STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
State Land Office Building
Santa Fe, New Mexico
11 April 1979

EXAMINER HEARING

IN THE MATTER OF: Application of Adobe Oil Company for) a unit agreement, Lea County, New) Mexico. (521)

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:	Lynn Teschendorf, Esq. Legal Counsel for the Division State Land Office Bldg. Santa Fe, New Mexico 87503

For the Applicant: W. Thomas Kellahin, Esq.
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MR. NUTTER: Call now Case Number 6521.

MS. TESCHENDORF: Case 6521. Application of Adobe Oil Company for a unit agreement, Lea County, New Mexico.

MR. KELLAHIN: I'm Tom Kellahin, appearing on behalf of Adobe Oil and Gas Corporation, and I have three witnesses.

(Witnesses sworn.)

KELLY BARNES

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q. Would you please state your name, by whom you are employed, and in what capacity?
- A. My name is Kelly Barnes. I'm employed by Adobe Oil and Gas Corporation, and I'm an area land man.
- Q. Mr. Barnes, as a petroleum land man have you prepared certain exhibits with regards to this case and the formation of a unit agreement in Lea County, New Mexico?
 - A. Yes, I have.

Q.

1	Q. And have you brought those exhibits with
2	you here today?
3	A. Yes, I have.
4	Q. Let me refer to what we've marked as Exhibit
5	Number One and have you identify that for me, please.
6	A. That is an acreage land plat of the proposed
7	East Tatum State Unit indicated in yellow stippling.
8	Q. What is the sections involved and the town-
9	ship and range of the unit?
10	A. Located in Township 12 South, Range 36 East,
11	New Mexico Prime Meridian, being Sections 25, 26, 35, and
12	36, inclusive.
13	Q. What type of acreage is involved in this
14	four-section unit?
15	A. State acreage being 2560 acres, 100 percent.
16	Q. And there are no fee or Federal acres in-
17	volved, are there?
18	A. None.
19	Q. Are there any existing wells within any
20	of the sections to be included in this unit?
21	A. None.
22	Q. All right, are there any plugged and aban-
23	doned wells in the area?
24	l Yes.

And where is that well located?

In the northwest quarter of Section 35.

The final being the working interest of the

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A.

2	Q. In the northeast quarter?
3	A. Northeast quarter, I'm corrected.
4	Q. And that's the old Phillips State 1-X
5	re-entry?
6	A. Hilliard Phillips State 1.
7	Q. All right.
8	Would you please refer to Exhibit Number
9	Two and identify that?
10	A. This is a tabulation of the tracts comprising
11	the unit, their description, number of acres in each tract,
12	State lease number and expiration date thereof, lessee of
13	record, and working interest ownership and percentage
14	therein owned.
15	Q. All right. Let's look at Exhibit Three
16	and have you identify that exhibit.
17	A. This is a recapitulation of the State unit
8	as proposed. The first indicates ownership, State of New
9	Mexico lands, being 2560 acres, comprised of 100 percent of
20	the unit.
21	The second is commitment to the unit by
22	working interest owner; indicates their percentage, their
23	status, unit participation, and all indicates 100 percent
4	committed to the unit, as indicated.

unit as it would be proposed for the development thereof.

- Q All right. Will Adobe Oil and Gas Corporation be the operator of the unit?
 - A. Yes, they will.
- Q All right. Explain to us how, in general terms, Adobe will earn any interest in the acreage involved in the unit.
- A. Basically Adobe Oil and Gas Corporation has received, or a party to a farm-out agreements with 87-1/2 percent of the working interest therein of the unit, 12-1/2 percent owned by Yates Petroleum Corporation, has indicated they will join in the drilling of a test as a working interest owner, and Adobe, through its farm-out agreement, has acquired that interest.
- Q. Let's look at Exhibit Number Four and have you tell me what that is.
- A. This is a plat of the State unit, indicating the tracts numbered, the owner thereof, and the configuration also.
- Q All right. Would you turn to Exhibit Number Five and tell us what that is?
- A. The proposed unit agreement for the development and operation of the East Tatum State Unit as we've indicated previously and is proposed.
 - Q. Is the unit agreement identified as Exhibit

The drilling

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3 A. Yes, it is. And is that a form of unit agreement ac-5 ceptable to the Land Commissioner? 6 A. Yes, it is. 7 Q. Would you refer to what is marked as Exhibit 8 Number Six and identify that? 9 Exhibit Number Six is the proposed operating 10 agreement for the operation of the State unit, being the 11 East Tatum State Unit Number One, comprising those sections. 12 Would you turn to Exhibit C attached to the 13 operating agreement? 14 And then turn to page three of Exhibit C 15 and direct your attention to the paragraph identified as 16 Overhead Charges. 17 What, if any, additions or corrections are 18 there with regards to the overhead charges? 19 There's been two alterations. 20 well rates has been changed, altered to \$3000 per month. 21 MR. NUTTER: Where is that, Mr. Kellahin, 22

Number Five the same unit agreement that was submitted to

the Commissioner of Public Lands, State of New Mexico?

what page? MR. KELLAHIN: It's on page three. A. Of the accounting procedures. MR. KELLAHIN: Of the accounting procedures,

attached	as	Exhibit	С	to	the	operating	agreement
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MR. NUTTER: Page two, page three, that's that page called --

MR. KELLAHIN: Yes, sir, there's some blank lines in the middle of that page.

MR. NUTTER: Anyway, the changes have been made on the thing, is that right?

Okay, they haven't been made here. Okay, so this \$2750 changes to what?

A. \$3000.

MR. NUTTER: And the \$350?

A. To \$300.

Q. (Mr. Kellahin continuing.) Are those changes that have been approved by all the working interest ownership?

A. Yes.

Q All right. Let me refer you to the left side of the package of exhibits and have you turn to the second page under preliminary State approval, and have you identify for me what has been marked as Exhibit Number Seven.

A. Exhibit Number Seven is a letter from the State of New Mexico, Commissioner of Public Lands, indicating his approval and their approval to the content and form of our unit operating and the unit agreement.

my examination

What is the soonest expiration date of any

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2	of the State leases to be committed to the unit?
3	A. May 20, 1979.
4	Q. And as of this date have you complied with
5	all the requirements of the Commissioner of Public Lands
6	with the exception of obtaining this order from the New
7	Mexico Oil Conservation Division?
8	A. Yes, we have.
9	Q. Were Exhibits One through Seven either pre-
10	pared by you directly or compiled under your direction and
11	supervision?
12	A. Yes, sir, they were, with the exception of
13	the New Mexico letter.
14	Q. And if I didn't ask you before, I ask you
15	again, who will be the operator?
16	A. Adobe Oil and Gas Corporation.
17	MR. KELLAHIN: That concludes my examinatio
18	of Mr. Barnes.
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20	CROSS EXAMINATION
21	BY MR. NUTTER:
22	Q. Mr. Barnes, the well that you're proposing
23	l

to re-enter is this old well, is that right?

And when it was drilled, to what total depth

Yes, sir.

A.

Q.

Q.

was it drilled?

A. 1408, I believe.

Q And so you're going to re-enter it and go down to a maximum depth of 13,4, so the well has penetrated the formations --

A. Yes, sir.

Q. -- that you're going to test. Why do you think that you could make a well now that they couldn't?

MR. KELLAHIN: Mr. Examiner, we have two other witnesses that are going to direct their attention to the recompleting of this old well.

MR. NUTTER: I'll defer that question until later, then.

MR. KELLAHIN: We have an engineer and a geologist.

MR. NUTTER: Are there any other questions of this witness? Oh, now you said that Adobe had acquired all but 12-1/2 percent of the --

- A. Through a farm-out agreement.
- Q. Through farm-out.
- A. The 12-1/2 percent is a committed working interest, being Yates Petroleum Corporation.
- Q So they will -- that's going to be the only operator in the unit besides yourself.
 - A. They will be the only other non -- we will

1 be the operator; they will be a non-operator --2 Right. 3 -- in the unit and have committed to the 4 drilling of that test. 5 Right, so you control 87.5 percent of the 6 unit, 12-1/2 percent remaining working interest is commit-7 ted. 8 A. Yes, sir. 9 So you've got 100 percent committment 10 working interest. 11 Right. A. 12 Q. Then the royalty is all State land and the 13 State Land Commissioner has agreed to it. 14 Yes, sir. A. 15 Q. Okay. 16 MR. NUTTER: Any other questions of this 17 witness? 18 MR. KELLAHIN: No, sir. 19 MR. NUTTER: He may be excused. 20 21 DAVID JEWELL 22 being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit: 24

SALLY WALTON BOYD CERTIFIED SHORTHAND REPORTER 8020 Plaza Blanca (605) 471-346 Santa Fe, New Mexico 87501

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you please state your name, by whom you're employed, and in what capacity?

A. My name is David __Jewell. I'm employed as a geologist by Adobe Oil and Gas Corporation.

Q. Mr. Jewell, have you ever testified before the Oil Conservation Division of New Mexico?

A. No, I have not.

Q. Would you state for the Examiner when and where you obtained your degree in geology?

A. I obtained my degree from the University of Kansas, 1950, Bachelor of Science degree.

Q. Upon graduation what, if any, other degrees have you obtained?

A. No other degrees.

Q. All right. Upon graduation where have you been employed and in what general capacity?

A. I've been employed as a geologist for Sinclair Oil and Gas, Geological Engineering Service Company, Anderson Pritchard, and as a consultant for about ten years, prior to joining Adobe Oil and Gas Corporation.

Q. When did you join Adobe Oil?

A. About 1974.

MR. NUTTER: One question, Mr. Jewell, do

you spell your name as in rubies and diamonds?

A. No, two L's.

MR. NUTTER: Two L's?

A. Yes, sir.

Q. Have you made a study of the geology involved with regards to this particular unit operation, which is the subject of this application?

A. Yes, I have.

MR. KELLAHIN: We tender Mr. Jewell as an expert geologist.

MR. NUTTER: He is.

Q. (Mr. Kellahin continuing.) Mr. Jewell, would you please refer to that portion of the exhibit folders indicated geological reports, and commence your testimony by looking at Exhibit Number Eight and tell us what that is?

A. Exhibit Number Eight is a subsurface map contoured on the top of the upper Mississippian pay zone, which is found in the Austin Field and which is our prospective pay zone in the unit that we're applying for today.

Q. All right. What does this plat tell me with regards to the geology underlying the unit?

A. Well, it shows that structurally we should be high to the Austin Field. We have the same pay zone and the cross section shown on this plat, which is number

nine, Exhibit Number Nine, shows that the Phillips State
Well in the Austin Field is the same as in the Hilliard
No. 1 Phillips State Well in the unit.

- Q. What is the unitized formation in the unit area?
 - A. The Upper Mississippian.
- Q. What is the closest New Mexico Oil Conservation Division pool to the unit operation?
- A. It's the Austin Field ten miles southwest of the unit.
- Q. Is Adobe Oil and Gas Corporation an operator in the Austin Field?
- A. Yes, we are. We have two wells that we just recently drilled in the field.
 - Q. Would you locate those wells for us?
- A. Yes. The Adobe No. 1 State 16, located in the southwest quarter of Section 16, Township 14 South, Range 36 East, and the Adobe No. 1 Hanna, located 1980 from the north, 660 from the east of Section 17, Township 14 South, Range 36 East.
- Q. Okay. Let's look at Exhibit Number Nine.

 Is Exhibit Number Nine the cross section that's depicted on Exhibit Number Eight?
 - A. Yes, it is.
 - Q. Would you describe that cross section for

us?

A. This cross section starts on the south end in the Austin Field with the discovery well of the Austin Field, the Phillips No. 1 Austin.

Q You're looking at Exhibit Number Nine from right to left?

- A. Yes, from right to left.
- Q. All right.
- A. Going from south to north.

And it shows that the porosity zone, the pay zone in the Phillips No. 1 Austin Well, is the same pay zone that we are going to attempt to complete in in the Hilliard No. 1 Phillips State Well.

Q. Would you describe for me the log here on the old Hilliard Phillips State No,1 Well that you're going to re-enter?

A. Yes, it's a compensated sonic log and it shows 7 to 8 percent porosity through the upper Mississippian zone.

- Q. Who drilled this well?
- A. Hilliard Oil and Gas, Incorporated.
- Q All right. To your knowledge, did this particular well after it was drilled ever produce from the upper Mississippian?
 - A. No, it did not.

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1	Q. And do you know why not?
2	A. Because they didn't test this zone.
3	Q. Do you know what Hilliard Oil and Gas Com-
4	pany's primary objective was when they drilled this test?
5	A. Their primary objective was the Devonian.
6	Q. And was this well tested in the Devonian?
7	A. No, it was not.
8	Q. Why not, do you know?
9	A. They evidently had no show. I don't know
10	the reason for it.
11	Q. Have you examined that portion of the log
12	that represents the Devonian?
13	A. Yes, I have.
14	Q. And what does it show?
15	A. There is no show that I could see, no sign
16	of possible production.
17	Q. When was that well drilled?
8	A. That well was drilled and completed in
9	November, '77, 1977.
20	Q. And what is its status now?
21	A. It is an abandoned dry hole, with 8-5/8ths
22	inch casing set in it.
3	Q. To your knowledge was that well plugged
4	and abandoned in accordance with Commission regulations?

Yes, it was.

A.

1	Q And when was that abandonment approved or
2	completed?
3	A. November 19, 1977.
4	Q. All right. What causes you to believe, Mr.
5	Jewell, that this particular well is still capable of
6	production from the upper Mississippian formation?
7	A. We found upon drilling these wells in the
8	Austin Field you could drill through this zone very easily
9	and not see any signs of gas, and we think that's what
10	happened.
11	Q. What was the porosity indicated on the log,
12	I believe you indicated
13	A. 7 to 8 percent.
14	Q 7 to 8 percent?
15	A. Uh-huh.
16	Q. In your opinion is that sufficient porosity
17	for upper Mississippian formation to provide a commercial
18	well?
19	A. Yes, it is.
20	Q. Let's look at Exhibit Number Ten and have
21	you identify that.
22	Now what does Exhibit Number Ten show us,
23	Mr. Jewell?
24	A. Exhibit Number Ten is a plat contoured on
25	the upper Mississippian pay zone, just in the area surrounding

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the proposed unit, and it shows the trap that we suspect is there.

Q All right, in conjunction with Exhibit
Number Ten, would you refer to Exhibit Number Eleven? I
assume Exhibit Eleven is the cross section that's depicted
on Exhibit Number Ten.

A. It is.

Q. All right, sir, and would you describe generally what the cross section on Exhibit Number Eleven shows you?

A. All right. This cross section on Exhibit Number Eleven on plat Number Ten, shows the porosity in the Hilliard well, and then going up dip to the Cameron Well in Section 15, in 12 South, 36 East, across to the SunRay and MidContinent No. 1 Adams Well in Section 29, down to the Crown Central No. 1 Lowe Well in Section 3, and back west to the Freeport No. 1 State Well in Section 11, what it shows is that the porosity is present in the Hilliard Well but absent up dip in the Cameron Well, the SunRay Well, and the Crown Central Petroleum Corporation Well, and coming back to the Freeport Well, we have two to three percent porosity in the proposed pay zone, so that it produces a barrier of nonporous upper Mississippi limestone up dip from our proposed re-entry.

Q Mr. Jewell, in your geological opinion, will

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the proposed unit area give Adobe Oil and Gas Corporation substantial and effective control of the unitized formation?

A. Yes.

Q. In your opinion is the four section unit a reasonable and logical from a geological standpoint, reasonable and logical configuration for the proposed unit?

A. Yes.

Q In your opinion is the unitized interval and the four sections involved reasonably productive from the upper Mississippian?

A. Yes.

Q Were Exhibits Eight, Nine, Ten, and Eleven prepared by you or compiled under your direction and supervision?

A. They were.

MR. KELLAHIN: We move the introduction of Exhibits Eight through Eleven.

MR. NUTTER: Exhibits Eight through Eleven will be admitted in evidence.

MR. KELLAHIN: That concludes my examination of Mr. Jewell.

MR. NUTTER: Are there any questions of Mr. Jewell? He may be excused.

MR. KELLAHIN: I have one more witness,

Mr. Nutter.

