NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date MAY 8, 1985 Time: 8:00 A.M.

NAME	REPRESENTING	LOCATION
Karen Aubrey	Kellahin + Kellahin	Santa Fe
C J Boyce	Amoco	Denver
W. Kellahin	Kellahin + Kellahin	Santa Fe
William F. Carr	Campbell and Black	Santa Fe
Bill Hall	Bryan	Santa Fe
W. A. McCoy	Amoco East	Santa Fe
Jan Bruce	Hinkle Law Firm	Santa Fe
J. R. Bob Frederick	El Paso Natural Gas	El Paso
Sandy Seal	Northwest Pipeline	Farmington
E. Marcom	Mesa Oil	"
F. Clary	OCD	Oster
Bill Seltzer	Amerind	Midland
Donna White	V-F Petroleum	Midland
V.F. Vasicek	" "	"
Bob Leibrock	Amerind Oil Co.	"

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NAME	REPRESENTING	LOCATION
Newton L. Lang	Apache Corp.	Houston, Tx
Dick Brunner	Apache Corp	Denver Colo.
Karen Ball	Apache Corp.	Denver
Steven R Foy	Craig Corp	Midland
Wayne R Gibson	Earle M Craig Corp	Midland, TX
Dave Davenport	Earle M. Craig Corp	Sta Fe, NM
Patricia Weber	Southland Royalty Co	Midland, TX
Don Davis	SRC	Midland Tx
Jerry Lyda	OCD	Hobbs.
Marsha Butler	Kellahin & Kellahin	Santa Fe, N. M.
Ross L. Clemens	Cities Co	Midland,
Mark J. Costello	Gulf Oil	Houston, Tx.
Bill LeMay	Don Link	Santa Fe
Tommy Solomon	Gas Co of NM	Albuquerque
Joel Levine	Gas Company of NM	ABQ
Thomas & Jensen	El Paso Natural Gas	El Paso

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

8 May 1985

EXAMINER HEARING

IN THE MATTER OF:

The hearing called by the Oil Conservation Division on its own motion for recision of Division Order R-333, as amended, for the San Juan Basin in San Juan, Sandoval, and Rio Arriba Counties, New Mexico.

CASE 8586

BEFORE: Gilbert P. Quintana, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Jeff Taylor
Attorney at Law
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

I N D E X

E X H I B I T S

MR. QUINTANA: We'll call next the last, but not least, Case 8586.

MR. TAYLOR: In the matter of the hearing called by the Oil Conservation Division on its own motion for recision of Division Order No. R-333, as amended, and for recodification, amendment, and issuance of the gas well test requirements, as contained therein, for the San Juan Basin Area, in San Juan, Sandoval, Rio Arriba, and McKinley Counties, New Mexico.

MR. QUINTANA: Are there appearances in this matter?

MR. TAYLOR: Mr. Examiner, my name is Jeff Taylor and I'm appearing on behalf of the Oil Conservation Commission and I have one expert witness.

MR. QUINTANA: Are there other appearances?

If not, would the witness please stand up and be sworn in at this time?

(Witness sworn.)

MR. QUINTANA: You may proceed.

HAROLD L. KENDRICK,

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

DIRECT EXAMINATION

BY MR. TAYLOR:

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

A I'm Harold L. Kendrick, employed by El Paso Natural Gas Company as a Conservation Engineer.

Q And in what capacity are you testifying today?

A Today I'm to testify as the Chairman of the Deliverability Test Committee of the New Mexico Oil Conservation Division for Northwest New Mexico.

Q And have you previously testified before the committee or its Examiners and had your expert qualifications accepted?

A Yes, sir.

MR. TAYLOR: Mr. Examiner, are the witness' qualifications acceptable?

MR. QUINTANA: They are.

Q You say you served as a member of the New Mexico Oil Conservation Deliverability Test Committee?

A Yes, sir.

Q Has the committee reached an agreement on what to propose as a new testing order for gas wells in the San Juan Basin Area of northwestern New Mexico?

A I believe we have.

Q And it is your purpose to present that data at this time?

A Yes, sir.

Q Would you state -- first of all, could you briefly state the purpose that the committee was formed and how it went about its duties?

A The committee was formed or was called to order in January, 1984, by the fact that deliverability as one of the elements that is used in proration in the four prorated gas pools in the San Juan Basin of New Mexico, we felt it was time to update some of the things that presently exist in Order R-333, and its many amendments; to update it and clarify, be more modern with its use, would be better for the industry to follow in that area, and the Proration Committee that is working at this same time might have problems with some of the things that exist in the deliverability portion of it.

Not that the two are in conflict. It's a matter of clarifying the interest throughout the state.

Q Would you state the major changes that the committee proposes to be made to the existing Order R-

333, as amended, to provide a new testing order for the northwestern part of the state?

A Yes, sir. We have as Exhibit One a write-up of a proposed testing order that consists of some thirteen pages, and the first page, appended to the top of that is a list of some of the major changes, or what was written as the major changes to the proposed existing Order R-333, as amended.

Q Excuse me, that should be Exhibit A.

A Exhibit A, fine, thank you.

Q And will you -- you want to briefly summarize these changes?

A Yes, I would like to go through that portion of that and make a few comments about these changes and a few other changes that should be noted for the record.

The first two items listed, Items 1 and 2, are deliverability tests are required for wells in prorated pools on a biennial basis.

And number two, shut-in pressures are required for wells in nonprorated pools on a biennial basis.

The situation as we have developed it in this proposed order is that wells in nonprorated pools will not be required to be tested with a deliverability test. Only wells in prorated pools will be required deliverability tests, but with the nonprorated pools, all wells in nonpro-

rated pools will be required to file a shut-in pressure on a biennial basis.

That's kind of a major step on that, in that we have probably lessened the load on deliverability testing by probably fifty percent, maybe a little more.

Item Number 3 is the deliverability test year shall be the same as the calendar year.

As a matter of scheduling wells for deliverability test, we find that the pipeline companies need the additional load that they might be able to enjoy in the wintertime of the year to get the wells producing long enough to get deliverability tests conducted.

So we are asking that this be a January through December test year, and also that that test year may begin by having some of the conditioning period and flow period occur in the previous year in the month of December, and we have that so written in the order, at the beginning in a test period the conditioning period and flow period can exist in December but the shut-in pressure if it follows immediately after the flow period, test flow period of the deliverability test, the shut-in pressure would be measured in January of the following year, being a 7-day shut-in pressure.

Also on the first page of the proposed order, we have an exempt classification. That is in Para-

graph 2 under Item B.

We have sometimes lived in what might be a mysterious world of what wells are required to be tested when an infill well is drilled. We find that exempt wells might have existed on a proration unit and now an infill well is drilled and you now have a new producing ability for that gas proration unit.

The exempt well in this case would lose its exemption and become part of a new gas proration unit's total deliverability as formed by the combination of the two wells.

I think that should be noted. It also clears the air so that everyone knows when you have to test and when you don't have to test on infill drilled wells.

Also, the exempt classification has been changed and that's on Page 2 in part -- Section 2-A-2, wells classified as "exempt" shall not be subject to the requirements of annual or biennial deliverability tests.

In that we have changed the requirements on Pictured Cliff wells where that they can be exempt only if they produce less than 250 MCF per month; can't produce, do produce, are incapable of producing greater than 250 MCF per month.

And the words "incapable of producing" is certainly included in this proposed order.

The Mesaverde and deeper formations has been written that if they produce less than 2000 MCF per month, they could also be exempt.

We talk about multiple well units and on that, where we have infill drilling permitted in the Blanco Mesaverde and the Basin Dakota that are covered by this order, that the unit becomes a factor that would be exempt from deliverability testing instead of on an individual well basis when we have more than one well on a unit, and that producing capacity we recommend is set at 2000 MCF per month for the gas proration unit.

That's the unit is incapable of producing greater than 2000 MCF per month.

Now we'll add to that, there has been conjecture, there has been disagreement, there has been different figures thrown out. I don't know a better figure to recommend than 2000 MCF per month. So this might not have been an all-inclusive agreement by the committee the 2000 figure to recommend, but for the reason we've had it up, we've had it down, one way and another, and 2000 seems to be satisfactory or maybe a median figure to use for that.

