CASE 4642: Application of FLUID POWER PUMP CO. FOR SPECIAL RULES & PRESSURE MAINTENANCE PROJECT.

Continued
Jo Jan. 19th

CASE
POWER
& PRES

Case Number

4642

Application

Trascripts

Small Exhibits

ETC.

Case No 4642

Media - E. n Trada Pool

1-6-72 Shows part of pit est. 100 x 100 & suction line & pump. Pumping water to injection well at @ 300 # press.

NO 26641

Case No 4642

Media - E. n Trada Pool

1-6-72 about 10:30-11:00 AM. Pit appears to be lined with the heavy oil produced from the wells. Stamets, Utz, Weinken, Kendrick

Steam from naturally hot water.

NO 26641

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
January 19, ~~1971~~ 1972

EXAMINER HEARING

IN THE MATTER OF:

Application of Fluid Power Pump Company for special rules and a pressure maintenance project, Sandoval County, New Mexico.

Case 4642

BEFORE:

Daniel S. Nutter, Alternate Examiner.

TRANSCRIPT OF HEARING

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE , NEW MEXICO

Hearing Date JANUARY 19, 1972 TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
Val R. Reese	Fluid Power Pump Co.	Albuq.
Mollis B. Jones	" " " "	"
E.R. Manning	El Paso Natural Gas	El Paso, Tex.
Walter W. King	Wallen Production Co.	Midland Texas
J.M. Durrett Jr.	Manning Gas & Oil Co.	Albuquerque
Jason Kellahin	Kellahin & ~~Fox~~	Santa Fe
T.L. SPRINKLE	APACHE EXPLORATION	TULSA, OKLA.
[illegible]	" "	Roswell
Owen M. Lopez	Montgomery et al	S. Fe
Joe E. Starks	AZTEC OIL & GAS	DALLAS
Lyndon D. Eaton	" " "	"
[illegible]	P.W. Bynum & Co.	Santa Fe
Bill Gressett	N.M.O.C.C.	Artesia
Ewell N. Walsh	Manning Gas & Oil Co	Farmington
James E. Kirk	James E. Kirk	Albuquerque
[illegible]	OCC	Aztec
E.A. Schmidt	U.S.G.S.	Durango, Colo.

MR. NUTTER: Case 4642.

MR. HATCH: Case 4642: Application of Fluid Power Pump Company for special pool rules and a pressure maintenance project, Sandoval County, New Mexico.

MR. KELLIHAN: Jason Kellihan, Attorney at Law.

Are you ready, Mr. Examiner?

I would like to call as our first witness Mr. Val R. Reese.

VAL R. REESE

a witness, having been first duly sworn according to law, upon his oath testified as follows:

DIRECT EXAMINATION

BY MR. KELLIHAN

Q Would you state your name, please?

A Val R. Reese.

Q What business are you engaged in, Mr. Reese?

A I am a consulting geologist in Albuquerque, New Mexico.

Q In connection with your work as a consulting geologist, have you handled work for Fluid Power Pump Company, the applicant in this case, in the Media-Entrada Pool?

A Yes.

Q Have you testified before the Oil Conservation Commission or one of its Examiners, and made your qualifications a matter of record?

A Yes, I have.

MR. KELLIHAN: Are the witness' qualifications

acceptable?

MR. NUTTER: Yes.

Q (By Mr. Kellihan) What is proposed by the applicant in Case 4642?

A Our proposal, as shown on the Entrada structure map of Media dome.

Q That has been marked as Exhibit No. 1?

A Yes.

Q I see.

A --is to form or to obtain for 160 acre tract as shown by the red outlines on the map.

Q What is the purpose of the four 160-acre tracts?

You are applying, first of all, for 160 acre spacing in this pool?

A That is correct.

Q You are also applying for a pressure maintenance project?

A That is right. The purpose here is we are finding that our production on the crest of this structure is easily producible, and the sands are in the form of a channel or a trend of a beach trend in the Entrada sand, and are irregular in their currents.

In other words, it is suffering from a direction, probably from northeast to north, curve.

We do feel that we can drain 160 acre tract adequately by producing from the crest of the structure or

close to it, as well as by injecting produced water down on the flanges of the structure.

These four 160 acre tracts are where we feel that initially we have our present known oil reserves, and they may be added to it later.

Q Do you anticipate further development in this pool?

A Yes, we do. The red dots on the structure map are tentative locations, and also the access trend goes south west from the crest of the structure axis, and may have additional locations on it.

MR. NUTTER: You would anticipate productive wells. Are you talking about injection wells?

THE WITNESS: These red dots represent both possible productivity and injection wells.

Q (By Mr. Kellihan) Now, in the four 160 acre units outlined, those two cross section lines, do they not?

A Yes, in the two south tracts they cross the section line into the northwest quarter of Section 23 and the northeast half of Section 22. That would be the north half of the northwest of Section 23.

Q Would you describe the other units, please?

A This unit to the--part of the north half of Section 23 in the northwest north half of the northwest of 23 has the south half of the southwest quarter of 14 included in it, and the southwest 160 acres has the south half of the

southeast of Section 15 and the north half of the northeast of Section 23.

The other, the northeast 160 has the northwest, has the north half of the southwest and the south half of the northwest.

The northwest 160 has the south half of the northeast of Section 15 and the north half of southeast of Section 15.

Q Now, has that area been substantially developed on 160 acre spacing? Do you have more than one?

A No, the present development pattern has been on 40 acre spacing.

Q I see.

A However, there has been presently the number 2 Fluid Power Pump located in the southeast of the northeast of Section 15 would be the first well on this projected 160 acres in the northwest.

Q Would you propose to dedicate each 160 acres to one well?

A Yes, we would.

Q Now, what proposed injection wells do you show on there, Mr. Reese?

A Our present proposed injection wells are outside of this recommended area.

However, if we find that these, that our position does not extend past these four 160 acre tracts, we are proposing

that the Fluid Power Pump No. 2 be converted into injection.

This well at the present time is still testing.

We are setting a pump check on it, and the well is 30 feet to 3 foot structurally to the crest of the structure, and we don't know yet what the well will do.

It is making some oil.

If it should be a marginal well, we propose to convert to an injection well.

If it is to three hundred barrels a day producing, we would no doubt produce it and drill another well to the north and west of it in the same 160 acre tract, or possibly go up to recommended location to the north of the 160.

Q For that reason, do you need an Administrative Procedure for your expansion of the proposed pressure maintenance project area?

A Yes, we would. If we continue to drill outside of this area, we would need Administrative approval on it.

Q How about down to the south now, what are your plans?

