1120 SIAMS BLDG. . P. O. BOX 1092 . PHONE 243-4491 . ALBUQUERQUE, NEW MEXICO

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

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico August 7, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Sinclair Oil & Gas Company for a unit agreement, Eddy County, New Mexico.

Case No. 3832

BEFORE: Elvis A. Utz

Examiner

TRANSCRIPT OF HEARING



(Whereupon, Applicant's Exhibits A and B; Applicant's Exhibits 1 through 6, inclusive, were marked for identification.)

MR. UTZ: Case 3832.

MR. HATCH: Case 3832. Application of Sinclair Oil and Gas Company for a unit agreement, Eddy County, New Mexico.

MR. KELLY: Booker Kelly on behalf of the Applicant.

I have two witnesses and ask that they be sworn.

(Witnesses sworn.)

MR. KELLY: Mr. Examiner, the exhibits have already been marked. Exhibits A and B is the plat of the units in the Unit Agreement, and Exhibits 1 through 6 will be Mr. Hodges' testimony of geology and formation.

C. R. McCLAIN

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

DIRECT EXAMINATION

BY MR. KELLY:

- Q Would you state your name, position and employer, please?
- A C. R. McClain, Landman, Sinclair Oil and Gas Company in Midland.
- Q And as part of your duties, do they involve the formation of this Unit Agreement sign-up of the working interest royalty owners?

- A They do.
- Q Are you familiar with the terms and provisions of the Unit Agreement?
 - A Yes, I am.
- Q Referring to what has been marked Exhibit A, which is a plat of the Agreement, is that plat also attached as an exhibit to the Unit Agreement?
 - A It is attached to and made a part of the Unit Agreement.
 - Q What is the total acreage involved in this?
 - A 23,358 acres.
 - Q Does the Unit Agreement itself describe the acreage?
- A The Unit Agreement describes the acreage by reference to the Exhibit A attached to the agreement.
 - Q What sort of land is involved here, is it Fee or --
- A There are 29 tracts totalling 22,668 acres of Federal lands and four tracts totalling 689 acres of Fee lands. No State acreage in the unit.
- Q Now, referring to Exhibit B, which is the Unit Agreement, what zones are you unitizing?
 - A All zones will be unitized.
 - Q And is this primary production?
 - A It is, yes, sir.
 - Q Are there any wells now on the unit?
 - A No.

What is your status as far as sign-up of the working
 interest owners?

A As of today, we have received executed agreements from 60% from owners of 60% of the working interests.

Q Would you show the Examiner where in the Unit Agreement the list of working interests are?

A Yes, the list of working interest owners begins on Page 28 of the Unit Agreement and it is the signature pages.

- Q Now, will Sinclair be the operator of this unit?
- A Sinclair will operate the unit.
- Q Who are the major working interest owners?

A The Superior Oil Company with 31%; Sinclair with approximately 31% and the next largest working interest owner is Beard Oil Company with 11%. The remaining interests are divided among twelve other owners.

Q Now, you say you now have a sign-up of about 61% or 60%, does that include Superior?

A That does not include Superior and we have been expecting the return of their instruments each day; however, it has not
been returned. We have assurances from them that the Agreement
is satisfactory and that they are willing to commit their acreage.

Q Do you expect any problem with getting 100% sign-up of the working interest owners?

- A None at all.
- Q What is the status as far as the royalty interests are concerned?

A The royalty interest owners have been contacted and the agreements are in their hands for execution, also. The government owning approximately 97% has tentatively approved the Unit Agreement and has given us assurances that it is acceptable to them. The remaining 3% royalty owners are of Fee lands.

Q Now, is this proposed Unit Agreement a standard Unit Agreement which is similar to those which have been approved by the Commission in the past?

A Yes. This is the prescribed form of Unit Agreement that covers Federal lands.

Q And in your opinion, does the Unit Agreement protect the correlative rights of all concerned?

A I think it does.

Q And is Exhibit B with Exhibit A attached a true copy of the proposed Unit Agreement?

A It is.

MR. KELLY: I move the introduction of Exhibits A and B.

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

(Whereupon, Applicant's Exhibits A and B were admitted into evidence.)

