

BEFORE THE  
NEW MEXICO OIL CONSERVATION DIVISION  
SANTA FE, NEW MEXICO  
MAY 3, 1978

EXAMINER HEARING

-----) )  
 ) )  
 IN THE MATTER OF: ) )  
 ) )  
 Application of Inexco Oil ) )  
 Company for a unit agreement, ) Case 6218  
 Eddy County, New Mexico. ) )  
 ) )  
 -----)

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Division:

Lynn Teschendorf, Esq.  
Legal Counsel for the Division

For the Applicant:

R. M. Richardson  
  
Roswell, New Mexico

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MR. NUTTER: Call Case 6218.

MS. TESCHENDORF: Case 6218. Application of Inexco Oil Company for a unit agreement, Eddy County, New Mexico.

MR. RICHARDSON: Randolph M. Richardson, Roswell, New Mexico, appearing on behalf of the Applicant in Case No. 6218, Inexco Oil Company. I have one witness.

A copy of the unit agreement has been furnished to the Commission and I have handed Mr. Nutter a geological report.

M. L. FELDMAN

the witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. RICHARDSON:

Q Would you please state your name and your present occupation?

A M. L. Feldman, F-E-L-D-M-A-N, District Geologist with Inexco Oil Company.

Q In Houston, Texas?

A Houston, Texas.

Q You have or have you testified before the Conservation Commission previously?

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A I have.

Q Were your qualifications acceptable at that time?

A They were.

Q And that has been within the last two or three months?

A The last six months.

Q The last six months.

MR. RICHARDSON: Are the qualifications acceptable or would you like to requalify?

MR. NUTTER: No, Mr. Feldman is qualified.

Q (By Mr. Richardson) Mr. Feldman, are you familiar with the Tequila Unit area and the matters contained in the application to the Commission for approval of the Unit Agreement?

A Yes, I am.

Q Is the formal unit agreement that prescribed by Federal regulations?

A Yes.

Q Has the unit area been designated by the United States Geological Survey as an area logically suitable for development under a unit plan of development?

A Yes, as a result of a preliminary hearing

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USGS hearing, is has been so designated.

Q           Could you please tell the Commission the total number of acres in the unit area and the percentages of acreage of Federal, State and patented land?

A           There are 4825.93 unit acres within the proposed unit; 63.11 percent is Federal; 20.52 percent is State lands, State of New Mexico lands; 16.37 percent is fee land.

Q           Could you please tell the Commission the township and range in which this unit is located and the approximate location with reference to the nearest town?

A           The unit is located in Township 23 south, Range 23 east, Township 24 south, Range 23 east and Township 24 south, Range 22 east. It is 17 miles west of White City and 23 miles southwest of the town of Carlsbad.

Q           Would you please now refer to the geological report which has been handed to the Examiner and marked Exhibits A through E. And I might point out to the Examiner, the written portion of the report actually contains the, what are they, three exhibits are in the pocket folders and then one of the actual exhibits is incorporated in the body of the written report.

A           Two are actually, Exhibits A and Exhibit E

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are actually incorporated within the body of the report.

Exhibit A is the regional index map. There should be three exhibits.

MR. NUTTER: B, C and E should be lose.

MR. FELDMAN: Correct. And A and E are bound within the report.

Q (By Mr. Richardson) Mr. Feldman, could you briefly review the geological report and was this report prepared by you or directly under your supervision?

A It was prepared wholly by me.

Q If you would now briefly review the report and referring to the maps or exhibits and indicating the significance of such maps and exhibits?

A Exhibit A is an Index Map. On Exhibit A on the right side of the page you can see the trend of a morrow alongshore bar, a clastic bar complex which is the typical ~~M~~orrow reservoir in southeastern New Mexico, a long shore clastic bar complexes parallel to the ~~planks~~ <sup>flanks</sup> of the ~~Peter Nowel~~ <sup>Pederal</sup> land mass.

On the right side are three fields lined up in a northeast-southwest direction Revelation, Rock Tank Field and Crooked Creek field. Each of these are along one of these along shore bars. The fields is separated

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at least partially probably by surge channels perpendicular to this northeast-southwest trend, which is the depositional strike of the Delaware Basin of the Permian Basin.