A Our plans there on the projected location in the northwest northwest of Section 23 is to drill this well, and if it doesn't encounter production, that would be converted to an injection well.

However, if it became productive, we would then move further south to the southeast of the northwest of 23 and

drill an injection well.

This would need Administrative approval to include that.

Q How about to the east and west of the unit, do you plan to drill any injection wells?

A The well we are considering at present would be a close-in well between No. 2 Hutchinson Federal and the Federal Media No. 2 in the northeast of the southeast.

This well would be drilled primarily to obtain high production and to confirm a sand trend extending southeast from the crest of the dome.

If this sand trend were confirmed, we would then project the locations southwestward, and then outside of the proposed area we would be following the trend of the access.

Q There again you might need Administrative Procedure for expanding the project area?

A Right.

Q Now, referring to what has been marked as Exhibit No. 2, would you identify that exhibit, please?

A This exhibit is an acreage ownership map of the same area, and shows the ownership of Fluid Power Pump Company, the acreage ownership of Fluid Power Pump Company.

The acreage is located primarily in Township 19 North, Range 3 West, Sandoval County, New Mexico.

The same outline of the four 160 acre tracts is pencilled in in red on this map, and it shows that the acreage is owned one hundred percent by Fluid Power Pump Company.

The acreage is all Federal acreage.

The lease numbers are noted on the map, and the same wells are noted on the map as on the structure map.

There is one open KGS tract consisting of 40 acres in the southwest of the southeast of Section 14.

Q That KGS, that is Federal acreage?

A That is Federal acreage.

Q It is unleased?

A It is unleased.

Q The only difference between the proposed project area and the acreage off-setting would be in the overriding royalties; is that correct?

A That is correct.

Q Would all of the royalties be protected under the proposals you have made for development of this area?

A Yes, it would. We would propose to--

Q They would share in production?

A They would share in production under the 160 acre units.

Q As you propose to dedicate?

A Yes.

Q Do you also contemplate unitizing this area for the

development of your pressure maintenance project?

A Yes, we do. We are proposing to follow up this with a proposal for unitization of the approximate, almost the same area or the same area unless by drilling we add to it, which we would add to the area.

However, we do propose to follow this up.

MR. KELLAHIN: That is all.

MR. NUTTER: We will take a brief recess at this time.

(Whereupon, a brief recess was taken.)

MR. NUTTER: The hearing will come to order, please.

DIRECT EXAMINATION
(CONTINUED)

BY MR. KELLAHIN:

Q Mr. Reese, referring to what has been marked Applicant's Exhibit No. 3, would you identify that exhibit, please?

A This is a cross section of the northwest-southeast Cross Media Dome, Title B, Prime B, Double Prime.

It is composed of three wells, Fluid Power Pump Company No. 2, located 2.310' feet from the north line, 330' feet of the east line of Section 15.

Fluid Power Pump Company No. 1, located 330' feet from the west line, 1,980' feet of the south line of Section 14.

The Beard No. 1 Well, located 1,650 feet from the west line and 1,980 feet from the south line, the upper part of

the cross section is the indux electrical logs.

In the lower half is composed of formation density logs.

The distances between these wells is 1,130 feet and 1,320 feet.

Well depths are approximately 5,300 to 5,350 feet.

As shown on the cross section, the gray colored area is shale and then the middle blue colored area is limestone and gypsum.

The lower pattern is Entrada sandstone, and the limestone and gypsum are Todilto in form.

There is a complex interfingering of the limestone-gypsum and sandstone with the Todilto and Entrada.

The Fluid Power Pump Company No. 1 well is located on the crest of the structure and has 45 feet of saturated oil sand above the oil-water contact.

While the No. 2 Fluid Power Pump well off the northwest flange has approximately twelve feet of saturated sand on to the east, the Beard well, where the limestone and gypsum has thickened, there is approximately three feet of satura- tion.

The lower part Gamma Ray density logs show the porosity, which the porosity checks very well. The porosity is indicated on the right hand side of the logs. There is a porosity scale attached on the middle log showing the

porosity indices of approximately between 23, 24 percent in the sandstone porosity.

I might add, too, on the upper half of the log the perforation in the wells for completion are noted.

For example, the No. 1 Fluid Power Pump well was perforated for 48 feet to a distance of 5264 to 5254.

Q Now, referring to what has been marked as Exhibit No. 4, could you identify that exhibit, please?

A Exhibit No. 4 is the north-south cross section titled A Prime A, double prime, and consists of the same two wells.

Again, the Fluid Power Pump Company No. 2 on the north end of the cross section, of Fluid Power Pump Company No. 1, and then coming southward, the Federal Media No. 1, and further south, Federal Media No. 5, again, it is noted on these cross sections the thickening of the limestone and hydrate section in the No. 5, which completely cuts out the top of the sand in this well.

And through the sand down to a plus 1538, which is the datum for both cross sections.

Again, you can see the interfingering, and the Fluid Power Pump Company No. 1 well is the highest structural well, with the thickening of the limestone in both the Fluid Power Pump Company No. 1 and Federal Media No. 1, and the thickening in the No. 2. Part of the reason why the Fluid Power Pump Company No. 2 well is structurally low in

the sandstone is due to the thickening of the anhydrate limestone section.

The thickening increased from 18 feet in the Fluid Power Pump Company No. 1 to 28 feet in the Fluid Power Pump No. 2 well.

This cross section shows the drill stem test taken on the Federal Media No. 1, which it shows initial flow pressure in fifteen minutes of 634 pounds, and final flow pressure in two hours of 1,674 pounds, and an initial closed-in pressure in thirty minutes of 2,020 pounds, and a final closed-in pressure in one hour of 2,020 pounds.

The cross section also shows a core on the Gamma Ray part of the section in the lower half.

The core analysis showed 24 feet of oil saturated sand with an average of 23.3 percent porosity in the Entrada sandstone.

The upper part crossed eleven feet of the Todilto limestone and seven feet of this eleven feet was saturated with oil.

The porosity was about 3 percent and the limestone anhydrate section was saturated with oil.

For this reason, an estimated two percent additional porosity was assigned in reserves to the Todilto-Entrada section because of fractures.

These are fractures both open and closed type

fracture. Some are very small and some are large, that you can see.

Q But, your main producing formation is the Todilto sandstone?

A The Entrada sandstone.

Q Entrada sandstone?

A Right. It contains the most reserves, the reserves in the Todilto section are minor.

Q But, you are producing from the Sandstone primarily?

A That is right.

Q Could you recognize this reservoir as a type of formation?