MR. KELLY: I have no further questions of this witness.

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

J. W. HODGES

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

DIRECT EXAMINATION

BY MR. KELLY:

ı

- Q Would you state your name, position and employer, please?
 - A J. W. Hodges, Exploration Supervisor, Midland, Texas.
 - Q And you are employed by Sinclair?
 - A Employed by Sinclair Oil and Gas Company.
- Q Have you previously qualified as an expert witness before this Commission?
 - A Yes, sir.
- Q Referring to what has been marked as Exhibit 1 which is also placed up on the wall there, would you describe or locate the unit area on that exhibit?
 - A Yes. May I go over to that corner there?
 - Q Yes.
- A This might be a little easier to locate this way. The unit area is outlined in red. This map is a subsurface map

contoured on top of the Devonian. It is located approximately forty miles southwest from the Town of Carlsbad.

This map shows the Wapache Fault as being the predominant structural feature in this area. It also shows the Strawn Reef development as our stratigraphical studies have indicated to project through the unit area and pass up near the Wapache Fault.

This map also shows the exposed portion of the Bonus Spring Fletcher exposed in Texas, Culberson County, Texas, the axis of which projects northeast under the Carlsbad Limestone through the unit area.

This map is also showing the oil and gas shows that have been found in various wells drilled in the general area designated by these blocks that are colored. The map also shows the nearest Strawn production located 28 miles northeast in the White City Strawn Gas Field and approximately 16 miles southeast in the one well, Signal Peak Strawn Gas Field in Culberson County, Texas.

The map also shows the traces of two cross-sections which will be entered as exhibits later as AA Prime and BB Prime.

- Now, there is no production on drilling whatsoever now in the unit area, is that correct?
 - A That is correct.
- Q And the southern border of the unit area is the northern line of Texas?

- A That is correct. This is the Stateline from across here.
 - Q What zones are you after in this --
- A The primary zone will be the Strawn Reef. The secondary zones that we feel have potential are the Abo Reef and Paddock Reef.
 - Q But all zones are to be unitized, is that correct?
 - A All zones are to be unitized.
- Q And you have indicated on there the proposed location of your discovery wells, is that location to be fixed?
- A No, sir. Our surveyor, after spending eleven days in the field surveying this location, found that the surface conditions were such that a location in 660 from the north and east lines of Section 22 would not be possible due to incisement of the surface by a canyon. We have since moved the location westerly in the northeast of the northwest of Section 22 or at a location as close to a normal gas proration location as we can get.
- Q Do you have a topo-map that shows the type of terrain there?
 - A Yes, I do.

MR. UTZ: These contours are on the top of what?
THE WITNESS: Top of the Devonian.

MR. UTZ: On seismic data?

THE WITNESS: No, sir. This is on subsurface, surface and gravity information.

- Q Why don't you just show that to the Examiner.
- A I would just like to point out the rugged nature of the surface in this area. These are the Guadalupe Mountains. We're immediately adjacent to this. Our proposed location now would be at a location approximately where the red cross is.
- Q Now, is there anything else you want to add with reference to Exhibit Number 1?
 - A We might refer back to it at a little later date.
- Q Go on to what has been marked as Exhibit Number 2. Would you explain the significance to the Examiner?

A Exhibit Number 2 is a surface map made from aerial photographs. This map shows the existence of a surface feature passing through the proposed unit area. Dip symbols have been taken or have been placed on the map from data from the Carlsbad and the Capitan Limestones.

General form lining, utilizing these dips, have been drawn on the map to show the general surface configuration resulting in a surface feature passing through this area. Also, we show the Paddock and Abo Reef trends being projected through this unit area.

Q Now, go on to what has been marked as Exhibit Number 3.

A Exhibit Number 3 is a gravity map showing two gravity maxima in the unit area. It also shows the existence of a gravity minima saddling at the northeast end of the unit. The gravity maxima indicate that there is likely a structure at depth.

Ω Again, your arrow showing the proposed locations, location that has now been abandoned is shown --

A That is correct, and the location will be moved west approximately to the northeast of the northwest of Section 22 which would place it more in the center of the gravity maxima.

