

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

EXAMINER HEARING

IN THE MATTER OF:

Application of California Oil Company
for a unit agreement, Eddy County, New Mexico.

Case No. 3150

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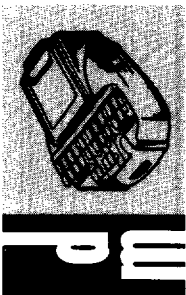
BEFORE: DANIEL S. NUTTER, EXAMINER

TRANSCRIPT OF HEARING

dearnley-meier

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

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Santa Fe, New Mexico
November 24, 1964

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TRANSCRIPT OF HEARING

MR. NUTTER: Call Case 3150.

MR. DURRETT: Application of California Oil
Company for a unit agreement, Eddy County, New Mexico.

MR. NEWMAN: I'm Kirk Newman of Midland, Texas,
member of the New Mexico Bar, and I have one witness.

(Witness sworn.)

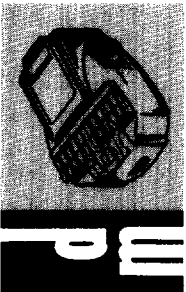
WILLIAM MacDONALD,
called as a witness herein, having been first duly sworn, was
examined and testified as follows:

DIRECT EXAMINATION

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BY MR. KIRK:

Q Would you state your name and employment, please, sir?

A I'm William MacDonald, I work for Standard Oil Company of the Key West, a division of California Oil Company.

Q What is your position with California Oil Company?

A I'm area geologist working out of the Roswell district.

Q And in what particular area?

A Another called the Delaware Basin area.

Q Have you previously testified before this Commission?

A No.

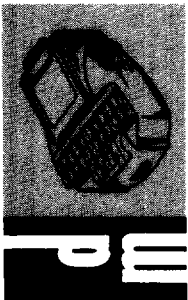
Q Would you give the Commission a brief resume' of your educational and professional background?

A Graduated from the University of Kansas in 1950 with a Bachelor of Science degree in Geological Engineering. I spent two years working for Phillips Company as a geophysical protege and Standard of Texas after that time and worked three years as a geologist in Houston. In May of '63 I was moved to Roswell.

Q As an area geologist?

A As an area geologist working in the Delaware Basin and I worked in that since that time.

MR. NEWMAN: Are the witness' qualifications as an expert witness accepted?



MR. NUTTER: They are.

Q (By Mr. Newman) Would you state briefly the nature and purpose of this application to the Commission?

A This application seeks approval for the Bogle Flats exploration unit.

Q What is the location of this proposed unit in the character of its ownership?

A The proposed unit is located in Eddy County, Township 22 South, Range 23 East. The land ownership is entirely State and Federal lands, approximately 19% State and 81% Federal.

Q Of what particular sections in Township 22 South, Range 23 East does the proposed unit consist?

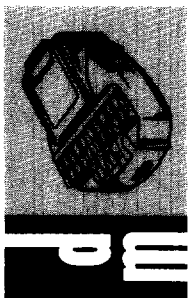
A Sections 2, 3, 4, 5, 7, 8, 9, 10, 16, 17, 18, 19, 20, 29, 30, 31 and 32.

Q Will you now refer to what will be offered as the Plaintiff's Exhibit 1 and state to the Commission what is shown on that exhibit?

A Exhibit 1 is an isopach map of the Cisco-Canyon formation.

Q The entire Cisco-Canyon or the Dolomite section?

A It is a map of the Dolomite phase of this formation. The map is on a scale one inch equals 4,000 feet and the contour interval is 100 feet. Outlined in orange on the map is the



outline of the proposed unit. Circled in black are wells that have been drilled in the area that have penetrated this zone.

Q Are these the control points for this map?

A These are the control points and the figures beside the wells are the thickness of the Dolomite as found in these areas.

MR. NUTTER: May I find out what you are calling the Cisco-Canyon, is that what is designated as the upper, is that correct?

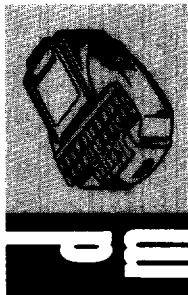
THE WITNESS: Yes.

Q (By Mr. Newman) Mr. MacDonald, I notice some of these wells are in white and some of them are in red, will you explain the significance of those markings?