On Page 4 in Paragraph 3, if I'm reading the right one, if a test is filed on any well on a gas proration unit, the test requirement for the gas proration unit has been met.

There has been a little bit of a hazy area in that. What that sentence states to us, if you have more than one well on a gas proration unit and you test and file that test on one of the wells in the unit, the unit is not delinquent on a deliverability test. It gets the deliverability of whatever that test is submitted as showing and that's all you get.

In the Blanco Mesaverde and the Basin Dakota, where you add the deliverabilities together to get a total deliverability for the gas proration unit, if you fail to test of the wells, you're not being penalized for not testing it, other than the fact you get to add zero to whatever deliverability you have from the one well that you do test.

On Page 4, -- I'm sorry, on Page 3, Paragraph 4, if a test is not received for a proration unit, then a shut-in pressure is also not received. We hope that's self-explanatory.

If you failed to file a test, you certainly haven't filed a shut-in pressure, so if you do file a test that says that no gas was passed from the well, at least go ahead and file the shut-in pressure for that well, also, and you can file that shut-in pressure on your C-122-A, so you've met the requirements, it just happened that your deliverability is zero, but you do have the shut-in

pressure for the well recorded.

MR. STAMETS: Mr. Kendrick, I find that fascinating use of the English language.

MR. KENDRICK: Thank you, sir, I had lots of help.

MR. STAMETS: It looks like it. We might need -- need some more help on that before this is over.

MR. KENDRICK: Some of the wording on this proposal has been changed many times.

MR. NUTTER: This was put together by a committee?

MR. KENDRICK: Yes, but we're not the same one that built the camel.

MR. NUTTER: This might be a new camel.

A (Mr. Kendrick continuing) Also on Page 3 we find that the exempt status, the exempt wells do not require fililng of a shut-in pressure. That's included in that same Paragraph 4 that we just were discussing.

We have started the testing procedure now, at the bottom of Page 3 under Scheduling of Tests, the District Supervisor of the Aztec District Office of the Division shall notify each gas transportation facility and each operator of the pools which are to be scheduled for

biennial testing during the following testing period from January through the last day of December of that test year.

This is moving the dates a little to get us onto the calendar year of testing.

Also at the top of Page 4 it says, the District Supervisor will also provide those operators and transportation facilities with a list of exempt wells, and we find a little further on how that list of exempt wells is derived.

The second paragraph from the bottom of Page 4 says notice to the Division of shut-in pressure tests which are scheduled at a time other than immediately following the flow test must be received prior to the time that the well is shut-in.

This is to allow the Division Office the opportunity to witness shut-in pressures being measured on any of the wells as they're shut-in for the 7-day shut-in pressure.

On Page 5 the first paragraph says that if a well is ordered shut-in due to overproduction it can be produced for testing, all right, for a period of time to secure a test after notification to the Division.

All gas produced during this testing period will be used in determining the over/under produced status of the well.

We're not changing a thing in that except we're trying to alert everybody that, yes, your well has been ordered shut-in because it has for some reason been overproduced to a status that it must be shut-in, but it's scheduled for deliverability test at this time, go ahead and notify the Commission that it is scheduled and test it according to the schedule, and this is an approved situation and that any gas you produce from the well is certainly going into the account of overproduction or underproduction, whatever the status of the well might be; that it's not being ignored, in other words. It's just part of the normal production of the well.

Page 6. In Section 2 at the bottom of the page, we have relieved some of the restrictions that have been placed on the flow from the well during the conditioning period of a well.

In the presently existing order it says that a well may be shut-in one time for a period not to exceed 36 hours during the first week of conditioning period.

Now we have changed that to 48 hours of cumulative shut-in time during the first 10 days of the conditioning period. Now we're saying the 11th to the 14th day of the conditioning period should not have any shut-in time and then the flow period should not have any shut-in time immediately following.

We find that on older wells the possibility of shut-in time, we could be more lenient with it. We could save a lot of rescheduling that has been done in the past and still get the same quality test, if we just relieve a little of the restrictions in there.

On Page 7, Paragraph 3, when it is necessary to restrict the flow of gas between the orifice and the wellhead meter, the ratio of the downstream pressure in psia to the upstream pressure in psia shall be determined.

When this ratio is .57 or less critical flow conditions shall be considered to exist across the restriction.

In the existing order we did not know whether the pressures were gauge pressures absolute or any particular way you wanted to use them, so we have just added psia in there and I think all of the people in the field understand what that means at this time.

Page 8. The Paragraph numbered 3 near the top of the page says a calculated surface pressure based on a measured bottom hole pressure, and the following sentence, such calculation shall be made in accordance with the New Mexico Oil Conservation Division Back Pressure Manual, Example No. 7.

I wish to elaborate a little more fully on this at a later date but this is one statement that oc-

curs in our proposed testing order where we're quoting another manual.

We wish to move Example No. 7 from the New Mexico Oil Conservation Division Back Pressure Manual to an exhibit, if you please, in what would be a manual for this, so that we would have incorporated with this proposed order, or testing procedures, if you please, all of the data that is necessary to handle any calculation of any test in the San Juan Basin.

This is just one example, as it shows in Item No. 3.

In the next paragraph it says all wellhead pressures, as well as the flowing meter pressure tests which are to be taken during the 7-day or 8-day deliverability test period, as hereinabove -- required hereinabove, shall be taken with a dead weight gauge or other method approved by the Division.

Those are definitely new words but there is a move within the industry where there has been development of certain other type of measuring devices they believe are as accurate as dead weight gauges may be, and are easier to use, less time consuming, and one thing or another.

With that thought in mind, this committee has decided to give it to the Commission that should someone come up with a device that can measure pressures satisfac-

torily to convince the Commission that this is a -- convince the Division that this is an accurate method of measuring, once that tool is adopted by the Division, it will meet the requirements set out in this testing procedure.

There are a few manufacturers of gauges now on the market that they believe will meet these requirements. Further study of them might be necessary or the Commission might like to have a real sales test to see if they do go along with it; otherwise, we have left it with dead weight gauges and now it's up to the Division to add any new equipment that might become available to the industry.

On Page 10 we have an exhibit that we would like to include at this point. It concerns the first paragraph at the top of Page 10, deliverability pressure as used herein is a defined pressure applied to each pool as used in the process of comparing the abilities of wells in a pool to produce at statis wellhead working pressure equal to a percentage of the 7-day shut-in pressure of -- in respective individual wells.

Such percentage shall be determined and announced periodically by the Division based on the relationship of the average static wellhead working pressures, Pw, divided by the average 7-day shut-in pressure, Pc, of the pool.

I have an exhibit that we marked as Exhi-

bit B. It consists of four pages.

There is an exhibit for -- one page for each pool.

We have on the first page Basin Dakota Pool, a summary that was generated from the tests as were recorded and printed in the annual report of the New Mexico Oil and Gas Engineering Committee for the year of 1978.

In that report it said there were tests filed on 2155 wells.

The total line pressure, Line h recorded was 490,960.

The total Pc values adds up to 1,550,728.

The flow rates for all of the tests reported had a total producing ability or total flow of 447,212.

The total of the calculated working pressures were 557,853.

The total Pd values are deliverability pressure which are for this pool calculated at 50 percent of the shut-in pressure was 775,146.

The deliverability that calculated through the deliverability formula then totaled 423,603.

Those figures came straight from the book.

From that data a comparison was made of

Pw vrsus Pc and for the year 1978 I show that Pw was 35.97 percent of Pc.

And that data for each of the subsequent years from 1978 is shown on down the page going through 1983, and this data came from the New Mexico Oil and Gas Engineering Report, Annual Report.

Then also the Pd value was compared to Pc and it came out approximately 50 percent in all cases for that pool, and just as a matter of interest, I compared the deliverability value to the flwo rate value of Q and that's anywhere from 90 to 99-1/2 percent.

The 1984 value shown at the bottom of the page came from a Commission report that was in the office in Aztec and I got the values from that report and being as there were only 607 tests reported for that year, I did not use any of that data in a new total.

But if you look at the second page of this, for the Blanco Mesaverde, you'll find the same data available for the year 1978 through 1983 with totals for that, averages for that.

