CASE 5592: Appl. of AGUA, INC. for SALT WATER DISPOSAL, Lea County

CASE NO.

5592

APPlication,
Transcripts,
Small Exhibits,

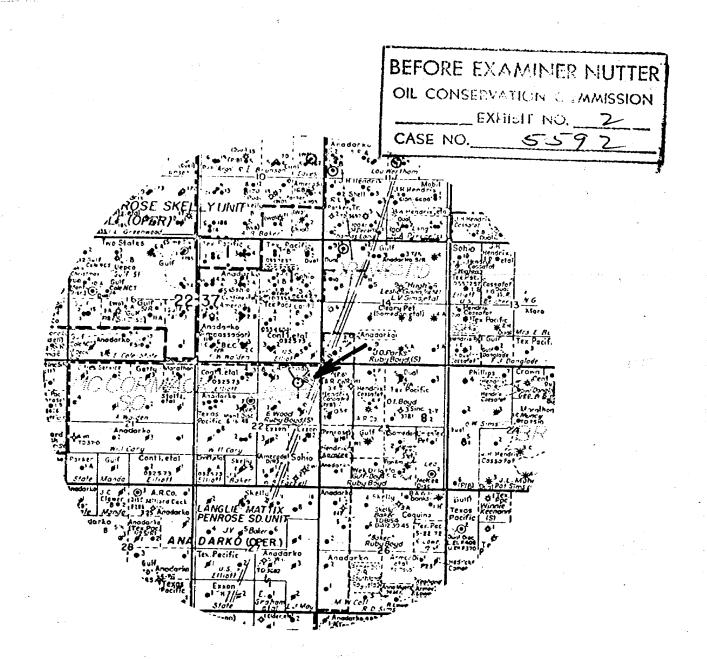
ETC.

NEW MEXICO OIL CONSERVATION COMMISSION

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

00194104			ADDRESS				
AGUA, INC.		WELL NO.	P.O.Bo	x 197	8 Hobb	s, Ne	W. Mcxico 88240
Blinebry-Drinkard	SWD Syst	em A-22			BEFORE		Lea
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Yes	\$ 2 3ACKS OF CE	MENT USED TO SEAL	OFF OR SQUEEZE EACH	 		TION ZONE	
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NAME AND ADDRESS OF SURFACE OWNE							
Cities Service Of	LI Company	P. O.	Box 1919	M	idland,	rexas	79701
J. H. Hendrix	. * *		and the second section of the second		Texas	79701	
Gulf Oil Company			Box 670		obbs, Nev		co 88240
Continental Oil (Box 460	Н	obbs, Nev	Mexi	
Anadarko Producti	Lon_Compar	y P. O.	Box 247	Н	obbs, Nev	_Mexi	co 88240
Exxon Company - L	J. S. A.	1700	West Broad	dway	Andrews	. Tex	as 79714
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I hereby cer	rtify that the info	ermation above is	true and complete	to the be	st of my knowle	edge and I	belief.
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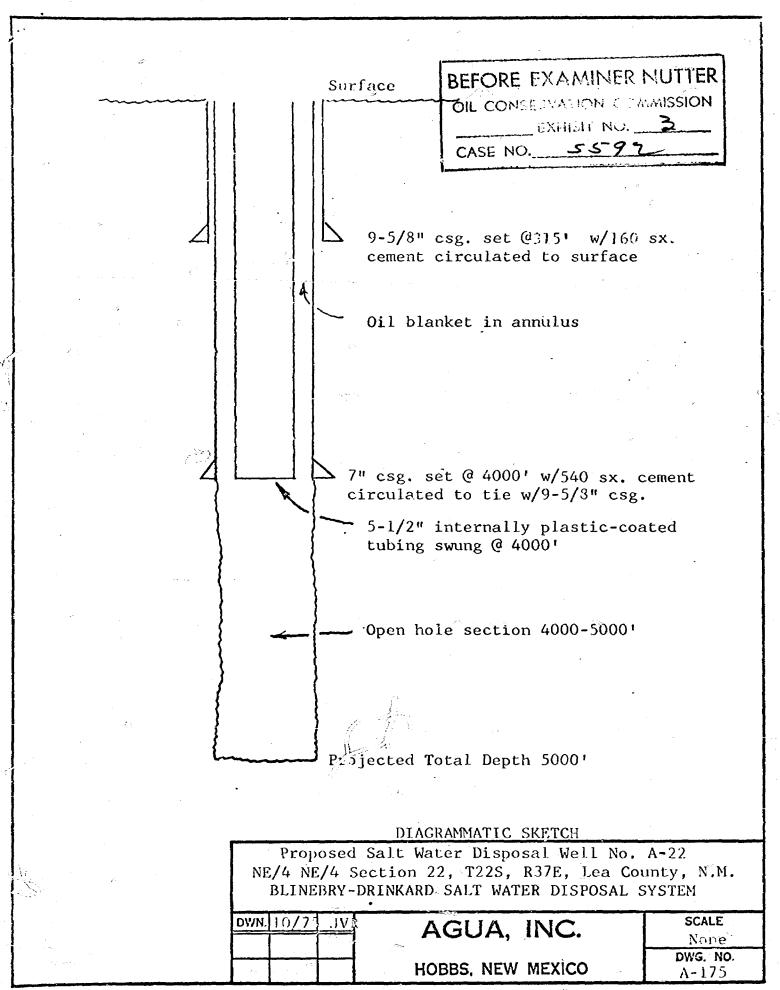
NOTE: Should naivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Yester Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day naiting 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.



LEGEND:

O Upper San Andres All other wells producing from formations non-contiguous to the San Andres

PLAT OF AREA
Proposed SWD Well No. A-22
Blinebry-Drinkard SWD System
AGUA, INC. October, 1975



KOE HERCULENES THESE

dr/ /

EEFORE 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:

no

CASE	NO.	5592

Order No. R- 5/37

APPLICATION OF AGUA, INC. FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

C

N. T.

No. A-22

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on Multiple 19,1975, at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter

NOW, on this day of November, 1975, 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, Agua, Inc.

 is the owner and operator of the Blinebry-Drinkard SWD System Well
 817 feet from the North line and 965 feet from the East line
 located/in Unit of Section 22 , Township 22 South ,

 Range 37 East , NMPM, , ,

 Lea County, New Mexico.
- (3) That the applicant proposes to utilize said well to dispose of produced salt water into the San Andres formation, with injection into the open-hole interval from approximately 4,000 feet to 5,000 feet.
- -inch plastic lined tubing installed in a pasker

 set at approximately 4000 feet; that the casing-tubing annulus a hydrostatically balanced column of should be filled with an inert fluid; and that a pressure gauge

or approved leak detection device should be attached to the

-2-CASE NO.

No. A-22

annulus in order to determine leakage in the casing, tubing, or packer.

- (4) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more one hundred (100) than 700 psi, provided however, the Secretary Director of the
- (5) That the operator should notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (6) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.
- (7) 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, Agua, Inc.
	is hereby authorized to utilize its Blinebry-Drinkard SWD System Wel 817 feet from the North line and 965 feet from the East line
•	located in thit of Section 22 , Township 22 South ,
	Range 37 East , NMPM,
	Lea County, New Mexico, to dispose of produced salt
	water into the San Andres formation, injec-
	tion to be accomplished through 5½ -inch
	tubing installed in a packer set at approximately 4000 feet,
	with injection into the <u>open-hole</u> interval from approximately
	4,000 feet to 5,000 feet;
	PROVIDED HOWEVER, that the tubing shall be plastic-lined; a hydrostatically belanced columns?
	that the casing-tubing annulus shall be filled with an inert
	fluid; and that a pressure gauge shall be attached to the annulus
	or the annulus shall be equipped with an approved leak detection
	device in order to determine leakage in the casing, tubing, ex

(2) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will

limit the wellhead pressure on the injection well to no one hundred (100) more than 200 psi, provided however, the Secretary-Director of the

- (3) That the operator shall notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (4) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.
- (5) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

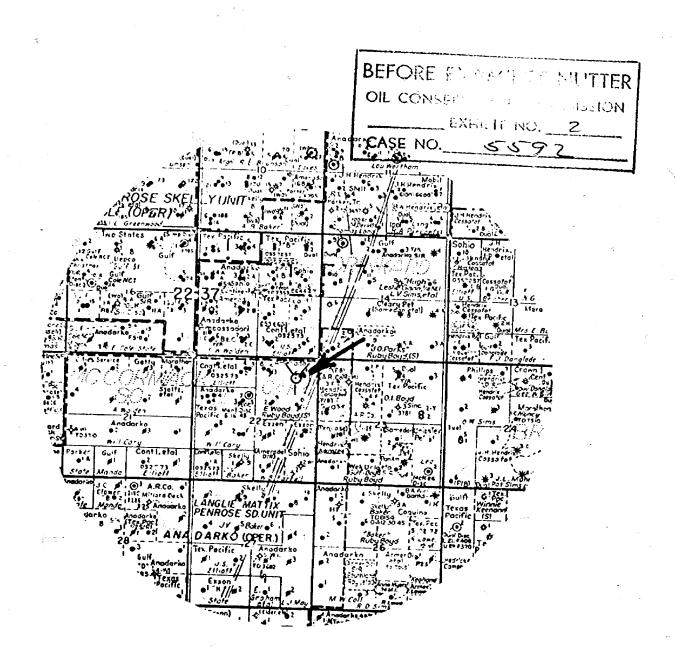
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

Commission shall have the anthonty to increase the choresaid pressure limit upon satisfactory the choresaid pressure limit increase showing that such pressure limit increase is warranted and will not result in loss of is warranted and will not result in loss of injury to eases on the underground reserves are injury to off setting properties.

**			•				C-108 ppd 3-1-68
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ACPLICATION OF THE PROPERTY OF		OSE OF SALL W	ALER DI INJEU	ł — - ·	MIO'Y LOKOT	-	TAMISSION -
AGUA, INC.		WELL NO.	P.C.Bo	× I	CONSERVA 978 Hobb		Mex/co 88240
Blinebry-Drinkard	SWD Syst	i		GA	SE NO.	59	Lea-
UNIT LETTER	A	ELL IS LOCATED 8	17	ROM THE	North	INE AND	965 PEET FROM EN
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€°							·
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TUBING	7"	40001	HAME, MODEL AND O	EPTH OF	TUBING PACKER		Calculated
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J. H. Hendrix				and.		9701	
Gulf Oil Company	- U. S.	P. O.	. Box 670		Hobbs, New	, Mexi	co 88240
Continental Oil (Box 460		Hobbs, New		
Anadarko Producti	compar	y P. O.	Box 247		Hobbs, New	. Mexi	co 88240
Exxon Company - (J. S. A.	1700	West Broa	dway	Andrews	. Tex	as <u>79714</u>
Amerada Hess Corp			Drawer"D		Monument,	New M	exico 8826 5
HAVE COPIES OF THIS APPLICATION BE SENT TO EACH OF THE FOLLOWINGS	EN SURFACE OWN		EACH OPERATO		IN ONE-HALF MILE		
ARE THE FOLLOWING ITEMS ATTACHED THIS APPLICATION (SEE PULE 701/8)			ELECTRICAL L		es	DIAGRAMM	TIC SKETCH OF WELL
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NOTE: Should waiters from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Yester 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.

(Title)



LEGEND:

O Upper San Andres
All other wells producing
from formations non-contiguous
to the San Andres

PLAT OF AREA
Proposed SWD Well No. A-22
Blinebry-Drinkard SWD System
AGUA, INC. October, 1975

BEFORE EXAMINER NUTTER Surface OIL CONSERVATION TO MAISSION EXHIELT NO. CASE NO. 9-5/8" csg. set @335' w/160 sx. cement circulated to surface Oil blanket in annulus 7" csg. set @ 4000' w/540 sx. cement circulated to tie w/9-5/8" csg. 5-1/2" internally plastic-coated tubing swung @ 4000' Open hole section 4000-5000' Projected Total Depth 5000' DIAGRAMMATIC SKETCH Proposed Salt Water Disposal Well No. A-22 NE/4 NE/4 Section 22, T22S, R37E, Lea County, N.M. BLINEBRY-DRINKARD SALT WATER DISPOSAL SYSTEM SCALE AGUA, INC. DWN. 10/7 None DWG. NO. HOBBS. NEW MEXICO A - 175

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sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501

Phone (\$05) 982-9212

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1	BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION	
2	Santa Fe, New Mexico January 21, 1976	
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4	COMMISSION HEARING	
5		3
6	IN THE MATTER OF: ;	
7	Application of Agua, Inc. for salt) water disposal, Lea County, New Mexico.)	CASE 5592
8	water disposal, hea county, New Mexico.)	(De Novo)
9		
10	BEFORE: Joe D. Ramey, Director Phil Lucero, Member	
11	Daniel S. Nutter	
12	Richard L. Stamets	
13	TRANSCRIPT OF HEARING	
14		
15	APPEARANCES	
16	For the New Mexico Oil William F. Carr, Esc Conservation Commission: Legal Counsel for the	
17	State Land Office Bu Santa Fe, New Mexico	uilding
		•
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MR. RAMEY: The hearing will come to order.

We will take the first case on the docket.

MR. CARR: Case 5592, application of Agua, Inc. for salt water disposal, Lea County, New Mexico.

Mr. Commissioner, we have received a request that this case be dismissed.

MR. RAMEY: This case will be dismissed.



DIRECTOR
JOE D. RAMEY

OU CONSERVATION COMMISSION

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

LAND COMMISSIONER
PHIL R. LUCERO
January 28, 1976



STATE GEOLOGIST EMERY C. ARNOLD

Re:	CASE NO. 5592 ORDER NO. R-5137-A
Jennings, Christy & Copple Attorneys at Law Post Office Box 1180 Roswell, New Mexico 88201	Applicant:
	Agua, Inc.
Dear Sir:	
	opies of the above-referenced ntered in the subject case.
Yours very truly,	
JOE D. RAMEY	
Director	
JDR/fd	
Copy of order also sent to	
Hobbs OCC x	

Tom Kellahin

Other_

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico November 19, 1975 EXAMINER HEARING 5 IN THE MATTER OF: 6 Application of Agua, Inc. for salt water) CASE 7 5592 disposal, Lea County, New Mexico.) BEFORE: Daniel S. Nutter, Examiner 10 11 TRANSCRIPT OF HEARING 12 APPEARANCES 13 For the New Mexico Oil William F. Carr, Esq. 14 Conservation Commission: Legal Counsel for the Commission State Land Office Building 15 Santa Fe, New Mexico 16 For the Applicant: James T. Jennings, Esq. (Agua, Inc.) JENNINGS, CHRISTY & COPPLE 17 Attorneys at Law 1012 Security National Bank Bldg. 18 Roswell, New Mexico For Anadarko Production Co.: W. Thomas Kellahin, Esq. KELLAHIN & FOX 20 Attorneys at Law 500 Don Gaspar 21 Santa Fe, New Mexico

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	6	Recross Examination by Mr. Kellahin	22
	_	DAN KERNAGHAN	
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General Court Reporting Service 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (505) 982-9212		Agua's Exhibit No. Four, Line Map	11
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825 Calle Méjia, No. 122, Santa Fe, New Mexico 87501

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MR. NUTTER: We will call Case Number 5592.

MR. CARR: Case 5592, application of Agua, Inc. for salt water disposal, Lea County, New Mexico.

MR. JENNINGS: I'm James T. Jennings of Jennings, Christy and Copple appearing on behalf of the applicant, and I have one witness, Mr. Abbott.

MR. NUTTER: Are there any other appearances in this Case?

MR. KELLAHIN: Tom Kellahin of Kéllahin and Fox appearing on behalf of Anadarko Production Company and I have one witness to be sworn.

(THEREUPON, the witnesses were duly sworn.)

W. G. ABBOTT

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

DIRECT EXAMINATION

BY MR. JENNINGS:

- Will you state your name and occupation, please, sir? Q.
- I'm W. G. Abbott, I'm Manager of Agua, Incorporated of Hobbs, New Mexico.
- Mr. Abbott, have you appeared before this Commission and testified as an expert and had your qualifications accepted on many occasions?
- Yes, sir.

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MR. JENNINGS: Are Mr. Abbott's qualifications 1 acceptable? MR. NUTTER: Yes, they are. 2 (Mr. Jennings continuing.) Mr. Abbott, are you 3 familiar with the application filed herein in Case 5592 by 4 5 Agua? 6 Would you basically state the nature of this Yes, sir. 7 Q. 8 We are asking for permission to drill a salt water application? 9 disposal well, our Number A-22 to be located eight hundred 10 and seventeen feet from the north line and nine hundred and sixty-five feet from the east line of Section 22, Township 22 11 12 South, Range 37 East, Lea County, New Mexico. It will be a disposal well to serve the Plinebry-Drinkard Salt Water 15 Before getting into the well itself, could you Disposal system. 16 please give us a little history outlining the reason for 17 18 Yes, if you remember, it was necessary for us to this current request? 19 close in our SWD H-35 by a letter directive of Mr. Joe Ramey, 20 and this directive directed us to close in the well September 21 We actually closed in the well September 22 19th at eight A.M. This water that had been disposed in 26th at eight A.M. 23 SWD H-35 was pumped and is being pumped up a temporary line

up to our salt water disposal well SWD C-2. This well is taking approximately three hundred and seventy-four barrels an hour average. That is a twenty-four hour average on the well, and it is necessary for us to acidize the well monthly to keep this rate up.

By drilling this SWD A-22 we will be able to divert some of the water that would normally flow to the H-35 and we will divert it to this A-22.

- Q Mr. Abbott, just to refresh the Commission's recollection, roughly how many wells were attached to the SW-35 at the time you had to shut it in?
 - A. One hundred and ninety-three producing wells.
 - Q And how many wells are in your entire system?
 - A. Around four hundred.
- Q. Is there any limitation as to the amount of water you can inject into the C-2 well?
- A. Yes, it is limited due to the hearing which we were restricted to opening up certain perforations, and it is running at about capacity now. This average of three seventy-four per hour, twenty-four hour average means that at times the rates exceeds four hundred barrels ar hour, and I think it is about at the capacity of the well. This is by gravity, by the way, gravity into the well.
- Q. Will your authority to inject into this C-2 well be diminished on February 7th?

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	A.	Yes,	the	order	givin	g us	permi	ssion	to p	erforat	:e
some	addi	tional	l zon	es in	the C	-2 li	imited	this	prod	uction	for
a per	riod (of, I	beli	eve it	. was	four	month	s, and	d tha	t means	that
by F	ebrua	ry 7tl	n we	will !	nave t	o pac	ck off	cert	ain p	erfora	ions
thát	are	allege	ed to	inte	fere	with	oil p	roduc	tion	in that	E
area		4.				~	r				

- Q. Now, in connection with your application did you file a Form C-108?
 - A. Yes, sir.
 - Q. This has been marked Exhibit Number One?
 - A. Yes.
- Q. Would you please refer to this and explain to the Commission what you propose to do pursuant to this?
- A. Yes, sir. This Form C-108 shows that we proposed to set three hundred and fifteen feet of nine-and-five-eighths inch surface casing and cement it with one hundred and sixty sacks of cement which should circulate the cement.

Then we propose to drill to a total depth of approximately five thousand feet and swing seven-inch casing and set it at about four thousand and use sufficient cement to bring the cement up and tie it into the surface casing. Then we plan to run four thousand feet of plastic line, five-and-a-half inch tubing in the well and we hope that we will get a well that will take the water by gravity. We plan to acidize it at completion with ten thousand gallons of acid.

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The reason we picked this location -- well, we can go into that on the next exhibit.

But the Form C-108 has been sent to the following operators listed down there: J. H. Hendrix, Gulf Oil, Continental Oil, Anadarko, Exxon and Amerada Hess. So they have received this form, plus the exhibits and application for hearing.

- Q These parties that you have just named are the offset operators within a two-mile area?
 - A. Yes, sir.
- Q. Referring to what has been marked as Exhibit A will you please identify it and tell what that shows?
 - A. Exhibit which?
 - Q Exhibit Two, encuse me.
- A. Exhibit Two is a plat of the area showing the proposed location of this disposal well, A-22. You notice that it falls on a Amerada-Wood lease in the northeast of the northeast of the section. The reason we picked this location, there is a history in this area of lost circulation when some of these deeper wells were drilled, and also there is a history of stuck drill pipe in this immediate area which indicates differential thickening in the San Andres and we think that this well will make a good disposal well and take the water by gravity.

Also another thing that has to be considered in

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this well is, we had to locate it first geographically,

stratigraphically on top of the surface of the land so that

our existing disposal lines could be tied in and the water

will gravity to this location without pumping a bunch of water.

- Before we get back to the pumping of the water and
 the gravity to the present location, will you please refer to
 Exhibit Three and tell what that is and explain it?
- A. Exhibit Three is just a diagrammatic sketch of the well, the information has been given on the C-108.
- A. And referring to what has been marked as Exhibit Four will you please identify that?
- A. Exhibit Four is our map, line map, and showing how we plan to tie in the lines to this disposal well. We have a line to the north of this location, and we plan to tie that in with a four-inch PVC line and then also there is quite a lot of water being produced and disposed down the eight-inch line to the south of this well and that water will be diverted to our A-22.
- Q. Generally the water that is currently going into the SWD 35, or was until September 19th, will be diverted to this well?
- 22 A. Yes, we do plan also -- it's according to what
 23 permission we can receive from the Conservation Commission,
 24 but we plan to also run a four-inch line up to this eight25 inch line so that we can pump the water by centrifugal pumps

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from the H-35 location and it will gravity back up to the A-22 location.

- Q. Will that go along your present line along the east side of Sections 23, 26 and 35?
- A. Yeah, it's actually along the east line of Section 26 and 35.
- Q. Are there other injection wells in the area of this Section 22, Mr. Abbott, to your knowledge?
- A. Yeah, I believe there are. They may be marked on your exhibit, Jim. No, on this Exhibit Two. Are they shown on yours?
- Q. Would this be the well in the northwest quarter of the northwest quarter of Section 14?
 - A. Yes.
 - Q And other wells in Section 10 and 11?
 - A. Yes, that's right.
 - Q Could you identify these wells?
- A. I believe the well in the northwest northwest of 14 is an Anadarko. It may be a disposal well.
- Up in the Section 11, I don't know whether that is an Anadarko well or not.
- Q And how much water do you propose to inject into this well, Mr. Abbott?
- A. Well, we have it on our application about twelve thousand barrels a day, but at the present time it will

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probably be less than that. It will be around two hundred barrels an hour.

- To your knowledge are there any wells producing from this same formation in the area?
- Not that I know of. They are more or less wells that are shallower and also deeper wells.
- This is a considerable distance from the Exxon production in Section 2?
 - Yes, fortunately it is, about three miles, I think.
- Mr. Abbott, do you feel that this injection well and the program of disposing of water in this well will be in the interest of conservation and prevent waste?
- Yes, the operators that are parties to our system need some relief on the disposal of produced water from the whole area and we feel that this is a good location and a good spot to put the water. It is more or less down structure on the San Andres from any producing wells in the San Andres and the only thing it might do is increase the bottom-hole prescure in the San Andres formation, which should help any oil production up structure.
- What are the alternatives if you don't dispose of this water in this well or some other well in the immediate vicinity?
- Well, we would have to go outside the area and attempt to find a disposal location which would run the cost

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of disposal up for the operators.

Will this to your knowledge or in your opinion, will this in fact impair the correlative rights of any offset operators?

- No, sir.
- Or any other operators in the area?
- Were Exhibit Numbers One through Four prepared by you or under your supervision?
 - Yes, sir.

MR. JENNINGS: We offer these exhibits.

MR. NUTTER: Aqua Exhibits One through Four will be admitted into evidence.

Is that all of your direct, Mr. Jennings?

MR. JENNINGS: Yes, sir.

MR. NUTTER: Are there any questions of this witness?

MR. KELLAHIN: If the Examiner please.

CROSS EXAMINATION

BY MR. KELLAHIN:

Mr. Abbott, Agua, Inc. was a party to the Commission Case 5377, the Hearing was held on December 3rd, 1975 concerning the numerous waterflood units and disposal problems in this particular area, you were a party to that Hearing,

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were you not?

Yes, sir.

Do you recall the testimony in that particular Case with regards to the wells that were problem wells in the area?

Yes, sir.

In general your proposed site for A-22 in Section 22 Q. is largely in the center of what I'll term a problem well area, is it not?

Evidently. Yes, sir, it is part of -- it's in one of these 36 sections.

You intend to dispose of the water, I assume, in this Blinebry-Drinkard formation?

- We plan to dispose of it in the San Andres formation. A.
- In the San Andres formation?
- Yes, sir. A.
- Are you aware of any fresh water sources in the 17 area? 18

No, not where we are going to dispose, there is probably fresh water above three hundred feet or there may be fresh water above three hundred feet.

In your opinion will this disposal water be properly contained within the San Andres formation?

Yes, sir.

Even in light of the present difficulty with this

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parti	cular	area?
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- Yes.
- Do you intend to treat the disposed water in any way?
- No, we do not, other than provide about four hours settling time before injection and skimming of oils from the water.
- What type of system do you have to set up in order to have it settling, a tank or something?
- We have to provide for two thousand barrel storage tanks that will probably be low thousand barrel tanks where the water will be disposed of from the bottom part of the tanks.
 - Where will these tanks be located, at the well site? Q.
 - At the well site, yes. A.
- You have indicated that you have a temporary line running from the H-35 disposal well to the C-2 disposal well, what's that distance?
 - About six miles. A.
 - What is the size of your disposal line? Q.
 - It's six-inch PVC.
 - You indicated you were pumping that?
- Yes. Α.
 - What type of pumping equipment are you using? Q.
 - We are using at present two triplex pumps at the

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H-35, they are hundred-and-fifty horse triplex plunger pumps.

- Those pumps working together are able to move what volume of water?
- Well, the average is three hundred and seventy-four barrels a day, but we can pump in excess of -- I mean three hundred and seventy-four barrels per hour, but we can pump over that with those.
- What is the source of that water now being disposed of in the C-2 well?
- At the present time it is from all of the producing oil wells in the whole system, which are in excess of four hundred producing wells.
- Okay. Instead of injecting water at your proposed location in an area of some concern, what alternatives have you examined to give you a different disposal area other than this particular site?
- We haven't at the present time looked at any other area in that this Hearing concerning this area will be continued until today.
- Have you examined the possibility of installing a disposal well farther to the east of the present floods?
- No, the San Andres isn't developed to the east that we know of where it has sufficient porosity and permeability to take the water by gravity.

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- Q Are there any other formations that you could dispose of water in other than the San Andres to the east?
 - A. Not that we know of.
- Q. I see your disposal lines are reasonably well developed to the west side of the flood, what are the possibilities or have you examined the possibilities of using a disposal well to the west of the problem area?
- A. No, as you go west the elevation of the ground, the topography of the ground goes up to an elevation where these lines will not provide gravity to the well site.
- Q What is the difference in elevation from the H-35 site to the C-2 site?
 - A. It is approximately a hundred and fifty feet.
- Q. Aren't the elevations from the H-35 site going west less than the hundred and fifty feet that you mentioned?
 - A. Yeah, they probably are less, right.
- Q Well, then it would be easier to move your water in a westerly direction as opposed to continuing in a northerly direction?
 - A. Possibly.
- Q The difficulty then of pumping the fluids to the west up the elevation is certainly less than your present system allows you?
- A. Yes, but the disposal system is designed for gravity flow to the H-35 location and all of the lines are

designed to gravity that water to that location so any diversion from there would have to start at the H-35 and then the water would have to be pumped to a new well location. then the water would have to be pumped to a new well location. then the water would have to be pumped to a new well location. then the water would have to be pumped to a new well location. A lave you made an examination of the economics have you for haven't. Have you conducted any water analysis of your present have you conducted any water analysis of your present have yes, we have. In general terms, what do those analyses conclude? In general terms, what do those analyses conclude? h. It is typical disposal brine. I think the chloride is around thirty-five thousand parts per million. how do you propose to treat your A-22 well, do you propose to treat it with acid as you did your C-2? h. Yes, we plan to acidize it with ten thousand h. Yes, we plan to acidize it with ten thousand gallons of fifteen percent hydrocloric acid. MR. KELLAHIN: I don't believe I have any further questions at this time.
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21 BY MR. NUTTER: 22 O Mr. Abbott, referring to your Exhibit Number
22 Q Mr. Abbott, referring to 1 22 Three which is the schematic diagram of the well, I see 23 Three which is the schematic diagram of the well, I see
Three which is the schematic diagram of the sc
and an oll blums
25 in the well

sid morrish reporting service General Court Reporting Service Alle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (505) 982-9212

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corrosion?