A This reservoir is both a combination structural dome type reservoir, where there is a large nose media dome extending northward on the South Blanco, there is a thickening of the Todilto section, which is helping to trap the oil on the outside of the structure against the regional dip upward toward the south.

So this is a combination structural and stratographic trap.

Q Are the wells you are presently producing being pumped?

A Yes, they are all. There is no gas produced from this oil.

There isn't even enough gas to run a pump-jack.

Q Well, what is the producing mechanism then in this reservoir?

A It is a water-dried reservoir. We do produce from approximately four, three barrels of water and one barrel

of oil.

Q On the basis of your experience, has there been any decline in the fluid level in these wells?

A No, there hasn't been. It has been very minor.

Our engineers take continuous fluid level surveys, and we find very little change in the fluid.

Q How much water are you producing?

A We are producing at this time approximately 750 barrels a day, better than 2,000 barrels of water a day.

Q Now, you consider this an active water-drive; is that right?

A Yes, I do, and it has excellent pressures, as shown by the drill stem test.

Q Have any of these wells been cored?

A Yes, there has been five of them cored.

Q Five of them cored?

A Yes.

Q That information is available if the Commission desires it?

A Yes.

Q What permeability does the cores reflect?

A An average of approximately very close to 300 milidarces per foot in the Entrada sandstone.

Q With that kind of a permeability and with an active water drive, in your opinion will one well adequately drain and develop 160 acres?

A I believe it will.

The effect of our heavier and increasing pumping here in the last two months hasn't affected the fluid levels, and I don't--the total milidarces in some of the cores is as much as 10,000 milidarces.

It doesn't seem to be anything that can hold back the fluid.

Q What is the gravity of the oil?

A The gravity of the oil is, as stated on the Permean Statement, thirty-two and a half gravity.

Q In your opinion, will this type of reservoir lend itself pressure maintenance by injecting water onto the flanges?

A I believe it will. We will get a better sweep of the oil from the flanges of this due to the high permeability.

Q Do you think there would be any loss of ultimate recovery due to not injecting water on the flanges?

A There could be, there could be some oil left.

Q Now, referring to what has been marked as Exhibit No. 5, would you identify it and discuss that exhibit, please?

A Exhibit No. 5 is a compilation of well histories. That shows the wells drilled in the Media dome area; when they were drilled; the formation type; and casing records, if any.

The first wells drilled in this area were drilled by Magnolia Petroleum Company, and they drilled three wells

and then left the area.

Then this was followed by drilling by Fluid Power Pump Company, and there were several wells drilled by one by two by Beacon Co., Incorporated.

I won't try and go into detail on this well history.

However, if there is any question on it, I will be glad to go back through.

Q Referring to what has been marked as Exhibit No. 6, would you identify that exhibit?

A Exhibit No. 6 is a statement for December of 1971.

Prior to December we asked the Commission for permission to produce our No. 1 Fluid Power Pump Company well over the allowable in order to try and determine the size of the well, and as a result of their giving us this allowable test, test allowable, why this statement shows a shipment of oil in December which totaled in gross value was $22,250.75 from the Fluid Power Pump Federal Media No. 1 well, and the No. 2 wells on the second page, the producing from the Fluid Power Pump Company No. 1 well, gross value of this is $34,967.65.

This production was obtained from 10,564 barrels of oil shipped during December.

Q Was this information indicated, that a well would be capable of producing the allowable that would be assigned to a 160 acres in this pool?

A Yes, this number one Fluid Power Pump Company well is capable of producing an allowable.

Q For a 160 acres?

A For 160 acres.

Q Referring to what has been marked Exhibit No. 7, would you identify that exhibit?

A Exhibit No. 7 is production information on the wells that have produced from the Entrada and the Media--they are listed No. 1 Media, 2 Media; the 4 Media, and then I don't see the new well, but our producers, the date of completion is noted, and some remarks.

The attached pages to the summary sheet show the detailed month by month production of the wells.

There has been quite a few months when we haven't produced, and this has been due to changes being made in the company, and financing.

At the present time the Fluid Power Pump Company is undertaking to bring these wells to a high rate of production.

Q Now, referring to what has been marked as Exhibit No. 8, would you identify that exhibit?

A Exhibit No. 8 is an estimate of oil reserves.

This reserve was made approximately in June of 1970, and I haven't made a new one because we were still testing on the Fluid Power Pump Company No. 2 well and the No. 4

Federal Media well, and due to the complex interfingering of this limestone and sandstone, at this time I don't know whether this present reserve estimate should be decreased or increased.

However, the reserve estimate is submitted so as to give you some idea of the reserves.

On the last page of this summary, the Entrada sandstone net sand thickness is 21 feet calculated stock tank barrels per acre.

Net sand thickness is 21 feet.

In the Entrada sandstone the calculated stock tank barrels per acre foot in place is 995 barrels, and the calculated stock tank barrels per acre is 20,895 barrels.

The overlying Todilto thickness is 25 feet, with a calculated stock tank barrels per acre foot in place of 222 barrels, and the calculated stock tank barrels per acre in place is 5,550 barrels.

The total reserves on the Entrada-Todilto formation under 469 acres is calculated at 11,001,120 barrels, and using a 33 percent recovery factor, this recoverable oil is estimated at 3,630,370 barrels.

This reserve figure is subject to either addition or deletion in our wells.

Q Were Exhibits 1 through 8 inclusive prepared by you or under your supervision?

A Yes, sir.

Q At this time I would like to offer in evidence Exhibits 1 through 8.

MR. NUTTER: Applicant's Exhibits 1 through 8 will be admitted in evidence. That completes the direct examination of this witness.

CROSS-EXAMINATION

BY MR. NUTTER

Q Mr. Reese, on this last exhibit you were talking about your reserves, actually the reserves are based on all of the wells that you show your average thickness in Table 2 on this exhibit?

A No, at the time the Beard well was not drilled. This reserve was at that time, and the Fluid Power Pump Company No. 1 well was not drilled, nor the No. 2 well.

Q The Beard well shows three feet of takes.

A That is, I believe we lost some reserves and gained some on the Fluid Power Pump Company No. 1.

Q One would increase the average and one would decrease, so they balance out?

A Yes.

Q What did you estimate your recovery factor at, 30 what percent?

A One-third, 33 percent.

This may be somewhat low for water-drive. However,

it seemed to be a reasonable figure.

Q Well, now the bulk of production to date, not counting the old production--well, first of all, we have the production from the old Hutchinson Well No. 1 and No. 2 that Magnolia drilled, and shows two wells together producing something less than 20,000 barrels.

A That is correct.

Q They were abandoned back around 1958?

A That is right.