Then an 1984 value added, which showed 3,071 wells tested, and their test data.

Now Pw compared to Pc in this particular pool showed to be roughly 60 to 70 percent, the Pw 60 to 70 percent. We've been using Pd as 80 percent.

So we think that value should be redetermined to be a value of 70 percent instead of 80.

Now, for the test year of 1985, which we are into at this time, the figure for the Dakota Pool, we believe, should be -- Pd should be calculated at 40 percent of the shut-in pressure.

For the South Blanco Pictured Cliff Pool, which is the third exhibit -- third page of this exhibit, we believe that the proper percentage for that pool, that Pd should be -- of the shut-in pressure should be 60 percent.

Now, the Blanco Mesaverde Pool and the Tapacito Pictured Cliffs Pool need to continue on the percentages that are now assigned through 1985 for any wells that require testing at this time, because it would be a test for the 1986 year and all other wells have already been tested and calculated at those values made.

So we're not recommending a change to those two pools at this time, but the Basin Dakota and South Blanco Pictured Cliffs, we feel should be changed.

Also on Page 10 we find the nomenclature of Pw, average static wellhead working pressure as determined from 7-day or 8-day flow period psia and calculated from table in this manual entitled "Pressure Loss Due to Friction" Tables for San Juan Basin.

Here again are words that we're not happy

with. We'd like to have those friction tables made a part of this manual and the friction tables at this time, we do not wish to move the entry directly from the tables we're using right now, because we have found a little bit of discrepancy in those tables.

We trying to regenerate new values that -- the correct values for all of the figures that are currently being used and that we will provide those to the Commission, to the Division, help them to get this altogether as one table as soon as we can possibly do that.

I was explaining to the Director that sometimes the computers you have at your disposal don't always give you the answers you'd like to have and certainly that's been the case in this and I believe that it can be worked out and we can get values that are appropriate to use in all instances.

This would concern the values of Fc description factor for various sized flow streams and also values of 1-c to -s for various gravity times length calculations.

The last paragraph on Page 10 says the value of the multiplier in the above formula, the ratio factor after the application of the pool slope, by which Q is multiplied shall not exceed a limiting value to be determined and announced periodically by the Division. Such

determination shall be made after a study of the test data of the pool obtained during the previous testing session.

And there's two things we're trying to do.

If we note the value that Pd is compared to Pc, it would be normally equal to the same value that Pw is compared to Pc.

We've moving in a direction where that that multiplier approaches one. Then, if for some strange reason, we have other wells that the test is a greater figure or a larger figure, a limiting multiplier may be put on that calculation so that the deliverability would not be assigned as an astronomical figure and be some unrealistic figure that may have occurred in the past on some wells.

I feel that that pretty well covers the actual procedure or procedural changes that have been prescribed in conducting the deliverability test formula, the deliverability test procedure.

I do recall of one other item that should be mentioned and I'm not sure that I can place my hands on the exact page, but it states that if you do not measure the shut-in pressure immediately after the flow period, meaning that as soon as the test flow period is completed as the 7 or 8-day test flow chart, you shut the well in for 7-days to measure the 7-day shut-in pressure. That 7-day shut-in

pressure may be measured at any other time during the year.

It, too, will be scheduled by the transportation company in cooperation with the operators so that they'll all know when the test will be and the well shall be flowed for a minimum of 7 days before this shut-in occurs, so that everyone gets somewhat of a similar type 7-day shut-in pressure.

Now certainly 7 days does not compare to 22 days of flow, but it's better than just, say, well, I'll turn the well for an hour and shut it in for 7 days, and it might have been shut-in for a month before, but it more nearly equalizes what you have for your well as any other operator has for his well.

At the bottom of Page 11 we have informational tests continuing over into the bottom -- onto Page 12 and 13. I feel that those are pretty much self-explanatory, particularly for nonprorated pools; however, we do have one thing added to the San Juan Basin.

We're asking that all shut-in pressure on nonprorated wells be filed on Form C-125.

We're also asking that that pressure be recorded in psia. The present day form of C-125 has that column unlabeled. It does have a shut-in pressure in psig and I recommend to the Division that they modify that form and put a shut-in pressure column on the form to show a psia

column for that shut-in pressure.

MR. STAMETS: If I could interrupt again, and say that the reason it doesn't have psia on there is because many of the people who file those forms don't seem to know what that's all about and they don't know what it is.

Most of those are in southeast New Mexico right now, but the -- to make a psia you add 13.2 pounds. We'd see them with 25 pounds, no pounds, and 10 pounds, and so we said the simplest way to do this, tell everybody to report gauge pressure and we'll let the computer add 13.2 pounds to get psia.

Now do you see a problem with that in the San Juan Basin?

A I think I see a problem with it because, as the data is recorded in the Division records in Aztec, everything is recorded in psia from the summary of the deliverability test sheet.

And we move into another area of a nonprorated well and it is, all its data to date has been recorded in psia and now we start recording it in a psig.

I think that would cause a problem.

MR. STAMETS: Well, Mr. Kendrick, all -- right now all the C-125 testing is done based upon a computer listing we send to the operator saying test

these wells. We get that back here and we do all the processing here.

The completed printout, then, could be furnished to a District Office with psia figures on it.

A Mr. Director, I believe what you're referring to there again is in southeast New Mexico and you do not schedule those for northwest New Mexico, and that would be done by -- in a like manner to what the deliverability tests are scheduled there now.

MR. STAMETS: We could do it the other way, though.

A The transportation facilities occupying space in the San Juan Basin Area of New Mexico would prefer that they schedule the wells for the shut-in pressure tests at a time that might be convenient to them and the operator.

Not saying that it is not done so in southeast New Mexico, but certainly they would like to have a strong control on the dates when the shut-in pressures will be conducted in the San Juan Basin.

Q Okay, Mr. Kendrick, does that conclude the summary of your -- of the recommendations of the Deliverability Test Committee as far as the important changes that you recommended?

A No, sir, not yet. My attention has been

called to another item on Page 3 of this proposal.

In a paragraph headed by the letter "B" in the third line, starting with the words "and with the appropriate gas transportation facility within 90 days following the completion of each test."

This is a requirement by which the annual deliverability tests are filed with the Division's office.

That date, I believe, has been 60 days in the past and we're asking -- because we're using computers so much more than ever before, that we need more time in order to file these, but 60 days we feel is inappropriate and we need 90 days in order to get the tests filed.

MR. QUINTANA: I thought computers shortened the length of time that you got things done.

A Not necessarily. There are conditions existing in the field today that certainly did not exist in the 1950's when deliverability testing first began and one of those is the fact that you may have a chart on a meter that is on for 16 days, and that chart might have the flow during the first 7 or 8 days of that chart, the remainder of the chart would be the shut-in time, but it does not come off the meter until it has completed its 16 days of time on the meter.

So that delays the time to get the flow

data back out of the Measurement Department and get to the operator where he could calculate this test or to whatever transportation facilities may calculate the test for them.

Q Mr. Kendrick, if we could just for a second go a little bit into why these recommendations are being made, you said previously that part of it is because of the way Rule R-333 is compiled it's difficult to determine what the actual rules are in some situations, and you also said that there are some discrepancies and mistakes in tables.

What other reasons are -- is the Committee recommending that these various rules be changed?

A I feel that we're updating the rules to a point where they're actually more workable and certainly, we're proposing that this be put together as a test package so that if a new person moved into the San Juan Basin to operate a gas well, he can be handed one package that says this will tell you all you need to know about testing of your gas well to meet the requirements of the State of New Mexico.

I would certainly feel sorry for a new individual moving there now and trying to dig through the records himself to find out what is required and how to go about it, but it might be a little bit difficult to grasp the full meaning of what he's required to do.

Q Let's see, is your Exhibit A which you've provided to us ready to be copied as it is into the record or into a manual outlining test procedures?

A Not on an "as is" basis. As I mentioned a little bit earlier, there are certain words in this that made reference to other tables that may be in other prescribed test manuals of the New Mexico Oil Conservation Commission or Oil Conservation Division, that we would like those references to be made to tables that exist within this package, if I may use the word package, to represent this envelope of data now that has the procedure for testing, the requirements of testing, how to file, where to file, how to calculate.

