

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1,81

TRANSCRIPT OF HEARING

SEPTEMBER 30, 1959

BEFORE THE
OIL CONSERVATION COMMISSION
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IN THE MATTER OF: :

CASE 1781 Application of Texaco, Inc. for permission to :
 continue producing an overproduced Jalmat gas :
 well at a lesser rate. Applicant, in the :
 above-styled cause, seeks an order authorizing :
 it to produce its C. C. Fristoe (b) NCT-4 Well :
 No. 2, Unit M, Section 31, Township 24 South, :
 Range 37 East, Jalmat Gas Pool, Lea County, New :
 Mexico, at a maximum rate of 2500 MCF per month :
 for lease use until over production has been :
 compensated for. :

BEFORE:

Daniel S. Nutter, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. NUTTER: We will take next Case 1781.

MR. PAYNE: Case 1781. Application of Texaco, Inc.
for permission to continue producing an overproduced Jalmat gas
well at a lesser rate.

MR. KELLY: My name is William Booker Kelly with
Gilbert, White & Gilbert, Santa Fe, and I represent the Texaco
Company. I have one witness and ask that he be sworn.

(Witness sworn)

L. M. FOSTER,

called as a witness, having been first duly sworn, testified as

follows:

DIRECT EXAMINATION

BY MR. KELLY:

Q Will you state your name and your employer and your classification, please?

A L. M. Foster, employed by Texaco, Incorporated, as petroleum engineer, assistant to the district engineer in our Hobbs district, located at Midland, Texas.

Q Have you ever testified before in front of this Commission or any of its Examiners, Mr. Foster?

A No, sir.

Q Please state your education and professional experience.

A I have a Bachelor of Science degree from Texas Technological College, Lubbock, Texas in petroleum engineering. I was graduated in 1952. Since that time I have been employed by Texaco, Incorporated. I have two and a half years field experience as a field engineer in drilling, production, and remedial work. Approximately two years as unit engineer of our Cargo Reef Unit at Snyder, Texas dealing with production, remedial work and pressure maintenance in the form of water injection, and for the past two and -- about two and a half years, I have been in our Midland office as assistant to the district engineer, dealing in drilling production, remedial work and some proration.

MR. KELLY: Are his qualifications acceptable to the

Commission?

MR. NUTTER: Yes, sir. Please proceed.

Q Are you familiar with the subject application, requesting exception to O.C.C. Memo 1359?

A Yes, sir, I am.

Q Will you state the current production status of C. C. Fristoe (b) NCT-4 Well No. 2?

A C. C. Fristoe NCT-4 Well No. 2 is in the Jalmat Pool. At present, its production status -- these are figures I obtained from our ~~gas~~ gasoline department at Midland -- the cumulative overproduction of the well as of September 30, 1959, is 318,406 MCF. The September allowable is 8,131 MCF; that is an approximate thirty-nine months' overproduction at its current September allowable. This well, as far as I know, was changed from a marginal to non-marginal status, I believe, in March, 1959. And I notice from production records, which I obtained from our gas gasoline department, that from June to September there has been no production from the well to El Paso Natural Gas Company, who are the gatherers for this well.

MR. NUTTER: June when, please?

A June through September.

Q (By Mr. Kelly) Can you tell the Commission why you feel it is necessary to seek this exception?

A Yes, sir. This well, due to its extremely overproduced status, is, of course, subject to immediate shut-in due to

being more than six times its current allowable overproduced. This well is furnishing from a casinghead connection fuel gas for one other well on its lease, the Fristoe (b) Lease plus wells, certain wells on our I. B. Ogg "A" and "B" Leases, approximately two miles to the west. These wells are on a pumping status and are being furnished fuel gas from this well.

Q Is it possible for any of these five wells to furnish their own fuel?

A No, it is not. They do not produce a sufficient amount of gas.

Q Have you studied the feasibility of using butane on this-

A If I may show and explain this Exhibit 1, and use our Exhibit 2, too. I would like to explain Exhibit 1, which is a plat showing Texaco, Incorporated, C. C. Fristoe (b) NCT-4 lease, and the I. B. Ogg "A" and "B" leases in Lea County, New Mexico, the subject gas well, Fristoe (b), if I may refer to it from now on as Fristoe (b) No. 2, is located in Section 31, Township 24, South, Range 37 East. It is 660 from the South and West lines. This Exhibit 1 shows a red line drawn from the subject well to the adjacent location to the north, which is our No. 1 Well in the Langley-Mattix Pool -- oil well. It is being furnished fuel gas for that pumping unit. Thence, the two-inch gas line is shown going through a meter to the Ogg "A" and "B" leases located, as I stated previously, two miles West. Gas is presently being furnished the Ogg -- I. B. Ogg Wells Nos. 1 and 2, shown in the

northwest, the W/2 of the NE/4, thence, across to Ogg "A" Nos. 3 and 4 in the W/2 of the NW/4. And from there the fuel lines extend to our I. B. Ogg "B" Well No. 3, and if I remember correctly, this is I. B. Ogg "B" NCT-2 Well No. 3, fuel gas being furnished the prime motor on that pumping unit. The remaining wells on the Ogg "A" and "B" leases are either plugged and abandoned or temporarily abandoned. There is one other location. I'll refer back to the W/2 of the NE/4 of -- I can't find my section number -- the Ogg "A" lease 35 -- Section 35. There is a water well located in the near vicinity of Well No. 1. Fuel gas is also being furnished it -- I believe it is a 2 H.P. tool engine on that water well. This water well supplies lease water used by Texaco, and I believe Gulf is also using some. I believe that explains this plat, other than I want to bring attention -- there is a meter located there. The fuel gas to the I. B. Ogg "A" and "B" leases is metered prior to leaving the Fristoe (b) lease.

Q You might explain Exhibit No. 2 at this time.

A Exhibit No. 2 is a diagramatic sketch of the well-head of the subject gas well, Fristoe (b) No. 2, showing thereon that a gas connection to El Paso Natural Gas Company is the tubing connection with a valve from which it can be closed in. Our fuel line comes off of our casing -- 7/8 inch casinghead, shown on the right of the sketch with a valve to shut it off. This sketch merely shows that we can shut off the gas connection to El Paso, cease delivering gas to them, and yet maintain an opening for our

fuel gas connection.

Q You stated that it is not possible for any of these five wells to furnish their own fuel. Was it ever possible for them to ever furnish their own fuel?

A I believe at one time they were furnishing their own fuel. I don't have any dates that I can quote. However, I have seen letters in either our Ogg "A" lease file or I believe it is one of the Ogg lease files, wherein there was a request to our company that a recommendation -- rather that a gas line be laid from our Fristoe (b) Well to our Ogg "A" and "B" leases, stating therein that the amount of gas from the Ogg "A" casinghead was of an erratic nature and sour on top of that, causing corrosion and so forth. However, at the present time the wells will not -- their gas-oil ratios are all too small to measure.

Q How about any other type of fuels such as butane?

A We've investigated the possible use of butane in lieu of the natural gas which we are presently using, and based upon calculations -- rather, based upon the average fuel demand of the Ogg "A" and "B" leases over the past year, which I have an average figure -- metered figure of 1,083 MCF per month, as reported on Commission Form C-111. This average monthly figure for the past twelve months converting to BTU's and therefore to butane gas, I have calculated the cost of the butane gas to be approximately a thousand and ninety-one dollars per month compared to an average cost we are paying now for the natural gas

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from the Fristoe (b) No. 2 Well at approximately one hundred and fourteen dollars a month. That's based on ten and a half cents per MCF. My conversion factor for butane -- I think I can remember it -- I used the conversion factor 99,300, which, actually, if we had a propane-butane mixture would be somewhere around ninety-five hundred. Actually, it's the lesser figure.

Q Have you considered the use of electricity?

A Yes, sir, however, briefly. Texaco has found out from previous experience, we very seldom put a high water producer on electricity simply because it costs money. I had an estimate, and an estimate only, from our equipment engineering department as to probable cost of electricity for pumping our Ogg "A" and "B" leases, and that figure is approximately nineteen hundred dollars per month.

Q What is the present production of Ogg "A" and "B" wells?

A Present production of the Ogg "A" and "B" Wells, each well produces approximately four barrels of oil per day, each of the Ogg "A" 1, 2, 3, 4 and the Ogg "B" No. 3. They are comparatively high water producers. No. 1 produces -- our last test, I believe in May, showed one thousand and ten barrels of water.

MR. NUTTER: Per day?

A Per day. I might bring out something. These are produced by casing pump. The No. 2 produces fifteen hundred and

ninety-five barrels of water per day. No. 3 produces two hundred and ninety-five barrels of water per day, and the No. 4 one thousand one hundred and twenty barrels of water per day. And the Ogg "B" Well No. 3 produces fifteen hundred and thirty barrels of water per day. I wish to again state these are figures taken off of our last filed C-116 gas-oil ratio survey.

Q (By Mr. Kelly) They all average about four barrels of oil?

A Yes, sir.

Q Then, on that basis, do you feel that the only economic source of fuel will be the Fristoe Well?

A Yes, sir, we feel that -- let me bring this point out. The Ogg (b) Well No. 3, which, as you can see, is the only well that is producing on that lease, actually, the first six months of 1959 -- I just received word -- operated at a slight loss, using the natural gas from the Fristoe (b) Well, and we do -- I found from our Accounting Department -- we do make an actual charge for that gas to that lease. It's felt that should we have to switch to a higher priced fuel, such as butane or electricity or even gasoline -- I mean or gasoline -- that the leases would be uneconomical to operate since they are at this time operating at near economic limit.

Q Do you think you'd have to shut down the other wells, the Ogg "A" and "B" Wells, if this request were not granted?

A Insofar as I know now, we would have to shut the five

wells on the Ogg "A" and "B" leases down, should we not be able to continue use of the natural gas from this gas well.

Q How long would that shutdown period be?

A Our calculation, of course -- I believe I mentioned previously that so near as we know, based upon current allowable and current underproduction, the shutdown period for the gas well will be approximately thirty-nine months or somewhere between three and four years. Therefore, unless we obtained another fuel for our Ogg leases, we would necessarily have to leave those shut down.

Q If these wells were shut down for any length of time, would there be any danger to the wells, in your opinion?

A In my opinion, there definitely would be. I have reports from our field, in fact, that a twenty-four hour shutdown of certain of these wells will result from two to five to six days getting them back on oil production. And, of course, I feel that any prolonged shutdown of the wells will probably result in us not being able to get them on production at all.

Q Then, if the exception is not granted, you feel there will be a premature abandonment that will bring about absolute waste?

A I discussed this problem with other people within the company, and it is our considered opinion at this time that we would probably have to abandon the wells on the Ogg "A" and "B" leases because of their near economic losses in production right

now.

Q Has this well, this Fristoe well, ever been excepted from 100 percent shut-in because of any of the facts that you have explained?

A To my knowledge, at least twice previously. And I would like to refer at this time to Exhibits 3 and 3-A. Exhibit 3 is comprised of a letter from Texaco, actually at that time it would have been the Texas Co. at that time, dated June 25, 1954, wherein the request was made that we be exempted from taking deliverability and shut-in pressure tests on the Fristoe (b) NCT-4 Well No. 2 because in so doing the well would be down for approximately eight weeks. And stated therein is the -- that the only gas available for our Ogg "A" and "B" leases is from this well and that was the reason for asking exception. And then by letter dated July 21, 1954 to our Mr. Ellie Baker, who was at that time gas gasoline district man, gave us exemption for this particular well from deliverability and shut-in pressure tests. Secondly, the Exhibit 3-A, by letter dated September 14, 1954, apparently Texaco was making up some back -- some overproduction by shutting the well in, and the request was made that we be allowed to shut-in the El Paso connection and, however, leave our casing connections furnishing fuel to our Ogg "A" and "B" leases opened so that -- and make up the overproduction at a lesser rate. Which permission was granted by letter dated September 20, 1954, addressed to our Mr. L. W. Folmer, at that time Assistant District

Engineer in FortWorth by Mr. Macey giving us such permission, exemption from 1 percent shut-in of the well.

Q What MCF were you allowed in the second situation?

A We requested and were allowed 2500 MCF. I wish to bring out at this time that at the time of this request on September 14, 1954, wherein we were allowed 2500 MCF per month for fuel gas, at that time we had a pumper's cottage on Ogg "A" and "B" leases. I don't know which lease it was on. It was on those leases, however, in addition to which I believe the Ogg "B" NCT-2 Well No. 2, and the Ogg NCT Well No. 1 was producing at that time. Those are the only differences between the request then and the one we are making today wherein, as I recall, we were asking for up to a maximum of 2500 MCF per month for fuel gas. Certainly, we could not intend using any more than is necessary, and based upon our last yearly average, monthly figure for the past year, as I brought out, would be 1,083 MCF for the Ogg "A" and "B" leases. However, since this is, the shut-in period is liable to extend pretty far in the future, we don't know what what additional development might be made in the area, water injection plant; in other words, future demand for fuel gas which would probably or could probably not be furnished from the Ogg "A" and "B" leases. In addition, of course, we need at the same time approximately 218 MCF per month for the Fristoe (b) NCT-4 Well No. 1 on the same lease with the gas well.

Q Now, Mr. Foster, were these Exhibits Nos. 1 and 2 pre-

pared by you or under your direction?

A Yes, sir. They were prepared partially by me and the rest under my direction.

Q And Exhibits 3 and 3-A, are they accurate copies of the files in your department?

A They are accurate copies of the files which I found are of the letters that I found in our files.

MR. KELLY: I move the admission of Exhibits 1 through 3-A.

MR. NUTTER: The Texaco Exhibits 1 through 3-A will be admitted. However, I would appreciate it if you could furnish us with some permanent copies such as this type of photostat of these letters rather than these brown copies; they have a tendency to fade with age. That will be 3 and 3-A, I think, that we need the copies of.

MR. KELLY: That's all I have on direct.

MR. NUTTER: Anyone have any questions of the witness?

... CROSS EXAMINATION

BY MR. FLINT:

Q Mr. Foster, assuming that you need this 2500 MCF per month, what percentage of your normal allowable would it be necessary to produce in order to secure that required amount of fuel gas?

A At the present time, based upon the accepted allowable, which is slightly in excess of 8000, it would be slightly

over one-fourth. However, the allowables could vary, as they have done, and I don't believe that I could make a statement as to the exact percentage.

Q I wanted to get a general idea. Assuming that it was in the nature of one-fourth, do you have an estimate of how long it would take to get this well back in balance using that amount of fuel gas?

A I'm sorry to say, I didn't calculate that.

Q Did I understand you to say that at the present time, with the current allowable it would take about thirty-nine months to make up the overproduction?

A Assuming that was with complete shut-in.

Q So it would be somewhat in excess of that?

A Somewhat in excess of that, yes, sir.

MR. FLINT: That's all.

QUESTIONS BY MR. NUTTER:

Q Mr. Foster, did I understand you correctly to say that the Ogg leases consumed gas at the rate of 1083 MCF per month last year, and the Fristoe uses 214 MCF per month?

A Yes, sir. The Ogg "A" and "B" leases used an average of 1083 MCF. Of course, the peak month was in April of 1959 wherein 1311 MCF was used, and I believe that the lowest month was in September of 1958 when only 852 MCF were used on the Ogg "A" and "B" leases.

Q Why do you have such wide variation on the amount of

gas used on the Ogg leases?

A I could only hazard a guess; probably because of down time incurred periodically due to breakage of rods or otherwise of the pumping units themselves, the wells.

Q Do you have the actual monthly figures there of each one of those twelve months' consumption --

A Yes, sir.

Q -- on the Ogg leases?

A Yes, sir. Starting with September of 1958, 862. These are MCF figures. 1,099, 953, 1230, 959, 1052, 1,052, 1,311, 1,050, 1027, 1,258, 1,146. I might remark at this time that this this gas I metered through a differential recorded type of meter. Further than that, I don't know. It is handled entirely by our gas-gasoline department.

Q It appears, if anything, the demand for gas has been going up on the Ogg leases. Has the amount of water that's produced been going up also?

A I can't make a definite statement. However, I believe that it has over, say, the past year, it has increased. I'm not prepared to make a statement as to how much, and actually, we are producing the amount of water, which I would hazard a guess we are also producing that amount of water which our pumps will handle.

Q You are almost to the economic limit, that you couldn't afford to pump any more water anyway?

A Not without changing out to some other type of pump, I imagine.

Q You stated that all of this gas that is transferred from the Fristoe (b) lease is actually charged on the operation of the Ogg lease?

A Yes, sir.

Q Have you considered buying gas from anybody? As long as you are going to be charging it out, you could be buying gas from somebody else that is not overproduced; couldn't you?

A I imagine we could. I haven't looked into that possibility mainly because we had our connections already. I did not look into it in that light.

QUESTIONS BY MR. FLINT:

Q Mr. Foster, do you have any idea when it will become uneconomical to continue to produce from the C. C. Fristoe (b) Well No. 2?

A No. 1.

Q The subject well, when it will be uneconomical to continue production from there, assuming that you should reach a balanced production?

A From our gas well, the gas well in question?

Q That's right.

A No, sir, I have no idea on that.

Q And I gather from your answer to Mr. Nutter's question a moment ago, that you feel that the abandonment point will be

reached within a fairly short time on the Ogg leases?

A It is entirely possible. We have, in fact, that is -- those are the leases I was referring to, the Ogg "A" and "B"; when I spoke of abandonment or premature abandonment. I'm pretty sure that the abandonment time possibly will occur relatively soon. I don't know, I wouldn't hazard a guess. I understand the wells have been looked into once before by some of our personnel. Insofar as possible remedial work, however, at the current time I'm having them looked at once more to see what develops. I'm talking now chiefly of, say, shutting off water. I don't think we have much of a chance of performing remedial work and eliminating or reducing water production, which, of course, is one of the prominent factors causing the lease to have such high lifting costs.

Q One thing I'm interested in here is the likelihood of getting the Fristoe Well No. 2 in balance before it becomes necessary to abandon it. Over the long period of time that it will take, assuming this application is granted, to get the well into balance I was wondering what the likelihood is of getting that well back into balance?

A In view of its production history of which I know of, which is very little, after I answer the questions, I want to bring out one more comment as to why I don't know more about the gas well than I do. The well, as I recall, was completed in 1948 -- sometime in 1948, and apparently -- I do know the well has not been reworked in any way since completion. Apparently, it is a relatively -- I'll

use that word loosely, good gas producer. I don't know of any hydrocarbon that it produces or water. What its current pressure is I'm not --

MR. NUTTER: Do you know its present deliverability?

A I possibly have it here. I have a well file on the well.

MR. PAYNE: You are not going to abandon it anyway as long as it is capable of making 2500 MCF, are you?

A No, sir, we don't propose abandonment of this particular well at all until it ceases to produce. I have a deliverability test here, date of test, May 2, 1959, wherein the deliverability was 1488. Then I have a test taken, date of test, February 22nd to March 6th, 1959 wherein the deliverability was 1268. I have a notation at the bottom here where the well was shut-in for three days, tubing pressures were taken from Cities Service Oil Company State "W" No. 1. I don't know the full import of that, and let me explain at this time our -- I'm in the engineering department. Our gas wells are handled after completion of a gas well -- the way our company operates, we have nothing more to do with the well until, say, such time as it might need remedial work or something like that, and our gas gasoline department handles the, oh, I'd say production and supervision of the wells.

MR. NUTTER: Texaco, however, is not claiming any hardship on the Fristoe (b) No. 2 Well curtailing the production?

A No, sir, we are not in any way claiming any hardship on the gas well.

Q (By Mr. Flint) And you haven't asked that any specific amount of gas be authorized for production from that well either, have you, only enough gas to operate these other leases?

A That is what we want, yes, sir, except I do believe that in -- let me read -- get another letter. We initially made application to the Commission -- if I can find it -- thinking we might get administrative approval of just what we are asking for today. That letter was dated August 31, 1959 to Mr. A. L. Porter, Jr., from our Mr. H. N. Wade, wherein -- if you would like, I will just read the letter.

"August 31, 1959, New Mexico Oil Conservation Commission, Box 871, Santa Fe, New Mexico. Attention: Mr. A. L. Porter. Dear Sir: Reference is made to your Memo No. 13-59 covering classification of gas wells in southeast New Mexico. Texaco Inc.'s C.C.Fristoe (b) NCT-4 Well No. 2, Jalmat Gas Pool, Lea County, New Mexico, falls in the category of those wells having sizeable amounts of overage after reclassification and subject to shut-in immediately. This well has been the subject of considerable correspondence with the Commission in the past, because of the fact that it furnishes gas for lease fuel to Texaco Inc.'s I. B. Ogg "A" and "B" Leases, which are located approximately two miles to the west, and curtailment or suspension of this source of gas would shut in these leases. On September 14, 1954, in a letter to the Commission, Texaco requested permission to make up overproduction on this well by shutting in the El Paso Natural Gas Company connection while continuing to furnish a maximum of 2500 MCF per month to the Ogg leases for lease fuel purposes. This request was granted by Mr. W. B. Macey in his letter of September 20, 1954.