- Now, you have a cross-section marked as Exhibit No. 4.
- A Yes, sir.
- Q Would you, referring back to Exhibit Number 1, locate the wells that are shown on that cross-section?

A This is Cross-Section BB Prime which is represented by a trace on Exhibit 1 by an orange line going from the Perrim 100 on the extreme west to the Mobil Number 1 Barrack on the extreme east; the Mobil Barrack Well being the discovery well for the Signal Peak Strawn Gas Field. The significance of this cross-section shows the stratigraphic development of the Strawn Reef carbonate. In the Mobil Barrack Well, there is approximately 300 feet of Strawn Reef developed. Moving over to the TXL Culberson, there's a little over 500 feet developed; in the Texaco Culberson, a little over 600; in the Pure Hunter, no

development at all, clearly demonstrating the existence of a good stratigraphic tract.

Q Now, of the wells in the cross section, is it the Mobil well the only one that's presently producing from the Strawn?

A This is the only well that's producing from the Strawn on this cross-section.

- O You can take your seat back now.
- A All right.
- Q Now, referring to what has been marked as Exhibit
 Number 5, would you explain that to the Examiner?

A This is a generalized stratigraphic cross-section extending north, south from the Humble Number 3 Wapache Unit and represented by a green trace on Exhibit 1; and on the extreme south, the TXL Number 1-C Culberson Fee. It shows an extreme back reef position of the Humble Number 3 Wapache Unit passing through a transition zone of Paddock, Abo, and Strawn Reefing into a basin facies as encountered by the TXL 1-C Culberson Fee. The Culberson Fee did encounter Strawn Reef, but the Permian section was basin and no reef was developed.

- Q I take it from your testimony that the initial well, the discovery well, will be projected as a Strawn Gas Well, is that correct?
 - A This is correct.
 - Q You expect any possibility of oil in any of the zones?

12

A We believe that there is a good possibility for oil production out of the Paddock or the Abo Reef.

Q Now, referring to what has been marked as Exhibit
Number 6, what is that?

A This is a summation of the geology as we see it in this area. It sets out the geological reasons for forming the unit, the unit boundaries, the stratigraphic column, the structure and the proposed zones of production.

Q And I take it that pretty well summarizes the testimony that you have presented here?

A Yes, it does.

Q This report is not written by you, but are you familiar with the report and conclusions and statements made therein?

A I am.

Q And do you feel that you could make that report your own?

A Yes.

Q In your opinion, will the unitized area -- Can you expect, reasonably, to have the unitized area productive of hydrocarbons?

A We believe so. We think that there is a real good chance for finding production there.

Q And in your opinion, would the granting of this

application, the granting of this unit, make feasible the production of hydrocarbons that might otherwise be left in place?

A I certainly think so. The surface is such that they can best be developed by unit means.

Q Were Exhibits 1 through 5 prepared by you or under your supervision?

A They were prepared under my supervision.

Q And Exhibit 6 is the report that you have adopted as your own?

A Yes.

MR. KELLY: I move the introduction of Sinclair's Exhibits 1 through 6.

MR. UTZ: Without objection, Exhibits 1 through 6 will be entered into the record of this case.

MR. KELLY: We have no further testimony on direct.

MR. UTZ: Are there questions of the witness? He may be excused. Any statements in this case? We'll take it under advisement.

(Whereupon, Applicant's Exhibits 1 through 6, inclusive, were admitted in evidence.)

\underline{I} \underline{N} \underline{D} \underline{E} \underline{X}

	WITNESS	PAGE
c.	R. McCLAIN	
	Direct Examination by Mr. Kelly	2
J.	W. HODGES	
	Direct Examination by Mr. Kelly	6

EXHIBITS

Number	Marked for Identification	Received in Evidence	
Applicant's Exhibits A and B	2	5	
Applicant's Exhibits 1 through 6	8	13	

STATE	OF	NEW	MEXICO)	
)	SS
COUNTY	OF	BEI	RNATITIL	0 1	

I, CHARLOTTE MACIAS, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 27th day of September, 1968.

Notary Public

My Commission Expires:

February 10, 1971.

best for the formula of the formula