CASE 3623: Application of AGUA, INC for salt water disposal, Lea Co.
New Mexico.

Application of Aqua, Inc. For part when disposed, Pea County, hend nexico



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623: Application of A

Case Number

3623

Application Transcripts.

Small Exhibits

F/C

July 21, 1967

Case 3623

Mr. Jason W. Kellahin Attorney at Law Box 1769 Santa Fe, New Mexico 87501

Dear Mr. Kellahin:

Receipt of Agua, Inc. application, to convert Amerada's State "BCT" Well No. 2 in the NWhNE's of Sec. 35, T. 11 S., R. 33 E. to salt water disposal, and the exhibits from you and Mr. Abbott are gratefully acknowledged. It is noted that the diagrammatic sketch does not indicate any cement used in the construction of the well.

FEI/ma cc-Oil Conservation Commission W. G. Abbott

Yours truly,

S. E. Reynolds State Engineer

Frank E. Irby Chief Water Rights Div.

MAIN OFFICE OCC

'67 JUL 24 AM 8 16

GOVERNOR DAVID F. CARGO CHAIRMAN

State of New Mexico Bil Conservation Commission

LAND COMMISSIONER GUYTON B. HAYS MEMBER



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

August 1, 1967

Mr. Jason Kellahin Kellahin & Fox Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico Re: Case No. 3623
Order No. R-3287
Applicant:
AGUA, INC.

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

ALP/ir						-
Carbon copy of	drder	also	sent to):		
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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 POR THE PURPOSE OF CONSIDERING:

> CASE No. 3623 Order No. R-3287

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 July 26, 1967, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of August, 1967, 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 operator of the Amerada Petroleum Corporation State "BTC" Well No. 2, located in Unit B of Section 35, Township 11 South, Range 33 East, NMPM, Bagley Field, Lea County, New Mexico.
- (3) That the applicant proposes to utilize said well to dispose of produced salt water into the Devonian formation, with injection in the open-hole interval from 11,610 feet to 11,800 feet.
- (4) That the injection should be accomplished through an internally plastic-coated tapered string of 5 1/2-inch and 5-inch tubing; that the casing-tubing annulus should be filled with sweet oil; and that a pressure gauge should be attached to the annulus to determine leakage in the tubing or casing.

-2-CASE No. 3623 Order No. R-3287

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Agua, Inc., is hereby authorized to utilize the Amerada Petroleum Corporation State "BTC" Well No. 2, located in Unit B of Section 35, Township 11 South, Range 33 East, NMPM, Bagley Field, Lea County, New Mexico, to dispose of produced salt water into the Devonian formation, injection to be accomplished through a tapered string of 5 1/2-inch and 5-inch tubing, with injection in the open-hole interval from 11,610 feet to 11,800 feet;

PROVIDED HOWEVER, that the tubing shall be internally plastic-coated; that the casing-tubing annulus shall be filled with sweet oil; and that a pressure gauge shall be attached to the annulus in order to determine leakage in the tubing or casing.

- (2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUNTON B. HAYS, Member

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

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Case 3623, Necessal 7-26-67 Rec. 7-26-67 1, Leant agua, luc. permission to convert the Cemerada-At. BTC #2 13-35-119-33E, Bayley-Penn to a SwD injecteon well 98% casing, will be run to the surface by using a pressure pulch at 3660 which is the top of the Vold cut 8 8. Injection will be down 5'2 \$\$ 3850 \$" 3850 to 11,610. Dhe tubing will be Paster coated internelly. Since oil well be used, in Fix 8 Cennulus. Injection will be by granity. Thuste W.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 26, 1967

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

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

- CASE 3620: Application of Pubco Petroleum Corporation for an unorthodox location and a dual completion, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Federal Well No. 16 to produce gas from the Blanco-Mesaverde and Basin-Dakota Pools at an unorthodox location for said pools 330 feet from the South line and 990 feet from the West line of Section 9, Township 27 North, Range 8 West, San Juan County, New Mexico.
- CASE 3621: Application of Mobil Oil Corporation for an amendment to Commission Rule 1103 A. Applicant, in the above-styled cause, seeks the amendment to Rule 1103 A to eliminate the requirement for filing Form C-103 as a notice of intention to acidize, fracture, or clean out previously completed wells.
- CASE 3622: Application of Ryder Scott Management Company for a water-flood buffer zone, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the designation of the N/2 NE/4, SW/4 NE/4 of Section 20, Township 18 South, Range 28 East, Eddy County, New Mexico, as a waterflood buffer zone in the Artesia Pool offsetting its waterflood project in Section 21 and Cima Capitan's waterflood project in Section 17 of the same township.
- CASE 3623: Application of Agua, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation in the interval from 11,610 feet to 11,800 feet in the Amerada Petroleum Corporation State "BTC" Well No. 2, located in Unit B of Section 35, Township 11 South, Range 33 East, Bagley Field, Lea County, New Mexico.
- CASE 3624: Application of Texas Pacific Oil Company to amend Order No. R-69-D, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment to the Bagley Siluro-Devonian Pool Rules promulgated by Order No. R-69-D to