- A. Right.
- Act, the Feds have been working on and are continuing to work on some rather stringent regulations governing what they call well injections. We call them injection wells, they call them well injections, and these regulations will be used as guidelines for states to follow if they are going to continue to have jurisdiction over well injections and in all probability these guidelines and these regulations are going to require packers in most cases on well injections.
 - A. They don't understand the problem.
- Q I don't know whether they understand the problem or not.
- A. The reason you load the annulus with oil is oil is light, it floats on water, so you calculate the gravity of oil to put on this water, you know the specific gravity of the water, you know the bottom-hole pressure so you apply a positive pressure to this oil, you close the valve and you put a pressure gauge on it. It can't go anyplace unless you have a leak in your tubing or the casing. If you have a leak the pressure will decrease and then you will know you have a leak. All right, now, if you use a packer and you won't know if you have a leak or do not have a leak. I mean it is just a mistake.

Q. Well, in the event that they come out with a regulation and probably what is going to happen is that well injections that the Commission has previously approved are going to have to be re-approved one way or another. In the event that they do require that packers be installed will it be possible to get a packer that fits between five-and-a-half tubing and seven-inch casing?

A. Yes. I believe it is just fine with a disposal well or injection well where you are applying pressure, but for a well on gravity you need the information and the wells that I have completed in the Hobbs salt water disposal system, the Eunice-Monument disposal system, there are fifteen or twenty wells and they were completed over twenty years ago and they have worked just fine.

Q. I realize that we have had many wells over a long period of time that have been completed with this oil blanket annulus. Now what about the situation, Mr. Abbott, where you may cease injection for one reason or another for a period of time and you have been injecting in the well on gravity and the back pressure on the formation is low enough that the hydrostatic head of the fluid in the wellbore overcomes that and the fluid flows off into the formation?

A. Well, that is why you have to put a sufficient API gravity oil in the annulus so that this won't happen. Under static conditions you should have at least fifty

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pounds at the surface and you know, you can calculate that. The C-2 we have to load that with sixty quarkty oil bocause you have that situation and also the personations are callly high, so if you put on oil, a heavier oil, it will go tho other way if you shut the well in.

- But if you put a light enough dil in there it will stay in place?
 - Right, unless you have a leak.
- But you do say that it will be in the event of Ω re-approval of these well injections later, possible to have five-and-a-half inch times seven inch packers?
 - Yes. A.
 - Okay, that's what I needed to know. Q.

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

MR. JENHINGS: Let me ask him again

BEDIDECT EXAMINATION

BY MR. JENHTHOS:

Mr. Abbott, is it possible to reverse the flow of the water in your present system so that the water con be put back through the same lines that it is now heing gathered in or it formerly was qualities in the test and put it back imag the new proposed well in section 171 We will have no run adothional greathraged lines 25

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to	a s	uffic	ient	eleva	tion	and b	y siz	ing	the	pump	prop	erly
we	can	pump	the	water	from	H-35	back	up	to 1	this <i>I</i>	A-22	well

- Q. Will it require additional lines?
- A. Yes, sir.

MR. JENNINGS: I believe that's all.

MR. NUTTER: Any further questions of the witness?
He may be excused.

(THEREUPON, the witness was excused.)

MR. NUTTER: We will take a fifteen minute recess.

(THEREUPON, the Hearing was in recess.)

MR. NUTTER: For the benefit of any of you who may be interested and didn't understand that conversation

I was having with Mr. Hinkle, Case Number 5571 will definitely not be heard until after lunch. I don't know what time it will come on, but it will be after lunch.

The Hearing will come to order, please, we will resume again with Case Number 5592.

MR. JENNINGS: Mr. Examiner, may I ask a couple more questions?

MR. NUTTER: You have some more on redirect, okay.

(THEREUPON, the witness was recalled.)

REDIRECT EXAMINATION (Continued)

BY MR. JENNINGS:

Q. Mr. Abbott, I think you stated that you have heretofore mailed copies of your application and exhibits to

the offset operators?

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- A. That's right.
- Have any of them advised you that they do not approve
 or object to the present location?
- A. No one has advised us that they object to the location. Also I want to point out that the surface of this land that we planned to drill a disposal well on is owned by Cities Service Oil Company and we are negotiating a surface lease with Cities Service, so they evidently approve.
- Q. Has Cities Service even indicated that they might sell you the surface?
 - A. That's right.
- Q One other question, have you explored the possibility of other locations?
- A. Yes, sir. The selection of this A-22 well was -we hired a consulting geologist to study well records and
 drilling records of the whole area and he came up with this
 location because of the development, porosity and permeability
 development in the San Andres formation and because of that
 we think that we will drill a well that will take the water
 by gravity.
- Q Mr. Abbott was suming that you drill the well out of the area where currently the wells being disposed of are located do you anticipate additional cost?
 - A. Yes, an additional cost for pumps, lines, right-of-

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way, and, of course, the operational costs will increase. Is the present location the one you consider the most economical? Yes, sir. Have you had experience obtaining right-of-way in the area of this well? Yes. In your experience what can you expect to pay for pipeline right-of-way? It's a very difficult area to deal with the land owners and we expect the cost of the right-of-way will be very expensive. Do you have any idea as to the dollar expense? Well, it will probably start around ten dollars a rod.

MR. JENNINGS: That's all, I have no further questions.

MR. NUTTER: Are there any further questions of Mr. Abbot?

MR. KELLAHIN: If the Examiner please.

BY MR. KELLAHIN:

Mr. Abbott, you mentioned awhile ago that you 25 hadn't made any economic studies of the feasibility of

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placing the well to the west of the present flood, now you
tell me you have made extensive studies of alternatives. What
is the actual dollar figure of this proposal that you have
going to cost?

A. Our AFE which has been submitted to the operators for drilling and equipping this well and running the lines is two hundred and sixty-nine thousand dollars. At the present time we have approximately eleven percent approval for this AFE.

- Q And what is the total cost of placing a disposal well to the west of there?
- A. Well, it would increase over that two hundred and sixty-nine thousand dollars in that we would have to run more lines and also buy some pumps to push the water over to it.
 - Q. What is the actual dollar figure, do you have that?
 - A. I have no idea.
- Q Could you give me an estimate of what the increase would be over the two hundred and sixty-nine thousand dollars?
- A. I would be safe to say that it would increase it at least fifty percent.
- Q. You have indicated that you haven't had any objections from the offset operators in regards to the disposal well. Anadarko hasn't agreed to your proposed location, has it?
 - A. No.

Q. Does anyone	else	object	besides	Anadarko?
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A. No, not that I know of. Of course, we didn't know that Anadarko objected until this Hearing.

MR. KELLAHIN: No further questions.

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

(THEREUPON, the witness was excused.)

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

Jennings?

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MR. JENNINGS. No.

MR. NUTTER: Mr. Kellahin, call your witness.

DAN KERNAGHAN

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q. Please state your name, by whom you are employed and in what capacity?
- A. My name is Dan Kernaghan, I'm employed by Anadarko Production Company as a Division Evaluation Engineer.
- Q. Mr. Kernaghin, are you familiar with the facts surrounding this particular application by Agua, Inc.?
 - A. Yes, sir, I am.
 - Q. What is your familiarity with the area?

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Δ.	A.	Well,	, I ha	ve s	tudie	ed th	is a	rea	for	seve	cal	year	cs
now	and I	have	been	invo	lved	in t	he p	revi	ous	Hear:	ing	and	with
our	water	flood	that	is a	ctive	e in	that	are	a.				
	Q.	Does	Anada	arko	main	tain	a wa	terf	1000	pro	ject	in	that
area	a?			•				* .*					
	A.	Yes,	they	do.									

- Q. It is outlined on one of your exhibits?
- A. Yes, sir, it is, on Exhibit One.

MR. KELLAHIN: If the Examiner please, are the witness's qualifications acceptable?

MR. NUTTER: Yes, they are.

- Q. (Mr. Kellahin continuing.) Mr. Kernaghan, would you refer to Exhibit Number One and identify it?
- A. Exhibit Number One shows the wells defined as problem wells in Commission Order R-5003 issued last April. It shows the location of where Agua proposes to drill their A-22 well and a circle that represents a one-mile radius from this proposed location.
 - Q. What's the outline of the Anadarko flood?
- The cross-hatched outline that goes along the north boundary of Sections 21 and 22 and then it continues southerly through Sections 23 and 26.
- Q The proposed disposal well is within Anadarko's unit?
 - A. Yes, it is.

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	Q.	Mr.	Kern	iagha	n, wl	hat	are	Anac	darko'	s s	pecif:	ic
ob:	ection	s to	the	prop	osed	Agu	ıa,	Inc.	dispo	sal	well	iÝ
Sec	ction 2	22?	, i	•.,	ż				3			

- A. Well, we feel that the location of this well at this spot would place a further and unnecessary burden on the wells that have already been recognized as creating a problem in the water movement to shallow zones throughout this area.
- Q with a signated problem wells within its unit?
 - A. Yes, we have.
- Q. What potential effect does this disposal well have upon that remedial work?
- A. Well, if the remedial work is a hundred percent successful, it would probably have no effect, but we are pushing the issue to say that the introduction of these large volumes of water into an area that has had a problem in the past will not add further to the problem.
- Q Are you familiar with the quality of disposal water that is intended for injection in this well?
 - A. Yes, we made some analyses of it.
- Q Based upon that analysis do you have any conclusions with regards to the water to be disposed?
- A. In comparison to waters that we have injected in the unit and other places, we feel that this water would cause

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problems in the long run injecting into a formation without treatment that -- problems such as plugging, high injection pressures would result in the use of this water.

- Q. What kind of specific problems do you think you would encounter with the injection of this well water?
 - A. Plugging of the formation face.
- Q. You heard Mr. Abbott testify that they proposed to install some type of settling tanks at the location of the disposal well. In your opinion will that adequately handle the water problem?
- A. Well, the analysis that we had made indicated that retention far in excess of the four hours would be required. These analyses, I believe, have been sent to the Commission in the past. We have had some correspondence regarding this before and I believe that some of this was attached to it.
 - Q Do you have those water analyses available?
 - A. No, like I say, I think it has been --
 - Q. Can you submit them at a later date?
- A. If it is desired we can. If the copies aren't available in your office we can submit them.
- MR. NUTTER: I think we ought to have new copies for this Case file.
 - MR. KELLAHIN: Okay, we will furnish them.
- Q. (Mr. Kellahin continuing.) How does the volume of disposal water as proposed by Agua, Inc. compare to the

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	total	volume	of	water	being	disposed	by	Anadarko	in	thi
Ì	flood	>								

- A. They will be putting essentially as much water into this one well as we are putting in our whole unit right now.

 It is going to introduce, in my opinion, a severe load on the formation at this location.
- Q In your opinion, Mr. Kernaghan, the granting of this particular application by Agua, Inc. would not be in the best interests of conservation?
 - A. Well, I think it will further aggravate a problem that has not been in the best interests of conservation in the past.
 - Q. Was Exhibit One either prepared by you directly or under your direction and supervision?
 - A. Yes, it was.
 - Q With regards to this injection of water, Mr.

 Kernaghan, you mentioned that it would stop up the formation.

 Apart from stopping up the formation, what then is the result of the continued injection of this disposal water?
 - A. Well, it just takes higher and higher pressures to put it away and eventually it will just fracture the formation if you continue high enough with the injection pressures.
 - Q. And that is a potential risk to your remedial work that you are concerned about, isn't it?
 - A. Well, that is a risk, yes, and in the vicinity of

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that wellbore, but there is further potential risk to the
remedial work. The introduction of those volumes of water
is going to increase the bottom-hole pressure in the San Andres
I don't think there is any real question about that and
increasing the bottom-hole pressure is going to put a further
strain on the remedial work.

MR. KELLAHIN: That concludes our direct examination and we move the introduction of Exhibit One.

MR. NUTTER: Anadarko's Exhibit Number One will be accepted into evidence.

Any questions of Mr. Kernaghan?

MR. JENNINGS: Yes.

MR. NUTTER: Mr. Jennings?

CROSS EXAMINATION

BY MR. JENNINGS:

- Q. Mr. Kernaghan, what zones are your wells producing from?
 - A. The Penrose, the bottom zone of the Queen.
- Q. And what is the deepest depth from which you are producing?
- A. Oh, probably thirty-six hundred feet, thirty-six fifty.
- Q Now, you have said that you have completed your remedial work, would you explain to me how the injection of

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this water by gravity into the lower zone will affect your wells if your remedial work was properly done?

Our remedial work probably won't be affected whatsoever. The testimony presented last December indicated that the problem was deep, with wells that penetrated the Queen sand and penetrated the San Andres also to be completed in deeper formations, the Drinkard, the Blinebry, the Paddock, the McKee, the Ellenburger, the Simpson, and these wells in a great many cases had open annuluses behind the production string of casing, where the cement was not brought up to cover either the San Andres or the Queen, and an injection of water 12 in all probability was migrating behind these annuluses, through these annuluses behind the casing and migrating to both shallow formations and all over the place.

The majority of the work that was required was to 16 bring the cement up behind the pipe in these deeper wells and we have not yet had testimony to say what the status of this remedial work is.

To your knowledge are there any operators in the area who have not performed the remedial work directed by the Commission?

I'm not an authority on that. That testimony will probably be presented later.

Just answer my question.

To my knowledge, no

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You spoke of the increased pressures, will your testimony be, will you make the same answer if the water was being gravitied into this? Well, gravity indicates a zero surface pressure which is going to leave you with a little over two thousand pounds, twenty-two hundred pounds, say, at the San Andres formation which is probably slightly in excess of what it was originally The condition is going to be aggravated in direct proportion to the surface pressure that you are looking at. And you further stated, I believe, that your water analysis, that this water that would be injected would be closing up the formation, is that it? 12 13 Our analysis looked like it. as taking water for the unit to use. We didn't want to use It worried us as far it in its present state because of the problem of plugging. Well, might that not be helpful to plug that up so that it wouldn't get over to the other well? Oh, no, it's going to plug the sand face if it is going to plug it. These water analyses that you made and you referred to, just when and where were they made? They were made around February or March of this year at the Agua well. I believe you all took samples at the same time. They were more or less cooperative. Were those analyses made shortly after the other

	·			Page		32		
1	Hearing wh	nen there was some question	of	you	acquir	ing :	some	of
2	the Agua w	water to			- 10 m			
3	A.	Yes.						٠,
4	Q.	That was the occasion of t	he (analy	sis?			
5	A.	Yes.						
6	Q.	And you elected not to acq	uir	e any	y Ağua	wate:	r?	
7	Ä.	Uh-huh. We didn't want to	ta	ke tl	ne Agua	wat	er a	s
8	it was and	d put in our flood, no, we	did	n't	think i	t wa	s of	
9	a quality	we thought it would cau	se :	us p	coblems	to	use	
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11	Q.	Do you have any fault to f	ind	wit	n the p	ropo	sed	
12	completion	n of the Agua injection wel	1?			Ç i		
13	λ.	No, sir.						
14		MR. JENNINGS: That's all.						
15		MR. NUTTER: Any further q	ues	tion	s of Mr	٠.		

MR. NUTTER: Any further questions of Mr.

Kernaghan? He may be excused.

(THEREUPON, the witness was excused.)

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

Kellahin? 19

MR. KELLAHIN: No, sir.

MR. NUTTER: Does anyone have anything further they wish to offer in Case Number 5592?

We will take the Case under advisement.

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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a court reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

F. Morrish,

i do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5592, heard by me on 1/19, 1975

New Mexico Oil Conservation Commission

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KELLAHIN AND FOX
ATTORNEYS AT LAW
500 DON GASPAR AVENUE
POST OFFICE BOX 1769
SANTA FE, NEW MEXICO 87501

JASON W. KELLAHIN ROBERT E. FOX W. THOMAS KELLAHIN

December 3, 1975

TELEPHONE 982-4315 Area Code 505

Ar. Dan Nutter

New Mexico Oil Conservation Commission P.O. Box 2088

Santa Fe, New Mexico 87501

Re: NMOCC Case 5592

Dear Dan:

In accordance with your request, please find enclosed the water analysis and the performance curve for the Anadarko Langlie Mattix Penrose Sand Unit.

In addition, I have been informed by Mr. Irley Bonnette, attorney for Anadarko, that Mr. Jim Jennings, who represented Agua, has contracted him to propose the following settlement:

That Anadarko will withdraw its objection to the salt water distosal location provided that Agua will inject into the San Andres formation only and will not exceed atmospheric pressure at the wellhead.

This settlement is acceptable to Anadarko provided it becomes a part of the Commission's order. Mr. Jennings has not reconfirmed the settlement.

Very truly yours,

V. Thomas Kellahin

WTK:kjf

Enclosure

ANADARKO PRODUCTION COMPANY

A Panhandle Eastern Pipe Line Company Subsidiary

P.O. BOX 1330 Houston, Texas 77001 (713) 526-5421

IRLEY BONNETTE Vice President General Attorney

November 25, 1975

Mr. W. Thomas Kellahin Kellahin and Fox P. O. Box 1769 Santa Fe, New Mexico 87501

> Re: Hearing on proposed Agua Disposal Well - Langlie Mattix Penrose Sand Unit

Dear Tom:

In accordance with the request of Mr. Dan Nutter, I enclose herewith the following:

- (1) Original and one copy of graft indicating the performance of the Langlie Mattix Penrose Sand Unit prepared by Anadarko Production Company and dated November 20, 1975.
- (2) Two photostatic copies of Water Analyses No. 275160 prepared by Martin Laboratories, Inc. (consisting of two pages) indicating samples taken at Agua's disposal well at the times indicated.
- (3) Two photostatic copies of Water Analyses No. 37513 prepared by Martin Water Laboratories, Inc. indicating tests of samples taken from the Agua disposal tank and the disposal line Tract No. 8-4 of Agua
- (4) Two photostatic copies of report labeled Laboratory No. 275159 which is a bacterial and chemical analysis of samples and data taken from the Agua disposal well at the time and on the dates indicated.

The additional copy of each of the above enclosed herewith is for your files.

It can be seen from these reports and analyses that the solids in this water are large sand, paraffinic and asphaltic material in moderate to large particles, gyp crystals and calcium carbonate. In addition, the calcium carbonate will result in scale forming.

Mr. W. Thomas Kellahin Kellahin and Fox November 25, 1975 Page -2-

It is suggested that you call this to Mr. Nutter's attention when you deliver the above material to him. I am sure he is probably knowledgeable in this area, but calling it to his attention may be helpful.

It will be appreciated if you will telephone me when you have received this material and prior to delivering it to Kr. Nutter.

Je fonnette

Irley Bonnette

IB/bl Enclosures

Martin Water Laboratories Inc.

P. O. BOX 1468 PHUNE 943-3234 OR 563-1040 MONAHANS, TEXAS 79758

Form No. 3

RESULT OF WATER ANALYSES

406 W. ILLINOIS MIDLAND, TEXAS 73701 PHONE 683-4521

Mr. Herb Henderson	LA	ON YROTAROE	2/3/00					
V	SAI	SAMPLE RECEIVED 2-14-75						
P. O. Box 806, Eunice, New Me	<u>Xico</u> RE	RESULTS REPORTED 2-19-75						
Anadarko Production Compa	ny	Langlie-Matt	ix Penrose S	and Unit				
D. CANE	Langlie-M			ORG OHIC				
ECTION BLOCK SURVEY	-	Lea si	New Me	vico				
SURCE OF SAMPLE AND DATE TAKEN:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	A I C ARELLANS					
NO. 1 Disposal water - taken from	Aqua, Inc. di	sposal well @	8:00 a.m.	2-8-75				
NO. 2 Disposal water - taken from	Aqua, Inc. di	Lspos <mark>al well (</mark>	3:30 p.m.	2-8-75				
NO. 3 Disposal water - taken from	Aqua, Inc. di	isposal well (8:00 a.m.	2-9-75				
NO. 4 Disposal water - taken from				2-9-75				
REMARKS:								
	AND PHYSICAL P	ROPERTIES						
	NO. 1	No. 2	NO. 3	NO. 4				
Specific Gravity at 60° F.	1.0394	1.0403	1,0368	1.0402				
pH When Sampled		1						
pH When Received	6.9	6.9	7.0	7.0				
Sicarbonate as HCO3	1,763	1,763	1,854	1,763				
Supersaturation as CaCO3	225	250	340	365				
Undersaturation as CaCO3								
Total Hardness as CaCO3	8,200	8,500	7,300	8,200				
Calcium as Ca	1,940	2,060	1,920	2,020				
Magnesium as Mg	814	814	608	765				
Sedium and/or Potassiur	18,958	20,422	18.234	20,074				
Sulfate as SO4	1,350	1,305	1,305	1,275				
Chloride as CI -	33,024	35,510	31,248	34,799				
irea as Fe	1.0	1.5	0.40	0.48				
Barium as Ba	0	0	0	0				
Terbidity, Electric	11	10	11	19				
Color as Pt	12	12	16	54				
Total Solids, Calculated	57,847	61,904	55,169	60,696				
Tomperature °F.								
Carbon Dioxide, Calculated	370	370	297	282				
Disselved Oxygen, Winkler	<u> L</u>							
Hydrogen Sulfide	750	550	550	550				
Resistivity, chms/m at 77° F.	0.140	0.136	0.143	0.1				
Suspended Oil								
Filtrable Solids as mg/1	69.3	45.0	12.5	56.8				
Volume Filtered, mi	460	480	510	380				
	<u> </u>		-					
	 		مينا فريد ميسود السادر المسادرة القوم القائب فسادر بالميدي السياب					
		<u></u>						
	Reported As Milligram	s Per Liter						
Additional Determinations And Remarks								
	<u> </u>			·				
								
			·					
		· · · · · · · · · · · · · · · · · · ·						
			· · · · · · · · · · · · · · · · · · ·	·				

Martin Water Laboratories, Inc.

P. O. BOX 1468 PMONE 943-3234 OR 863-1040 MONAHANS, TEXAS 79758

RESULT OF WATER ANALYSES

408 W. ILLINOIS MIDLAND. TEXAS 79701 PHONE 683-4521

	L	ABORATORY NO	275160						
TO: Mr. Herb Henderson		SAMPLE RECEIVED							
P. O. Box 806, Eunice, New Me	vica	RESULTS REPORTED 2-19-75							
COMPANY Anadarko Production Comp	LEASE	Langlie-Mat	tix Penrose	Sand Unit					
FIELD OR POOL		e-Mattix	~ 						
SECTION BLOCK SURVEY	COUNTY	<u>Lea</u> s	TATE New Mex	ico					
SOURCE OF SAMPLE AND DATE TAKEN:			~~						
Disposal water - taken from				2-10-75					
NO. 2 Disposal water - taken from	Aqua, Inc.	disposal well	@ 3:30/p.m.	2-10-75					
NO. 3 Disposál water - taken from	ı Aqua, Inc.	disposal well	@ 8:00 a.m.	2-11-75					
NO. 4 Disposal water - taken from	Aqua, Inc.	disposal well	@ 3:30 p.m.	2-11-75					
REMARKS:			<i>y</i>						
CHEMICAL	AND PHYSICAL	PROPERTIES	THE RESERVE THE PARTY OF THE PA						
	No. 1	NO. 2	NO. 3	NO. 4					
Specific Gravity at 60° F.	1.0384	1.0389	1.0362	1.0407					
pH When Sampled									
pH When Received	6.9	7.2	7.0	7.0					
Sicarbonate as HC03	1,793	1,806	1,836	1,757					
Supersaturation as CaCO3	210	230	135	100					
Undersaturation as CaCO3									
Total Hardness as CaCO3	7,800	8,300	7,800	9,100					
Calcium as Ca	2,040	2,160	1,900	2,300					
Magnesium as Mg	656	705	741	814					
Sedium and/or Potassium	20,046	20,087	17,997	19,658					
Sulfate as SO4	1,290	1,365	1,305	1.275					
Chloride as CI	34,444	34,799	31,248	34,799					
ron as Fe	0.40	1.6	0,48	0.96					
Barium as Ba	0	0	! 0	0					
Turbi tity, Electric	15	43	7.6	26					
Color as Pt	18	14	42	42					
Total Solids, Calculated	60,269	60,922	55,027	60,602					
Temperature °F.	1	 							
Carbon Dioxide, Calculated	376	199	294	281					
Oissolved Gxygen, Winkler Hydrogen Sulfide	(75	(50		650					
Resistivity, ohms/m at 77° F.	675	650	675	650					
Suspended Oil	0.13	7 0,136	0.148	0.137					
	16.7	1 000	14.0	F10					
Filtrable Solids as mg/i Volume Filtered, ml	450	909	14.8	510					
voiding Criticator (in	- 430	130	540	145					
	 			* · · · · · · · · · · · · · · · · · · ·					
Results	Reported As Milligra	ms Per Liter		·					
Additional Determinations And Remarks The under			to be true	and correct					
to the best of his knowledge and									
· · · · · · · · · · · · · · · · · · ·									
	`	<u> </u>							

Form No. 3

Waylan C. Martin, M. A.

Martin Water Laboratories, Inc.

P. O. BOX 1468 PHONE 943-3234 OR 563-1040 MONAHANS, TEXAS 79756

RESULT OF WATER ANALYSES

406 W. ILLINOIS MIDLAND, TEXAS 79701 PHONE 683-4521

	L	ABORATORY NO	3/513	
To: Mr. Herb Henderson	S ⁴	MPLE RECEIVED	3-3-75	
P. O. Box 806, Eunice, New Mex	ico R	ESULTS REPORTED	3-7-75	-
•				
COMPANY Anadarko Production Company	iy LEASE	Langlie-Matt	ix Penrose Sa	ad Unit
FIELD OR POOL	Lang	ie attix		
SECTION BLOCK SURVEY	COUNTY LO	ea c	New Mexi	.co
SOURCE OF SAMPLE AND DATE TAKEN:	003/4/1		: A (
No. 1 Disposal water - taken from	Aqua, Inc.	disposal line	@ tract 8-4.	
NO. 2 Disposal water - taken from	Aqua, Inc.	disposal tank		
No. 3 Disposal water - taken from	Aqua, Inc.	lisposal tank	3-3-75	Commence of the Commence of th
20. 4 <u>/45</u>				
REMARKS:				
CHEMICAL.	AND PHYSICAL	PACESTAL PAC	NAMES AND TAKEN ASSESSMENT	MES CONTROL CONTROL CONTROL
	NO(1	No. 2	ten n	A
Specific Gravity at 60° F.			NO. 3	NO. 4
pH When Sampled	1.0355	1.0382	1.0404	
of the first of the control of the c	1			·
pH When Received	6.75	6.85	6.9	-
Bicarbonaté as HCO3	2,196	1,830	1,793	
Supersaturation as CaCO3	360	100	80	
Undersaturation as CaCO3				
Toral Hardness as CaCO3	7,900	8,000	8,800	
n Calcium as Ca	1,920	2,320	2,400	
§ Mignesium as Mg 1	753	535	680	
Sedium and/or Potassium	14,259	15,714	18,035	
Stiffen as SO4	1,008	1,544	1,418	e a securitaria ante e a caractera que que apresen-
Calaride as Ci	25,567	27,697	31,959	
Firen as Fe	0.76	1.6	0.92	
I Barium as Ba	0	0	0	ا المناه به وي
g Turbisty, Signific	6.4	27	16	
É Color as Pt	32	46		and the second section of the second section s
Total Solids, Calculated	45,703	49,640	56	والمسترين والرباع والمناوات والمستواني
Temp pragure F.	42,703	42,040	56,285	للم للمراوي والمراوي والمناسب والمدارات
F. Carbon Dioxide, Colculated	571	20/	~~~	
Dissolved Oxygen, Winkler	7/1	384	377	
Hy trogen Suifide	375	4.00	100	
Resistivity, obms/m at 27° F.		400	400	
💆 the ser recommendation of the contraction of the	0,172	0.163	0.144	
Suspended Oil	60	844	535	
Filtrable Solics as mg/1	28.0	48.0	106	
Volume Pilitered, al	250	250	250 ;	أنتجو والمراجعين فمستر بجيسيان
			The second secon	ا است ساده پیدیدید و دسیدهمانماندسازیانید.
		<u> </u>		and the second s
	<u>i</u>	1		
Results (Raported As Milligran	is Par Lisar		
Additional Determinations And Remarks Microscop	ic examination	ons of the fi	trable solids	show
them to be similar to analysis #2	75159 (2-14-	75) except we	identified no	sand
and also no calcium carbonate in	the tank sam	oles (there wa	s calcium car	bonate
at Tract 8-4). We also noted the				
as compared to the sample at Trac				
originates from another source or				
tank.				
		and the second s		
			·····	

Form No. 3

Waylan C. Martin, M. A.

Martin Water Laboratories, Inc.

P. O. BOX 1466 MONAHANS, TEXAS 79756 PH. 943-3234 OR 563-1040 WATER CONSULTANTS SINCE 1953 BACTERIAL AND CHEMICAL ANALYSES 406 W. ILLINOIS MIDLAND, TEXAS 79701 PHONE 683-4521

To: Mr. Herb Henderson P. O. Box 806 Eunice, New Mexico Laboratory No. 275159 Samples received 2-14-75 Results reported 2-19-75

Company: Anadarko Production Co.

County: Lea, N. M. Field: Langlie-Mattix

Lease: Langlie-Mattix Penrose Sand Unit

Subject: To make microscopic examination of filtrable solids as described below.

Source of sample & date taken

Microscopic Examination of Solids

1. Aqua disposal well @ 3:30 pm. 2-7-75

Mostly small to moderate with a few large paraffinic, asphaltic, and sand particles. Also a significant amount of calcium carbonate and iron sulfide.

2. Aqua disposal well @ 8:00 am. 2-8-75

Mostly moderate to large sand particles with some small to moderate paraffinic particles and calcium carbonate.

3. Aqua disposal well @ 3:30 pm. 2-8-75

Mostly fine to moderate paraffinic and asphaltic particles with some moderate to large paraffinic material and sand. A few large chips of asphaltic material; a slight amount of clusters of gyp crystals and calcium carbonate.

4. Aqua disposal well @ 8:00 am. 2-9-75

Mostly fine to small particles of paraffin and a slight amount of moderate paraffin and sand particles and calcium carbonate.

5. Aqua disposal well @ 3:30 pm. 2-9-75

Mostly fine to small particles of paraffin and sand. A slight amount of moderate sand and a few large chips of asphaltic material and very slight amount of gyp crystals and calcium carbonate.

6. Aqua disposal well @ 8:00 a.m. 2-10-75

Mostly fine to small particles of paraffin and sand and a moderate amount of calcium carbonate and gyp crystals.

7. Aqua disposal well @ 3:30 pm. 2-10-75

Mostly small to large paraffinic, asphaltic, and sand particles with a substantial number of large tips of asphaltic material. Also some cale im carbonate and slight gyp crystals.

Mr. Herb Henderson, Anadarko Production Co. - Laboratory No. 275159 - Page 2

Source of sample and date taken

Microscopic Examination of Solids

8. Aqua disposal well @ 8:00 am. 2-11-75

Mostly fine to moderate sized paraffinic, asphaltic, and sand particles and a very slight amount of calcium carbonate.

9. Aqua disposal well @ 3:30 pm. 2-11-75

Mostly large chips of what appeared to be asphaltic and paraffinic material in clusters. A slight amount of large sand, gyp crystals, and calcium carbonate.

KEY TO DESCRIPTION OF PARTICLE SIZING

Description

Approximate Particle Size

Fine

Less than 5μ

Small

 5μ - 35μ

Moderate

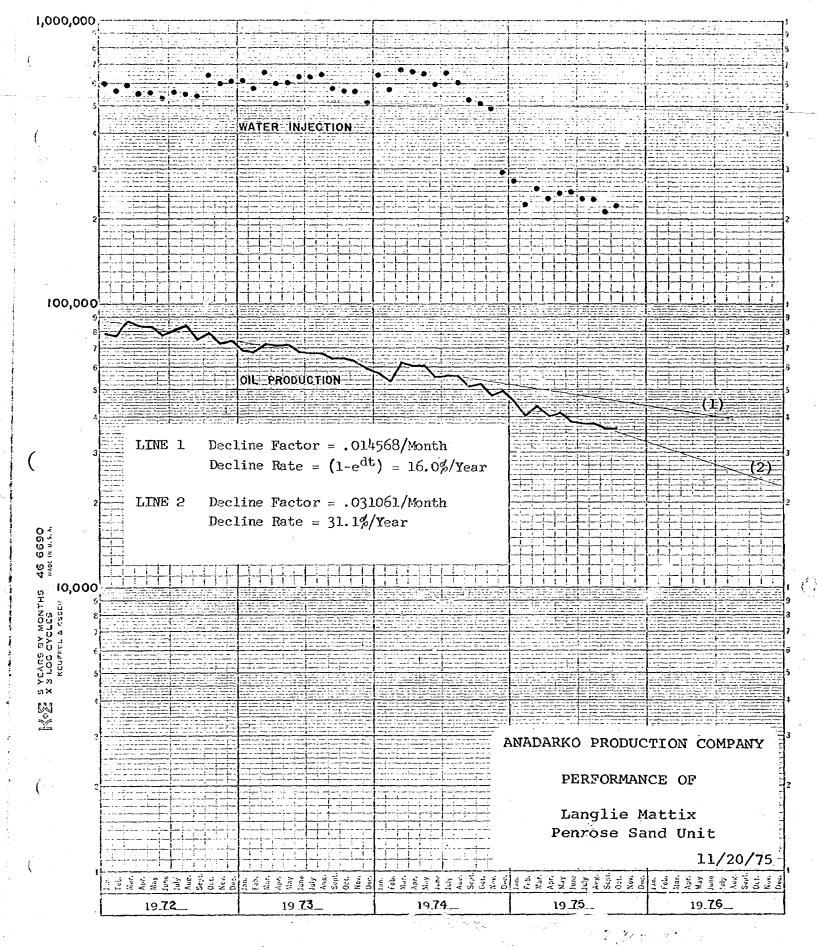
 35μ - 150μ

Large

Larger than 150μ

Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Waylan C. Martin, M.



0.170016.

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. 5592 Order No. R-5137

APPLICATION OF AGUA, INC. FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 19, 1975, at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this <u>16th</u> day of December, 1975, 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, Agua, Inc., is the owner and operator of the Blinebry-Drinkard SWD System Well No. A-22 located 817 feet from the North line and 965 feet from the East line of Section 22, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico.
- (3) That the applicant proposes to utilize said well to dispose of produced salt water into the San Andres formation, with injection into the open-hole interval from approximately 4,000 feet to 5,000 feet.
- (4) That the injection should be accomplished through 5 1/2-inch plastic lined tubing hung at approximately 4000 feet; that the casing-tubing annulus should be filled with a hydrostatically balanced column of inert fluid; and that a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing or tubing.
- (5) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than one hundred (100) psi, provided however, the Secretary-Director of the Commission should have authority to increase the aforesaid pressure limit if, in his judgement, conditions so warrant.

-2-Case No. 5592 Order No. R-5137

- (6) That the operator should notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (7) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.
- (8) 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, Agua, Inc., is hereby authorized to utilize its Blinebry-Drinkard SWD System Well No. A-22 located 817 feet from the North line and 965 feet from the East line of Section 22, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico, to di pose of produced salt water into the San Andres formation, injection to be accomplished through 5 1/2-inch tubing hung at approximately 4000 feet, with injection into the openhole interval from approximately 4,000 feet to 5,000 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with a hydrostatically balanced column of inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing or tubing.

- (2) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the well-head pressure on the injection well to no more than one hundred (100) psi, provided however, the Secretary-Director of the Commission shall have the authority to increase the aforesaid pressure limit upon satisfactory showing that such pressure limit increase is warranted and will not result in loss of underground reserves nor injury to offsetting leases or properties.
- (3) That the operator shall notify the supervisor of the Hobbs district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (4) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.
- (5) That the applicant shall submit monthly reports of the disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

-3-Case No. 5592 Order No. R-5137

(6) 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 herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

CHILLY C CLIMENT Member

JOE D. RAMEY, Member & Secretary

SEAL

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF AGUA, INC. FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

CASE NO. 5592 ORDER NO. R-5137

APPLICATION FOR DE NOVO HEARING BEFORE COMMISSION

Comes now Agua, Inc. and hereby makes Application for a

De Novo Hearing in connection with the Application which it heretofore filed in the above case to dispose of produced salt water into
the San Andres formation into its No. A-22 Well located 817 feet from
the North line and 965 feet from the East line of Section 22, Township
22 South, Range 37 East, N.M.P.M., and states:

- 1. That the Applicant filed an Application to dispose of salt water into its No. A-22 Well, which matter came on for hearing before Daniel S. Nutter, Examiner, on November 19, 1975, and on December 15, 1975 the Commission entered its Order No. R-5137 authorizing Applicant to dispose of produced salt water into the San Andres formation with injections into the open-hole interval from approximately 4,000 feet to 5,000 feet, and further providing that the injection well should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than one hundred (100) psi.
- 2. That the Applicant was adversely affected by said Order and hereby requests the Commission to hear the matter de novo in accordance with Rule 1220.

WHEREFORE, Applicant requests the Commission to set this matter down for de novo hearing before the Commission at an early date, publish the Notice as required by law and after hearing issue its Order allowing Applicant to dispose of produced salt water into the San Andres formation in the open-hole interval from approximately

4,000 feet to 5,000 feet below the surface in its A-22 Well located 817 feet from the North line and 965 feet from the East line of Section 22, Township 22 South, Rarge 37 Fast, N.M.P.M., without any pressure restrictions.

Respectfully submitted,

AGUA, INC.

For JENNINGS, CHRISTY & COL Attorneys for Applicant Box 1186 Roswell, New Mexico 88201

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. 5592 (De Novo) Order No. R-5137-A

APPLICATION OF AGUA, INC. FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 21, 1976, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 27th day of January, 1976, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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's request for dismissal should be granted.

IT IS THEREFORE ORDERED:

(1) That Case No. 5592 (De Novo) is hereby dismissed.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

ACC. Lucero

PHIL R. LUCERO, Chairman

EMERY C ARNOLD, Membe

JOE D. RAMEY, Member & Secretary

LAW OFFICES OF

JENNINGS, CHRISTY & COPPLE

JAMES T. JENNINGS SIM B. CHRISTY IX ROGER L. COPPLE BRIAN W. COPPLE

1012 SECURITY NATIONAL BANK BUILDING P. O. BOX 1180 ROSWELL, NEW MEXICO 88201

be-core 5592

ROBERT G. ARMSTRONG

January 8, 1976

Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87051

Attention: William F. Carr, General Counsel

CASE NO. 5592, ORDER NO. R-5137 APPLICATION OF AGUA, INC. FOR DE NOVO HEARING

Gentlemen:

On behalf of Agua, Inc. we hereby request the Commission to dismiss the Application for De Novo Hearing heretofore filed in the above case in connection with the above numbered Order of December 29,

Yours very truly

TAMES T. JENNINGS

JTO/mb

cc: Agua, Inc. Kellahin & Fox

Dockets Nos. 5-76 and 5-76 are tentatively set for hearing on Fébruary 4 and February 18, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - WEDNESDAY - JANUARY 21, 1976

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

CASE 5592: (De Novo)

Application of Agua, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced water by injection into the San Andres formation through the open-hole interval from approximately 4000 to 5000 feet in its Blinebry-Drinkard SWD System Well No. A-22 located 817 feet from the North line and 965 feet from the East line of Section 22, Township 22 South, Range 37 East, Lea County, New Mexico.

Upon application of Agua, Inc., this case will be heard $\underline{\text{De Novo}}$ pursuant to the provisions of Rule 1220.

CASE 5571: (De Novo)

Application of Robert G. Cox for amendment of Order No. R-4561, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks amendment of Order No. R-4561, which order permitted the directional drilling of applicant's Federal "EA" Well No. 1, located 330 feet from the North and West lines of Section 12, Township 18 South, Range 27 East, Empire-Abo Pool, Eddy County, New Mexico, in such a manner as to be bottomed within 100 feet of the surface location. Applicant seeks the amendment of said order to permit bottoming of the subject well approximately 58 feet from the North line and 8 feet from the West line of said Section 12 and to permit verification of said downhole location by single-shot directional surveys made concurrently with the drilling of said well.

Upon application of Robert G. Cox, this case will be heard <u>De Novo</u> pursuant to the provisions of Rule 1220.

NOTE: Case No. 5592, above, will be dismissed at the request of applicant.

Dockets Nos. 5-76 and 6-76 are tentatively set for hearing on February 4 and February 18, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - TUESDAY - JANUARY 20, 1976

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 Richard L. Stamets, Alternate Examiner:

- Application of Amerada Hess Corporation for downhole commingling, Rio Arriba County, New Mexico.

 Applicant, in the above-styled cause, seeks approval to commingle Basin-Dakota gas production and oil produced from an undesignated Gallup pool in the wellbore of its Apache "A" Well No. 7, located in Unit J of Section 26, Township 25 North, Range 5 West, Rio Arriba County, New Mexico.
- Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Morely EW Well No. 1, located 660 feet from the South and East lines of Section 27, Township 17 South, Range 25 East, Eddy County, New Mexico, the S/2 of said Section 27 to be dedicated to the well.
- Application of Atlantic Richfield Company for an unorthodox gas well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to simultaneously dedicate a previously approved 320-acre non-standard gas proration unit comprising the W/2 of Section 29, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, to its W. H. Harrison "D" WN Com Well No. 1, located in Unit L of said Section 29 and its W. H. Harrison "A" WN Well No. 2, at an unorthodox location 660 feet from the North and Nest lines of said Section 29.
- CASE 5617: Application of Robinson Resource Development Company, Inc. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow test well to be drilled 1530 feet from the North line and 330 feet from the East line of Section 18, Township 21 South, Range 25 East, Eddy County, New Mexico, the N/2 of said Section 18 to be dedicated to the well.
- CASE 5618: Application of Mesa Petroleum Co. for a triple completion, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of the triple completion (conventional) of its Primo Well No. 1A, located in Unit D of Section 6, Township 31 North, Range 10 West, San Juan County, New Mexico, to produce gas from the Pictured Cliffs, Chacra and Mesaverde formations.

CASE 5117: (Reopened)

In the matter of Case 5117 being reopened pursuant to the provisions of Order No. R-4691, which order established temporary special pool rules for the North Dagger Draw-Upper Pennsylvanian Pool, Eddy County, New Mexico. All interested parties may appear and show cause why said pool should not be developed on less than 320-acre spacing and why the special depth bracket allowable should remain in effect.

