mary D Clay	Fo farilie ton stal Trs .1/4	S Sonte	Fo Ry., MI	(K
• • •	1:25	35 33	36		······································	31		`·;	32	-	33 Est., Ingener	T \$110,000 at	A region	
	700	He sand			11 No. 1			7.5. , jag 	 	I legram	-	13.79.71		14. 21.12
							,	4.4	etek, M	I you frage	()	alowers of	Grad Contract	N77



UNITED CHEMICAL CORPORATION

OF NEW MEXICA

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

	Company	BTA		
	Field			
	lease	Bonds Heater	Sampling Date_	10/18/68
	Type of Sample	Heater treater		
		WATER ANALYSIS		
	IONIC FORM		me/l·	mg/l •
Calcium (Ca++)	_		300.40	6020
Magnesium (Mg++)			79.20	963
Sodium (No+)		(cal.)	1663.77	38,250
iron				36
Bicarbonate (HCO ₃)			4.51	275
Carbonate (CO 3 -)			NOT	FOUND
Hydroxide (OH-)			NOT	FOUND
Sulphate (SO , ~)			13.82	664
Chloride (C1-)			2025.04	71,810
5.9% C @ 68°F				
Dissolved Solids on Evap. at 103°	- 105° C			
Hardness as Ca CO ₃			379.60	18,980
Carbonate Hardness as CaCO ₁ (te	mporary)		4.51	226
Non-Carbonate Hardness as CaC	O, (permanent)		375.09	18,755
Alkalinity as CaCO,			4.51	226
Specific Gravity c 68° F		·	1.075	
				MOORE BUSINESS FORMS

Calcium Carbonate Scaling Index = Positive @ 86°F Calcium Sulfate Scaling Index = Negative

^{*} mg/l=milligrams per Liter

^{*} me/l = milliequivalents per Liter



BTA OIL PRODUCERS 104 SOUTH PECOS MIDLAND, TEXAS 79701 AC 915-682-3783

June 3, 1969

In re: Waiver of Objection to Water Disposal Well Section 5, T-10-S, R-36-E, Lea County, New Mexico.

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

Please be advised that we (Mrs. Mattie Price, Mr. Tommy Price, Mrs. Ruby Baum, Mrs. Georgie Ann Duncan, and Mrs. Lela Belle Gainer, surface owners of Section 5, T-10-S, R-36-E, Lea County, New Mexico) have been duly informed by BTA Oil Producers of their application for administrative approval to dispose of produced water in the Devonian zone of their Pray #1 SWD well located 1980' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

We hereby waive all objections to granting approval of BTA Oil Producers' application.

Very truly yours,

Mrs. Mattie Price

Mr. Tommy Price

Mrs. Ruby Baum

Mrs. Georgie Ann Duncan

Mrs. Lela Belle Gainer



BTA OIL PRODUCERS 104 SOUTH PECOS MIDLAND, TEXAS 79701 AC 915-682-3753

June 3, 1969

In re: Waiver of Objection to Water Disposal Well Section 5, T-10-S, R-36-E, Lea County, New Mexico.

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

The undersigned, being an authorized representative of Midwest Oil Corporation, has been duly informed by BTA Oil Producers of their application for administrative approval to dispose of produced water in the Devonian zone of their Pray #1 SWD well located 1980' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

Midwest Oil Corporation hereby waives all objections to granting approval of BTA Oil Producers' application.

Very truly yours,

For Midwest Oil Corporation



BTA OIL PRODUCERS 104 SOUTH PECOS MIDLAND, TEXAS 79701 AC 918-682-3753

June 3, 1969

In re: Waiver of Objection to Water Disposal Well Section 5, T-10-S, R-36-E, Lea County, New Mexico.

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

The undersigned, being an authorized representative of Humble Oil & Refining Company, has been duly informed by BTA Oil Producers of their application for administrative approval to dispose of produced water in the Devonian zone of their Pray #1 SWD well located 1980' FNL and 1980' FWL of Section 5. T-10-S. P-36-F. Log County May May 1991 of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

Humble Oil & Refining Company hereby waives all objections to granting approval of BTA Oil Producers' application.

Very truly yours,

For Humble Oil & Refining Company



BTA OIL PRODUCERS 104 SOUTH PECOS MIDLAND, TEXAS 79701 AC 918-002-3753

June 3, 1969

In re: Waiver of Objection to Water Disposal Well
Section 5, T-10-S, R-36-E, Lea County, New Mexico.

