<u>CASE 3751</u>; Application of PENNZOIL COMPANY for a dual completion and tubing exception, Lea County.

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GOVERNOR DAVID F. CARGO CHAIRMAN

State of New Mexico Gil Annservation Commission



STATE GEOLOGIST A. L. PORTER, JR. Secretary - Director

LAND COMMISSIONER GUYTON B. HAYS MEMBER

P. 0. BOX 2006 SANTA FE June 24, 1968

> Re: Case No. 3751 Order No. R-3439 Applicant:

> > PENNZOIL COMPANY

Dear Sir:

Mr. James Durrett

Attorneys at Law

Rhodes, McCallister & Durrett

500 Pan American Freeway -NE

Albuquerque, New Mexico

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

Very truly yours,

A. L. PORTER, Jr.

Secretary-Director

ALP/ir

Carbon copy of drder also sent to:

Hobbs OCC X

Artesia OCC_____

Aztec OCC____

Other Mr. Guy Buell

DEFORE THE OIL COLLERVATION OF THE STATE OF THE MATCO

IN THE MATTER OF THE BEARING CALLED BY THE OIL COMBERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CABE No. 3751 Order No. 8-3439

APPLICATION OF PENNZOIL COMPANY FOR A DUAL COMPLETION, TUBING EXCEPTION, AND A NON-STANDARD GAS WELL LOCATION OR NON-STANDARD GAS PRORATION UNIT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8 a.m. on May 22, 1968, at Santa Fe, New Mexico, before Examiner Daniel 5. Nutter.

NCW, on this 24th day of June, 1968, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FIRDS:

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

(2) That the applicant, Cennsoll Company, eachs authority to complete its Hudson Federal 29 Sell ku. 1, located 560 feet from the North Line and 1980 feet from the dest line of Section 29, Township 18 South, Range 33 East, Shift, South Corbin Field, Loa County, New Portoo, as a dual completion (conventional) to produce oil from the Wolfcamp formation through 1.36-inch ID tubing and gas from the Morrow formation through 2-inch tubing.

(3) That the applicant also seeks an exception to the tubing requirements of Commission Rule 107 to parmit said 1.38-inch tubing to be not more than 250 feet above the top of said pay.

-2-CASE No. 3751 Order No. R-3439

(4) That the applicant further seaks approval of the nonstandard location for said well in the South Corbin-Morrow Gas Pool and the dedication of the $\mathbb{Z}/2$ of said Section 29, or in the alternative, approval for a non-standard gas provation unit for the subject well comprising the $\mathbb{E}/2$ NM/4 and the MS/4 of said Section 29.

(5) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(6) That the setting of the 1.38-inch ID tubing more than 250 feet above the pay as proposed by the applicant will not cause waste.

(7) That the subject well was drilled at a standard oil well location to test the Strawn formation but was unproductive in the Strawn formation, and was subsequently completed in the Morrow and Wolfcamp formations.

(8) That the applicant should be authorized to complete the subject well at an unorthodox gas well location in the South Corbin-Morrow Gas Pool and to dedicate the S/2 of said Section 29 to said well as proposed.

(9) That approval of the subject application will prevent the drilling of unnecessary wells, will avoid the augmentation of risk arising from the drilling of an excessive number of wells, will prevent maducal nacewary which might result from the drilling of too few wells, will afford the applicant the opportunity to produce its just and equitable share of the oil and gas in the subject pools, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERSD .

(1) That the applicant, Controll Constant, is density author (rized to complete its Budson Federal 29 Gall Mo. 1 at an unorthodox docation 660 feet from the North line and 1980 fast from the East line of dection 29, Younship 18 South, Range 33 East, NEPM, South Corbin Lield, Lua County, Sou Lazico, as a Suit completion (conventional) to produce oil from the Wolfcamp (convention through 1.38inch ID tubing set at approximation, it, fill set on get from the Morrow formation through 2-include the formation of produce oly 13,10) feet, with separation of model of the formation to the 20 ko said Norrow completion; -3-CASE No. 3751 Order No. R-3439

<u>PROVIDED HOWEVER</u>, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packerleakage tests upon completion and annually thereafter during the Annual Shut-In Pressure Test Period for the Morrow formation.

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

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

STATE OF NEW MEXICO

esr/

CARGO DAVID Chalirman

B. L 21 Membs GUYTON 19 YS;

A. L. PORTER, Jr., Member & Secretary

<u>WAIVER</u>

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We have been advised by Pennzoil United, Incorporated of their request for approval of an nonstandard gas well location for the Morrow zone in their Hudson-Federal "29" No. 1 well located 660 feet from the north line and 1980 feet from the east line of Section 29, Township 18-S, Range 33-E, Lea County, New Mexico; having as a proration unit, the east half of Section 29.

This is to advise that the undersigned offset operator waives any objection to the requested nonstandard gas well location.

COMPANY ____ ATLANTIC RICHFIELD COMPANY

RY

MAY 14, 1968 DATE

DEGEIVE MAY 15 1968 PENNZOL

AZTEC OIL & GAS COMPANY 2000 FIRST NATIONAL BANK BUILDING DALLAS, TEXAS 75202

May 17, 1968

New Mexico Oil Conservation Commission Box 2088 Santa Fe, New Mexico

RE: Pennzoil #1 Hudson Federal 29 660/N, 1980/E of Section 29-T18S-R33E Lea County, New Mexico

Gentlemen:

PRENTICE WATTS VICE PRESIDENT

PRODUCTION

We have been advised by Pennzoil United, Incorporated, of their request for approval of a non-standard gas well location for the Morrow zone intheir Hulson Federal "29" No. 1 well located 660 feet from the north line and 1980 feet from the east line of Section 29, T-18-S, R-33-E, Lea County, New Mexico; having as a proration unit, the east half of Section 29.

Aztec, as an offset operator, has no objection to the Pennzoil request.

Very truly yours,

Prentice Watts

FW:bjr

cc: Pennzoil United, Inc. P. O. Drawer 1828 Midland, Texas 79701

MAY 16 1968

MIDLAND

William A. & Edward R. Hudson 1510 First National Building Fort Worth, Texas

May 15, 1968

Pennzoil United, Inc. P.O. Drawer 1828 Midland, Texas 79701

Attention Mr. John Higgins

Re: Pennzoil United - Hudson Federal 29-#1, Section 29, T-18-S, R-33-E, Lea County, New Mexico

Gentlemen:

Inasmuch as the owners of the leases in the East half of Section 29 were the participants in taking the risk in the drilling of the Hudson Federal 29-#1 well which was originally projected as an oil well from the Wolfcamp formation and was only drilled deeper after reaching this formation and resulted in the discovery of a Morrow gas well, in order to protect the correlative rights of the owners who participated in the drilling of this well, it is necessary that the proration unit for the Morrow gas production should be allocated to the East half of said section, as to do anything else would change the vested ownership of the well.

We strongly support your application for the designation of the East half of this section as the proration unit for the Morrow production.

Yours very truly,

WILLIAM A. & EDWARD R. HUDSON

By: Energy Anderen

ERH/ls

MAY 20 1968

MIDLAND

ROBERT N. ENFIELD DIE PROFERITES P. O. BOX 807 ROSWELL, NEW MEXICO B0201 117, 3

New Jexico Gil Conservation Courission 1. J. Pox 2058 Santa De, May Maxico 87501

36: Docket 16-68, Cases 3751 and 3771

Dear Fr. Porter:

As a working and royalty interest owner in a portion of Section 29, Township 18 South, Enge 33 Birt, please be advised that I support Tennoil Company's application under Gave No. 3751 for a Norrow Gas Unit composing the Yest half (W/2) of Section 29, and that I also support their request for a non-standard gas well location in the South Corbin Herrow Feel in cald Coestion 29.

In addition, I support Tennseil Corpany's application under Gase No. 3771 for Special Yool Rules for the South Corbin Volfcamp Pool including the provision for 160-acre spacing.

Yours very truly, n. E.full

RET/en

bcc: Nr. Janes Durrett 500 Pan American Freeway, N.E. Albuquerque, New Mexico Mr. Robert C. Hanagan F. C. Box 1737 Roswell, New Mexico 86201 Nr. Ed Hudson, Jr. 1510 First National Building Ft. Worth, Texas 76101 3

622-5552

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Fennzoil United, Inc. P. O. Box 1328 Midland, Texas 79701 Attn: Fr. Charles Brown

Mobil Oil Corporation

P.O. BOX 633 MIDLAND, TEXAS 79701

Nay 20, 1468

New rexico 011 Conservation Condision Scare Land Office Building Santa Fe, New Mexico 87501

> CASE NO. 3751 - MAY 22, 1968 DUAL COMPLETION TUBING EXCEPTION AND NON-STANDARD CAS PRORATION UNIT AND WELL LOCATION HUDSON FEDERAL 29 WALL NO. 1 SOUTH CORBIN FIELD LEA COUNTY, NEW MEXICO

Gentlemen:

Mobil Oil Corporation is part owner of the Hudson Federal 29 Well No. 1. Pennzoil Company has advised Nobil of their subject application. <u>Mobil</u> agrees with Pennzoil's recommendations and urges the Commission to grant a dual completion tubing exception and a non-standard gas proration unit and well location for the Hudson Federal 29 Well No. 1, South Corbin Field, Lea County, New Mexico.

Yours very truly,

Original signed by: Ira B. Still, Jr. Ira B. Stitt Division Operations Engineer

FLHart/vp

cc: Pennzoil Company Midland Savings Building Midland, Texas 79701 .

MUDENNO

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dearniey-meier feporting service, inc.

CONVENT ONS BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico May 22, 1968 5 MEXICO EXAMINER HEARING -----Ň IN THE MATTER OF:) · ALDUQUENQUE,) (Continued and readvertised from the April 24, 1968, Examiner Hearing):)) Application of Pennzoil Company for a dual completion, tubing exception, and) 243-6491) Case No. 3751 a non-standard gas well location or) NOH non-standard gas proration unit, Lea County, New Mexico.)) 1092 _ _ _ _ _ _ _ _ _ _ _ _ _ Š BEFORE: Daniel S. Nutter, Examiner 1120 SIMMS BLDG. . P. O. TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case No. 3751.