- CASE 5619: Application of Agua, Inc. for an extension of time, Order No. R-4495-A, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a 90-day extension of the February 7, 1976, deadline to cease the disposal of produced salt water through perforations from 4,230 feet to 4,320 feet in its SWD Well No. C-2, located in Unit C of Section 2, Township 22 South, Range 37 East, Lea County, New Mexico.
- CASE 5603: (Continued from January 7, 1976 Examiner Hearing)

Application of Burleson and Huff for compulsory pooling, a non-standard gas proration unit, and an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Jalmat Gas Pool underlying the NW/4 of Section 35, Township 25 South, Range 37 East, Lea County, New Mexico, to form a non-standard 160-acre proration unit; applicant further seeks the pooling of all mineral interests in the Langlie-Mattix Pool underlying each of the following tracts in said Section 35 to form three standard 40-acre proration units: the NE/4 NW/4, to be dedicated to applicant's Dabbs Well No. 1, located 330 feet from the North line and 2310 feet from the West line of said Section 35; the SE/4 NW/4, to be dedicated to applicant's Dabbs Well No. 3, located 1980 feet from the North and West lines of said Section 35; and the SW/4 NW/6, to be dedicated to a well to be drilled on said tract at a standard Langlie-Mattix Pool location. In the event re-entry into either the Dabbs Well No. 1 or No. 3 is unsuccessful, applicant proposes to drill a replacement well at a standard location on its tract. Applicant further proposes to dedicate the 160-acre Jalmat proration unit to one of the three above-described wells, and in the event it should be the Dabbs Well No. 1, applicant seeks approval for the unorthodox Jalmat location for said well. Also to be considered will be the cost of re-entering, drilling, and completing said wells and the considered will be the designation of the applicant as operator of the wells and a charge for the risk involved in re-entering, drilling, and completing said well.

CASE 5604: (Continued from January 7, 1976 Examiner Hearing)

Application of Burleson & Huff for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Querecho Plains-Queen Pool by the injection of water into the Queen formation through its Amadarko Federal Well No. 6 to be drilled at an unorthodox location in the approximate center of the SW/4 of Section 27, Township 18 South, Range 32 East, 100 County, New Mexico. Applicant further seeks an administrative procedure for approval of additional wells at standard and non-standard locations within the project area.

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

DEC 3 0 1975 LE CONSERVATION COMMENTO FE

IN THE MATTER OF THE APPLICATION OF AGUA, INC. FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

CASE NO. 5592 ORDER NO. R-5137

APPLICATION FOR DE NOVO HEARING BEFORE COMMISSION

Comes now Agua, Inc. and hereby makes Application for a

De Novo Hearing in connection with the Application which it heretofore filed in the above case to dispose of produced sal't water into
the San Andres formation into its No. A-22 Well located 817 feet from
the North line and 965 feet from the East line of Section 22, Township
22 South, Range 37 East. N.M.P.M., and states:

- 1. That the Applicant filed an Application to dispose of salt water into its No. A-22 Well, which matter came on for hearing before Daniel S. Nutter, Examiner, on November 19, 1975, and on December 16, 1975 the Commission entered its Order No. R-5137 authorizing Applicant to dispose of produced salt water into the San Andres formation with injections into the open-hole interval from approximately 4,000 feet to 5,000 feet, and further providing that the injection well should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than one hundred (100) psi.
- 2. That the Applicant was adversely affected by said Order and hereby requests the Commission to hear the matter de novo in accordance with Rule 1220.

WHEREFORE, Applicant requests the Commission to set this matter down for de novo hearing before the Commission at an early date, publish the Notice as required by law and after hearing issue its Order allowing Applicant to dispose of produced salt water into the San Andres formation in the open-hore interval from approximately

4,000 feet to 5,000 feet below the surface in its A-22 Well located 817 feet from the North line and 965 feet from the East line of Section 22, Township 2 South, Range 37 East, N.M.P.M., without any pressure restrictions.

> Respectfully submitted, AGUA, INC.

For JENNINGS, CARLETY & COPP Attorneys for Applicant 1.0. Box 180 Roswell, New Mexico 88201

Case 5592

AGUA, INC.

POST OFFICE BOX 1978 HOBBS, NEW MEXICO 63240

October 21, 1975

OCT 9 2 1975
OCT 9 2 1975
OL COMSERVATION COMM.
Santa Fo

TELEPHONE: 505 393-6188

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

Attn: Mr. Joe Ramey

Gentlemen:

AGUA, INC. respectfully requests an Examiner Hearing to consider its application for approval to dispose of salt water in Blinebry-Drinkard Salt Water Disposal Well No. A-22, to be drilled at a location 817 feet from the north line and 965 feet from the east line of Section 22, T22S, R37E, Lea County, New Mexico.

Attached is Commission Form C-108 with the required Location Plat and Diagrammatic Sketch of the proposed salt water disposal well.

Pursuant to the August 22, 1975 letter directive from the Commission, Emergency Order No. E-27 dated September 26, 1975 and Order No. R-4495-A dated October 7, 1975, all waste waters collected and handled by the Blinebry-Drinkard Salt Water Disposal System are directed to and accepted by Blinebry-Drinkard Disposal Well No. C-2 under gravity disposal until a time no later than February 7, 1976, at which date relief must be afforded Disposal Well No. C-2 by the utilization of a newly-drilled and equipped disposal well so located and described in the above paragraphs.

A copy of this application has been furnished to offset operators.

Oil Conservation Commission October 21, 1975 Page 2

Yours very truly,

AGUA, INC.

u.y. albox

W. G. Abbott Manager

JVR/jo

cc: Amerada Hess Corporation
Anadarko Production Company
Cities Service Oil Company
Continental Oil Company
Exxon Company - U. S. A.
Gulf Energy & Minerals Company - U. S.
J. H. Hendrix

DOCKET MAILED

Date 11/10/75

Eur 5592-

Form C-108 Revised 3-1-68

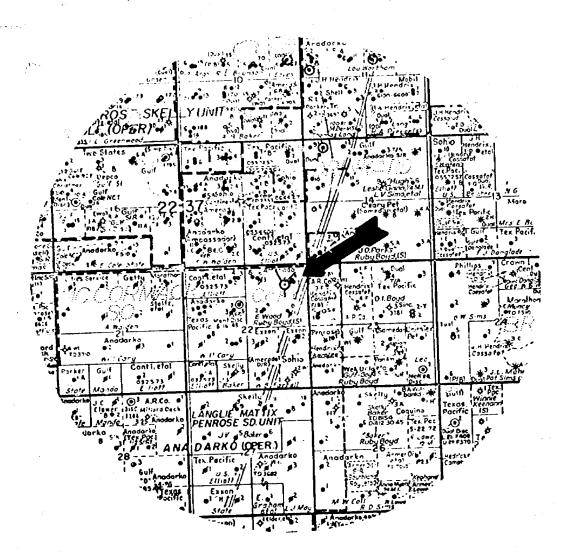
NEW MEXICO OIL CONSERVATION COMMISSION

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

OPERATOR	£				ADDRESS						
AGUA, INC.						10	<i>∮.</i> 170 11∞	LL _	NT.		
LEASE NAME			WELL NO.		P.O.Bo	X IS	7/0 HO	DDS	, Ne	W Mexi	co 88240
Blinebry-Drinkard	SWD Syst	em	A-22							L	ea
LOCATION			_					`			
UNIT LETTER	; we	LL IS I	LOCATED 8	17	FEET F	ROM THE	North	LIN	IE AND	965	FEET FROM THE
East Line, SECTION 22 TOWNSHIP 22S RANGE 37E NMPM. CASING AND TUBING DATA											
NAME OF STRING	SIZE	SETT	ING DEPTH		CKS CEME		TOP OF C	EVE		TOD DET	EDWINED BY
SURFACE CASING	3120	32.11	1.40 DEPTH	3,	CK3 CEME		100 00 0	EMEN	-	TOP DE I	ERMINED BY
	9-5/8"	:	3151		160		Suriac	e.		Circ	ulated
INTERMEDIATE											draced
	-			·]					
LONG STRING											
TUBING	711	_4(000'		540	1507/: 0-	315	1		Calc	<u>ulated</u>
<u> </u>	5 1 /6"	,,									
Plastic-lined	5-1/2"	4(000'	No.	ne (Ui	L DI	anket i	n a	nnu L	US)	N .
San Andres						3800 1		1		5000	
IS INJECTION THROUGH TUBING, CASIN	GOR ANNULUS?		PERFORATIONS	S OR OPE			INTERVAL(S) OF	INJEC	TION	3000	<u></u>
Tubing	:		Open 1	hole	1		40001	_	5000	1	
IS THIS A NEW WELL DRILLED FOR DISPOSAL?	IF ANSWER IS	NO, FO	R WHAT PURPO	SE WAS	WELL ORIGIN	IALLY DR	ILLEO?	1	HAS WELL	EYER BEEN	PERFORATED IN ANY PROPOSED INJEC-
Yes									TION ZON	E?	
LIST ALL SUCH PERFORATED INTERVA	LS AND SACKS OF CE	MENT	USED TO SEAL C	OFF OR S	QUEEZE EAC	н					
											
FRESH WATER ZONE IN THIS AREA	001	DEPTH OIL OF	S OF BOTTOM OF R GAS ZONE IN	F NEXT H	IIGHER EA 36	500 t	OIL OR	F TOP SAS ZO	OF NEXT NE IN THI	LOWER S AREA	55001
ANTICIPATED DAILY MINIMUM INJECTION VOLUME GBLS.)	MAXIMUM	·	OPEN OR CLOS	ED TYPE	SYSTEM	IS INJE	ECTION TO BE B	GRAV	ITY OR	APPROX. P	RESSURE (PSI)
(egrs.) 5000	12,00	00	Close			J	Gra	vit	.y	<u> </u>	None
ANSWER YES OR NO WHETHER THE FOI ERALIZED TO SUCH A DEGREE AS TO B LTOCK, IRRIGATION, OR OTHER GENER	LCWING WATERS AR E UNFIT FOR DOMES	E MIN- TIC,			DISPOSED OF	NATUR	AL WATER IN DI	s.º0-	ARE WATE	R ANALYSES	ATTACHED?
NAME AND ADDRESS OF SURFACE OWN		TATE		Yes		<u> </u>	Yes				No
Cities Service O					1919		Midland	, Т	'exas		79701
							_				
	Wall To					land,	Texas		9701	· 	
Gulf Oil Company	- U. S.		P. 0	. Bo	x 670		Hobbs,	New	Mex	ico	88240
Continental Oil					x 460		Hobbs,				88240
Anadarko Product	ion Compa	ny	P. 0	. Bo	x 247		Hobbs,	New	Mex	ico	88240
Exxon Company -	U. S. A.		1700	Wes	t Broa	idway	Andr	ews	. Te	xas	79714
Amerada Hess Cor	poration		P. 0	. Dr	awer"I)u	Monumen	t,	New I	Mexico	8826 5
HAVE COPIES OF THIS APPLICATION B SENT TO EACH OF THE FOLLOWING?		ER					IIN ONE-HALF M				
	Y	es		, , , , , , , , , , , , , , , , , , ,		Y	les				
ARE THE FOLLOWING ITEMS ATTACHED THIS APPLICATION (SEE RULE 701-B)	TO PLAT OF ARE	A		1	ELECTRICAL	LOG			DIAGRAM	MATIC SKETC	H OF WELL
	Y	es				<u> </u>	<u>lo</u>			Yes	
I hereby co	ertify that the inf	ormati	ion above i	rue an	d complete	e to the	best of my k	nowle	edge and	belief.	
2/21/2102	WM Abby Manager 10/21/75										
(Signature)	1		M	anag	(Title)				10	<u> </u>	
(Signature)					(11116)					11717	<u> </u>

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

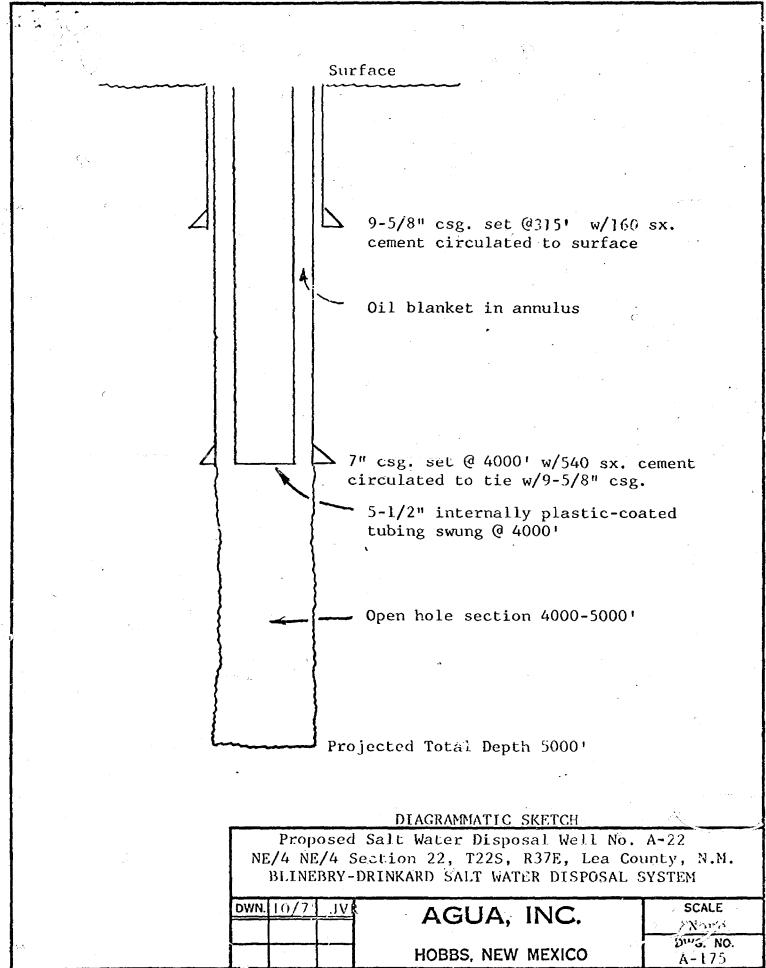
Çb.