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

The undersigned, being an authorized representative of Phillips Petroleum Company, has been duly informed by BTA Oil Producers of their application for administrative approval to dispose of produced water in the Devonian zone of their Pray #1 SWD well located 1980' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, New Mexico.

Phillips Petroleum Company hereby waives all objections to granting approval of BTA Oil Producers' application.

Very truly yours,

For Phillips Petroleum Company



BTA OIL PRODUCERS 104 SOUTH PECOS MIDLAND, TEXAS 79701 AC 918-982-3753

June 3, 1969

In re: Waiver of Objection to Water Disposal Well
Section 5, T-10-S, R-36-E, Lea County, New Mexico

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

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

Dear Sir:

The undersigned, being an authorized representative of Union Oil Company, has been duly informed by BTA Oil Producers of their application for administrative approval to dispose of produced water in the Devonian zone of their Pray #1 SWD well located 1980' FNL and 1980' FWL of Section 5, T-10-S, R-36-E, Lea County, ... w Mexico.

Union Oil Company hereby waives all objections to granting approval of BTA Oil Producers' application.

Very truly yours,

For Union Oil Company

J)

93

KELLAHIN AND FOX

50% EAST SAN FRANCISCO STREET

SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315 AREA CODE 505

JASON W. KELLAHIN ROBERT E. FOX

March 21, 1969

Come 4093

Oil Conservation Commission of New Mexico Post Office Box 2088 Santa Fe, New Mexico

BTA Re:

Gentlemen:

Enclosed please find original and two copies of application for BTA which is to be set for hearing April 9.

Yours very truly,

JASON W. KELLAHIN

rason W. Kellaki

jwk;peg Enc. as stated

DOCKST MARKED

BEFORE THE

22

OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF BTA OIL PRODUCERS FOR APPROVAL OF SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO

Can 4093

APPLICATION

Comes now BTA OIL PRODUCERS, and applies to the Oil Conservation Commission of New Mexico for approval of salt water disposal in its State "E" Well No. 1, located 1980 feet from the North line, and 1980 feet from the West line of Section 5, Township 10 South, Range 36 East, N.M.P.M., in Lea County, New Mexico, and in support thereof would show the Commission:

- 1. Applicant's wells are offset wells to the West Crossroads Devonian Pool, and have not produced from the Devonian formation.
- 2. Applicant's wells are located within two miles of wells producing from the Devonian formation.
- 3. Applicant proposes to complete the State "E" Well No. 1 for the disposal of produced oil field brines in the Devonian formation in the interval from 12, 240 feet to 12,275 feet. Injection of water will be through 3-inch tubing under a packer.
- 4. Applicant proposes to complete the State "E" Well No.

 2 for the disposal of produced oil field brines in the

 Devonian formation in the interval from 12,088 to 12,164 feet.

 Injection of water will be through 3-inch tubing under a packer.
- 5. The two wells, if approved, will be utilized for the disposal of water produced from the Bough "C" zone in Township

9 South, Range 36 East. Approximately 40,000 barrels of water per day will be disposed of in the wells.

WHEREFORE, applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law, the Commission enter its order approving use of the two wells for salt water disposal as applied for.

> Respectfully submitted, BTA OIL PRODUCERS

Kellahin & Fox Post Office Box 1769 Santa Fe, New Mexico

ATTORNEYS FOR APPLICANT

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. 4093

Order No. R- <u>5727</u>

APPLICATION OF BTA OIL PRODUCERS 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. or April 9 , 1969 , at Santa Fe. New Mexico, before Examiner Daniel S. Nutter .

NOW, on this day of April , 1969, the Commission, a quorum being present, naving 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, BTA Oil Producers, is the owner and MAN PRAY

 operator of the State "E" Well No. 1 and the State "E" Well No. 2,

 located in Units F and C, respectively, of Section 5, Township 10

 South, Range 36 East, adjacent to the West Crossroads-Devonian

 Pool, Lea County, New Mexico.
- (3) That the applicant proposes to utilize said wells to dispose of produced salt water into the Devonian formation, with injection into the intervals as follows:

The ofen-hole interval from approximately 12,240 feet to 12,275 feet in its State "E" Well No. 1, and

The open-line interval from approximately 12,088 feet to 12,164 feet in its State "E" Well No. 2.