Parallel to this well marked trend in the production on the east side of the Indian Basin field, the ~~M~~orrow production there in which some seven wells have produced over 16 billion cubic feet of gas as of 1-1-77. During '78, not mentioned in the report, these seven wells produced another 4 billion or so.

If you will put a pencil on the paper parallel to the other trend and running through the ~~M~~orrow production in the east side of Indian Basin field you will see that it projects into this Tequila, proposed Tequila unit and it is flanked by several marginal ~~M~~orrow fields, only one of which is presently producing, the Robinia Draw which help flag the flanks of this trend.

The trend--the unit is crossed to the south end by the Huapache Monocline. This monocline is a Permian drape feature on the northeast flank of the vertical block uplift which took place in pre-middle Wolfcamp time, in early Wolfcamp time a vertical block uplift. The other edge of this vertical block uplift is the Dog Canyon faulting which is just off of this index map to the west.

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During the Larymide revolution, during the <sup>Tertiary</sup> ~~Terscherie~~ era, this vertical block uplift was tilted to the northeast and the Dog Canyon fault trend on the southwest side of this vertical block uplift was activated and broke through to the present-day surface, and is exposed on the surface today.

The Huapache Monocline acted as somewhat of a hinge line so that you have 5 to 15 degrees dip on the Grayburg, San Andres formations that outcrop along it. But it did not--the faulting did not break through to the surface at that time, just bent the Permian formations, did not break the Permian formations.

Q Could you briefly go through some of the other exhibits, the exhibits will be introduced into evidence and the Commission will have it.

A All right. Exhibit B is a structure map on top of the Morrow Limestone, It shows a--it shows the 3700 foot pre-permian fault along the Huapache, which underlies the Huapache Monocline. Then it shows a north-east-southwest trending harste which is parallel to the depostional margin of the Delaware Basin and it is this <sup>harst</sup> ~~harste~~ that we have proposed a unit to test as an anticlinal feature on this harste that we propose to test. This harste

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as has the rest of the western limb of the Delaware Basin has been tilted to the northeast approximately one degree per mile and as a result this is reflected by the Capitan Reef being some 8,000 feet above sea level near the Texas-New Mexico line and being at sea level in White City.

This same tilt applies in this area and as a result our proposed location would be at least a couple hundred feet high to the Fasken No. 1 Merlin, the well shown in Section 28 and this well had some 5,000 cubic feet of gas per day plus 200 barrels of water and is just on the edge of the reservoir which we believe we will be testing.

*harst*  
The ~~harste~~ that is shown on here is based on some very poor geology which shows that there are 600 feet of section of Lower Wolfcamp and Upper Cisco Section that are missing from the Fasken No. Merlin in Section 28, 23, 23, that are present in the wells flanking these harste. The well in Section 30, the Santa Well in Section 30, 23, 23 has this 600 feet of section present within it and so does the Inexco Well in Section 4, 24 South, 23 East.

Both of these wells have this 600 feet of lower Wolfcamp and Upper Cisco Section preserved in them.

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It's absent in the Fasken Merland which is up on the harste.

Exhibit D is a stratigraphic section which reflects, we should go to Exhibit C first. Exhibit C is an isolith of Morrow Sandstone which shows a pod of sand with greater than 80 feet of net sand present within this unit outline, at the site of our proposed initial tests in Section 32, 23 South and 23 East.

Exhibit D is stratigraphic cross section, as noted on this exhibit the ~~harste~~<sup>horst</sup> which was present in this, between the second and third wells on this cross section is not shown, was purposely not shown because this is a stratigraphic cross section. It is evident from this section that the base of the sand rises in the section away from our proposed location. Both to the east and the west, which is typical of along shore bar deposits.

MR. NUTTER: Is there a little dash ~~mine~~<sup>line</sup> coming down through the proposed location?

A Yes, that is the proposed location. I believe that's the review of all the exhibits.

One other exhibit, Exhibit E is in the report, at the back of our report is the cost estimate for this--for our initial Wildcat effort.

Q (By Mr. Richardson) Could you please,

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Mr. Feldman, tell the Commission the objective depth and your primary objective for drilling the test?