LEGEND:

OUpper San Andres
All other wells producing
from formations non-contiguous
to the San Andres

PLAT OF AREA
Proposed SWD Well No. A-22
Blinebry-Drinkard SWD System
AGUA, INC. October, 1975



Case 5592

AGUA, INC. POST OFFICE BOX 1978 HOBBS, NEW MEXICO 88240

October 21, 1975

TELEPHONE: 505 393.5188



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

Attn: Mr. Joe Ramey

Gentlemen:

AGUA, INC. respectfully requests an Examiner Hearing to consider its application for approval to dispose of salt water in Blinebry-Drinkard Salt Water Disposal Well No. A-22, to be drilled at a location 817 feet from the north line and 965 feet from the east line of Section 22, T22S, R37E, Lea County, New Mexico.

Attached is Commission Form C-108 with the required Location Plat and Diagrammatic Sketch of the proposed salt water disposal well.

Pursuant to the August 22, 1975 letter directive from the Commission, Emergency Order No. E-27 dated September 26, 1975 and Order No. R-4495-A dated October 7, 1975, all waste waters collected and handled by the Blinebry-Drinkard Salt Water Disposal System are directed to and accepted by Blinebry-Drinkard Disposal Well No. C-2 under gravity disposal until a time no later than February 7, 1976, at which date relief must be afforded Disposal Well No. C-2 by the utilization of a newly-drilled and equipped disposal well so located and described in the above paragraphs.

A copy of this application has been furnished to offset operators.

Oil Conservation Commission October 21, 1975 Page 2

Yours very truly,

AGUA, INO.

W. S. albox

W. G. Abbott Manager

JVR/jo

4

cc: Amerada Hess Corporation
Anadarko Production Company
Cities Service Oil Company
Continental Oil Company
Exxon Company - U. S. A.
Gulf Energy & Minerals Company - U. S.
J. H. Hendrix



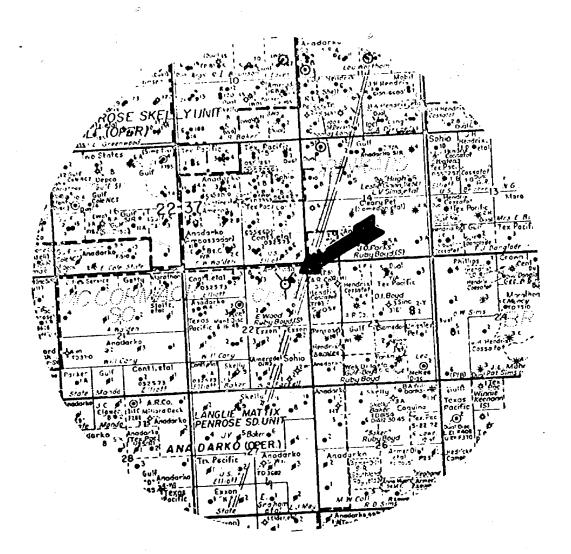
Revised 3-1-6

NEW MEXICO OIL CONSERVATION COMMISSION

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

OPERATOR				 	ADDRESS						
AGUA, TNC.					P.O.Box 1978 Hobbs, New Mexico 88240						
Blinebry-Drinkard	SWD Syst	· •	1-22		FIELO	A CONTRACTOR OF THE CONTRACTOR			Lea		
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UNIT LETTER	, WE	ELL IS LOC	. A I ED				, 1102-011	INE AND	FEET FROM THE		
East LINE, SECTION	22 tov	VNSH1P	225	RA	NGE 37E		NMPM.				
NAME OF STRING	SIZE	SETTIN	ETTING DEPTH		AND TUBING DATA SACKS CEMENT		TOP OF CEMENT		TOP DETERMINED BY		
SURFACE CASING	9-5/8"	21	315'		160		Surface		Circulated		
INTERMEDIATE	9-3/0"	313.		160			Surrace	CITCUIALEG			
				<u> </u>			,				
LONG STRING	7	4000		510			26.61	Calculated			
TUBING	7"	4000 •		540 NAME, MODEL AND DEPTH O		DEPTH OF	3151		Carculated		
Plastic-lined	5-1/2"	400	001	No			anket in				
San Andres					3800		1	5000 t			
IS INJECTION THROUGH TUBING, CASIN	G, OR ANNULUS?	PE	ERFORATION:	S OR OF	ľ		INTERVAL(S) OF INJE				
Tubing	IF ANSWER IS		Open :				4000! -		EVER BEEN PERFORATED IN ANY		
Yes	IF ANSWER IS	NO, FOR	THAT PURPO	SE WAS	, WELL ORIG	INALLY DR	ICCEU!	ZONE OTH	ER THAN THE PROPOSED INJEC-		
LIST ALL SUCH PERFORATED INTERVAL	S AND SACKS OF CE	MENT USE	D TO SEAL	OFF OR	SQUEEZE EA	СН		<u> </u>			
DEPTH OF BOTTOM OF BEEPEST		COEDTH OF	F BOTTOM O		wieuro		DEPTH OF TO	O OF NEXT	1 OWER		
FRESH WATER ZONE IN THIS AREA	00!	OIL OR G	AS ZONE IN	THIS A	3	6001	OIL OR GAS 2	ONE IN THE	55001		
INJECTION VOLUME (BBLS.) 5000	12,00	- 1	Clos	_	E SYSTEM	PRESS	ection to be by GRA URE? Gravi		None		
ANSWER YES OR NO WHETHER THE FOL ERALIZED TO SUCH A DEGREE AS TO B STOCK, IRRIGATION, OR OTHER GENERA	LOWING WATERS ARE UNFIT FOR DOMES	E MIN-			DISPOSED O	F NATUR	AL WATER IN DISPO-		ER ANALYSES ATTACHED?		
STOCK, IRRIGATION, OR OTHER GENERAL NAME AND ADDRESS OF SURFACE JUNE				Yes		 	Yes	<u> </u>	<u>No</u>		
Cities Service O	il Compan	v	0.	Ro	k 1919		Midland.	Texas	79701		
LIST NAMES AND ADDRESSES OF ALL	PERATORS WITHIN	ONE-HALF	() MILE OF	THIS	NJECTION WI	ELL					
J. H. Hendrix	Wall To	wers						79701			
Gulf Oil Company	- U. S.		P. 0	. B	ox 670		Hobbs, Ne	w Mex	ico 88240		
Continental Oil	Company		P. 0	. Bo	эх 460	·	idobbs, ide	WINCX			
Anadarko Product	ion Compa	ny	<u>P. Q</u>	Bo	ox 247		Hobbs, Ne	w Mex	ico 38240		
Exxon Company -	U. S. A.		1700	Wes	st Bro	adway	/ Andrew	s, Te	xas 79714		
Amerada Hess Cor	poration		2. 0	. Di	rawer	Dii	Monument,	New 3	Mexico 88265		
HAVE COPIES OF THIS APPLICATION BE SENT TO EACH OF THE FOLLOWING?		es	1.		EACH OPERA OF THIS WE		IN ONE-HALF MILE				
ARE THE FOLLOWING ITEMS ATTACHED THIS APPLICATION (SEE RULE 701-8)	1				ELECTRICAL			DIAGRAMS	MATIC SKETCH OF WELL		
		es) L		io		Yes		
I hereby ce	ertify that the inf	ormation	above is	true a	nd comple	te to the	best of my know	ledge and	belief.		
Wy all			Manager								
(Signature)					(Title)	,		(Date)			

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the new Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe Spice. 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.



LEGEND:

O Upper San Andres
All other wells producing
from formations non-contiguous
to the San Andres

PLAT OF AREA
Proposed SWD Well No. A-22
Blinebry-Drinkard SWD System
AGUA, INC. October, 1975

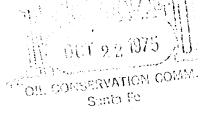
Gare 5592 Surface 9-5/8" csg. set @715' w/160 sx. cement circulated to surface Oil blanket in annulus 7" csg. set @ 4000' w/540 sx. cement circulated to tie w/9-5/8" csg. 5-1/2" internally plastic-coated tubing swung @ 4000' Open hole section 4000-50001 Projected Total Depth 5000' DIAGRAMMATIC SKETCH Proposed Salt Water Disposal Well No. A-22 NE/4 NE/4 Section 22, T22S, R37E, Lea County, N.M. BLINEBRY-DRINKARD SALT WATER DISPOSAL SYSTEM DWN. 10/7 SCALE AGUA, INC. None DWG. NO. HOBBS, NEW MEXICO A = 1.75KOE HERCULENE 9 76631

AGUA, INC.
POST OFFICE BOX 1978
HOBBS, NEW MEXICO

October 21, 1975

TELEPHONE: 505 393-6188

Case 5592



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

Attn: Mr. Joe Ramey

Gentlemen:

AGUA, INC. respectfully requests an Examiner Hearing to consider its application for approval to dispose of salt water in Blinebry-Drinkard Salt Water Disposal Well No. A-22, to be drilled at a location 817 feet from the north line and 965 feet from the east line of Section 22, T22S, R37E, Lea County, New Mexico.

Attached is Commission Form C-108 with the required Location Plat and Diagrammatic Sketch of the proposed salt water disposal well.

Pursuant to the August 22, 1975 letter directive from the Commission, Emergency Order No. E-27 dated September 26, 1975 and Order No. R-4495-A dated October 7, 1975, all waste waters collected and handled by the Blinebry-Drinkard Salt Water Disposal System are directed to and accepted by Blinebry-Drinkard Disposal Well No. C-2 under gravity disposal until a time no later than February 7, 1976, at which date relief must be afforded Disposal Well No. C-2 by the utilization of a newly-drilled and equipped disposal well so located and described in the above paragraphs.

A copy of this application has been furnished to offset operators.

Oil Conservation Commission October 21, 1975 Page 2

Yours very truly,

AGUA, INC.

us. albox

W. G. Abbott Manager

JVR/jo

cc: Amerada Hess Corporation
Anadarko Production Company
Cities Service Oil Company
Continental Oil Company
Exxon Company - U. S. A.
Gulf Energy & Minerals Company - U. S.
J. H. Hendrix

Case 5592

Form C-108

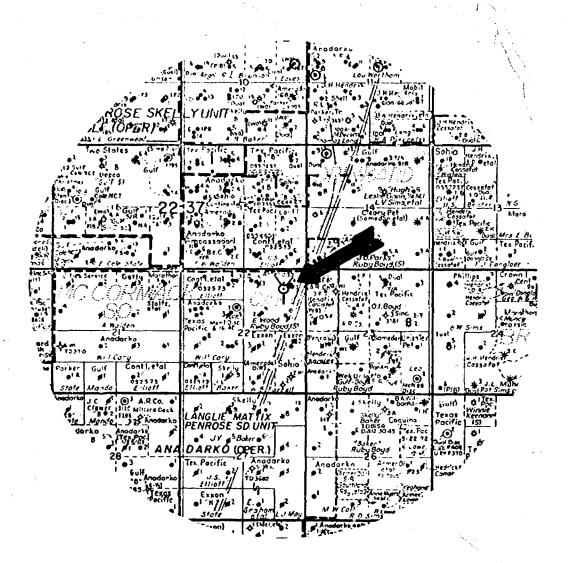
Revised 3-1-68

NEW MEXICO OIL CONSERVATION COMMISSION

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

OPERATOR			ADDRESS							
AGUA, INC.	-	WELL NO.	P.O.Bo	P.O.Box 1978 Hobbs, New Mexico 88240						
Blinebry-Drinkard	SWD Syste			Lea						
LOCATION			_							
UNIT LETTER	A ; wei	L IS LOCATED 81	L7 FEET FRO	M THE NO	rth	NE AND	965 FEET FROM THE			
East Line, SECTION 22 TOWNSHIP 22S RANGE 37E NMPM. CASING AND TUBING DATA										
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMEN		DE CEUE		TOD DETERMINED BY			
SURFACE CATTING		SETTING DEPTH	SACKS I. EMEN		TOP OF CEMENT		TOP DETERMINED BY			
	9-5/8"	315'	160	Su	Surface		Circulated			
INTERMDIATE	j	` j		.						
LONG STRING				···		·				
CONG STRING	711	4000	540	į	3151		Calculated			
TUBINS			NAME, MODEL AND DE	PTH OF TUBING	PACKER	·				
Plastic-lined 5-1/2" 4000' None (Oil blanket in annulus)										
NAME OF PROPOSED INJECTION FORMA	TION		TOP OF FORM	ATION			FORMATION			
San Andres				3001			5000'			
IS INJECTION THROUGH TUBING, CASIN	G, OR ANNULUS?	PERFORATIONS	OR OPEN HOLE! PA							
Tubing		Open i			0001 -		``[
IS THIS A NEW WELL DRILLED FOR DISPOSAL?	IF ANSWER IS	NO. FOR WHAT PURPOS	SE WAS WELL ORIGINA	LLY SRILLED?		HAS WELL ZONE OTHE	EVER BEEN PERFORATED IN ANY R THAN THE PROPOSED INJEC-			
Yes			-			TION ZONE	?			
LIST ALL SUCH PERFORATED INTERVA	LS AND SACKS OF CE	MENT USED TO SEAL O	OFF OR SQUEEZE EACH							
			. •							
FRESH WATER ZONE IN THIS AREA	' i	DEPTH OF BOTTOM OF OIL OR GAS ZONE IN 1	THIS AREA		DEPTH OF TOP	OF NEXT LO	OWER AREA			
·	00!			00'			5500 '			
ANTICIPATED DAILY MINIMUM INJECTION VOLUME (BBLS.)	MAXIMUM	‡	EO TYPE SYSTEM	PRESSURE?	INJECTION TO BE BY GRA		APPROX. PRESSURE (PS()			
 	12,000		ed		<u>Gravit</u>	У	None			
PERALIZED TO SUCH A DEGREE AS TO B	ALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC,			DISPOSED OF NATURAL WATER IN DISPOSAL ZONE						
NAME AND ADDRESS OF SURFACE OWN	AME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)			Yes			No			
Cities Service O	il Company	. O.	Box 1919	Mid	land,	cexas	79701			
<u> </u>		•				707 01				
J. H. Hendrix	Wall Tov			and, Te		79701	00010			
Gulf Oil Company	- U. S.	P. 0.	. Box 670		bs, Nev					
Continental Oil	Company	P. 0	Box 460	Hob	bs, Nev	v Mexi	.co 88240			
Anadarko Product	ion Compar	y P. O.			bs, Nev					
Exxon Company - U. S. A. 1700 West Broadway Andrews, Texas 79714										
Amerada Hess Corporation P. O. Drawer"D" Monument, New Mexico 88265										
HAVE COPIES OF THIS APPLICATION B SENT TO EACH OF THE FOLLOWING?				OR WITHIN ONE						
SENT TO EACH OF THE FOLLOWING!	Ye	es	I OF THIS WELL	Yes			A,			
ARE THE FOLLOWING ITEMS ATTACHED THIS APPLICATION (SEE RULE 701-B)			ELECTRICAL L			DIAGRAMM	ATIC SKETCH OF WELL			
	Ye	28	1	No		; Y	es .			
I hereby certify that the information above is true and complete to the best of my knowledge and belief.										
W. M. alto	W.Y. Chron Manag					10/	21/75			
(Signature)			(Title)			(Date)				