CASE 3624 continued

permit the completion of more than one well on an 80-acre proration unit in said pool, the second well on a unit being located within 150 feet of the center of the NE/4 or the SW/4 of the quarter section, with the 80-acre allowable being produced from either well in any proportion.

- CASE 3625: Application of Gulf Oil Corporation for a dual completion,
 Lea County, New Mexico. Applicant, in the above-styled cause,
 seeks approval for the dual completion (conventional) of its
 C. E. LaMunyon Well No. 11 located in Unit C of Section 27,
 Township 23 South, Range 37 East, Lea County, New Mexico, to
 produce oil from the Teague McKee and Teague Ellenburger Pools
 through parallel strings of tubing.
- CASE 3626: Application of Gulf Oil Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its R. E. Cole (NCT-A) Well No. 8 located in Unit K of Section 16, Township 22 South, Range 37 East, Lea County, New Mexico, to produce oil from undesignated Silurian and Montoya oil pools through parallel strings of tubing.
- CASE 3627: Application of Gulf Oil Corporation for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its R. E. Cole (NCT-A) Well No. 9 at an unorthodox oil well location 1075 feet from the South line and 2395 feet from the West line of Section 16, Township 22 South, Range 37 East, Lea County, New Mexico, said well being projected to undesignated Silurian and Montoya Oil Pools.
- CASE 3628: Application of Charles E. Seed for four Ogallala oil proration units and special rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of the SW/4 of Section 30, Township 18 South, Range 38 East, Lea County, New Mexico, as four oil proration units for the production of oil from the Ogallala formation. Applicant also seeks the establishment of special rules governing said 40-acre tracts including a maximum density of one well per 0.625-acre with a provision that wells should be drilled no nearer than 82.5 feet to the outer boundary of a 40-acre unit and no nearer than 165 feet to another well producing from the same formation, provided that an exception should be made for existing

-3-EXAMINER HEARING - JULY 26, 1967

CASE 3628 continued

wells which are not located in conformance with said spacing rules. Applicant also seeks a temporary exception to Rule 307 for each well to permit utilization of a vacuum-type drilling unit during the drilling and completion operations. Applicant also seeks authority to produce the wells at capacity even though the aggregate production from wells on a 40-acre tract exceeds the 40-acre normal unit allowable.

CASE 3629:

Application of Southern Minerals Corporation for salt water disposal and a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State "D" Well No. 1 located in Unit E of Section 8, Township 11 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Inbe-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the Glorieta and other formations in the open hole interval from 4045 feet to 7168 feet.

KELLAHIN AND FOX
ATTORNEYS AT LAW
54½ EAST SAN FRANCISCO STREET
POST OFFICE BOX 1769
SANTA FE, NEW MEXICO 87501

JASON W. KELLAHIN ROBERT E. FOX

TELEPHONE 982-4315

AREA CODE 505

July 15, 1967

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

Re: Case No. 3623, Agua, Inc. for Salt Water Disposal

Gentlemen:

Enclosed, in triplicate, are a plat and schematic diagram for filing in connection with the application which has previously been filed in the above case.

A copy of the application and exhibits has been forwarded to the office of the New Mexico State Engineer.

Yours very truly,

Jason W. Kellahin

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5 1/2" Tubing 3850' 5" Tubing to 11,610' (Plastic Lined)

AGUA, INC. SWD Well B-35 NW/4 NE/4 Sec.35, T 11 S, R 33 E Lea County, New Mexico July 26, 1967

Top Liner @ 3860' 8 5/8" @ 38891

> 6 5/8" Liner 11,610'.

Total Depth 11,800'

EXHIBIT "B"

3

BEFORE THE

OIL CONSERVATION COMMISSION OF NEW MEXICO

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

Care 3623

APPLICATION

Comes now AGUA, INC., A New Mexico corporation, and applies to the Oil Conservation Commission of New Mexico for approval of the disposal of produced salt water in the Devonian formation, Bagley Field, Lea County, New Mexico.