Q Since then you have completed your Federal Media No. 1, and according to one of your exhibits, I believe, it indicates you produced about 64,000 barrels out of it?

A That is right, 63,947 barrels.

Q You have produced something like 33,000 barrels out of the Fluid Power Pump Company Well No. 1?

A Fluid Power Pump Company No. 1 well--no, let's see. We have produced, last month's production, December production was, or actually oil sold was 10,000.

Q I was going by your Exhibit No. 7, Mr. Reese, and it indicates about 13,000.

A Well, that is it. I don't seem to find that Fluid Power Pump No. 1, but I know that is about right.

Q Then the Federal Media No. 2 apparently has produced around 13,000 barrels; is that correct?

A Yes.

Q So not counting the old Magnolia production, the bulk of your production has come from the three wells, the No. 1 and No. 2 Media and the No. 1 Fluid; correct?

A That is correct.

Q But in determining your area, your triangular area for reserve calculations, it goes beyond those three wells.

Now, was it considered that the Hutchinson No. 1 and No. 2 were depleted prior to the time they were abandoned back in '58, or why were they abandoned?

A I don't know the cause for their being abandoned. I believe quite a lot of it had to do with the isolation of the area and the price of the oil, the distance they had to haul the oil. They would have to haul it clear over near Gallup through Albuquerque, and as far as their being depleted, they weren't depleted, or at least I didn't consider them depleted.

Q Certainly. Between the No. 1 and No. 2 is the location of your No. 1 well.

A That is correct, and the well came in 13 feet high to the old No. 1 Hutchinson well.

MR. PORTER: Mr. Examiner, it might be well to ask the witness what was the daily production of those old wells in '58, approximately.

THE WITNESS: I don't really know. I know that they were probably produced intermittently, especially during bad

weather, and due to the difficulty they had in transporting the oil by roads, there were no paved roads in there at that time.

MR. PORTER: Then low productivity probably was a factor in the determination to abandon the well?

THE WITNESS: I think it was.

MR. PORTER: As well as distance from the market?

THE WITNESS: That is right. I believe it had a great deal to do with it.

Q (By Mr. Nutter) Which well do you currently have on production?

A Fluid Power Pump Company No. 1 well, the Federal Media No. 1, the Federal Media No. 2.

Q So you do have these wells producing?

A Yes, we have the Federal Media No. 4, which we are contemplating working over, and will be covered later.

Q Do you think you have a well in the Beard No. 1?

A I think it is very questionable. We have produced some oil there.

The swabbing rates that we are able to obtain are not high enough to bring in any appreciable oil in the three feet of saturation, it is pretty thin in it.

Q Do your swab tests reveal quite a bit of water?

A Yes.

Q You are so close to the water-oil contact?

A Yes.

Q How about this Fluid Power Pump Company No. 2 up here?

A We have swabbed that well, and we are presently installing a large pump jack on it, and will pump it, the pump jack will be capable of lifting about, I believe, 4,000 barrels a day, and if we get 10 percent or better in the oil, we will consider it economic.

If not, it will make a good injection well.

Q Well, now, it actually has quite a bit--it has got 12 feet of sandstone?

A Yes.

Q But have you previous tests on it been mostly water?

A We have recovered a large percent of water, and we have not measured the oil.

We have been able to visually see it as it comes out on the pit, but we do need to test it at a high rate.

Q What you are doing now is installing the equipment so you can get some high capacity pumping on it?

A That is right.

Q Now, as I understood you, Mr. Reese, it is your proposal to drill the water injection well way up here at the top end of your Exhibit No. 1.

Up there at the top near your ten and eleven you have got two injection wells zoned; is this correct?

A Yes, our proposal at present is to concentrate on the four 160's, and then at a later date we will drill the closure

in the plus 1,600 contour.

Q Well, actually if we refer back to those four 160's, then you currently have a producing well in--first of all, the one in Section 14, being the south half of the northwest and the north half of the southwest. We will call that Tract No. 1, and then directly west of it in Section 15, we will call that one Tract No. 2, and then coming south, that unit would be Unit No. 3, and east of that would be Unit No. 4.

Now, Unit No. 1 there, Mr. Reese, already has a well on it; correct?

A That is correct, Fluid Power Pump Company No. 1.

Q You are experimenting with Beard No. 1, and still attempting to complete it?

A Yes.

Q That would be the second well on that unit? You would have a two-well unit?

A Well, we may convert that to an injection well in the Entrada because it is structurally low. Our hesitation there is that it is pretty close to the No. 1 well.

Q Then going to Tract No. 2, you already have a well that you are experimenting with and going to put the high-lift equipment on that?

A Yes.

Q That would be your No. 2?

A Yes.

Q You mentioned you were going to drill a well, which is the one, I presume, shown by the red dot by the Southeast, southeast of that proration unit.

A That is correct. If we should find that the No. 2 well is a top allowable 160 acre well, we probably wouldn't drill that well.

Q I see.

A We don't know yet. We are at the point where we really don't know what the No. 2 will do.

Q But, if you don't make a good well out of it, then you would drill this one?

A Yes, we would drill that one.

Q The Southeast, east of that proration unit?

A Yes.

Q Then with respect to Tract No. 3, you have your Federal Media No. 2, which is a pretty good well. Was this well directly west of it?

A That would be the location that we would drill to bring that 160 acres up to the top allowable in there and extend our reserve in there.

Q Then with respect to No. 4 unit, you have got the Federal Media No. 1, which is the best well in the pool as far as past production is concerned. And then you mention that you are still trying to complete Federal Media No. 4

directly east of it, which has made a small amount of oil in the past?

A Yes.

Q Doesn't it actually look like one of your units has one well, you are proposing to drill--shouldn't you be speaking of 80 acres rather than 160 acres?

A One reason we are proposing to drill additional wells in the Field, Media No. 1, and the No. 2, the Federal No. 4, all have 4 1/2" casing in them.

We have changed these down.

We have changed the down-hole pumps in them, and we have increased the production from the wells, which time we have made a change, and we are almost at the maximum of what we can produce out of those wells with that size casing in it.

That is one reason why on those wells we were considering coming back and drilling an additional well on the No. 3, on the No. 4, the well log, the core analysis indicate eighteen feet of saturation, and we don't know at this time why it is not producing, except we can't lift the volume.

Q The No. 4?

A On the No. 4.

Q Is it on any of your cross-sections?

A No, it isn't. It is shown on the structure map.

Q Well, it is as low as the Beard, anyway, isn't it?

A Yes--well, it is six foot lower than the No. 1 Federal Media

right to the west.