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. 4093

Order No. R- 5727

APPLICATION OF BTA OIL PRODUCERS 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 <u>April 9</u>, 1969, at Santa Fe, New Mexico, before Examiner <u>Daniel S. Nutter</u>.

NOW, on this <u>day of April</u>, 1969, 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, BTA Oil Producers, is the owner and MAX PRAY

 operator of the State "E" Well No. 1 and the State "E" Well No. 2, located in Units F and C, respectively, of Section 5, Township 10

 South, Range 36 East, adjacent to the West Crossroads-Devonian

 Pool, Lea County, New Mexico.
- (3) That the applicant proposes to utilize said wells to dispose of produced salt water into the Devonian formation, with injection into the intervals as follows:

The ofen-late interval from approximately 12, 240 feet to 12,275 feet in its State "E" Well No. 1, and

The <u>open-lude</u> interval from approximately 12,088 feet to 12,164 feet in its State "E" Well No. 2.

(4) That the injection should be accomplished through:

that the casing-tubing annulus of each of the subject wells should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus of each of the subject wells 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, BTA Oil Producers, is hereby authorized to utilize its following-described wells in Section 5, Township 10 South, Range 36 East, NMPM, adjacent to the West Crossroads-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation:

State "E" Well No. 2, located in Unit C, injection to be accomplished through 278 —inch tubing installed in a packer set at approximately 12,000 feet, with

injection into the open local interval from approximately 12,088 feet to 12,164 feet;

PROVIDED HOWEVER, that the tubing of each of the subject wells shall be plastic-lined; that the casing-tubing annulus of each of the subject wells shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus of each of the subject wells 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.

ROUGH DRAFT GMH/ir 6/9/69

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:

ANK

CASE NO. 4093 Order No. R-3727

APPLICATION OF BTA OIL PRODUCERS 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 June 4, 1969, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this ______day of June, 1969, 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.
- applicant, BTA Oil Producers was granted authority to dispose of produced salt water into the Devonian formation in the open-hole intervals from approximately 12,233 feet to 12,275 feet and 12,088 feet to 12,164 feet, respectively, in its Max Pray State "E" Wells Nos. 1 and 2, located, respectively, in Units F and C of Section 5, Township 10 South, Range 36 East, NMPM, adjacent to the West Crossroads-Devonian Pool, Lea County, New Mexico.
- (3) That the applicant seeks the amendment of said Order Nt. R-3727, as amended, to permit injection into the open-hole intervals from approximately 12,305 feet to 12,500 feet in said Well No. 1 and from 12,154 feet to 12,502 feet in said Well No. 2 in like g the injection intervals and help to R-3727.

-2-Case No. 4093 Order No. R-

(4) 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 Order (1) of Order No. R-3727 is hereby amended to read in its entirety as follows:
- (1) That the applicant, BTA Oil Producers, is hereby authorized to utilize its following-described wells in Section 5, Township 10 South, Range 36 East, NMPM, adjacent to the West Crossroads-Devonian Pool, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation:

Max Pray State "E" Well No. 1, located in Unit F, injection to be accomplished through 3 1/4 inch tubing installed in a packer set at approximately feet, with injection into the open-hole interval from approximately 12,305 feet to 12,500 feet, and

Max Pray State "E" Well No. 2, located in Upit C, injection to be accomplished through 2 //8-inch tubing installed in a packer set at approximately 12,000 feet, with injection into the open-hole interval from approximately 12,154 feet to 12,502 feet;

PROVIDED HOWEVER, that the tubing of each of the subject wells shall be plastic-lined; that the casing-tubing annulus of each of the subject wells shall be filled with an inert fluid: and that a pressure gauge shall be attached to the annulus of each of the subject wells or the annulus left epen at the surface in order to determine leakage in the casing, tubing, or packer.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

ALEX J. ARMIJO, Member

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

BTA Oil Producers

water inte State E" WER no. 1 1980 FNL 1980 FWL Sac 5 105 36 E

offish West Crossouls Deservin

12240 - 12275 3" tubri urba P Lea Co.

State E" # 2 660 FNL 1980 FWL See 5, 10-36 Del. 12088 - 12164 3" tulii - Parlin

wate from Bay C" J. 95 36 -

- SWD 52 --