We would like to have in that a copy of a C-122-A Form, which the deliverability test is filed -- is filled in on and submitted to the Aztec Office of the Division, a copy of that so that the manner in which that is calculated from start to finish would be a model for anyone to follow.

We do not have that in here today as an exhibit. It's certainly one that is easily prepared and that we can have that to you on short notice to get that part in it, also.

We'd like to get as many operators doing everything the same as all other operators as is possible.

We think with a few guidelines we could do it.

Q Are there any other changes that need to be made before this can be utilized in the package manner that you want to do to hand it out, any other things to be added that you want to mention right now, or changes that need to be made in it?

A I do not recall any other specific changes there.

There may be need to mention that in Order R-1670, which is the general proration rules of New Mexico, there may be some reference made to Order R-333, that if this Order R-333 is rescinded and a new order written, then any reference to 333 would automatically be transferred to this new order from this hearing.

Q Okay. On this, this proposed order which you have here, is -- was arrived at by a consensus of the committee, or do you want to briefly explain exactly how you -- I know you stated at one point that the 2000 cutoff for exemption wells wasn't exactly a consensus or everybody didn't agree to it.

Could you tell us how you arrived at all these recommendations?

A Possibly the answer to that is that it was a consensus of the committee but not a unanimous decision of the committee or of every member of the committee

making it unanimous.

One thing that we started with on the exempt, as a particular example was that it one time we had that hooked together with minimum allowable, and one of the thinking members of the committee said there's no need to connect that with minimum allowable. It doesn't have a bearing on it.

Sure enough, he'd turned the light on and we saw that and we said we could set that where we would like to have it and let minimum allowables go wherever they pleased, but it's just a figure that seems reasonable and many of the operators said we're going to test exempt wells anyway. Some operators would test only the wells they're required to. We feel that this is a good range to work on.

Q Okay, you --

A I wish to add something about the committee. I have another exhibit I'd like to enter as Exhibit C.

This is the names of people that have shown up on the mailing list for this committee, but most every person named on this list has been a part of the committee at one time or the other. They have all worked well with the committee. This has been a very useful committee and I think they have worked hard and diligently and I commend every one for their efforts that they put in on this.

It's been a pleasure to work with this

committee and certainly we didn't have any knockdown drag-outs, but gosh, maybe we missed the fun of it all. But this was a real pleasure to work with this group on this committee.

Q Does this proposed order, which we've denominated as Exhibit A, in your opinion is it in the best interest of preventing waste and protecting correlative rights?

A I believe it is.

Q Do you have anything else that you'd like to add to your testimony?

A No.

MR. TAYLOR: That's all we have, Mr. Examiner.

MR. QUINTANA: Are there further questions of the witness?

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Kendrick, you've entitled this thing Gas Well Testing Rules and Procedures, San Juan Basin, New Mexico.

Is there any reason we couldn't change the title of this to Manual for Gas Well Testing, San Juan Basin, New Mexico?

A I think that's a wonderful idea.

Q Okay. On Page 3, at this strange sentence in Number 4, let me see if I understand what you're saying there.

Are you saying that even if you aren't submitting any information on deliverability on this well, on a no gas passed well, you still have to file shut-in pressure or you're not going to get any allowable.

Is that what you're saying?

A Yes, sir, to the extent that if a well is required to have a deliverability test, meaning that it's not exempt from deliverability test, if some test should be filed, if all you can get from the well's flow is zero, then measure 7-day shut-in pressure and submit that with the zero flow.

If you do not submit a C-122-A, the test is delinquent for that well or for that gas proraiton unit.

Q Okay. That's certainly clearer than what's here. I think we can fix this.

A Hopefully.

MR. NUTTER: But would it have to be a well that doesn't produce any gas, can't produce gas?

A If the well does produce gas and you calculate a deliverability test showing gas flow and a deliver-

ability, certainly you will have a Pc value in your summary.

This is to cover the point that, by George, I didn't get any gas flow at all. What am I going to do? We're telling you to write down a shut-in pressure on the C-122-A, fill in as much data as you've got, and submit it.

MR. NUTTER: It would presume that a deliverability test had been attempted.

A Yes, sir, and that deliverability, apparently, is --

MR. NUTTER: Zilch.

A Yes, sir.

MR. NUTTER: Mr. Stamets, or Mr. Quintana, I don't know if I'm supposed to ask questions. Maybe I can make an observation and get a response.

I notice that in Section -- I've got it somewhere -- okay, annual or biennial deliverability and shut-in pressure tests shall be made on all gas wells during the period, except as follows, and then one of the things that follows is, two, wells classified exempt shall not be subject to the requirements of annual or biennial deliverability tests.

Then you go over to Section 4 that you were just referring to, Mr. Stamets, it says exempt wells do not require the filing of shut-in pressures.

Now, this is all relating -- now exempt wells are in prorated pools only, but the first statement back over here, saying that annual deliverability or shut-in pressure tests shall be made on all gas wells, would include prorated or nonprorated, but exempt -- exempt -- nonprorated wells under the wording as I read it, would require shut-in pressure tests regardless of their size.

A Mr. Nutter, may I attempt to answer that? If you will go to the Page 1, right under the title that Mr. Stamets read and recommended the delightful change for the title, Chapter 1 says, the Type of Tests Required for Wells Completed in Prorated Gas Pools.

MR. NUTTER: So these do not refer to nonprorated pools in any respect, none of these rules do.

A Only Chapter 1 is prorated gas pools.

Chapter II, III, and IV shows up in the back part.

MR. NUTTER: Okay.

A Chapter II is still prorated and -- Chapter II is the Procedure for Testing, so certainly that is part of prorated pools.

Chapter III is Informational Tests, and Chapter IV, Tests Required for Wells Completed in Nonprorated Pools.

MR. NUTTER: Okay. Now, under IV, then, for wells in nonprorated pools, there must be a biennial shut-in pressure test except as follows, and then there is an exempt classification there, too, is there not?

A Yes, sir.

MR. NUTTER: Okay. That's what I was concerned about, small wells having to take shut-in pressures.

A Yes, sir.

Q A couple more things, Mr. Kendrick.

Now you indicated you wanted Form C-125 amended with the psia back on there.

Would it be acceptable if we came up with C-125-A for the southeast and C-125-B for the northwest and kept the procedure that we currently have in the southeast, which is working very well?

A I certainly would not propose that we interfere with something that is working well in southeast that we could work around that some way to a form that's just for northwest, and a 125-B would not necessarily crimp northwest operations in any manner, would it?

I believe not.

Q Now you indicated that some tables would be added, and I thought I heard you talk about two separate tables altogether.

A There should be more tables than two.

The two that I believe that I named were Fc values for friction loss through the flow stream; the values of 1 -e to the -s for calculated gravity time length values.

There should certainly be tables in it for pitot tube reading.

There should be table of coefficients for choke type tests, as information tests are provided for.

Supercompressibility tables, gravity tables, temperature tables, I might say any table that is presently in use in calculating any of the tests in the San Juan Basin at this time should be included into this test manual, with a 15025 pressure base; temperature base, 60 degrees; gravity base .6.

Q And you would propose these would just be added in as table to the manual.

A Yes, sir, I would.

Q Now you indicated some -- an example form on how to fill one of these C-120-A's out.

Would you think it would be appropriate to show one where you had no gas passed and reporting only the shut-in pressure?

A Yes, sir, we could certainly do that.

Q And how about one with one of these new

C-125's with a pressure test, would that be appropriate as an example?

A Yes, sir, we could do that on the new C-125-B form.

Q There are three formations we're dealing with in the San Juan Basin, prorated, Dakota, Mesaverde, and Pictured Cliffs. It certainly would be handy to go a tri-annual testing and have the Pictured Cliffs all one year, the Dakota all another year, and the Mesaverde all another year.

You all have not recommended that so I presume you don't think too highly of that. Tell us why.

A As a committee, we did not dwell on that for any real length of time, but I do recall personally when we went from the annual required test to the biennially required test, that there was a certain amount of reluctance of giving up something that you have at the best data available to allocate production with.

I feel that you can go so far and the value of your data starts losing its significance and yet you're still allocating production from that.

I'm not saying that trying every third year is too infrequent a testing period for that.

