CASE 6769: [illegible] PETROLEUM CORPORATION FOR A NON-STANDARD OIL PRORATION UNIT, UNORTHODOX WELL LOCATION, AND DOWNHOLE COMMINGLING, LEA COUNTY, NEW MEXICO

Case No.

6900

Application

Transcripts

Small Exhibits

ETC

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

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

June 13, 1980

Re: CASE NO. 6900
ORDER NO. R-6362

Mr. Chad Dickerson
Losee, Carson & Dickerson
Attorneys at Law
Post Office Drawer 239
Artesia, New Mexico 88210

Applicant:

Yates Petroleum Corporation

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 6900
Order No. R-6362

APPLICATION OF YATES PETROLEUM
CORPORATION FOR A NON-STANDARD OIL
PRORATION UNIT, UNORTHODOX WELL
LOCATION, AND DOWNHOLE COMMINGLING,
LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on May 21, 1980, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 5th day of June, 1980, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Yates Petroleum Corporation, seeks approval of an 80-acre non-standard oil proration unit comprising the N/2 SE/4 of Section 22, Township 16 South, Range 33 East, [illegible], Kemnitz-Wolfcamp Pool, to be dedicated to its Sombrero "AP" State Well No. 1 at an unorthodox location 1650 feet from the South line and 1650 feet from the East line of said Section 22.

(3) That the special rules for said pool prescribe that drilling and proration units shall comprise either the East half or the West half of a governmental quarter section and that well locations shall be within 150 feet of the center of the Northeast quarter or the Southwest quarter of a governmental quarter section.

(4) That the entire non-standard proration unit may reasonably be presumed productive of oil from the Kemnitz-Wolfcamp Pool and that the entire non-standard oil proration unit can be efficiently and economically drained and developed by the aforesaid well.

(5) That approval of the subject application will afford the applicant the opportunity to produce his just and equitable share of the oil in the Kemnitz-Wolfcamp Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

(6) That the applicant also seeks approval for the downhole commingling of Wolfcamp and Cisco production in the wellbore of said well.

(7) That from each of said zones, the subject well is currently capable of marginal production.

(8) That the production from said zones is expected to initially decline at a relatively rapid rate.

(9) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(10) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(11) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Division any time the subject well is shut-in for 7 consecutive days.

(12) That in order to allocate the commingled production to each of the commingled zones in the well, applicant should consult with the supervisor of the Hobbs district office of the Division and determine an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That an 80-acre non-standard oil proration unit in the Kemnitz-Wolfcamp Pool comprising the N/2 SE/4 of Section 22, Township 16 South, Range 33 East, NMPM, Lea County, New Mexico, is hereby established and dedicated to the Yates Petroleum Corporation Sombrero "MS" State Well No. 1 at an unorthodox location, hereby approved, 1650 feet from the South line and 1650 feet from the East line of said Section 22.

IT IS FURTHER ORDERED:

(1) That Yates Petroleum Corporation is hereby authorized to commingle Wolfcamp and Cisco production within the wellbore of said Sombrero "MS" State Well No. 1.

(2) That the applicant shall consult with the Supervisor of the Hobbs district office of the Division and determine an allocation formula for the allocation of production to each zone in the subject well.

(3) That the operator of the subject well shall immediately notify the Division's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

S E A L

ld/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
21 May 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Yates Petroleum Corporation for a non-standard oil proration unit, unorthodox well location, and downhole commingling, Lea County, New Mexico.

CASE 6900

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: Chad Dickerson, Esq.
LOSEE, CARSON, & DICKERSON
Artesia, New Mexico

I N D E X

E X H I B I T S

MR. STAMETS: We'll call next Case 6900.

MR. PADILLA: Application of Yates Petroleum Corporation for a non-standard oil proration unit, unorthodox well location, and downhole commingling, Lea County, New Mexico.

MR. DICKERSON: Chad Dickerson, Mr. Examiner, on behalf of the applicant and we have one witness.

(Witness sworn.)

EDDIE MAHFOOD

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

DIRECT EXAMINATION

BY MR. DICKERSON:

Q. Will you state your name and your occupation and by whom you are employed, please?

A. Eddie Mahfood, petroleum engineer for the Yates Petroleum Corporation in Artesia, New Mexico.

Q. And, Mr. Mahfood, you have previously testified before the Oil Conservation Division as an expert engineer and have had your qualifications accepted?

A. Yes.

MR. DICKERSON: I tender Mr. Mahfood as

a witness.

MR. STAMETS: He is considered qualified.

Q. Mr. Mahfood, will you briefly describe the purposes of Yates -- that Yates seeks by its application in this proceeding?

A. We seek a non-standard location and down-hole commingling in this well. The non-standard location is created by special pool rules which the company was unaware of when we spudded the well.

Q. What field rules are you referring to?

A. I'm referring to the Kemnitz Lower Wolfcamp Field Rules.

Q. And that was created by Commission Order R-1011?

A. That is correct.

Q. Mr. Mahfood, please refer to what is marked Exhibit Number One and describe what it shows.

A. Exhibit Number One is an owne ship map of the area showing the location of our well, which is located in about the middle of the four different fields, the Kemnitz Wolfcamp Field, the Sombrero Gas Field, Kemnitz West Wolfcamp and Cisco Field, and the Pennsylvania Field.

Q. What is the footage location this well that we're involved with today?

A. This well is located 1650 from the south

and east lines of Section 22, 16, 33.

Q. Mr. Mayfood, will you point out other wells which have a bearing on this proceeding in the area which is shown on Exhibit Number One?

A. Yes. To the west of our location is a Westland oil development well, New Mexico State No. 1, and to the east in Section 23 there's an Amoco Cisco completion been plugged back -- Cisco discovery well, which has been plugged back to the Wolfcamp. And to the south there is in Section 27, there is also a Wolfcamp completion.

Q. Did you point out the well in the west half of Section 22?

A. It's in Unit K, Section 22.

Q. And whose well is that?

A. Westland Oil Development Company.

Q. Now, Mr. Mahfood, to what zone was the Yates well in Section 22 projected?

A. It was projected to the Seaman zone in the Cisco formation.

Q. Will you refer to Exhibit Number Two and describe what it shows?

A. Exhibit Number Two is our application for permit to drill in which we applied to drill the Seaman and intermediate formations, knowing that the Wolfcamp zone was a highly potential zone.

Q. Now back to Exhibit Number ONE, your projected test of the Ciscc formation would be an orthodox location under the State rules, would it not, for the Cisco?

A. It would have been orthodox for the Cisco, yes.

Q. And what bearing does this Commission Order R-1011 that we spoke about have on the -- what would be standard location for the Kemnitz under that order?

A. Okay, it would place it in Unit O, or Unit I.

Q. That would be either in the approximate center of the northwest quarter or rather the northeast quarter, or the southwest quarter, is that right?

A. That is correct.

Q. So your Exhibit Number Two, Mr. Mahfood, reflects that Yates filed its application projecting the well to test both the Cisco and intermediate --

A. This is --

Q. -- horizons.

A. This is correct.

Q. And that your application was approved at the location shown?

A. Right. Attached to this first page is a plat dedicating the 40 acres which shows that the Commission didn't know that this was a -- designated South Cisco

Kemnitz possibility there.

Q. And would you describe how you subsequently learned of the field rules which affected this zone?

A. Okay. This lease was drilled further because of the oil permit expiration date and our geologist was asked to -- what was his recommendation. He recommended this location and staked the first one and was drilling it, and staked the second location and was preparing to drill it. We filed the APD for the second location and at that time the Oil Commission pointed out to us that an exception -- that the location was non-standard for the Kemnitz zone; that the Kemnitz Field had been extended to include this area and thereby creating this non-standard location for the No. 1 Well.

Q. Mr. Mahfood, in this Sombrero "MS" Well what zones have -- has Yates Petroleum decided are potentially productive?

A. The Cisco zone and the Kemnitz zone; the Seaman zone of the Cisco formation and the Kemnitz zone of the Wolfcamp formation are both potential.

Q. And has that well been completed in both those zones?

A. The well has been completed in both zones.

Q. And have you conducted tests to determine the potential productivity of those zones?

A. We have swab tested the well. The well is incapable of flowing from either zone.

Q. What have your swab tests shown you concerning the possible productivity of oil and water from the well?

A. Okay, the Cisco zone swab tested 85 barrels in three days of oil, and water, approximately one half the amount of oil, and the Kemnitz zone potentialed -- swab tested 42 barrels a day oil with a very minor amount of water.

Q. Mr. Mahfood, would it be possible for Yates Petroleum Corporation to complete both these zones and produce them through separate strings of tubing?

A. No, the well was cased with 5-1/2 casing and the only way to put them in separate tubing strings would be to use 2-1/16 tubing, and since the well isn't capable of flowing, this would not be practical.

Q. Mr. Mahfood, do you have an opinion concerning the probable compatibility of the fluids from the Cisco and the Kemnitz zones?

A. Yes. We don't have any oil analysis to back us up, but they're both carbonate formations and apparently in the same reef buildup; therefor, I would suspect that the -- I think, I would conclude that the formations would be -- the formation waters would be compatible.

Q. If this application for commingling of this production is granted, is it your intention to determine for certainty the compatibility of those fluids?

A. Yes. Yes, we'll certainly do that.

Q. Mr. Mahfood, do you have an opinion as to whether or not the total value of the crude production that can be produced from both these zones will be greater or less if it's allowed to be completed in both zones simultaneously or whether both zones were depleted separately?

A. If they are completed separately I think the Cisco zone would produce a negligible amount of oil and that a considerable reserves would be lost.

In the Kemnitz zone would produce just slightly less amount of oil than we would by commingling because of the early point of -- the early economic limit, by producing separately.

Q. Mr. Mahfood, you have also sought by this application a non-standard unit for the -- consisting of the north half southeast of this section for Cisco production, is that correct?

A. That is correct.

Q. Is the ownership common throughout the north half southeast as to all zones that we're concerned with?

A. It is common.

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

Q. Do you feel, Mr. Mahfood, that there would be any detriment to possible future secondary recovery operations, or anything of that nature, which would flow from the granting of this application?

A. No, I don't see why there should be any detriment.

Q. Mr. Mahfood, will you refer to what is marked Exhibit Number Three and describe what it shows?

A. This is a diagrammatic sketch of the proposed dual completion downhole commingling. This shows one tubing string. The present completion has two packers and bridge plug, packers in between the two Cisco zones and a bridge plug above the upper Cisco zone, separating the Cisco from the Wolfcamp, and another packer above the Wolfcamp zone.

We propose to pull the packer and the bridge plug to latch onto that bottom packer, or replace the bottom packer with a tubing anchor, and thereby allowing the two zones to be produced simultaneously.

A seeding nipple will be set in the tubing above the Kemnitz perforations to allow the well to be pumped from that point.

Q. What's the significance of the dotted lines indicated along the tubing?

A. The dotted line would be -- would indi-

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

cate the perforated nipple if we leave the packer in the hole, and if we put this -- if we replace the packer with a tubing anchor, we would not need it.

Q. Mr. Mahfood, please refer to Exhibit Number Four and describe what it shows.

A. Exhibit Four is a copy of the log on this well. On the left is the porosity log, which is a CNL density log. The upper zone is colored orange is the Kemnitz Wolfcamp zone and the lower zone marked in orange are the Seaman Cisco zones.

On the right is a duolateral log and the orange is the separation between the shallow lateral and the deep lateral, and orange is the RXO separation.

Q. Is there anything else of any significance that you would like to point out to the Examiner reflected on Exhibit Number Four?

A. Okay, we did a drill stem test of the Kemnitz zone and we -- it was very tight. We did recover some oil, some oil-cut drilling mud, and I don't have this written on here, but on the top of the page there is the drill stem number one, the drill stem test results. Gas to surface in the second flow period; recovered 155 feet of mud; 403 feet of condensate; and oil-cut mud. Pressures, initial shut-in pressure 2377; the 60 minutes final shut-in tubing pressure is 2224 in 120 minutes. These pressures are

very low. It extrapolated out to 2850 or 2875 pounds. It was very low for virgin reservoir, which indicates that this reservoir is being drained.

Q. You conducted no drill stem test on the Cisco?

A. No, no drill stem test was conducted on the Cisco.

Q. Mr. Mahfood, turn to Exhibit Number Five and explain what this shows.

A. Exhibit Number Five is a bottom hole pressure survey report, dated May 11, 1980. The well had been shut-in for approximately two months and it shows bottom hole pressure of 2974 with some 3500 feet of water at the bottom.

Q. Now what zone was this pressure test run on?

A. This was run on the Kemnitz zone.

MR. STAMETS: The Wolfcamp zone?