MR. HATCH: Case 3751. (Continued and readvertised from the April 24, 1968, Examiner Hearing): Application of Pennzoil Company for a dual completion, tubing exception, and a non-standard gas well location or non-standard gas proration unit, Lea County, New Mexico.

MR. NUTTER: Mr. Durrett, I see you have another one over here, do you intend to consolidate?

MR. DURRETT: I think under the circumstances it might be better to present them separately. J. M. Durrett of Albuquerque for the applicant. I have some opposition.

MR. BUELL: For Pan American Petroleum Corporation, Guy Buell.

MR. DURRETT: I have one witness who I request be sworn at this time.

(Witness sworn.)

(Whereupon, Exhibits 1 through 8 were marked for identification.)

CHARLES A. BROWN

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

DIRECT EXAMINATION

BY MR. DURRETT:

Q Will you please state your name and position?

A Charles A. Brown. I am Division Production Manager for Pennzoil United, Midland, Texas.

Q Are you a petroleum engineer, Mr. Brown?

A I am a graduate petroleum engineer.

Q Have you testified before this Commission previously as an expert and had your qualifications accepted?

A Yes, sir.

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

MR. NUTTER: They are.

Q (By Mr. Durrett) Mr. Brown, will you briefly state what Pennzoil is seeking in Case 3751?

A We are seeking, first of all, the approval for a dual completion; in addition to that we're seeking exception to some tubing requirements under Rule 107, and also under Rule 112-A. Also we are applying for a non-standard gas well location.

Q Would you please refer to your Exhibit No. 1, which I believe is a plat of the area?

A Yes.

Q What does that basically show, Mr. Brown?

A Exhibit 1 is a plat showing the location of our Hudson Federal "29" No. 1. It shows the offsetting wells,

the offsatting leases, and the name and address of the offset operators.

Q I believe that this plat indicates a cross section, am I correct, that that is in another case?

A Yes, there's a cross section, A^1 indicated on there, which will be used in the second case.

Q So that has no application to this case?

A Right, it does not apply to this case.

MR. DURRETT: We ask the Examiner to disregard that for the purpose of this hearing.

MR. NUTTER: All right.

Q (By Mr. Durrett) This plat shows your acreage; would you briefly state how you acquired your acreage in this area?

A Pennzoil's acreage in this area was acquired as a farmout from William A. and Edward R. Hudson and Bob N. Enfield. It must be earned by development from drilling under the terms of our trade with Hudson and Hudson and Enfield, they retained an override with an option to convert that to a working interest after pay-out.

Q Will you now go to your Exhibit No. 2, which I believe is an application for permit to drill? What does that show?

A Exhibit 2 is a Federal Form 9-331 C, and is an application for a permit to drill. It shows, among other things, that this application is for an oil well, that it is projected to a depth of 12,500 feet, that it is to be drilled at a location 1980 feet from the east line, 660 feet from the north line of Section 29, Township 18 South, Range 33 East.

It also shows the proposed drilling and casing program; 8-5/8ths casing is proposed as intermediate with 5-1/2 casing as the long string to be set in a 7-7/8ths-inch hole. It also shows that 160 acres is to be dedicated to the well.

Q Is that the Northeast Quarter of Section 29?

A That is the Northeast Quarter of Section 29.

Q Was Mobil to participate in this well with you?

A Yes. If we might refer back to Exhibit 1 again. Socony Mobil has 80 acres lying in the East Half of Section 29. They have the Southcast, or the Northeast Quarter and the Northeast of the Southeast Quarter of Section 29. Since this well was projected as a Strawn test 12,500 feet, and since the South Carbon-Strawn Field provides for 160-acre units, Mobil agreed to join in the drilling of this well and commit their acreage in that quarter section to the Strawn test.

Q So they would have one-fourth working interest in the

well, is that correct?

A That is right. They agreed to commit that acreage and to pay their proportionate part of the cost of the well.

Q What is that dry hole that shows in the Northeast of the Southeast?

A That is a shallow dry hole which is not relevant to this case.

Q Not relevant to this case. Let's go to your next exhibit, which would be 3, if you would, and state what that shows.

A The Exhibit 3 is another Federal Form 9-331, which was filed to show a change in plans. In the remarks section there is a comment made that the well was drilled to a depth of 12,500 feet in the Strawn and is now planned to deepen the well to the Mozrow to a depth of 14,000 feet. We propose to set 5-1/2 casing at a total depth of 14,000 feet.

This particular form was filed after we drilled and tested the Strawn and found it to be barren.

Q So you went ahead and projected the well to the Morrow?

A Right,

Q Let's go to the electric log, if you will. That is Exhibit No. 4, which is an induction electrical log. What

does that indicate, Mr. Brown?

A This shows, first of all, the top of the Wolfcamp formation which was encountered at 10,524 feet. It shows the interval that was perforated within the Wolfcamp. It refers to what perforating was done and to the fact that the well did potential after this, or test after this for 372 barrels of oil flowing 24 hours. It also shows the base of the Wolfcamp which occurred at 12,060 feet, which is also the top of the Strawn in this particular area.

The base of the Strawn was encountered at 12,373, the Morrow occurred at 13,000 feet, with the porosity development within the Morrow occurring over the interval from 13,228 to 13,340. The perforating that was done, it summarizes the perforation that was done within that interval. It also refers to some treatment that was done and indicates the test results following this activity.

Q Let's go to your Exhibit No. 5, which is a diagrammatic sketch.

A Exhibit No. 5, that is a diagrammatic sketch of the well as it was completed, showing the various casing strings that were set, the quantity of cement that was used, the location of the shoes, where the permanent packer is set, and it also indicates the intervals that were perforated within

the Wolfcamp and also the Morrow. It shows that 5-1/2-inch casing was in fact set in a 7-7/8ths hole.

Q Was that the largest size casing, now, that you could run in there?

A This 5-1/2-inch casing is the largest conventional size casing that can be run in a 7-7/8ths-inch hole.

Q Why did you drill a 7-7/8ths-inch hole?

A That particular size hole was drilled primarily for economy since we did not anticipate completion in the Morrow interval. The well was not originally projected to the Morrow.

Q Now, you are capable of producing from two separate sources?

A We feel that the equipment in the well is adequate, that the well is capable of production from two separate sources of supply of hydrocarbons; we think that the equipment is adequate to prevent commingling of the two zones, and that each zone can be produced in a conventional manner.

Q Let's go now to your Exhibit 6, if you would. What does that show?

A Exhibit 6 shows some dimensional data relating to our tubing strings that we use in this well. It was our goal, in setting up this well completion, to do so in the most

efficient, practical and safe way at our disposal. We could have utilized a more conventional approach and perforated the well with heavy mud in the hole, set a permanent packer above and then have done any work above that we felt was necessary. However, there are some risks inherent in this type of completion. We chose instead to utilize a type of perforating which could be done through a string of tubing. The maximum, or perhaps I should say the minimum size tubing that can be utilized for that purpose is two-inch nominal or two and three-eighths OD tubing.

Q What would be the risk that you were talking about, the risk of formation damage if you did it the other way?

A To perforate with heavy mud in the hole does carry with it considerable risk as far as damage is concerned to the reservoir, and that is particularly true for the Morrow. It's a supersensitive reservoir.

I might point out that also the conventional treatment in which the permanent packer would be set and the subsequent work done above might impose some problem in attempting to latch back into that permanent packer if you were not able to remove all the debris that might have accumulated through the workover work.

Q So you felt it would be better under all times

to go ahead and complete in the manner in which you did?

A Right.

Q Let's go to your next exhibit, which is No. 7. I believe that's drillstem test data.

A Yes, Exhibit 7 is actually a list of all of the drillstem tests that were run on the well. Those relating to the Wolfcamp formation alone are outlined in red. As you can see, we tested the six separate and distinctly different intervals within the Wolfcamp formation.

Q And that is just pertinent test data that you have there outlined in red, is that correct?

A Right.

Q Did you order some special tubing in completing this well or testing it?

A Yes.

Q For completing it?

A I might, if I may back up just a little, in my reference to perforating through tubing, I made the comment, I believe, that the smallest size that you can do effective perforating through was two inch. If you run a string of that size tubing inside five and a half casing, the largest parallel string that can be run in the same casing is inch and a quarter. We actually chose that combination of tubing strings feeling that under the circumstances that was the very best that we could do.

Q Well, going back now, talking about the tubing, you could have killed both zones in the well and replaced the tubing, is that correct?

A It would have been possible to have, and it is, as a matter of fact, at the present time possible to go in there and kill both zones, recover the tubing that's presently in the well and replace it with two strings of two and sixteeninch tubing, which would meet the minimum requirements set up by Rule 112-A.

Q Why is it that you don't want to do that?

A We feel that there is a very good chance that it would result in some formation damage to the Morrow.

Q And it also would be pretty expensive, would it not?

A It would be extremely expensive. The tubing that we have in the nole, the inch and a quarter string of tubing was internally coated and is an expensive string.

Q That's the special tubing I was talking about, is that correct?

A Yes.

Q What kind of tubing was that?

A Inch and a quarter hydril.

Q Am I correct that the upper zone, at least you are taking the position that the upper zone would represent the top of the pay?

A I think that in a sense it certainly could be interpreted as being the top of the pay. The Wolfcamp itself is made up of a series of porous zones, one or more of which quite often produce and, in fact, we did test oil shows in the upper portion of the Wolfcamp.

Q If you took the top of the Upper Wolfcamp perforations, what's the depth, at what depth are they?

A The top of the Upper Wolfcamp perforations are 10,527.

Q What's the bottom of your one and a quarter-inch?

A The bottom of the one and a quarter is at 10,394, which is a difference of 133 feet.

Q So you wouldn't be in violation of Rule 107 if that interpretation were accepted?