Seemingly the operators testing their wells are not necessarily having a real problem getting to

them biennially or getting to them annually until they have three annual tests recorded for each well, so without complaints from these other operators, as to the well test cost being too great, that possibly we're doing well enough on a biennial basis.

And further, I don't know that dividing that by formations necessarily gains anything that we would not be testing the same number of wells each year, if that were a figure we were looking at; that the Mesaverde may have a lot more wells than the Dakota, with the Dakota being tested one year and the Mesaverde the other, and the Pictured Cliffs having a different set of figures, too.

So I don't -- I don't realize what we would really gain out of a testing every third year basis.

Q Mr. Kendrick, I wasn't really thinking of the operator, I'm sorry to say, but I was thinking of the Division staff and a relatively small number of people we have in Aztec and the thousands of tests that they have to deal with annually; looking for some way to sort of work their workload down.

A There are possibly two answers to that. One of the particulars accomplished with this proposed order, and that is not requiring deliverability tests for nonprorated pools. That one step alone will probably reduce the amount of tests by 50 percent.

And the second, maybe the most obvious, hire more help.

Q You haven't been to the Legislature lately.

MR. STAMETS: That's all the questions I have.

MR. CHAVEZ: Mr. Kendrick, in filing the results of the shut-in pressure tests on Form C-125, could perhaps the directions be worded so that the pressures would show up psia in the last column of the C-125?

A At the present time I believe there are three columns on the existing form, two columns on the existing form now available as vacant columns.

Is that -- my understanding correct on that? If it is, then either column could be used and if it's preferable to have it in the last column, that's certainly -- I believe that could be arranged with the Division as they establish this new form, that we could label the last column as shut-in pressure psia.

MR. CHAVEZ: That's all.

MR. QUINTANA: Is there any further questions of Mr. Kendrick?

If not, Mr. Kendrick, you may be excused.

MR. TAYLOR: Mr. Quintana, we would offer Exhibits A, B, and C into evidence.

MR. QUINTANA: Exhibits A, B, and C will be admitted.

If there is nothing further, Case 8586 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 CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8586 heard by me on MAY 9 1985.

Examiner
Oil Conservation Division

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

3 December 1986

EXAMINER HEARING

IN THE MATTER OF:

Application of the Oil Conservation Division on its own motion to reopen Case No. 8586.	CASE 8586
and	
Application of the Oil Conservation Division on its own motion to amend Order No. R-8170.	CASE 9050

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division:	Jeff Taylor Attorney at Law Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501
For Gas Company:	Jonathan M. Duke Attorney at Law KELEHER & McLeod P. A. P. O. Drawer AA Albuquerque, New Mexico 87103

R-8170-B

I N D E X

E X H I B I T S

E X H I B I T S CONT'D

MR. STOGNER: We'll call next Case Number 8586.

MR. TAYLOR: May it please the Examiner, Counsel for the Division, and I have one witness.

MR STOGNER: Are there any other appearances in this matter?

MR. STOGNER: This is Case 8586.

MR. TAYLOR: Mr. Examiner, I'd like to request that we consolidate for purposes of testimony Case 9050 with this case?

MR. STOGNER: Are there any objections to consolidating these two cases?

MR. DUKE: I have an appearance to make, Mr. Examiner.

I'm Jonathon Duke, Keleher and McLeod, Albuquerque, representing Gas Company of New Mexico.

I don't anticipate calling any witnesses but I would ask leave to make a brief statement.

MR. STOGNER: Okay.

MR. DUKE: And also cross examine, if I can, --

MR. STOGNER: Okay, are you entering an appearance, Mr. -- what was your name, I'm sorry --

MR. DUKE: Johnathan Duke.

MR. STOGNER: -- Mr. Duke, in Case Number 9050?

MR. DUKE: 9050 and 8586.

MR. STOGNER: All right. Let's go ahead, and if there's no objection in consolidating these two cases, I will now call Case Number 9050, which is also the application of the Oil Conservation Division on its own motion to amend Order No. R-8170.

So we have the OCD, Mr. Taylor, and you're putting in an appearance for this case, right?

MR. TAYLOR: Yes, sir, in both cases.

MR. STOGNER: Okay, and Mr. Duke, you are also appearing in both cases.

MR. DUKE: Yes, I am.

MR. STOGNER: Are there any other appearances in either case, or both?

Okay, there being none, Mr. Duke, do you wish to make an opening statement or a closing statement?

MR. DUKE: Whatever pleases you, Mr. Examiner. Either way it will be very brief.

MR. STOGNER: Why don't we just go ahead and hold it to the end?

MR. DUKE: All right, fine.

H. L. KENDRICK,

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

DIRECT EXAMINATION

BY MR. TAYLOR:

Q Would you please state your name, occupation, and place of residence?

A I'm Harold L. Kendrick. I work for El Paso Natural Gas Company as Conservation Engineer. I live in El Paso, Texas.

Q And are you familiar, Mr. Kendrick, with the matters in Cases 8586 and 9050?

A Yes, sir, I am.

Q And have you testified previously before the Commission or its examiners and had your credentials accepted?

A Yes, I have.

MR. TAYLOR: Mr. Examiner, I tender the witness as an expert.

MR. STOGNER: If there are no objections Mr. Kendrick's qualifications are accepted.

Q Mr. Kendrick, would you tell us in what

capacity you're appearing here today?

A In January, 1984, the New Mexico Oil Conservation Division appointed a committee to study the deliverability testing procedures for gas wells in the San Juan Basin area of New Mexico, and I have served as Committee Chairman since that time and today we're trying to flange (sic) up the activity of this committee and leave the data on the desk of the Commission and let them publish a manual from it.

Q And we've had a hearing in this matter before, have we not?

A Yes, a hearing was held on May the 8th of 1985 at which time we had much of the data in a submittable form at that time but there was other data needed and since then we have gathered all or most all of that data and are now ready to go ahead with that.

Q And you're presenting your testimony today as chairman of that committee on behalf of the committee, are you not?

A Yes, sir.

Q Would you please then give us the recommendations or the decisions of the committee?

A First I need to make some comments about the testimony given at the previous hearing on May the 8th of 1985.

At that hearing I supposedly was reading into the record some of the material contained in the test procedure that we in the committee had formulated and in doing so I paraphrased some of the words from the document.

Regardless of what I said that day, or may say today, the written text as we had it is the text that we would like to submit to the Division to be enacted as the rules of procedure for testing in the San Juan Basin.

Unless it is decided at this hearing to specifically change certain words in the written text.

(Thereupon a brief recess was taken.)

MR. STOGNER: Recess is over.

Q Okay, Mr. Kendrick, I'm not exactly sure where we are but were you ready to give us the recommendations of the Committee, then?

A Yes, I have some table and the written material to supply into this testing procedure as we now recommend it to the Division.

This that I'm handing you is an exhibit which you may mark as we go.

This is updated through November with the latest additions we have from the Committee, and the only change in this one, other than the corrections that were

made at the hearing on May the 8th, 1985, is a paragraph added on Page 7 of this, and I think we should go over that wording on that. I believe it's the second paragraph in that addition and it starts: "If a well is producing through a compressor that is located between the wellhead and the meter run, the meter run pressure and the wellhead casing pressure and the wellhead tubing pressure are to be reported on Form C-122A." Then in parenthesis, (Neither the suction pressure nor the discharge pressure of the compressor is considered wellhead pressure.)

"A note shall be entered in the remarks portion on Form C-122A stating this well produces through a compressor."

That was the addition to that particular document.

Also I notice on the very last page, the last line on that page says that completes this report. That should be stricken from the back of that.

MR. STOGNER: What page is that again, sir?

A The last page, I believe it's 14.

MR. TAYLOR: And that was introduced at the last hearing.

A Yes, that exhibit was introduced at the last hearing. The corrections were made to that and you now

have that document as Exhibit One, plus the addition of the paragrpah that I just read that shows on Page 7.

Now this exhibit is the same exhibit as was passed out with the last line of the document stricken from it and that paragraph that I read is in it but this has a little different sequencing tab stops throughout the paper. All it was doing was trying to beautify it somewhat for the Commission's handling, and I would say that if they have recommendations to make to that, I'd be happy to change it in form they'd like to have.

The paragraph that I read was place in the procedure because we believe that there are or have been testers in the area that have not fully understood what the correct procedure should be when compressor is in use on an individual well.

The committee believes that this testing procedure will define the types of tests that are required in the San Juan Basin and that everyone testing wells in the area will do it in the same manner; at least this is our intention.

Along with this text we are submitting a group a table to be incorporated into the test manual and these table include a table of values of 1-E to the -S power calculated from various values of gravity times length, and I have a few copies of that. That will be Exhibit Three, I

suppose.

Mr. Counselor, I don't know whether you want to stamp all of those because if we're going to print from that they may want a clean one for it or if they need a clean one let me know and I'll submit it.

Q I've noticed, Mr. Kendrick, in these exhibits that they were, at least the first one, was introduced at the last hearing, and I believe at that time it was marked Exhibit A.

A All right.

Q Do you think we should then, the one that we have marked Exhibit 1, instead we should mark that Exhibit A-1 os it would be clear that it's a -

MR. STOGNER: Sure, that way we won't have to --

MR. TAYLOR: And have counsel clarify that they were introduced at different times.

MR. STOGNER: So today's Exhibit One is A-1.

MR. TAYLOR: Right.

MR. STOGNER: And Exhibit A was the same thing that was --

MR. TAYLOR: Right, at the earlier hearing.

MR. STOGNER: And the earlier

hearing being the one back in 1985?

MR. TAYLOR: May of '85, right.

So we can label this second one B-1 and the charts we can label C-1. Hopefully at least that will differentiate it from --

A B-1 is the rewrite of the committee report.

MR. TAYLOR: Just the rewrite.

And then C-1 would be the charts.

A A set of tables for friction factors, or F sub C values for small and large size tubing and for annular flow with various combinations of casing and tubing sizes is presented.

I have only one set of those exhibits. That has small tubing, large tubing, and then annual flow.

MR. DUKE: And what is this one marked?

Q And should we designate this one D-One to make it clear?

A That will be okay, whatever is satisfactory with the examiner and the Division.

One of the things missing at the last hearing was a set of tables to interpret the value for the amount of gas glowing from a well with a pitot tube measure-

ment.

I now have a set of table made up for that that are made at an elevation of 6000 feet and are made with a gas gravity of .600 and with a table of impact pressures there is also a table of specific gravity correction factors to correct that flow rate value to the proper value if the gravity is other than .600.

Q And we will denominate this as Exhibit E-One.

A Fine. The other tables and examples of calculations for various procedures are to be taken from the back pressure manual as published by the NMOCC. The copy that I have is dated January the 1st, 1966.

The pages of material that should be duplicated from this manuarl and placed in the new manual for the San Juan Basin would be listed as -- I have a list for those various values, and forgive me if I get mixed up on them.

This $5.00 book lost its cover on the way to the car. I'm sorry about that but we'll do better next time. This page one, the cover page, needs to be changed.

Acknowledgment page could stay or we could drop it.

A new table of contents does need to be made and the preface, a new preface has not been written.

This book contains and introduction and a new introduction has not been written. If the Division so desires I'd suggest that those items be taken.

The introduction is Section 1 of this booklet.

Section 2 has nomenclature and I am not certain that all the nomenclature is complete in that data as we will need by adding the deliverability test to it, but it can be quickly updated. It would be only values that would come out of deliverability type testing that would have to be added to this if any of those are lacking. Possibly someone here today can answer whether that needs any additional data or not.

Section 3 is a test procedure that is talking about back pressure testing, rules of procedure for back pressure testing, and this section is what I would recommend be withdrawn from the booklet and our Exhibit A-One or Exhibit B-One be put in its place, because that would a complete set of testing rules as applied in the San Juan Basin of New Mexico.

Section 4 has the various forms of the Commission that are required to be filed with the test procedure. This will need a C-122A form and we propose to show with that how each of the values are ascertained and what values are to be placed on that form, and I do have a sample

of that to add to that.

Q And we'll mark this as Exhibit E-One -- F, F-One.

A Also a Form C-122 is the initial potential type test and we should have one of those filled in with the data and telling where the data comes from for that should also be added into this booklet, and a Form C-125, by whatever nomenclature the Division uses for the electronic data processing form as printed in Santa Fe and sent to the field for the shut-in pressures to be filed on and sent back. I've asked that as question. Is it C-125-B?

C-125-B, if that number is correct; if not, use the proper number for it.

There are wells in the San Juan Basin that are nonprorated wells that the shut-in pressures are required to be measured and they would be submitted either on Form C-122-A or C-125 and the C-125 needs to be identified in this manner.

Section 5 of this back pressure testing manual has basic calculations and those could be carried forward into the new booklet.

Section 6 has test examples and in the deliverability test procedure that was passed out as Exhibit A-One or Exhibit B-One, there is a reference to the back pressure testing manual and I cannot tell you what page

that's on, but that should be -- the wording should be changed in that to examples in this manual. I'll find you a page for that, if I had a copy of that,

Q A copy of this?

A Yes.

MR. STOGNER: B-One?

A Yes, sir, either A-One or B-One. One reference is in Exhibit A-One, the fourth paragraph on Page 10, that states, "and it should specifically conform to the New Mexico Oil Conservation Division back pressure test manual", in quotes, and it says, "or this manual."

I believe there is one other reference to the back pressure test manual in this booklet.

In any case, the test booklet that would be published from this data, test manual, will have all the data necessary to file those tests.

Section Seven contains many tables. Some of the tables are square root tables and with the advent of various types of calculators and computers in use today, I think the tables Roman Numeral VII-6 through VII-8 could be eliminated because I feel that no one has a real need for them.

Pages Roman Numeral VII through 86 should be left in the booklet. This concerns other tables and particularly the supercompressibility tables, which are

the largest ones, shown as Page 17 through 83 in Section VII.

Table Roman Numeral VII Pages 87 to 93 are calculated tables for values of 1 - E to the - S, and those should be withdrawn from the booklet and new tables put in it that I have for you as an exhibit today, and I think I passed out with something else, but -- but they are specifically calculated for the conditions of the San Juan Basin.

Table 14, Page Roman Number VII, 87 to 93 will be replaced. That -- I just mentioned that, okay.

Table VII-94 and 95 will be replaced and 95-A and 96 would be replaced.

Pages A-1 and B-1 can stay in the book; C-1 to C-5 might be eliminated.

Pages D-1 to 6 can stay in the book.

Let's see if I got it all. At this time I do not know of other data that should be submitted into this for the San Juan Basin testing procedure.

I'd like to go now to Case 9050 for a statement.

As advertised on the docket, this case includes language that asks to define retest in Order No. R-

8170.

We feel that a re-definition or a definition of retest is necessary to cover the process applied to deliverability retests as they occur in the San Juan Basin. We are looking for a procedure to be applied to all wells so that they can be treated automatically and all in the same manner when so needed.

The definition of deliverability retest, as we have it defined, and as we propose that it replace the rule 9-B in Order R-8170, is, and I quote: Rule 9-B. Deliverability retest, a change in a well's deliverability due to retest after any activity other than routine maintenance, which changes the deliverability of the well to become effective the later of (1) the date of redelivery after such activity, such date to be indicated on the sundry notice if a sundry notice is required, and on the remarks portion of the Form C-122-A, or (2) ninety days prior to the date of receipt of the appropriate deliverability test report form at the appropriate Division District Office.

A change in a well's deliverability due to any other reason shall become effective on the first day of the month following the month during which the retest is approved in the appropriate Division District Office.

And as I say, this we feel is necessary so that everyone will be playing by the same rules according

to the conditions that he is retesting a well whatever he has done.

In reading the rules as written in Order R-8170 for the four prorated gas pools in northwest New Mexico, I notice that Rule 9-A is included in each of the special pool rules. I feel that it is not necessary to include Rule 9-B in each of the special pool rules as it is a common rule to all of those pools.

Now, the Committee recommended that we do a little bit of changing in this 1985/1986 question mark 1987 hectic year of testing wells. Presently there are a few wells that have not had a test for 1986 completed and it is the recommendation of the Committee that we extend the delinquent date until March 31st of 1987 in order to conduct the 1986 deliverability tests that are required for 1986.