Applicant proposes to recomplete the Amerada Petroleum Corporation State "BTC" Well No. 2, located in the NWANE' of Section 35, Township 11 South, Range 33 East, N.M.P.M., for the disposal of produced salt water in the interval from approximately 11,610 feet to 11,800 feet, in the Devonian formation. Salt water will be disposed of down plastic-lined tubing.

Pursuant to the provisions of Rule 701, a copy of this application has been forwarded to the New Mexico State Engineer.

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

AGUA, INC.

ason W. Kellahin Kellahin & Fox

Post Office Box 1769 Santa Fe, New Mexico

Attorneys for Applicant DOCKET MAKED

BEATHIRY-MEIR! FERRINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS SPECIALIZING IN, DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS 1120 SIMMS BLDG. . P. O. BOX 1092 . PHONE 243-6601 . AIBUQUERQUE, NEW MEXICO.

NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico
July 26, 1967

EXAMINER HEARING

IN THE MATTER OF:

Application of Agua, Inc, for salt water disposal, Lea County, New Mexico

Case No. 3623

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING



SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTINGIN, DAILY

MR. UTZ: Case 3623.

MR. HATCH: Case 3623, application of Agua, Inc. for salt water disposal, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, appearing for the Applicant; we have one witness.

- (Witness sworn.)

W. G. ABBOTT, called as a witness by the Applicant, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Would you state your name, please? Ω
- My name is W. G. Abbott. A
- By whom are you employed, Mr. Abbott?
- Agua Incorporated.
- What is your position with that company?
- Manager.
- What is the general business of Agua Incorporated?
- We are in the water supply and also water disposal business.
- Have you previously testified before the Oil Conservation Commission as an engineer and made your qualifications a matter of record?

Yes, sir.

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

MR. UTZ: Yes, sir, they are.

Mr. Abbott, briefly, what does Agua Incorporated propose in Case 3623?

We propose to go back into an old dry hole, drilled by Amerada Petroleum Corporation, the State "B T C" Number 2. It is located in Unit B, Section 35, Township 11 South, Range 33 East, Bagley Field and recomplete this well as a salt water disposal well.

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

Now, referring to what has been marked as Exhibit A, would you identify that exhibit, please? Q

Yes, sir, this is a plat of the area. On this plat the disposal well is marked with a rabbit ear sign in Section 35, in red. In the Bagley-Devonian wells, south of the disposal well, are marked in red. In the Pennsylvanian completions in the Bagley Pool and also the North Bagley are marked in green.

Also there is a trace of a cross section AA Prime, which I will explain later.

Now, as I understand, the wells marked in red on the

Exhibit A are Devonian producers, is that correct?

- Yes, sir, that's right.
- What is the nearest Devonian production to the proposed O disposal well?
- Well, it is Amerada "BTD" Number 2 Well, the "BTD" lease south of us, it is about a half a mile south.
 - Is it producing at the present time, or do you know?
 - Yes, sir, it is.

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

- Now, referring to what has been marked as Exhibit B, Q would you identify that exhibit, please?
- Exhibit B is a schematic drawing of our completion. In this dry hole, the surface pipe, the thirteen and three eighths is set at three hundred and five feet and the cement is circulated, and then there is eight and five eighths inch set at 3889. That cement on that eight and five came up to around 1300 feet. The eight and five eighths has been cut and pulled at 1296 feet above the cement.

So we propose to go in this well and splice on to the eight and five eighths and bring that up to the surface and run a six and five eighths inch liner and swing it into the top of this eight and five eighths, and set it at 11,610 feet; and

deepen the well and dispose of the open hole section from 11,610 to 11,800 feet.

Now, in connection with the application, did you file copies of your exhibits with the office of the State Engineer?

Yes, sir.

Did you receive a copy of a letter directed to me Q from Mr. Frank E. Irby regarding this well?

Yes, sir.

In that connection, he said, " It was noted that the diagramatic sketch does not indicate any cement used in the construction of the well." Have you outlined in your testimony all of the cementing in connection with this well?

We will cement the six and five eighths inch liner Α according to rules and regulations; I think it is Rule 702.

Q 702?

Yes, sir.

You will conform to the rules of the Commission in that regard, then?

Yes, sir.

Now, will the disposal of water be through tubing?

Yes, sir. We plan to run a tapered string of tubing, five and a half inch at the top and five inch at the bottom, and this will be plastic lined tubing. And, then, we proposed

to load the annular space between the tubing and the casing with sweet oil.