A Right. Of if we had chosen to attempt to produce the upper part of the Wolfcamp.

Q What's the situation if you take the top of the Lower Wolfcamp perforations?

A The top of the Lower Wolfcamp perforations are at 10,903, and since the bottom of the one and a quarter is at

10,394, we have a difference of 509 feet.

Q Would there be anything else that you think would be pertinent concerning the tubing exception?

A We might point out on Exhibit 5 that we actually showed some perforations in the Wolfcamp from 10,527 to 10,544. When tested, these perforations gave up 98 percent water and we chose to squeeze them off.

Q Now, Mr. Brown, let's go back to our Exhibit No. 1, which is the plat. I would like to go a little bit more into the detail with you on this ownership. Now, Hudson and Hudson has some acreage in here and I believe it is owned in conjunction with Bob Enfield, is that right?

A Right.

Q Which acreage is that?

A All of the acreage in Section 29 except that belonging to Mobil, which was previously referred to in the East Half of the section. In addition to that the West Half of the Northwest Quarter on this plat shows some acreage of Pan American on it. It is our understanding that Pan American actually owns a one-half undivided interest in that 90-acre tract.

Q Who owns the other, Enfield?

A Bob Enfield, Robert N. Enfield owns the other

one-half interest, undivided interest.

Q When your Hudson Federal "29" Well No. 1 was originally drilled, it was projected to the Strawn as shown on our exhibits here, is that correct?

A Yes, sir.

Q Was it drilled at a standard location or what would have been a standard location for the Strawn formation?

A It is a standard location for an oil well in the Strawn or to the Strawn.

Q And you did not originally project that well to the Morrow?

A We did not.

Q Why did you not do that?

A The Morrow is productive in the area; however, the wells that have been completed in the Horrow are modest producers and we did not feel that we could justify the expense of drilling a well from the surface to test the Morrow.

Q So no decision was made by your company to test the Morrow until you found the Strawn to be dry, is that correct?

A Right.

Q When you made the decision to test the Morrow, you

went down to the Morrow, found production and came back up to the Wolfcamp, is that correct?

A No.

Q No?

A Would you state that again, please?

Q Well, you drilled to the Morrow, what did you do then?

A I'm sorry. Yes, we drilled to the Morrow and set casing, and at that time made the dual completion which we have referred to in some of our other exhibits.

Q I want to go into some detail with you on what the participation was in this well. What was the agreement?

A The agreement was for Socony Mobil to -- and I might qualify that a little, in the early phases of the well Socony Mobil agreed to commit their acreage in the Northeast Quarter to the drilling of this well and they agreed to participate to the extent of one-quarter of the cost of the well.

Q And they did participate?

A They did participate.

Q So the only two companies that took a risk in drilling this well were Pennzoil and Mobil, is that right?

A Right.

Q Now, when you started this well, or started thinking about it, did you contact Pan American Petroleum Corporation?

A It's my understanding from our Exploration Department that Pan American was contacted, they were requested to make a dry hole contribution to this well.

Q What was their answer?

A It's my understanding that they rejected that request, or refused to pay any dry hole money.

Q So they never have participated in this well?

A That's right.

Q Now, if your non-standard location is approved, you propose to dedicate the East Half of this section, is that correct?

A Right. In view of the acreage position of Socony Mobil in the East Half and the fact that they paid for onefourth of the cost of the well, it seems only fair and equitable to us to dedicate as a proration unit the East Half of that section to the well.

Q What would be the result if you dedicated the North Half of this section to the well?

A It would certainly place us in somewhat of an awkward position with Mobil because of their acreage position and the fact that they had to, in anticipation of the full

quarter interest in the well, paid for a quarter interest in the well.

MR. NUTTER: Excuse me one minute, I would like to interrupt. Originally the well was projected as a Strawn oil well with 160 acres dedicated to it?

THE WITNESS: Yes, sir.

MR. NUTTER: And Mobil owned 40 of the 160?

THE WITNESS: Yes.

MR. NUTTER: So they participated in that well

25 percent?

THE WITNESS: Right.

MR. NUTTER: Then when you decided to go on down to the Morrow, take it from twelve-five on down to 14,000, how much did Mobil participate in that cost?

THE WITNESS: They also participated on the same basis, one-quarter.

MR. NUTTER: So if 320 acres were dedicated, they would now have 80 acres and it would still be a 25 percent interest?

THE WITNESS: Yes, sir.

MR. NUTTER: They participated 25 percent of the cost?

THE WITNESS: Yes, sir.

MR. NUTTER: Thank you.

Q (By Mr. Durrett) Now, Mr. Brown, have you contacted the other operators in this section concerning this?

A We have contacted the other operators in the section, is that your question?

Q Well, offset operators.

A We have contacted all the offset operators, yes, sir.

Q Have you received responses from them?

A We have.

Q Which ones?

A We have received responses from Atlantic, from Aztec, from Mobil, from Hudson and Enfield.

Q And they all support your application for a nonstandard location?

A They did.

MR. DURRETT: I might state at this time, I believe the Examiner should have that in the file, these letters, or most of them.

MR. NUTTER: We have some of them, I think.

MR. DURRETT: I have them attached here, not marked as exhibits, attached to the brochure.

MR. NUTTER: We will let you know what we do have

and you can furnish the others.

MR. DURRETT: Let me also state that Bob Enfield made a mistake in his letter and he sent me a telegram, he meant to say that he would like the East Half dedicated to this well --

MR. BUELL: Instead of the West Half?

MR. DURRETT: -- instead of the West Half.

MR. BUELL: I think that's an obvious mistake.

MR. HATCH: We have received a copy of the telegram from Bob Enfield making the correction. We've received the letter from Aztec Oil and Gas and the one from Mobil Oil Corporation. That would mean that we have not received the letters from Atlantic and Hudson.

MR. DURRETT: I'll furnish you copies of those.

THE WITNESS: I believe they're in the back of that brochure.

MR. BUELL: Why don't we agree to substitute for the Commission files out of your brochure here, any letters that they do not now have in their file, that way they'll have them all?

MR. DURRETT: Certainly, we will agree to that.

Q (By Mr. Durrett) Now, Mr. Brown, do you plan to drill a well in the West Half of Section 29?

A We do.

Q Will you refer to your Exhibit No. 8 and state what that is?

A Exhibit No. 8 is a Form 9-331 C, which is an application for permit to drill a well which would be located 1980 from the south line, 1980 from the west line of Section 29, Township 18 South, Range 33 East, Lea County.

Q Has this been approved?

A It has been approved by the United States Geological Survey.

Q Have you contacted all of the operators in the West Half of Section 29 and offered them an opportunity to join in this well?

A No have.

Q And on what basis have you offered this to them?

A We simply stated to them that we propose this well and that they would be given an opportunity to participate on the basis of their acreage in the West Half of the section.

Q And you will be willing to take farmouts if they would like to do it that way?

A We will.

Q Would you be willing to let them participate as working interest owners on the basis of their acreage, if they

would so desire?

A We would.

Q And you definitely do intend to drill this well?

A We definitely do intend to drill; in fact, as I've previously stated, we must drill in order to earn the acreage.

Q Do you feel, is it your opinion that that would solve the problem about dedicating the East Half to one well and the West Half to another well?

A In my mind it would.

Q That would solve the problem that you have as far as Socony Mobil's acreage?

A Yes.

Q Were Exhibits 1 through 8 prepared by you or under your supervision, with the exception of the documents which are copies of applications before an agency?

A Yes.

MR. DURRETT: If the Examiner please, I would at this time move the introduction of Exhibits 1 through 8.

MR. NUTTER: Applicant's Exhibits 1 through 8 will be admitted in evidence.

(Whereupon, Exhibits 1 through 8 were offered and admitted in evidence.)

MR. DURRETT: That will conclude my direct

examination. MR. NUTTER: Does anyone have any questions they

wish to ask of this witness?

MR. BUELL: Yes, sir, I have just one or two.

CROSS EXAMINATION

BY MR, BUELL:

Mr. Brown, you spoke about approaching Pan American Q

for dry hole contribution for this well. Actually, you approached us for a dry hole contribution based on our acreage in Section 20 to the north, did you not? A I am not qualified, really, to answer that question.

I was not involved personally in that.

If I tell you that was the case, then you can't Q

disagree with me, can you?

Frankly, no, I can't. Α

Also at the time that you approached us you did not Q know that we had farmed that acreage out, did you?

I did not, no. А

And that our dry hole contributions would not

have amounted to enough to take care of the cost of preparing

the check to send it to you?

I am not qualified to answer that. А

Q If I tell you that, you cannot disagree with me? A I cannot.

Q At no time did Pennzoil approach Pan American to participate in the well that was drilled in the Northeast Quarter, did you?

A The only thing that I am aware of is that Pan American was contacted and asked for dry hole contribution.

Q Well, now, you have testified that you formed an operating agreement consisting of the Northeast Quarter, as 160-acre operating agreement for this well, did you not?

A In effect, yes.

Q And Pan American owns no acreage in the Northeast Quarter to your knowledge, do they?

A Right, they do not.

Q So, then, is it not obvious that you did not approach Pan American to participate in this well?

A Yes. I think we could say that would be obvious.

Q Let me ask you this: If the North Half of Section 29 was the proration unit dedicated to this well, would not your well then be at an orthodox location?

A It would be.

Q And I believe, I paid real close attention and I believe that your only reason for requesting this unorthodox

location, or the approval of a non-standard unit in the North Half, which would include everything except the West Half of the Northwest Quarter, where Pan American's acreage is located, your only reason was the convenience of the interest owners in the East Half of Section 29?

Well, actually, there is somewhat more involved - Q I asked you if that was not your direct testimony.

A Yes, I believe that was.

Q You didn't give any other reason in your direct testimony, did you?

A Right.

MR. BUELL: That's all I have, Mr. Examiner. MR. DURRETT: I have one or two questions.

REDIRECT EXAMINATION

BY MR. DURRETT:

Q What is the other reason?