Those three wells are almost level to Todilto, and the No. 2A produces 1,603; No. 1 Federal, plus 61602; the No. 4 is plus 1,596.

They are remarkably flat right across there.

Structurally the wells should be a producer.

Q Well, now, Mr. Reese, you are not seeking approval for these non-standard proration units at this Hearing, are you?

A You mean where they cross the section line?

Q If the Examiner please, I think it would probably be necessary, as far as they are concerned, to re-advertise the case.

MR. NUTTER: I don't believe they are included in the call to the Hearing.

Q They are not included in the call to Hearing, so I think it would probably be necessary to re-advertise it for that purpose.

However, we would like to submit the testimony on it at this Hearing.

MR. NUTTER: Then the remaining exhibits that you present to us will be presented by another witness.

Are there any further questions of Mr. Reese?

Q Mr. Reese, on the basis of your experience as a producer in this area have you found any reason for producing these wells at high rates on a continual basis?

A Yes, when we first started, like this No. 1 Federal Media, we'd set one 60 pump jack and 4 1/2" casing and we figured on calculated we would lift about 150 barrels of oil per day.

We found with the oil per cent of water that we were producing that we needed to increase that volume in order to make it commercial, and it has been a constant change of equipment too up to these higher rates.

With this type reservoir we don't seem to touch the reservoir capacity with the higher rate production, and we are bringing this into a commercial picture.

Q You found no evidence of water encroachment as a result of your high producing rates?

A No, we haven't. Our fluid levels are remaining approximately at 600 to 700 from the surface and our main problem has been getting big enough equipment.

Q That is all I have, Mr. Nutter.

MR. ARNOLD: I have one.

MR. NUTTER: Mr. Arnold.

CROSS-EXAMINATION

BY MR. ARNOLD

Q Do you have a structure contour map, Mr. Reese, on this area on the base of the Green Horn?

A No, I don't have one.

Q I was just wondering if this structure reflected in the

shallower formation, or do you think this is primarily a stratographic build up or a structural build up?

A One reason why I have all these plus datum on the various formations on the structure maps is to check that question, and I find in the shallower horizons, like the Gallup, that they are a large broad nose, and it does not reflect the underlying structure of the Entrada.

The data doesn't reflect it, nor any of these plus datums.

I find also that there is difference in total thicknesses of the formation, for instance, from the Entrada there is a thick area across the southern part of this, and the thin area up in this interval changes from a thousand feet to 1,110 feet, but overlying formation and--no doubt the green arrows would not reflect the underlying structure.

Q Do you think this primarily is a stratographic or a structural trap?

A It is primarily structural trap with a large upward arching of the Media Dome, and the stratographic trap conditions on it are right for concentrating the oil with a trap on the south side, with a thickening of the limestones as shown on the cross-section.

Q That was the reason I was asking the question.

There seems to be a relationship between limestone thickness, in a position on the structure, as if this

portion were high at the time of the deposition of this limestone.

A There could be, that could be an old structure, buried structure.

Again, it could be the deposition of the sandstone at the same time on the flanges, would be the deposition of gypsum and limestone, but the fact that sandstone was deposited would indicate that it might have been high during a Torisic or older times, and then buried by the younger sediment.

MR. ARNOLD: That is all I have.

MR. NUTTER: Are there any further questions of the witness?

MR. PORTER: I have a question, Mr. Nutter.

I believe you mentioned the figure of 2,000 barrels a day of water production.

THE WITNESS: Yes, that is approximately what we are producing.

MR. PORTER: That is for the whole pool, all of the wells in the pool?

THE WITNESS: No, it isn't. I probably stated that too low.

I was taking oil production at about 750 barrels a day. That would be 25 per cent, or one-fourth, and it is probably--

MR. PORTER: About 3,000?

THE WITNESS: About 3,000, yes, sir, correct.

MR. PORTER: What are you doing with that water at the present time?

THE WITNESS: We are pumping it into the No. 5 Federal Media well to the south, into the horizon.

MR. PORTER: It is not going back into the same producing formation, but it is being injected?

THE WITNESS: It is being injected. We are producing it into the--we plug the No. 5 back to 3,380 feet and fractured the Gallup with a large fracture treatment and tried to produce it.

We made some oil, and since it had this discharge fracture treatment, it looked like it would be an excellent zone to inject into, and we applied for approval on that.

MR. PORTER: I see. Now, I missed some of your testimony earlier about the characteristics of the oil here. Are you producing this oil directly into storage today?

THE WITNESS: Yes, we are, to 300 barrel tanks.

MR. PORTER: And--

THE WITNESS: And 400 barrel tanks.

MR. PORTER: Is it necessary to move this oil in a hurry, I mean, get it out of storage?

THE WITNESS: Yes. That is a good question, because this oil does have a high pour point. It is about 90°, and prior to our insulating the tanks all of the lines, while we had

to heat the tanks with steam generators, and using butane, which is very expensive.

We have now cut our costs of heating the tanks, and since we have insulated the lines in the tanks, the temperature in the tanks is about 138°, and on the logs, the bottom hole temperature recorded on the logs is around 135°, so we are actually getting formation temperature and serving that heat through the insulation right into the tanks, and it is saving us a lot of fuel, and it is making it much easier to transport the oil.

We transported 80 truck loads last month with no trouble on the oil consolidating in the tanks.

MR. PORTER: So, your insulation has worked?

THE WITNESS: It has worked, beautifully. It is about two inches thick.

MR. PORTER: Have you had difficulty transporting the oil out as far as road conditions are concerned?

THE WITNESS: Yes, we have some, as per usual, cloud bursts, and our roads become very muddy, and we have constructed a new road into the area that has stood up in this bad weather.

MR. PORTER: But the volumes that you were producing there, could there be a possibility on account of the road conditions sometimes you might have to shut the well down?

THE WITNESS: We were faced with that, and we did lose some production because of transportation. We couldn't get the trucks out and in without having a bull dozer there.

MR. PORTER: I see. And whereis this oil being trucked to?

THE WITNESS: It is being trucked by Permean, part of it is going to the Vistee Field, where it is being mixed with the migrating Gallup oil.

Part of it is going into Bloomfield, right into the Shell station there.

MR. PORTER: Where is the Vistee Oil Company?

THE WITNESS: It is at the north end of the Vistee Field. I think it is near the plant. Permean has a station there.

MR. PORTER: Eventually, does it go into the Shell, the Fourt Corners pipeline?

THE WITNESS: Yes.

MR. PORTER: Thank you.

MR. NUTTER: Any other questions of the witness?

You may be excused.

MORRIS B. JONES

a witness, having been first duly sworn according to law, upon his oath, testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Morris B. Jones.