A. The Wolfcamp zone. It is possible that we might have a slight tubing leak which has caused some water to fall on the -- we don't know for sure. We're going to check to see. This is a very recent test.

Q. What does this exhibit reflect as to the bottom hole pressure of this Wolfcamp zone?

A. It shows that the zone is still well below

the expected virgin reservoir.

Q. And do you have an opinion as to what causes that?

A. Yes. I feel like we're being drained.

Q. Mr. Mahfood, referring back to Exhibit Number One, you testified that under the rules for the area you could have tested the Wolfcamp Kemnitz zone at a standard location in the center of the southwest quarter of the southeast quarter, is that correct?

A. Yes, I believe we could have. It would be awfully close to that highway and --

Q. Well, have you made calculations as to how much closer your actual well location is than the standard location would have been if located in the southwest quarter?

A. Okay, the standard location would have been 1857 feet, and from where we drilled --

Q. From what point?

A. From the Westland well. And the location we actually drilled turned out to be 1683 feet, I believe. Or 184 feet closer than the standard location would have been.

Q. Mr. Mahfood, were Exhibits One through Five either prepared by you or reflect information that you know of your own knowledge?

A. Yes.

MR. DICKERSON: Mr. Examiner, we'd move the admission of Exhibits One through Five into evidence.

MR. STAMETS: These exhibits will be admitted.

Q. Mr. Mahfood, in your opinion would the granting of this application be in the prevention of waste and the --

A. Protection of correlative rights?

Q. Yes.

A. Yes.

MR. DICKERSON: Mr. Examiner, that's our presentation.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Okay. Mr. Mahfood, you did not indicate any gas volumes on either of these two wells.

A. No, sir, the well was swabbed. We had no facilities for testing the well. We know that the gas was negligible from the Wolfcamp and the Cisco's gas was probably in the ratio of about 1000 to one. The Cisco was probably more like 200 or 300 to one.

Q. Now, referring to Exhibit Number Three, you have two Cisco zones shown there, 11,207 to 225, and then

11,148 to 225?

A. To 158. We had -- okay, I said earlier that there's a packer between the two Cisco zones. In this packer we had a standing valve. See the two Cisco zones were communicated while we were testing the upper zone.

Q. Okay.

A. The standing valve would allow us to acidize.

Q. So this is the current location of that packer. It's located between the two Cisco zones.

A. That is correct.

Q. So this water that you had at 3000 feet in the Wolfcamp zone may be water from the Cisco.

A. No, sir, it should not because there is a retrievable bridge plug between the Cisco zones and the Wolfcamp zone. In other words there's a retrievable bridge plug above the uppermost Seaman zone. To be precise, the retrievable bridge plug is at 10,832.

Q. So if the water is not from the Wolfcamp it must be from the tubing leak that you indicated.

A. We suspect so.

Q. Okay. What would be the problem with producing each of these zones separately; producing the Cisco zone to depletion and then resetting your packers and producing the Wolfcamp to depletion?

A. There wouldn't be any problem with doing that except I think we'd lose considerable reserves.

Q. Okay, for what reason?

A. Well, to begin with the Wolfcamp zone by itself is hardly a commercial well, 42 barrels a day on initial -- you know, on a brief test. Now for an extended test it would probably drop to maybe a marginal status.

Q. Have you got any pressure information on the Cisco zone?

A. I have calculated -- we have no actual pressure tests of it. I have calculated the pressure, bottom hole pressure, from the shutin tubing pressure and the amount of fluid that we find in the hole, and I've come up with approximately 3740 pounds. This does not disagree very much with the pressure as found in the Westall well.

Q. And that compares with about 2870 in the Wolfcamp formation.

A. Yes, sir.

Q. What sort of porosity do you have in the Wolfcamp zone?

A. Well, Wolfcamp zone is reading approximately 8 percent porosity. The offset operator, his well, the Westall well is reading somewhere in the neighborhood of 60 to 70 percent porosity, somewhat better than ours.

Q. Is this a fairly permeable formation or

relatively impermeable?

A. It's -- in our well it's just fairly permeable.

Q. What action will you take to see that this well, if it's allowed to be commingled, stays on the pump so that you can't have any cross flow between the two zones?

A. Well, actually we need to get our money back, and the only way we can get it back as marginal as it is, the only way we can get it back is to keep the well pumping, and we have a pumper checking it every day, a contract pumper, and he'll report to us whenever there is no production. Well, if the well goes down he'll report to us immediately so we can do some remedial work or whatever is necessary.

Q. Everybody's concerned about these wells when they make a lot of oil but when they take off and reach their economic limit, why that concern tends to diminish.

A. That is correct.

Q. But the potential for a cross flow and the contamination of one zone by the other doesn't diminish. And so that begins to be the area of my concern.

MR. DICKERSON: Mr. Mahfood, if this application were granted, it would be possible, would it not, to treat this well especially carefully because of the knowledge that it's necessary to prevent the problem that

the Examiner's concerned about?

A. Yes, it certainly can.

Q. The non-standard proration unit is a directional non-standard proration unit rather than the size of the unit, isn't it?

MR. DICKERSON: It would be size, Mr. Examiner, as to the Cisco because the Cisco is a 40-acre proration.

MR. STAMETS: Right, but the standard unit for the Wolfcamp is 80.

MR. DICKERSON: But it is --

MR. STAMETS: What you're asking for is a laydown unit instead of a standup unit.

MR. DICKERSON: Correct.

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

Anything further in this case?

The case will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6900, heard by me on 5-21, 1980.

Richard L. Stamets, Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
21 May 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Yates Petroleum Corporation for a non-standard oil proration unit, unorthodox well location, and downhole commingling, Lea County, New Mexico.

CASE 6900

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: Chad Dickerson, Esq.
LOSEE, CARSON, & DICKERSON
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I N D E X

E X H I B I T S

MR. STAMETS: We'll call next Case 6900.

MR. PADILLA: Application of Yates Petroleum Corporation for a non-standard oil proration unit, unorthodox well location, and downhole commingling, Lea County, New Mexico.

MR. DICKERSON: Chad Dickerson, Mr. Examiner, on behalf of the applicant and we have one witness.

(Witness sworn.)

EDDIE MAHFOOD

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

DIRECT EXAMINATION

BY MR. DICKERSON:

Q. Will you state your name and your occupation and by whom you are employed, please?

A. Eddie Mahfood, petroleum engineer for the Yates Petroleum Corporation in Artesia, New Mexico.

Q. And, Mr. Mahfood, you have previously testified before the Oil Conservation Division as an expert engineer and have had your qualifications accepted?

A. Yes.

MR. DICKERSON: I tender Mr. Mahfood as

a witness.

MR. STAMETS: He is considered qualified.

Q Mr. Mahfood, will you briefly describe the purposes of Yates -- that Yates seeks by its application in this proceeding?

A We seek a non-standard location and down-hole commingling in this well. The non-standard location is created by special pool rules which the company was unaware of when we spudded the well.

Q What field rules are you referring to?

A I'm referring to the Kemnitz Lower Wolf-camp Field Rules.

Q And that was created by Commission Order R-10111?

A That is correct.

Q Mr. Mahfood, please refer to what is marked Exhibit Number One and describe what it shows.

A Exhibit Number One is an ownership map of the area showing the location of our well, which is located in about the middle of the four different fields, the Kemnitz Wolfcamp Field, the Sombrero Gas Field, Kemnitz West Wolfcamp and Cisco Field, and the Pennsylvania Field.

Q What is the footage location this well that we're involved with today?

A This well is located 1650 from the south

and east lines of Section 22, 16, 33.

Q Mr. Mayfood, will you point out other wells which have a bearing on this proceeding in the area which is shown on Exhibit Number One?

A Yes. To the west of our location is a Westland oil development well, New Mexico State No. 1, and to the east in Section 23 there's an Amoco Cisco completion been plugged back -- Cisco discovery well, which has been plugged back to the Wolfcamp. And to the south there is in Section 27, there is also a Wolfcamp completion.

Q Did you point out the well in the west half of Section 22?

A It's in Unit K, Section 22.

Q And whose well is that?

A Westland Oil Development Company.

Q Now, Mr. Mahfood, to what zone was the Yates well in Section 22 projected?

A It was projected to the Seaman zone in the Cisco formation.

Q Will you refer to Exhibit Number Two and describe what it shows?

A Exhibit Number Two is our application for permit to drill in which we applied to drill the Seaman and intermediate formations, knowing that the Wolfcamp zone was a highly potential zone.

Q Now back to Exhibit Number ONE, your projected test of the Cisco formation would be an orthodox location under the State rules, would it not, for the Cisco?

A It would have been orthodox for the Cisco, yes.

Q And what bearing does this Commission Order R-1011 that we spoke about have on the -- what would be standard location for the Kemnitz under that order?

A Okay, it would place it in Unit O, or Unit I.

Q That would be either in the approximate center of the northwest quarter or rather the northeast quarter, or the southwest quarter, is that right?

A That is correct.

Q So your Exhibit Number Two, Mr. Mahfood, reflects that Yates filed its application projecting the well to test both the Cisco and intermediate --

A This is --

Q -- horizons.

A This is correct.

Q And that your application was approved at the location shown?

A Right. Attached to this first page is a plat dedicating the 40 acres which shows that the Commission didn't know that this was a -- designated South Cisco

Kemnitz possibility there.

Q And would you describe how you subsequently learned of the field rules which affected this zone?

A Okay. This lease was drilled further because of the oil permit expiration date and our geologist was asked to -- what was his recommendation. He recommended this location and staked the first one and was drilling it, and staked the second location and was preparing to drill it. We filed the APD for the second location and at that time the Oil Commission pointed out to us that an exception -- that the location was non-standard for the Kemnitz zone; that the Kemnitz Field had been extended to include this area and thereby creating this non-standard location for the No. 1 Well.

Q Mr. Mahfood, in this Sombrero "MC" Well what zones have -- has Yates Petroleum decided are potentially productive?

A The Cisco zone and the Kemnitz zone; the Seaman zone of the Cisco formation and the Kemnitz zone of the Wolfcamp formation are both potential.

Q And has that well been completed in both those zones?

A The well has been completed in both zones.

Q And have you conducted tests to determine the potential productivity of those zones?

A. We have swab tested the well. The well is incapable of flowing from either zone.

Q. What have your swab tests shown you concerning the possible productivity of oil and water from the well?

A. Okay, the Cisco zone swab tested 85 barrels in three days of oil, and water, approximately one half the amount of oil, and the Kemnitz zone potentialed -- swab tested 42 barrels a day oil with a very minor amount of water.

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A. No, the well was cased with 5-1/2 casing and the only way to put them in separate tubing strings would be to use 2-1/16 tubing, and since the well isn't capable of flowing, this would not be practical.

Q. Mr. Mahfood, do you have an opinion concerning the probable compatibility of the fluids from the Cisco and the Kemnitz zones?

A. Yes. We don't have any oil analysis to back us up, but they're both carbonate formations and apparently in the same reef buildup; therefor, I would suspect that the -- I think, I would conclude that the formations would be -- the formation waters would be compatible.

Q If this application for commingling of this production is granted, is it your intention to determine for certainty the compatibility of those fluids?

A Yes. Yes, we'll certainly do that.

Q Mr. Mahfood, do you have an opinion as to whether or not the total value of the crude production that can be produced from both these zones will be greater or less if it's allowed to be completed in both zones simultaneously or whether both zones were depleted separately?

A If they are completed separately I think the Cisco zone would produce a negligible amount of oil and that a considerable reserves would be lost.

In the Kemnitz zone would produce just slightly less amount of oil than we would by commingling because of the early point of -- the early economic limit, by producing separately.

Q Mr. Mahfood, you have also sought by this application a non-standard unit for the -- consisting of the north half southeast of this section for Cisco production, is that correct?

A That is correct.

Q Is the ownership common throughout the north half southeast as to all zones that we're concerned with?

A It is common.

Q Do you feel, Mr. Mahfood, that there would be any detriment to possible future secondary recovery operations, or anything of that nature, which would flow from the granting of this application?

A No, I don't see why there should be any detriment.

Q Mr. Mahfood, will you refer to what is marked Exhibit Number Three and describe what it shows?

A This is a diagrammatic sketch of the proposed dual completion downhole commingling. This shows one tubing string. The present completion has two packers and bridge plug, packers in between the two Cisco zones and a bridge plug above the upper Cisco zone, separating the Cisco from the Wolfcamp, and another packer above the Wolfcamp zone.

We propose to pull the packer and the bridge plug to latch onto that bottom packer, or replace the bottom packer with a tubing anchor, and thereby allowing the two zones to be produced simultaneously.

A seeding nipple will be set in the tubing above the Kemnitz perforations to allow the well to be pumped from that point.