A I was going to point out that in view of the fact that Hudson and Hudson and Enfield had retained an override on the acreage which we earned by the drilling of this well, that the inclusion of the West Half of the Northwest Quarter would have resulted in the loss of interest to Pennzoil amounting to the extent of the override which we would be obligated to pay, based on the East Half of the Northwest

Quarter, plus the 120 acres that we earn in the Northeast Quarter; and that if, on the basis of the 80 acres, the ownership in the West Half of the Northwest Quarter, if on the basis of that acreage those interests actually earned one-fourth of the well, and Mobil having paid for one-fourth, in fact, had one-fourth of the well, then that would leave only 50 percent of the well for Pennzoil in that we would have to carry an override on 200 out of the 320 acres.

Let me ask you this, Mr. Brown, is it your testimony that considering the fact that you propose and are willing to drill and will drill a well in the West Half of Section 29, is it your opinion that doing so, in dedicating the West Half to that new well and the East Half to this present well would give all of the operators in this section the opportunity to recover their just and equitable share of the gas?

MR. DURRETT: That's all I have. RECROSS EXAMINATION

BY MR. BUELL:

Q

I'll rephrase my question, then, and ask you if it is not the status of your direct testimony, now, that the only justification for the unorthodox location request, or your non-standard unit request, is for the convenience of the owners
A Yes, that's correct.

Q Your well is located 660 feet from the north line, how far would that make it from the south line of the East Half, which would be the southern extremity of the unit that you are asking for today?

A From the south line of the East Half?

Q Yes, sir.

A That is a standard size section, 660 feet from the 5,280.

Q What does that amount to?

A May I use my pencil?

Q Yes, sir.

A 4620.

Q 660 feet from the north line of your unit and 4620 from the southern line?

A Right.

Q Let's talk for a moment about this proposed well in the West Half of Section 29; it is not drilled yet, is it?

A It is not.

Q If that well is drilled, we don't know, you or any of us sitting here, whether or not it will be productive in either the Morrow or the Wolfcamp, do we?

A We do not.

Q So, really, what we're looking at here is a well that is now, in fact, in being in the Northeast Quarter of Section 29 and a proposed well in the West Half of Section 29 that may or may not be productive in either of these two zones which are the subject matter of this hearing?

A Yes.

MR. BUELL: Thank you, that's all, Mr. Examiner.

RECROSS EXAMINATION

BY MR. NUTTER:

Q I notice from your intention to drill this second well, it's projected to 13,800?

A Yes.

Q I presume it is going to be a Morrow test?

A It will be a Morrow test.

Q As I recall, this pool had some previous Morrow production in it. What is the Aztec well up to the north, is it Strawn?

A That well did not penetrate the Morrow. I am not sure what their T.D. was. Perhaps I might get some help here from --

Q The one over to the east in Section 28 was the

Morrow discovery that Aztec made? It says dual discovery.

A The one in the Northwest Quarter of 28?

Q Yes.

A That was a dual Strawn and Morrow completion.

Q But the well to the north is the Strawn only?

A The well due north of our Hudson Federal "29" is a Wolfcamp only.

Q Oh, I see.

A I believe that Pan American farmed this acreage out to Aztec and retained the Morrow rights or the deeper rights. I'm not too familiar with the terms of that trade but that's my understanding.

Q Now, with respect to this Wolfcamp completion that you have got here, all of the upper perforations shown on Exhibit 5 have been squeezed and resqueezed it appears from the exhibit.

A Yes, sir.

Q Because they were making 90 percent water?

A Yes.

Q So you have 905 feet of casing shoe from your uppermost casing to your tubing?

A Yes.

Q What will be the effect of flowing this well some

500 some feet through the casing?

Frankly, we see no particular problems in that regard.

Coming up through a big string of casing and going Q into a small string of tubing. What's going to be the effect of producing the well through inch and a quarter tubing? The well will produce without any problems until such time as some means of artificial lift has to be resorted to and our plan is to utilize the energy of the

Morrow to provide the energy to lift this upper zone. In other words, later on you anticipate going to a gas lift, is that what you are saying?

Yes, sir. Q

quarter tubing?

And how would this gas lift operate with inch and a There are several ways that this can be approached. Α It can simply be done by injecting some of the high pressure gas into the annulus. And the gas would enter the tubing through valves

on the tubing and flow up through? Yes. In the initial phases I doubt that valves

will be necessary, but if they are required, we can install them.

Q Or at a later date if you have to start doing things like that, you are going to have to pull the tubing anyway and it may be possible to run two and sixteen-inch parallel strings, correct?

A We don't anticipate having to pull more than the inch and a quarter, if any at all.

Q What is the ratio of this Wolfcamp production, the gas-oil ratio?

A At the present time it's approximately 1200 to one.

Q Is it making any water from the Wolfcamp?

A No, sir.

Q It is a flowing well?

A Yes, sir.

Q What is your flowing tubing pressure?

A Approximately 300 pounds.

Q What's your bottomhole pressure, do you know,

flowing and shut-in?

A We recently obtained a bottomhole pressure. As I recall, it was 2427, 2,427.

Q That was a shut-in bottomhole pressure?

A That's shut-in.

Q Have you ever had a flowing bottomhole pressure on the well yet?

A No, sir.

Q What kind of pressures do you have in the Morrow?

A The bottomhole pressure in the Morrow is approximately 6200 pounds.

Q What is the potential of each of these two zones, Mr. Brown?

A The upper zone was potentialed for, as I recall, 340 barrels, flowing. We ran a four point on the Morrow and came up with a calculated absolute open flow of 2.9 million.

Q I think you mentioned that the inch and a quarter was plastic-coated?

A Yes.

Q Is that to avoid paraffin buildup?

A Yes, sir.

MR. NUTTER: Are there any other questions of Mr. Brown? He may be excused. Oh, Mr. Smith.

MR. SMITH: Did I understand that the Morrow was making 90 percent water?

MR. NUTTER: No, sir, I believe he was talking about one zone of the Wolfcamp tested 98 percent water.

MR. SMITH: Wolfcamp makes 98 percent?

MR. NUTTER: One zone, but that was squeezed off. Are there any other questions of the witness? He may be

excused.

(Witness excused.)

MR. NUTTER: You have no other witness in this case? MR. DURRETT: I have no further witness. I would like to make a closing statement. I am sure Mr. Buell would, too. I would like to defer to him so I can have the last work, being the applicant.

MR. NUTTER: Does anyone have anything else to offer in this case?

MR. BUELL: I have a closing statement I would like to make in advance of Mr. Durrett's. May it please the Examiner, this application contains three requests; one, approval of dual completion; two, approval of an unorthodox well location; three, the approval of a non-standard proration unit. I would like the record to be clear that we are not expressing any objection whatsoever to their request for a dual completion, but we are vitally interested in their other two requests,

The Examiner knows Pan American recognizes that the Commission at times must give exceptions to its rules, but we feel, and based on my experience with this Commission, that they have never done so unless they were compelling and persuasive conditions that would justify such an exception.

Conditions such as factual conditions, geological conditions or reservoir engineering conditions, well, I think this record is completely clear that none of these factors are present in this hearing here today.

First let's look at the factual standpoint. If a unit were formed consisting of the North Half of Section 29, this well would then become an orthodox well location for Morrow gas production, and no exception to any rules would be necessary. All right. Is there any reason why the applicant can't form a unit consisting of the North Half? I state to this Commission, right here today, that Pan American would be willing to join in such a unit subject, of course, to being able to reach agreement with Pennzoil on reasonable well costs.

I put that condition in only, Mr. Examiner, as you realize, this is a dual completion and at times it is difficult for partners to agree on costs in a dual completion, particularly when one of the partners has an interest in only one of the zones that are dually completed. In our dealings with Pennzoil they have always been reasonable. I would like to think that Pan American is reasonable. I would hope that we would agree on well costs.

I would like to put the condition in there due to the fact we have no data on well costs. Pennzoil was

considerate enough to furnish us electric logs which they held at this time. They furnished the logs and we had a chance to evaluate them. We have no idea as to their well costs. Because of the lack of data on well costs we have offered to farm out our interest to Pennzoil in order that they could form a standard unit consisting of the North Half, which would make their well an orthodox location. In the event that we couldn't agree on well costs, we still stand ready to farm out our acreage to Pennzoil. So from a factual standpoint there's nothing in the leases, there's nothing of that type that would prevent them from forming a standard unit in the North Half of 29.

Let's look at the standpoint of geology, there's not one iota of testimony from a geological standpoint to justify the unorthodox location or to justify the approval of a non-standard unit consisting of everything in the North Half of the West Half of the Northwest. There is not one scintilla of reservoir engineering data to justify this unorthodox location or the non-standard unit. The record is crystal clear that the only reason Pennzoil is asking for this approval, and it's probably commendable of them in that they're trying to protect their owners in the East Half of Section 29. I say it's commendable of Pennzoil but I wouldn't say it was

commendable of this Commission if they considered that a justification for an exception to their rules.

Pennzoil has also frankly and honestly testified that it is to their economic benefit if the Commission approves unorthodox location or a non-standard unit. I can't blame them at all for asking for it but I would be disappointed in this Commission if they used justification of that type to grant an exception to their rules.

We strongly recommend that the request for an unorthodox location and the request for a non-standard unit be denied.

MR. NUTTER: Mr. Durrett.

MR. DURRETT: Now, Mr. Examiner, I am going to be very, very brief because I think the facts are fairly clear here and the Commission is aware of what the situation is. The first thing that I want to state is I want it clear that Pennzoil is not trying to take advantage of Pan American. We find ourselves in a very difficult situation here. There is no intent on Pennzoil's part to come in and deprive Pan American of their opportunity to produce or their fair share of the production.