The conditions presently surrounding the production from this well are essentially the same as described in our letter of September 14, 1954, upon which Mr. Macey made his ruling; therefore we are hereby requesting that the making up of overage for C. C.

Fristoe (b) NCT-4 Well No. 2 be accomplished by shutting in the El Paso Natural Gas Company connection only.

Your consideration of this request will be appreciated.

Yours very truly,

H. N. Wade
Division Proration Engineer"

Only in the sense that we had asked for 2500 MCF before is that mentioned. However, we feel that that would be a maximum, and, as I've stated previously, I believe we only intend to produce sufficient fuel gas necessary to actually operate our engines.

MR. NUTTER: Inasmuch as you asked for 2500 MCF per month previously and stated in your letter that the conditions presently surrounding production from this well are essentially the same, this case was advertized for exception up to a maximum rate of 2500 MCF per month for lease use until overproduction has been compensated for?

A Maximum, yes, sir, which doesn't necessarily tie us to produce that much gas.

MR. NUTTER: No, sir, you wouldn't have to produce it.

Does anyone have any further questions of Mr. Foster?

MR. UTZ: Yes, sir.

QUESTIONS BY MR. UTZ:

Q Mr. Foster, judging from your production history, 2500 would be much more than enough?

A Yes, sir at this time it will be more than enough.

Q Probably 1500 will be all you will use?

A I believe, as I stated previously -- of course, we don't intend to produce -- we are not asking for any more than we need, and we will not produce any more than we need. I mean, we are not asking to be allowed to produce more than we need in any one month. However, we don't know about the future development in the area. In fact, right now, if I am not making a statement out of order, deep development might be anticipated in the near future; I don't know what kind of development, and another thing should water injection be initiated or water disposal, I wish to say, then, certainly there will be necessity for fuel gas for the injection pumps. Whether Texaco will have the pumps or not, we don't know. We are merely trying to anticipate, or trying to allow for enough gas, which at this time we are not actually able to anticipate as far as three or four years in advance, which this well will probably be shut-in that long.

MR. NUTTER: Mr. Foster, I note one little technicality. You are using this gas for the operation of Fristoe Lease, aren't you?

A Yes, sir. I brought that out rather hurriedly. It about averages 1083.

MR. NUTTER: You need a little bit more for the Fristoe to operate that lease?

A Yes, sir.

Q (By Mr. Utz) How much are you using in the Fristoe

lease?

A Over the past year, and I'll bring this point out right now, these are based on calculations rather than meters, and, as I recall, they are using 15 cubic feet per horsepower hours and the average over the past year is 218 MCF per month. Actually, our peak demand over the past twelve months for both the Ogg "A" and "B" and the Fristoe (b) No. 1 reached the peak in the same month, of course, that the Ogg did. That would be April of 1959 of 534 MCF per that month.

Q Mr. Foster, there are other gas wells in this immediate area of the Ogg lease, are there not?

A Yes, sir, I believe that there are. I believe there is one. Jal Oil Company has one just to the east of our Ogg "A" lease, and one to the north of that. I'm not familiar with the wells and insofar as pools, I imagine they are Jalmat Gas Pool wells.

Q Have you investigated the possibility of purchasing fuel from them?

A No, sir, we have not. As I stated previously, we have not investigated it because we did have this line already laid, and I'm not sure just what negotiations might have to be done. I'm sure there would have been negotiations. In other words, we have not investigated that possibility.

MR. UTZ: That's all I have.

MR. NUTTER: Any further questions of Mr. Foster? He may be excused.

(Witness excused)

MR. NUTTER: Do you have anything further?

MR. KELLY: No.

MR. NUTTER: Does anyone have anything further in
Case 1781? We will take this case under advisement.