A The plus signs in red on the wells represent drill holes, the red colored wells represent production or wells that are capable of being produced from this Cisco-Canyon reservoir. The wells that are circled in white that are left white on the inside are wells that are currently being completed or currently being drilled.

Q Would you explain to the Commission the geological significance of the contour of your Cisco-Canyon map and how it relates to the unit area?

A This Cisco-Canyon map shows the Indian Basin field



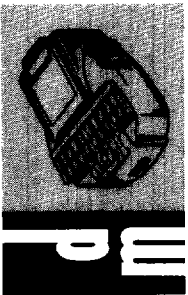
as a zone approximately 600 feet thick, this can be limestone or dolomite or some part thereof. This isopach map represents the dolomite phases of this zone it shows.

Q In your opinion, does the dolomite phases effectively cover the entire unit area?

A Yes, it does. The phases and the values are controlled by dolomite that has been penetrated in wells immediately adjacent to the unit area, for example, one is the Sun Number One, we have a well in Section 6 of 22/23, also a well to the south of the unit which is not shown on this map, perhaps in about 200 feet of the dolomite. Also the Marathon Number One in Section 8 of 22/23 which shows a zero value on this in which the dolomitic lime seems to be comparable to the Hondo well which you will find in Section 22 of 21/24 which is on the northeast margin of the Indian Basin field. We think this is indicative of the proximity of the dolomite phases.

Q What is the base of the trap or reservoir, do you consider that the oil will be trapped in this unit area?

A This is primarily a gas, the gas in the Indian Basin field occurs in the dolomite zone. It is trapped and prevented from updip which is to the west by transition of the limestone phases. There's evidence of this in the Odessa well which is drilled in Section 8 of 21,23. There is one minor exception to that in the Williamson in Section 19 in that same



township and range was completed out of what seems to be limestone phases, it is apparently a low capacity well, though.

Q With regard to the predictability of the existence of the dolomite in any particular place in this case and the character of this as a wildcat well, would you have any opinion in regard to the Sinclair up in Section 3, 24 South and 23 East?

A This well is currently being drilled, the information that we have was not received in time to place upon this exhibit but this well penetrated the Cisco Canyon zone which is primarily reservoir for Indian Basin field and it was found that it was entirely incapable and that it was not to be productive in this zone.

MR. NUTTER: In the limestone phases.

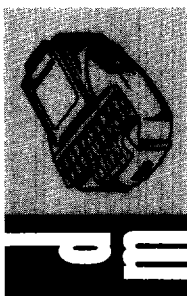
THE WITNESS: Yes.

Q (By Mr. Newman) What is its relation to other wells that are with the presence or absence of the dolomite?

A This well is structurally high enough to produce but the reservoir rock was not present. I think it shows the unpredictable nature to some extent of this facies.

Q The wells to the east and west of it?

A The wells to the east and west have the dolomite and are capable of production. You notice a line on the contour that runs down to the south from this field which represent a maximum thickness of 400 feet of dolomite which is primarily



dolomite as outlines which encompasses this trend of that facies.

Q Mr. MacDonald, I notice on this isopack map you have shown what is labeled "Gas-water-contact," to what does that relate?

A That relates to the structural map which we can use for Exhibit 2.

Q Will you refer to Exhibit 2 and show the correlation between that oil-water-contact line and your structural map which is Exhibit 2 and state what Exhibit 2 shows, please, sir.

A This map encompasses the shale area as the previous map, it is a structure contoured map on top of the Cisco-Canyon carbonate facies.

Q And your contour interval?

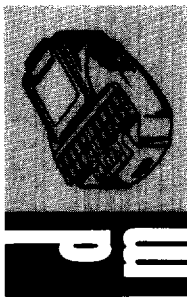
A It's 100 feet, the scale is one inch equals 4,000 feet.

Q Are these symbols the same as on Exhibit 1?

A They are. The map shows the outline of the proposed unit and the symbols on the wells in the Indian Basin field and the surrounding area are the same as on the isopach map.

Q Mr. MacDonald, does the structure or the presence of the dolomite primarily indicate the conditions for production?

