BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 780

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES

COURT REPORTERS

ROOMS 105, 106, 107 EL CORTEZ BUILDING

TELEPHONE 7-9546

ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
December 16, 1954

Section (d) of this case has been twice continued to permit studies relating to possible extension of the vertical limits of the Teas Pool (to include all the Yates and Seven Rivers formations).	Case No. 780

BEFORE:

Mr. E. C. (Johnny) Walker
Mr. William Macey

TRANSCRIPT OF HEARING

ADA DEARNLEY & ASSOCIATES
STENOTYPE REPORTERS
ALBUQUERQUE, NEW MEXICO
TELEPHONE 3-6691

R A N D A L L F I E L D S M O N T G O M E R Y,

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

DIRECT EXAMINATION

By: MR. YOST:

Q Will you please state your name.

A Randall Fields Montgomery.

Q And you have been previously sworn, have you not?

A Yes, sir, I have.

Q And you are a geologist for the Oil Conservation Commission?

A Yes, sir.

Q And you have previously testified before the Commission?

A Yes, sir, I have.

Q Are you familiar with the subject matter of Case 780?

A Yes, sir, I am.

Q And have you made a study relating to the possible extension of the vertical limits of the Teas Pool to include all the Yates and Seven Rivers formations?

A Yes, sir, I have.

Q Would you please state in general what that study has consisted of?

A Well, I ran the samples on all the wells that were available to me at that time which were about five or six wells and have studied all the available electric logs that were available in the area and the scout tickets that we had in that area. I also made a cross-section which is marked as Exhibit No. 1 and the structure map which is marked as Exhibit No. 2.

Q Would you please explain those exhibits, 1 and 2?

A Exhibit No. 1 shows the top of the Tansill formation and the top of the Yates formation. This is a typical back reef section relatively near the Tansill reef and overlies the Seven Rivers reef. In this immediate area the stratigraphy, first, we have going from the youngest to the oldest the red-bed section is some thirteen to fourteen hundred feet thick and is Triassic and Permian in nature. Then we encounter the Rustler formation as an average thickness of 125 feet and is a white anhydrite with sandstone stringers containing ferro-magnesium sands. The Salado formation, 1400-1500 feet thick, is a salt and anhydrite section consisting, in the main, of salt. The section shows the greatest variation in the lower 500 feet where the section has probably eroded. The Tansill formation is a Dolomite and anhydrite about 175 feet through. The Yates is a Dolomite and sandstone. Sandstone is very fine-grained to fine-grained gray and red sandstone with some rounded frosted coarse-grained sand which is found throughout the Yates section. Dolomite is laminated to medium bedded and characteristically light gray to medium gray in the upper 30 feet, then becoming light gray to pink and shaly dolomite, often with a thin bed of dark gray micacous shale overlying the light gray to pink dolomite. About 100 feet below the first sand the dolomite is light gray to white, with a thickness of some 300 feet. Seven Rivers formation, the upper 80 feet is alternating sandstone and dolomite, passing into a "reefoid" section. The Seven Rivers has not been completely penetrated in this area.

Exhibit No. 2, is a structure map contoured on top of the Yates formation, which illustrates that the accumulation is controlled primarily by an anticlinal structure, in part closed.

Lithological traps are unidentified, but undoubtedly contributing as indicated by a rapid lithological change from the top of the structure to the Hudgens well on the far eastern side.

On Exhibit No. 1, the fourteen wells in the area are completed in one of three zones. This is indicated on Exhibit No. 2 for each well as first pay, second pay, and third pay. Also, illustrated on Exhibit No. 2 is the gravity of the specific oils through out the area. The upper two pays produce from a sand within the Yates and the third a dolomite within the Yates. The nature of the different types of reservoir rock probably effects the large range of gravity which the wells produce. Most wells that have logs show correlation with the three zones presently producing.

Conclusions are that the Teas Pool production is entirely in the Yates formation. The three isolated pays are separated by impermeable strata. Due to apparent low pressure and completion practices, the reservoirs are not being harmed.

Q Do you have any recommendations that you care to make?

A Yes, sir. I recommend that the Teas Pool be designated as Yates production.

MR. YOST: I offer in evidence Commission's Exhibits 1 and 2.

MR. MACEY: Is there any objection to the introduction of these exhibits in evidence? If not, they will be received. Are there any questions of the witness? If not, he may be excused.

(Witness excused.)

MR. MACEY: Take the case under advisement.

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

I, MARGARET McCOSKEY, 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 23rd day of December, 1954.

Margaret McCoskey
Notary Public-Court Reporter

My Commission expires
August 15, 1956.