Q What's the significance of the dotted lines indicated along the tubing?

A The dotted line would be -- would indi-

cate the perforated nipple if we leave the packer in the hole, and if we put this -- if we replace the packer with a tubing anchor, we would not need it.

Q. Mr. Mahfood, please refer to Exhibit Number Four and describe what it shows.

A. Exhibit Four is a copy of the log on this well. On the left is the porosity log, which is a CNL density log. The upper zone is colored orange is the Kemnitz Wolfcamp zone and the lower zone marked in orange are the Seaman Cisco zones.

On the right is a duolateral log and the orange is the separation between the shallow lateral and the deep lateral, and orange is the RXO separation.

Q. Is there anything else of any significance that you would like to point out to the Examiner reflected on Exhibit Number Four?

A. Okay, we did a drill stem test of the Kemnitz zone and we -- it was very tight. We did recover some oil, some oil-cut drilling mud, and I don't have this written on here, but on the top of the page there is the drill stem number one, the drill stem test results. Gas to surface in the second flow period; recovered 155 feet of mud; 403 feet of condensate; and oil-cut mud. Pressures, initial shut-in pressure 2377; the 60 minutes final shut-in tubing pressure is 2224 in 120 minutes. These pressures are

very low. It extrapolated out to 2850 or 2875 pounds. It was very low for virgin reservoir, which indicates that this reservoir is being drained.

Q. You conducted no drill stem test on the Cisco?

A. No, no drill stem test was conducted on the Cisco.

Q. Mr. Mahfood, turn to Exhibit Number Five and explain what this shows.

A. Exhibit Number Five is a bottom hole pressure survey report, dated May 11, 1930. The well had been shut-in for approximately two months and it shows bottom hole pressure of 2974 with some 3500 feet of water at the bottom.

Q. Now what zone was this pressure test run on?

A. This was run on the Kemnitz zone.

MR. STAMETS: The Wolfcamp zone?

A. The Wolfcamp zone. It is possible that we might have a slight tubing leak which has caused some water to fall on the -- we don't know for sure. We're going to check to see. This is a very recent test.

Q. What does this exhibit reflect as to the bottom hole pressure of this Wolfcamp zone?

A. It shows that the zone is still well below

the expected virgin reservoir.

Q And do you have an opinion as to what causes that?

A Yes. I feel like we're being drained.

Q Mr. Mahfood, referring back to Exhibit Number One, you testified that under the rules for the area you could have tested the Wolfcamp Kemnitz zone at a standard location in the center of the southwest quarter of the southeast quarter, is that correct?

A Yes, I believe we could have. It would be awfully close to that highway and --

Q Well, have you made calculations as to how much closer your actual well location is than the standard location would have been if located in the southwest quarter?

A Okay, the standard location would have been 1857 feet, and from where we drilled --

Q From what point?

A From the Westland well. And the location we actually drilled turned out to be 1683 feet, I believe. Or 184 feet closer than the standard location would have been.

Q Mr. Mahfood, were Exhibits One through Five either prepared by you or reflect information that you know of your own knowledge?

A Yes.

MR. DICKERSON: Mr. Examiner, we'd move the admission of Exhibits One through Five into evidence.

MR. STAMETS: These exhibits will be admitted.

Q Mr. Mahfood, in your opinion would the granting of this application be in the prevention of waste and the --

A Protection of correlative rights?

Q Yes.

A Yes.

MR. DICKERSON: Mr. Examiner, that's our presentation.

CROSS EXAMINATION

BY MR. STAMETS:

Q Okay. Mr. Mahfood, you did not indicate any gas volumes on either of these two wells.

A No, sir, the well was swabbed. We had no facilities for testing the well. We know that the gas was negligible from the Wolfcamp and the Cisco's gas was probably in the ratio of about 1000 to one. The Cisco was probably more like 200 or 300 to one.

Q Now, referring to Exhibit Number Three, you have two Cisco zones shown there, 11,207 to 225, and then

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

11,148 to 225?

A. To 158. We had -- okay, I said earlier that there's a packer between the two Cisco zones. In this packer we had a standing valve. See the two Cisco zones were communicated while we were testing the upper zone.

Q. Okay.

A. The standing valve would allow us to acidize.

Q. So this is the current location of that packer. It's located between the two Cisco zones.

A. That is correct.

Q. So this water that you had at 3000 feet in the Wolfcamp zone may be water from the Cisco.

A. No, sir, it should not because there is a retrievable bridge plug between the Cisco zones and the Wolfcamp zone. In other words there's a retrievable bridge plug above the uppermost Seaman zone. To be precise, the retrievable bridge plug is at 10,832.

Q. So if the water is not from the Wolfcamp it must be from the tubing leak that you indicated.

A. We suspect so.

Q. Okay. What would be the problem with producing each of these zones separately; producing the Cisco zone to depletion and then resetting your packers and producing the Wolfcamp to depletion?

A. There wouldn't be any problem with doing that except I think we'd lose considerable reserves.

Q. Okay, for what reason?

A. Well, to begin with the Wolfcamp zone by itself is hardly a commercial well, 42 barrels a day on initial -- you know, on a brief test. Now for an extended test it would probably drop to maybe a marginal status.

Q. Have you got any pressure information on the Cisco zone?

A. I have calculated -- we have no actual pressure tests of it. I have calculated the pressure, bottom hole pressure, from the shutin tubing pressure and the amount of fluid that we find in the hole, and I've come up with approximately 3740 pounds. This does not disagree very much with the pressure as found in the Westall well.

Q. And that compares with about 2870 in the Wolfcamp formation.

A. Yes, sir.

Q. What sort of porosity do you have in the Wolfcamp zone?

A. Well, Wolfcamp zone is reading approximately 8 percent porosity. The offset operator, his well, the Westall well is reading somewhere in the neighborhood of 60 to 70 percent porosity, somewhat better than ours.

Q. Is this a fairly permeable formation or

relatively impermeable?

A. It's -- in our well it's just fairly permeable.

Q. What action will you take to see that this well, if it's allowed to be commingled, stays on the pump so that you can't have any cross flow between the two zones?

A. Well, actually we need to get our money back, and the only way we can get it back as marginal as it is, the only way we can get it back is to keep the well pumping, and we have a pumper checking it every day, a contract pumper, and he'll report to us whenever there is no production. Well, if the well goes down he'll report to us immediately so we can do some remedial work or whatever is necessary.

Q. Everybody's concerned about these wells when they make a lot of oil but when they take off and reach their economic limit, why that concern tends to diminish.

A. That is correct.

Q. But the potential for a cross flow and the contamination of one zone by the other doesn't diminish. And so that begins to be the area of my concern.

MR. DICKERSON: Mr. Mahfood, if this application were granted, it would be possible, would it not, to treat this well especially carefully because of the knowledge that it's necessary to prevent the problem that

the Examiner's concerned about?

A. Yes, it certainly can.

Q. The non-standard proration unit is a directional non-standard proration unit rather than the size of the unit, isn't it?

MR. DICKERSON: It would be size, Mr. Examiner, as to the Cisco because the Cisco is a 40-acre proration.

MR. STAMETS: Right, but the standard unit for the Wolfcamp is 80.

MR. DICKERSON: But it is --

MR. STAMETS: What you're asking for is a laydown unit instead of a standup unit.

MR. DICKERSON: Correct.

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

Anything further in this case?

The case will be taken under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

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

_____, Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

ANDERSON RCH.

SAUNDERS

ANDERSON RCH. UNIT

ANDERSON RCH. EAST

SOMBRERO

SOMBRERO, WEST

SAMAL NO.

SAMAL

NUMI, WEST

NUMI

MAJAMA UNIT

NORTH EAST MAJAMA UNIT

AZTEC OPER.

R32E

R33E

Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

Exhibit No. 1

30-025-26591

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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease: STATE [X] FEE [ ]

5. State Oil & Gas Lease No.: LG 3819

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1c. Type of Work
b. Type of Well: DRILL [X] DEEPEN [ ] PLUG BACK [ ]
OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. Unit Agreement Name:

8. Farm or Lease Name: Sombrero MS State

2. Name of Operator: Yates Petroleum Corporation

9. Well No.: 1

3. Address of Operator: 207 South 4th Street, Artesia, New Mexico 88210

10. Field and Pool, or Wildcat: Kemnitz Cisco (Gas)

4. Location of Well: UNIT LETTER J LOCATED 1650 FEET FROM THE South LINE AND 1650 FEET FROM THE East LINE OF SEC. 22 TWP. 16S RGE. 33E NMPM

12. County: Lea

19. Proposed Depth	19A. Formation	20. Rotary or C.T.
11800	Cisco	Rotary

21. Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
4195'	Blanket	Ard Drilling Co.	Soon as approved

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2	13 3/8	48#	approx. 320	225 sx	Circ.
12 ¼ - 11	8 5/8	24-32#	approx. 4500	1200 sx	Circ.
7 7/8	5½ or 4½	17 - 20# or 10.5 - 11.6#	TD	250 sx	

We propose to drill and test the Cisco and intermediate formations. Surface casing and intermediate casing will be circulated. If commercial pay is encountered, 5½" or 4½" production casing will be run and cemented with at least 600' of cement cover.

MUD PROGRAM: Gel & LCM to 320', Native mud & LCM to 4500', Fresh water to 8000', starch -Drispak-KCL to 10200', salt gel-drispak-KCL to TD.

BOP PROGRAM: BOP's on 13 3/8 to 4500', on 8 5/8" casing to TD, tested and Yellow Jacket.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed Edwin Mathews Title Engineer Date 12/13/79

(This space for State Use)

APPROVED BY [signature] TITLE SUPERVISOR DISTRICT DEC 14 1979

CONDITIONS OF APPROVAL, IF ANY:

Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

Exhibit No. 2

MEXICO OIL CONSERVATION COMM

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
YATES PETROLEUM CORPORATION	SOMBRERO "MS" STATE	1

Unit Letter	Section	Township	Range	County
J	22	16S	33E	LEA

Actual Footage Location of Well: 1650 feet from the SOUTH line and 1650 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
4195	CISCO	South Ciscs KEMNITZ-SEAMAN	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

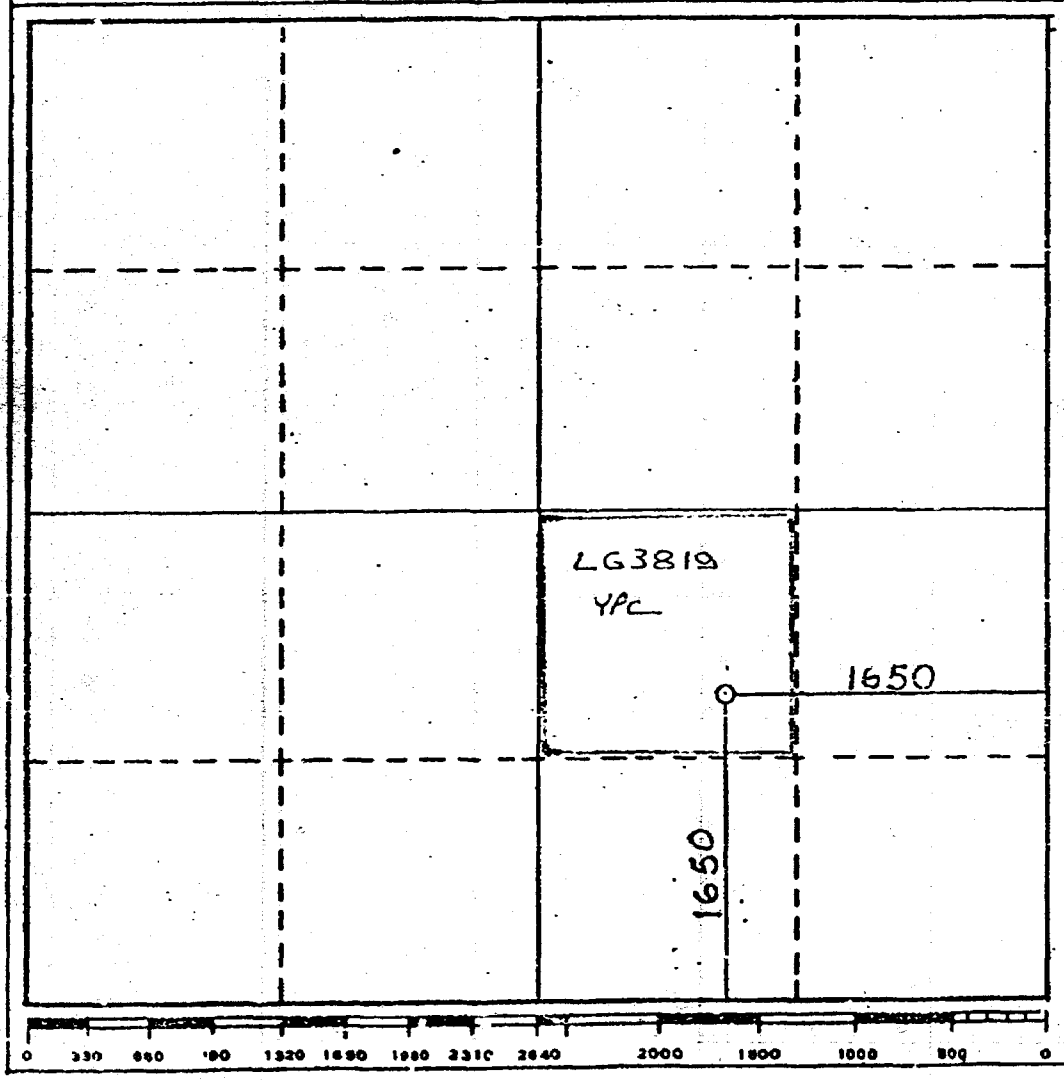
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name: GLISEZIO RODRIGUEZ

Position: GEOGRAPHER

Company: YATES PETROLEUM CORP

Date: 12-14-79

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

12/13/79

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

NEW MEXICO HERSCHEL L. JONES 3640 REGISTERED LAND SURVEYOR

Diagrammatic Sketch of Proposed Dual Completion and Downhole Commingling

Sembrero, MS State No. 1
1650' FSL & 1650' FEL
Sec. 22, T. 16 S., R. 33 E.
Lea County, N. M.

