BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 8, 1961

EXAMINER HEARING

IN THE MATTER OF:

Application of Rice Engineering & Operating, Inc., for a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through its Gulf Houston Well No. 1, located 1980 feet from the South and East lines of Section 19, Township 12 South, Range 38 East, Lea County, New Mexico, with injection to be in the Devonian formation in the interval from 12,200 feet to 12,500 feet. Case 2172

BEFORE:

Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Case 2172.

MR. MORRIS: Application of Rice Engineering & Operating, Inc. for a salt water disposal well.

MR. KELLAHIN: Jason Kellahin, Kellahin & Fox, Santa Fe, representing the applicant. We have one witness, Mr. Abbott.

(Witness sworn.)

W. G. ABBOTT

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A My name is W. G. Abbott.

Q By whom are you employed and in what position?

A Division Manager for Rice Engineering in Hobbs, New Mexico.

Q Have you testified before this Commission as a Petroleum Engineer?

A Yes, sir.

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

MR. NUTTER: Yes, sir, they are.

Q Mr. Abbott, are you familiar with the application of Rice Engineering in Case 2172?

A Yes, sir, I am.

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

A We propose to go back and plug and abandon the well in the Gladiola Pool, NW/4 of the SE/4 of Section 19, Township 12 South, Range 38 East. We plan to run a tapered string, long string of casing in the well, drill the well deeper and make a salt water disposal well out of it.

Q Mr. Abbott, would you refer to what has been marked as Exhibit A and discuss the information shown on that exhibit?

A Exhibit A shows a plat of this immediate area. The well in question we have marked SWD J-19. It was originally drilled by Gulf and was a dry hole. Also on this exhibit A is a trace of a cross section AA Prime which I will describe later, and also there

is a half-mile arc around the well, and that will be brought out later.

Q What is the present status of the well?

A It is plugged and abandoned.

Q Referring to what has been marked as Exhibit B, would you discuss that exhibit?

A Exhibit B shows our proposed recompletion and a sketch of the well. You notice that the 13-3/8, set at 376 feet, and cement is circulated; the 8-5/8 inch, set 4499, also that cement is circulated. As the well stands right now it is open hole. Of course, it has some cement plugs in it, but it is open hole to 12,065 feet, and we propose to run a tapered string of 7 inch to 4500 feet, and then 6-5/8 inch down to 12,200 feet, and complete the well, open hole, from 12,200 feet to 12,500 feet in the lower Devonian pay.

Q Will the tapered string which you propose to set be cemented?

A Yes, sir. We plan to circulate the cement on it.

Q How much cement do you calculate it will take to adequately protect that string?

A We figure we will use around 1250 sacks of cement.

Q In your opinion, Mr. Abbott, does the cementing program protect all surface or subsurface water zones?

A Yes, sir.

Q Does it adequately protect any producing horizons that might be encountered in this area?

A Yes.

Q Are there any producing zones through which this well bore will pass?

A Yes. This well is a dry hole, but there may be some productive zones in the Wolfcamp.

Q Approximately what depth would that be?

A Around 9,000 feet.

Q But that area would be cemented off, would it?

A Yes, sir.

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

A Exhibit C is this cross section, AA Prime, which is shown on Exhibit A, and shows the wells on that AA Prime, Gulf State AV No. 4, Pan American State B-19 No. 1, and our proposed SWD J-19, Pan American's State A-19 No. 1, and Pan American State A-19 No. 1. It shows the oil completions in red and our proposed disposal completion in green.

Q The producing wells shown on the exhibit are completed in the Devonian, are they?

A Yes, sir.

Q Is the lower zone in which you propose to inject water water-productive at the present time?

A Yes.

Q Would the injection of fluids into that zone have any adverse effect, in your opinion, on the producing wells in the area?

A No, sir, it would not.

Q What volumes of water would you be injecting?

A We will be injecting approximately 15,000 barrels a day.

Q What is the source of that water?

A That is water produced in the Gladiola Pool. Most of it is Devonian water.

Q Is it a corrosive water?

A Yes, sir.

Q Referring to what has been marked as Exhibit D, would you discuss the information shown on that exhibit?

A Exhibit D shows the well completions and pertinent information on the wells within a half-mile radius of the subject salt water disposal well. It shows the completion interval in the zone and any rework that has been done to the wells.

Q Does that include all of the wells within a half-mile radius of the disposal well?

A Yes, sir.

Q Were Exhibits A, B, C and D prepared by you or under your supervision?

A Yes, sir.

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

MR. NUTTER: Rice's Exhibits A, B, C and D will be entered in evidence.

Q Will the water to be disposed of be on vacuum?

A Yes, gravity in the formation.

MR. KELLAHIN: That is all the questions I have.

MR. NUTTER: Any questions of Mr. Abbott?

BY MR. NUTTER:

Q Was this well ever produced from the Devonian?

A No, sir.

Q So then, I take it that no long string had ever been run in the well?

A No, it hadn't.

Q And the 8-5/8 is set at 4499, with the cement circulated?

A Yes, sir.

Q You will run a string of 7-inch down to the shoe on the 8-5/8, and then reduce to 6-5/8 pipe down to 12,200 and circulate the cement. How far do you calculate the cement will come, to the shoe of the 8-5/8 or circulate to the surface?

A We will try to circulate it to the surface. We don't know exactly how much cement the formation will take, but we figure about 40 percent fill, and it should circulate to the surface.

Q Do you expect to be able to do this with a single stage, or will you have to multistage?

A We will do it with a single stage. The reason for using this pipe program, we need all the capacity we can get for a salt water disposal well.

Q Will you run a temperature survey on that cement job to find out where the top comes to?

A Yes, sir.

Q Do you plan to install tubing and dispose of water through tubing?

A If the Commission requires it we plan to run tubing, yes.

Q You mention that the fluid is corrosive. There has been adequate proof of corrosiveness in salt water disposal wells in north Lea County?

A Yes, sir.

Q In some instances?

A Yes, sir. We will probably use a tapered string of 5-1/2 and 5-inch casing as tubing in this well.

Q Can you dispose of 15,000 barrels by gravity through that size tubing?

A Yes, sir.

Q What would you do with the annulus, fill it with a non-corrosive fluid?

A Sweet oil, yes, sir.

Q Mr. Abbott, did you look at any of the wells that are beyond the half-mile limit and determine that they were completed at a depth that would be comparable to the green interval shown on your Exhibit C?

A No, none of them are completed in that lower Devonian. That is all water.

Q In the Gladiola Pool all wells are completed in the upper portion of the Devonian?

A Yes.

Q You feel you are definitely disposing of the salt water below the oil-water contact in the formation?

A Yes, sir.

MR. NUTTER: Any further questions of Mr. Abbott? He may be excused. Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: That is all I have.

MR. NUTTER: Does anyone have anything they wish to offer in this case? Case will be taken under advisement.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, JUNE PAIGE, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission 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 13th day of February, 1961.

Jane Paige
Notary Public - Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of case No. 2172, heard by me on 2/28, 1961.

, Examiner
New Mexico Oil Conservation Commission

I N D E X

E X H I B I T S

NUMBER	EXHIBIT	IDENTIFIED	OFFERED	ADMITTED
Ex.#A	Plat	2	5	5
Ex.#B	Well Sketch	3	5	5
Ex.#C	Cross Section	4	5	5
Ex.#D	Well Completions	5	5	5