A It's the occurrence of the dolomite that controls the production in this area. This can be seen by the productive wells in the Indian Basin, for instance, the Williamson in



Section 17 of 21/23 as a producer, it's a shut-in gas well and a dry hole in Section 8. Now, this represents a change from the dolomite to the limestone facies. The blue line on this map is an outline of the limits of the dolomite facies in this Cisco-Canyon carbonate.

Q In your opinion is the unit area situated structurally satisfactory to preserve production from the dolomite?

A Yes, it is located to give a structural position over it favorably strategically as projected in it.

Q What are the proposed plans for drilling to discovery if the unit is approved?

A We propose that an exploratory well be drilled in Section 3, 22 Southwest, Range 23 to penetrate the Cisco-Canyon which will be a total of 8,000 feet.

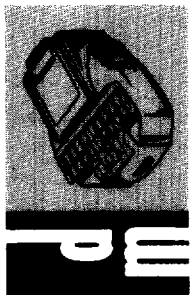
Q About when do you anticipate that this drilling would commence?

A If the unit is approved they will start December 17th of this year.

Q Basically, what are the plans and the reason for the plans for future development at this time based, of course, on the result of the initial test well unit?

A We plan an orderly development of the unit.

Q Is there a reason to encourage you to develop fairly rapidly?



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A Yes, there is. There's plans for a market outlet in this area within a reasonable time and it will be to our advantage to develop reserves to share in this market outlet.

Q Will the development of reserves also permit the participation in a gasoline plant proposed for this area?

A It's my understanding, yes.

Q Has the acreage at least of California Oil Company in the unit area been submitted to a gas contract to National Gas Pipeline Company of America?

A Yes.

Q Has the form of the proposed unit been approved by the State Land Commission, the USGS and the parties do agree other than the State and Federal?

A Yes.

Q Will the granting of this application, the formation of the unit, adversely effect correlative rights in any way?

A No.

Q Will all owners have an opportunity to join in the unit?

A Yes.

Q Will the granting of this application permit orderly development and prevent waste?

A Yes, it will.

Q Is it your opinion that the unit area is sufficiently

inclusive of the feat you are exercising there from which production is expected to effectively control the development in the area of the unit?

A Yes.

Q Do you have anything further to add?

A No.

MR. NEWMAN: That's all on direct.

MR. NUTTER: Are there any questions of Mr.

MacDonald?

CROSS-EXAMINATION

BY MR. NUTTER:

Q Do you have the quarter section in Section 3 that the well will be located?

A I understand that it will be located in the southwest of the northeast, southwest of the northeast.

Q Now, with that Sinclair well you are going to have to make a little island in there somewhere.

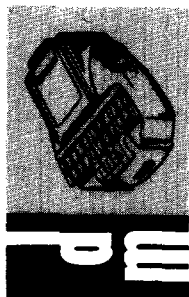
A That sort of puts a new light on it.

Q It adds just a little bit to the risk.

MR. NUTTER: Any further question of Mr. MacDonald?

MR. NEWMAN: We would like to offer the map and the structure map as Applicant's 1 and 2.

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



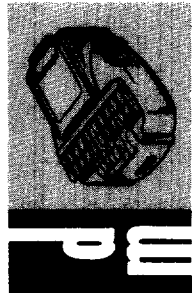
Do you have anything further, Mr. Newman?

MR. NEWMAN: No.

MR. DURRETT: I'd like to state for the record that the Commission has received a telegram from Trans Mountain Production Company stating that they joined the Applicants in their request.

MR. NUTTER: Anything further in this case?

We will take it under advisement and call a 15 minute recess.



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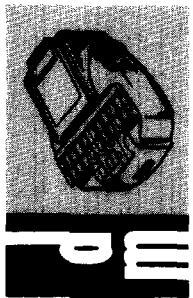
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STATE OF NEW MEXICO)
) ss.
 COUNTY OF BERNALILLO)

I, JOHN ORFANIDES, 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.

John Orfanides
 COURT REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3150, heard by me on 11/24, 1964.
[Signature]
 Examiner
 New Mexico Oil Conservation Commission



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I N D E X

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E X H I B I T S

<u>NUMBER</u>	<u>MARKED FOR IDENTIFICATION</u>	<u>OFFERED</u>	<u>ADMITTED</u>
Exhibit 1	4	11	11
Exhibit 2	8	11	11