Q What business are you engaged in?

A Consulting petroleum engineer in Albuquerque.

Q In connection with your work as a consulting petroleum engineer have you done any work for Fluid Power Pump Company in regard to Case 4642?

A Yes.

Q Have you ever testified before the Oil Conservation Commission or one of its Examiners and made your qualifications a matter of record?

A Yes.

Q Are the witness' qualifications acceptable?

MR. NUTTER: Yes.

Q (By Mr. Kellahin) Mr. Jones, referring to what has been marked as Applicant's Exhibit No. 9, would you identify that exhibit?

A That is a summary of the drill stem tests taken on the Entrada Formation on four separate wells in the Entrada area, and the main reason for this is to show the consistency of the shut-in pressures which the +2,000 or 2,010 seems to be a consistent pressure on the Entrada Formation through this area.

Q That is consistent with an active water drive reservoir, is it?

A Yes.

Q Referring to what has been marked as Exhibit No. 10, would you identify that exhibit?

A After we completed these wells we ran fluid level surveys to see how our reservoir pressures held up, and the rate of production indicated there had been no appreciable drop in the fluid level since we started producing the No. 1 well, Fluid Power Pump No. 1, at the bottom of the sheet shows a lower fluid level, but I think this is because of the high rate of producing in this well.

We have seven casings set in No. 1, and three and 3/4" down-hole pump. We are capable of lifting approximately three to four times the amount of fluid that we are from Media 1 and 2.

However, Media 1 and 2 are probably capable of this same fluid, but mechanically because of the casing size we are not able to do it.

Q In your opinion, if the Fluid No. 1 well were shut in, would that fluid level stabilize at the same level as the other well?

A Yes, we are sure it is a consistent level because we have a rod and tubing pack in this well. We have shut down the fluid within about 100 feet of the surface, and it seems to be at a constant level.

Q Referring to what has been marked as Exhibit No. 11, would you identify that exhibit?

A That is the water analysis. This is produced into the Gallup and the analysis is made by the New Mexico State

University, and their comment here is that it is not water that is usable for any other purpose, such as irrigation.

Q Now, that water would be re-injected into the Entrada Formation if this Application was approved; is that correct?

A That is produced Entrada water and would be re-introduced into the Formation.

Q That would be compatible, of course, with the Formation?

A Yes.

Q Referring to what has been marked as Exhibit No. 12, would you identify that exhibit?

A This is an analysis of the produced Entrada well. This is a faulty base crude oil with a pour point of nine, or 90, or 92°, absolutely no gas with it, none produced at all.

We have 100 per cent water drive reservoir.

Pour point asphaltic base oil.

Q What is the gravity?

A Corrected to 60°. It is 32.5 API gravity.

Q Now, Mr. Jones, you are familiar with the operation in this pool, are you not?

A Yes.

Q You have been out there and examined these wells?

A Yes.

Q Is there a difference in the casing in the various wells?

A Yes, the original wells of the three producing wells, Media 1 and 2, have 4 1/2" casing in it, and the most recent

completion, which is Fluid Power Pump No. 1, has 7" casing; and the reason for this is mechanically we need to be capable of lifting a large volume, and in order to economically dispose of the water.

Q Now, what volumes of water are you producing?

A At this time 2,500 and 3,000 barrels a day from three wells.

Q You would anticipate this might increase, would you not?

A Over a period of time so far, we don't show any increase. If we had additional wells, of course, we will have additional water.

Q You have no increase in water production in the present wells?

A Not that we can tell.

Q Which would indicate there has been no water encroachment on the high on account of the high production rate?

A That is correct.

Q The main reason for the high production rate is economic, as I understand your testimony?

A Yes, two reasons: One, in order to dispose of the water, the water disposal cost is pretty much in fixed amount. The more we dispose of, of course, the less price per barrel; second, on the point that Mr. Porter brought up earlier, if we produce at low rates and this oil stays in the tanks for two or three days before it moves, before we would have a load, and it tends to jell on us and we can't

get the oil from the tanks, so we need to keep the GA rate of hot oil going into the tanks to keep them so it would be fluid and can be moved.

Q You heard Mr. Reese' testimony in regard to the porosities and permeability and the active water drive.

Are you in agreement with his conclusions there?

A Yes.

Q In your opinion, in a reservoir such as this, will one well adequately drain and develop 160 acres?

A Yes.

Q Will this reservoir be suitable for pressure maintenance projection as outlined by Mr. Reese?

A Yes, I believe so.

Q Do you think that will enhance the production from the reservoir?

A Yes, I think it will give us a better sweep of the area.

Q If there is not, do you believe that there would be oil left in the reservoir that could be recovered?

A Yes, it is possible with a reduction of pressure that we could leave the trapped oil.

Q Now, you have examined the date on Exhibits No. 10, 9, 11, 12; have you not?

A Yes.

Q In your opinion, do they reflect the information they purport to show?

A Yes, they do.

MR. DURRET: I would like to offer Exhibits 9, 10, 11 and 12.

MR. NUTTER: Exhibits 9 through 12 will be admitted in evidence.

CROSS-EXAMINATION

BY MR. NUTTER

Q Mr. Jones, Exhibit No. 10 is a sheath of tests on the various wells to determine fluid level, etc. There is no volume given.

Could you give me a recent test on each of the wells and the volume of oil and water that has been produced on those tests?

A I can give an approximation.

Q Well, as long as you can.

A On No. 1 and 2, producing into a common tank battery, and all of these I can give you the oil production and water production, as approximately three times that amount.

No. 1 and 2 together produced between 240 and 280 barrels.

I believe the No. 1 well would be responsible for 140, and No. 2 would be 100 barrels on the Fluid Power Pump No. 1.

Q How much water?

Don't you have any actual tests on these wells, Mr.

Jones?

A I have just been there the last three or four months when the wells were shut down. This 140.

The tests on the individual wells, which have an approximation on the water of a 3 to 1.

We put meters on our water, but it is from the two combined wells.

Q But, all of these tests that have been made to determine these Fluid wells, they didn't measure up to your production coming out of the wells while they were doing it?

A No, we shot these fluid levels in the annulus with the wells shut-in or just shut-in, and then showed to the Fluid well.

Q You didn't know the rate that the well actually was producing other than this 140 barrels, and this 100 barrels, just approximately?

A Between 1, 2, that approximation is within, well, just a smaller percentage of them, because if one well is down, the No. 1 well, it is hard to establish a rate, because we have been trying to have larger and larger equipment.

At the present time it is producing 20 to 22 barrels of oil per hour, with 60 to 70 barrels of water per hour.

