CASE 6620: HARVEY E. YATES COMPANY FOR AN NGPA DETERMINATION, LEA COUNTY, NEW MEXICO.

CASE NO.

6620

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,

ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

September 12, 1979

Re: CASE NO. 6620
ORDER NO. R-6104

Mr. Robert H. Strand, Attorney
Harvey E. Yates Company
P. O. Box 1933
Roswell, New Mexico 88201

Applicant:

Harvey E. Yates Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6620
Order No. R-6104

APPLICATION OF HARVEY E. YATES
COMPANY FOR AN NGPA DETERMINATION,
LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on August 8, 1979, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 10th day of September, 1979, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Harvey E. Yates Company, seeks a determination by the Division, in accordance with Sections 2 (6) and 102 of the Natural Gas Policy Act of 1978, and the applicable rules of the Federal Energy Regulatory Commission, that its Austin Monteith Well No. 1, located in Unit K of Section 8, Township 14 South, Range 36 East, NMPM, Lea County, New Mexico, has discovered a new onshore reservoir from which natural gas was not produced in commercial quantities before April 20, 1977.

(3) That said well was completed in the Mississippian formation with perforations from 13360 to 13390 feet, and a plugged-back depth of 13478 feet after having been drilled to a total depth of 14000 feet.

(4) That although there are several wells in the vicinity of the subject well which have penetrated and are completed in the Mississippian formation, pressures encountered in said Austin-Monteith Well No. 1 are indicative of an undrained reservoir.

(5) That seismic evidence presented at the hearing

demonstrated that said Austin Monteith Well No. 1 could be separated from other Mississippian producing wells in the area by a fault.

(6) That the combined seismic and pressure data presented establishes that said Austin-Monteith Well No. 1 has been completed in a new onshore reservoir as defined by the provisions of Section 102 (c) of the Natural Gas Policy Act of 1978 and the applicable rules of the Federal Energy Regulatory Commission.

IT IS THEREFORE ORDERED:

(1) That the Harvey E. Yates Company Austin Monteith Well No. 1, located in Unit K of Section 8, Township 14 South, Range 36 East, NMPM, Lea County, New Mexico, is completed in a new onshore reservoir as defined by Sections 2 (6) and 102 (c) of the Natural Gas Policy Act of 1978, and the applicable rules of the Federal Energy Regulatory Commission.

(2) That jurisdiction of this cause is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico
8 August 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Harvey E. Yates Company for an NGPA determination, Lea County, New Mexico.

CASE 6620

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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

For the Applicant: Robert H. Strand, Esq.
Roswell, New Mexico

I N D E X

E X H I B I T S

MR. STAMETS: We'll call now Case Number 6620.

MR. PADILLA: Application of Harvey E. Yates Company for an NGPA determination, Lea County, New Mexico.

MR. STAMETS: Call for appearances.

MR. STRAND: Mr. Examiner, Robert Strand, attorney for Harvey E. Yates Company from Roswell, appearing on behalf of the applicant.

We will call two witnesses, Paul White and Andrew Lattu, who are both under oath, I believe.

MR. STAMETS: Let the record reflect that both of these witnesses have previously been sworn and have been qualified.

MR. STRAND: Mr. Examiner, in Case 6620 Harvey E. Yates Company is requesting an NGPA determination for its Austin Monteith No. 1 Well, situated in the west half of Section 8, Township 14 South, Range 36 East.

The application previously filed with the Commission seeks a determination that this well produces gas from a new on-shore reservoir.

We have also filed an alternative application in the event Section 102 treatment is not accorded this well, asking for Section 103 treatment as a new on-shore production well.

We intend today to present testimony as to the geological and reservoir data relevant to the Section 102 application. We will present no evidence as to the Section 103 application. We feel that could be handled administratively, if necessary.

The first witness is Mr. Paul White.

PAUL G. WHITE

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

DIRECT EXAMINATION

BY MR. STRAND:

Q. State your name, please.

A. Paul White.

Q. What is your occupation, Mr. White?

A. Consulting Engineer.

Q. Have you been employed on behalf of Harvey E. Yates Company for the purpose of this hearing?

A. Yes, sir.

Q. Have you testified before the Division in the past?

A. Yes, I have.

Q. Are your qualifications as an expert witness a matter of record before the Division?

A. Yes, they are.

MR. STRAND: Are Mr. White's qualifications acceptable?

MR. STAMETS: Yes.

Q. (Mr. Strand continuing.) Mr. White, is Harvey E. Yates Company the operator of the Austin Monteith No. 1 Well?

A. Yes.

Q. Would you please give the specific location of that well?

A. This gas well is located 1650 feet from the south line and 1980 feet from the west line of Section 8, Township 14 South, Range 36 East, Lea County, New Mexico.

Q. Mr. White, what is the ownership status of the lease on which this well is actually situated?

A. This lease is a fee lease.

Q. What was the spud date of the Austin Monteith No. 1?

A. March 17th, 1979.

Q. And the completion date?

A. The completion date was July 25th, 1979.

Q. What was the total depth reached in the well?

A. 14,000 feet.

Q. What is the producing interval?

A. The producing interval is -- it's perforated from 13,360 to 13,390.

Q. Mr. White, are you familiar with the term "reservoir" as defined in Section Two of the Natural Gas Policy Act of 1978?

A. Yes, I am aware of the definition of "reservoir" in the Act.

Q. In forming your opinions as to the extent and characteristics of the reservoir from which the Austin Monteith Well produces natural gas, have you examined and analyzed available reservoir and geological data from this well and surrounding wells of similar depth?

A. Yes, I have.

Q. Would you describe in general terms the producing interval?

A. Generally it's right under the Austin marker. It's basal Pennsylvanian age.

Q. Mr. White, referring to Exhibit Number One, would you please describe that exhibit?

A. Exhibit Number One is an ownership and land plat showing the location of the Harvey E. Yates Company Austin Monteith Well in Section 8 and surrounding wells in Section 5 and in Section 17.

Q. Does that exhibit further show the wells that comprise the cross section, which will be Exhibit Two?

A. Yes, it does.

Q. Do all of the wells shown within that -- that you mentioned on Exhibit One, penetrate the formation you mentioned previously?

A. Yes, they do.

MR. STAMETS: Which wells penetrate the Austin zone?

A. Mr. Examiner, all the wells shown on the Exhibit One on the plat, as outlined in red, penetrated the Austin zone.

MR. STAMETS: So it would just be those on the cross section A-A', which is marked on this exhibit?

MR. STRAND: Mr. Examiner, I believe there are other wells which are shown on this exhibit that do penetrate that zone, and we will discuss those later.

MR. STAMETS: Okay.

Q. (Mr. Strand continuing.) Referring to Exhibit Number Two, Mr. White, would you describe that exhibit?

A. Okay. Exhibit Number Two is a -- is a cross section. I think we possibly need to --

MR. STRAND: Mr. Examiner, it is the same exhibit that is on the wall from the last case, so I think we can go ahead and use that cross section.

A. Okay.

And this is a cross section showing the wells from -- drawn on the -- as a datum is the top of the Atoka, and it shows downwardly the Morrow, the Austin marker, the Chester, and the Mississippi, in the four wells as outlined on Exhibit Number One land plat.

MR. STAMETS: Are the perforations -- the present perforations in these wells as shown at the base of each section?

A. All intervals then tested are shown on the cross section; all intervals tested in the wells.

MR. STAMETS: There are perforations shown, though. Are those the existing perforations in these wells?

MR. LATTU: Well, if you would like to wait, maybe, until I get to my testimony, I'll discuss those in more detail, but the producing zones are all perforated. Additional zones were perforated in some of these wells in testing lower zones before they moved up to the current pay zone.

MR. STAMETS: Okay. While we're waiting for you, for your turn here, would you please take my copy of this map and mark those perforations on there in red, please, and if there are any perforations which are not producing, I'd like to have those noted in some appropriate manner?

MR. LATTU: I can mark it on this one.

MR. STAMETS: Okay, that would be fine.

Sorry about the interruption, Bob, but I do want to get that in the record.

A. Okay. Well, Mr. Examiner, I'm sorry I didn't have those perforations on hand here, but the cross section does show the Harvey E. Yates Company Austin Monteith No. 1 Well, the Phillips Austin No. 1, the Adobe Hannah No. 1, and the Texas Crude Richardson No. 1 Well on the cross section.

Q. (Mr. Strand continuing.) Mr. White, based on your analysis of these logs, does the Austin marker, which you mentioned previously, which is productive in the Austin Monteith No. 1 correlate with the pay zones in the other wells represented on this cross section?

A. Yes, I would say it does.

Q. Have you also analyzed available drill stem tests and other pressure data from the Austin marker underlying these wells?

A. Yes, I have.

Q. Was the Texas Crude No. 1 ever a productive well?

A. No, to my knowledge, it was plugged and abandoned.

Q. Now with respect to the Adobe Hannah No. 1 Well in Section 17, is there any drill stem test data

available from the Austin marker underlying that well?

A. No, as I recall, that well does not have any drill stem test data in the Austin zone.

Q. Am I correct to say that a DST was attempted in that zone but failed?

A. That's right.

Q. Is the Adobe Hannah No. 1 Well producing from the Austin marker?

A. No, in my opinion, this well produces from the Chester in the Mississippian.

Q. When was the Adobe Hannah No. 1 spudded?

A. January 10, 1979.

Q. Mr. White, with respect to the Austin Monteith No. 1 and Austin Phillips No. 1 Wells, also in Section 17, were drill stem tests run in the Austin marker underlying each of these wells?

A. Yes, they were.

Q. I refer you to Exhibit Number Three. Would you identify that exhibit?

A. Exhibit Number Three is a drill stem test which was run on the Harvey E. Yates Company Austin Monteith No. 1 Well.

Q. I refer you to Exhibit Number Four and would you describe that --

MR. STAMETS: Whoa, let's talk about this

and tell me what it shows.

MR. STRAND: Could we discuss both of them at the same time?

MR. STAMETS: Okay, I'm sorry to interrupt.

A. Okay, the Exhibit Number Three, Mr. Examiner, is the drill stem test which was taken on the Harvey E. Yates Company Austin Monteith No. 1 Well on June 3rd, 1979. And then, if I may, I'll go to Exhibit Number Four, which is a drill stem test taken on the Phillips Austin No. 1 in March of 1957.

Q. (Mr. Strand continuing.) Mr. White, would you compare these two drill stem tests with particular reference to pressure data?

A. The Phillips Monteith -- I mean the Phillips Austin Com No. 1 Well in Section 17, 14, 36, had an original reservoir pressure at a depth of 13,305 of 5315, and that's recorded on the drill stem test as the closed-in pressure.

MR. STAMETS: Okay, where can I find that on this exhibit?

A. Okay, it's on the test run by Halliburton and it's under the pressure readings in the lower lefthand corner, closed in pressure.

It did not have an initial shut-in pressure. This is the final shut-in pressure.

MR. STAMETS: Okay. 5315 was the field pressure; 5272 was the corrected pressure?

A. Yes, sir, that's right.

MR. STAMETS: Okay.

A. The Harvey E. Yates Company pressure, which was run on June 3rd, 1979, at a total depth of 13,400 feet, the closed in pressure was 5737, initial, and 5692, final. And that's on the drill stem test, Exhibit Number Three.

MR. STAMETS: Where on Exhibit Number Three?

A. Down in the lower lefthand corner under pressures.

MR. STAMETS: Okay.

A. The closed in pressure, initial, was 5737, and the closed in pressure, final, 5692.

There, again, Mr. Examiner, those are field pressures, and the office pressures are listed alongside the field pressures.

MR. STAMETS: What are the two pressures, then, shown immediately to the right of the pressures in the lefthand columns?

A. The pressures to the immediate right?

MR. STAMETS: Right.

A. Are the -- are the office pressures as calculated from the office versus the field pressures.

MR. STAMETS: Okay, let me read from left to right there on the -- on the first period we've got a closed in pressure of 5737, an office pressure of 5734.8, and then continuing to the right we have 5785, 5803.

A. Okay, those are extrapolated. Those are extrapolated pressures, Mr. Examiner, when there wasn't completely final build-up, if there was still an increase in pressure during the shut-in period, if they felt there was an increase on the end of the pressure, they were extrapolated to that point.

The pressures to a depth of 13,396 at the top of the second column of pressures under Gauge Number 1927.

MR. STAMETS: Okay.

A. Those are those pressures.

MR. STAMETS: Why were they extrapolated to that test? Oh, I see, that's approximate bottom hole.

A. Yes, sir.

MR. STAMETS: Okay, very good.

Q. (Mr. Strand continuing.) Mr. White, I refer you to Exhibit Number Five. Would you please describe this exhibit?

A. Exhibit Number Five is a reservoir pressure comparison between the two key wells, the Phillips Petroleum Company Austin Com No. 1, and the Harvey E. Yates

Company Austin Monteith No. 1.

On this exhibit we note that the closed in reservoir pressure on the Phillips Austin Com No. 1 was 5315 psi compared to a closed in reservoir pressure of 5737 psi on the Austin Monteith Well.

The exhibit also shows that the Phillips Austin Com No. 1 had a production history from 1957 ending with June. 1979, the well produced 4,145,000,000 cubic feet of gas and 58,684 barrels of condensate.

The production on the -- production history on the Harvey E. Yates Company Austin Monteith is zero because that well has not produced.

Now, after this production had been recovered from the Phillips Petroleum Company Austin Com No. 1 Well, after recovering 4-billion plus gas and 58,000 barrels of condensate, the bottom hole pressures on the Phillips well is now 1142 psi.

The bottom hole pressure recently taken on the Austin Monteith No. 1 Well operated by Harvey E. Yates Company is 5760 psi.

And this exhibit, in making this comparison, we wanted to point out the differences in pressure which existed on the Austin Monteith Well, June 3rd, 1979, and compare it with the pressure which exists presently on the Phillips Petroleum Company Austin Com No. 1 Well.

Q. Mr. White, with reference to the Adobe 16 No. 1 Well, which is located in the southwest quarter of Section 16, which is not on the cross section we have on the wall, do you have a drill stem test available on that well as to the pressures in the Austin marker thereunder?

A. Yes, we do.

Q. What is that shut-in pressure in comparison with the Austin Monteith No. 1 and the Austin Phillips Com?

A. This showed a closed-in pressure, bottom hole pressure, of 4834 on March 28th, 1978, and that was the original pressure on this well when it was drilled.

Q. That is also a drill stem test in what we're referring to as the Austin marker, is that correct?

A. Yes, that's right. That's correct.

MR. STAMETS: Do you have a copy of that you plan to introduce in as an exhibit?

MR. STRAND: No, we don't, Mr. Examiner. We can make some, if you wish.

MR. STAMETS: Could I look at that? I would like to have some copies of that submitted for the record.

MR. STRAND: Mr. Examiner, I might point out, that is a different well from any on the cross section.

MR. STAMETS: Okay, that's fine.

MR. STRAND: It's in the southwest quarter

of Section 16.

Q. (Mr. Strand continuing.) Mr. White, do you have a spud date available on that Adobe 16 No. 1 Well?

A. I don't believe I have that information.

MR. STRAND: We could have Mr. Lattu testify as to that.

A. No, I don't have that.

MR. STAMETS: I would like a copy of this, not the charts --

MR. STRAND: Just the front page?

MR. STAMETS: Right.

Q. Mr. White, in your opinion is there any significance as to the difference in pressure between the Adobe 16-1 Well and the Austin Phillips Well as opposed to the Austin Monteith?

A. Yes, yes, there's significance.

Q. Would you please state the significance of those differences?

A. The -- the Harvey E. Yates Austin Monteith Well, of course, has the higher bottom hole pressure, higher closed in pressure, at the present time over the pressure in the Phillips Austin No. 1 Well, after the Phillips Austin No. 1 Well has produced the 4-billion plus production. The Adobe 16 No. 1 Well has a lower close in pressure originally than the Harvey E. Yates Company Phillips Monteith

Well and this indicates to me that there was some subtle pressure interference between the Adobe 16 No. 1 Well and the -- the Phillips Austin Well.

Q. Mr. White, referring back to Exhibit Two, the cross section, there's an indication of a fault between the Austin Monteith No. 1 Well and the Phillips Austin Well. In your opinion could such a fault be a pressure barrier accounting for the pressure difference between these two wells?

A. Yes, this could account for it. There would have to be some kind of a fault, a permability barrier between the Harvey E. Yates Austin Monteith Well and the Phillips Austin Com No. 1 Well.

Q. What was the spud date of the Austin Phillips Well?

A. November 12, 1956.

Q. And the production from that well has been from what we refer to as the Austin marker?

A. Yes, that's correct.

Q. Mr. White, do you have an opinion as to whether the Austin Monteith No. 1 and the Austin Phillips No. 1 produce from separate and distinct reservoirs?

A. Yes, they do.

Q. Based on your analysis of all the wells in the area of the Austin Monteith No. 1, do you have an opinion

as to whether any other wells have penetrated the productive reservoir underlying the Austin Monteith No. 1?

A. The reservoir underlying the Austin Monteith No. 1 Well is -- has to be a separate and distinct reservoir from the other Austin zones which have been produced in the area. Other wells have, yes, penetrated the Austin pay zone.

Q. But not the reservoir underlying the Austin Monteith Well?

A. No, they have not.

Q. You've testified as to Exhibits Number One and Two. Who prepared these exhibits?

A. Mr. Andy Lattu, Harvey E. Yates Company geologist.

Q. Are you satisfied as to their accuracy and reliability?

A. Yes, I am.

Q. Were Exhibits Three, Four, and Five prepared by you or under your supervision?

A. Yes, from information from Harvey E. Yates Company files.

MR. STRAND: That's all I have from Mr. White.

MR. STAMETS: I would like to have the drill stem test Mr. White referred to copied and marked as

Exhibit Five-A.

A. That's the one on the Adobe 16.

MR. STAMETS: Let me look at that exhibit one more time.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. White, referring back to Exhibit Five-A, which is the Adobe State 16 DST, looking at the lefthand side of this booklet, there are some pressures recorded there. Do the horizontal lines at the end of each build-up period indicate that the pressures have stabilized or is that something else I'm reading there?

A. No, they do indicate they've stabilized to a certain extent. It's very difficult, Mr. Examiner, with the naked eye to tell if there has been complete stabilization, but those just, on a visual examination, I would say they have stabilized.

Q. Now we don't have a log of this particular well shown on the cross section. Have you examined that log to see that that well is indeed completed in the same interval as the Austin pay?

A. No, sir, I have not done that.

Q. But if it was, your testimony would be that what we're seeing here is pressure decline in this well due

to drainage from the Phillips Well?

A. Yes, sir, in my testimony I'd like to be explicit that the Phillips Austin Com No. 1 Well has interferred with the Adobe 16 No. 1 Well, based on the drill stem test, original bottom hole pressure information, but neither well has interferred with the Harvey E. Yates Company Austin Monteith No. 1 Well, which I feel is in a separate and distinct reservoir.

Q. Looking at the map and just gauging the distances, it would appear as though the Harvey E. Yates Austin Monteith is about ten percent further from the Phillips well than the Adobe State 16.

With this small difference, would you expect to see some interference, pressure interference in the HEYCO Well if there was no barrier between the Phillips well and the HEYCO well?

A. Yes, you would have seen some difference, especially after the Phillips Monteith -- or Phillips Austin No. 1, I'm sorry, Well had produced fro this length of time. You would have definitely seen some pressure decline on the Harvey E. Yates Company Austin Monteith Well.

MR. STAMETS: Are there any other questions of this witness? He may be excused.

If I failed to admit these Exhibits one through Five-A, I will admit them now, and ask that both

sides of Exhibit Five-A be copied for the record.

MR. STRAND: Call Mr. Andrew Lattu.

ANDREW LATTU

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

DIRECT EXAMINATION

BY MR. STRAND:

Q. State your name, please.

A. Andrew Lattu.

Q. What is your occupation, Mr. Lattu?

A. Geologist.

Q. Are you employed by Harvey E. Yates Company?

A. Yes, I am.

Q. Have you testified before the Division in the past?

A. Yes, I have.

Q. Are your qualifications as an expert witness a matter of record before the Division?

A. Yes, they are.

MR. STRAND: Are Mr. Lattu's qualifications acceptable?

MR. STAMETS: They are.

Q. Mr. Lattu, you've heard Mr. White's testimony as to the productive formation underlying the Austin Monteith No. 1 Well, which he referred to as the Austin marker.

Would you describe that formation in a little more detail as to its geologic terms?

A. All right. Referring to Exhibit Number Two, what is labeled on that as the Austin Pay Zone, I have designated that Austin Pay Zone on this cross section with reference to the Phillips No. 1 Austin Well, which is produced from that zone.

The zone is a limestone. It's composed chiefly of opthalmid forams, which are a bank -- these opthalmid forams are a small shell creature which is built up in a bank deposit in this area, probably due to currents and wave action. I call it Lower Pennsylvanian because to my knowledge there are no or very few Foraminifera of Mississippian age.

The Phillips well, however, has designated this as a Mississippian reservoir and my opinion of it being Lower Pennsylvanian isn't entirely unique, not everyone agrees with it. Some people continue to call it Mississippian, so it's a point of interpretation.

However, this bank is deposited through this area and contains significant amounts of commercial gas

More or less it's aligned with the crest of a northeast/southwest trending anticline.

I have examined the samples of all the wells in the area that have penetrated this zone. All these wells on Exhibit Number Six have a subsea point on them, which is a structural point. This is a subsurface map contoured on the top of the Austin marker zone.

Q. Would you care to go on to any more detail on Exhibit Six, since we've brought that up?

A. On Exhibit Six it shows, as I've described, it's essentially a gross feature. This is a northeast/southwent trending anticline. It has a fault on the east side, which it more or less parallels this structural anticline. There is also a minor fault which trends northeast/southwest across the crest of this feature.

There are several indications we have to support this fault. The first, of course, is the depth at which we encountered this Austin marker on our HEYCO No. 1 Austin Monteith Well, being so low to the trend of wells in this area.

We also have a seismic line, which I've brought along, though we haven't labeled it an exhibit, but we could. It is an east/west seismic section, which runs across Section 18, Section 17, Section 16, and on into Section 15 of Township 14 South, Range 36 East.

This was a seismic line that was shot in partnership with Yates Petroleum and Adobe. The purpose of the seismic line was to locate this major fault on the east side of the structure. There was some concern as to the location of the No. 2 Well, which Adobe was at that time planning on drilling in Section 16, and now has been drilled. But we didn't want to get too close to the fault with that location.

I've indicated in red the approximate Devonian horizon across -- this is an east/west section. This is the large fault on the east side of the feature I've referred to, and there is a minor disruption and you can see in the data here, which doesn't go above the Pennsylvanian, but you can see very definitely that the data is disrupted at this interval.

And referring to Exhibit Two, I believe that disruption is equivalent to this fault I have shown here between Wells No. 2 and 3 on this cross section. The cross section is hung on a datum on the top of the Atoka, and as you can see, in the HEYCO No. 1 Austin Monteith there is a considerable amount of thickening of this Atoka section as opposed to the other three wells along this cross section.

I believe this dates the fault in the age of probably Morrow or Lower Atoka.

The Austin zone is therefore dropped down

lower both structurally and somewhat thicker than is found in the nearest well which penetrated the Austin zone, which is the Adobe No. 1 Hannah.

This fault then would be of age of approximately 300-million years since the last movement occurred.

Q. Mr. Lattu, with reference to the Adobe 16 No. 1 Well, situated in the southwest quarter of Section 16, have you studied the logs for that particular well?

A. Yes, I have.

Q. Are you satisfied that it also produces from what we refer to as the Austin marker?

A. Yes, it does.

Q. For the record, could you tell us the approximate spud date of that well?

A. It was spudded sometime after the first of January, 1978. I don't have the exact spud date with me, but a copy of the electric log shows that it was logged in April, 1978, and the well, I believe, took approximately 40-some days to drill.

Q. In any event, it was spudded after February 19th, 1977?

A. Yes, it was.

MR. STRAND: Mr. Examiner, I move the admission of Exhibits One through Five and Five-A and Six.

MR. STAMETS: We've already got the earlier

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

exhibits in and we will accept Exhibit Six into evidence.

Q. Mr. Lattu, again for the record, did you prepare Exhibits One, Two, and Six?

A. Yes, I did.

MR. STAMETS: Mr. Lattu, is this seismic record confidential information that Yates does not wish to make public?

A. It was shot in partnership with Adobe and Yates Petroleum and Adobe at the time requested that we restrict the dissemination of it.

I'm sure we could enter it in evidence. I haven't just checked with them to get their permission but we would need their permission.

MR. STAMETS: That would be fine. This could be submitted at a later date.

A. Yes, it could.

MR. STAMETS: For purposes of dealing with the Federal Energy Regulatory Commission we can develop a record on this issue even outside that which is developed at this hearing. So, if possible, I would suggest that you make this or a copy of it or at least this slice across here that shows the two faults, and something indicating the line of your section, or your seismic line across the area, and that can be submitted after this hearing.

Something else that I would like to have, is

a copy of the log on the Adobe 16 Well, or that portion of the log which equates to the logs which are shown on Exhibit Number Two with the appropriate tops marked and the perforated interval.

A. All right.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Now, on Exhibit Number Six, Mr. Lattu, without information such as you have here on your seismic line, could you have contoured this without having put the east/west fault in there?

A. It's possible to contour it that way; however, due to the trend established by the well down in Section 19, the Cabot Corporation No. 1 Austin State, the Phillips No. 1 Austin, and the Adobe No. 1 Hannah, we see all these wells here within 78 feet of each other covering a considerable distance. This establishes a fairly strong northeast/southwest strike. To contour in the HEYCO No. 1 Austin Monteith, I'd have had to put a very steep dip. This is contoured on a 50-foot interval; to go from the 9200 to 9372 there's 172 feet of difference, and the steep dip would be shown by contours spaced very closely together, much more closely than we see elsewhere in the region, and even though there would be no fault line there, the inference

of the possibility of a fault would still exist.

Q. Is the -- is faulting the common situation that we find in the deeper horizons in the southeast New Mexico Devonian - Mississippian zones?

A. Most larger structures are associated with a fault to some degree.

Q. So the faults that you've put in here are not surprising faults. They don't look abnormal in the -- in the usual context of mapping the deeper horizons?

A. No, they do not.

Q. Considering the nature of the formation that's productive for the Austin zone, do you feel that it is appropriate that the pressure decline in the Phillips well, Phillips Austin Well, was reflected in the Adobe State 16 Well?

A. Yes, it seems appropriate for that amount of gas over that period of time should have shown some decrease.

Q. And unless there was a -- some sort of a barrier between the Phillips well and the HEYCO Austin Monteith, would you expect to see a pressure decline or pressure interference reflected in the Austin Monteith Well?

A. Yes, I would.

Q. Looking at Exhibit Six I see no producing wells, other than the Austin Monteith, located on the north

side of the east -- short east/west fault, is that correct?

A. Yes, that is correct. The Sinclair Richardson attempted completion in the zone but was unsuccessful.

Q. All right. Are there other wells north of that line which penetrated the Austin zone?

A. Yes, there are. In addition to the Sinclair Richardson, there is the Superior Betenbough up in Section 32 of 13, 35, and there is the Zapata No. 1 Danglade, which was drilled in the northeast quarter of Section 3 of Township 14, 36.

Q. And both of those wells are outside the 2-1/2 mile radius circle drawn from the Austin Monteith, is that correct?

I think you'll see that line on Exhibit Number One.

A. Okay. Yes, they are.

Q. Have you examined the records on those wells to determine whether or not they tested this zone?

A. Yes, I've examined the records and neither the Betenbough nor the Zapata Danglade attempted any test of this zone.

MR. STAMETS: Any other questions of this witness? He may be excused.

MR. STRAND: We have nothing further, Mr. Examiner.

MR. STAMETS: All right. Anything further in this case?

The case will be taken under advisement.

(Hearing concluded.)

SALLY W. BOYD
CERTIFIED SHORTHAND REPORTER
1010 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

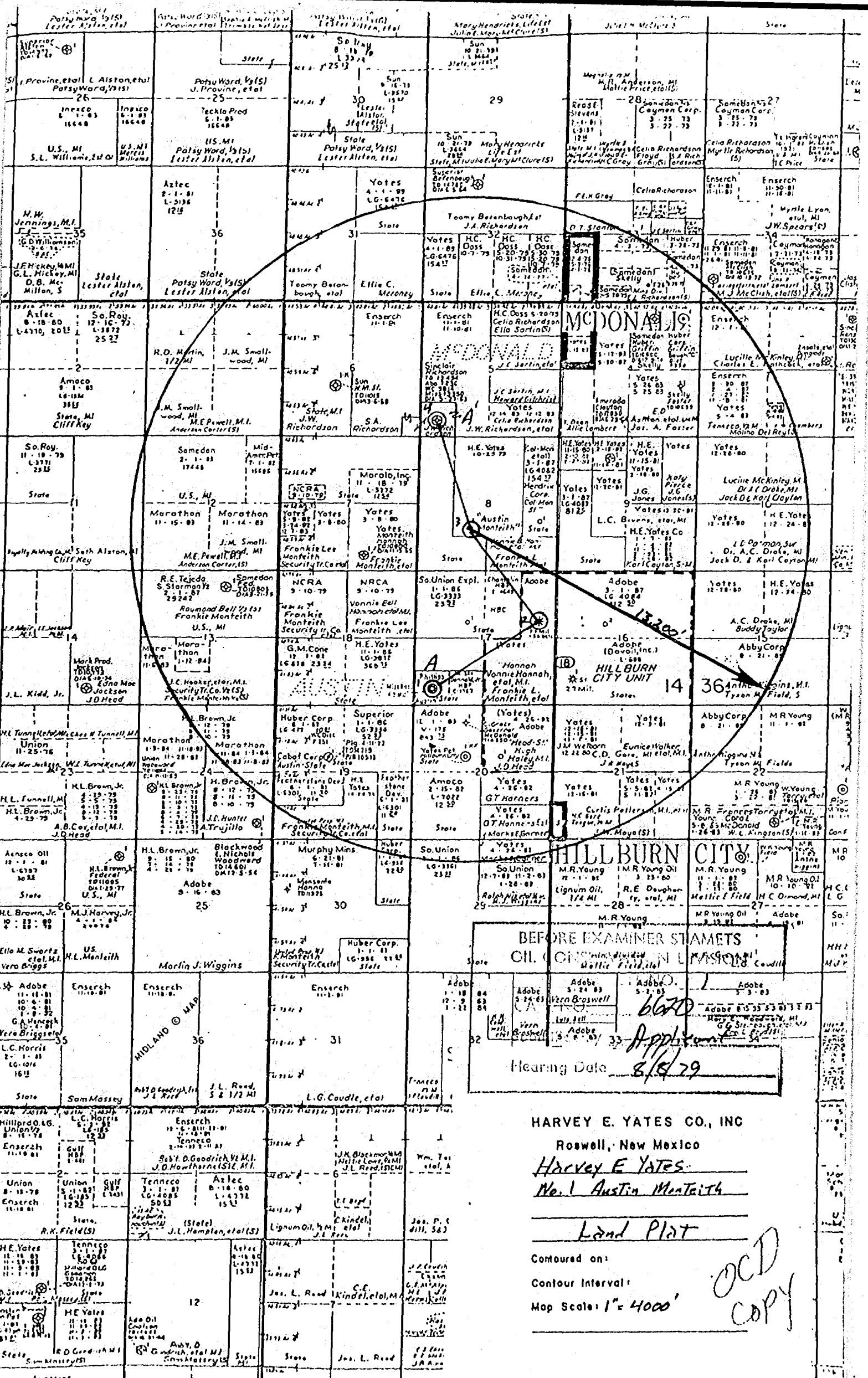
REPORTER'S CERTIFICATE

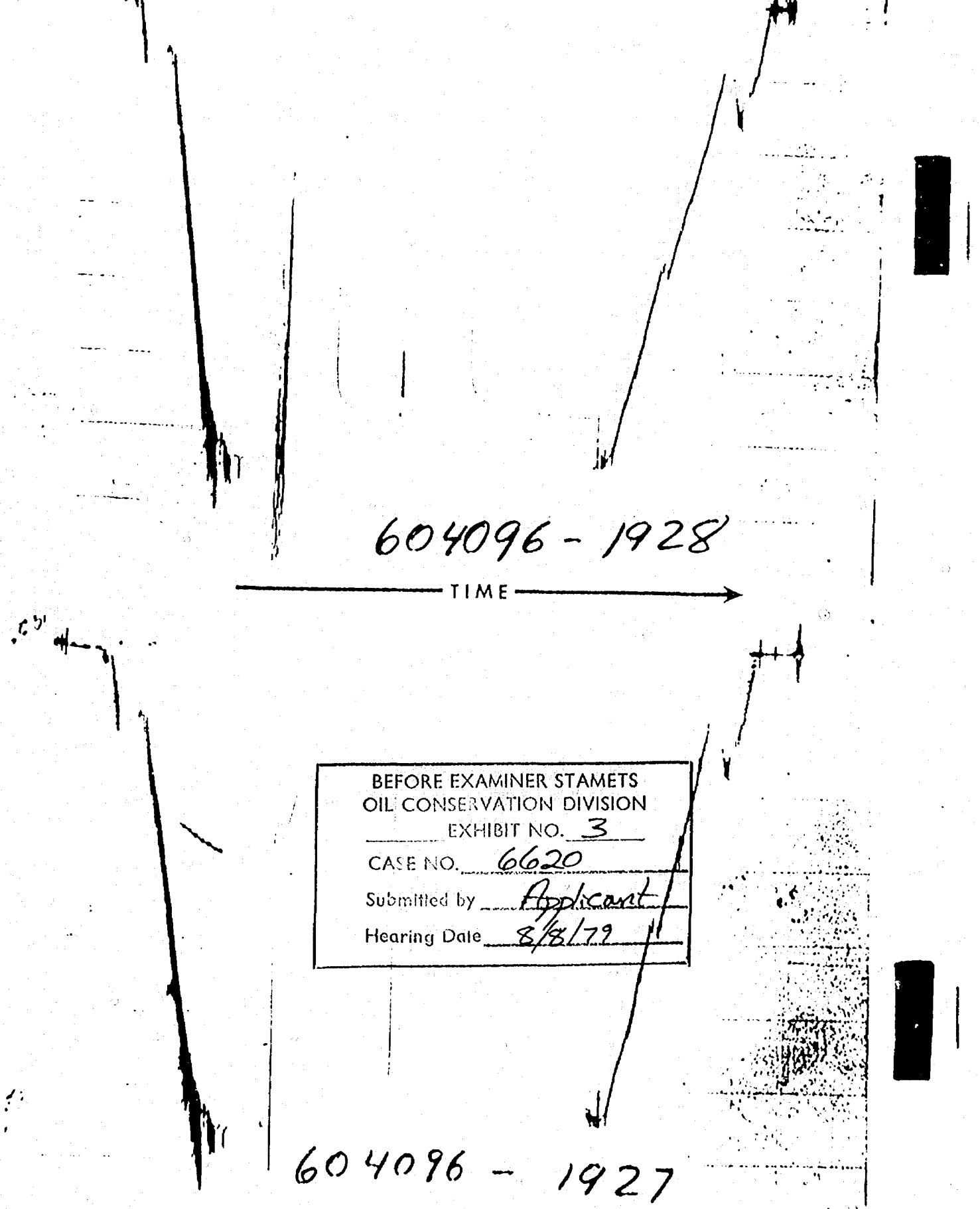
I, SALLY W. BOYD, a court reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, from my notes taken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

Sally W. Boyd C.S.R.
Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6620 heard by me on 8-15 19.72.
Richard L. Stamets, Examiner
Oil Conservation Division

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501


McDONALD
HILLBURN CITY UNIT
"Austin Monteith"
13,200'
BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
Case No. 6620
Applicant
Hearing Date 8/8/79
HARVEY E. YATES CO., INC
Roswell, New Mexico
Harvey E Yates
No. 1 Austin Monteith
Land Plat
Contoured on:
Contour Interval:
Map Scale: 1" = 4000'
OCD COPY
MIDLAND © MAP



BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 3
CASE NO. 6620
Submitted by Applicant
Hearing Date 8/8/79

Each Horizontal Line Equal to 1000 p.s.i.

FLUID SAMPLE DATA

Sampler Pressure 600 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas 2.5
cc. Oil 50
cc. Water
cc. Mud
Tot. Liquid cc.
Gravity ° API @ °F.
Gas/Oil Ratio cu. ft./bbl.

	RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@ °F		ppm
Recovery Mud	@ °F		ppm
Recovery Mud Filtrate	@ °F		ppm
Mud Pit Sample	@ °F		ppm
Mud Pit Sample Filtrate	@ °F		ppm

Mud Weight 9.6 vis 48 sec

Date 6-3-79 Ticket Number 604096
Kind of Job OPEN HOLE Halliburton District HOBBS
Tester MR. FLETCHER / MR. JENNINGS Witness MR. HARDIS
Drilling Contractor MORANCO DRILLING CO. RIG #7 IC

EQUIPMENT & HOLE DATA

Formation Tested Mississippi
Elevation 3965.9' GL 3980.9' KB Ft.
Net Productive Interval 165' Ft.
All Depths Measured From Kelly Bushing
Total Depth 13,400' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 585' I.D. 2.25"
Drill Pipe Length 5310'-7415' I.D. 3.826"-3.640"
Packer Depth(s) 13,227'-13,232' Ft.
Depth Tester Valve 13,191' Ft.

Cushion TYPE 2000' AMOUNT FRESH WATER Ft. Depth Back Pres. Valve
Surface Choke FLOOR Bottom Choke MANIFOLD .75"

PRESSURED DRILL PIPE WITH 1200# NITROGEN

Recovered 518 Feet of Distillate
Recovered 2000 Feet of Gas cut mud
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks SEE PRODUCTION TEST DATA SHEET.

TEMPERATURE	Gauge No. 1928 Depth: 13,212' Ft. 24 Hour Clock		Gauge No. 1927 Depth: 13,396' Ft. 24 Hour Clock		Gauge No. Depth: Ft. Hour Clock		TIME	
Est. 200+ °F.	Blanked Off NO		Blanked Off YES		Blanked Off		Tool Opened 7:43	A.M. P.M.
Actual °F.	Pressures		Pressures		Pressures		Opened Bypass 5:12	A.M. P.M.
	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic	6365	6367.7	6538	6534.2				
First Period Flow Initial	2483	2492.0	2571	2573.7			———	———
First Period Flow Final	1394	1358.2	1393	1402.7			83	89
First Period Closed In	5737	5734.8	5785	5803.6			118	119
Second Period Flow Initial	1031	1088.4	1162	1152.7			———	———
Second Period Flow Final	1281	1260.7	1324	1314.8			120	114
Second Period Closed In	5692	5698.8	5739	5760.2			240	239
Third Period Flow Initial							———	———
Third Period Flow Final								
Third Period Closed In								
Final Hydrostatic	6365	6356.5	6493	6420.0			———	———

Legal Location Sec. - Twp. - Rng. 8 - 14S - 36E
Lease Name
Well No.
Test No.
Field Area NORTH LOVINGTON
Mud From Tester Valve
Tested Interval
County LEA
Lease Owner/Company Name
State NEW MEXICO

FORM 101-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE B 102668 5M 8/78

Casing perfs._____ Bottom choke._____ Surf. temp._____ °F Ticket No. 604096

Gas gravity_____ Oil gravity_____ GOR_____

Spec. gravity_____ Chlorides_____ ppm Res._____ @_____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED_____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
11:15					Testers on location.
1:45					Picked up tools.
2:50					Started in hole.
3:10					Put in water cushion.
6:36		1200			Put in nitrogen.
7:43		875			Opened tools.
7:46		900			Pressure increased.
7:50		1000			Pressure increased.
7:52	1/4"	1350			Opened to choke.
7:57	1/4"	1350			
8:02	3/8"	1300			Changed chokes.
8:02	3/8"	1250			Pressure decreased.
8:07	3/8"	1175			Pressure decreased.
8:12	30/64'	950			Changed chokes.
8:17	30/64'	950			Pressure decreased.
8:22	30/64'	900			Pressure decreased.
8:28	3/4"	700			Changed chokes.
8:37	3/4"	500			Pressure decreased.
8:42	3/4"	450			Pressure decreased.
8:47	3/4"	375			Pressure decreased.
9:07	3/4"	375			Gas to surface.
9:14	3/4"	355			
9:14	3/4"	355			Closed tool.
11:12	5/8"				Opened tool for second flow.
11:17	5/8"	5			Pressure increased.

FORM 102-A1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 00000 8M 3/74

Casing perfs. ________ Bottom choke ________ Surf. temp ________ °F Ticket No. 604096
Gas gravity ________ Oil gravity ________ GOR ________ PAGE #2
Spec. gravity ________ Chlorides ________ ppm Res. ________ @ ________ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED ________

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
11:22	5/8"	11			Pressure increased.
11:27	5/8"	150			Water blanket to surface.
11:32	5/8"	250			Pressure increased.
11:37	5/8"	300			Pressure increased.
11:42	5/8"	340			Pressure increased.
11:47	5/8"	350			Pressure increased.
11:52	5/8"	360			Pressure increased.
11:57	5/8"	375			Pressure increased.
12:02	5/8"	380			Pressure increased.
12:07	5/8"	370			Pressure increased.
12:12	5/8"	400			Pressure increased.
12:22	5/8"	410			Closed in at surface due to leak.
12:32	5/8"	380			Reopened - pressure decreased.
12:42	5/8"	340			Pressure decreased.
12:52	5/8"	330			Pressure decreased.
1:02	5/8"	310			Pressure decreased.
1:12	5/8"	310			Pressure decreased.
5:12					Opened bypass.
9:00					Reversed out.

PRODUCTION TEST DATA

Gauge No. 1928			Depth 13,212'			Clock No. 11954			24 hour	Ticket No. 604096				
	First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.000	2492.0	.000		1358.2	.000	1088.4	.000		1260.7					
1	(.021 | 2589.5C)	.0240		5119.1**	.0647	1287.9	.0503		5382.0***					
2	.0380	2569.1*	.0514		5523.5	.1293	1387.7	.1040		5507.8					
3	(.053	2548.7C)	.0789		5602.2	(.183	1371.8AC)	.1577		5555.0					
4	.0729	2346.9	.1063		5638.2	.1941	1376.4	.2114		5586.5					
5	.1077	2029.4	.1337		5660.6	(.234 | 1351.4AC)	.2651		5608.9					
6	(.130 | 1913.8C)	.1612		5676.4	.2588	1335.6	.3188		5626.9					
7	.1426	1802.7	.1886		5689.8	(.314 | 1267.5AC)	.3724		5642.6					
8	.1774	1485.2	.2160		5698.8	.3235	1272.1	.4261		5653.9					
9	(.196 | 1412.7C)	.2434		5707.8	.3880	1260.7	.4798		5662.9					
10	.2123	1408.1	.2709		5714.6			.5335		5671.9					
11	.2471	1383.2	.2983		5719.1			.5872		5678.6					
12	.2820	1358.2	.3257		5725.8			.6409		5685.3					
13			.3532		5730.3			.6946		5689.8					
14			.3806		5732.5			.7483		5694.3					
15			.4080		5734.8			.8020		5698.8					
Gauge No. 1927					Depth 13,396'			Clock No. 5991			24 hour				
0	.000	2573.7	.000		1402.7	.000	1152.7	.000		1314.8					
1	(.027 | 2668.1C)	.0236		5285.3**	.064	1342.5	.0503		5422.3***					
2	.0402	2652.0*	.0506		5591.3	.128	1442.1	.1040		5561.6					
3	(.062	2617.4C)	.0775		5668.9	(.186	1425.9AC)	.1577		5616.4					
4	.0770	2463.1	.1045		5703.1	.192	1428.2	.2114		5646.1					
5	.1138	2131.3	.1314		5726.0	(.236 | 1407.4AC)	.2651		5671.2					
6	(.146 | 1969.9C)	.1584		5742.0	.256	1395.8	.3188		5689.4					
7	.1506	1935.1	.1854		5753.4	(.313 | 1324.0AC)	.3724		5703.1					
8	.1874	1557.8	.2123		5767.1	.320	1326.3	.4261		5714.6					
9	(.208 | 1465.2C)	.2393		5773.9	.384	1314.8	.4798		5726.0					
10	.2242	1453.7	.2662		5778.5			.5335		5732.8					
11	.2610	1432.8	.2932		5785.3			.5872		5739.7					
12	.2980	1402.7	.3202		5789.9			.6409		5744.2					
13			.3471		5794.5			.6946		5751.1					
14			.3741		5799.0			.7483		5755.7					
15			.4010		5803.6			.8020		5760.2					
Reading Interval	11		8			19		16							Minutes

REMARKS: *First interval equal to 12 minutes **=7 minutes ***=15 minutes C=Choke change AC=Apparent choke change

TICKET NO. 604096

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	3"	1'	
Water Cushion Valve	4.50"	3.826"	5310'	
Drill Pipe	4.50"	3.640"	7415'	
Drill Collars	6.25"	2.25"	585'	
Handling Sub & Choke Assembly			1' X OVER	
Dual CIP Valve				
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	13,191'
Multiple CIP Sampler	5"	.75"	4'	
Extension Joint	5"	.87"	15' (3 each)	
AP Running Case	5"	3.25"	5'	13,212'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	7"	1.53"	5'	13,227'
Distributor	5"	1.68"	2'	
Packer Assembly	7"	1.53"	5'	13,232'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint	5.75"	1.50"	4'	
Side Wall Anchor	6"		1' X OVER	
Drill Collars	6.25"	2.25"	124'	
	5.75"		1' X OVER	
Flush Joint Anchor	5.75"	3.50"	32'	
Blanked-Off B.T. Running Case	5.75"	3.50"	6'	13,396'
Total Depth				13,400'

FORM 101-R1—PRINTED IN U.S.A.

EQUIPMENT DATA

LITTLE'S DATA INC 8/1

LOCATION	-		
FIELD	Wildcat	Halliburton OIL WELL CEMENTING CO	
COUNTY	Lea		
STATE	New Mexico		
CONTRACTOR	Parker Drlg. Company		
MUD DATA			
Kind	Oil Base		
Weight	9 lbs. gal.		
Viscosity	46 sec.		
Filter Loss	5 c. c. Filter Cake 2/64 in.		
Est. Casing Depth Temp.	Actual 232 F°		
Time Tool Open	2 hours, 35 minutes		
Time Closed In	17 minutes		
Depth RT. Gauge	13,295'		
RT. P. R. D. No.	105	Blanked Off	no
24 Hr. Clock No.	3758		

Pressure Readings	Field	Office Corrected
Initial Hydro Mud Pressure	6560	6230 p.s.i.
Initial Flow Pres.	2310	2271 p.s.i.
Final Flow Pres.	1880	1842 p.s.i.
Closed In Pres.	5315	5272 p.s.i.
Final Hydro Mud Pressure	6480	6162 p.s.i.

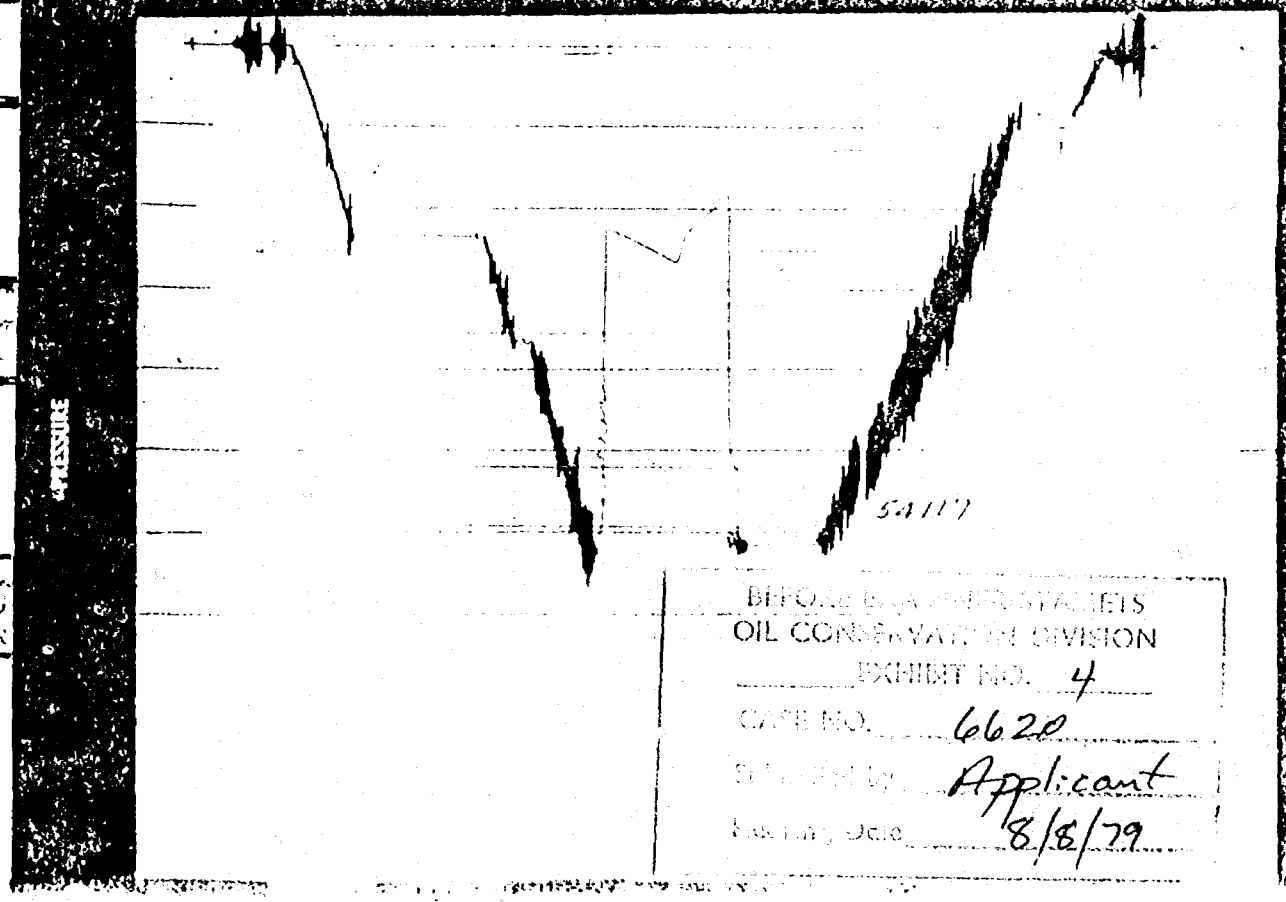
HOLE AND TOOL DATA

Total Depth	13,305'	Open Perforations	Type -
Top Packer Depth	13,191'	Bottom Packer Depth	13,195'
Casing or Hole Size	8 3/4"	Liner or Packer Size	-
Perforations Tested	Miss.		
Size Drill Pipe	4½" F.H. 16.60#	Size Drill Collars	2¼" I.D. x 510'
Size Bottom Choke	5/8"	Size Surface Choke	1" & 5/8"
Size Flank Well Packer	-	Size Rings -	No. Rings -
Size & Type Well Packer	7 3/4" E.S.G.		No. Packers 2
Size & Length Anchor	48' x 5 3/4" P.J. & 62' x 7" D.C.		
FLD Packer No.	3036	Depth 13,300'	Blanked Off yes

REMARKS: Tool opened with a strong blow of air. Water blanket to surface in 1 hour and 30 minutes, Gas to surface in 1 hour and 40 minutes, flowed estimated 1,541 MCF. No oil to surface. Recovered 660' of distillate and 1374' of water blanket, gas cut.

Amount of Cushion 4946' All depths measured from Rotary Table

Date	1-10-57
Ticket No.	5411
Nowco DISTRICT	Lovington
Kind of Job	Open Hole
Price	$335.00
Normal Packer Accessories	79.00
Safety Joint	
Extra Packer Assembly Charges	
Run Bowen	100.00
Total	$514.00
Witnessed By	Mr. Hutsell
Tester	W. Gentry
No. Tickets Encountered	5



BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 4
CASE NO. 6620
Submitted by: Applicant
Hearing Date: 8/8/79

HARVEY E. YATES

AUSTIN MONTEITH NO. 1

Located Unit N, Section 8
Township 14 South, Range 36 East
Lea County, New Mexico

RESERVOIR PRESSURE COMPARISON

PHILLIPS PETR. CO., AUSTIN COM.
NO. 1M SECTION 17-T-14S-R36E
LEA COUNTY, NEW MEXICO

1. Original Reservoir Pressure

   a. Total Depth 13,305
   b. Depth of Packers-Top (13,191'), Bottom (13,195')
   c. Closed in Reservoir Pressure 5315 psi

2. Production History
   a. June 3, 1979, well had produced 4,145,030 MCF Gas and 58,684 Bbls. Condensate.

3. Present Bottom Hole Pressure

   a. 1142 psi
   b. Production apparently has ceased.

HARVEY E. YATES

AUSTIN MONTEITH NO. 1

Located Unit N, Section 8
Township 14 South, Range 36 East
Lea County, New Mexico

1. Original Reservoir Pressure, June 3, 1979

   a. Total depth 13,400
   b. Depth of Packer - Top (13,227'), Bottom (13,232')
   c. Closed in Reservoir pressure 5737 psi. Initial, 5692 psi. Final.

2. Bottom Hole Pressure Survey, August 5, 1979

   a. 13,000' - 5,760 psi

3. Production History

   a. Well has not been produced.

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 5
CASE NO. 6620
Applicant
8/8/79

State 16 No 1

FLUID SAMPLE DATA

Sampler Pressure 1200 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas 7.32
cc. Oil
cc. Water ~~(DRY)~~
cc. Mud
Tot. Liquid cc.
Gravity ° API @ °F.
Gas/Oil Ratio cu. ft./bbl.

	RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@	°F.	ppm
Recovery Mud	@	°F.	ppm
Recovery Mud Filtrate	@	°F.	ppm
Mud Pit Sample	@	°F.	ppm
Mud Pit Sample Filtrate	@	°F.	ppm

Mud Weight 9 vis 52 sec

Date 3-28-78 Ticket Number 411127
Kind of Job OPEN HOLE TEST Halliburton District HOBBS
Tester D. JENNINGS / D. ALBERTSON Witness BILL OWENS
Drilling Contractor MORANCO DRILLING COMPANY PW

EQUIPMENT & HOLE DATA

Formation Tested Mississippi
Elevation Ft.
Net Productive Interval 124' Ft.
All Depths Measured From Kelly Bushing
Total Depth 13310' Ft.
Main Hole/Casing Size 8 1/2"
Drill Collar Length 544' ?? I.D. 2 1/4"
Drill Pipe Length 12910' ?? I.D. 3.826" - 2.764"
Packer Depth(s) 13180' - 13186' Ft.
Depth Tester Valve 13166' Ft.

Cushion TYPE	AMOUNT	Depth Back Pres. Valve Ft.	Surface Choke	Bottom Choke

Recovered 613 Feet of slightly gas cut mud.
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks

SEE PRODUCTION TEST DATA SHEET.....

TEMPERATURE	Gauge No. 3645 Depth: 13171 Ft.		Gauge No. 3644 Depth: 13306 Ft.		Gauge No. Depth: Ft.		TIME	
	24 Hour Clock		24 Hour Clock		Hour Clock		Tool Opened 0245 A.M. / P.M.	
Est. °F.	Blanked Off No		Blanked Off Yes		Blanked Off		Opened Bypass 1001 A.M. / P.M.	
Actual 184 °F.	Pressures		Pressures		Pressures			
	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic	6267	6212	6275	6284				
First Period Flow Initial	174	264	233	335			—	—
First Period Flow Final	196	164	254	225			15	15
First Period Closed in	3822	3803	3824	3825			60	61
Second Period Flow Initial	196	273	233	297			—	—
Second Period Flow Final	218	201	254	225			120	120
Second Period Closed in	4834	4817	4967	4843			240	240
Third Period Flow Initial							—	—
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic	6267	6121-Q	6275	6246			—	—
	Q = Questionable.							

Legal Location Sec. - Twp. - Rng.	
Lease Name	STATE "16"
Well No.	1
Test No.	2
Tested Interval	13186' - 13310'
Field Area	WILDCAT
Mea. From Tester Valve	
County	LEA
State	NEW MEXICO
Lease Owner/Company Name	ADOBE OIL & GAS COMPANY

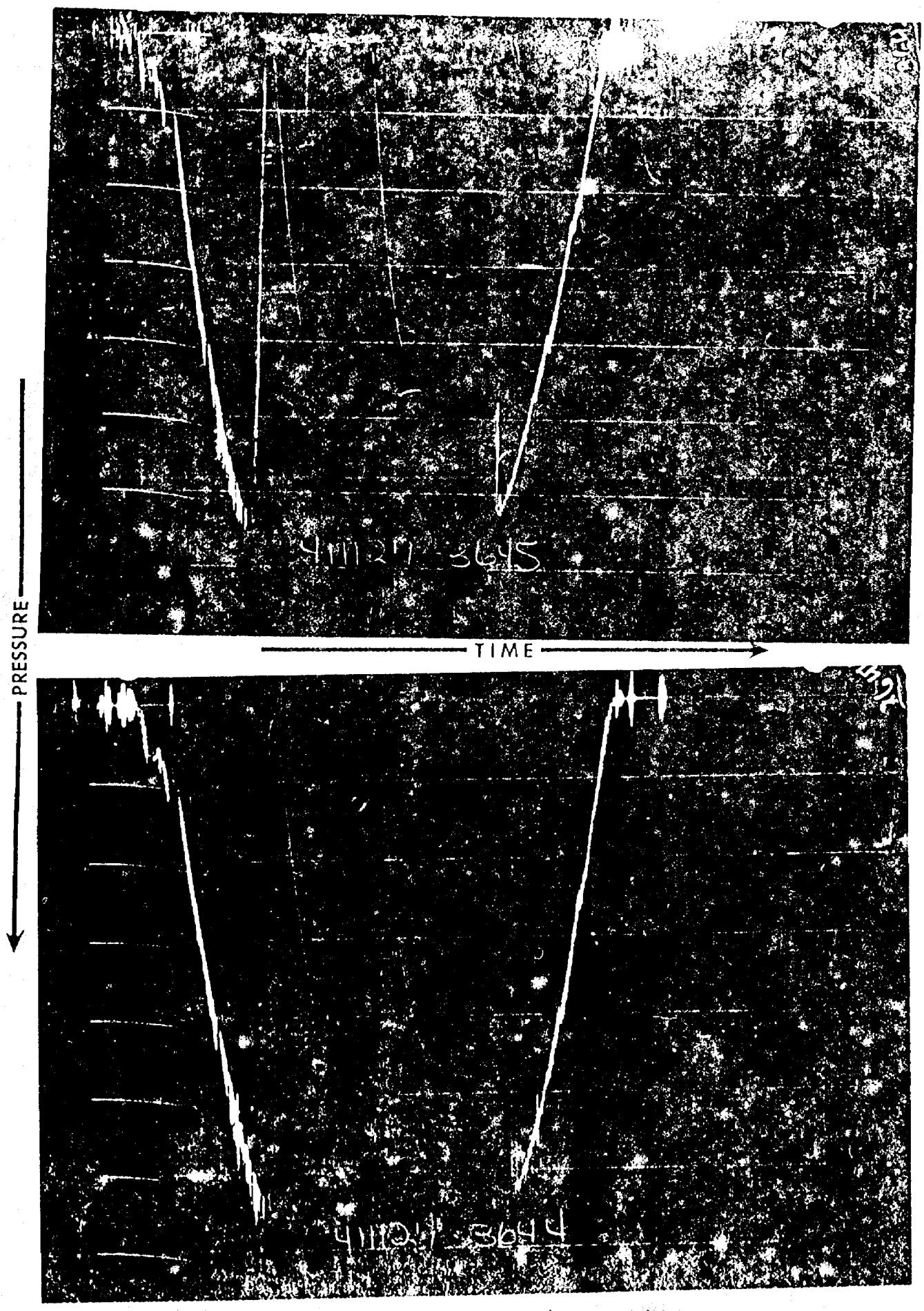
FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

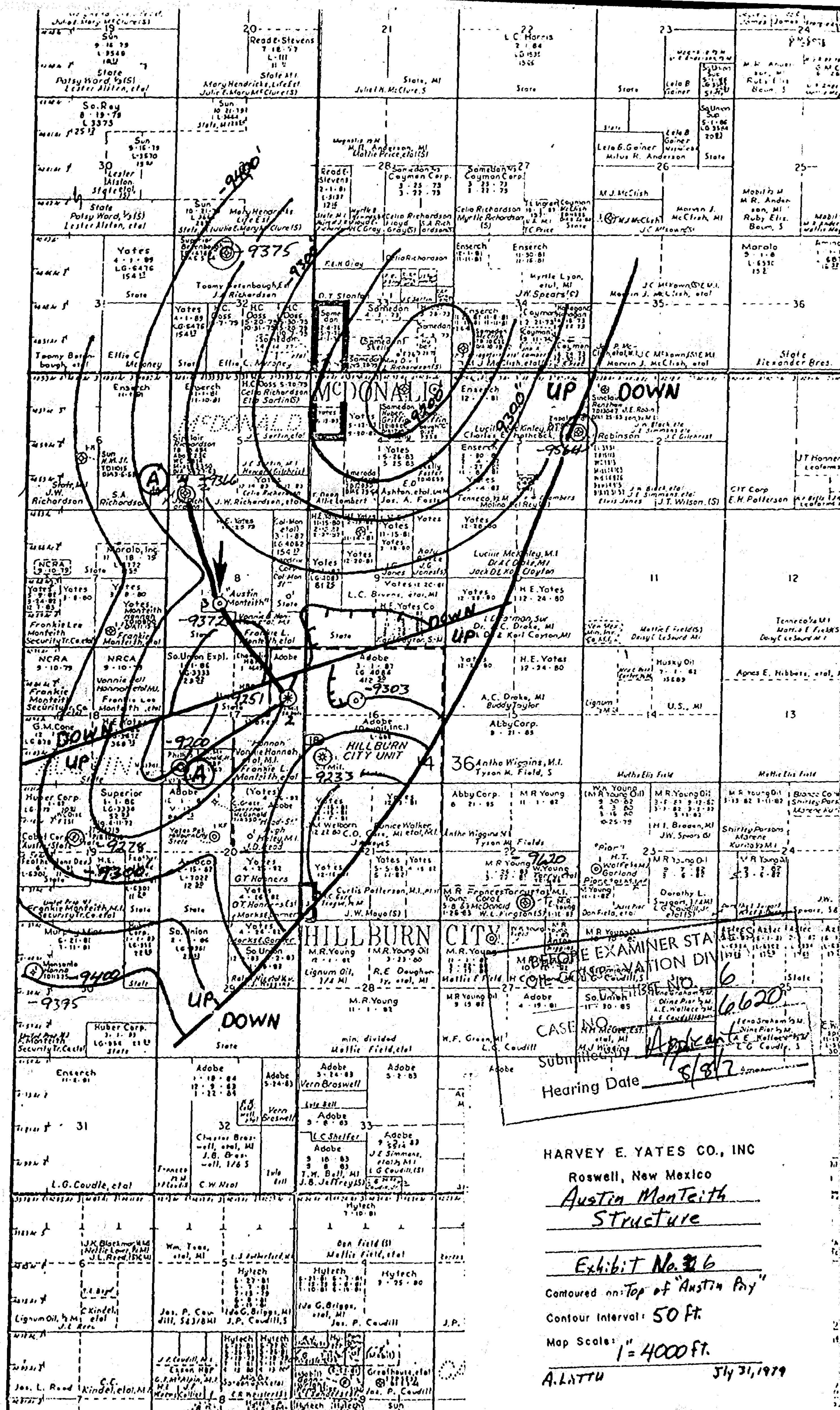
LITTLE'S 103348 1M 3/76

Case 6620
Exhibit 5A

6



Each Horizontal Line Equal to 1000 p.s.i.


HARVEY E. YATES CO., INC
Roswell, New Mexico
Austin MonTeith
Structure
Exhibit No. 6
Contoured on: Top of "Austin Pay"
Contour Interval: 50 Ft.
Map Scale: 1" = 4000 Ft.
A. LATTU
Jly 31, 1979
BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 6
CASE NO. 6620
Submitted by Applicant
Hearing Date 8/8/79
McDONALD
HILLBURN CITY
HILLBURN CITY UNIT
"Austin Monteith"
UP
DOWN
-9375
-9372
-9251
-9303
-9200
-9233
-9278
-9300
-9400
-9395
-9316
-9564
-9420

HEYCO

PETROLEUM PRODUCERS

HARVEY E. YATES COMPANY

P. O. BOX 1933 SUITE 300, SECURITY NATIONAL BANK BUILDING 505/623-6601
ROSWELL, NEW MEXICO 88201

August 10, 1979

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Richard Stamets

Re: Case #6620

Dear Mr. Stamets:

Enclosed are the following exhibits for your use in reviewing the above referenced case:

1. Log Section for the Adobe 16 #1 well located in the SW/4 of Section 17, Township 14 South, Range 36 East.

2. Seismic data.

3. Drilling report for the Adobe 16 #2 well showing Drill Stem test data for the Austin Zone.

We would appreciate having the Seismic Data treated as confidential material to the extent allowed under the Natural Gas Policy Act of 1978 and Division Rules.

Sincerely,

Robert H. Strand

RHS/lh

Enclosure

ADOBE DRILLING COMPANY
ADOBE STATE "16" #2

1980' FNL and 1980 FWL,
Sec. 16, T-14S, R-36E,
Lea County, N. M.

7/19/79 Ran DST #4 from 13,270' to 13,360'.

Opened well for 30" preflow; had strong blow to 240 psi in 5". Opened on 3/8" choke; GTS in 2 1/2". SI and changed to 1/2 choke; press increased while changing choke from 270 psi to 360 psi; press 340 psi while on 1/2" choke; flwd 2250 MCF and stabilized during the rest of preflow period. SI for 1 hr for instant SIP. Opened for 2 hr FF; press went to 250 psi and flwd 1570 MCF for 35" and remained stable. Flwd 1670 MCF on 1/2" choke; FTP-250 psi; now on 6 hr FSIP.

7/20/79 Finished running DST #4 from 13,270' to 13,360'. On 2 hr FF stabilized @ 250 psi; flwd 1670 MCF; took 6-hr FSIP; pulled OOH; rec 1000' of fluid in drill pipe w/240' of condensate, plus 760' of condensate and gas-cut mud; sampler plugged w/cuttings; BHT-181° F. Pressures as follows:

	TOP BOMB	BOTTOM BOMB
IHP	6226	6427
30" IFP	398-663	553-774
60" ISIP	5689	5823
120" FFP	531-663	708-774
240" FSIP	5554	5778
FHP	6226	6427

Depth-13,377'; formation-li and sh. Lost 25 to 39 BBL of fluid in the last hr. This morning now mixing li-cut mud. Mud wgt-8.8#; vis-55; WL-7.2; pH-9; cl-3000.

7/21/79 Drlg @ 13,529'; formation-li and sh. Mud wgt-8.8#; Vis-58; FC-1/32; pH-10.5; 3.3% solids. Losing 20 to 25 BBL fluid/hr.

7/22/79 Drlg # 13,627'; formation li and sh. Mud wgt-8.8#; Vis-58; WL-6.4; FC-1/32; pH-10; 3.6% solids. Losing 25 to 35 BBL fluid/hr.

7/23/79 Drlg @ 13,735'; formation-sh. Mud wgt-8.8#; Vis-55; WL-7.8; FC-1/32; pH-9.5; 2.5% solids. Losing 35 to 40 BBL fluid/hr.

7/24/79 Drlg @ 13,846'; formation-sh. Mud wgt-8.7#; Vis-55; WL-7.4; FC-1/32; pH-9.5; 1.8% solids; Cl-2000 ppm. Losing 60 to 65 BBL of fluid/hr.

FLUID SAMPLE DATA

Sampler Pressure	1200 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas	7.32
cc. Oil	
cc. Water	(DRY)
cc. Mud	
Tot. Liquid cc.	
Gravity	° API @ °F.
Gas/Oil Ratio	cu. ft./bbl.

	RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@ °F.		ppm
Recovery Mud	@ °F.		ppm
Recovery Mud Filtrate	@ °F.		ppm
Mud Pit Sample	@ °F.		ppm
Mud Pit Sample Filtrate	@ °F.		ppm

Mud Weight 9 vis 52 sec

Date	3-28-78	Ticket Number	411127
Kind of Job	OPEN HOLE TEST	Halliburton District	HOBBS
Tester	D. JENNINGS D. ALBERTSON	Witness	BILL OWENS
Drilling Contractor	MORANCO DRILLING COMPANY		PW

EQUIPMENT & HOLE DATA

Formation Tested	Mississippi
Elevation	Ft.
Net Productive Interval	124' Ft.
All Depths Measured From	Kelly Bushing
Total Depth	13310' Ft.
Main Hole/Casing Size	8 1/2"
Drill Collar Length	544' ?? I.D. 2 1/4"
Drill Pipe Length	12910' ?? D. 3.826" - 2.764"
Packer Depth(s)	13180' - 13186' Ft.
Depth Tester Valve	13166' Ft.

Cushion — TYPE — AMOUNT — Ft. — Depth Back Pres. Valve — Surface Choke — Bottom Choke

Recovered 613 Feet of slightly gas cut mud.

Recovered Feet of

Recovered Feet of

Recovered Feet of

Recovered Feet of

Remarks

SEE PRODUCTION TEST DATA SHEET.....

TEMPERATURE	Gauge No. 3645 Depth: 13171 Ft.	Gauge No. 3644 Depth: 13306 Ft.	Gauge No. Depth: Ft.	TIME
	24 Hour Clock	24 Hour Clock	Hour Clock	Tool Opened 0245 A.M. P.M.
Est. °F.	Blanked Off No	Blanked Off Yes	Blanked Off	Opened A.M.
Actual 184 °F.	Pressures	Pressures	Pressures	Bypass 1001 P.M.

	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic	6267	6212	6275	6284				
First Period Flow Initial	174	264	233	335			———	———
First Period Flow Final	196	164	254	225			15	15
First Period Closed In	3822	3803	3824	3825			60	61
Second Period Flow Initial	196	273	233	297			———	———
Second Period Flow Final	218	201	254	225			120	120
Second Period Closed In	4834	4817	4967	4843			240	240
Third Period Flow Initial							———	———
Third Period Flow Final								
Third Period Closed In								
Final Hydrostatic	6267	6121-Q	6275	6246			———	———

Q = Questionable.

Legal Location Sec. - Twp. - Rng. STATE "16" Lease Name 1 Well No. 2 Test No. 13186' - 13310' Tested Interval ADOBE OIL & GAS COMPANY Lease Owner/Company Name

Field Area WILDCAT County LEA State NEW MEXICO

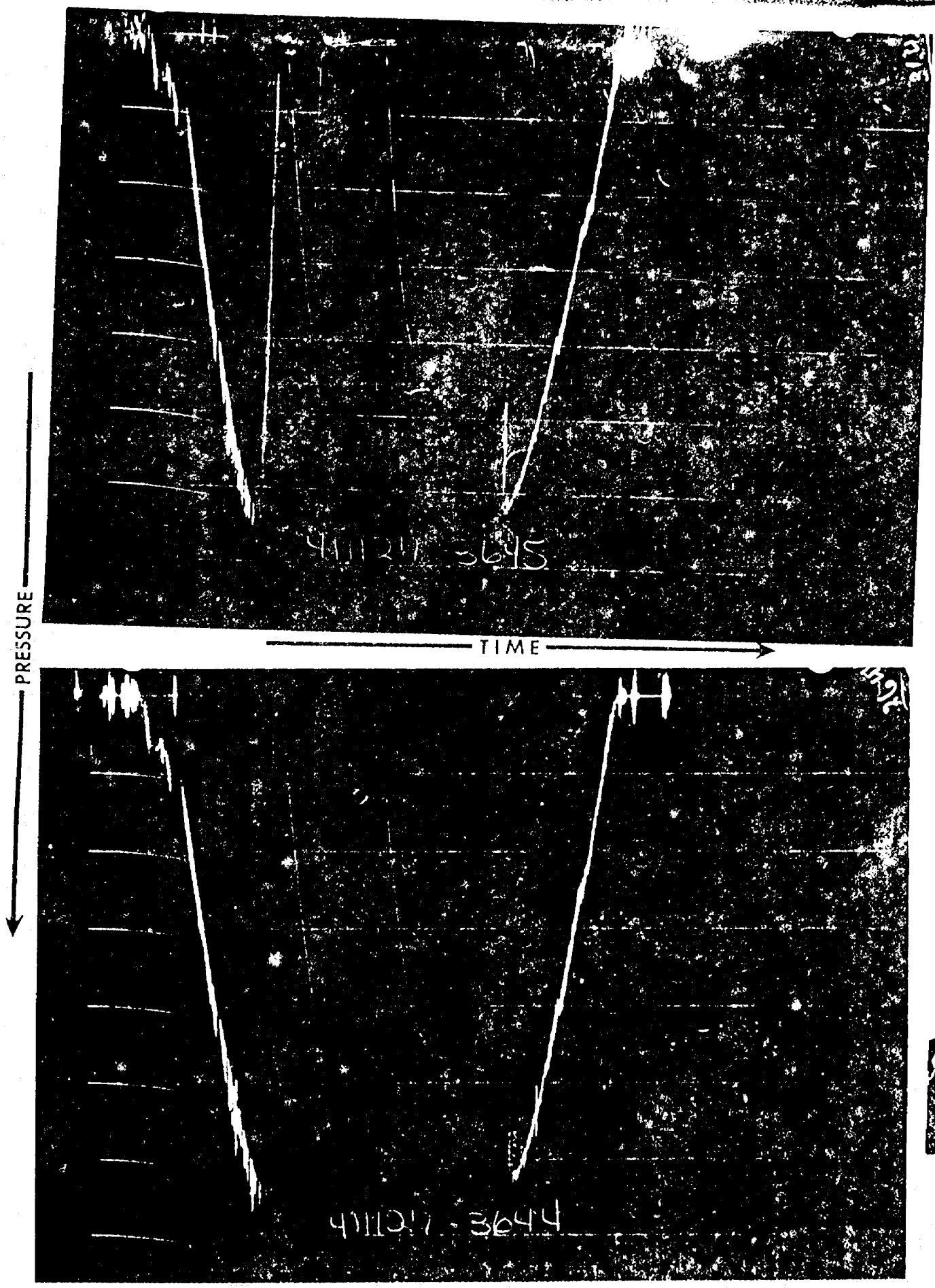
Meas. From Tester Valve

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102546 SM 9/76

Case 6620 Exhibit 5A



Each Horizontal Line Equal to 1000 p.s.i.

DAILY DRILLING REPORTS

ADOBE DRILLING COMPANY
ADOBE STATE "16" #2

1980' FNL and 1980 FWL,
Sec. 16, T-14S, R-36E,
Lea County, N. M.

7/19/79 Ran DST #4 from 13,270' to 13,360'.

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ADOBE DRILLING COMPANY
ADOBE STATE "16" #2

1980' FNL and 1980 FWL,
Sec. 16, T-14S, R-36E,
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7/23/79 Drlg @ 13,735'; formation-sh. Mud wgt-8.8#; Vis-55; WL-7.8; FC-1/32; pH-9.5; 2.5% solids. Losing 35 to 40 BBL fluid/hr.

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HEYCO

PETROLEUM PRODUCERS

HARVEY E. YATES COMPANY

P. O. BOX 1933 SUITE 300, SECURITY NATIONAL BANK BUILDING 505/623-6601
ROSWELL, NEW MEXICO 88201

August 9, 1979

Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Richard Stamets

Re: Austin-Monteith #1
N.G.P.A. Determination
Case #6620

Dear Mr. Stamets:

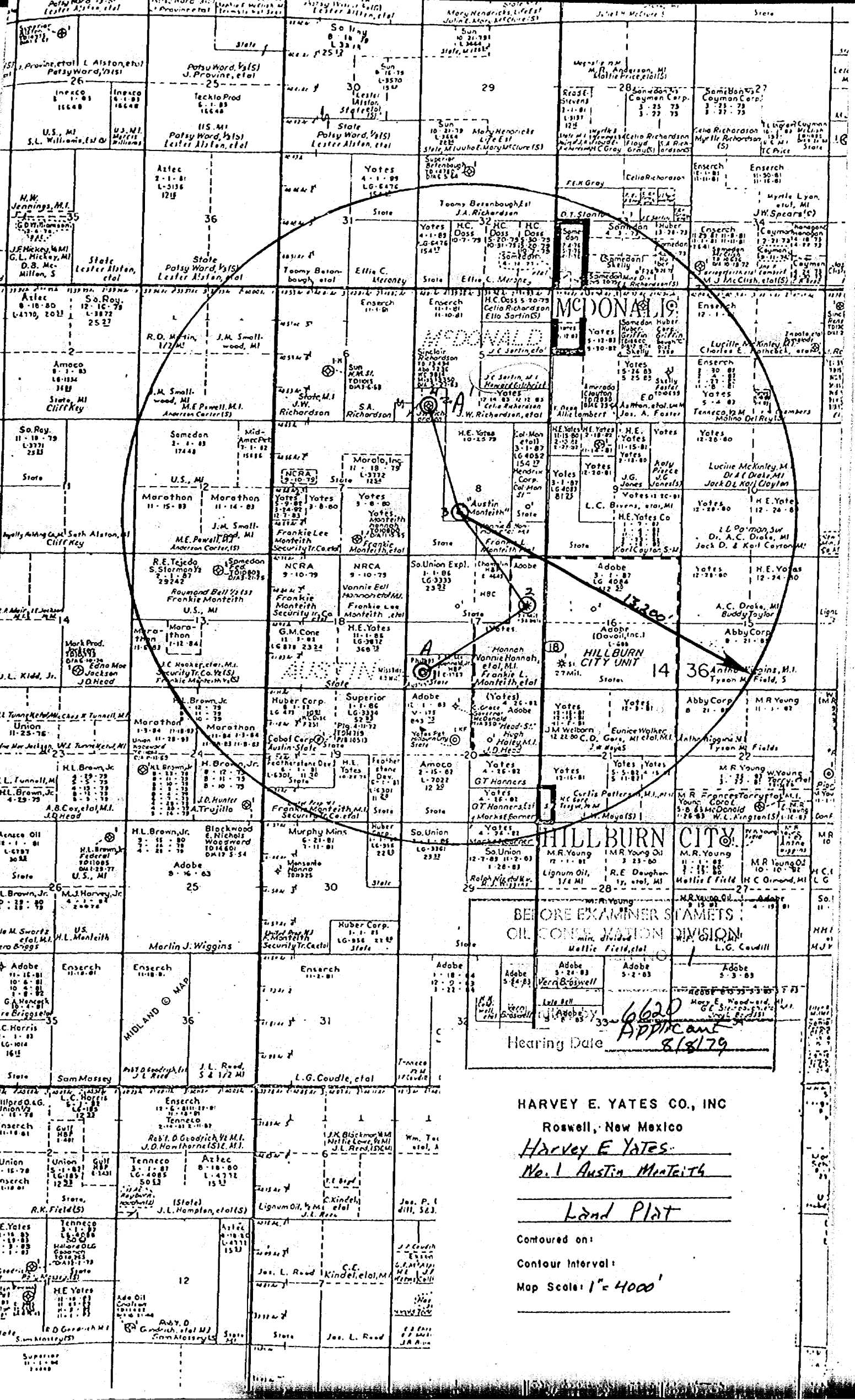
Enclosed are three copies of the drillstem test from 13,186'-13,310' under the Adobe State 16 #1 well located in the SW/4 of Section 17, Township 14 South, Range 36 East, N.M.P.M., to be filed in the above referenced case as Exhibit 5A. The log section from Adobe 16 #1 and the seismic data are being forwarded from our Midland office.

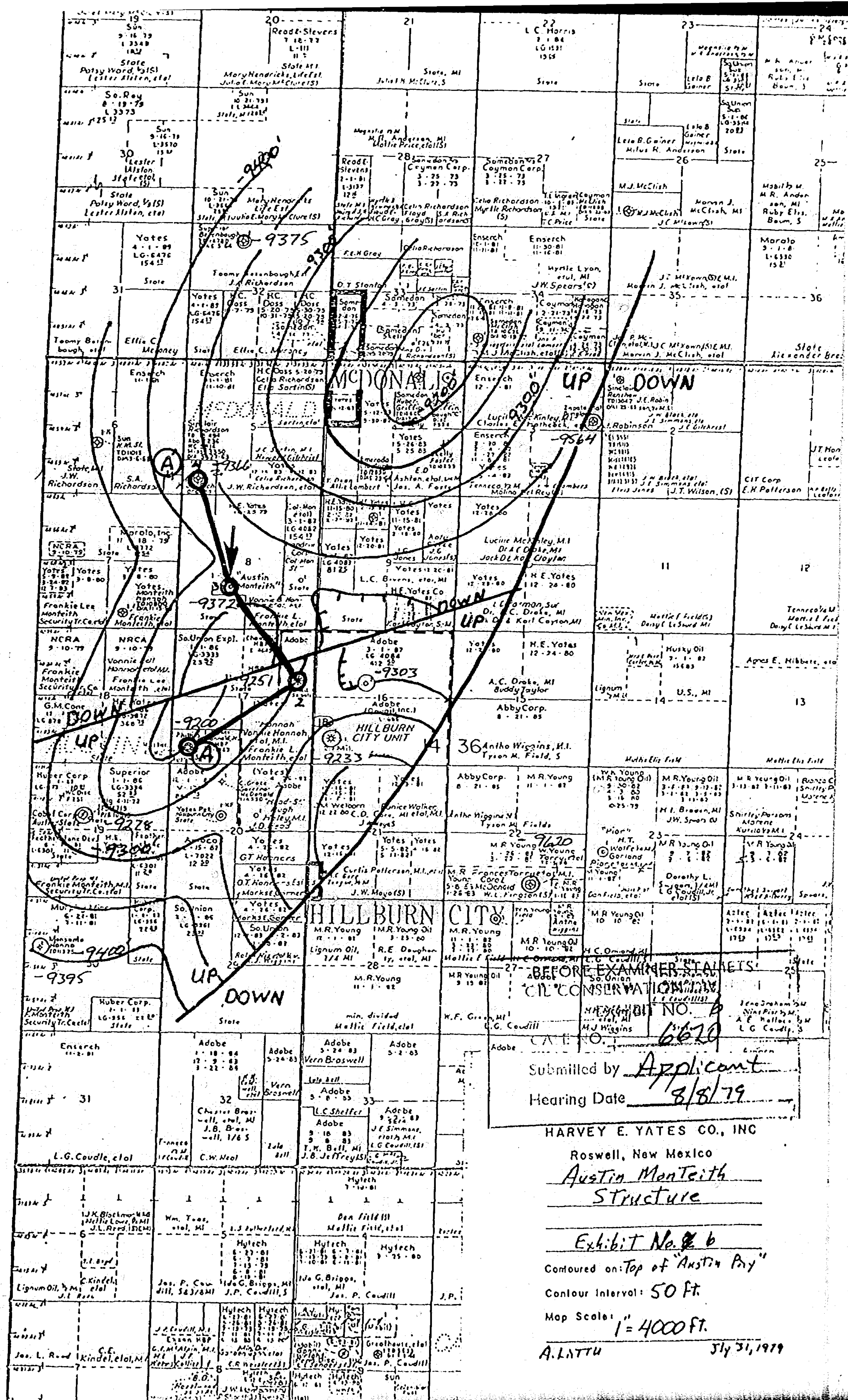
If you desire further information, please let us know.

Very truly yours,

Robert H. Strand

RHS/sj
Enclosures


MIDLAND © MAP
MCDONALD
HILLBURN CITY UNIT
"Austin Monteith"
13,200'
BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
Hearing Date 8/8/79
HARVEY E. YATES CO., INC
Roswell, New Mexico
Harvey E Yates
No. 1 Austin Monteith
Land Plat
Contoured on:
Contour Interval:
Map Scale: 1" = 4000'



BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 6
CASE NO. 6620

Submitted by Applicant

Hearing Date 8/8/79

HARVEY E. YATES CO., INC

Roswell, New Mexico

Austin MonTeith Structure

Exhibit No. ~~2~~ 6

Contoured on: Top of "Austin Pay"

Contour Interval: 50 Ft.

Map Scale: 1" = 4000 ft.

A. LATTU Jly 31, 1979

HARVEY E. YATES

AUSTIN MONTEITH NO. 1

Located Unit N, Section 8
Township 14 South, Range 36 East
Lea County, New Mexico

RESERVOIR PRESSURE COMPARISON

PHILLIPS PETR. CO., AUSTIN COM.
NO. 1M SECTION 17-T-14S-R36E
LEA COUNTY, NEW MEXICO

1. Original Reservoir Pressure

   a. Total Depth 13,305
   b. Depth of Packers-Top (13,191'), Bottom (13,195')
   c. Closed in Reservoir Pressure 5315 psi

2. Production History
   a. June 3, 1979, well had produced 4,145,030 MCF Gas and 58,684 Bbls. Condensate.

3. Present Bottom Hole Pressure

   a. 1142 psi
   b. Production apparently has ceased.

HARVEY E. YATES

AUSTIN MONTEITH NO. 1

Located Unit N, Section 8
Township 14 South, Range 36 East
Lea County, New Mexico

1. Original Reservoir Pressure, June 3, 1979

   a. Total depth 13,400
   b. Depth of Packer - Top (13,227'), Bottom (13,232')
   c. Closed in Reservoir pressure 5737 psi. Initial, 5692 psi. Final.

2. Bottom Hole Pressure Survey, August 5, 1979

   a. 13,000' - 5,760 psi

3. Production History

   a. Well has not been produced.

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 5
CASE NO. 6620
Submitted by Applicant
Hearing Date 8/8/79

Halliburton Oil Well Cementing Co.