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

Now, referring to what has been marked as Exhibit Number C, would you identify that exhibit, please? Q

Yes, Exhibit C is the results of this diagramatic cross section shown on Exhibit A, it is AA Prime. the completion interval in Sub-C depth. I have six wells, including the disposal well shown on this. It shows how much deeper the disposal zone will be compared to the, both of the Pennsylvanian completions, which are the Cabot-Humble State Number 1, the Cabot-New Mexico L Number 1 and the Cabot-Thompson The Devonian completions, which will be south of the disposal well, are the Amerada State "BTD" Number 2 and the Number 1. Texas Pacific State C Number 1. So this disposal interval is considerably below the producing interval and also the oilwater contact in the Devonian producing wells.

- In other words, you will be disposing of the water below the oil-water contact in the Devonian, is that correct?
 - Yes, sir.
- And is the lower portion of the Devonian productive of water in this area?

Yes, sir. A

(Whereupon, Applicant's Exhibit Number D was marked for identification.

- Now referring to what has been marked as Exhibit Number D, would you identify that exhibit, please?
- Exhibit D is a formation, water analyses of both the water in the Devonian Section and the Pennsylvanian Section We will be disposing of the Pennsylvanian water produced in the North Bagley pools and we will be putting that water into the Devonian. So this exhibit shows both analyses.
 - Now, what quantity of water will you be disposing of in this well?
 - Ultimately we may be disposing of five hundred barrels an hour.
 - What is the source of the water, Mr Abbott?
 - It is the Pennsylvanian pools in the North Bagley. Q
 - Now, what pressure do you anticipate will be required to dispose of the water in the Devonian, as you have proposed?
 - The water should gravity into this well and dispose of this quantity by gravity.
 - Were Exhibits A,B,C and D prepared by you or under your supervision?
 - Yes, sir.

MR. KELLAHIN: At this time I would like to offer into evidence Exhibits A,B,C and D.

MR. UTZ: Without objection, Exhibits A,B,C and D will be entered into the record of this case.

> (Whereupon, Applicant's Exhibits A,B,C and D were admitted in evidence.)

MR. KELLAHIN: That's all I have on Direct Examination, Mr. Utz.

CROSS EXAMINATION

BY MR. UTZ:

Mr. Abbott, I either missed it, or you didn't say whether you were going to have a packer in this well or not?

No, sir, we don't propose to have a packer in the well. The static water level in the Devonian will probably stand up in the well 1800 feet from the surface by putting --

- In the tubing? Q
- What?
- In the tubing?
- No, in the, well, either tubing or annulus. static fluid level will be 1800 feet. We will put the sweet oil in the annulus which will push the static fluid level of the salt water in the annulus with the application of pressure down to the bottom of the tubing, and that way, it will, the

oil blanket will float on the water and protect the outside of the tubing and the inside of the casing string.

- Q You don't propose to put any pressure on the tubing, then?
- A No, sir. There may be pressure on the annulus to hold the oil in place. It would be 200 to 500 pounds pressure.
- Q And if the static head increases above eighteen hundred feet, then that would push the oil back up, wouldn't it?
- A It will increase the pressure, it doesn't have any place to go, but the pressure will increase, and that way we can keep track of when the well is plugging up.
- Q If that oil should escape from the annulus, what would be the effect, how would you determine that?
- A There would be a drop in pressure, first on the annulus and then it may even go on vacuum, which would indicate a hole in the tubing, which is one reason we complete the wells like that. If we do get a hole in the tubing, we want to know it and then we can pull the tubing and repair it.
 - Now, let's go over your cementing program again.
 - A Okay.
- Q You have some eight and five eighths in the hole that was cut off at some point and I didn't get that.
 - A It was cut off at 1296 feet. We will go in there

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY,

and patch that eight and five eighths with a casing patch, and of course we will pressure test it to see if we have got a good job on it.

- Q What is a pressure patch?
- A It is a tool where there are actually some slips that grab the outside of the casing and when you pull up on it, it sets these slips and seals it with a lead seal.
- Ω And this will be eight and five eighths tubing, is that correct?
 - A Yes, sir.
- Q So therefore, with the patch, you will have eight and five eighths to the surface?
 - A Yes, sir.
 - Q Okay, how about the cementing?
- A Well, we don't plan to use any cement on that eight and five, we think the casing patch will be sufficient and also, of course, we will have the liner below and we will have a complete tubing string.
- O So the only cement you will have, then, is on the old eight and five eighths. Is that from "TD" or from the casing shoe?
- A Yes, it will be from 3860 back up to approximately 1300 feet.