That is with the latest pumping equipment we have.

We have reduced it because we got to the point our pump equipment was so large it wouldn't fall. We were

producing 600 barrels of oil and 1,800 barrels of water.

Q How Fluid Power Pump Company No. 4?

A No. 4 hasn't been produced.

Q That is the one that sits over to the east there, and it is not producing, right?

A Right.

Q Now, this water-oil ratio that you mentioned three times as much?

A It applies to all the wells. It is a consistent ratio. We put meters on the 1 and 2 water outlets and on the Fluid Power Pump No. 1, and adjusted for small variations during the day, it comes out to a consistent 3 to 1 on all wells.

Q Are there any other questions of Mr. Jones? You may be excused.

Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: Just a moment, please, sir. One other question.

Q (By Mr. Kellahin) Mr. Jones, have you had any problems with sand in connection with these high rate pumps?

A Yes, we have. That is one reason we have had to remove the pump from the Fluid Power Pump No. 1.

We are pulling in sand into the well stream, and it is cutting our pumps.

Q What do you plan to do about that?

A We now have sand pumps or a Barton Ring Plunger pump. We

have just run back into No. 1, that should, if not remedy the problem, at least slow it down.

MR. KELLAHIN: That is all.

MR. NUTTER: Does anyone have anything they wish to offer in Case 4642?

I do have a letter I would like to read in its entirety into the record.

It is from Richard S. Morris of Santa Fe, with the law firm of Montgomery, Federici, & Morris. I will let you copy it.

January 17, 1972

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

Attention: Honorable Elvis A. Utz, Hearing Examiner

Re: Case No. 4642, Application of Fluid Power Pump Company for Special Pool Rules and a Pressure Maintenance Project, Sandoval County, New Mexico; Examiner Hearing of January 19

Gentlemen:

This firm represents Mrs. Billie Robinson and Mr. L. Claude Roark, who are the owners of overriding royalty interests in the NW/4 of Section 23, Township 19 North, Range 3 West, Sandoval County, New Mexico, which lands lie within the pressure maintenance project proposed by Fluid Power Pump Company in the subject case. Mrs. Robinson and Mr. Roark also own overriding royalty interests in the NE/4 of said Section 23, and in the E/2 NW/4 of Section 22, and in other lands in the vicinity of the proposed pressure maintenance project.

It is our understanding from the application in this case that Fluid Power Pump Company intends to drill a water injection well in the SE/4 NW/4 of Section 23 to be used in connection with its proposed pressure maintenance project covering portions of Sections 10, 11, 14, 15, 22 and 23, Township 19 North, Range 3 West, Sandoval County, New Mexico. Our clients do not own any interest in the lands covered by the proposed pressure maintenance project other than the overriding royalty interest in the NW/4 of said Section 23. At the present time, there is no producing well located in the NW/4

of Section 23, and under the proposed pressure maintenance project a water injection well, but no producing well, would be located on that quarter section.

On behalf of Mrs. Robinson and Mr. Roark, we object to the proposed pressure maintenance project unless the applicant is willing to unitize the project or dedicate proration units across the section line common to Sections 14 and 23 in such a manner as to protect the correlative rights of our clients.

As part of its application, Fluid Power Pump Company seeks the establishment of 160-acre oil proration units for this area; however, the SW/4 of Section 14 already has been developed on 40-acre spacings. In view of the wells that already have been drilled in the SW/4 of Section 14 and the absence of producing wells in the NW/4 of Section 23, we would suggest that a 160-acre proration unit be established consisting of the W/2 SW/4 of Section 14 and the W/2 NW/4 of Section 23. Of course, another alternative for protecting my clients' correlative rights would be for the applicant to drill one or more producing wells in the N/2 NW/4 of Section 23 as direct offsets to the wells in the S/2 SW/4 of Section 14, depending upon what spacing is adopted for this pool.

If necessary for the protection of my clients' correlative rights, we request that the decision on the subject application be postponed until such time as the additional or supplemental applications are filed and heard pertaining to unitization of the pressure maintenance project or the establishment of non-standard proration units covering the SW/4 of Section 14 and the NW/4 of Section 23.

Very truly yours,

/s/ Richard S. Morris

RSM:F

cc: Mr. Jason W. Kellahin
Attorney at Law
P. O. Box 1769
Santa Fe, N. M. 87501

MR. NUTTER: Now, with respect to that last request, Mr. Kellahin, he is asking a decision on the subject Application be postponed until such time as additional or supplemental Applications are filed and heard pertaining to unitization.

Do you know of any Applications that are pending pertaining to this?

MR. KELLAHIN: There are no Applications pending.

We propose to limit the area. We hadn't progressed to the point of having a unit agreement as yet.

The other problem, I think, the acreage involved here as shown by our exhibit will be included in producing 160 acre tracts, as requested by the writer of the letter, Mr. Morris.

Wasn't he saying that they owned the acreage, that they would be dedicating an injection well, but not to any producing well.

MR. NUTTER: That would be true if the injection well were drilled in the south. What would it be in, 23, southeast of northwest quarter. But there will be a producing well in the north half.

MR. KELLAHIN: This is the well that was proposed to be drilled in which Mr. Reese testified to if it was productive, then the injection well would be drilled out of that?

THE WITNESS: That is correct.

Q But, if it wasn't producing, it would be an injection well, it would be an injection well.

A It would be an injection well. I think we would have to go forward with the unitization of the projection in order for everybody to share from the production.

MR. KELLAHIN: Well, they have requested that a decision on the sub-application be delayed until we have got the application or unitization.

We object to the delay in approval of our projection as presented here today for the reason, as we have testified, their interests will be taken care of if that well is drilled and it is not a producer, if it is not a producer, they are not entitled to any production from the point of view there is no oil underlying that tract anyway.

Now, of course, as I stated, I think we will have to re-advertise this case for the approval of these non-standard 160 acre units.

MR. NUTTER: They also request that that--what is the first part of the request--a delay in the order in this sub-application or the subject of non-standard proration units northwest quarter of 23.

I presume that they mean the establishment of the proration units as they are outlined up above in their letter.

MR. KELLAHIN: I would assume.

MR. NUTTER: Which would be contrary to the way you have delineated the proration units.

MR. KELLAHIN: That is correct. However, if they have

something to offer in that, I feel they should have appeared and offered testimony for the record rather than submitting this by letter.

MR. NUTTER: Of course, the non-standard proration units you have proposed here, they are not advertised and not part of this Hearing.

MR. KELLAHIN: They will be part of the next Hearing after we have re-advertised this case, at which time they can propose their proration units also, or object to our proration units.