Location	-
Field	Wildcat
County	Lea
State	New Mexico
Contractor	Parker Drlg. Company

MUD DATA

Kind	Oil Base
Weight	9 lbs.-gal.
Viscosity	46 Sec.
Filter Loss	5 c.c. Filter Cake 1/64 in.
Est. Gauge Depth Temp.	Actual 232 °F
Time Tool Open	2 hours, 35 minutes
Time Closed In	17 minutes
Depth B.T. Gauge	13,295'
B.T. P.R.D. No.	105
Blanked Off	no
24 Hr. Clock No.	1758

Pressure Readings	Field	Office Corrected	
Initial Hydro Mud Pressure	6560	6230	p.s.i.
Initial Flow Pres.	2310	2271	p.s.i.
Final Flow Pres.	1880	1842	p.s.i.
Closed In Pres.	5315	5272	p.s.i.
Final Hydro Mud Pressure	6480	6162	p.s.i.

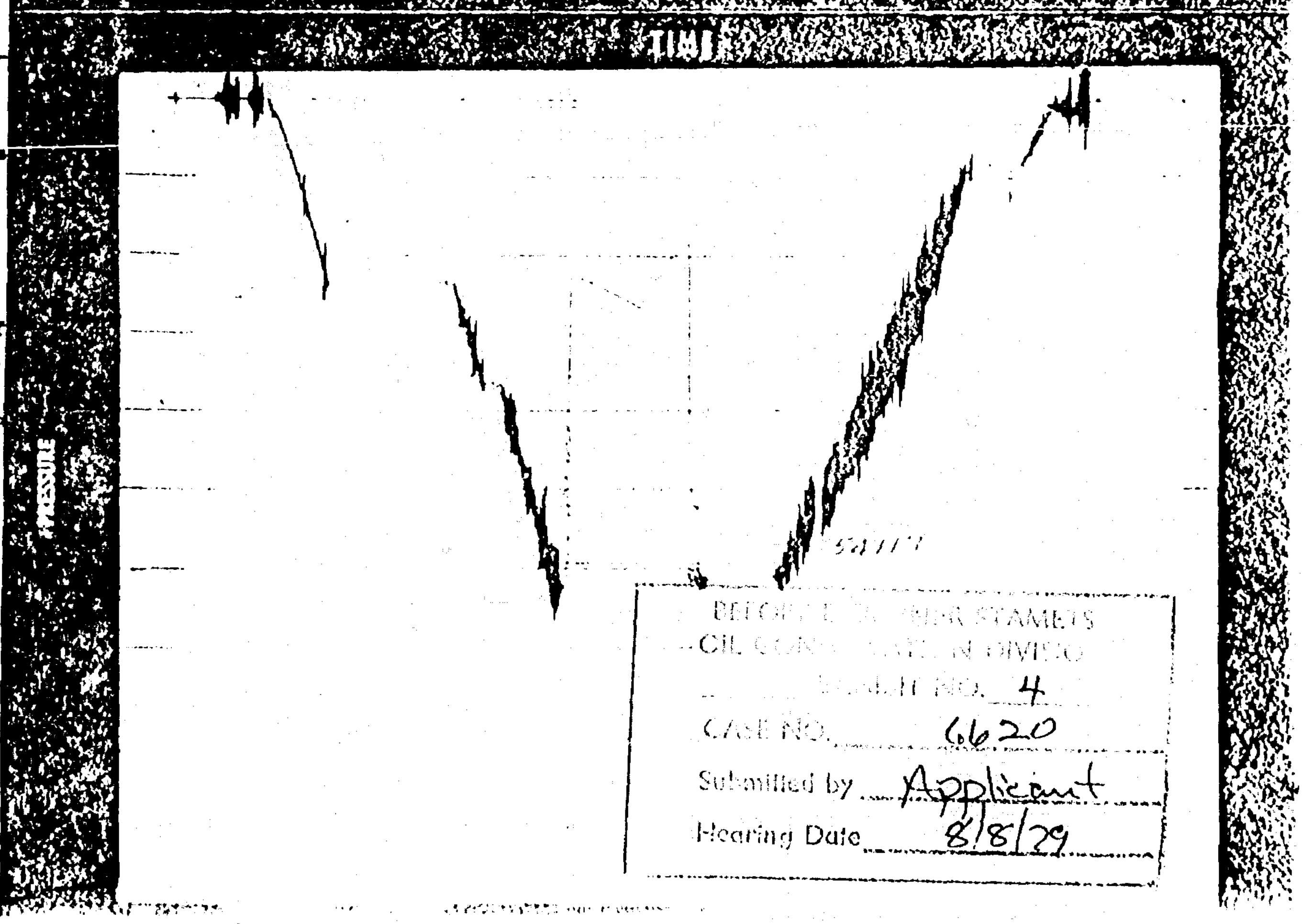
HOLE AND TOOL DATA

Total Depth	13,305'
Casing Perforations	Top — Bottom —
Top Packer Depth	13,191'
Bottom Packer Depth	13,195'
Casing or Hole Size	8 3/4"
Liner or Rathole Size	-
Formation Tested	Miss.
Size Drill Pipe	4½" F.H. 16.60#
Size Drill Collars	2¼" I.D. & 540'
Size Bottom Choke	5/8"
Size Surface Choke	1" & 5/8"
Size Hook Wall Packer	-
Size Rings	-
No. Rings	-
Size & Type Wall Packer	7 3/4" E.S.A.
No. Packers	2
Size & Length Anchor	48' x 5 3/4" F.J. & 62' x 7" D.C.
P.R.D. Depth No.	3036
Depth	13,300'
Blanked Off	yes

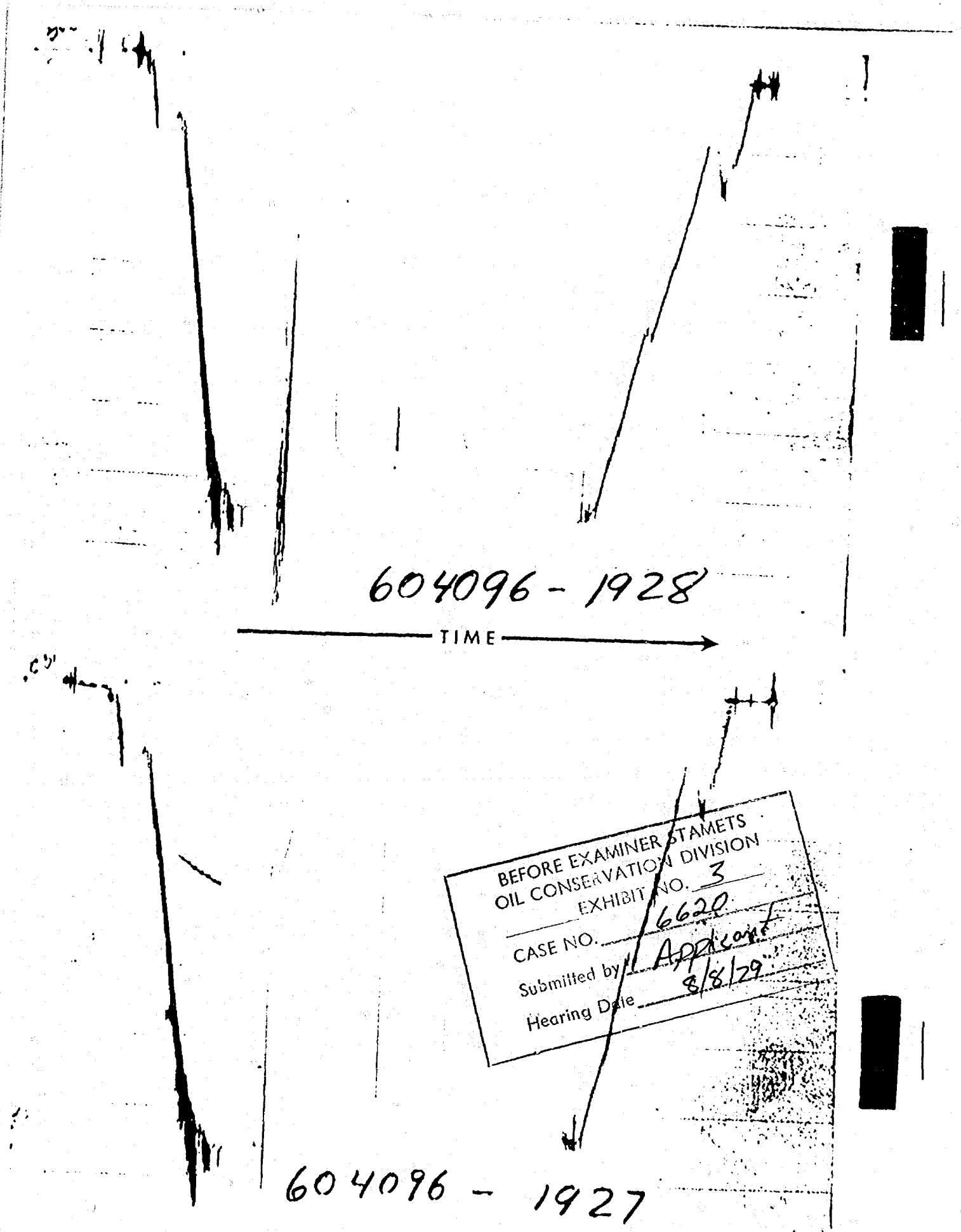
REMARKS: Tool opened with a strong blow of air. Water blanket to surface in 1 hour and 30 minutes. Gas to surface in 1 hour and 40 minutes, flowed estimated 1.541 MCF. No oil to surface. Recovered 660' of distillate and 1374' of water blanket, gas cut.

Amount of Cushion 4946'. All depths measured from Rotary Table. No. Folders Reproduced 5

Date	3-4-57
Ticket No.	54117
HOWCO District	Lovington
Kind of Job	Open Hole
Price	$335.00
Second Packer Assembly	79.00
Safety Joint	
Extra Folder Charge	
Bomb Boreen	100.00
Total	$514.00
Witnessed By	Mr. Hutsell
Tester	W. Gentry



BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 4
CASE NO. 6620
Submitted by Applicant
Hearing Date 8/8/79



Each Horizontal Line Equal to 1000 p.s.i.

FORMATION TEST DATA

FLUID SAMPLE DATA			
Sampler Pressure	600	P.S.I.G. at Surface	
Recovery: Cu. Ft. Gas	2.5		
cc. Oil	50		
cc. Water			
cc. Mud			
Tot. Liquid cc.			
Gravity	° API @	°F.	
Gas/Oil Ratio		cu. ft./bbl.	
	RESISTIVITY	CHLORIDE CONTENT	
Recovery Water	@ °F	ppm	
Recovery Mud	@ °F.	ppm	
Recovery Mud Filtrate	@ °F.	ppm	
Mud Pit Sample	@ °F.	ppm	
Mud Pit Sample Filtrate	@ °F.	ppm	
Mud Weight	9.6	vis 48	sec

Date	6-3-79	Ticket Number	604096
Kind of Job	OPEN HOLE	Halliburton District	HOBBS
Tester	MR. FLETCHER MR. JENNINGS	Witness	MR. HARDIS
Drilling Contractor	MORANCO DRILLING CO. RIG #7 IC		

EQUIPMENT & HOLE DATA

Formation Tested	Mississippi
Elevation	3965.9' GL 3980.9' KB Ft.
Net Productive Interval	165' Ft.
All Depths Measured From	Kelly Bushing
Total Depth	13,400' Ft.
Main Hole/Casing Size	7 7/8"
Drill Collar Length	585' I.D. 2.25"
Drill Pipe Length	5310'-7415' I.D. 3.826"-3.640"
Packer Depth(s)	13,227'-13,232' Ft.
Depth Tester Valve	13,191' Ft.

Cushion TYPE AMOUNT 2000' FRESH WATER Ft. Depth Back Pres. Valve — Surface Choke FLOOR MANIFOLD — Bottom Choke .75'

PRESSURED DRILL PIPE WITH 1200# NITROGEN

Recovered		Feet of	
Recovered	518	Feet of	Distillate
Recovered	2000	Feet of	Gas cut mud
Recovered		Feet of	
Recovered		Feet of	
Recovered		Feet of	

Remarks SEE PRODUCTION TEST DATA SHEET.

Legal Location Sec. - Twp. - Rng.: 8 - 14S - 36E
Lease Name:
Well No.:
Test No.:
Tested Interval:
Field Area: NORTH LOVINGTON
Meas. From Tester Valve
County: LEA
State: NEW MEXICO
Lease Owner/Company Name:

TEMPERATURE		Gauge No. 1928 Depth: 13,212' Ft.		Gauge No. 1927 Depth: 13,396' Ft.		Gauge No. Depth: Ft.		TIME	
		24 Hour Clock		24 Hour Clock		Hour Clock		Tool Opened	7:43 P.M.
Est. 200+ °F.		Blanked Off NO		Blanked Off YES		Blanked Off		Opened Bypass	5:12 P.M.
Actual °F.		Pressures		Pressures		Pressures			
		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		6365	6367.7	6538	6534.2				
First Period	Flow Initial	2483	2492.0	2571	2573.7			—	—
	Flow Final	1394	1358.2	1393	1402.7			83	89
	Closed in	5737	5734.8	5785	5803.6			118	119
Second Period	Flow Initial	1031	1088.4	1162	1152.7			—	—
	Flow Final	1281	1260.7	1324	1314.8			120	114
	Closed in	5692	5698.8	5739	5760.2			240	239
Third Period	Flow Initial							—	—
	Flow Final				Office pressure				
	Closed in								
Final Hydrostatic		6365	6356.5	6493	6420.0			—	—

FORM 181-R2—PRINTED IN U.S.A. FORMATION TEST DATA LITTLE 8 102441 5M 9/76

Casing perfs. ______ Bottom choke ______ Surf. temp. ______ °F Ticket No. 604096
Gas gravity ______ Oil gravity ______ GOR ______
Spec. gravity ______ Chlorides ______ ppm Res. ______ @ ______ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED ______

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
11:15					Testers on location.
1:45					Picked up tools.
2:50					Started in hole.
3:10					Put in water cushion.
6:36		1200			Put in nitrogen.
7:43		875			Opened tools.
7:46		900			Pressure increased.
7:50		1000			Pressure increased.
7:52	1/4"	1350			Opened to choke.
7:57	1/4"	1350			
8:02	3/8"	1300			Changed chokes.
8:02	3/8"	1250			Pressure decreased.
8:07	3/8"	1175			Pressure decreased.
8:12	30/64"	950			Changed chokes.
8:17	30/64"	950			Pressure decreased.
8:22	30/64"	900			Pressure decreased.
8:28	3/4"	700			Changed chokes.
8:37	3/4"	500			Pressure decreased.
8:42	3/4"	450			Pressure decreased.
8:47	3/4"	375			Pressure decreased.
9:07	3/4"	375			Gas to surface.
9:14	3/4"	355			
9:14	3/4"	355			Closed tool.
11:12	5/8"				Opened tool for second flow.
11:17	5/8"	5			Pressure increased.

FORM 111-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

[illegible]

Casing perfs_____ Bottom choke_____ Surf. temp_____ °F Ticket No. 604096

Gas gravity_____ Oil gravity_____ GOR_____ PAGE #2

Spec. gravity_____ Chlorides_____ ppm Res._____ @_____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED_____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
11:22	5/8"	11			Pressure increased.
11:27	5/8"	150			Water blanket to surface.
11:32	5/8"	250			Pressure increased.
11:37	5/8"	300			Pressure increased.
11:42	5/8"	340			Pressure increased.
11:47	5/8"	350			Pressure increased.
11:52	5/8"	360			Pressure increased.
11:57	5/8"	375			Pressure increased.
12:02	5/8"	380			Pressure increased.
12:07	5/8"	370			Pressure increased.
12:12	5/8"	400			Pressure increased.
12:22	5/8"	410			Closed in at surface due to leak.
12:32	5/8"	380			Reopened - pressure decreased.
12:42	5/8"	340			Pressure decreased.
12:52	5/8"	330			Pressure decreased.
1:02	5/8"	310			Pressure decreased.
1:12	5/8"	310			Pressure decreased.
5:12					Opened bypass.
9:00					Reversed out.

FORM 102-B1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S PASTE ON 8/71

Gauge No. 1928			Depth 13,212'			Clock No. 11954			24 hour	Ticket No. 604096							
	First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure				
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.		
0	.000	2492.0	.000		1358.2	.000	1088.4	.000		1260.7							
1	(.021	2589.5C)	.0240		5119.1**	.0647	1287.9	.0503		5382.0***							
2	.0380	2569.1*	.0514		5523.5	.1293	1387.7	.1040		5507.8							
3	(.053	2548.7C)	.0789		5602.2	(.183	1371.8AC)	.1577		5555.0							
4	.0729	2346.9	.1063		5638.2	.1941	1376.4	.2114		5586.5							
5	.1077	2029.4	.1337		5660.6	(.234	1351.4AC)	.2651		5608.9							
6	(.130	1913.8C)	.1612		5676.4	.2588	1335.6	.3188		5626.9							
7	.1426	1802.7	.1886		5689.8	(.314	1267.5AC)	.3724		5642.6							
8	.1774	1485.2	.2160		5698.8	.3235	1272.1	.4261		5653.9							
9	(.196	1412.7C)	.2434		5707.8	.3880	1260.7	.4798		5662.9							
10	.2123	1408.1	.2709		5714.6			.5335		5671.9							
11	.2471	1383.2	.2983		5719.1			.5872		5678.6							
12	.2820	1358.2	.3257		5725.8			.6409		5685.3							
13			.3532		5730.3			.6946		5689.8							
14			.3806		5732.5			.7483		5694.3							
15			.4080		5734.8			.8020		5698.8							

Gauge No. 1927			Depth 13,396'			Clock No. 5991			24 hour								
0	.000	2573.7	.000		1402.7	.000	1152.7	.000		1314.8							
1	(.027	2668.1C)	.0236		5285.3**	.064	1342.5	.0503		5422.3***							
2	.0402	2652.0*	.0506		5591.3	.128	1442.1	.1040		5561.6							
3	(.062	2617.4C)	.0775		5668.9	(.186	1425.9AC)	.1577		5616.4							
4	.0770	2463.1	.1045		5703.1	.192	1428.2	.2114		5646.1							
5	.1138	2131.3	.1314		5726.0	(.236	1407.4AC)	.2651		5671.2							
6	(.146	1969.9C)	.1584		5742.0	.256	1395.8	.3188		5689.4							
7	.1506	1935.1	.1854		5753.4	(.313	1324.0AC)	.3724		5703.1							
8	.1874	1557.8	.2123		5767.1	.320	1326.3	.4261		5714.6							
9	(.208	1465.2C)	.2393		5773.9	.384	1314.8	.4798		5726.0							
10	.2242	1453.7	.2662		5778.5			.5335		5732.8							
11	.2610	1432.8	.2932		5785.3			.5872		5739.7							
12	.2980	1402.7	.3202		5789.9			.6409		5744.2							
13			.3471		5794.5			.6946		5751.1							
14			.3741		5799.0			.7483		5755.7							
15			.4010		5803.6			.8020		5760.2							
Reading Interval	11		8			19		16									Minutes

REMARKS: *First interval equal to 12 minutes **=7 minutes ***=15 minutes C=Choke change AC=Apparent choke change

TICKET NO. 604096

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	3"	1'	
Water Cushion Valve	4.50"	3.826"	5310'	
Drill Pipe	4.50"	3.640"	7415'	
Drill Collars	6.25"	2.25"	585'	
Handling Sub & Choke Assembly			1' X OVER	
Dual CIP Valve				
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	13,191'
Multiple CIP Sampler	5"	.75"	4'	
Extension Joint	5"	.87"	15' (3 each)	
AP Running Case	5"	3.25"	5'	13,212'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	7"	1.53"	5'	13,227'
Distributor	5"	1.68"	2'	
Packer Assembly	7"	1.53"	5'	13,232'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint	5.75"	1.50"	4'	
Side Wall Anchor	6"		1' X OVER	
Drill Collars	6.25"	2.25"	124'	
	5.75"		1' X OVER	
Flush Joint Anchor	5.75"	3.50"	32'	
Blanked-Off B.T. Running Case	5.75"	3.50"	6'	13,396'
Total Depth				13,400'

FORM 107-R1—PRINTED IN U.S.A.

EQUIPMENT DATA

LITTLE'S DRESS INC S/

Dockets Nos. 32-79 and 33-79 are tentatively set for hearing on August 22 and September 5, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - TUESDAY - AUGUST 7, 1979

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 6590: (Continued from July 25, 1979, Examiner Hearing)

Application of Grace Petroleum Corporation for compulsory pooling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying Lots 9, 10, 15, and 16 and the SE/4 of Section 6, Township 21 South, Range 32 East, to be dedicated to a well to be drilled at an unorthodox location 4650 feet from the South line and 660 feet from the East line of said Section 6. Also to be considered will be the cost of drilling and completing said well and the allocation of the costs thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6612: Application of Gulf Oil Corporation for compulsory pooling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying Lots 9 thru 16 of Section 6, Township 21 South, Range 32 East, to be dedicated to a well to be drilled at an unorthodox location 4650 feet from the South line and 660 feet from the East line of said Section 6. Also to be considered will be the cost of drilling and completing said well and the allocation of the costs thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6555: (DE NOVO)

Application of Jake L. Hamon for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for an unorthodox location 660 feet from the North line and 560 feet from the East line of Section 30, Township 20 South, Range 36 East, North Osudo-Morrow Gas Pool, all of said Section 30 to be dedicated to the well.

Upon application of Texas Oil & Gas Corp. this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 6596: (Continued from July 24, 1979, Commission Hearing)

Application of Harvey E. Yates Company for pool creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Upper Pennsylvanian gas pool to be designated as the Southeast Indian Basin-Upper Pennsylvanian Gas Pool for its Southeast Indian Basin Well No. 1 located in Unit A of Section 23, Township 22 South, Range 23 East, and special pool rules therefor including 320-acre gas well spacing.

CASE 6597: (Continued from July 24, 1979, Commission Hearing)

Application of Harvey E. Yates Company for an unorchodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Southeast Indian Basin Well No. 2, an Upper Pennsylvanian well to be drilled 660 feet from the North and West lines of Section 24, Township 22 South, Range 23 East, with the N/2 or all of said Section 24 to be dedicated to the well, depending on the outcome of Case No. 6596.

DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 8, 1979

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 6613: Application of Grace Petroleum Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Smith Ranch Unit Area, comprising 1,600 acres, more or less, of State and federal lands in Township 20 South, Range 33 East.

CASE 6602: (Continued from July 25, 1979, Examiner Hearing)

Application of Tenneco Oil Company for an unorthdox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal 33 C No. 2 Well 1010 feet from the North line and 1710 feet from the West line of Section 33, Township 17 South, Range 29 East, South Empire-Wolfcamp Pool, the E/2 NW/4 of said Section 33 to be dedicated to the well.

CASE 6611: (Continued from July 25, 1979, Examiner Hearing)

Application of Cabot Corp. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the disposal of produced salt water in the Devonian formation through the perforated interval from 12,156 feet to 12,574 feet in its Reed Well No. 1 located in Unit H of Section 35, Township 13 South, Range 37 East, King Field.

CASE 6614: Application of Texaco Inc. for the amendment of Order No. R-4442, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-4442 to remove the top unit allowable restriction from producing wells in the Vacuum Grayburg San Andres Unit which are offset by "lease line" injection wells.

CASE 6615: Application of Southland Royalty Company for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Kutz-Gallup and Basin-Dakota production in the wellbore of its Frontier "E" Well No. 1 located in Unit O of Section 4, Township 27 North, Range 11 West.

CASE 6616: Application of Watson Treating Plant for an oil treating plant permit, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at a site in the SE/4 NW/4 of Section 34, Township 8 South, Range 35 East.

CASE 6617: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Basin-Dakota and Otero-Gallup production in the wellbore of its Jicarilla 67 Well No. 10 located in Unit M of Section 30, Township 25 North, Range 5 West.

CASE 6618: Application of Harvey E. Yates Company for pool creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Yates gas pool for its DEPCO Federal Well No. 1 located in Unit D of Section 19, Township 18 South, Range 29 East, and special rules therefor, including 80-acre gas well spacing.

CASE 6619: Application of Harvey E. Yates Company for an unorthodox well location and a non-standard proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 62.75-acre non-standard Yates gas proration unit comprising Lots 1 and 2 of Section 19, Township 18 South, Range 29 East, to be dedicated to its DEPCO Federal Well No. 1 drilled 330 feet from the North line and 660 feet from the West line of said Section 19.

CASE 6620: Application of Harvey E. Yates Company for an NGPA determination, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination for its Austin Monteith Well No. 1 located in Unit K of Section 8, Township 14 South, Range 36 East.

CASE 6621: Application of Harvey E. Yates Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Penn formations underlying the S/2 of Section 4, Township 18 South, Range 29 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well. (This case will be dismissed.)

HEYCO

PETROLEUM PRODUCERS

HARVEY E. YATES COMPANY

P. O. BOX 1933 SUITE 300, SECURITY NATIONAL BANK BUILDING 505/623-6601
ROSWELL, NEW MEXICO 88201

Case 6620

July 26, 1979

New Mexico Oil Conservation Division
Post Office Box 2088
State Land Office Building
Santa Fe, New Mexico 87501

Attention: Mr. Richard Stamets

Re: AUSTIN-MONTEITH #1 WELL
Township 14 South, Range 36 East
Section 8, Unit Letter K
Lea County, New Mexico

Dear Mr. Stamets:

Enclosed for filing is an application for ceiling price determination covering the above referenced well. Certain of the geological exhibits are not included with the application, however; they will be presented at the hearing which is scheduled for August 8, 1979.

If you have any questions, please advise.

Very truly yours,

Robert H. Strand

Robert H. Strand

RHS/sj
Enclosures

ROUGH

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 6620

Order No. 6104

APPLICATION OF HARVEY E. YATES COMPANY FOR AN NGPA DETERMINATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on August 8 19 79, at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this _____ day of August, 19 79, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Harvey E. Yates Company, seeks a determination by the Division, in accordance with Sections 2(6) and 102 of the Natural Gas Policy Act of 1978, and the applicable rules of the Federal Energy Regulatory Commission,

that its Austin Monteith Well No. 1, located in Unit K of Section 8, Township 14 South, Range 36 East, NMPM, Lea County, New Mexico, has discovered a new onshore reservoir from which natural gas was not produced in commercial quantities before April 20, 1977.

(3) That said well was completed in the ~~Morrow~~ Mississippian formation with perforations from 13360 to 13390 feet, and a plugged-back depth of 13478 feet after having been drilled to a total depth of 14000 feet.

(4) That although there are several wells in the vicinity of the subject well which have penetrated ~~the Morrow~~ and are completed in the Mississippian formation, ~~the 6 foot sand stringer in the Morrow which is the producing~~ pressures encountered in said Austin-Monteith Well No 1 are indicative of an undrained reservoir.

(5) That seismic evidence presented at the hearing demonstrated that ~~the~~ said Austin Monteith Well No 1 could be separated from other Mississipian producing wells in the area by a fault.

(6) That the combined seismic and pressure data presented establishes that said Austin-Monteith Well No. 1 has been completed in a ~~the~~ new onshore reservoir ~~pursuant to~~ as defined by the provisions of Section 102(c) of the Natural Gas Policy Act of 1978 and the applicable rules of the Federal Energy Regulatory Commission.

IT IS THEREFORE ORDERED:

(1) That the Harvey E. Yates Company Austin Monteith Well No. 1, located in Unit K of Section 8, Township 14 South, Range 36 East, NMPM, Lea County, New Mexico, is completed in a new onshore reservoir as defined by Sections 2(6) and 102(c) of the Natural Gas Policy Act of 1978, and the applicable rules of the Federal Energy Regulatory Commission.

(2) That jurisdiction of this cause is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

HEYCO

PETROLEUM PRODUCERS

HARVEY E. YATES COMPANY

P.O. BOX 1933
SUITE 300, SECURITY NATIONAL BANK BUILDING
ROSWELL, NEW MEXICO 88201
505/623-6601

July 8, 1979

Case 6620

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Richard Stamets

Re: Austin Monteith #1
1650 FSL & 1980 FWL
Sec. 8, T-14S, R-36E
Lea County, New Mexico

Dear Mr. Stamets:

This letter shall serve as our application for hearing for a ceiling price determination under the Natural Gas Price Act of 1978 for the above referenced well. We will seek a determination that the well produces natural gas from a new onshore reservoir as defined under the Act and that said gas is entitled to a maximum ceiling price calculated under §102 of the Act. Please advertise this application for the examiner hearing set for August 8, 1979 and provide us with a docket for that hearing. We will submit a formal application prior to the date of hearing. Thank you.

Sincerely,

Robert H. Strand
Attorney

RHS/lh