With this late date in getting the 1986 tests completed, the Committee felt it might be a headache problem to be able to schedule all of the necessary wells under the presently presumed scheduling of tests for 1987, particularly in that we would start conditioning periods for 1987 in December of 1986 in a normal year.

So far we have not started a conditioning period in December but the attitude at the last Committee meeting was that we should suspend deliverability test requirements for the year 1987, of the biennial test require-

ments to obtain the flow pressures, flow pressures and flow data, necessary to conduct a deliverability test, and what I'm trying to say is that for those pools that would normally be required to be tested in 1987, that those tests be suspended until the same normal testing period of 1988 and the wells that would normally be tested in 1988 would be suspended for a year until 1989.

Now there are certain wells in the San Juan Basin as new wells or worked over wells, wells that do not have three annual deliverability tests on file with the Commission at this time. Those would normally be tested this year regardless of what pool they're producing from. We do not ask for a suspension of testing on those wells because until they get three tests, they are tested annually anyway.

So with that recommendation we would like to submit that as a Committee recommendation and there are people here today from various companies that may have their own idea of what their company would desire to do and they have been advised to freely give that information to the Division.

Q Mr. Kendrick, if I just might interrupt for a second, in reference to this latest recommendation for an extension of the 1986 deliverability test period and a suspension of the 1987 deliverability flow test requirement,

I've received some calls from -- from people involved in the business and their concern is that if this test period is suspended, that it may affect various contract rights, especially take or pay, if that determined by deliverability.

Do you know how they might deal with this or what the -- how this might affect them?

A No, I do not how this might affect them, but surely if they have the space to take the gas into their pipeline I would think for them to go ahead and take at test int he normal manner, but not use that test value as a proration factor in mixing with other wells in the same pool that are tested the same year.

Q So you're saying that the extension is optional and operators and producers can go ahead and test their well if they desire.

A Yes, I would think that tey could.

Q And use that. Okay. Do you have anything further before I get into a few general questions we have?

A Just on this deliverability testing we're asking for suspension of the flow test part for 1986, meaning the 21 days that is made up of the 2-week conditioning period and 7-day flow period, but we're asking that they still take a shut-in pressure that year, and whether it's seven days or more, as long as it is seven days or more,

submit that pressure to the Division, Division's District Office.

Well testing in nonprorated pools would not be suspended for 1987 and the test would be scheduled and tested according to the normal test procedure.

I have a list of members that have worked with me on this deliverability test committee through the years. This has been updated as well as I can and I'm not sure today that I have left some of the people off that were in the early days that are no longer with us, but I'd like to submit that to the Commission and thank each of those people for the help that they have given to the committee and doing the work that we have tried desparately to do in the three year time.

Q And we'll -- could we mark that as Exhibit G-1?

Okay, Mr. Kendrick, you answered one of my questions by giving us that membership list.

Another one is that since it's been such a period of time since we had the last hearing on this, I recall at that hearing that you testified the purpose for -- for having this hearing and changing the rules was that old Rule 333 had been compiled over a period of time. It was confusing and difficult to understand, and that this was essentially a recompilation to simplify the understanding of

the rule. Is that why we've reopened the case today? Essentially there's -- we're not really changing a lot, you're simply continuing the process of recompiling, making that rule simpler to understand?

A Yes, sir.

Q And just also to clarify the record, could you explain how the committee met and went about making these latest recommendations, just very briefly?

A The committee met in Farmington on November the 6th and at that time we did have a good discussion about how many tests were lacking tied to different pipelines. Would you as a pipeline be able to take the gas for deliverability testing next year? When can you finish up this year's test? The whole compendium of items were well discussed and we felt that these recommendations that we have given you today best satisfies the overall attitude of the industry at that time.

Q Okay. I believe that's all the general questions I have and because this is a complex subject I'll let industry representatives that are more familiar with it ask you any more specific questions if they have any.

MR. TAYLOR: So that's all I -- I would, I suppose, ask if Exhibits A-One through G-One were prepared by you or under your supervision or are they compilations of the recommendations of the Committee?

A They're more a compilation of the recommendations of the Committee.

MR. TAYLOR: And I would move that those be admitted as exhibits.

MR. STOGNER: Exhibits A-One through G-One will be admitted into evidence at this time.

Does that conclude your questions, Mr. Taylor?

MR. TAYLOR: Yes, sir.

MR. STOGNER: Mr. Duke, I'll have you -- I'll open questioning up to you before I open it up to the general --

CROSS EXAMINATION

BY MR. DUKE:

Q Very briefly, Mr. Kendrick. Are you recommending that 1987 flow tests be suspended and not shut-in pressure tests?

A Yes, sir, the requirements for the flow tests be suspended, yes, sir.

Q And how about for '86?

A '86 we will -- the requirements will remain that that test must be filed but we have extended the filing date until March the 31st of '87 to get all of the 1986 deliverability tests on file with the Aztec Office of

the NMOCD.

Q Thank you, that's all I have.

MR. STOGNER: Mr. Stamets?

QUESTIONS BY MR. STAMETS:

Q Mr. Kendrick, as I recall originally the discussion was to come up with a testing manual for the San Juan Basin that would be a separate document. What you've identified as Exhibit A-One, I think, is this the -- has the title page and everything?

A Yes, sir.

Q Now is that going to be a separate document or do you propose that that be a part of the Division's Gas Well Test Manual?

A May I answer it this way: That's -- we have certain proposals that we would give to the Commission to recognize a new manual to take the place of the back pressure test manual of New Mexico; that this manual would be identified as for San Juan Basin use. It would be all inclusive of everything we do in the San Juan Basin but would not necessarily be applicable to the rest of the State of New Mexico.

Q So what we wind up with would be two gas testing manuals, one the general manual, one specifically for deliverability for San Juan Basin.

A Deliverability and any other testing that is required in San Juan Basin, yes, sir.

Q Okay, and what you've presented here today would be a part of that manual.

A Yes, sir.

Q All right, and are you going to subsequent to this hearing submit me a complete copy of that that we can use to -- for printing purposes or are we going to have to go through the transcript and figure out exactly what it was you said each page, each section?

A I thought that's what the hearing was for?

I would be happy to help you any way I can at putting this together.

Q Outstanding. In these rules tell me where it makes it clear when you're supposed to only take a shut-in pressure as opposed to a full deliverability test.

A The write-up that you are holding in your hand, which I believe is Exhibit B-One, starts with prorated well testing requirements and near the back of that write-up is nonprorated wells.

Now, there are only four prorated pools in San Juan Basin, four prorated gas pools, so whoever is operator of a well should know what pool they're in and whether it's prorated or not, and then could go to prorated

or nonprorated and I believe the description found in that write-up in Exhibit B-One will tell whether.

Q So the -- if you are filing a shut-in pressure for a prorated pool because you had no gas passed, that would be on form C-122-A.

A Yes, sir, and I believe that's covered.

Q Okay, and then if you're in an unprorated pool, you would be required to take a biennial shut-in pressure test and that would be -- let's see -- that would be filed then on Form C-122 -- or C-125-B.

A Yes, sir.

Q Now, remembering back, the C-125 that we used for the rest of the state is one that we would now generate by computer and send to each operator and say to the operator, you've got to test your wells and submit the data on this form and that avoids a tremendous amount of headaches for the Division.

Are we talking about that same sort of a procedure for the San Juan Basin?

A Yes, sir, we are. We're talking about using the same form that's generated in Santa Fe and submitted to the operator and he puts the shut-in pressure on that and submits it back to the --

Q Okay, now why does that need a separate number?

A It does not need a separate number. I was trying to identify that as the same form that you are using in southeast at the present time.

Q Okay, so if it's a C-125 in the southeast it will still be a C-125.

A Yes, sir. I had understood that the electronic data process printed form did have a separate number of suffix letters, or something. I'm not --

Q No, it doesn't.

The other thing that I recall from earlier discussions on this is that the C-125 that we use does not have a psia on it; that we have programmed the computer to automatically add 13.2 psia to all of the reported pressures. Is there any problem with that same sort of a procedure in the San Juan Basin where we'll get the gauge pressure and plug in the San Juan Basin number to get psia?