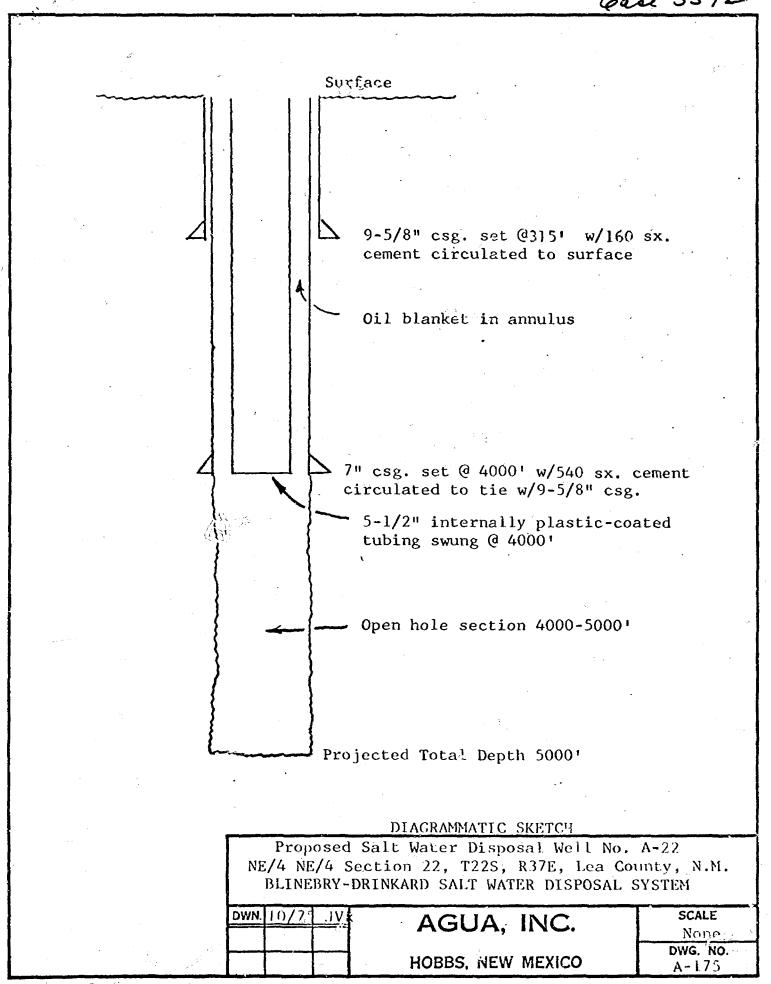
NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Qil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. 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.



LEGEND:

O Upper San Andres
All other wells producing
from formations non-contiguous
to the San Andres

PLAT OF AREA
Proposed SWD Well No. A-22
Blinebry-Drinkard SWD System
AGUA, INC. October, 1975



K-E HERCULENC® 70031

Dockets Nos. 30-75 and 31-75 are tentatively set for hearing on December 3 and December 17, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 19, 1975

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 Richard L. Stamets, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas from seventeen prorated pools in Lea, Eddy, Roosevelt, and Chaves Counties, New Mexico, for December, 1975.
 - (2) Consideration of the allowable production of gas from five prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for December, 1975.
- CASE 5583: Application of Stevens Oil Company for a pilot waterflood project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project in the Twin Lakes-San Andres Pool by injection of produced water through its Twinlakes Oil Company Well No. 1, located in Unit D of Section 12, Township 9 South, Range 28 East, Chaves County, New Mexico.
- CASE 5584: Application of Cities Service 0il Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well at an unorthodox location 990 feet from the North line and 660 feet from the West line of Section 29, Township 21 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico, or, in the alternative, in the NW/4 NW/4 of said Section 29 at some point not closer than 660 feet from either the North or West lines of said Section, the W/2 of said Section 29 to be dedicated to the well.
- CASE 5585: Application of W. P. Carr for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pictured Cliffs formation underlying the NE/4 of Section 13, Township 31 North, Range 11 West, Blanco-Pictured Cliffs Pool, San Juan County, New Mexico, to be dedicated to a well to be drilled in Unit G of said Section 13. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 5586: Application of Amerada Hess Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Otero-Gallup oil production and Basin-Dakota gas production in the wellbore of its McKenzie Federal Wells Nos. 1 and 3 located, respectively, in Units M and O of Section 25 and its Harvey State Well No. 1 located in Unit N of Section 36, all in Township 25 North, Range 6 West, Rio Arriba County, New Mexico.

CASE 5587: Application of Pennzoil Company for downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval to commingle Morrow and Atoka gas production in the well-bore of its Gulf Federal Well No. 2, located in Unit L of Section 6, Township 23 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico.

CASE 5588: Application of Amoco Production Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval to commingle Gonzales-Mesaverde and Basin-Dakota gas production in the wellbore of its Jicarilla Contract 146 Well No. 11 located in Unit K of Section 4, Township 25 North, Range 5 West, Rio Arriba County, New Mexico.

CASE 5589: Application of Filon Exploration Corporation for pool creation, assignment of a discovery allowable, and special pool rules, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for the production of oil from the Entrada formation for its Federal 33 Well No. 3 located in Unit N of Section 33, Township 21 North, Range 5 West, Sandoval County, New Mexico, and the assi, ment of a discovery allowable to said well; applicant further seeks the promulgation of special pool rules for said pool, including a provision for a special depth bracket allowable.

CASE 5590: Northwestern New Mexico nomenclature case calling for an order for the creation, contraction, and extension of certain pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

(a) CREATE a new pool in San Juan County, New Mexico, classified as a gas pool for Pictured Cliffs production and designated as the Nipp Pictured Cliffs Pool and described as:

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM
Section 16: SW/4
Section 17: SE/4
Section 20: E/2
Section 21: W/2
Section 28: W/2
Section 33: All
Section 34: SW/4

(b) CONTRACT the Blanco-Pictured Cliffs Pool boundary in Rio Arriba and San Juan Counties, New Mexico, to exclude therefrom:

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM Section 17: SW/4

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM Section 35: NW/4

(c) EXTEND the Angels Peak-Gallup Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 9 WEST, NMPM Section 5: N/2

Section 15: SE/4

TOWNSHIP 26 NORTH, RANGE 10 WEST, NMPM Section 13: S/2

TOWNSHIP 27 NORTH, RANGE 9 WEST, NMPM Section 31: All

(d) EXTEND the Aztec-Fruitland Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM

Section 8: NW/4 Section 9: SW/4 Section 20: N/2

(e) EXTEND the Aztec-Pictured Cliffs Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM

Section 17: SW/4 Section 20: NW/4

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM

Section 11: N/2 Section 12: NW/4

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM

Section 27: E/2 Section 35: NW/4

(f) EXTEND the Blanco-Mesaverde Pool boundary in Rio Arriba and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 30 NORTH, RANGE 5 WEST, NMPM

Section 2. All Section 3: All

(g) EXTEND the Blanco-Pictured Cliffs Pool boundary in Rio Arriba and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 8 WEST, NMPM

Section 31: SE/4 Section 32: S/2

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM Section 28: E/2

TOWNSHIP 30 NORTH, RANGE 8 WEST, NMPM

Section 29: SW/4 Section 32: N/2 TOWNSHIP 30 NORTH, RANGE 10 WEST, Section 3: All

Section 4: E/2

TOWNSHIP 31 NORTH, RANGE 9 WEST, NMPM

Section 31: NE/4

Section 32: NW/4

TOWNSHIP 31 NORTH, RANGE 10 WEST, NMPM

Sections 5 through 8: All

Section 14: W/2

Sections 15 through 17: All

Section 18: N/2 and SE/4

Section 20: N/2 and SE/4

Sections 21 through 23: All

Sections 26 through 28: All Section 29: NE/4

Sections 33 and 34: All

Section 35: N/2

TOWNSHIP 31 NORTH, RANGE 11 WEST, NMPM

Section 1: All

Section 2: E/2 and SW/4

Section 15: NW/4

Section 16: N/2

Section 26: NE/4

TOWNSHIP 32 NORTH, RANGE 11 WEST, NMPM

Section 16: S/2

Section 17: SE/4

(h) EXTEND the Bloomfield-Chacra Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM

Section 8: SE/4

Section 17: N/2 and SW/4

(i) EXTEND the Campo-Gallup Pool boundary in Rio Arriba County, New Mexico, to include therein:

> TOWNSHIP 29 NORTH, RANGE 4 WEST, NMPM Section 12: NW/4

(j) EXTEND the Escrito-Gallup Oil Pool boundary in Rio Arriba and San Juan Counties, New Mexico, to include the in:

TOWNSHIP 24 NORTH, RANGE 7 WEST, NMPM Section 33: E/2

TOWNSHIP 24 NORTH, RANGE 8 WEST, NMPM Section 13: W/2 NE/4, E/2 NW/4 and E/2 SE/4

(k) EXTEND the Fulcher Kutz-Pictured Cliffs Pool boundary in San Juan County, New Mexico, to include therein:

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TOWNSHIP 28 NORTH, RANGE 11 WEST, NMPM Section 23: NW/4 and SE/4

TOWNSHIP 29 NORTH, RANGE 11 WEST, NMPM Section 7: NE/4

Section 8: NW/4

(1) EXTEND the Harris Mesa-Chacra Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 27 NORTH, RANGE 9 WEST, NMPM

Section 2: N/2 and SE/4 Section 11: NE/4

Section 12: NW/4

TOWNSHIP 28 NORTH, RANGE 9 WEST, NMPM

Section 26: N/2 and SE/4

Section 34: NW/4 Section 35: All

(m) EXTEND the Largo-Chacra Pool boundary in Rio Arriba and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 27 NORTH, RANGE 7 WEST, NMPM

Section 6: SW/Section 7: W/2 SW/4

Section 15: SW/4

Section 22: W/2

Section 27: NW/4

Section 28: NE/4

Section 29: S/2

TOWNSHIP 27 NORTH, RANGE 8 WEST, NMPM

Section 1: SE/4

Section 12: All

(n) EXTEND the South Lindrith Gallup-Dakota Oil Pool boundary In Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 23 NORTH, RANGE 4 WEST, NMPM

Section 3: NW/4

Section 4: N/2

Section 5: NE/4

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM

Section 33: SW/4

(o) EXTEND the West Lindrith Gallup-Dakota Oil Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM

Section 1: NW/4 SW/4 and E/2 SW/4

Section 2: N/2

Section 11: NW/4 NE/4 and S/2 NE/4

(p) EXTEND the Ojo-Pictured Cliffs Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 15 WEST, NMPM Section 26: NE/4

(q) EXTEND the Otero-Chacra Pool boundary in Rio Arriba County, New Mexico, co include therein:

TOWNSHIP 26 NORTH, RANGE 6 WEST, NMPM Section 21: NE/4

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM

Section 11: S/2 Section 13: SW/4 Section 14: N/2 Section 24: NW/4

(r) EXTEND the Rusty-Menefee Oil Pool boundary in Sandoval County, New Mexico, to include therein:

TOWNSHIP 22 NORTH, RANGE 7 WEST, NMPM Section 13: NW/4
Section 14: NE/4

(s) EXTEND the Tapacito-Pictured Cliffs Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 27 NORTH, RANGE 4 WEST, NMPM Section 16: SW/4
Section 21: N/2

(t) EXTEND the Waw-Pictured Cliffs Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 27 NORTH, RANGE 13 WEST, NMPM Section 29: E/2 and SW/4 Section 30: SE/4 Section 31: NE/4 Section 32: N/2

(u) EXTEND the Wild Horse-Gallup Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 4 WEST, NMPM Section 14: N/2

Section 24: NE/4

CASE 5591:

Application of Amoco Producti n Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well at an unorthodox location 1980 feet from the South line and 1241 feet from the West line of Section 33, Township 17 South, Range 29 East, Grayburg-Morrow Gas Pool, Eddy County, New Mexico, the S/2 of said Section 33 to be dedicated to the well.

CASE 5592:

Application of Agua, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced water by injection into the San Andres formation through the open-hole interval from approximately 4000 to 5000 feet in its Blinebry-Drinkard SWD System Well No. A-22 located 817 feet from the North line and 965 feet from the East line of Section 22, Township 22 South, Range 37 East, Lea County, New Mexico.

CASE 5403: (Reopened)

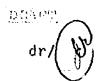
In the matter of the hearing called by the Gil Conservation Commission on its own motion to further consider the subject matter of Case No. 5377, namely to permit all interested parties to appear and show cause why the continued injection of water for secondary recovery or disposal purposes into any formation from the surface of the ground down to and including the Drinkard formation should be permitted in the following described area in Lea County, New Mexico:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM Sections 13 through 36: All

TOWNSHIP 23 SOUTH, RANGE 37 EAST, 'MPM Sections 1 through 12: All

CASE 5571: (Continued from October 8, 1975 Examiner Hearing)

Application of Robert G. Cox for amendment of Order No. R-4561, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks amendment of Order No. R-4561, which order permitted the directional drilling of applicant's Federal "EA" Well No. 1, located 330 feet from the North and West lines of Section 12, Township 18 South, Range 27 East, Empire-Abo Pool, Eddy County, New Mexico, in such a manner as to be bottomed within 100 feet of the surface location. Applicant seeks the amendment of said order to permit bottoming of the subject well approximately 58 feet from the North line and 8 feet from the West line of said Section 12 and to permit verification of said downhole location by single-shot directional surveys made concurrently with the drilling of said well.



BEFORE THE GIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTUR OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PUPPOSE OF CONSIDERING:

CASE No. 5592 (De Novo)

Order No. R-5137-A

APPLICATION OF AGUA, INC. FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

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ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 21, 1976, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this <u>day of January</u>, 1976, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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's request for dismissal should be granted.

IT IS THEREFORE ORDERED:

(1) That Case No. 5592 (De Novo) is hereby dismissed.

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