We're in a situation where Pennzoil, in good faith, in all good faith, went in to drill a Strawn test at a

standard location, it was non-productive, and that fact is what has created this situation. At that time they went ahead with the other operators who were participating in the well and tried to make the best of a bad situation and fortunately they did encounter production in the Morrow, but there is definitely no intent here to try to circumvent the rules or to come up with something that would deprive an operator of his fair share of the production, and just to comment for a moment on the law, I would like to point out that the Commission's duty is to give each operator the opportunity, and I underline that, to produce his just and equitable share of the gas in the reservoir as related to his acreage.

That's what we are concerned with here, is the opportunity of producing. We submit that when you start considering who has the opportunity to produce his fair and just and equitable share, you have to consider who took the risk. We think that's a great deal of the part of having the opportunity to produce, is participating somewhat in the risk involved.

Now, these people in the East Half of this section took the risk but Pennzoil and Socony Mobil took the risk, in this case we feel like they should be entitled to that well.

On the other side we have agreed here today and would be even willing for the Commission to make it a part of the order if they so desire, that we would drill a well in the southwest which would give Pan American their opportunity to produce. We submit that that is what the Commission is faced with here. It's just a situation that it's not the first time it has ever happened when we went into a formation and got a dry hole and had to go to another formation and ended up with a situation that puts us in having to request a non-standard location.

For these reasons we submit that the Commission should approve this non-standard location and permit us to dedicate the East Half to this Hudson rederal "29" Well No. 1 and to drill another well in the West Half and dedicate the West Half of the section to that well.

MR. NUTTER: Mr. Durrett, maybe you or Mr. Brown or Mr. Buell, one of the three of you, could answer this question. Has the proposition of a well in the Southwest Quarter of Section 29 been made to Pan American and has Pan American replied yet?

> MR. DURRETT: It has been made. MR. BROWN: It has been made. MR. NUTTER: Do you know if they have replied?

MR. BROWN: They informed us that they did not wish to participate.

MR. NUTTER: In the well in the Southwest Quarter? MR. BROWN: Yes.

MR. BUELL: We are drifting off into hearsay here. I believe all of this has been verbal, has it not, Mr. Brown?

MR. BROWN: Yes.

MR. BUELL: My understanding of the offer of Pennzoil was that, "Let us go ahead with this hearing and then we will discuss and negotiate a well in the West Half." I don't believe, based on my information, and I will readily admit mine is hearsay, that a concrete offer has been made Pan American.

While I'm speaking, Mr. Examiner, I do want the record to be clear in this regard, that I certainly, in my remarks, did not intend to imply any bad faith on the part of Pennzoil. In my own mind I am clear this wasn't a Mickey Mouse application to drill a well to the Strawn with a predetermined idea of going to the Morrow. I don't think it was. I am not implying any bad faith. But I do think in this hearing we are concerned with the well in the Northeast Quarter which is now in existence and the well that the exceptions are being requested for and our well to be drilled in the West Half of Section 29 which may or may not be a producer.

MR. NUTTER: Does anyone have anything further? We'll take the case under advisement, and take a fifteenminute recess.

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STATE OF NEW MEXICO)) ss COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 11th day of June, 1968.

- Gear Dearnley NOTARY PUBLIC

My Commission Expires: June 19, 1971.

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PLEASE NOTE THAT THIS HEARING WILL START AT 8 O'CLOCK A.M.

Docket No. 16-68

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 22, 1968

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, Alternate Examiner:

- CASE 3769: Application of Texas Pacific Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the South Leonard (Queen) Unit Area comprising 640 acres, more or less, of Federal and Fee lands in Township 26 South, Range 37 East, Lea County, New Mexico.
- CASE 3770: Application of Texas Pacific Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks authority to institute a waterflood project in its South Leonard (Queen) Unit Area by the injection of water into the Queen formation through five wells located in Sections 13, 23, and 24, Township 26 South, Range 37 East, South Leonard-Queen Pool, Lea County, New Mexico.

CASE 3751:

(Continued and readvertised from the April 24, 1968, Examiner Hearing):

Application of Pennzoil Company for a dual completion, tubing exception, and a non-standard gas well location or non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Hudson Federal 29 Well No. 1 located 660 feet from the North line and 1980 fact from the East line of Section 29, Township 18 South, Range 33 East, South Corbin Field, Lea County, New Mexico, in such a manner as to produce oil from the Wolfcamp formation through 1.38-inch 1D -2-Wednesday - May 22, 1968, Examiner Hearing

Docket No. 16-68

CASE 3751 CONTINUED FROM PAGE -1-

tubing and gas from the Morrow formation through 2-inch tubing. Applicant also seeks an exception to the tubing requirements of Commission Rule 107 in that said 1.38-inch tubing would be set more than 250 feet above the uppermost Wolfcamp perforation. Applicant further seeks approval for the non-standard location for said well in the South Corbin-Morrow Gas Pool if the E/2 of said Section 29 is dedicated to the well as proposed, or in the alternative, appli-**GANT** seeks approval for a non-standard gas proration unit for the well comprising the E/2 NW/4 and the NE/4 of said Section 29.

CASE 3771:

Application of Pennzoil Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Corbin-Wolfcamp Oil Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units.

CASE 3772:

Application of George L. Buckles Company for three waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute three waterflood projects by the injection of water into the Queen Sand of the Langlie-Mattix Pool in Township 25 South, Range 37 East, Lea County, New Mexico, as follows:

A waterflood project comprising all of Section 3 and the E/2 NE/4 and NE/4 SE/4 of Section 4, with injection to be through eight wells located in Units A, F, J, L, M, O, & P of Section 3, and Unit H of Section 4;

A waterflood project comprising the S/2 S/2 of Section 10, the W/2 SW/4 of Section 11, the W/2 NW/4 of Section 14, and the NE/4 and NE/4 NW/4 of Section 15, with injection to be through ten wells located in Units M & O of Section 10, Unit M of Section 11, Unit D of Section 14, and Units A, B, C, G, and H of Section 15.

A waterflood project comprising the NE/4 of Section 22, with injection to be through three wells located in Units B, G, and H of Section 22;

Numerous of the above-described water injection wells are proposed to be located at unorthodox locations, often 5 to 15 feet from the corners and/or boundaries of their respective 40-acre tracts. Wednesday - May 22, 1968, Examiner Hearing

-3-

- CASE 3773: Application of Mabee Royalties, Inc., and Yuronka and Chandler, for an amendment to Orders Nos. R-3253 and R-3388, Lea County, New Mexico. Applicants, in the above-styled cause, seek the amendment of Orders Nos. R-3263 and R-3388 to designate Mabee Royalties, Inc., as operators of the S/2 SW/4 and NE/4 SW/4 of Section 7, Township 22 South, Range 38 East, Lea County, New Maxico, rather than John Yuronka and Robert E. Chandler, who were originally designated as operators of said compulsorily pooled lands.
- CASE 3774: Application of Ernest A. Hanson for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of his Max Gutman Well No. 5 located in Unit N of Section 12, Township 22 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of Drinkard and East Brunson-Granite Wash oil through parallel strings of tubing.
- CASE 3775: Application of Cities Service Oil Company for an unorthofox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its State "AE" Well No. 2-Y at an unorthodox location 1420 feet from the South line and 990 feet from the West line of Section 36, Township 16 South, Range 36 East, Lovington-Abo Pool, Lea County, New Mexico. Said well will be bottomed no closer than 1420 feet to the South line nor farther than 990 feet from the West line of said Section 35, and will be drilled as a replacement for applicant's State "AE" Well No. 2 on the same 40-acre tract, which well must be abandoned due to a casing failure.
- CASE 3776: Application of J. M. Huber Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks approval of the Union-State Unit Area comprising 1360 acres, more or less, of State lands in Township 15 South, Range 32 East, Lea County, New Mexico.

CASE 3701 (Reopened):

In the matter of Case No. 3701 being reopened at the request of Coastal States Gas Producing Company to consider the amendment of the special pool rules for the fourth Wolfcamp Pool, Lea County, New Mexico, to provide for 360-acre spacing and proration units with the busyignment of 80-acre allowables.



ROBERT N. ENFIELD OIL PROPERTIES P. D. BOX 807 ROSWELL, NEW MEXICO 88201

ay 17, 1968

622-5552

New Vexico Oil Conservation Commission • 0. Pox 2088 Santa Fe, New Nexico 87501

Attention: Mr. A. L. Porter, Jr. Secretary-Director

Re: Bocket 16-68, Cases 3751) and 3771

Dear Fr. Porter:

As a working and royalty interest owner in a portion of Section 29, Township 18 South, Bange 33 East, please be advised that I support Pennzoil Company's application under Case No. 3751 for a Horrow Gas Unit composing the <u>West half (W/2)</u> of Section 29, and that I also support their request for a non-standard gas well location in the South Corbin Horrow Pcol in said Section 29.

In addition, I support Vennzoil Company's application under Case No. 3771 for Special Pool Bules for the South Corbin Volfcamp Pool including the provision for 160-acre spacing.

Yours very truly, Robut N. Enfield

ME/eh

for the ad

mar

100 May 20 Alto 28

Mobil Oil Corporation

P.O. BOX 633 MIDLAND, TEXAS 79701

May 20, 1968

New Mexico Oil Conservation Commission State Land Office Building Santa Fe, New Mexico 87501

CASE NO. 3751 - NAY 22, 1968 DUAL COMPLETION TUBING EXCEPTION AND NON-STANDARD GAS PRORATION UNIT AND WELL LOCATION HUDSON FEDERAL 29 WELL NO. 1 SOUTH CORBIN FIELD LEA COUNTY, NEW MEXICO

Gentlemen:

Mobil Oil Corporation is part owner of the Hudson Federal 29 Well No. 1. Pennzoil Company has advised Mobil of their subject application. Mobil agrees with Pennzoil's recommendations and urges the Commission to grant a dual completion tubing exception and a non-standard gas provation unit and well location for the Hudson Federal 29 Well No. 1, South Corbin Field, Lea County, New Mexico.

supports

FLHart/vp

Yours very truly Ira B. Stitt

Division Operations Engineer

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AZTEC OIL & GAS COMPANY 2000 First National Bank Building Dallas, Texas 75202

May 17, 1968

VICE PRESIDENT

PRENTICE WATTS

Case 3751

New Mexico Oil Conservation Commission Box 2088 Santa Fe, New Mexico

> RE: Pennzoil #1 Hudson Federal 29 660/N, 1980/E of Section 29-T18S-R33E Lea County, New Mexico

Gentlemen:

We have been advised by Pennzoil United, Incorporated, of their request for approval of a non-standard gas well location for the Morrow zone in their Hudson Federal "29" No. 1 well located 660 feet from the north line and 1980 feet from the east line of Section 29, T-18-S, R-33-E, Lea County, New Mexico; having as a proration unit, the east half of Section 29.

Aztec, as an offset operator, has no objection to the Pennzoil request.

Very truly yours,

unt is Wold

Prentice Watts

PW:bjr

cc: Pennzoil United, Inc. P. O. Drawer 1828 Midland, Texas 79701 "50 HAY 20 AH & 15

in.

RHODES, Mc CALLISTER & DURRETT ATTORNEYS AT LAW

JERRY P. RHODES ORVILIE C. McCALLISTER, JR. J. M. DURRETT, JR. SOO PAN AMERICAN FREEWAY, NE (CORNER ROMA AND INTERSTATE 25) ALBUQUERQUE, NEW MEXICO 87106 TELEPHONE 243-9744

May 6, 1968

New Mexico Oil Conservation Commission Box 2088 Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr. Secretary-Director

Re: Case No. 3751

Gentlemen:

I am enclosing an original and two copies of Commission Form C-107 concerning Pennzoil's Hudson Federal 29 Well No. 1. Will you please attach these to Pennzoil's application for a dual completion and tubing exception in the above case.

Thank you for your assistance.

Very truly yours,

Rhodes, McCallister & Durrett

Durrett,

JMD:mej Encls.

158 May 8 An Er an

NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO APPLICATION FOR MULTIPLE COMPLETION

Form C+107 5+1+61

Operator		County		Date		
Pennzoil Compa	ny		Lea		4-5-68	
Adress	/9/01	Lease	1 Tadamal 20	Well N	Well No.	
P. O. Drawer 1828, Location Unit		ownship	<u>dson Federal 29</u>	Range	L	
of Well B	29		18-S		33-Е	
1. Has the New Mexico Oil Conserv				a well	in these same pools or in the same	
zones within one mile of the subj 2. If answer is yes, identify one suc		NO		d Well N	Jo.:	
3. The following facts are submitted			Intermediate	T		
	offer	ORBIN	Zone		Lower SOUTH Zone CORBIN	
a. Name of Pool and Formation	Wolfcamp				Morrow	
b. Top and Bottom of Pay Section						
(Perforations)	10903 - 1099	1		•	13235 - 13334	
c. Type of production (Oil or Gas	s) oil				Gas	
d. Method of Production (Flowing or Artificial Lift)	Flowing				Flowing	
4. The following are attached. (Plea		, , . <u></u>	<u> </u>	l	Piowing	
izers and/or turbe diameters and set iameters and set isers and/or turbe diameters and set of operators of all ison bare been for tors have been for icated thereon. (5. List all offset operators to the loc Aztec Oil & Com Mobil Oil Com	olizers and location thereof, of thing depth, location and type location of all wells on appli- l leases offsetting applicant's ing to such multiple completion unished copies of the applica- the well or other acceptable if such log is not available and ease on which this well is loc bas Company P.	puantities of packer icant's less s lease. on from ca ation.* log with t the time ated toge 0. B 0. B	used and top of cement, pe s and side door chokes, and s ase, all offset wells on of tops and bottoms of produc application is filed it shal ther with their correct maili ox 847 Hobbs ox 1800 Hobbs	rforated uch oth fset lea u therece ing zon l be sub ng addre New	meters and setting depths, central- intervals, tubing strings, including er information as may be pertinent. ses, and the names and addresses of, evidence that said offset opera- tes and intervals of perforation in- omitted as provided by Rule 112-A.) ess. <u>w Mexico 88240</u> <u>a Mexico 88240</u> <u>bbs, New Mexico 88</u>	
 6. Were all operators listed in Item date of such notification	ned, state that I am the (company), and that I am a and that the facts stated there ators not accompany an appli- period of twenty (20) days fr	Age uthorized in are true cation for om date of	ntof by said company to make th e, correct and complete to t Rodney administrative approval, t of receipt by the Commission	the is repor- he best () () () () () () () () () () () () ()	Cennzoil Company t; and that this report was prepared of my knowledge. wre filley 8 AH 6 35 Mexico Oil Conservation Comm ta Fe office. If, after said twee	
NOTE: If the proposed multiple cor		rthodox w	ell location and/or a non-s	tandard	proration unit in One or more of	

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RHODES, Mc CALLISTER & DURRETT

JERRY P. RHODES ORVILLE C. McCALLISTER, JR. J. M. DURRETT, JR. SOO PAN AMERICAN FREEWAY, NE (CORNER ROMA AND INTERSTATE 25) ALBUQUERQUE, NEW MEXICO 87106 TELEPHONE 243-9744

April 22, 1968

New Mexico Oil Conservation Commission Box 2088 Santa Fe, New Mexico

> Re Case 3751 Application of Pennzoil Company for Dual Completion and Tubing Exception - Lea County

23 AH & 58

Gentleman:

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Pennzoil Company respectfully requests that the above case be continued from the Examiner Hearing set for Wednesday, April 24, 1968, to the Examiner Hearing tentatively set for May 22, 1968. Pennzoil Company proposes to file an application in the immediate futute for 160-acre spacing for the Wolfcamp Formation encountered by its Hudson Federal 29 Well No. 1 and for a non-standard proration unit for the Morrow Formation encountered by this well and would like to present all three cases at the same hearing.

Very truly yours,

Rhodes, McCallister & Durrett

JMD:ab

DOCKET MAILED

5-9-68

RHODES, Mc CALLISTER & DURRETT ATTORNEYS AT LAW

JERRY P. RHODES ORVILLE C. McCALLISTER, JR. J. M. DURRETT, JR. SOO PAN AMERICAN FREEWAY, NE (CORNER ROMA AND INTERSTATE 25) ALBUQUERQUE, NEW MEXICO 87106 TELEPHONE 243-9744

April 3, 1968

Dack 3751

HAD OFFICE U.S.

168 APR 4 AH 8 33

Mr. Dan S. Nutter Chief Engineer Oil Conservation Commission Box 2088 Santa Fe, New Mexico

Dear Dan:

I am enclosing an original and two copies of Pennzoil's application for the dual completion which we discussed over the telephone. I think this application contains most of the pertinent information. I have requested that Pennzoil complete Forms C-107 to be attached to the application and will forward the same to you in the near future.

Please call me collect if you have any questions or desire any additional information. Thank you for your assistance.

Very truly yours,

Rhodes, McCallister & Durrett

M. Durrett, Jr.

JMD:ab encl.

DOCULAY MILLED Dain 4-10-68

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

Application of

PENNZOIL COMPANY

for a Dual Completion, Lea County, New Mexico

Case No. 375/

APPLICATION

COMES NOW the applicant, Pennzoil Company, by 4 AH 8 23 and through its atiorneys, Rhodes, McCallister & Durrett, and respectfully states:

I.

The applicant seeks authority to complete its Hudson Federal 29 Well No. 1 located 660 feet from the North line and 1980 feet from the East line of Section 29, Township 18 South, Range 33 East, NMPM, Lea County, New Mexico, as a dual completion (conventional) to produce oil from the South Corbin Wolfcamp Oil Pool through 1.38 inch internal diameter tubing and to produce gas from the South Corbin Morrow Gas Pool through a parallel string of 2 inch tubing with separation of zones by a packer set at approximately 13,096 feet.

II.

The perforations in the Wolfcamp zone are approximately 10,903 to 10,991 feet and the perforations in the Morrow zone are approximately 13,200 to 13,300 feet; the 1.38 inch internal diameter tubing to the Wolfcamp zone is landed at approximately 10,383 feet.

RHODES, MCCALLISTER & DURRETT ATTORNEYS AT LAW BOO PAN AMERICAN FREEWAY, NE (CORNER POMA AND INTERSTATE 25) NEW MEXICO 87106 The applicant submits that the mechanics of the dual completion in the subject well are feasible and in accord with good conservation practices.

WHEREFORE, the applicant requests the Commission to enter its order approving dual completion of the subject well as set out above.

Rhodes, McCallister & Durrett

By

RHODES, MCCALLISTER & DURRETT ATTORNEYS AT LAW 800 PAN AMERICAN FREEWAY, NE (CORNER ROMA AND INTERSTATE 28) New Mexico 87106

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

Application of

PENNZOIL COMPANY

for a Non-Standard Location or a Non-Standard Unit

Case No.

60 MAY 1 AN S

APPLICATION

COMES NOW the applicant, Pennzoil Company, by and through its attorneys, Rhodes, McCallister & Durrett, and respectfully states:

I.

The applicant seeks approval of a Non-Standard Location in the South Corbin Morrow Gas Pool for its Hudson Federal 29 Well No. 1 located 660 feet from the north line and 1980 feet from the east line of Section 29, Township 18 South, Range 33 East, NMPM, Lea County, New Mexico.

п.

The subject well was drilled to the South Corbin Strawn Oil Pool at a standard location for said pool; the Strawn Formation in the subject well was dry and the well was subsequently completed in the South Corbin Morrow Gas Pool and the South Corbin Wolfcamp Oil Pool.

III.

The applicant proposes to dedicate the east half of Section 29, Township 18 South, Range 33 East, NMPM, Lea County, New Mexico, to the subject well in the South Corbin Morrow Gas Pool.

RHODES, MCCALLISTER & DURRETT ATTORNEYS AT LAW 500 PAN AMERICAN FREEWAY, NE (CORNER ROMA AND INTERSTATE 2b) NEW MEXICO 87106 The applicant submits that approval of the proposed Non-Standard Location will prevent the drilling of unnecessary wells, will afford the applicant the opportunity to produce its just and equitable share of gas from the South Corbin Morrow Gas Pool, and will otherwise prevent waste and protect correlative rights.

WHEREFORE, the applicant requests the commission to enter its order approving the above-described Non-Standard Location in the South Corbin Morrow Gas Pool for the subject well.

In the alternative, the applicant states:

The applicant seeks approval of a 240-acre Non-Standard Unit in the South Corbin Morrow Gas Pool for the subject well.

II.

The applicant proposes to dedicate the east half northwest quarter and the northeast **q**uarter of said Section 29 to the subject well to form a 240-acre Non-Standard Unit in the South Corbin Morrow Gas Pool.

Ш.

The applicant submits that approval of the proposed Non-Standard Unit will afford the applicant the opportunity to produce its just and equitable share of gas from the South Corbin Morrow Gas Pool and will otherwise prevent waste and protect correlative rights.

RHODES, MCCALLISTER & DURRETT ATTORNEYS AT LAW GOO PAN AMERICAN FREEWAY, NE (CORNER ROMA AND INTERSTATE 28) NEW MEXICO 87106

I.

WHEREFORE, the applicant requests the commission

to enter its order approving the Non-Standard Unit as set out above.

Rhodes, McCallister & Durrett

Ву____ Durrett, Jr.

RHODES, MCCALLISTER & DURRETT ATTORNEYS AT LAW 300 PAN AMERICAN FREEWAY, NS (CORNER ROMA AND INTERSTATE 22) NEW MEXICO 87106

.....

Docket No. 12-68

DOCKET: EXAMINER HEARING- WEDNESDAY - APRIL 24, 1968

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, Alternate Examiner:

- CASE 3750: Application of Pan American Petroleum Corporation for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 104 C II to permit the drilling of its State "AZ" Well No. 4 at an unorthodox gas well location 990 feet from the North and East lines of Section 34, Township 12 South, Range 34 East, West Ranger Lake-Devonian Pool, Lea County, New Mexico. The E/2 of said Section 34 would be dedicated to said well.
- CASE 3751: Application of Pennzoil Company for a dual completion and tubing exception, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Hudson Federal 29 Well No. 1 located in Unit B of Section 29, Township 18 South, Range 33 East, South Corbin Field, Lea County, New Mexico, in such a manner as to produce cil from the Wolfcamp formation through 1.38-inch TD tubing and gas from the Morrow formation through 2-inch tubing. Further, applicant seeks an exception to the tubing requirements of Commission Rule 107 in that said 1.38-inch tubing would set more than 250 feet above the uppermost Wolfcamp perforation.
- CASE 3752: Application of Sunray DX Oil Company for a pilot waterflood project, Chaves County, New Mexico. Applicant, in the abovestyled cause, seeks authority to institute a pilot waterflood project in the Chaveroo-San Andres Pool by the injection of water into the San Andres formation through its New Mexico "X" Federal Well No. 5 located in Unit G of Section 10, Township 8 South, Range 33 East, Chaves County, New Mexico.
- CASE 3753: Application of Amerada Petroleum Corporation for a waterflood expansion, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks authority to expand its Langlie Mattix Woolworth Waterflood Project by the injection of water into the Seven Rivers-Queen formation through an injection well to be drilled at an unorthodox location 75 feet from the North line and 2635 feet from the West line of Section 27, Township 24 South, Range 37 East, Langlie Mattix Pool, Lea County, New Mexico.
- CASE 3754: Application of Continental Gil Company for a non-standard gas promation unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the consolidation of two existing

Wednesday, April 24,1968 Examiner Hearing -2-

(Case 3754 continued)

non-standard gas proration units into one 280-acre unit comprising the SW/4,W/2 SE/4, and SE/4 SE/4 of Section 35, Township 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to its Stevens A-35 Wells Nos. 1 and 2 located in Units J and L, respectively, of said Section 35. Said Well No. 1 is presently dedicated to a 120-acre unit comprising the W/2 SE/4 and SE/4 SE/4 of said Section 35, and said Well No. 2 is presently dedicated to a 160-acre unit comprising the SW/4 of said Section 35.

CASE 3755: Application of Dugan Production Corporation for the creation for an oil pool and for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the North Shiprock-Dakota Oil Pool comprising the NE/4 of Section 14, Township 30 North, Range 18 West, San Juan County, New Mexico, and the establishment of special pool rules therefor providing for development on 2 1/2-acre spacing with a provision that each 40-acre tract be subject to a single Northwest New Mexico normal unit allowable. SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXFERT TESTIMOMY, DAILY COPY, CONVENTIONS

dearnley-meier segering verse

. P. O. BUX 1092 . PHONE 243-6691 . ALBUQUERQUE, NEW MEXICO

1120 SIMMS BLDG.

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico April 24, 1968 EXAMINER HEARING) IN THE MATTER OF:

)

Application of Pennzoil Company) Case 3751 for a dual completion and) tubing exception, Lea County,) New Mexico.)

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING



MR. NUTTER: Hearing will come to order. First case will be Case 3751.

NR. HATCH: Case 3751. Application of Pennzoil Company for a dual completion and tubing exception, Lea County, New Mexico. If the Examiner please, we have a letter from the Applicant dated April 22, 1968 I would like to read into the record. "Pennzoil Company respectfully requests that the above case be continued from the Examiner Hearing set for Wednesday, April 24, 1968 to the Examiner Hearing tentatively set for May 2, 1968. Fennzoil Company proposes to file an application in the immediate future for 160 acre spacing in the Wolfcamp formation encountered by its Hudson Federal 29 Well No. 1 and for a nonstandard proration unit for the Morrow formation encountered by this well and would like to present all three cases at the same hearing."

MR. NUTTER: Case No. 3751 will be continued to May 22nd and will be readvertised to broaden the case.

STATE OF NEW MEXICO)) ss COUNTY OF BERNALILLO)

I, KAY EMBREE, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 29th day of April, 1968.

<u>Kay embree</u> JNOTARY PUBLIC

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My Commission Expires: November 19, 1971

I do burchy carplin that the forecoing is a complete recent of the proceedings in the mentioner hearing of Cast the 375 housed by the on rance Asxis 011 Construction Coddisation Toquitaer

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DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY					5. 19900 DESIGNATION AND SERIAL NO.
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1a. TYPE OF WORK					
DRI b. TYPE OF WELL		DEEPEN 🗋		СК 🗌	7. UNIT AGREEMENT NAME
OIL WELL W	ELL OTHER	8. FARM OR LEASE NAME			
2. NAME OF OPERATOR	Pennzoil Compa	nv			9. WELL NO.
3. ADDRESS OF OPERATOR		•			1 10. FIELD AND POOL, OR WILDCAT
4. LOCATION OF WELL (R.	P. O. Drawer 1 eport location clearly and	328 Micland, 7 in accordance with any	State requirements.*)		
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23.	3	PROPOSED CASING AN	ND CEMENTING PROGRA	AM	
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH		QUANTITY OF CEMENT
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Form 9-311 (May 1863)	INTED STATES	SUBMIT IN TO DECATE.	Form approved, Bodget Bureau No. 42 R1424, 5. DANE DEDIGATION AND BERIAL NO.
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OIL CAS WELL WELL OTHER			7. UNIT AGREEMENT NAME
NAME OF OPERATOR			8. FARM OR LEASE NAME
PENNZOIL COMPANY			Hudson-Federal 29
	Midland, Texas 7	9701	1
. LOCATION OF WELL (Report location cle	early and in accordance with any	State requirements.*	10. FIELD AND POOL, OR WILDCAT
See also space 17 below.) At surface 1980' FEL, 660' FNL, Section 29, T-18-S, R-33-E.			Undesignated 11. stc., T., R., M., OD BLE. AND SUBVEY OR AREA Sec 29, T-18-S, R-33-
4. PERMIT NO.	15. ELEVATIONS (Show whether DE	BT (D atc)	12. COUNTY OR PARISH! 13. STATE
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6. Check Ap	propriate Box To Indicate N	lature of Notice, Report, or (Other Data
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PRACTURE TREAT	IULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING CASING
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BEPAIR WELL C	HANGE PLANS	(Other) (Note: Report result Completion of Recom	s of multiple completion on Well pletion Report and Log form.)
 DESCRIBE PROPOSED OR COMPLETED OPEN proposed work. If well is direction nent to this work.) * 	RATIONS (Clearly state all pertine) nally drilled, give subsurface loca	t details, and give pertinent dates	, including estimated date of starting any cal depths for all markers and zones perti-
now planned to 14,000 ¹ .	o deepen the well 7# & 20# will be	oth of 12,500' in thru the Morrow set to T. D. of J	to a depth of
	BE	ORE EXAMINER	NUTTER
	,	CONSERVATION CO	
		EXHIBIT NO.	
		SE NO.	
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18. I hereby certify that the forgoing is	true and correct	- · · · · · · · · · · · · · · · · · · ·	
SIGNED	Auch TITLE DI	cilling Superinter	ndent 2/7/68
(This space for Federal or State of).	ce use) .		
APPROVED BY CONVITIONS OF APPROVAL, IF A	TITLE		DATE
	*See Instruction	ns on Reverse Side	Exhibit 3

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DRILLSTEM TEST DATA

Hudson Federal 29-1 Section 29, T-18-S, R-33-E Lea County, New Mexico

DST #1 6100-6182; 15 min pre-flow, weak blow - 1 hr I.SIP - 1 hr test, very weak blow, dead in 40 min - 1 hr F.SIP - rec 50' drilling fluid - I.SIP 2309# - F.SIP 1988# - IF 64# - FF 90# - HI 2720 -HO 2702 - Res. was .64 @ 62 deg. F 13,000 ppm c1 - Pit mud was .71 @ 52 deg. F 12,500 ppm

DST #2

<u>7422-7447;</u> 10 min pre-flow, very weak blow - 1½ hr I.SIP - 1 hr test, no blow - 1 hr F.SIP - rec 70' water w/sli SO - HI 3255# -HO 3245# - I.SIP 3012# - F.SIP 2545# - IF 22# - FF 53# - BHT 130 deg. F

DST #3 10,537-10,577; 10 min pre-flow, fair blow - 1 hr I.SIP - tool open $1\frac{1}{2}$ hrs, fair blow throughout - 2 hr 2nd SIP - re-opened 1 hr - 2nd flow, fair blow - GTS 53 min-TSTM - S.I. 3 hrs for F. SIP - rec 90' free oil (39.2 grav @ 60 deg. F) + 130' SO&GCM -HPI & HPO 4692# - 1 hr I.SIP 3749# - 2 hr 2nd SIP 3707# and building slightly - 3 hr F.SIP 3747# - IF 43# - 2nd flow 43# -FF 85# - BHT 145 deg.

- DST #4 10,595-10,619; 10 min pre-flow, very weak blow 2 hr I.SIP tool opened 1 hr, no blow - 2 hr F.SIP - rec 120' drilling mud, n/s - I.SIP 3587# & building slightly - F.SIP 2291# & building slightly - IF 23# - FF 73# - HPI & HPO 4767#
- DST #5 <u>10,913-11,027</u>; 10 min pre-flow, very good blow, GTS 6 min @ rate of 625 MCF - S.I. 2 hr I.SIP - start unloading mud 10" after tool closed & oil 15" - open for 2 hr IF on 1" surf. choke & flwd 87 BO - FP 170# - G.V. 428 MCF - close tool 2 hrs - re-open 2nd flow on ½" choke & flwd 50 BO 1 hr - G.V. 362 MCF - FP 300# - Reduce choke to ½" & flwd 35 BO 1 hr - G.V. not measured - FP 500# -Close tool 4 hr F.SIP - Well unloaded 18 BO after tool closed -Total oil flwd 190 barrels - R.O. 20 BO (Total of 210 BO) - HPI & HPO 5060# - 2 hr I.SIP 4241# - 2 hr 2nd SIP 3933# building sli -4 hr F.SIP 3959# - IFP 983# - 2nd FP 2650# - FF 3292# - BHT 150 deg. ∑.
- DST #6 <u>11,062-11,144</u>; 10 min pre-flow, good blow - 2 hr I.SIP - tool open 2 hrs, good blow decr. & dead 1 hr 40 min - 3 hr F.SIP rec 6300' gas in drill pipe, 60' oil (42 grav @ 60 deg. F) - 90' HO&GCM - HPI & HPO 5097# - IF & FF 74# - I.SIP 1073# - F.SIP 709# -BHT 151 deg. F
- DST #7 <u>11,134-11,243</u>; 15 min pre-flow, weak blow incr. to fair - 2 hr <u>1.SIP</u> - tool open 1 hr, weak blow & died - 2 hr F.SIP - rec 30' drilling mud-n/s - HPI 5185#-HPO 5173# - I.SIP 130# - F.SIP 118# IF & FF 67# - BHT 151 deg. F

DST #8 <u>11,337-11,360;</u> 10 min pre-flow, good blow - 2 hr I.SIP - tool open 2 hrs, strong blow-decr. - 2 hr F.SIP - rec 6750' gas in drill pipe, 45' drilling mud & 5' free oil - HPI 5261# - HPO 5236# - I.SIP 4318# - F.SIP 3651# - IF & FF 30# - BHT 153 deg. F

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Í	BEFORE EXAMINER NUTTER	
	CONSERVATION COMMISSION	
	EXHIBIT NO.	
	CASE NO.	

Exhibit 7

Hudson Federal 29-1 Sec. 29, T-18-S, R-33-E Lea Co., New Mexico Page 2

DST #9 <u>12,114-12,260;</u> 15 min pre-flow, weak blow, died 3 min - 1½ hr I.SIP - tool open 1 hr, no blow - 1½ hr F.SIP - rec 10' drilling mud - I.SIP 128# - F.SIP 115# - IF 103# - FF 115# - HPI & HPO 6350# : s

- DST #10 <u>12,313-12,387</u>; 20 min pre-flow, weak blow 2 hr I.SIP tool open 1¹/₂ hrs, no blow - 3 hr F.SIP - rec 15' drilling mud - HPI & HPO 6548# - I.SIP & F.SIP 84# - IF & FF 84# - BHT 168 deg. F
- DST #11 13,208-13,246; 10 win pre-flow, very good blow w/GTS 5 min @ 1100 MCFGPD - 2 hr I.SIP - 2 hr 2nd flow, G.V. after 1st hr 3500 MCFGPD, oil 55 min (fine spray) G.V. after 2nd hr 4,300 MCFGPD -Flwd 4 bb1s dist. (50 grav @ 56 deg. F) - 2 hr 2nd SI - 2 hr final flow - G.V. 5500 MCFGPD - Flwd 20 barrels dist. - 4 hr F. SIP, unloaded 8 bb1s dist. (total 32 barrels) - rec 835' dist. in drill pipe - HI & HO 7328# - I.SIP 6606 - 2nd S.I. 6164# -F.SIP 5814# - IF 328# - 2nd flow 1487# - FF 1395# - BHT 208 deg. F

DST #12 <u>13,272-13,328;</u> 5 min pre-flow, strong blow, GTS 2 min @ rate of 5,000 MCFGPD - 2 hr I.SIP - re-open tool 3½ hrs on 3/8" ck - FTP 2800# - G.V. 9,000 MCFGPD w/spray of dist. - took 6 hour F.SIP -HPI & HPO 7307# - IF 1857# - 2nd flow 2395# - FF 4779# - I. SIP 6423# - 2nd SIP 5601# - F.SIP 5784# - R.O. 5 bbls dist.

			-			1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		
Form 9-331 C SUBMIT IN TRIPLICATE* Form approved. (May 1963) Datas instructions and Budget Bureau No. 42-R1425.								
	UNITED STATES (Other Instructions on Budger Bureau No. 42-01423, reverse side)							
DEPARTMENT OF THE INTERIOR						5. LEASE DESIGNATION AND SERIAL NO.		
GEOLOGICAL SURVEY						LC 069276		
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK 6. IF INDIAN, ALLOTTEE OF TRIBE NAME								
1a. TYPE OF WORK DF b. TYPE OF WELL	RILL 🗹	7. UNIT AGREEMENT NAME						
OIL CAS WELL CAS OTHER SINGLE DATE						S. FARM OR LEASE NAME		
2. NAME OF OPTRATOR Hudson Federal 29								
PENNZOIL COMPANY 3. ADDRESS OF OFERATOR						2		
	828, Midland,				• • • • •	10. FIELD AND POOL, OR WILDCAT		
At surface	Report location clearly and				6	Undesignated		
	1930' FITL, S	Sec 29, 1	-18-	S, R-33-E		11. SEC., T., B., M., OR BLE. AND SURVEY OR ABEA		
. At proposed prod. 20	same					Sec. 29, I-18-5, R-33-5		
	AND DIRECTION FROM NEAR		ST OFFIC	£*		12. COUNTY OB PARISH 13. STATE Lea N.M.		
10. DISTANCE FROM PROI	lles Sil Buckey	/e	1 16. NO). OF ACRES IN LEASE	1 17. NO.	GF ACRES ASSIGNED		
LOCATION TO NEARES PROPERTI OR LEASE	ST LINE, FT.	1980		560		HIS WELL 220		
19 DIGT, NOT PROM DOC	ig. unit line, if any) POSED LOCATION*		19. PI	ROPOSED DEPTH		ARY OR CABLE TOULS		
CR AFFLED FOR, ON 1		100 ·	13	,800	R9	tury		
21. ELEVATIONS (Show w	hether DF, RT, GR, etc.)				ŧ,	22. APPBOX, DATE WORK WILL START*		
23.	E	PROPOSED CASI	NG ANI	D CEMENTING PROGRA	М			
BIZE OF HOLE	SIZE OF CASING	WEIGHT PER I		SETTING DEPTH		QUANTITY OF CEMENT		
<u></u>	13 3/8	431		400		400 SX-Circulate		
<u>12¦"</u>	95/8	<u>36# à</u>		<u> </u>		<u>Sx-Est. top 2000</u> Sx-Est. top 8000		
0 3/4"		23# 0	26#	000	1000	5x-28t. top 0000		
					•	이 온 사람이 가지 않는 것을 받는 가지? 제 것 같은 것 같이 한 것같이 가지 않다.		
					1. A.F.	이 물 등값은 한 옷과는 것으로 이 것 같아 것 이것 것 같아		
					•	· 11 영국 · 1 경기 · 1 명상 - 12 영국 · 국국수 · 12 영국		
				r				
				BEFORE EX.	AMIN	NER NUTTER		
				OIL CONSERV	ATION	COMMISSION		
				Gul EX				
					-			
				CASE NO				
zone. If proposal is to	o drill or deepen directions					ductive zone and proposed new productive ed and true vertical depths. Give blowout		
preventer program, if a 24.	ny							
BIGNED	Luchur	о 	TLE	Drilling Supt	•	DATE 5/16/68		
(This space for Fed	leral or State office use)							
PERMIT NO.				APPBOYAL DATE	$\frac{1}{10}$	FDI		
				HPF	11.7 v			
APPROVED BY		TI	TLE	14AV	13-195	8 DATE		
CONDITIONS OF APPRI	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				hK-	N N		
				LATR 	OT ENGIN	IFFD		
		*See Instr	uctions	On Reverse Side		Exhibit 8		

 $\frac{1}{2} = \frac{1}{2} \left(\frac{1}{2} + \frac{1}{2} \right) \left(\frac{1}{2}$

Progent Charger of Qual day it in (some fried.) Hudson Tederal 27 Will del 660 PNE 1150'FEC 29 185 ERE 1. G - Corbin Strickformedit prod Portine S. Moreson Ja, Parl L-2 meh tubing -1:38 ID thoing port word 10,903 - 10,991 16g @10383 perf mourie 13,200 - 13,300 tog &)