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BILL R. OWENS

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q Would you please state your name and occupation?
 - A. Bill R. Owens. I'm an engineer.
- Q. Mr. Owens, have you previously testified before the Oil Conservation Division?
 - A. No, I haven't.
- Q. Would you tell the Examiner where you graduated, what degree you obtained, and when that was?
- A. Graduated from the University of Oklahoma in 1958 with a BS degree in engineering physics.
- Q. Subsequent to graduation where have you been employed in your capacity as a petroleum engineer?
- A. I was employed by Kiwanee (sic) Oil Company for twelve years, various engineering capacities and as District Superintendent. And since March 1st, 1970, in various engineering capacities and supervisory capacities with Adobe Oil and Gas.
 - Q In your capacities with Adobe Oil and Gas

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1 Corporation, have you made a study of certain geological 2 data with regards to this unitized area and the unit agree-3 ment? A. Yes, I have. 5 MR. KELLAHIN: We tender Mr. Owens as an 6 expert engineer. 7 Mr. Owens is qualified. MR. NUTTER: 8 0. (Mr. Kellahin continuing.) Mr. Owens would 9 you refer to Exhibit Number Twelve and identify that for 10 us? 11 It was our proposed plan of operation to A. 12 re-enter the Hilliard Well. 13 Okay. Would you describe briefly the old Q. 14 Hilliard Well in Section 35 for us?

A. Yes. Hilliard drilled a well that was spudded in September of '77 and plugged and abandoned on November 19th, 1977, with a total depth of 14,081 feet, and was plugged, according to Commission order it was 7 cement plugs at that time and has been since.

Q. What are Adobe Oil and Gas Corporation's proposed re-entry procedures?

A. We're going to move in a rotary rig and clean out the old cement plugs to a depth of 13,400, and then by compensated neutron density log, which if the formation hadn't been damaged too much setting there, should show

us gas saturation in the upper Mississippian section. At that time we will spot 100-foot cement plug and run 5-1/2 inch casing to depth of 13,300 and test through casing production test, the three zones that we feel like will possibly produce separately. This is primarily my experience down in the Austin, too.

Q. What type of treatment, generally, do you anticipate for this particular well?

A. The upper main pay, or the zones that we show just by acidizing testing, will probably not produce a lot with acid jobs, and we'll go to large pad, sand pad acid sand treatment of these wells, which we've had good luck with down in the Austin Field.

Q. That's a similar type treatment that you implemented on your two wells in the Austin Field?

A. That's correct.

Q Do you have an estimate of what the cost of recompleting this well would be?

A. My estimate, without any trouble, is about Five Hundred and Eight Thousand Dollars, shown on Exhibit Thirteen.

Q Those are the estimated well costs for reentry attached as Exhibit Number Thirteen?

A. Yes, sir.

Q. In your opinion as an engineer, is the old

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2 ippian zone? 3 Yes, it is. A. Q. Were Exhibits Twelve and Thirteen prepared 5 by you or compiled under your direction and supervision? 6 A. Yes. 7 MR. KELLAHIN: We move the introduction of 8 Exhibits Twelve and Thirteen. 9 MR. NUTTER: Applicant's Exhibits Twelve 10 and Thirteen will be admitted in evidence. 11 Mr. Owens, in your opinion as an engineer, 0. 12 will approval of this application be in the best interests 13 of conservation, the prevention of waste, and the protection 14 of correlative rights? 15 Yes, it will. 16 That concludes our direct MR. KELLAHIN: 17 examination. 18 19 CROSS EXAMINATION 20 BY MR. NUTTER: 21

Q. Mr. Owens, when Hilliard drilled the well,

I presume they ran intermediate and surface casing.

A. Yes, sir, had 13-3/8ths surface casing set

at 435 and 8-5/8ths intermediate set at 3600.

Q. And both of those strings are still intact?

Hilliard Well capable of production from the upper Mississ-

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Yes,	sir.
	Yes,

Q All right.

MR. NUTTER: Are there any other questions

of Mr. Owens?

MR. KELLAHIN: No, sir.

MR. NUTTER: He may be excused.

Mr. Barnes, what are your initials, please?

MR. BARNES: K. M.

MR. NUTTER: N as Nancy or --

MR. BARNES: M as MIke.

MR. NUTTER: Okay. Do you have anything

further in Case Number 6521, Mr. Kellahin?

MR. KELLAHIN: No, sir.

MR. NUTTER: Does anyone have anything they

wish to offer in Case Number 6521?

We'll take the case under advisement.

(Hearing concluded.)

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SALLY WALTON BOYD

REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript if a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Soly W. Boyd, C.S.R.

do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case to. 6521, heard by me on 4/// 1979.

Ott Conservation Division