- The original cement job on this eight and five Let's say 1296, then.
- eights, they used a total of 1500 sacks of cement and the cement was circulated on the thirteen and three eighths, the
 - Now, from 1296 feet back to the shoe of thirteen and three eighths, we have open hole hehind the casing, right? surface pipe.
 - Right.
 - What is in that area? A Q

 - It will be mud. No oil formations, no water forma-There will be mud. A

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS tions?

- No, it is up in the red beds, I believe, it is below Q
- the Ogallala. The top of the salt is down at 1842. 1120 SIMMS BLDG OF P.C. BOX 1092 PHONE 243-6691 ALBUQUERQUE, NEW MEXICO 87108
 - The tubing will be hung to what depth, 11610?

 - I believe you said that the injection will be below Q yes, sir. A
 - the water-oil contact in the Devonian?
 - Α
- MR. UTZ: Are there any other questions? yes, sir.
 - I have one or two. MR. PORTER:

CROSS EXAMINATION

BY MR. PORTER:

- Mr. Abbott, I believe you have indicated that the well would, you think the well will take approximately 500 barrels an hour, that would be about 12,000 barrels a day, is that right?
 - yes, sir. Α
 - In the event that this application is granted, how long to you think it might be before you could be injecting into this well?
 - At the present time, we are waiting on contracts to be returned by the operators on the system.
 - The operators who would participate in the disposal Q
 - Yes, sir, and I don't have any idea how long it will system? take before those are returned, but as soon as they are returned, then work will start on the well.
 - I just wondered if you could estimate the time after the contracts are signed and that you know that you will go ahead with it, how long it might take to complete the installation?
 - To complete the whole installation, will take approximately two months.
 - Now, we have roughly three months before the deadline, Q a little more --

- Yes, sir.
- -- for disposal in the pool.
- The deadline is November 1st.
- Right. Approximately how many wells would this system support, how many would it serve at the present rates of water production?
- We have indication that we can dispose of water from twenty to twenty-five wells.
- From twenty to twenty-five at the present rates of water production?
 - Α Yes, sir.

MR. PORTER: Thank you. That's all I have.

MR. UTZ: Are there any other questions.

RE-DIRECT EXAMINATION

BY MR. KELLAHIN:

- Mr. Abbott, in connection with the completion of this well, have you utilized this type of completion in other disposal wells?
 - Yes sir, it has been very successful.
- Have you encountered any difficulties with this type of completion?
 - No, sir.

MR. KELLAHIN: Thank you.

RE-CROSS EXAMINATION

BY MR. UTZ:

- Q Do you have any particular pressure applied?
- No. Well, that is just mechanical.
- Is it totally satisfactory?
- Yes, sir.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Statements in this case? The case will be taken under advisement.

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STATE OF NEW MEXICO SS COUNTY OF BERNALILLO)

I, JERRY M. POTTS, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission Examiner at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this

Court Reporter and Notary Public

My Commission Expires:

I do hereby certify that the foregoing in a complete resord of the proceedings in the Earnel or bearing of Case Be 3623.

New Mexico Cil Conservation Commission

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AGUA, INC.
SWD Well B-35
NW/4 NE/4 Sec.35,
T ll S, R 33 E
Lea County, New Mexico
July 26, 1967

5 1/2" Tubing 3850' 5" Tubing to 11,610' (Plastic Lined)

Top Liner @ 3860' 8 5/8" @ 3889'

6 5/8" Liner
11,610'

Total Depth 11,800

EXHIBIT "B"

COMPLETION INTERVAL
Subsea depth Cabote / Cabot Thompson 1 AGUA. SND B-35 Amerada BEFORE EXAMINER UTZ CASE NO.

EXHIBIT D

FORMATION WATER ANALYSES Parts Per Million

Sodium, Na Calcium, Ca Magnesium, Mg Sulfate, SO ₄	No. 1 (Devonian) 14,039 1,720 504 1,699 24,500 685	No. 2 (Pennsylvanian 22,300 2,600 724 365 40,600 509	21,450 3,250 700 950 39,700
Chloride, Cl Bicarbonate, HCO3	682	c.	umation

No. 1 Amerada St. BTA No. 1 NW/4 SE/4 2-12-33

Amerada Caudle No. 1 SE/4 NE/4 10-12-33 No. 2

Cabot St L No. 1 SW/4 NW/4 23-11-33 No. 3

Devonian formation

Pennsylvanian formation

Pennsylvanian formation

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION