CASE 5599: STEVENS OIL COMPANY FOR SPECIAL POOL RULES, CHAVES COUNTY, NEW MEXICO

765-5900

CASE NO.

5599

APPLICATION,

TRANSCRIPTS,

SMALL EXHIBITS,

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
December 17, 1975

EXAMINER HEARING

IN THE MATTER OF:

Application of Stevens Oil Company for special pool rules, Chaves County, New Mexico.

CASE 5599

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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MR. NUTTER: We will call the next Case, Number 5599.

MR. CARR: Case 5599, application of Stevens Oil Company for special pool rules, Chaves County, New Mexico.

MR. STEVENS: Mr. Examiner, I'm Don Stevens, attorney in Santa Fe, representing the applicant in this Case and we have one witness to be sworn.

(THEREUPON, the witness was duly sworn.)

WILLIAM J. LeMAY

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

DIRECT EXAMINATION

BY MR. STEVENS:

Q. Would you state your name, your address, your occupation and your relationship with the Applicant in this Case?

A. My name is William J. LeMay, I'm Exploration Manager for Harvard Exploration Oil Company in Roswell, New Mexico and Harvard Exploration has a fifty percent working interest in the subject property.

Q. Have you previously testified before the New Mexico Oil Conservation Commission and had your qualifications accepted by them?

A. Yes, I have.

MR. STEVENS: Are the witness's qualifications acceptable?

MR. NUTTER: Yes, they are.

Q. (Mr. Stevens continuing.) Would you state briefly, Mr. LeMay, what the Applicant seeks in this hearing?

A. Basically we seek an eighty-acre-spacing rule for the Twin Lakes-Devonian field with the corresponding increase in allowable and a non-restricted gas-oil ratio limitation to the field.

Q. Referring to what has been marked as Exhibit Number One, would you explain that for the Commission?

A. Exhibit Number One is a structure map the datum of which is the top of the Devonian porosity, the Devonian being the pay in the -- one of the pays in the Twin Lakes field and it indicates that we have a rather sharp structure shown on the subject acreage which is colored yellow, which indicates that acreage which Stevens Oil and Harvard Exploration own the deep rights on.

The orange colored indicates those wells which either have produced in the past or are currently producing oil from the Devonian formation.

Q. What is the legal description of this area, Mr. LeMay?

A. The subject well, the wells are in Section 1, Township 9 South, Range 28 East, Chaves County, New Mexico.

Because there is San Andres and Devonian oil in the Twin Lakes field this is kind of confusing on the plat, so those wells which did penetrate the Devonian are circled with a large circle. Those wells which produced oil that I mentioned previously are colored orange on the Exhibit One.

Also indicated with arrows and typed onto the exhibit are the recoveries from the drill stem test data of the Devonian formation by the various wells. The first well in the field, the Magnolia 1-B O'Brien, that was drilled in 1950 was the first well to produce oil from the Devonian in this field and as indicated, it flowed forty-two barrels of oil per day and produced approximately forty-six thousand barrels of oil with large amounts of water and has been recompleted in the San Andres. That is in the northwest, northwest of Section 1.

Just slightly to the north and east of that, the State Jackson Number 1 recovered some gas-cut sulphur water from the Devonian. That is in Section 36, approximately six, sixty from the south line and nineteen, eighty from the west line and as indicated by the structure map, it is low to the Magnolia 1-B O'Brien.

Then the C-4 was really the next well completed in the field. The C-4 is approximately nineteen, eighty from the south. I'm sorry, the C-1 was approximately the next well completed in the field. The C-1 being in the southewest, southwest of Section 1 and that well has produced in excess of

two hundred thousand barrels of oil from the Devonian to date.

The C-3 was a well drilled nineteen, eighty from the south and west lines of Section 1. It recovered, as shown on the exhibit, a hundred and twenty feet of gas-cut mud and a little over three thousand feet of oil and gas cut salt water, approximately five percent oil and it had with this recovery about a hundred and six MCF gas gauge or estimate on the drill stem test, indicating the presence of oil and gas in that forty acres, being the northeast of the southwest quarter of Section 1. It was thought at the time that well was drilled and Harvard Exploration had an interest in it, that there could be at that time a marginal well with moving a lot of water, a marginal well could have been made out of that kind of a test, but probably non-commercial with the price of oil the way it was at the time. That was about early 1973.

The other two wells, the Pierson-Sibert, was not tested because of its low structural datum in Section 2 and the D-1 which is the only other well circled in Section 12, approximately the northwest, northwest of 12, had a recovery of gas-cut mud with a trace of oil and some salt water. So there is the presence of hydrocarbons, again probably non-commercial there that far south.

So the structure is indicated with the recoveries of the amounts of gas and oil, at least in the west half of Section 1.

Q. In your opinion then, would the entire west half be underlain by hydrocarbons?

A. In my opinion hydrocarbons underlie, if not all, most of the west half of Section 1.

Q. And then the last well drilled is the O'Brien C Number 4, is that correct?

A. That is correct. Number 4 is the main reason, of course, for the hearing as will show on additional exhibits. The Number 4 has been producing large volumes of gas, along with rather large volumes of oil and water and with that in mind, the cross section shown here A-A prime goes from the O'Brien 1 to the O'Brien 4.

Q. Referring to that Exhibit Number Two, would you explain it for the Commission?

A. Yes, Exhibit Two is that subject cross section connecting currently the two producing wells in the Twin Lakes-Devonian field, the O'Brien C-1 being on the left, being the well that has produced slightly over two hundred thousand barrels of oil. It has historically produced with a gas-oil ratio of about a thousand to one and a water-oil ratio of approximately two to one, I believe.

In March of this year, Stevens and Harvard drilled the Number 4 O'Brien. Without trying to understand the structural configurations above the Devonian, I might just point out some strange things that are happening in here

geologically. The C-4 has a rather high Mississippian top. These two wells are hung on a minus subsea datum of minus thirty-one hundred feet, so it is a structural section. The C-4 has a high Mississippian top and a high, or at least a Mississippian marker top. The Mississippian top is eroded, but that should be a structural marker, that particular line indicated on the cross section, a high Woodford top and a low Devonian top. Low that is compared to the C-1, the relationship of the two wells, but the Devonian top was high enough to produce rather large volumes of fluid. The C-1, the drill stem test data and the completion data is listed. Basically the upper section was perforated and after producing, well, after declining to about thirteen barrels of oil per day from fifty-six barrels of oil per day, the lower section was perforated and all of this has been and is currently being gas lifted. The well makes approximately fifty-five barrels of oil today and has for sometime now.

The Twin Lakes O'Brien C-4, when it was drilled we had some mechanical problems. We had a hole in the casing, some water from the Bough "C" was being produced through our perforations and we've had quite a bit of problems. In fact, to date we probably have about two hundred and twenty-five thousand dollars invested in this well and after the mechanical problems were cured, we went down there and cleaned out and perforated an additional section, and at that time is

where we got the large volumes of fluid. Now, we saw that oil in that fluid on drill stem tests because the well did flow approximately one hundred and forty MCF and fourteen barrels of oil per hour, which is an excellent drill stem test.

We gas lifted the well or installed gas lift equipment and at that time we potentialed the well. I think the well probably got a little stronger, but it started flowing and it currently is a flowing well.

Q. Referring to what has been marked as Exhibit Number Three would you explain it, please?

A. Exhibit Three is a graphic presentation of pressure versus fluid recovery from the Devonian reservoir in the Twin Lakes field. The bottom plots the recovery of fluid in thousands of barrels versus the bottom-hole pressure as indicated by drill stem tests.

The initial virgin pressure was recorded in 1950. It was only a fifteen minute shut in, so I would say that instead of twenty-eight hundred pounds you could guess that it would be slightly higher than that, but that's the range we are talking about.

The C-1, you might want to refer back to the structure map to see the various wells, but that was the initial Mobil 1-B O'Brien out beside the Jackson State.

MR. NUTTER: Where is it on the map?

A. Now, that is in Section 36. It is six, sixty from the south and nineteen, eighty from the east, from the west, I'm sorry. Six, sixty south, nineteen, eighty from the west.

MR. NUTTER: Wait a minute, no, it is six, sixty from the west and nineteen, eighty from the south.

A. We're in Section 36 now.

MR. NUTTER: Is it the one that has the symbol of the gas well?

A. No, it is a dry hole in the Devonian. It is the Number 1 State Jackson, it recovered sixty-one hundred and fifty-two feet of gas cut sulphur water on drill stem test.

MR. NUTTER: Well, is this State Jackson then the one that is labeled Citgo-State A Number 2?

A. Yes, that is currently the Citgo-State A Number 2. That is a San Andres designation. I'm sorry. That is a San Andres well.

MR. NUTTER: But formerly that was the old State Jackson?

A. Yes. That drill stem test was used again, the Magnolia 1-B O'Brien. It was something less than twenty-eight hundred pounds. The wells were drilled at approximately the same time and with fifteen minute shut-in pressures there is plenty of room for error, so I really estimated the -- well, that is the exact, twenty-eight hundred pounds, but you could estimate something slightly higher for a virgin bottom-hole

pressure.

Now, the second point on the graph is the C-1 DST. At that point, of course, the C-1 is the well that is in the southwest, southwest of Section 1 and at that point there was approximately three hundred and six thousand barrels total fluid withdrawn from the reservoir, forty-six thousand of which was oil.

At that time the Magnolia 1-B O'Brien, the well in the northwest, northwest of 1, was depleted or at least it was uneconomical and was plugged out. It showed a slight pressure decline from the twenty-eight hundred to twenty-seven hundred and sixty-one pounds. Probably enough to indicate at that point that there was continuity in the reservoir. The well itself, of course, has been producing to the present date and has accounted for most of or all of the additional fluid withdrawal.

The C-3, timewise we're at 1964 on the C-1 drill stem test and at 1973 a drill stem test on the C-3, which is the well nineteen, eighty south and west of Section 1. That drill stem test, we are getting longer shut-in pressures now so we feel more comfortable with the data of twenty-four hundred and eighty-six pounds after seven hundred and ninety-six thousand barrels, approximately, was withdrawn from the reservoir.

And finally our most recent drill stem test pressure

on the C-4, taken in March of 1975, after almost a million barrels withdrawn shows twenty-four hundred and fifty-four pounds.

I think the points correlate rather well, indicating a reservoir continuinty certainly under those wells drilled to the Devonian and testing the Devonian and the fact that we -- at least, I believe rather strongly that it is a water-drive system in the Devonian, which is typical of water drive in other Devonian fields, except for this gas we have, I think the primary drive we have here is water drive.

Q. (Mr. Stevens continuing.) Based on this information, Mr. LeMay, do you have an opinion as to whether one well would drain eighty acres?

A. Yes, I think the pressure data and the porosity indicated on the logs, total fluid recoveries, but mainly the pressure data indicates that one well would drain at least eighty acres.

Q. Referring to what has been marked as Exhibit Number Four, would you explain that, please?

A. Exhibit Number Four is a gas-oil ratio test which were run in December, just recently, on the O'Brien C-4. This is the well that we have a hard time understanding, the one nineteen, eighty out of the south, six, sixty out of the west. As indicated previously in testimony, the well was gas lifted after finally solving some of the mechanical difficulties we

had with it and facilities were installed to try and handle this well which has been producing large volumes of gas. So we were trying to get a fix on the well and in doing this we ran some tests and the tests are rather interesting, the fact that at a flow rate of a hundred and twelve or a hundred and twelve point seven five barrels of oil per day, the well was producing eight hundred and twenty-five thousand, seven hundred and sixty-three cubic feet of gas per day, slightly under a million. The water produced was three hundred and forty-four barrels of water, which gives us a gas-oil ratio of seven thousand, three hundred and twenty-four to one and a water-oil ratio of three point oh five to one. At a larger flow rate on twelve, fourteen, flowing two hundred and thirty-nine point two five barrels of oil per day, we were making one million, three hundred and fifty-four thousand four hundred and forty-eight cubic feet of gas and five hundred and forty-four barrels of water, indicating a gas-oil ratio of five thousand, six hundred and sixty-one to one, a water-oil ratio of two point two seven to one. Basically at the higher flow rates we are producing at a lesser GOR and a lesser water-oil ratio, which is a more efficient and economically sound way to produce the well and also conserves the hydrocarbons carbons in the reservoir.

Q. Is your lifting mechanism in this particular well in your opinion, the gas that is being produced with the oil

and water?

A. Well, I think the drive is a water drive from the Devonian. I think the gas helps lift the oil and water in the wellbore mechanically, yes.

Q. On the basis of a lower GOR and a higher rate of flow, is it your opinion that the interests of conservation will be served by a higher rate of flow?

A. Yes, I think it would.

Q. How about the fact that your water-oil ratio is lesser at the higher rate of flow, is that in your opinion then beneficial to flow the well at a higher rate?

A. Yes, I think if you are making less water per barrel of oil and less gas per barrel of oil, the oil is what you are trying to recover economically and also by bringing less water and gas with that barrel of oil so the lesser GOR and the lesser amounts of water you can produce per barrel of oil is certainly in the interests of conservation.

Q. What are the usual state-wide rules as to the gas-oil ratio limitations on an oil well?

A. Normally they are two thousand to one standard state-wide GOR limitations on a field.

Q. If that limitation was imposed on this field and on this well, what would be the effect?

A. I haven't calculated it, but it would seem like approximately the maximum we would be allowed to produce would

be something in the neighborhood of forty barrels per day, I think, rather than the hundred and sixty-seven or the two hundred and sixty-seven which we would hope to be granted under eighty-acre spacing.

Q. Would, in your opinion, the well flow at forty barrels a day?

A. No, I think we would have lots of problems with the water loading up on the well and we would have some mechanical problems in trying to efficiently gas lift the well and it would not flow at that rate, no.

Q. In your opinion would the exemption from the two thousand to one gas-oil ratio limitation harm the reservoir in any way?

A. No, I can't see at this point that there would be any harm to the reservoir. We have indicated the communication within the reservoir being good. There are some things, of course, that we don't understand, these large amounts of gas that we are getting with the Devonian. It could be, you know, something different, but it is helping us lift the volumes of fluid, but at the present time now -- I might go into the mechanical set ups a little bit. At the present time we're not equipped to handle these large volumes of gas which would be produced with the oil, and we are negotiating with some companies to -- we are selling gas, but at these rather large volumes we wouldn't have the equipment to handle it, so

we hope to negotiate these contracts and get the proper equipment out there to handle larger volumes of gas. At that time we would hope that we could file the acreage allocation plats, dedicating the eighty acres at which the case the allowable would go into effect if the Commission saw fit to grant such and at that point we would have the facilities to handle the larger amounts of gas and I think we would have an efficient operation and there would be no waste involved.

You can imagine with this kind of gas there are some problems with our poor-boy operation out there.

Q. Basically, though, you are handling the gas at the present allowable?

A. At the present allowable we are handling the gas, yes.

Q. But you are not presently equipped to handle the gas that would be produced with an eighty-acre allowable of two, sixty-seven a day, is that correct?

A. We have a restriction on the size of the gas lines, also the back pressures would be detrimental to the well, the other well we have in there. This has to be engineered out and we need some time to do so to handle larger volumes of gas.

Q. Referring again to Exhibit Number One, are there any other operators in the field that would be affected by either of these requests?

A. No, there is no one else that would be affected by these requests. There are no other working interest owners in the field.

Q. Is there any other acreage, other than this west half of Section 1 that in your opinion would produce from this reservoir?

A. No, I think we have -- there is plenty of control in there, there has been lots of dry holes drilled around this little hill. We may have another well or two in the west half of the west half, but at the present time we just want to produce these two wells, the C-1 and the C-4 and produce them economically and kind of go from there. We don't have that much production history on the C-4 as yet.

Q. Do you have a recommendation to the Commission as to the spacing of any well on eighty-acre spacing should the Commission approve such?

A. Well, I would recommend probably a hundred and fifty feet from the center of the quarter, quarter section with flexibility in running the eighties. We would like to run the eighties, of course, we would have to run the eighties. The north half and the south half of the southwest quarter of Section 1 being the two producing eighty-acre tracts.

Q. Mr. LeMay, in your opinion would the granting of this application tend to protect correlative rights and prevent waste?

A. In my opinion it would definitely protect correlative rights and prevent waste.

Q. Were Exhibits One through Four prepared by you or under your direction?

A. Yes, they were.

MR. STEVENS: I would like to tender these exhibits, Mr. Examiner. I have no further questions on direct.

MR. NUTTER: Applicant's Exhibits One through Four will be admitted into evidence.

(THEREUPON, Applicant's Exhibits One through Four were admitted into evidence.)

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. LeMay, I see how you dedicate the southwest quarter there of Section 1, in the north half and the south half.

A. Yes.

Q. What would you do in the northwest quarter?

A. Well, that's not producing currently, we don't have any plans to drill there. I'm sure we would go the north half and the south half of the northwest quarter.

Q. Do you think the Number 2 well is watered out permanently?

A. No, I don't. Again putting it in historical

perspective, the price of oil was low, they were handling large volumes of water.

Q. How much oil did it get down to before it was abandoned and what was the oil-water ratio?

A. They were producing -- see, some of the water recoveries are -- they vary, they were making approximately four thousand barrels per month and getting in the range of I think, twenty barrels a day, I think. That would be about six hundred, a little less, I think, fifteen barrels a day. They were in the four hundred to six hundred barrel of oil range per month.

Q. One to ten?

A. About a ten to one ratio is what they were running at the end, yes. And they were, I think, using bottom-hole pumping equipment, Sargeant, or Cope or one of those to handle large fluid volumes. I think probably that well would be commercial today.

Q. Do you think they've got communication there between Number 2 and Number 4?

A. We may. We've been snake bitten in this field before. It looks nice and even, but you can see a whole lot of people drilled a lot of dry holes thinking this was a bigger structure than it really was.

Q. Well, now you know the shape of the structure?

A. We do. We thought we knew the shape. There are

little bulges out and wherever there is a dry hole the bulges twist in and it is surprisingly geometrical, I agree, if that's true, which I believe it is.

Q. Why is the Devonian here making so much gas when it doesn't anywhere else?

A. I wish I could tell you the answer to that, Mr. Examiner, I really don't know. You can speculate quite a bit on it. The gas may fall off at some future date, but we haven't seen these kind of volumes in any other wells. The one producing well, the C-1 that we had a pretty good history of, that's just forty acres away, has had a very steady thousand to one GOR.

Q. That's what I thought you had said during your direct testimony.

A. Yes, it's a very predictable well.

Q. Is the Number 2, now I notice here on its original drill stem test you say gas to the surface in two minutes at an estimated two million. Now, it is relatively low structurally, did it continue to produce quite a bit of gas through its oil-producing life?

A. I couldn't get any history on the gas, they could have been flaring it out there or doing a lot of things.

Q. There was no gas sold?

A. My records don't show any, I don't know if there had been or not. I really can't answer that question.

MR. STEVENS: I can. If you want me to I can be sworn and testify as to that, I'm familiar with that well, if you want me to.

MR. NUTTER: Well, why don't you just tell us what the story is?

MR. STEVENS: All right. They perforated an upper porosity zone that flowed forty-two barrels of oil per hour and had apparently a lot of gas. The oil depleted rapidly, the gas-oil ratio went up tremendously to seven thousand to one and then ten thousand to one and eventually the well dropped down to one barrel a day and the bottom-hole pressure was two hundred pounds from an original twenty-seven hundred pounds. That's after it had produced two thousand barrels of oil. They lost a pound of pressure for every barrel of oil produced, so they squeezed that and went down to what we kind of tend to call the main porosity zone below that which the C-1, we feel, and the C-4 also is producing out of. That's where they produced the additional forty-four thousand barrels of oil in the eight to ten water to oil ratios and so the gas you see on that drill stem test and that was orginally produced dissipated when they plugged off that upper porosity zone and though I can't remember exactly, I think the lower porosity zone had something like a thousand to one.

MR. NUTTER: Well, do you think this Number 4 well since it has got a fairly high ratio might be in contact with

that little upper pay there that has produced a lot of gas in the first well?

MR. STEVENS: We think there is a chance that is where it is coming from and that it is better developed in this well than it obviously was in the original discovery well, but, of course, we are just guessing, it's open, though.

MR. NUTTER: It's open?

MR. STEVENS: But it is open in the C-1 also, so why the C-1 didn't do the same thing we don't know.

Q. (Mr. Nutter continuing.) You've got a pretty distinct shale break there immediately above your perforations in both of these wells.

A. That's the Woodford, yes. The Devonian top isn't an eroded top. Some people call it Silurian in the area, but it is usually a pretty good reservoir. It's a good reservoir here and when you get something like a gas stringer, that's what this could be. It could be a charged gas stringer that could even deplete itself, but I don't think there is any way to isolate it, when you are talking about the porosity development in the top of the Devonian, it's -- at least, it hasn't been isolated in either of the two producing wells, if it is the same one as that Magnolia 1-B O'Brien. I remember now about the drill stem test on that well, it did deplete, yes, and they opened the lower section. But we are really guessing trying to correlate zones in an

eroded Silurian. It could be the same and it could be different. We've got continuity at least below, maybe some ragged porosity on top. We know we've got reservoir continuity in the main porosity because it's indicated by the pressure information and the good recoveries of fluid.

Q. Do you think you could define a water-oil contact in here now?

A. I think it is a gradational thing, Mr. Examiner. All of the wells make some water and we've got a pretty good structure, I don't think it's filled to the spill point like a lot of Devonian structures are, say, in the Tatum Basin. You've got quite a bit of water, but there is also a mix in there and all of the wells are producing water and oil and they produce it in a mix.

Q. Well, there probably is --

A. A gradational contact that extends at least --

Q. Rather than a clean-cut oil-water contact?

A. Yes.

Q. The examination of your Exhibit Three would indicate that the depletion of the reservoir has caused more pressure decline than you might expect from a real active water drive, but yet the pressure decline hasn't been as much as you would expect from a solution gas drive so it is a possibility that you've got both features acting as a drive mechanism?

A. It's possible it has some gas solution pressure there, but I think even in water drive you lose some pressure. It won't be, you know text-book example, you won't stay there at virgin pressure thoughout the life, and if there is just enough pressure decline, I think the million barrels is a conservative figure. We are trying to get water recoveries and they are usually reported on the low side, or have been in the past and where I have estimated them I have estimated them on the low sides so there is probably just enough pressure drop, three hundred and fifty pounds or so there to indicate communication and yet not real depletion.

MR. NUTTER: Okay, a question for you, Mr. Stevens. Has this pool been the subject of previous hearings before, this Devonian reservoir?

MR. STEVENS: Never. To my knowledge the Devonian reservoir has not. Now, there has been a salt water injection approved in the O'Brien C-3.

MR. NUTTER: I wasn't thinking about injection, I was thinking about the designation of wells as gas wells or oil wells.

MR. STEVENS: No, sir, that's the San Andres. There is a gas well in the San Andres in Section 36 that has an associated gas reservoir, the San Andres is.

MR. NUTTER: But the Devonian has never been the subject for pool rules before?

MR. STEVENS: No, sir.

MR. NUTTER: Are there any other questions of the witness? He may be excused.

(THEREUPON, the witness was excused.)

MR. NUTTER: Do you have anything further, Mr. Stevens?

MR. STEVENS: No, Mr. Examiner.

MR. NUTTER: Does anyone have anything they wish to offer in Case 5599?

We will take the Case under advisement and take a fifteen minute recess.

REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a court reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Sidney F. Morrish, Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5599 heard by me on 12/17, 1975.

, Examiner
New Mexico Oil Conservation Commission

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 19, 1977

EXAMINER HEARING

IN THE MATTER OF:	)	
Case 5599 being reopened pursuant to the provisions of Order No. R-5142 which order established temporary special pool rules for the Twin Lakes-Devonian Pool, Chaves County, New Mexico.	)	CASE 5599

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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MR. STAMETS: We will call next Case 5599.

MS. TESCHENDORF: Case 5599 in the matter of Case 5599 being reopened pursuant to the provisions of Order No. R-5142 which order established temporary special pool rules for the Twin Lakes-Devonian Pool, Chaves County, New Mexico.

MR. STEVENS: Mr. Examiner, I'm Don Stevens, attorney in Santa Fe, representing Stevens Oil Company, the owner and operator of the Twin Lakes Pool.

I have one witness to be sworn which incidentally is myself as owner and expert witness for Stevens Oil Company.

MR. STAMETS: Swear the witness, please?

(THEREUPON, the witness was duly sworn.)

MR. STEVENS: We would ask the Commission to take administrative notice of the evidence and testimony in the recent Case 5599 presented a year ago, at which time the Commission set the temporary regulations for the Twin Lakes-Devonian Pool.

MR. STAMETS: The Examiner will note the record in that case.

MR. STEVENS: My name is Don Stevens, I am owner of Stevens Oil Company, residing in Santa Fe, New Mexico. I have previously testified before the Commission and had my qualifications as an expert witness accepted and I herewith tender my qualifications for the Commission.

MR. STAMETS: The witness' expertise is recognized.

MR. STEVENS: This is a case called by the Commission to show cause why this pool which had last year been established on eighty-acre spacing and a four thousand to one gas-oil ratio limitation should not revert to forty-acre spacing and a two thousand to one gas-oil ratio.

The operator of the pool does not desire to continue the four thousand to one gas-oil ratio limitation inasmuch as while one well is still above the two thousand to one gas-oil ratio limitation, it is a non-effective limitation in that the production is far below the allowable assigned to the pool. The applicant or the operator would tender to the Commission at this hearing, additional evidence that the field should be developed on or continued on an eighty-acre spacing and in that connection I would refer to Applicant's Exhibit Number One which is a structure map contoured on the Devonian formation in the Twin Lakes Pool, which Twin Lakes Pool is basically in the west half of Section 1, Township 9 South, Range 28 East, Chaves County.

Exhibit One shows an outline in yellow of the deep rights, Devonian rights, owned by Stevens Oil Company and its non-operator, Harvard Exploration, Limited. The exhibit was introduced at the last hearing. It merely shows a closed anticline dip in four directions and the three currently producing wells in the Twin Lakes Pool are in the west half-west half of Section 1, the No. 2 O'Brien "C" being in the

northwest-northwest quarter, which is the original discovery well back in 1950. The No. 1 O'Brien "C" Well, being in the southwest-southwest quarter of Section 1, which was completed in 1963 and is producing to date. The No. 4 O'Brien "C" Well is in the northwest quarter of the southwest quarter of Section 1 which was completed in 1975 and is currently producing.

As shown, the highest well on the structure is the O'Brien 1 "C", the O'Brien 4 being lower and the 2 being even lower.

What we will attempt to show here is that there is communication within this reservoir and between the wells and that eighty acres will be drained by the wells drilled on an eighty-acre pattern.

Referring to Exhibit Number Two, this again is a bottom-hole pressure versus fluid recovered from the formation chart. The first four bottom-hole pressure points shown on the chart were submitted at the last hearing. To that has been added the last point which is a bottom-hole pressure run in July of 1976 on the O'Brien "C" No. 1 Well. At that point the pressure there was two thousand, twenty pounds at the subsea datum of the other bottom-hole pressures and compared with all previous pressures in the field, show quite a marked drop. This bottom-hole pressure was taken after the wells being shut in for thirty days due to mechanical problems and is indicative with this well having been shut in

for more than a month, it is indicative that drainage from the offset well, the O'Brien "C" 4 had lowered the bottom-hole pressure in this well, again indicating communication between the wells and indicating that one well very well might drain eighty acres.

Not shown on this plat is a bottom-hole pressure test run on the O'Brien "C" 2 Well in the northwest-northwest quarter. This well was run on September 30th and -- I will have to check that date later but it was run later in the year. I believe it was in October and the pressure was two thousand six hundred and eighty pounds. That well is two locations north of the O'Brien "C" 4 Well. Its bottom-hole pressure is below the virgin bottom-hole pressure of the field as originally presumed from the Exhibit Number Two the leftward most bottom-hole pressure of twenty-eight hundred pounds, thus at that point in October of this year the O'Brien "C" No. 2 Well being some one hundred and twenty pounds below virgin pressure, we feel there is some evidence that the O'Brien "C" No. 4 Well with its relatively large amounts of production lowered the bottom-hole pressure on the O'Brien "C" No. 2 Well. The "C" No. 2 Well was completed in 1950, was plugged back to the San Andres in 1963, was worked over in 1976 and was recompleted as a very poor producer in the same Devonian formation. Thus though it produced an estimated total barrels of fluid of some four hundred thousand barrels

of oil, that production was from 1950 to 1963 and it is our feeling that the formation certainly would have repressured between 1963 and 1976, at the time this bottom-hole pressure was taken.

Thus the lesser bottom-hole pressure from virgin it is felt is indicative of production from the O'Brien "C" 4 and "C" 1 Wells.

Referring to Exhibit Number Three, this is a chart of or tabulation of bottom-hole pressures made in the O'Brien "C" No. 1 Well through the years. The date of the test, the bottom-hole pressure at test datum seventy-two twenty-five and the difference in bottom-hole pressure between tests and the average monthly production in the field of barrels of fluid between those tests, it shows variation in the bottom-hole pressure drop versus the amount of monthly production. For example, between 1963 and 1969 there was only one pound of bottom-hole pressure drop and the average monthly production was twenty-nine hundred eleven barrels per month between 11-69 and 9-71. A hundred and sixty-five pounds of bottom-hole pressure drop was recorded, producing three thousand, three hundred and fifty-six barrels per month.

These figures vary going down. The thing that's very unusual, I might state, is that between the test made on July 27th of '76, the bottom-hole pressure of two thousand and twenty pounds and a test made on August 11th of 1976, a

bottom-hole pressure of eighteen hundred and twenty pounds and there was a two hundred pound drop in the bottom-hole pressure. This is in the O'Brien "C" No. 1 Well which was not produced during this time. The only activity in the reservoir at this time was the O'Brien "C" 4, the north offset to this well, was producing. This is an extremely large pressure drop for the small amount of fluid produced by the O'Brien "C" 4 Well during that roughly fifteen day period. Only fifteen hundred and seventeen barrels of fluid were produced by the O'Brien "C" 4. I feel that's probably slightly larger. That was based on a previous gas-oil ratio test that showed, I believe, a two and a half to one water-oil ratio and subsequent to that when the next gas-oil ratio test was made it was a five to one water-oil ratio but these figures are from our records, we didn't go back and correct them.

In any case, the amount of fluid produced is very small. This well was tested on July 27th, 1976 with a two thousand to twenty pressure recorded. The next day the O'Brien "C" No. 4 Well was shut in for a pressure build-up test and between the beginning of the pressure build-up test on the "C" 1 Well and the end, there was a twenty-two pound pressure drop which was exactly the opposite of what we had anticipated. We anticipated we could show communication between the wells by shutting in the "C" 4 Well which had been producing rather prolifically to that point and thus we would show pressure

buildup in the "C" 1 through the shutting in of the "C" 4 Well.

We got the opposite of what we expected. We have some ideas as to the reason. We don't know what the reason was, it supposedly doesn't happen this way. I'll give you a summary of our ideas. The "C" 4 well actually has two Devonian zones open there within twenty feet of each other. The upper zone, from evidence in the "C" 4 Well and evidence in the old original O'Brien "C" 2 Well, we feel is a highly permeable, very porous, very thin zone with a high gas-oil ratio and an extremely rapid bottom-hole pressure decline based upon the results in the O'Brien "C" 2 Well in 1950 when that well was completed separately and had a pressure drop of roughly one pound per barrel of oil produced. We feel that the upper zone in the O'Brien "C" 4 is very similar to the O'Brien "C" 2 upper zone. The lower zone in the O'Brien "C" 4 was open at the same time. We originally tested the lower zone separately and produced approximately twenty-five barrels of oil per day, plus about five to one water to oil and then we recompleted both zones, including the upper zone, together.

So our feeling is that this bottom-hole pressure drop in the O'Brien "C" 1, after being shut in for one month was caused by the shutting in of the O'Brien "C" 4 after it had produced some eighty thousand barrels of fluid from October through July of 1976. We feel most of that oil and a

hundred and twenty-eight million cubic feet of gas came from that upper zone, effectively depleting the bottom-hole pressure to a very low point. The well to that point had mostly flowed and flowed with minor help from gas lift and no evidence of this bottom-hole pressure decline, of course, had been taken in the well or been evidenced except that a slow decline of production was noted.

We feel that at the time we shut in that O'Brien "C" 4, which is the first time it had ever been shut in, that the fluid from the lower porosity zone immediately, since the tubing was shut in, invaded what we would now term a thief zone in the upper Devonian porosity which had had a considerable reservoir voidage in a very thin zone of this eighty thousand barrels of fluid and a hundred and twenty-eight million cubic feet of gas. With its bottom-hole pressure being depleted to a large degree and with the well being shut in and the tubing closed in, we feel there was a vast rush of fluid, oil, water and some gas, from the lower porosity zone which is open in the O'Brien "C" 1 to the upper porosity zone in the O'Brien "C" 4. This is the only way we can logically account for a pressure drop in an offset well which has been shut in for a month. Whether this is the case or not, we don't know. However, we do feel, regardless of the reasons or whatever reservoir mechanics are at work, it is evidenced that coupled with this subsequent bottom-hole pressure test on August 11th,

that there is considerable communication between these two wells one location apart and it is far more evidenced, in my experience, than has often been shown in communication between wells and other field development in eighty-acre spacing.

On this basis, and on the basis of the previous bottom-hole pressure test run in the O'Brien "C" 2 Well later in the year, we feel we have ample evidence of communication and as a result of that communication, we feel there is ample evidence that one well will adequately drain eighty acres.

Now, on that basis we would request the Commission make permanent the eighty-acre spacing in the Twin Lakes-Devonian Pool.

The question may be academic, the wells are very poor and not anybody would probably want to drill there. We certainly have no plans for further development. We do have one location between two of the wells that might possibly make some oil.

Exhibits One, Two and Three were prepared by me or under my direction and I move at this time the introduction of these exhibits.

MR. STAMETS: The Exhibits One through Three will be admitted.

(THEREUPON, Applicant's Exhibits One through Three were admitted into evidence.)

MR. STEVENS: I have no further direct testimony at this time.

CROSS EXAMINATION

BY MR. STAMETS:

Q. What are the potentials of these wells at this time?

A. At this time?

Q. Well, the most recent potentials that you've got.

A. Well, I can give you current production.

Q. Okay.

A. We are making approximately two to three barrels of oil per day out of the O'Brien "C" 1. We are making approximately twenty-five barrels of oil per day out of the O'Brien "C" 4.

Q. What was the volume there, please?

A. Approximately twenty-five barrels of oil per day and only recently we put the "C" 2 on production and it's on a rod pump. It's still pumping down the accumulated water. We have evidence that it might make one or two barrels of oil per day but that is not definitive by any means at this time.

Q. Has the producing capacity on the "C" 1 changed radically since the "C" 4 has gone on production?

A. Considerably, yes. When we started gas lifting the "C" 4 we had extreme difficulties in gas lifting both wells. For one thing we had insufficient compressor capacity. We could occasionally gas lift them both properly by really loading

up the compressor but generally speaking we could not get an adequate test of the full amount of gas the well should have to properly produce.

The production from the "C" 1 declined considerably. We feel that from these bottom-hole pressures that with both wells producing at full gas lift capacity, the flowing bottom-hole pressure of the wells drops below, I guess what you could call an efficient pressure necessary for gas lift operation. There are seven hundred pounds of pressure against the formation at all times with our non-intermittent gas lift system. Therefore, the wells have to overcome that seven hundred pounds of pressure and the additional pressure to be able to pull out of the well to produce. As a result of this we feel that the bottom-hole pressure in both wells is lowered so considerably that it would be impossible to produce both wells at optimum gas, even if we had sufficient gas lift capacity based upon the lower bottom-hole pressure. Therefore, what we have done is produce the "C" 4 with optimum gas lift capacity and produced the "C" 1 with only the remaining gas we have available, which is very little and the consequence of this is, of course, the "C" 1 is making considerably less fluid but it is also not affecting the "C" 4 production to any great degree.

We noted when we were trying to produce them both at the same time that any time the "C" 1 went on production, the "C" 4 production suffered an immediate enlarged decline.

A further bit of information, once we had shut in the "C" 4 for the bottom-hole pressure buildup on the "C" 1, the production declined rapidly in the "C" 4 thereafter. We feel that this is caused by the invasion of the upper zone by oil and water from the lower zone into the area where there is much lower bottom-hole pressure. That well has never come back. It has declined even further since then so our request of a year ago for a high gas-oil ratio and eighty-acre spacing so we would not have to pinch in or shut in a well, I think was well taken in view of our subsequent experience where we finally did shut in the well. It was a disastrous shut in, but it would have happened in any case, you know, within some weeks or months certainly.

Q. With the allowables that you have or that you would need to produce the volume of oil that you are talking about here, certainly eighty acres would not be required.

A. For the allowable it would not be required whatsoever.

Q. For what reason should eighty-acre spacing be continued in here, at least the wells in the southwest corner appear to be located on forty-acre spacing as far as this pool is concerned?

A. Certainly they are. The only purpose of the eighty-acre spacing is to avoid the possibility of drilling wells that would not be economically viable, might be the terminology. To drill this field on forty would be even less economic than

on eighty. It's unecomomic on eighty, forty-acre spacing would make it less economic. In fact, I think under any circumstances no wells would be drilled but this is an opinion based upon what we know at this time. Conditions could change, acreage ownership could change, many factors through the years could happen and we feel that with the demonstrated proof that eighty acres will be drained by a well per eighty acres in this reservoir, that field should be permanently set up on an eighty-acre spacing.

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

(THEREUPON, the witness was excused.)

MR. STAMETS: Is there anything further in this case? The case will be taken under advisement.

REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5599, heard by me on 1-19, 1977.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

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OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
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DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

Mr. Donald G. Stevens
Attorney at Law
Post Office Box 1797
Santa Fe, New Mexico

Re: CASE NO. 5599
ORDER NO. R-5142-A

Applicant:

OCC (Stevens Oil Company)

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5599
Order No. R-5142-A

IN THE MATTER OF CASE 5599 BEING
REOPENED PURSUANT TO THE PROVISIONS
OF ORDER NO. R-5142, WHICH ORDER
ESTABLISHED SPECIAL RULES AND REGULATIONS
FOR THE TWIN LAKES-DEVONIAN POOL, CHAVES
COUNTY, NEW MEXICO, INCLUDING A PROVISION
FOR 80-ACRE PRORATION UNITS.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 19, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 15th day of February, 1977, the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.

(2) That by Order No. R-5142, dated January 6, 1976, temporary special rules and regulations were promulgated for the Twin Lakes-Devonian Pool, Chaves County, New Mexico, establishing temporary 80-acre spacing units and a limiting gas-oil ratio of 4,000 cubic feet of gas for each barrel of oil produced.

(3) That pursuant to the provisions of Order No. R-5142, this case was reopened to allow the operators in the subject pool to appear and show cause why the Twin Lakes-Devonian Pool should not be developed on 40-acre spacing units and why the limiting gas-oil ratio should not revert to 2,000 to one.

(4) That the evidence establishes that one well in the Twin Lakes-Devonian Pool can efficiently and economically drain and develop 80 acres.

(5) That the limiting gas-oil ratio for the Twin Lakes-Devonian Pool should revert to 2,000 to 1.

(6) That all other Special Rules and Regulations promulgated by Order No. R-5142 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the gas in the pool.

(7) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-5142, except as noted in Finding No. (5) above, should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED:

(1) That Rule 7 of the Special Rules and Regulations governing the Twin Lakes-Devonian Pool is hereby amended to read in its entirety as follows:

"RULE 7. The limiting gas-oil ratio shall be 2,000 cubic feet of gas for each barrel of oil produced."

(2) That the Special Rules and Regulations governing the Twin Lakes-Devonian Pool, Chaves County, New Mexico, promulgated by Order No. R-5142 as amended by this order, are hereby continued in full force and effect until further order of the Commission.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

dr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5599
Order No. R-5142

APPLICATION OF STEVENS OIL COMPANY
FOR SPECIAL POOL RULES, CHAVES
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 17, 1975, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 6th day of January, 1976, the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Stevens Oil Company, seeks the promulgation of special rules and regulations for the Twin Lakes-Devonian Pool, Chaves County, New Mexico, including provisions for 80-acre oil proration units and exemption of said pool from any gas-oil ratio limitation.

(3) That producing the subject pool without any gas-oil ratio limitation may result in the waste of reservoir energy and a violation of correlative rights.

(4) That the establishment of a special gas-oil ratio limitation of 4,000 cubic feet of gas for each barrel of oil will afford to the owner of each property in the subject pool the opportunity to produce his just and equitable share of the oil and gas and will not cause waste nor violate correlative rights, provided the flaring or venting of gas in the pool is prohibited.

(5) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect

correlative rights, temporary special rules and regulations providing for 80-acre spacing units should be promulgated for the Twin Lakes-Devonian Pool.

(6) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(7) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(8) That this case should be reopened at an examiner hearing in January, 1977, at which time the operators in the subject pool should be prepared to appear and show cause why the Twin Lakes-Devonian Pool should not be developed on 40-acre spacing units and why the limiting gas-oil ratio should not revert to the Statewide limit of 2000 to one.

IT IS THEREFORE ORDERED:

(1) That temporary Special Rules and Regulations for the Twin Lakes-Devonian Pool, Chaves County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
TWIN LAKES-DEVONIAN POOL

RULE 1. Each well completed or recompleted in the Twin Lakes-Devonian Pool or in the Devonian formation within one mile thereof, and not nearer to or within the limits of another designated Devonian oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or

certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located within 150 feet of the center of either quarter-quarter section in the 80-acre unit.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) shall be assigned a depth bracket allowable of 267 barrels, subject to the market demand percentage factor, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

RULE 7. The limiting gas-oil ratio shall be 4000 cubic feet of gas for each barrel of oil produced.

RULE 8. No gas shall be flared or vented on or after the effective date of this order; provided however, that any well completed in the subject pool after the effective date of this order shall be given 30 days in which to make beneficial use of the produced casinghead gas.

RULE 9. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 8 without notice and hearing when an application has been filed setting forth the facts and circumstances justifying the exception and he determines such action is necessary to prevent waste or protect correlative rights.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the Twin Lakes-Devonian Pool or in the Devonian

formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Artesia district office of the Commission in writing of the name and location of the well on or before February 1, 1976.

(2) That, pursuant to Paragraph A. of Section 65-3-14.5, NMSA 1953, contained in Chapter 271, Laws of 1969, existing wells in the Twin Lakes-Devonian Pool shall have dedicated thereto 80 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 65-3-14.5, existing wells may have non-standard spacing or proration units established by the Commission and dedicated thereto.

Failure to file new Forms C-102 with the Commission dedicating 80 acres to a well or to obtain a non-standard unit approved by the Commission within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the Twin Lakes-Devonian Pool or in the Devonian formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

(3) That this case shall be reopened at an examiner hearing in January, 1977, at which time the operators in the subject pool may appear and show cause why the Twin Lakes-Devonian Pool should not be developed on 40-acre spacing units and why the limiting gas-oil ratio should not revert to 2000 to one.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

Docket No. 31-75

Dockets Nos. 1-76 and 3-76 are tentatively set for hearing on January 7 and January 21, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - DECEMBER 17, 1975

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

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

ALLOWABLE: (1) Consideration of the allowable production of gas from seventeen prorated pools in Lea, Eddy, Roosevelt, and Chaves Counties, New Mexico, for January, 1976.

(2) Consideration of the allowable production of gas from five prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for January, 1976.

CASE 5598: Application of Skelly Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Langlie-Mattix Pool by the injection of water through its Hughes Federal Well Nos. 1 and 3, located in Units N and P, respectively, of Section 17, Township 23 South, Range 37 East, Lea County, New Mexico. Applicant further seeks an administrative procedure whereby the project area could be changed and expanded and additional wells at standard and non-standard locations put on injection and production.

CASE 5599: Application of Stevens Oil Company for special pool rules, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Twin Lakes-Devonian Pool, including a provision for 80-acre spacing and a special gas-oil ratio limit and depth bracket allowable, Chaves County, New Mexico.

CASE 5583: (Continued from December 3, 1975 Examiner Hearing)

Application of Stevens Oil Company for a pilot waterflood project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project in the Twin Lakes-San Andres Pool by injection of produced water through its Twinlakes Oil Company Well No. 1, located in Unit D of Section 12, Township 9 South, Range 28 East, Chaves County, New Mexico.

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Chester Hodgett
O.V. Stuckey

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Don Stevens
Bill LeMay

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Application of Stevens Oil Company for a pilot waterflood project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project in the Twin Lakes-San Andres Pool by injection of produced water through its Twinlakes Oil Company Well No. 1, located in Unit D of Section 12, Township 9 South, Range 28 East, Chaves County, New Mexico.

CASE 5836: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit James W. Strawn, American Employers Insurance Company, and all other interested parties to appear and show cause why the Horton Well No. 1 located in Unit A of Section 32, Township 11 North, Range 7 East, Santa Fe County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5810: Continued from November 23, 1976, Examiner Hearing

Application of Yates Petroleum Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Stonewall "EP" Com Well No. 1, located in Unit F of Section 30, Township 20 South, Range 28 East, Eddy County, New Mexico, to produce gas from the North Burton Flat-Wolfcamp Gas Pool and an undesignated Morrow gas pool.

CASE 5837: Application of TransOcean Oil, Inc., for a unit agreement, Catron County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Omega Unit Area comprising 35,196 acres, more or less, of State, Federal, and fee lands in Townships 2, 3, and 4 North, Range 14 West, Catron County, New Mexico.

CASE 5838: Application of TransOcean Oil, Inc. for a unit agreement, Catron County, New Mexico. Applicant, in the above-styled cause, seeks approval of the French Unit Area comprising 34,542 acres, more or less, of State, Federal, and fee lands in Townships 1 and 2 North, Ranges 16, 17, and 18 West, Catron County, New Mexico.

CASE 5839: Application of TransOcean Oil, Inc. for a unit agreement, Catron County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Remuda Unit Area comprising 34,504 acres, more or less, of State, Federal, and fee lands in Townships 2 and 3 North, Ranges 9 and 10 West, Catron County, New Mexico.

CASE 5840: Application of Dome Petroleum Corporation for pool creation and assignment of a discovery allowable, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Entrada production and the assignment of approximately 25,800 barrels of oil discovery allowable to the discovery well, being applicant's Federal 15 Well No. 1 located in Unit F of Section 15, Township 19 North, Range 5 West, McKinley County, New Mexico.

CASE 5048: (Reopened)

In the matter of Case 5048 being reopened pursuant to the provisions of Order No. R-4637-A, which order extended the temporary special pool rules for the South Dagger Draw-Upper Pennsylvanian Associated Pool, Eddy County, New Mexico. All interested parties may appear and show cause why said temporary special pool rules should not be rescinded.

CASE 5599: (Reopened)

In the matter of Case 5599 being reopened pursuant to the provisions of Order No. R-5142 which order established temporary special pool rules for the Twin Lakes-Devonian Pool, Chaves County, New Mexico. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units and why the limiting gas-oil ratio should not revert to 2,000 to 1.

CASE 5841: Application of Bettis, Boyle & Stovall for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Devonian formation underlying the E/2 NE/4 of Section 34, Township 12 South, Range 37 East, Southwest Gladiola-Devonian Pool, Lea County, New Mexico, to be dedicated to the Lowe Well No. 1 located in Unit A of said Section 34. Also to be considered will be the cost of recompleting 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 recompletion of said well.

CASE 5842: Application of Hanagan Petroleum Corporation for an exception to the provisions of Order No. R-1670, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 15(B) of the Southeast Gas Proration Rules contained in Order No. R-1670, as amended, to permit its Catclaw Draw Unit Well No. 9, located in Unit F of Section 35, Township 21 South, Range 25 East, Catclaw Draw-Morrow Gas Pool, Eddy County, New Mexico, to make up its overproduction at a rate less than complete shut-in.

Docket No. 3-77

Dockets Nos. 5-77 and 6-77 are tentatively set for hearing on February 2 and February 16, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - MONDAY - JANUARY 17, 1977

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

The following cases are continued from the December 1, 1976, Commission Hearing.

CASE 5719: Application of La Rue and Muncy for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its McClay Federal Wells Nos. 9 and 10, located in Units G and F, respectively, of Section 33, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of La Rue and Muncy, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5720: Application of Harvey E. Yates for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from his State Wells Nos. 1, 2, 3, 4, and 6 located in Units G, B, A, J, and H, respectively, of Section 32, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Harvey E. Yates, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5721: Application of H & S Oil Company for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its McClay Well No. 7, located in Unit C of Section 33, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of H & S Oil Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5722: Application of Gene Snow for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from his Elk Well No. 1, located in Unit L of Section 32, Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Gene Snow, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 5723: Application of Marbob Energy Corporation for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of, into earthen pits, produced salt water from its Elliott Well No. 1 located in Unit E of Section 28, and its Elliott Wells Nos. 2 and 3 located in Units H and G, respectively, of Section 29, all in Township 18 South, Range 30 East, North Benson Queen-Grayburg Pool, Eddy County, New Mexico.

Upon application of Marbob Energy Corporation, this case will be heard De Novo pursuant to the provisions of Rule 1220.

Docket No. 4-77

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 19, 1977

9 A.M. - OIL CONSERVATION COMMISSION 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:

ALLOWABLE: (1) Consideration of the allowable production of gas for February, 1977, from seventeen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.

(2) Consideration of the allowable production of gas for February, 1977, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

January 6, 1976

Mr. Donald Stevens
Attorney at Law
Post Office Box 1797
Santa Fe, New Mexico

Re: CASE NO. 5599
ORDER NO. R-5142

Applicant:

Stevens Oil Company

Dear Sir:

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

Yours very truly,

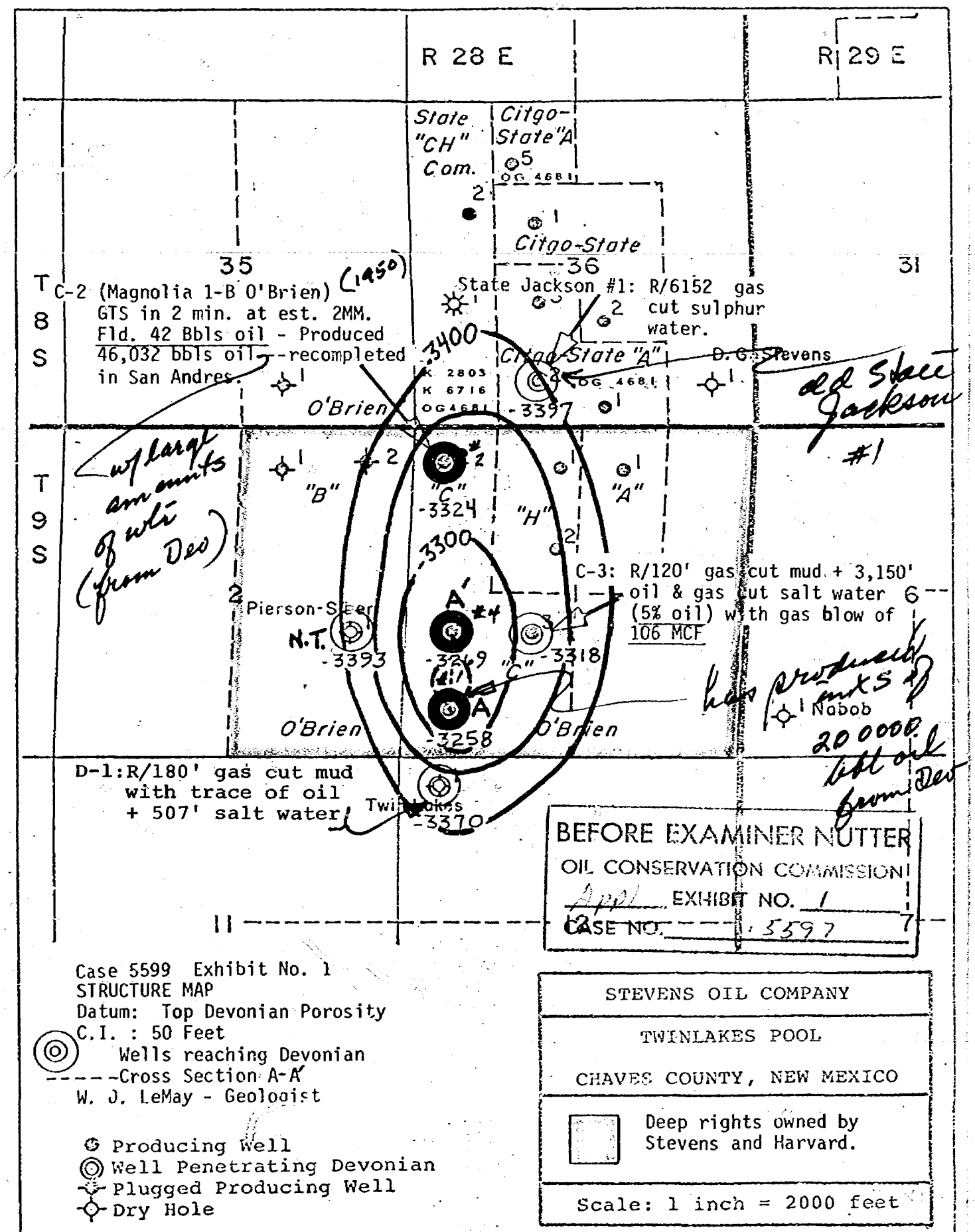
JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC
Aztec OCC

Other

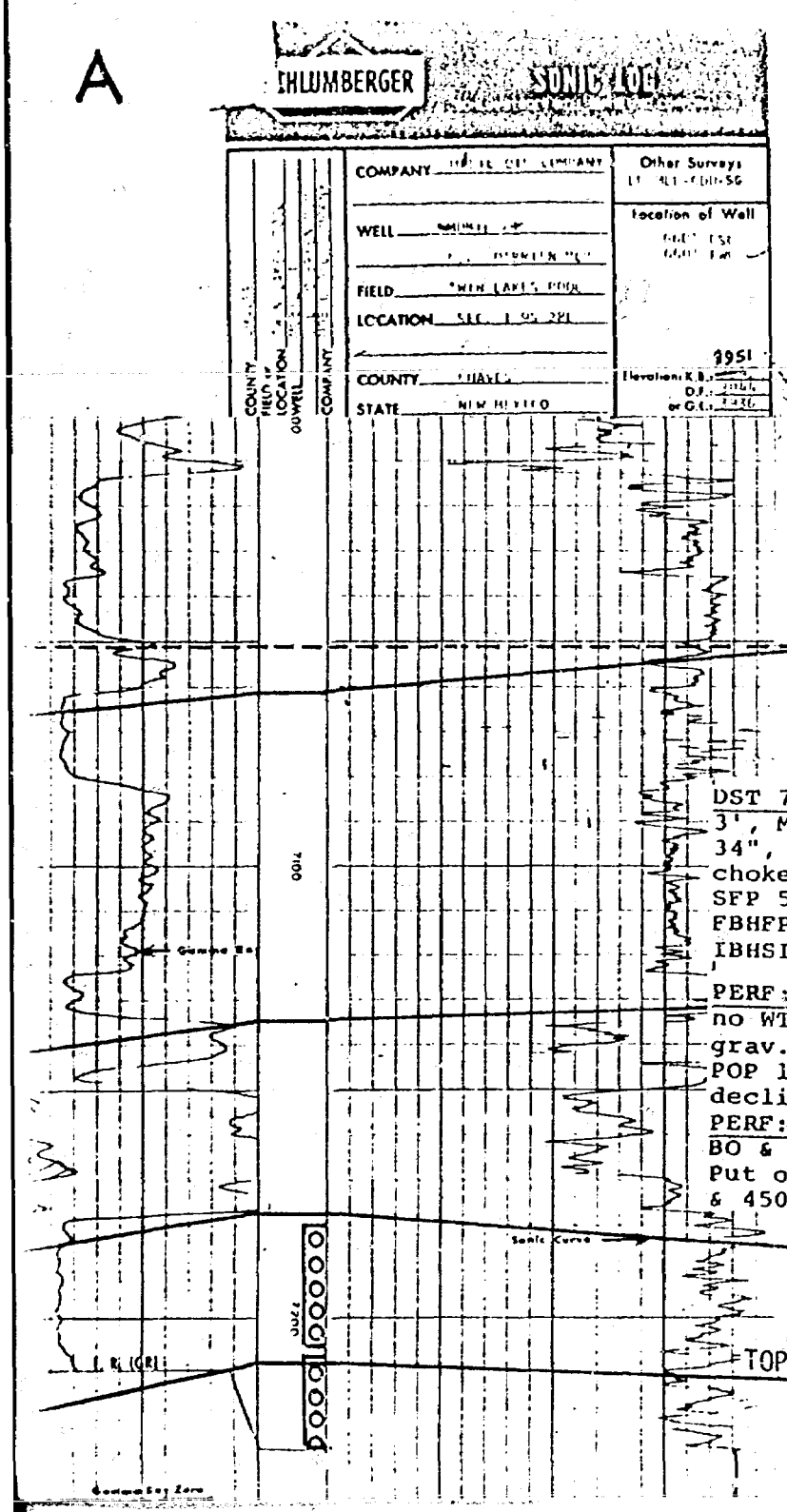

R 28 E
R 29 E
35
36
31
T 8 S
T 9 S
State "CH" Com.
Citgo-State "A"
5
OG 4681
2
1
Citgo-State
C-2 (Magnolia 1-B O'Brien) (1950)
GTS in 2 min. at est. 2MM.
Fld. 42 Bbls oil - Produced
46,032 bbls oil - recompleted
in San Andres.
State Jackson #1: R/6152 gas
cut sulphur
water.
2
3400
Citgo-State "A"
D. G. Stevens
K 2803
K 6716
OG 4681
-3397
O'Brien
old State Jackson #1
w/large amounts of wtr (from Dev)
"B"
"C"
-3324
"H"
"A"
-3300
C-3: R/120' gas cut mud + 3,150'
oil & gas cut salt water
(5% oil) with gas blow of
106 MCF
Pierson-Steer
N.T.
-3393
-3249
"C"
-3318
A'
A
-3258
O'Brien
O'Brien
has produced mxs of 20000 bbl oil from Dev
Nobob
D-1: R/180' gas cut mud
with trace of oil
+ 507' salt water
Twinlakes
-3370
BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Appl. EXHIBIT NO. 1
CASE NO. 5597
Case 5599 Exhibit No. 1
STRUCTURE MAP
Datum: Top Devonian Porosity
C.I. : 50 Feet
Wells reaching Devonian
-----Cross Section A-A'
W. J. LeMay - Geologist
Producing Well
Well Penetrating Devonian
Plugged Producing Well
Dry Hole
STEVENS OIL COMPANY
TWINLAKES POOL
CHAVES COUNTY, NEW MEXICO
Deep rights owned by
Stevens and Harvard.
Scale: 1 inch = 2000 feet

A

Case 5599 Exhibit No. 2

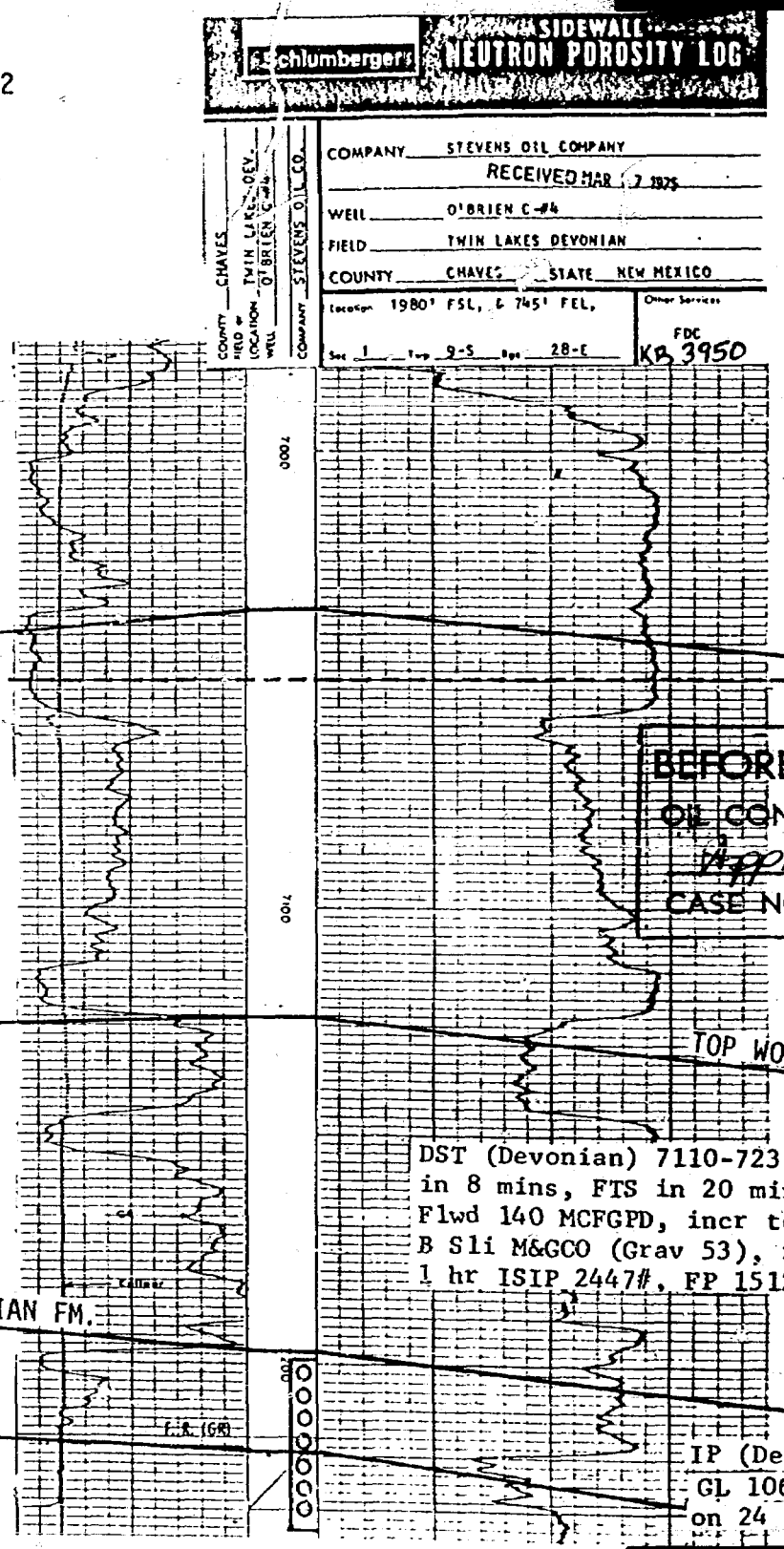
CROSS SECTION A-A

W. J. LeMay - Geologist



DST 7170-7245. Open 3'20". No Wc GTS 3', MTS 10", OTS 13", clean to pit 34", flow 112 BNO in 2'30", 32/64" choke. Calc GOR 930/1, Gty. 49.5 @ 60, SFP 500#, IBHFP 1404#, FBHFP 1804, 2' FBHFP 2681, HH 3733-3733, BHT 140°, 30" IBHSIP 2761

PERF: 7180-7205, IPF: (natural) 176 BO, no WTR, 20/64" CP. Packer, TP200, 49.7 grav.
POP 1-63 & A/1000, IPP 56BO & 16BW, declined to 13 BOPD
PERF: 7208-7226, on 12-23-63, IPP: 48 BO & 38 BSW, 60R 2410-1, Grav 46.2
Put on Kobe pump 6-69, Pumped 2920 BO & 4500 BW during October, 69.



DST (Devonian) 7110-7235', in 8 mins, FTS in 20 mins Flwd 140 MCFGPD, incr to 3 B Sli M&GCO (Grav 53), rev 1 hr ISIP 2447#, FP 1512-2

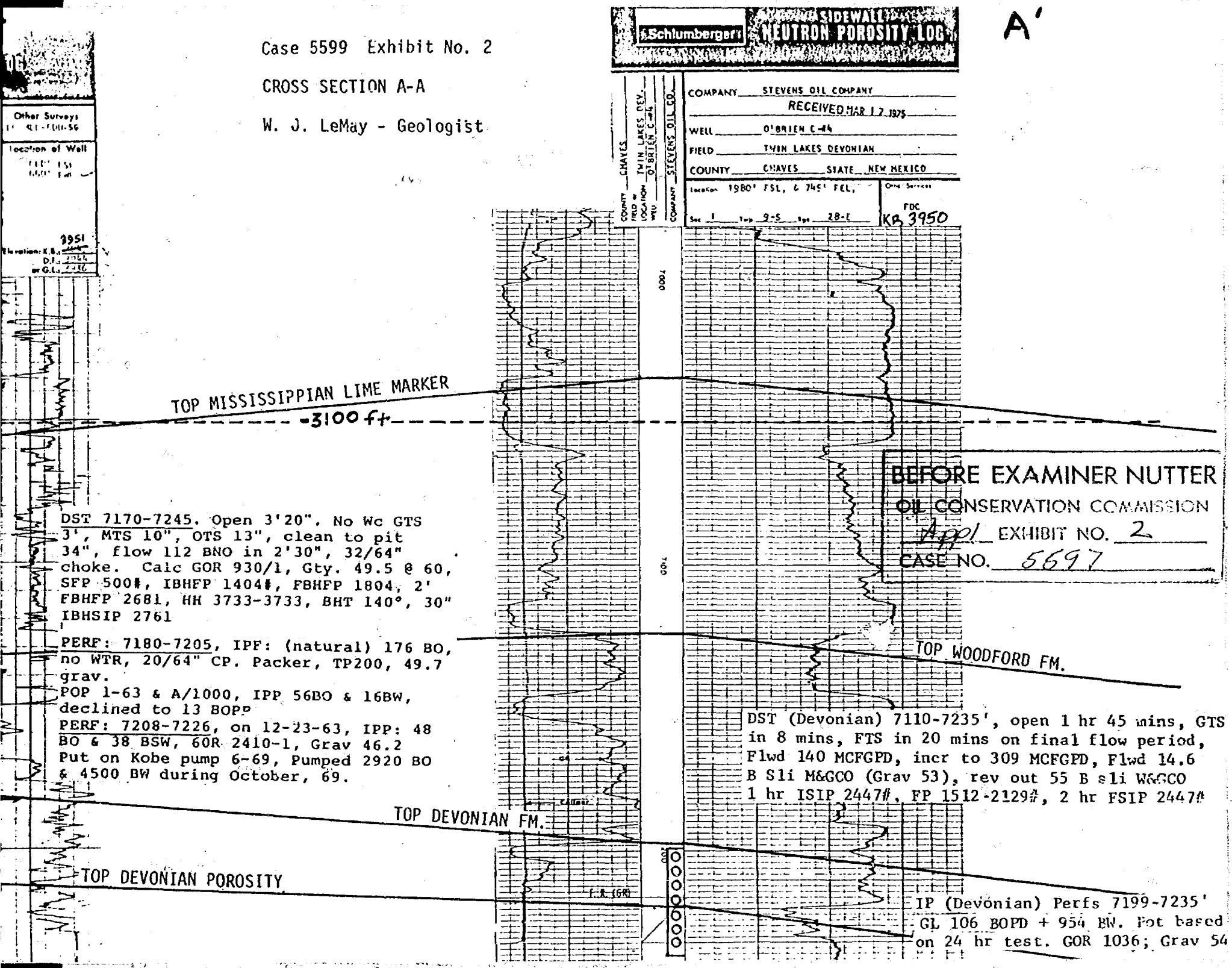
IP (Devon GL 106 B on 24 hr

Case 5599 Exhibit No. 2

CROSS SECTION A-A

W. J. LeMay - Geologist

A'



DST 7170-7245. Open 3'20". No Wc GTS 3', MTS 10", OTS 13", clean to pit 34", flow 112 BNO in 2'30", 32/64" choke. Calc GOR 930/1, Gty. 49.5 @ 60, SFP 500#, IBHFP 1404#, FBHFP 1804, 2' FBHFP 2681, HH 3733-3733, BHT 140°, 30" IBHSIP 2761

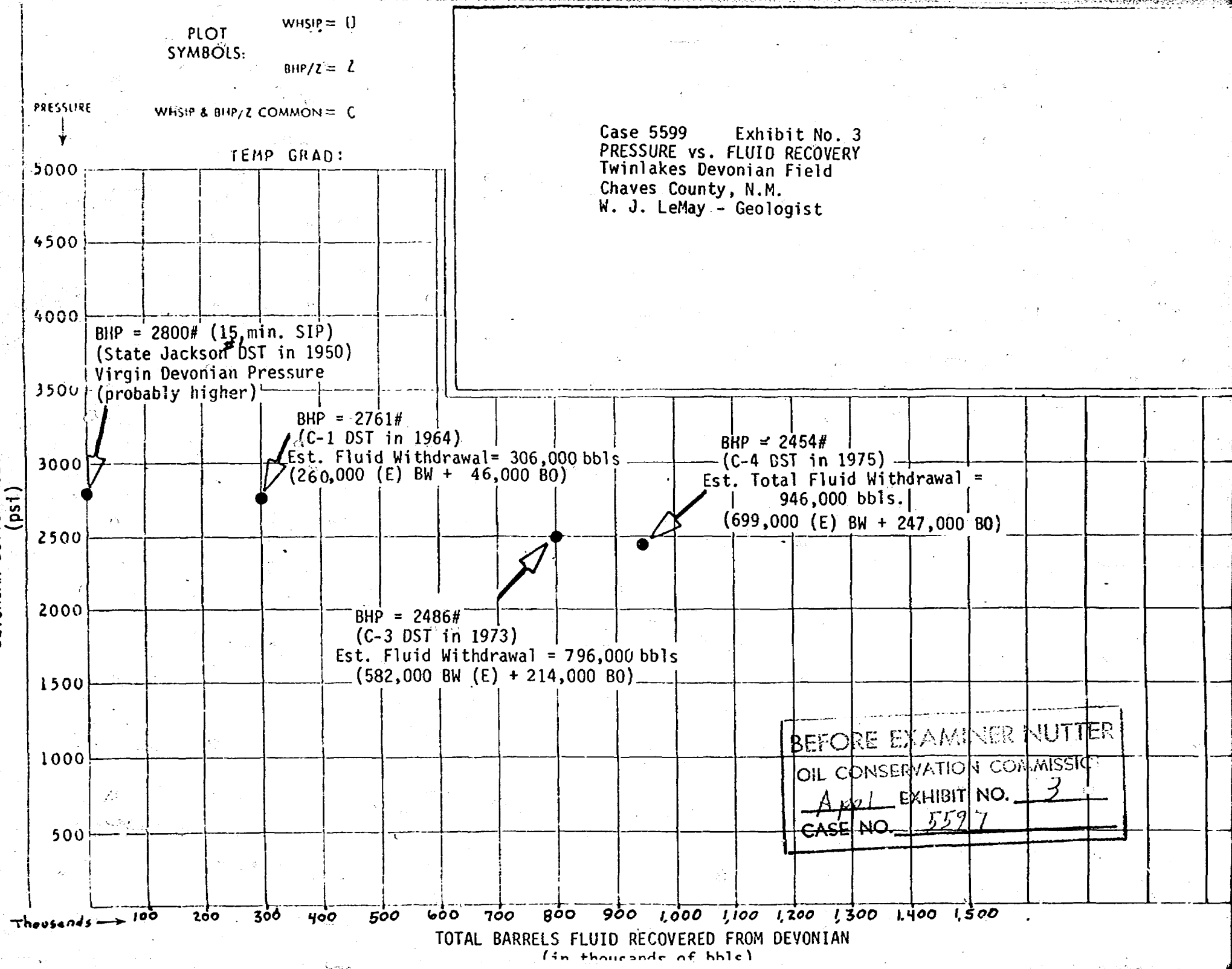
PERF: 7180-7205, IPF: (natural) 176 BO, no WTR, 20/64" CP. Packer, TP200, 49.7 grav.
POP 1-63 & A/1000, IPP 56BO & 16BW, declined to 13 BOPD
PERF: 7208-7226, on 12-23-63, IPP: 48 BO & 38 BSW, 60R 2410-1, Grav 46.2
Put on Kobe pump 6-69, Pumped 2920 BO & 4500 BW during October, 69.

DST (Devonian) 7110-7235', open 1 hr 45 mins, GTS in 8 mins, FTS in 20 mins on final flow period, Flwd 140 MCFGPD, incr to 309 MCFGPD, Flwd 14.6 B Sli M&GCO (Grav 53), rev out 55 B sli W&GCO 1 hr ISIP 2447#, FP 1512-2129#, 2 hr FSIP 2447#

IP (Devonian) Perfs 7199-7235' GL 106 BOPD + 954 BW. Pot based on 24 hr test. GOR 1036; Grav 54

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Appl EXHIBIT NO. 2
CASE NO. 5697

Case 5599 Exhibit No. 3
PRESSURE vs. FLUID RECOVERY
Twinlakes Devonian Field
Chaves County, N.M.
W. J. LeMay - Geologist



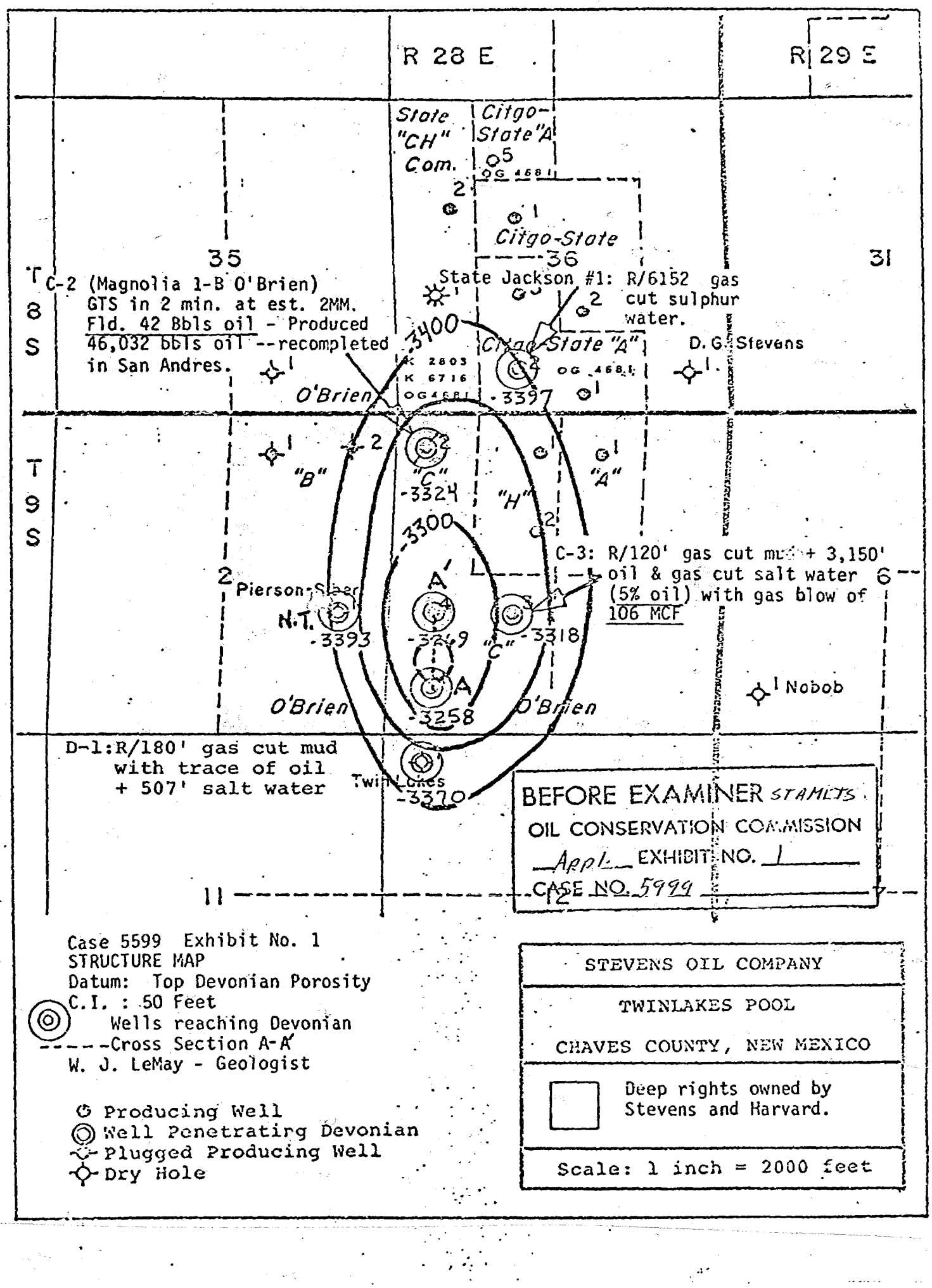
Gas-Oil Ratio Tests

O'Brien C #4

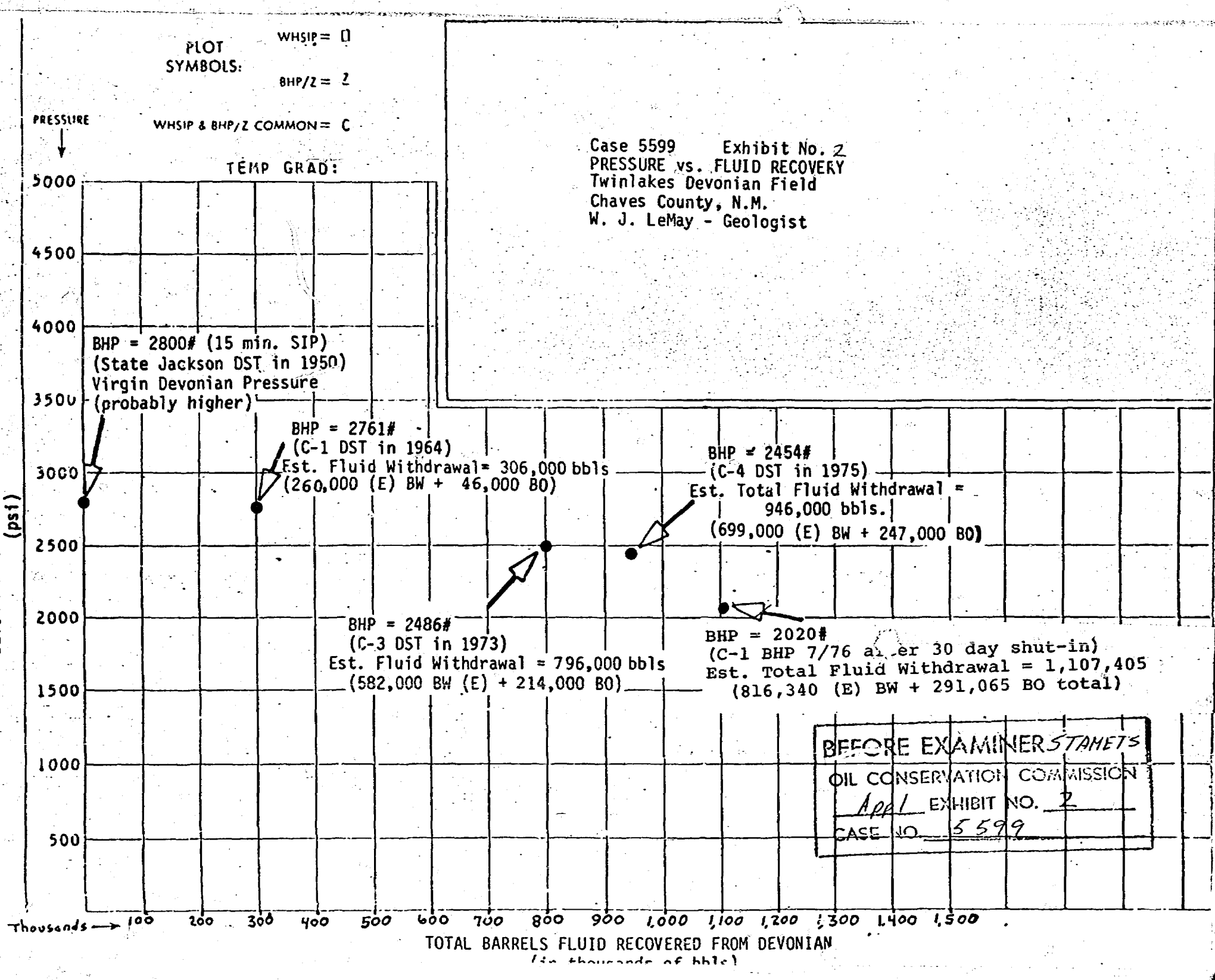
	12/13/75	12/14/75
Gas Produced	825,763 cfgpd	1,354,448 cfgpd
Oil Produced	112.75 BO	239.25 BO
Water Produced	344. BW	544. BW
Gas-Oil Ratio	7,324-1	5,661-1
Water-Oil Ratio	3.05-1	2.27-1

EXHIBIT 4

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Appl EXHIBIT NO. 4
CASE NO. 5597


R 28 E
R 29 E
State "CH" Com.
Citgo-State "A"
OG 4681
Citgo-State
35
36
31
T 8 S
C-2 (Magnolia 1-B O'Brien)
GTS in 2 min. at est. 2MM.
Fld. 42 Bbls oil - Produced
46,032 bbls oil --recompleted
in San Andres.
State Jackson #1: R/6152 gas
cut sulphur
water.
3400
Citgo-State "A"
D. G. Stevens
K 2803
K 6716
OG 4681
O'Brien
-3397
"B"
"C"
-3324
"H"
"A"
3300
C-3: R/120' gas cut mud + 3,150'
oil & gas cut salt water
(5% oil) with gas blow of
106 MCF
T 9 S
Pierson-Sloer
N.M.
-3393
-3349
"C"
-3318
O'Brien
-3258
O'Brien
Nobob
D-1:R/180' gas cut mud
with trace of oil
+ 507' salt water
Twin Lakes
-3370
BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
Appl. EXHIBIT NO. 1
CASE NO. 5999
Case 5599 Exhibit No. 1
STRUCTURE MAP
Datum: Top Devonian Porosity
C.I. : 50 Feet
Wells reaching Devonian
-----Cross Section A-A'
W. J. LeMay - Geologist
Producing Well
Well Penetrating Devonian
Plugged Producing Well
Dry Hole
STEVENS OIL COMPANY
TWINLAKES POOL
CHAVES COUNTY, NEW MEXICO
Deep rights owned by
Stevens and Harvard.
Scale: 1 inch = 2000 feet

Case 5599 Exhibit No. 2
PRESSURE vs. FLUID RECOVERY
Twinlakes Devonian Field
Chaves County, N.M.
W. J. LeMay - Geologist



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
Appl EXHIBIT NO. 2
CASE NO. 5599

STEVENS OIL COMPANY

O'Brien "C" #1

Date	Bottom Hole Pressure @ 7225'	Diff. Since Last Test	Av. Monthly Prod. Since Last BHP Test (Barrels Fluid)
--63	2681		--
11/69	2680	1	2911
9/71	2515	165	3356
9/72	2335	180	6565
2/73	2311	24	5861
7/27/76	2020	191	3058
8/11/76	1820	200	0

Production started on O'Brien "C" #4 10/75

O'Brien "C" #4 Fluid Production through 7/76 = 80,164

O'Brien "C" #4 Gas Production through 7/76 = 128,939 mcfg

O'Brien "C" #4 Fluid Production 7/27/76 through 8/11/76 = 1517

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
Appl Exhibit No. 3
CASE NO. 5999
Submitted by Appl
Hearing Date 1-19-77

Case 5599

BEFORE THE

OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF STEVENS OIL COMPANY FOR 80 ACRE
SPACING, CAPACITY ALLOWABLE, AND
EXEMPTION FROM OR MODIFICATION OF
THE 2000-1 GAS-OIL RATIO LIMITATION
IN THE TWIN LAKES DEVONIAN POOL
CHAVES COUNTY, NEW MEXICO

A P P L I C A T I O N

COMES NOW Stevens Oil Company and applies to the New Mexico Oil Conservation Commission for an order establishing 80 acre spacing in the Twin Lakes Devonian Field and further seeks the consideration of the Commission for a capacity allowable for said field and an exemption or modification of the 2000 cubic feet of gas per barrel of oil limitation on producing oil wells. In support thereof applicant states:

1. Applicant has recently completed a well in the Twin Lakes Devonian Field currently capable of producing 350 barrels of oil per day, 600 barrels of water per day and considerable but, as yet, an unmeasured amount of gas.

2. Preliminary but as yet nondefinitive evidence from said well and surrounding wells indicates that:

a. One well may drain hydrocarbons from 80 acres.

b. Increased oil production above a 40 acre allowable decreases the amount of water produced per barrel of oil produced.

c. Increased oil production above a 40 acre allowable may decrease the amount of gas produced per barrel of oil produced.

WHEREFORE, applicant respectfully requests that the Commission set this matter for hearing before the Commission's

duly appointed examiner on December 17, 1975, and that after notice and hearing as required by law the Commission enter its order as requested above and in accordance with evidence submitted at said hearing.

Respectfully submitted,

STEVENS OIL COMPANY

By Donald G. Stevens/w. Lipton
DONALD G. STEVENS
P.O. Box 1797
Santa Fe, New Mexico 87501

ATTORNEY FOR APPLICANT

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

5599
CASE No. ~~4173~~ R-5142
Order No. ~~R-3811~~
NOMENCLATURE

APPLICATION OF ~~AMERADA HESS CORPORATION~~ Stevens Oil Company
FOR SPECIAL POOL RULES ~~AND POOL EXTEN-~~
~~SION~~, ~~LEA~~ COUNTY, NEW MEXICO.
Chaves

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on ~~July 23, 1969,~~ December 17, 1975
at Santa Fe, New Mexico, before Examiner ~~Elvis A. Utz~~ Daniel S. Nutter

NOW, on this ~~14th~~ day of ~~August, 1969,~~ January, 1975, the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, ~~Amerada Hess Corporation, seeks the~~ Stevens Oil Company
~~(4) That the applicant also~~ seeks the promulgation of special rules and regulations for the ~~Hobbs Drinkard Pool~~, Twin Lakes-Devonian Pool, Chaves Co., N.M., including provisions for 80-acre oil proration units and exemption of said pool from any gas-oil ratio limitation.

(3) That producing the subject pool without any gas-oil ratio limitation may result in the waste of reservoir energy and a violation of correlative rights.

(4) That the establishment of a special gas-oil ratio limitation of 4,000 cubic feet of gas for each barrel of oil will afford to the owner of each property in the subject pool the opportunity to produce his just and equitable share of the oil and gas and will not cause waste nor violate correlative rights, provided the flaring or venting of gas in the pool is prohibited.

(5) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentstion of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 80-acre spacing units should be promulgated for the ~~Hobbs Drinkard Pool.~~ Twin Lakes-Devonian Pool.

(2)

(6) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(7) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

~~Case No. [illegible] 11~~ 1977

January, 1978,

Twin Lakes-Devonian

(8) That this case should be reopened at an examiner hearing in ~~July, 1978~~, at which time the operators in the subject pool should be prepared to appear and show cause why the ~~Hobbs-Drinkard~~ Pool should not be developed on 40-acre spacing units and why the limiting gas-oil ratio should not revert to the Statewide limit of 2000 to one.

IT IS THEREFORE ORDERED:

(9) That temporary Special Rules and Regulations for the Twin Lakes-Devonian Pool, ~~Hobbs-Drinkard Pool, Lea~~ Chaves County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
TWIN LAKES-DEVONIAN ~~HOBBS-DRINKARD~~ POOL

RULE 1. Each well completed or recompleted in the ~~Hobbs-Drinkard~~ Twin Lakes-Devonian Pool or in the ~~Drinkard~~ Devonian formation within one mile thereof, and not nearer to or within the limits of another designated ~~Drinkard~~ Devonian oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the

unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located within 150 feet of the center of either quarter-quarter section in the 80-acre unit.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) shall be assigned ~~an 80-acre proportional factor of 2.77 for~~ a depth bracket allowable of 267 barrels, subject to the market demand percentage factor, allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

RULE 7. The limiting gas-oil ratio shall be 4000 cubic feet of gas for each barrel of oil produced.

RULE 8. No gas shall be flared or vented on or after the effective date of this order; provided however, that any well completed in the subject pool after the effective date of this order shall be given 30 days in which to make beneficial use of the produced casinghead gas.

CASE No. ~~4173~~ 5599
Order No. R-~~3011~~

RULE 9. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 8 without notice and hearing when an application has been filed setting forth the facts and circumstances justifying the exception and he determines such action is necessary to prevent waste or protect correlative rights.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the ~~Hobbs-Drinkard Pool~~ Twin Lakes-Devonian Pool or in the ~~Drinkard~~ Devonian formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Artesia ~~Hobbs~~ District Office of the Commission in writing of the name and location of the well on or before ~~September~~ February 1, 1969.

(2) That, pursuant to Paragraph A. of Section 65-3-14.5, NMSA 1953, contained in Chapter 271, Laws of 1969, existing wells in the ~~Hobbs-Drinkard~~ Twin Lakes Devonian Pool shall have dedicated thereto 80 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 65-3-14.5, existing wells may have non-standard spacing or proration units established by the Commission and dedicated thereto.

Failure to file new Forms C-102 with the Commission dedicating 80 acres to a well or to obtain a non-standard unit approved by the Commission within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the ~~Hobbs-Drinkard~~ Twin Lakes-Devonian Pool or in the ~~Drinkard~~ formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

(3) That this case shall be reopened at an examiner hearing in ~~July, 1970~~ January, 1977, at which time the operators in the subject pool may appear and show cause why the ~~Hobbs-Drinkard~~ Twin Lakes-Devonian Pool should not be developed on 40-acre spacing units and why the limiting gas-oil ratio should not revert to 2000 to one.

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

DRAFT

dr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5599

Order No. R-5142-A

IN THE MATTER OF CASE 5599 BEING
REOPENED PURSUANT TO THE PROVISIONS
OF ORDER NO. R- 5142 , WHICH ORDER
ESTABLISHED SPECIAL RULES AND REGULATIONS
FOR THE TWIN LAKES-DEVONIAN
~~GAS~~ POOL, CHAVES COUNTY, NEW MEXICO,
INCLUDING A PROVISION FOR 80~~40~~-ACRE
PRORATION UNITS.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 19, 19 77, at Santa Fe, New Mexico, before Examiner Richa-rd L. Stamets.

NOW, on this day of , 19 , the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.

(2) That by Order No. R-5142, dated January 6, 19 76, temporary special rules and regulations were promulgated for the Twin Lakes-Devonian ~~Gas~~ Pool, Chaves County, New Mexico, establishing temporary 80-acre spacing units and a limiting gas-oil ratio of 4000 cubic feet of gas for each barrel of oil produced.

(3) That pursuant to the provisions of Orde No. R-5142, this case was reopened to allow the operators in the subject pool to appear and show cause why the Twin Lakes-Devonian ~~Gas~~ Pool should not be developed on 40-acre spacing units and why the limiting gas-oil ratio should not revert to 2000 to one.

(4) That the evidence establishes that one well in the Twin Lakes-Devonian ~~Gas~~ Pool can efficiently and economically drain and develop ~~8~~0 acres.

(5) That ~~the evidence establishes that the~~ limiting gas-oil ratio for the Twin Lakes-Devonian Pool should revert to 2000 to 1.

(6) That all other Special Rules and Regulations promulgated by Order No. R-5142 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the gas in the pool.

(7) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-5142, except as noted in finding No(5) above, should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED:

(2) That the Special Rules and Regulations governing the Twin Lakes-Devonian Gas Pool, Chaves County, New Mexico, promulgated by Order No. R-5142 as amended by this order, are hereby continued in full force and effect until further order of the Commission.

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

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

(1) That Rule 7 of the Special Rules and Regulations governing the Twin Lakes-Devonian Pool is hereby amended to read in its entirety as follows:

"Rule 7. The limiting gas-oil ratio shall be 2,000 cubic feet of gas for each barrel of oil produced."

(6) That all other Special Rules and Regulations promulgated by Order No. R-5142 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the gas in the pool.

(7) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-5142, except as noted in Finding No. (5) above, should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED:

(2) That the Special Rules and Regulations governing the Twin Lakes-Devonian Gas Pool, Chaves County, New Mexico, promulgated by Order No. R-5142, as amended by this order, are hereby continued in full force and effect until further order of the Commission.

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

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

(1) That Rule 7 of the Special Rules and Regulations governing the Twin Lakes-Devonian Pool is hereby amended to read in its entirety as follows:

"Rule 7. The limiting gas-oil ratio shall be 2,000 cubic feet of gas for each barrel of oil produced."