Elevation: 4195' GL (4209.4' KB)
Spudded: 12-21-79
Completed:

17½" hole to 320'
13⅜" 48# Csg set @ 320', cemtd to surface w/ 300 sx.

Top of San Andres @ 4,440'

12¼" hole to 4,617'
8⅝" 24# S&S Csg set @ 4437', cemtd to surface w/ 2400 sx.

Top of cement @ 10,135'

Propose to pull packer @ 10,737' KB & RBP @ 10,832' KB, run additional tubing w/ seating nipple & perforated nipple, latch tubing to packer @ 11,169' KB. Pump commingled production from Kemnitz Wolfcamp & Seaman Cisco.

Top of Kemnitz Wolfcamp Zone @ 10,734' KB

2-15-80 Swabbed 42 BOPD

Perf 10,772'-10,778' w/ 17-0.5" holes
Perf 10,792'-10,794' w/ 3-0.5" holes

Top of Seaman Cisco Zone @ 11,140' KB

2-16-80 Swabbed 85 BO/3 days from 11,207'-225'
2-22-80 Swabbed 72 BOPD from 11,148'-225'

Perfs 11,148'-11,158' w/ 20-0.5" holes

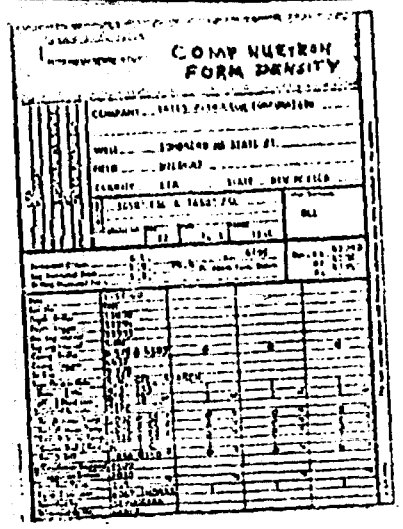
Packer w/ standing valve @ 11,169'

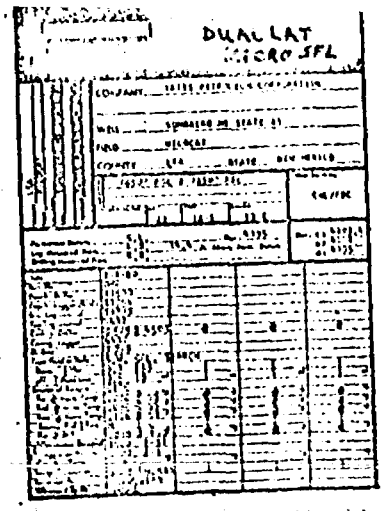
Perfs 11,207'-11,225' w/ 16-0.5" holes
30 BOPD, 65 MCF

PBTD 11,408'
5½" casing @ 11,442'
TD: 11,800'

Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

Exhibit No. 3





DST #1 Results

30", 60", 60", 120"
GTS in 2nd Flow
Rec. 155' M
403' = 40CM
Sl Rec. 160 cc = 6CM
160 psi
45 cu ft gas

HP 5,079 - 5,124
IFP 88-154
ISIP 2,337/60"
FFP 179-243
FSIP 2,224/120"
FHT 145°

DST #1
10,675'-10,820'

Top KEMNITZ LAY

Perf 10,772-778 (17-0.5")
10,772-774 (3-0.5")
Trt. w/2500 gal. 20% DS-30
Rec. 4 BO/hr.

KEMNITZ

KEMNITZ

SEAMAN ZONE

Perf 11,148-158 (20-0.5")
Trt w/1000 gal. 20% DS-30
Swabbed & Flowed 38 BO/hr
from 11,148-225

Perf 11,207-225 (16-0.5")
Trt w/2500 gal 20% DS-30
Swabbed & Flowed 85 BO/3 Days

Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

Exhibit No. 4

BENNETT WIRE LINE SERVICE

P. O. BOX 787
ARTESIA, NEW MEXICO 88210
Phone 746-3281

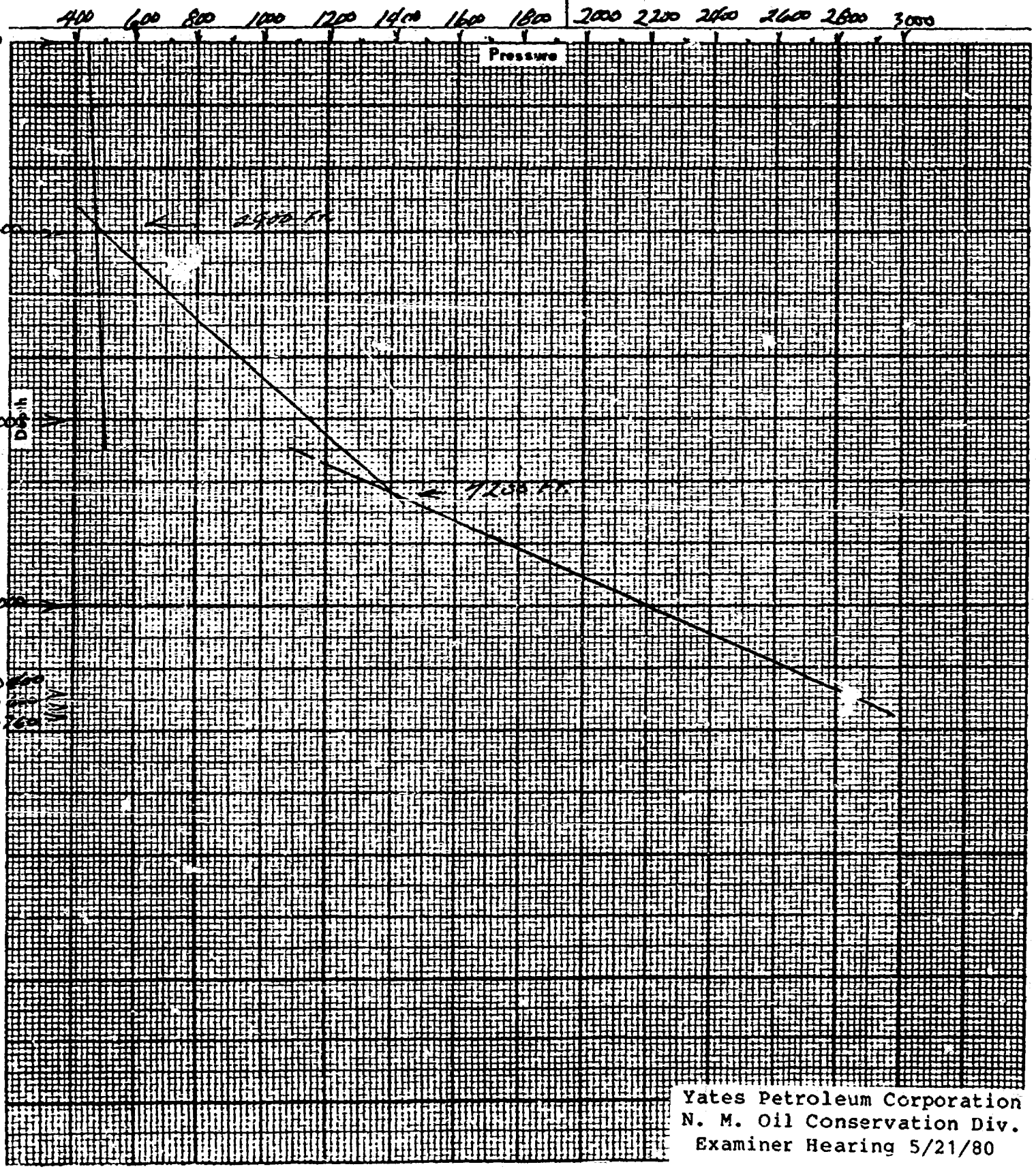
RAY STALL

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR YATES PETROLEUM CORP
LEASE SOMBRERO "MS" STATE
WELL NO. #1
FIELD
DATE 5-11-80 TIME 1700 HOURS

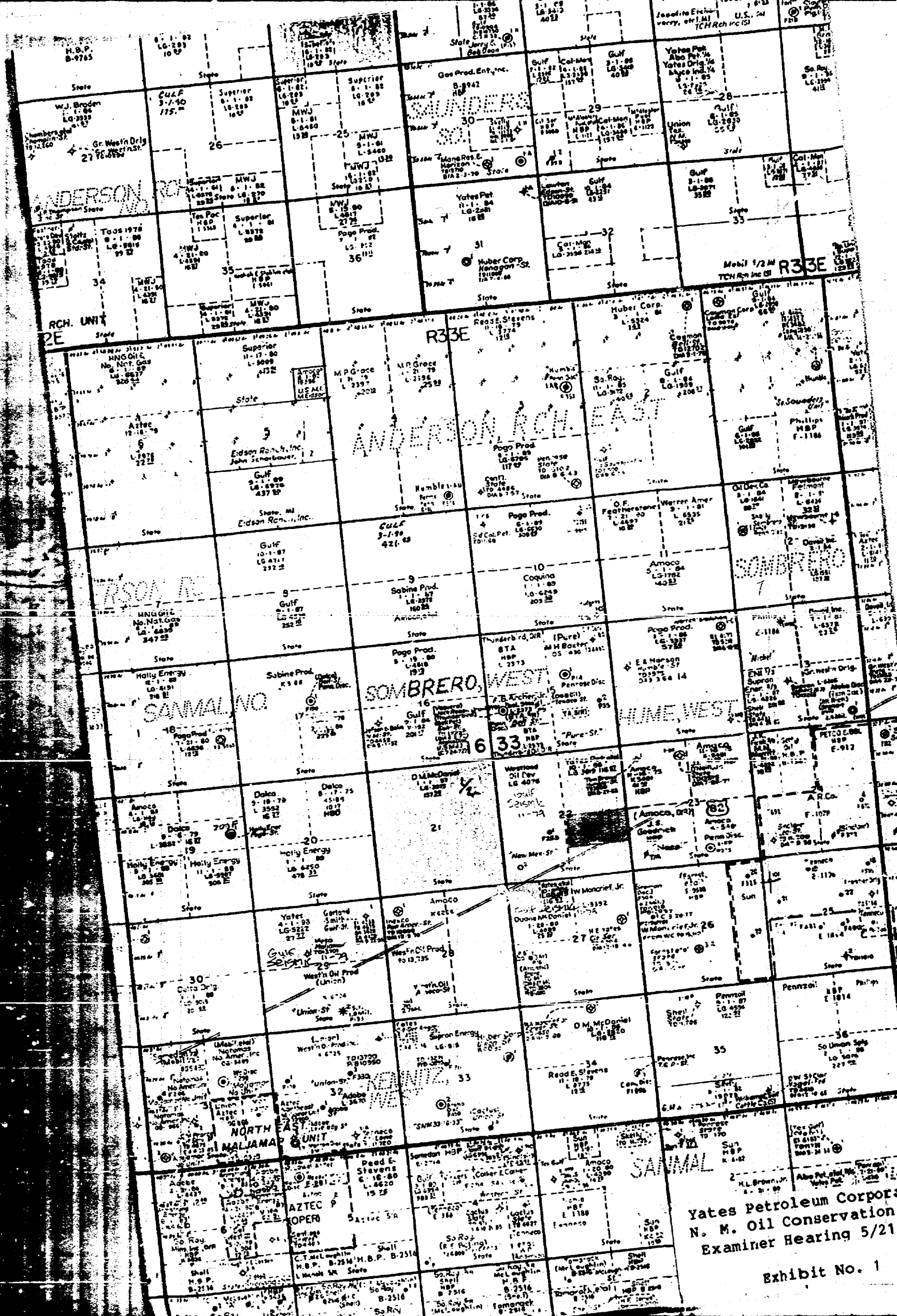
STATUS SHUT IN TEST DEPTH 10,760
TIME S.I. N.A. LAST TEST DATE FIRST TEST
CAS. PRES. BHP LAST TEST
TUB. PRES. 441 BHP CHANGE
ELEV. FLUID TOP
DATUM WATER TOP
TEMP RUN BY R. J. CATHEY
CLOCK NO. GAUGE NO.
ELEMENT NO. RPG3# 46950, 0-7,000 LB. RANGE