A Our objective depth is 10,075 feet, not to exceed, given 60 feet below the top of the Mississippian Chester formation, not to exceed a depth of 10,250 feet. The ~~M~~orrow is our primary objective, the ~~M~~orrow sandstones are our primary objective.

Q Could you tell the Commission, in your opinion, what percentage of the working interest will be committed to the unit?

A We believe that all of the working interests will be committed at this time.

MR. RICHARDSON: I might add for the record, the working interests owners have not all been contacted. There is some open, unleased patented minerals within the unit area and the unit operator is currently negotiating for a lease only in minerals and I'd say more or less up to this point have chosen to keep the unit as confidential as possible due to competition in connection with these patented leases.

Q (By Mr. Richardson) Mr. Feldman, in your opinion will the operation of this area, under the proposed unit plan of operation, be in the interest of conservation

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and prevention of waste?

A Yes.

Q In the event of production, will the correlative rights of all parties to the unit agreement be protected?

A Yes.

MR. RICHARDSON: We would like to move the geological report and Exhibits A through E be admitted at this time.

MR. NUTTER: The geological report, including Exhibits A through E will be admitted into evidence.

(WHEREUPON, Applicant's Geological report and Exhibits A through E admitted into the evidence.)

MR. RICHARDSON: I have nothing further. Do you have anything for Mr. Feldman? Any questions?

MR. NUTTER: Mr. Feldman, this unit agreement covers Federal, State and fee lands. Has the United States Geological Survey given their preliminary consent to the unit agreements?

MR. FELDMAN: Yes, they have.

MR. NUTTER: And the Commissioner of Public Lands for the State Of New Mexico?

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MR. FELDMAN: Yes.

MR. NUTTER: So we do have the royalty interest under --

MR. FELDMAN: --990.46 acres, the State of New Mexico does.

MR. NUTTER: Of 3,000 acres of Federal lands and 990 acres of State lands committed?

MR. FELDMAN: Right.

MR. NUTTER: And some of these 790 acres of patented lands have not been leased as yet, is that right?

MR. FELDMAN: I'm not sure. It's undivided interest under practically all of this 790 acres. It is pretty badly divided, Inexco has part of it and the fee land will be committed.

MR. NUTTER: I see. It's an undivided interest under all the fee lands. Some of it is committed, some of it isn't.

MR. FELDMAN: Correct.

MR. NUTTER: No individual tracts that are completely out?

MR. FELDMAN: No.

MR. NUTTER: Mr. Feldman, I presume that

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the general shape of the unitized lands is to conform with this structure you showed on Exhibit B and on Exhibit C?

MR. FELDMAN: Correct.

MR. NUTTER: And you do assume that you will have adequate control over the structures under unit operations?

MR. FELDMAN: Yes, I believe it's well included within it.

MR. NUTTER: Now, a question for you, Mr. Richardson. Since the unit agreement has been drawn up and spells Tequilla with two ll's in it, I presume that's the way it will have to apply.

MR. RICHARDSON: That should be corrected.

MR. NUTTER: So I presume our order for it will be in the name of Tequilla, spelled with two ll's, unit agreement.

MR. RICHARDSON: Correct.

MR. NUTTER: Are there any further questions of Mr. Feldman? You may be excused. Did you have anything further Mr. Richardson?

MR. RICHARDSON: No.

MR. NUTTER: Does anyone have anything to offer in Case No. 6218?

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We will take the case under advisement.

(WHEREUPON, the hearing was  
concluded.)

\* \* \* \* \*

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REPORTER'S CERTIFICATE

I, BETTY J. LANPHERE, CSR-RPR with offices in Santa Fe, New Mexico, do hereby certify that the foregoing transcript is a complete and accurate record of said proceedings as the same were recorded by me stenographically and reduced to typewritten transcript by me or under my supervision.

DATED at Santa Fe, New Mexico, this twenty-second day of May, 1978.

Betty J. Lanphere  
Betty J. Lanphere, Court Reporter

I do hereby certify that the foregoing is a complete and accurate record of the Examination heard by me on 5/3 6210 1978.  
[Signature] Examiner  
New Mexico Oil Conservation Commission

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