A As long as the form identifies what pressure is submitted so that everyone submits the same pressure, whether it be gauge pressure or absolute pressure, then 12 pounds added to gauge pressure for San Juan Basin. I see no problem with either way as long as everyone knows, and there may be another answer from another staff member available to that question.

Q Okay. Moving on to other areas, the -- what's the reasoning behind the proposed change in the

definition of a -- it's not a workover any more, it's re-test. Why? Why has that been done?

A In the taking of deliverability test in the San Juan Basin, it has become extremely difficult at some times to decipher, to discern, to truly know what is a workover, and in two conditions nearly identical one could be a workover and treated as a workover and one would not be a workover and would not be treated.

So the definition that we have recommended to the Division here is that anything that changes the deliverability which is the element of the producing ability of that well, that becomes used in allocating the monthly allowables to the well, that factor changing needs a new deliverability test, and as deliverability is used only in the San Juan Basin as one of the factors in assigning allowables, then this is the main place that that would be necessary.

Q And the reason for the extension of the period of time for submittal of 1986 deliverability is what?

A 1986 being as hectic a year as it has been, some pipelines have not been able to schedule all of the wells tied to their system for the deliverability test up to this date.

Q And that goes back to the problems of marketing gas.

A Yes, sir, it does.

Q And would those same problems be the reason for suspension of the 1987 testing or delay of 1987 testing.

A If we look at what has happened in the year of 1985 and 1986 in the marketing problems, and those problems experienced by various pipelines, I think they might look and say we may expect problems in 1987, and this may be one way to alleviate the problem and still be -- have wells evaluated on an equitable basis to prorate between wells in the same pool.

MR. STAMETS: That's all.

MR. STOGNER: We'll open it up to Mr. Chavez?

QUESTIONS BY MR. CHAVEZ:

Q Mr. Kendrick, by moving the test year up one year for the different pools, would we possibly miss a pool, for example, the '87 test year would be for taking the Basin Dakota Pool, if we were to move the deliverability testing of that pool to 1988, what would happen to the Mesa-verde information which would be lost during what would normally have been its test year during 1988?

A It -- its flow test requirement would move to '89, so there would be a 3-year span of data for each

of the four pools for the flow test data of deliverability between '86 and '88 that -- it would go on a 3-year cycle for a one time only time period.

MR. CHAVEZ: That's all I have.

MR. STOGNER: Then we'll start with general questions.

We'll start on this side of the room and go around. If you'll stand up, state your name and your affiliation it will make it a lot quicker.

QUESTIONS BY MR. WILLIAM CLARK:

Q William Clark, Blackwood and Nichols.

Babe, is it the intention of the Commission or of your test committee there, that if an opertor did something like installed a stopcock or a plunger lift system, that that would qualify for any activity and he could then go and request a retest of that well?

A I'll answer that with a semi-question and say that if it changes the deliverability of the well, then it meets the requirement for a deliverability retest.

Q Okay, normally those are installed to improve performance of the wells.

A And if it causes a change in deliverability that qualifies for a retest.

Q Okay, thank you.

QUESTIONS BY MR. ED MARCUM:

Q Ed Marcum with El Paso Natural Gas.

On your question about this testing is optional, Babe, I didn't really understand there on the take or pay contract. Was it your interpretation that if an operator under a take or pay contract had a desire to have a deliverability test run, would that be run just for the take or pay contract or would that test be filed with the OCC?

Because if that's true, I think we're going to have some tests filed and some not next year.

A My answer to that is it's not a required test. It is satisfying a condition between the operator and the pipeline and what they do is beyond the testing requirement by the Division for that testing, and it would not be necessary to file that test with the Division if the operator of that well should be -- continued to be prorated on the same deliverability that was of the same year as all other wells in that pool.

Q Okay, it would not be filed through Frank's office, then.

A It would not be necessary to file it through his office.

Q We -- I agree heartily with what Babe said here about the relief that we need in the pipeline area

about deliverability scheduling.

But at the same time quite a few operators have addressed the question to me in Farmington that they're concerned that they would like to run deliverability tests, and I don't know if they have got back to you people or not or if Frank can help answer that.

We didn't get very much input, did we?

STATEMENT BY MR. JOEL FOX:

Joel Fox, with Tenneco Oil. As part of the Deliverability Test Committee, as being a member of that and also representing Tenneco, our definite stance is somewhat dependent upon the pipelines in the San Juan Basin area and their ability to take the gas due to the demand situation more than a contractual.

Our stance would be to continue with deliverability testing for '87 unless there exists the testimony from any pipeline such that the testing would really -- that such testing would really be impossible due to contract or demand, system demand problems.

If there is such a moratorium on testing issued, we would be in favor of reinstating the past deliverability on record for that well to account for its allowable. In other words, we'd be afraid, we would not want the allowable of that particular proration unit to be

lost if delayed by the testing of that unit was not able to be completed.

So kind of in conclusion, we're at the mercy of the pipelines, I guess, on the testing.

MR. STOGNER: Any questions?

QUESTIONS BY MR. STAMETS:

Q Babe, I understood that your propoasl would do what Tenneco asked for at the end, which was that we continue the current deliverability until a new test began.

A Until new tests are required for all wells in the pool, yes, sir.

Q Right.

QUESTIONS BY MR. CHAVEZ:

Q Mr. Kendrick, one point for clarification in the change to Rule 9-B, the word in there is changes of deliverability. That will account for any decreases in deliverability that may require testing also, doesn't it?

A The door is open. If I were an operator and did something to a well that caused my deliverability to go down, I might be hesitant about telling anyone about it but I think that I would not be hesitant to tell anyone that

I had done something to my well to increase the deliverability, and if I have increased that deliverability, then I would try to get credit for that by a new deliverability test, getting a higher deliverability, and consequentially a higher allowable.

MR. STOGNER: Are there any -- okay, Mr. Marcum?

MR. MARCUM: I have a question.

QUESTIONS BY MR. MARCUM:

Q On brand new wells, Babe, I understood the 3-year test would be required for (not understood) but on the new wells, prorated pools, they still would require the deliverability test, right?

A Yes, a brand new well in any prorated pool would be required to be -- to have a deliverability test conducted until there are three annual tests on record before they could fall into any suspended period of time.

Q Following the guidelines that we now stipulate in the manual for ninety days.

A Yes, sir.

MR. STAMETS: I'd also point out that Exhibits C-One and D-One might ought to have some titles on them to say what they are.

A Mr. Stamets, that's one thing I haven't

learned how to do on that magic box is put titles on pages of calculations. Some way we can doctor that, I hope.

MR. STAMETS: I think we've probably got a typewriter that will do it if you'll tell us what the titles ought to be.

A Okay.

MR. STOGNER: Scissors and other paper work wonders.

Any further questions of Mr. Kendrick at this time?

I believe we're ready for statements.

Is there any further testimony at this time from anybody?

We're ready for -- I believe we're ready for statements at this time.

Mr. Duke, I'll let you go first, and Mr. Taylor, if you have anything further, or is there anybody else that would like to make a statement at this time?

Okay, Mr. Duke.

MR. DUKE: Mr. Chairman, Mr. Examiner, I think many of our concerns have been addressed by Mr. Kendrick. I guess what Gas Company's main concern is that as old deliverability tests become more and more stale

that they become more inaccurate and thus the allowables become unrealistic.

We're afraid, and I don't know the extent of this possibility, that a producer could be producing at capacity and still not meeting his allowable and be subject to a cancelled allowable, and of course, this affects us as far as take or pay and our contractual obligations. Like I say, I don't know the extent of the problem. I think the Division would be in a better position to assess that.

I concur with Mr. Fox that if -- if it is a case of impossibility, that then some relief needs to be granted as far as testing goes.

But I would ask that the Division take -- take this possibility into account of allowables being based on old deliverability data.

That's all.

MR. STOGNER: Thank you, Mr. Duke.

Mr. Taylor:

MR. TAYLOR: I have no statement.

MR. STOGNER: Does anybody else have anything further in either of these cases at this time?

If not, both Cases Numbers 9050

and 8586 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 (Commission) 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 CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case Nos. 8586 and 9050 heard by me on 3 December 1986.

_____, Examiner
Oil Conservation Division