DEPTH	PRESSURE	GRADIENT
0	441	
3,000	475	1.13
6,000	1,148	22.4
9,000	2,200	35.0
10,400	2,822	44.2
10,600	2,905	41.5
10,760	2,974	43.1



Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

Exhibit No. 5


ANDERSON RCH.
SUNDERS
SOMBRERO, WEST
SOMBRERO
SANMAL NO.
HUME WEST
ANDERSON RCH. EAST
KENNITZ
NORTH EAST MALJAMAR UNIT
AZTEC POOL
SANMAL
R33E
R32E
RCH. UNIT
Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80
Exhibit No. 1

30-025-26591

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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease: STATE [X] FEE [ ]

5. State Oil & Gas Lease No.: LG 3819

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. Type of Well: OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. Unit Agreement Name:

8. Farm or Lease Name: Sombrero MS State

2. Name of Operator: Yates Petroleum Corporation

9. Well No.: 1

3. Address of Operator: 207 South 4th Street, Artesia, New Mexico 88210

10. Field and Pool, or Wildcat: Kennitz Cisco

4. Location of Well: UNIT LETTER J LOCATED 1650 FEET FROM THE South LINE AND 1650 FEET FROM THE East LINE OF SEC. 22 TWP. 16S RGE. 33E NMPM

12. County: Lea

19. Proposed Depth	19A. Formation	20. Rotary or C.T.
11800	Cisco	Rotary

21. Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
4195'	Blanket	Ard Drilling Co.	Soon as approved

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2	13 3/8	48#	approx. 320	225 sx	Circ.
12 ¼ - 11	8 5/8	24-32#	approx. 4500	1200 sx	Circ.
7 7/8	5½ or 4½	17 - 20# or 10.5 - 11.6#	TD	250 sx	

We propose to drill and test the Cisco and intermediate formations. Surface casing and intermediate casing will be circulated. If commercial pay is encountered, 5½" or 4½" production casing will be run and cemented with at least 600' of cement cover.

MUD PROGRAM: Gel & LCM to 320', Native mud & LCM to 4500', Fresh water to 8000', starch -Drispak-KCL to 10200', salt gel-drispak-KCL to TD.

BOP PROGRAM: BOP's on 13 3/8 to 4500', on 8 5/8" casing to TD, tested and Yellow Jacket.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed Elizabeth Ann Boyd Title Engineer Date 12/13/79

(This space for State Use)

APPROVED BY [signature] TITLE SUPERVISOR DISTRICT DEC 14 1979

CONDITIONS OF APPROVAL, IF ANY:

Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

Exhibit No. 2

NEW MEXICO OIL CONSERVATION COMM(

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
YATES PETROLEUM CORPORATION	SOMBRERO "MS" STATE	1

Unit Letter	Section	Township	Range	County
J	22	16S	33E	LEA

Actual Footage Location of Well:
1650 feet from the SOUTH line and 1650 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
4195	CISCO	South Casos KEMNITZ-SEAMAN	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

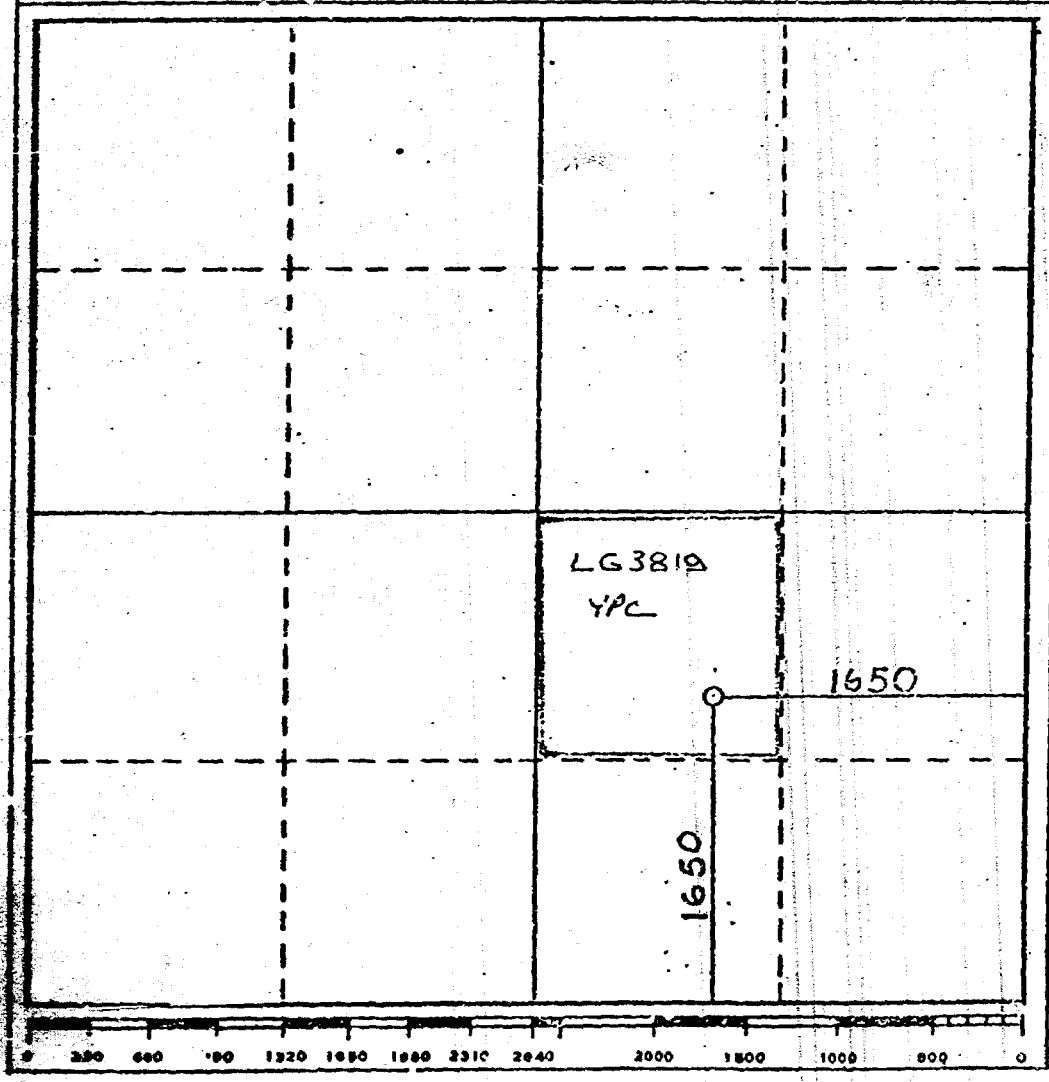
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name: GLISERIO RODRIGUEZ
Position: GEOGRAPHER
Company: YATES PETROLEUM CORP
Date: 12-14-79

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: 12/13/79

Registered Professional Engineer and/or Land Surveyor: HERSCHEL L. JONES

Certificate No. 3640

NEW MEXICO REGISTERED LAND SURVEYOR

Diagrammatic Sketch of Proposed Dual Completion and Downhole Commingling

Sombrero MS State No. 1
1650' FSL & 1650' FEL
Sec. 22, T. 16 S., R. 33 E.
Lea County, N. M.

Elevation: 4195' GL (4209.4' KB)
Spudded: 12-21-79
Completed:

17½" hole to 320'
13⅜" 48# Csg set @ 320', cemtd to surface w/ 300 sx.

Top of San Andres @ 4,447'

17½" hole to 4,617'
8⅝" 24# J&S Csg set @ 4431', cemtd to surface w/ 2400 sx.

Top of cement @ 10,135'

Propose to pull packer @ 10,737' KB & PBP @ 10,832' KB, run additional tubing w/ seating nipple & perforated nipple, latch tubing to packer @ 11,169' KB. Pump commingled production from Kennitz Wolfcamp & Seaman Cisco.

Top of Kenn. Wolfcamp @ 10,734' KB

Perf 10,772'-10,778' w/ 17-0.5" holes
Perf 10,792'-10,794' w/ 3-0.5" holes

Acidize Swabbed 42 BOPD

Top Seaman Cisco Zone @ 11,140' KB

Frac'd Swabbed 85 BO/3 days from 11,207'-225'
Acidized Swabbed 72 BOPD from 11,148'-225'

Perfs 11,148'-11,158'
w/ 20-0.5" holes

Packer w/ standing valve @ 11,169'

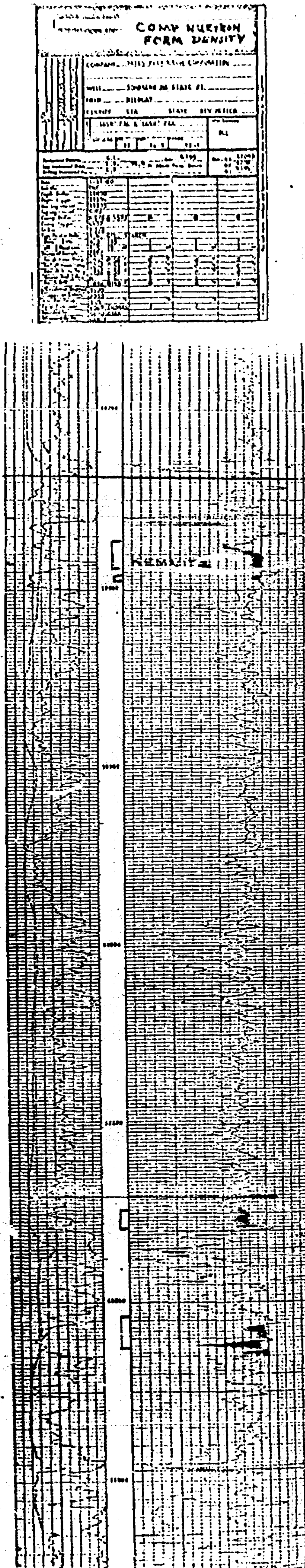
Perfs 11,207'-11,225'
w/ 16-0.5" holes

PBTD 11,408'
5½" casing @ 11,442'

TD: 11,800'

Petroleum Corporation
Oil Conservation Div.
Hearing 5/21/80

Exhibit No. 3



LST #1 Results

30", 60", 60", 120"
GTS in 2nd Flow
Rec. 155' M
403' G&OCM
Spl Rec. 16.0 cc G-CM
160 psi
4.5 cu ft gas

HP 5,079 - 5,122
IFP 88 [illegible] 154
ISIP 2,[illegible]/60'
FFP 220 - 240
FSIP 2,224/120'
BHT 145°

DST #1
10,675' - 10,920'

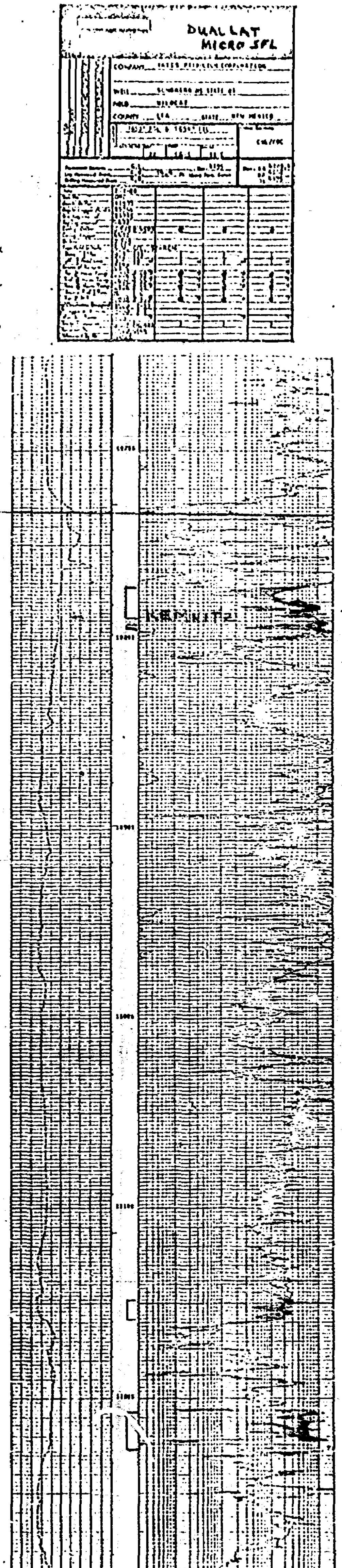
TOP KEMNITZ PAY

Perf 10,772 - 778 (17 - 0.5")
10,772 - 774 (3 - 0.5")
Trt. w/2500 gal. 20% DS-30
Rec. 4 BO/hr.

SEAMAN ZONE

Perf 11,148 - 158 (20 - 0.5")
Trt w/1000 gal. 20% DS-30
Swabbed & Flowed 380/hr
from 11,148 - 225

Perf 11,207 - 225 (16 - 0.5")
Trt w/2500 gal 20% DS-30
Swabbed & Flowed 85 BO/3 Days



Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

BENNETT WIRE LINE SERVICE

P. O. BOX 787
ARTESIA, NEW MEXICO 88210
Phone 746-3281

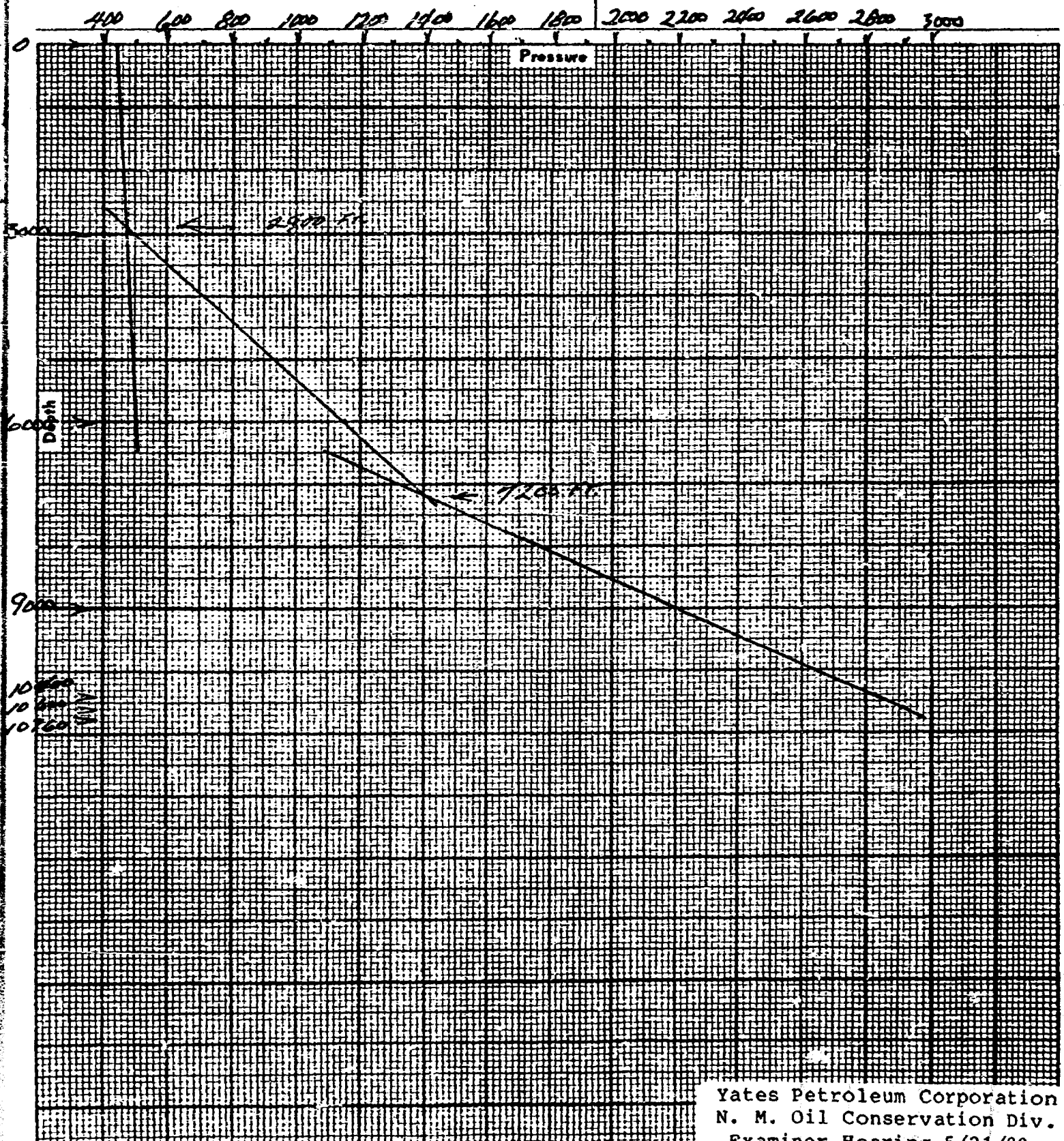
RAY STALL

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR YATES PETROLEUM CORP
LEASE SOMBRERO "MS" STATE
WELL NO. #1
FIELD
DATE 5-11-80 TIME 1700 HOURS

STATUS SHUT IN TEST DEPTH 10,760
TIME S.I. N.A. LAST TEST DATE FIRST TEST
CAS. PRES. BHP LAST TEST
TUB. PRES. 441 BHP CHANGE
ELEV. FLUID TOP
DATUM WATER TOP
TEMP RUN BY B.J. CATHEY
CLOCK NO. GAUGE NO.
ELEMENT NO. RPG3# 46950, 0-7,000 LB. RANGE

DEPTH	PRESSURE	GRADIENT
0	441	
3,000	475	1.13
6,000	1,148	22.4
9,000	2,200	35.0
10,400	2,822	44.2
10,600	2,905	41.5
10,760	2,974	43.1



Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

R33E

R33E

ANDERSON RCH. UNIT 2E

ANDERSON RCH. EAST

SAMALAYUCA

SOMBRERO WEST

HUME WEST

AZTEC NORTH EAST MALJAMAR UNIT

RENTZ

SAMAL

Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

30-025-26591

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LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease STATE [X] FEE [ ]

5. State Oil & Gas Lease No. LG 3819

7. Unit Agreement Name

8. Farm or Lease Name Sombrero MS State

9. Well No. 1

10. Field and Pool, or Wildcat Kemnitz Penn

12. County Lea

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. Type of Well
OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. Name of Operator
Yates Petroleum Corporation

3. Address of Operator
207 South 4th Street, Artesia, New Mexico 88210

4. Location of Well UNIT LETTER J LOCATED 1650 FEET FROM THE South LINE AND 1650 FEET FROM THE East LINE OF SEC. 22 TWP. 16S RGE. 33E NMPM

19. Proposed Depth 11800

19A. Formation Cisco

20. Rotary or C.T. Rotary

21. Elevations (Show whether DF, RT, etc.) 4195'

21A. Kind & Status Plug. Bond Blanket

21B. Drilling Contractor Ard Drilling Co.

22. Approx. Date Work will start Soon as approved

23. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2	13 3/8	48#	approx. 320	225 sx	Circ.
12 ¼ - 11	8 5/8	24-32#	approx. 4500	1200 sx	Circ.
7 7/8	5½ or 4½	17 - 20# or 10.5 - 11.6#	TD	250 sx	

We propose to drill and test the Cisco and intermediate formations. Surface casing and intermediate casing will be circulated. If commercial pay is encountered, 5½" or 4½" production casing will be run and cemented with at least 600' of cement cover.

MUD PROGRAM: Gel & LCM to 320', Native mud & LCM to 4500', Fresh water to 8000', starch -Dris-pak-KCL to 10200', salt gel-drispak-KCL to TD.

BOP PROGRAM: BOP's on 13 3/8 to 4500', on 8 5/8" casing to TD, tested and Yellow Jacket.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed Edwin Mahood Title Engineer Date 12/13/79

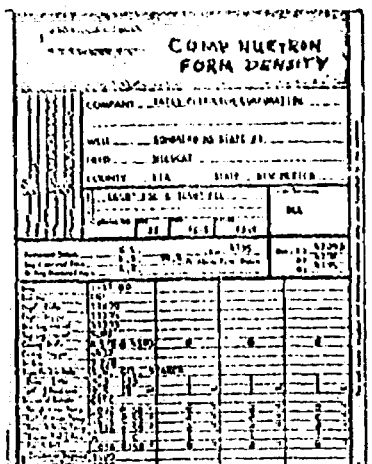
(This space for State Use)

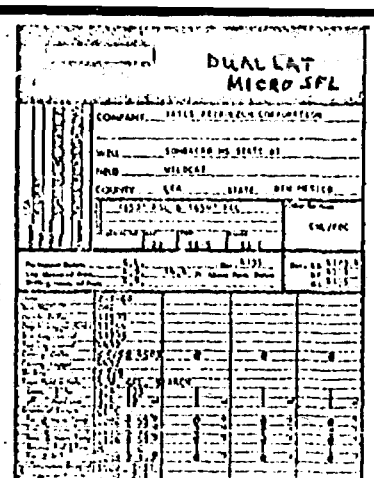
APPROVED BY [signature] TITLE SUPERVISOR DISTRICT 3 DEC 14 1979

CONDITIONS OF APPROVAL, IF ANY:

Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

Exhibit No. 2





DST #1 Results

30", 60", 60", 120"
Gas in 2nd Flow
Rec. 155' M
403' GCM
Spl Rec. 16 cc GCM
160 psi
4.5 cu ft gas

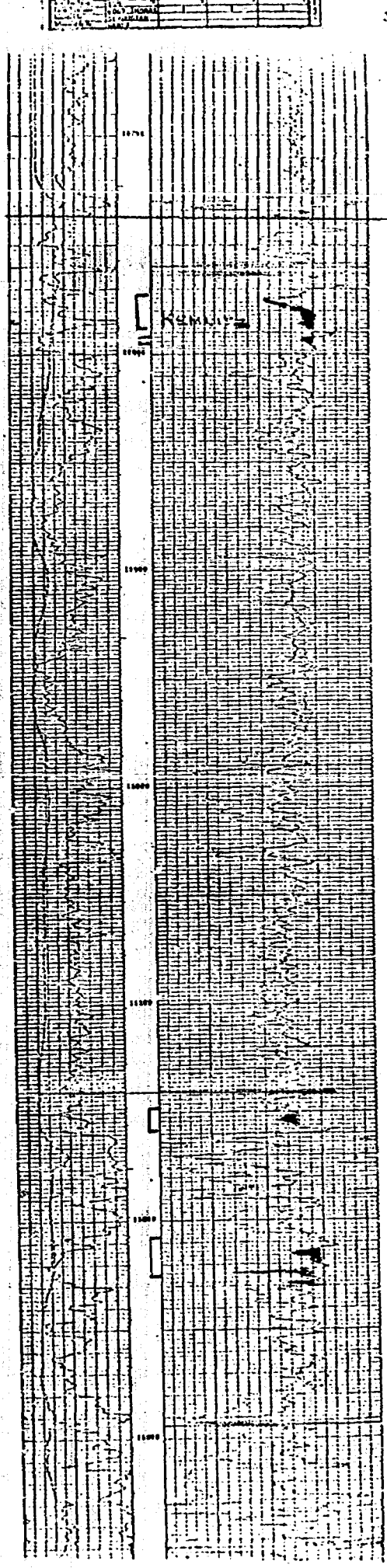
HP 5,079 - 5,122
IFP 88 - 154
ISIP 2,317/60"
FFP 220 - 240
FSIP 3,224/120"
BHT 14[illegible]

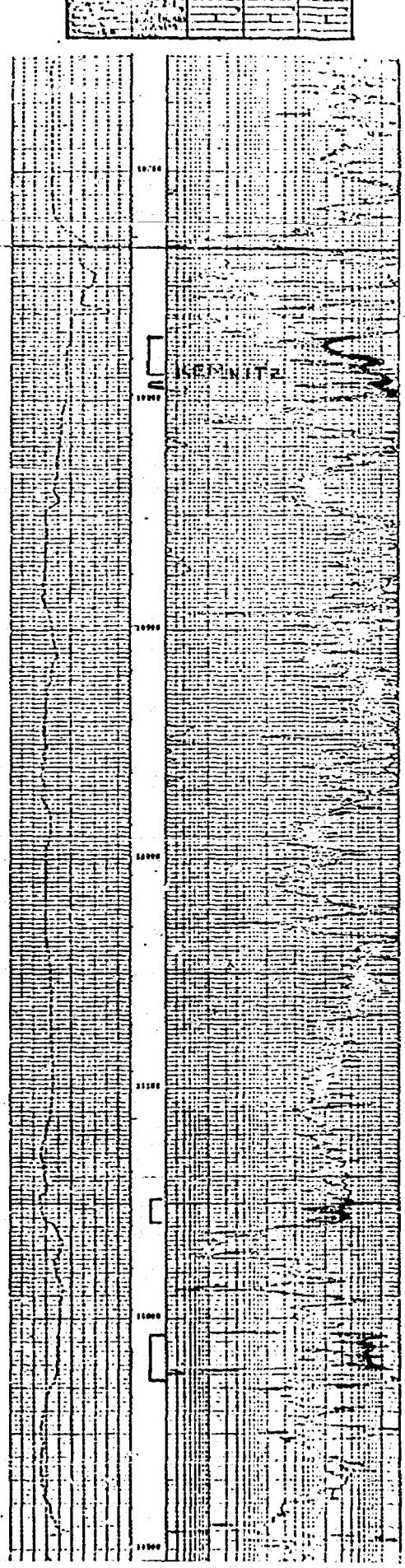
DST #1
10,675' - 10,820'

TOP KEMNITZ PAY

Perf 10,772-776 (17-0.5")
10772-774 (3-0.5")
Trt. w/2500 gal. 20% DS-30
Rec. 4 BO/hr.

extrapolate to 2870 psi at 200 Mcfpd ?





SEAMAN ZONE

Perf 11,148-158 (20-0.5")
Trt w/1000 gal. 20% DS-30
Swabbed & Flowed 380/hr
from 11,148-225

Perf 11,207-225 (16-0.5")
Trt w/2500 gal 20% DS-30
Swabbed & Flowed 2580/3 Days

Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

Exhibit No. 4

Diagrammatic Sketch of Proposed Dual Completion and Downhole Commingling

Sembrero MS State No. 1
1650' FSL & 1650' FEL
Sec. 22, T. 16 S., R. 33 E.
Lea County, N. M.

Elevation: 4195' GL (4209.4' KB)
Spudded: 12-21-79
Completed:

17½" hole to 320'
13⅜" 48# Csg set @ 320', cemtd to surface w/ 300 sx.

Top of San Andres @ 4,447'

12¼" hole to 4,617'
8⅝" 24# J&S Csg set @ 4437', cemtd to surface w/ 2400 sx.

Top of cement @ 10,135'

Prepare to pull packer @ 10,737' KB & RBP @ 10,882' KB. Run additional tubing w/ seating nipple & perforated nipple, latch tubing to packer @ 11,169' KB. Pump commingled production from Kemnitz Wolfcamp & Seaman Cisco.

Top of Kemnitz Wolfcamp Zone @ 10,734' KB

3-5-80 Swabbed 42 BOPD

Perf 10,772'-10,778' w/ 17-0.5" holes
Perf 10,792'-10,794' w/ 3-0.5" holes

Top of Seaman Cisco Zone @ 11,140' KB

2-16-80 Swabbed 85 BO/3 days from 11,207'-225'
2-21-80 Swabbed 72 BOPD from 11,148'-225'

Perfs 11,148'-11,158' w/ 20-0.5" holes

Packer w/ standing valve @ 11,169'

Perfs 11,207'-11,225' w/ 16-0.5" holes

PBTD 11,408'
5½" casing @ 11,442'

TD: 11,800'

Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

Exhibit No. 3

BENNETT WIRE LINE SERVICE

P. O. BOX 787
ARTESIA, NEW MEXICO 88210
Phone 746-3281

RAY STALL

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR YATES PETROLEUM CORP
LEASE SOMBRERO "MS" STATE
WELL NO. #1
FIELD
DATE 5-11-80 TIME 1700 HOURS

STATUS SHUT IN TEST DEPTH 10,760
TIME S.I. N.A. LAST TEST DATE FIRST TEST
CAS. PRES. BHP LAST TEST
TUB. PRES. 441 BHP CHANGE
ELEV. FLUID TOP
DATUM WATER TOP
TEMP RUN BY B.J. CATHEY
~~CLOCK NO.~~ GAUGE NO.
ELEMENT NO. RPG3# 46950, 0-7,000 LB. RANGE

DEPTH	PRESSURE	GRADIENT
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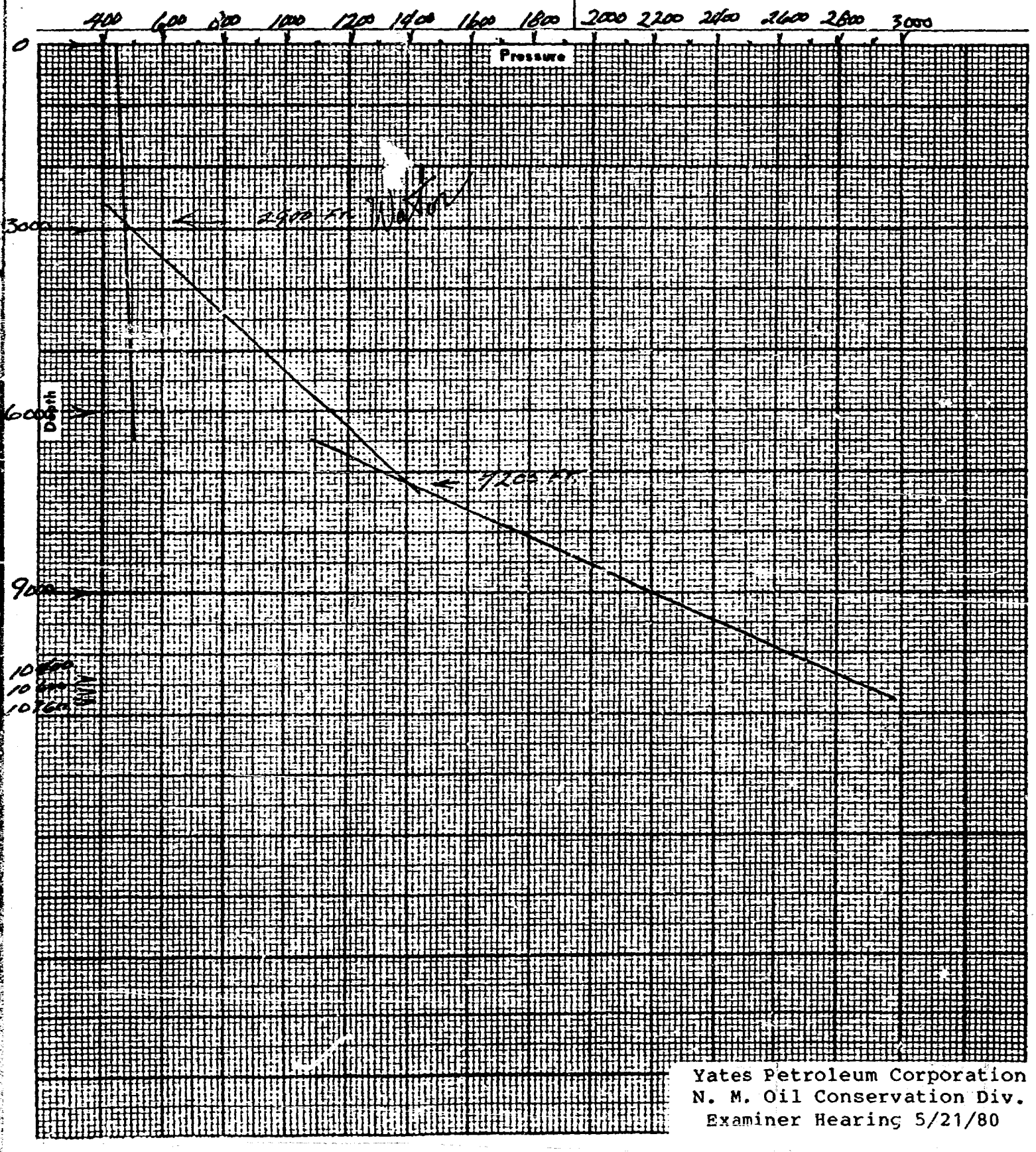
3,000	475	1.13
6,000	1,148	22.4
9,000	2,200	35.0
10,400	2,822	44.2
10,600	2,905	41.5
10,760	2,974	43.1

Wolfcamp



Yates Petroleum Corporation
N. M. Oil Conservation Div.
Examiner Hearing 5/21/80

Exhibit No. 5

Docket No. 14-80

Dockets Nos. 16-80 and 17-80 are tentatively set for June 4 and 25, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - TUESDAY - MAY 20, 1980

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

CASE 6715: (DE NOVO)

Application of Texaco Inc. for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Loomis Fed. Well No. 1 to be drilled 1600 feet from the North line and 660 feet from the West line of Section 5, Township 21 South, Range 32 East, South Salt Lake-Morrow Gas Pool, the N/2 of said Section 5 to be dedicated to the well.

Upon application of Texaco Inc. and Bass Enterprises Production Company this case will be heard De Novo pursuant to the provisions of Rule 1220.

****

Docket No. 15-80

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 21, 1980

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

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

ALLOWABLE: (1) Consideration of the allowable production of gas for June, 1980, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for June, 1980, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6891: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Midwest Refining Company and all other interested parties to appear and show cause why the State Well No. 1 located in Unit A of Section 16, Township 33 South, Range 14 West, Hidalgo County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6859: (Continued from April 9, 1980, Examiner Hearing)

Application of R & G Drilling Company for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 1890 feet from the North line and 1830 feet from the East line of Section 28, Township 28 North, Range 11 West, Kutz-Fruitland Pool, the NE/4 of said Section 28 to be dedicated to the well.

CASE 6886: (Continued from May 7, 1980, Examiner Hearing)

Application of Aminoil USA, Inc. for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the S/2 of Section 10, Township 24 South, Range 28 East, to be dedicated to a well to be drilled at an unorthodox location 2080 feet from the South line and 1773 feet from the East line of said Section 10. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6884: (Continued from May 7, 1980, Examiner Hearing)

Application of Supron Energy Corporation for compulsory pooling and a dual completion, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mesaverde and Dakota formations underlying the N/2 of Section 4, Township 30 North, Range 11 West, to be dedicated to a proposed dual completion to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6892: Application of Merrion & Bayless for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the South Blanco-Pictured Cliffs Pool underlying the SW/4 of Section 27, Township 24 North, Range 2 West, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6878: (Readvertised)

Application of Stevens Oil Company for a non-standard gas proration unit and unorthodox location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit comprising the N/2 SW/4 and S/2 NW/4 of Section 25, Township 8 South, Range 28 East, Twin Lakes-San Andres Associated Pool, to be dedicated to its O'Brien "B" Well No. 4 at an unorthodox location 1650 feet from the South line and 2310 feet from the West line of said Section 25.

CASE 6893: Application of Stevens Oil Company to amend Order No. R-5353, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks a revision of the special rules for the Twin Lakes-San Andres Associated Pool as promulgated by Order No. R-5353 to provide that each well, oil or gas, shall be located no nearer than 330 feet to any quarter-quarter section line, except that any well drilled in a known gas productive area shall be located within 150 feet of the center of the quarter-quarter section.

CASE 6894: Application of Sun Oil Company for an unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jennings-Federal "B" Well No. 1, a Yates test to be drilled 2440 feet from the South line and 2290 feet from the West line of Section 15, Township 19 South, Range 32 East, Lusk Field, the NE/4 SW/4 to be dedicated to the well.

CASE 6895: Application of Sun Gas Company for an NGPA determination, Lea County, New Mexico. Applicant, in the above-styled cause, seeks findings that the drilling of its J. A. Akens Well No. 10 located in Unit N of Section 3, Township 21 South, Range 36 East, was necessary to effectively and efficiently drain that portion of an existing proration unit which could not be drained by the existing well.

CASE 6896: Application of John E. Schalk for a non-standard gas proration unit and an unorthodox gas well location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard Blanco Mesaverde gas proration unit comprising the NE/4 of Section 8, Township 25 North, Range 3 West, to be dedicated to his Gulf Well No. 2 to be drilled at an unorthodox location 1925 feet from the North line and 790 feet from the East line of said Section 8.

CASE 6897: Application of McClellan Oil Corporation for two compulsory poolings, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from 1200 feet below the surface to the base of the Abo formation underlying the SW/4 and the SE/4 of Section 30, Township 6 South, Range 26 East, each to be dedicated to a proposed gas well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said wells 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 wells and a charge for risk involved in drilling said wells.

CASE 6898: Application of Conoco Inc. for an unorthodox gas well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Meyer B-28 Well No. 4 to be drilled 560 feet from the North line and 1980 feet from the West line of Section 28, Township 20 South, Range 37 East, Eumont Gas Pool, to be simultaneously dedicated with its Meyer B-28 Well No. 1 in Unit C to the NE/4 and E/2 NW/4 of said Section 28.

CASE 6899: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow test well to be drilled 660 feet from the South and East lines of Section 9, Township 17 South, Range 26 East, the E/2 of said Section 9 to be dedicated to the well.

CASE 6900: Application of Yates Petroleum Corporation for a non-standard oil proration unit, unorthodox well location, and downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre non-standard oil proration unit comprising the N/2 SE/4 of Section 22, Township 16 South, Range 33 East, Kemnitz Field, to be dedicated to its Sombrero "MS" State Well No. 1 at an unorthodox location 1650 feet from the South and East lines of said Section 22. Applicant also seeks approval for the downhole commingling of Wolfcamp and Cisco production in the wellbore of said well.

Docket No. 15-80

CASE 6901: Application of Harvey E. Yates Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp thru Mississippian formations underlying the E/2 of Section 19, Township 14 South, Range 36 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6902: Application of Harvey E. Yates Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Young Deep Unit Well No. 1 located in Unit D of Section 10, Township 18 South, Range 32 East, to produce gas from the Morrow formation and oil from the Bone Springs formation thru parallel strings of tubing.

CASE 6903: Application of Harvey E. Yates Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Pennsylvanian-Mississippian test well to be drilled 660 feet from the South line and 990 feet from the East line of Section 33, Township 13 South, Range 36 East, the S/2 of said Section 33 to be dedicated to the well.

CASE 6904: Application of Harvey E. Yates Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the McDonald Unit Area, comprising 1,440 acres, more or less, of fee lands in Townships 13 and 14 South, Range 36 East.

CASE 6905: Application of Harvey E. Yates Company for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Buffalo Lake Unit Area, comprising 2,560 acres, more or less, of Federal, State, and fee lands in Township 15 South, Range 27 East.

LAW OFFICES
LOSEE, CARSON & DICKERSON, P. A.
300 AMERICAN HOME BUILDING
P. O. DRAWER 239
ARTESIA, NEW MEXICO 88210

A. J. LOSEE
JOEL M. CARSON
CHAD DICKERSON
DAVID R. VANDIVER

AREA CODE 505
746-3508

April 29, 1980

Case 6890

Mr. Joe D. Ramey, Director
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Enclosed for filing, please find three copies of the Application of Yates Petroleum Corporation for an Unorthodox Location, a Non-Standard Unit, and Downhole Commingling in Lea County, New Mexico.

We ask that this case be set for hearing before an examiner and that you furnish us with a docket of said hearing.

Thank you.

Sincerely yours,

LOSEE, CARSON & DICKERSON, P.A.

Chad Dickerson

Chad Dickerson

CD:pvm
Enclosures

cc: Yates Petroleum Corporation

BEFORE THE OIL CONSERVATION DIVISION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF YATES PETROLEUM CORPORATION FOR AN UNORTHODOX LOCATION, A NON-STANDARD UNIT, AND DOWNHOLE COMMINGLING, LEA COUNTY, NEW MEXICO

CASE NO. 6890

APPLICATION

COMES NOW Yates Petroleum Corporation, by its attorneys, and in support hereof, respectfully states:

1. Applicant, as operator, has heretofore drilled its Sombrero "MS" State No. 1 Well at a location 1,650 feet from the south line and 1,650 feet from the east line of Section 22, Township 16 South, Range 33 East, N.M.P.M., Lea County, New Mexico, and proposes to dedicate the N/2 SE/4 to the well.

2. Applicant proposes to complete its well in the Kemnitz Zone of the Wolfcamp formation and in the Seaman Zone of the Cisco formation for the production of oil from both formations, and to commingle such production. Title to all production is common in both zones.

3. Applicant's well is located within the boundaries of the Kemnitz Lower Wolfcamp Pool, and said well location is an unorthodox location under the pool rules for such pool, but is an orthodox location for applicant's well in the Seaman Zone of the Cisco formation.

4. That applicant's proposal to commingle downhole the production from its well as aforesaid is feasible, in accordance with good conservation practices and will otherwise prevent waste and protect correlative rights.

WHEREFORE, applicant prays:

A. That this application be set for hearing before an examiner and that notice of said hearing be given as required by law.

B. That applicant's location be approved for completion of its well at an unorthodox location as aforesaid in the Kemnitz Zone of the Wolfcamp formation, and that applicant be allowed to dedicate N/2 SE/4 Section 22 to the well.

C. That the Division enter its order granting permission to applicant to commingle downhole its Sombrero "MS" State No. 1 Well for the production of oil from the Kemnitz and Seaman Zones described herein.

D. And for such other and further relief as may be just in the premises.

YATES PETROLEUM CORPORATION

By: Chad Dickerson
Chad Dickerson

LOSEE, CARSON & DICKERSON, P.A.
P. O. Drawer 239
Artesia, New Mexico 88210

Attorneys for Applicant

BEFORE THE OIL CONSERVATION DIVISION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF YATES PETROLEUM CORPORATION FOR AN UNORTHODOX LOCATION, A NON-STANDARD UNIT, AND DOWNHOLE COMMINGLING, LEA COUNTY, NEW MEXICO

CASE NO. 6890

APPLICATION

COMES NOW Yates Petroleum Corporation, by its attorneys, and in support hereof, respectfully states:

1. Applicant, as operator, has heretofore drilled its Sombrero "BS" State No. 1 Well at a location 1,650 feet from the south line and 1,650 feet from the east line of Section 22, Township 16 South, Range 33 East, N.M.P.M., Lea County, New Mexico, and proposes to dedicate the N/2 SE/4 to the well.

2. Applicant proposes to complete its well in the Kemnitz Zone of the Wolfcamp formation and in the Seaman Zone of the Cisco formation for the production of oil from both formations, and to commingle such production. Title to all production is common in both zones.

3. Applicant's well is located within the boundaries of the Kemnitz Lower Wolfcamp Pool, and said well location is an unorthodox location under the pool rules for such pool, but is an orthodox location for applicant's well in the Seaman Zone of the Cisco formation.

4. That applicant's proposal to commingle downhole the production from its well as aforesaid is feasible, in accordance with good conservation practices and will otherwise prevent waste and protect correlative rights.

WHEREFORE, applicant prays:

A. That this application be set for hearing before an examiner and that notice of said hearing be given as required by law.

B. That applicant's location be approved for completion of its well at an unorthodox location as aforesaid in the Kemnits Zone of the Wolfcamp formation, and that applicant be allowed to dedicate N/2 SE/4 Section 22 to the well.

C. That the Division enter its order granting permission to applicant to commingle downhole its Sombrero "MS" State No. 1 Well for the production of oil from the Kemnits and Seaman Zones described herein.

D. And for such other and further relief as may be just in the premises.

YATES PETROLEUM CORPORATION

By: Chad Dickerson
Chad Dickerson

LOSEE, CARSON & DICKERSON, P.A.
P. O. Drawer 239
Artesia, New Mexico 88210

Attorneys for Applicant

BEFORE THE OIL CONSERVATION DIVISION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF YATES PETROLEUM CORPORATION FOR AN UNORTHODOX LOCATION, A NON-STANDARD UNIT, AND DOWNHOLE COMMINGLING, LEA COUNTY, NEW MEXICO

CASE NO. 6890

APPLICATION

COMES NOW Yates Petroleum Corporation, by its attorneys, and in support hereof, respectfully states:

1. Applicant, as operator, has heretofore drilled its Sombrero "MS" State No. 1 Well at a location 1,650 feet from the south line and 1,650 feet from the east line of Section 22, Township 16 South, Range 33 East, N.M.P.M., Lea County, New Mexico, and proposes to dedicate the N/2 SE/4 to the well.

2. Applicant proposes to complete its well in the Kemnitz Zone of the Wolfcamp formation and in the Seaman Zone of the Cisco formation for the production of oil from both formations, and to commingle such production. Title to all production is common in both zones.

3. Applicant's well is located within the boundaries of the Kemnitz Lower Wolfcamp Pool, and said well location is an unorthodox location under the pool rules for such pool, but is an orthodox location for applicant's well in the Seaman Zone of the Cisco formation.

4. That applicant's proposal to commingle downhole the production from its well as aforesaid is feasible, in accordance with good conservation practices and will otherwise prevent waste and protect correlative rights.

WHEREFORE, applicant prays:

A. That this application be set for hearing before an examiner and that notice of said hearing be given as required by law.

B. That applicant's location be approved for completion of its well at an unorthodox location as aforesaid in the Kemnitz Zone of the Wolfcamp formation, and that applicant be allowed to dedicate N/2 SE/4 Section 22 to the well.

C. That the Division enter its order granting permission to applicant to commingle downhole its Sombrero "NS" State No. 1 Well for the production of oil from the Kemnitz and Seaman Zones described herein.

D. And for such other and further relief as may be just in the premises.

YATES PETROLEUM CORPORATION

By: Chad Dickerson
Chad Dickerson

LOSEE, CARSON & DICKERSON, P.A.
P. O. Drawer 239
Artesia, New Mexico 88210

Attorneys for Applicant

DRAFT

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 6900

Order No. R- 6362

APPLICATION OF YATES PETROLEUM CORPORATION

FOR A NON-STANDARD OIL PRORATION UNIT, UNORTHODOX WELL LOCATION, AND DOWNHOLE COMMINGLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on May 21, 19 80, at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this _____ day of May, 19 80, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Yates Petroleum Corporation, seeks approval of an 80-acre non-standard ~~gas~~ oil proration unit comprising the N/2 SE/4 of Section 22, Township 16 South, Range 33 East, NMPM, Kemnitz-Wolfcamp Pool, to be dedicated to its Sombrero "MS" State Well No. 1/ at an unorthodox location 1650 feet from the South ~~xxxxxxxxxx~~ line and 1650 feet from the East line of ~~xxxxxxxxxxxx~~ said Section 22.

(3) That the Special Rules for said pool prescribe that drilling and proration units shall comprise either the East half or the West half of a governmental quarter section and that well locations shall be within 150 feet of the center of the Northeast quarter or the Southwest quarter of a governmental quarter

(4) That the entire non-standard proration unit may reasonably be presumed productive of ~~gas~~ oil from the Kemnitz-Wolfcamp Oil Pool and that the entire non-standard ~~gas~~ proration unit can be efficiently and economically drained and developed by the

5 ~~(4)~~ That approval of the subject application will afford the applicant the opportunity to produce his just and equitable share of the ~~gas~~ oil in the Kemnitz - Wolfcamp Pool ~~field~~ ~~pool~~, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

~~(5)~~ That the applicant also seeks approval for the downhole commingling of Wolfcamp and Cisco production in the wellbore of said well.

7 ~~(4)~~. That from ~~the~~ each of said Wolfcamp zone, the subject well is currently capable of ~~only~~ marginal production ~~only~~.

8 ~~(5)~~ That ~~production~~ the production from said zones is expected to decline at a relatively rapid rate. ~~subject well is capable of low marginal production only.~~ initially

9 ~~(6)~~ That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

10 ~~(7)~~ That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

11 ~~(8)~~ That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Division any time the subject well is shut-in for 7 consecutive days.

12 ~~(9)~~ That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the Hobbs district office of the Division and determine an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That an 80 -acre non-standard ~~gas~~ oil proration unit in the Kemnitz ~~Field~~ - Wolfcamp Pool ~~xx Gas Pool~~ comprising the N/2 SE/4 of Section 22, Township 16 South, Range 33 East, NMPM, Lea County, New Mexico, is hereby established and dedicated to ~~the~~ The Yates Petroleum Corporation Sombrero "MS" State Well No. 1 at an unorthodox location 1650 feet from the South line and 1650 feet from the East line ~~xx located in xx Unit xxxx~~ of said Section 22.

Chow by approved,

IT IS ~~THEREFORE~~ Further ORDERED:

(1) That ~~the applicant~~, Yates Petroleum Corporation, is hereby authorized to commingle Wolfcamp and Cisco production within the wellbore of ~~said~~ Sombrero "MS" State Well No. 1 ~~located in Unit of Section, Township, Range, NMPM, County, New Mexico.~~

(2) That the applicant shall consult with the Supervisor of the Hobbs district office of the Division and determine an allocation formula for the allocation of production to each zone in ~~each of~~ the subject well.

(ALTERNATE)

(2) That ____ percent of the commingled production shall be allocated to the ____ zone and ____ percent of the commingled production shall be allocated to the ____ zone.

(3) That the operator of the subject well shall immediately notify the Division's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

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

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