MR. NUTTER: Does anybody have anything they wish to offer in Case 4642?

We will take the case under advisement and recess the Hearing until 1:15.

(Recess.)

(After recess 1:15.)

MR. NUTTER: The Hearing will come to order, please.

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

I, RICHARD STURGES, a Certified Shorthand Reporter, 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.

Richard L. Sturges
CERTIFIED SHORTHAND REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4642 heard by me on 1/19 19 72.

..... Examiner
New Mexico Oil Conservation Commission

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EXHIBITS

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
January 5, 1972

EXAMINER HEARING

IN THE MATTER OF:

Application of Fluid Power Pump Company for special pool rules and pressure maintenance project, Sandoval County, New Mexico.

Case 4642

BEFORE: Daniel S. Nutter,
Alternate Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: Case 4642.

MR. HATCH: Case 4642, Application of Fluid Power Pump Company for special pool rules and pressure maintenance project, Sandoval County, New Mexico.

The Commission has received a request the case be continued to January 19th.

MR. NUTTER: Case 4642 will be continued.

The examination to be held at this same place, 9:00 o'clock, January 19.

STATE OF NEW MEXICO)
)SS
COUNTY OF BERNALILLO)

I, RICHARD STURGES, a Certified Shorthand Reporter, 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.

CERTIFIED SHORTHAND REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4642 heard by me on 1/5, 1972.

, Examiner
New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION

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

GOVERNOR
BRUCE KING
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

March 15, 1972

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 4642
Order No. R-4277
Applicant:
Fluid Power Pump Company

Dear Sir:

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

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x
Artesia OCC
Aztec OCC x

Other Mr. Richard S. Morris

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 4642
Order No. R-4277

APPLICATION OF FLUID POWER PUMP COMPANY
FOR SPECIAL POOL RULES AND A PRESSURE
MAINTENANCE PROJECT, SANDOVAL COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 19, 1972, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of March, 1972, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Fluid Power Pump Company, seeks the promulgation of special rules and regulations for the Media-Entrada Oil Pool, Sandoval County, New Mexico, including a provision for 160-acre spacing and proration units.

(3) That the applicant has established that one well in the Media-Entrada Oil Pool can efficiently and economically drain and develop 160 acres.

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

correlative rights, special rules and regulations providing for 160-acre spacing units should be promulgated for the Media-Entrada Oil Pool.

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

(6) That the applicant further seeks authority to institute a pressure maintenance project in the Media-Entrada Oil Pool by the injection of water into the Entrada formation through certain wells yet to be determined.

(7) That a pressure maintenance project in the Media-Entrada Oil Pool should result in greater ultimate recovery of oil, thereby preventing waste.

(8) That the applicant should be authorized to institute a pressure maintenance project in the Media-Entrada Oil Pool to be designated the Media-Entrada Pressure Maintenance Project.

(9) That special rules and regulations for the operation of the Media-Entrada Pressure Maintenance Project should be promulgated and said rules and regulations should include a procedure whereby the Secretary-Director of the Commission may approve the project area and production and injection wells for the project at orthodox and unorthodox locations as may be necessary to establish and maintain an efficient production and injection pattern.

IT IS THEREFORE ORDERED:

That, effective March 10, 1972, Special Rules and Regulations for the Media-Entrada Oil Pool, Sandoval County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
MEDIA-ENTRADA OIL POOL

RULE 1. Each well completed or recompleted in the Media-Entrada Oil Pool or in the Entrada formation within one mile thereof, and not nearer to nor within the limits of another designated Entrada oil pool, shall be spaced, drilled, operated,

and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 160 acres, more or less, substantially in the form of a square, which is a quarter section being a legal subdivision of the United States Public Land Surveys.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit consisting of less than 160 acres or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located no nearer than 330 feet to the outer boundary of the proration unit or to any governmental quarter-quarter section line nor nearer than 660 feet to the nearest well drilling to or capable of producing from the same pool.

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

RULE 6. A standard proration unit (158 through 162 acres) shall be assigned a 160-acre proportional factor of 4.33 for allowable purposes, and in the event there is more than one well

on a 160-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 160 acres.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the Media-Entrada Oil Pool or in the Entrada formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Aztec District Office of the Commission in writing of the name and location of the well on or before April 1, 1972.

(2) That, pursuant to Paragraph A. of Section 65-3-14.5, NMSA 1953, contained in Chapter 271, Laws of 1969, existing wells in the Media-Entrada Oil Pool shall have dedicated thereto 160 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 65-3-14.5, existing wells may have non-standard spacing or proration units established by the Commission and dedicated thereto.

Failure to file new Forms C-102 with the Commission dedicating 160 acres to a well or to obtain a non-standard unit approved by the Commission within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the Media-Entrada Oil Pool or in the Entrada formation within one mile thereof shall receive no more than one-fourth of a standard allowable for the pool.

IT IS FURTHER ORDERED:

(1) That the applicant, Fluid Power Pump Company, is hereby authorized to institute a pressure maintenance project in the Media-Entrada Oil Pool, Sandoval County, New Mexico, to be designated the Media-Entrada Pressure Maintenance Project, by the injection of water into the Entrada formation through certain wells to be approved in accordance with the Special Rules and Regulations for the project as set forth below.

(2) That Special Rules and Regulations governing the operation of the Media-Entrada Pressure Maintenance Project, Sandoval County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
MEDIA-ENTRADA PRESSURE MAINTENANCE PROJECT

RULE 1. The project area of the Media-Entrada Pressure Maintenance Project, hereinafter referred to as the Project, shall comprise the proration units upon which are located injection wells and production wells approved by the Secretary-Director of the Commission as injection wells and production wells for the Project.

RULE 2. The allowable for the Project shall be the sum of the allowables of the several wells within the project area, including those wells which are shut-in, curtailed, or used as injection wells. Allowables for all wells shall be determined in a manner hereinafter prescribed.

RULE 3. Allowables for injection wells may be transferred to producing wells within the project area, as may the allowables for producing wells which, in the interest of more efficient operation of the Project, are shut-in or curtailed because of high gas-oil ratio or are shut-in for any of the following reasons: pressure regulation, control of pattern or sweep efficiencies, or to observe changes in pressures or changes in characteristics of reservoir liquids or progress of sweep.

RULE 4. The allowable assigned to any well which is shut-in or which is curtailed in accordance with the provisions of Rule 3 which allowable is to be transferred to any well or wells in the project area for production, shall in no event be greater than its ability to produce during the test prescribed by Rule 6, below, or greater than the current top unit allowable for the pool during the month of transfer, whichever is less.

RULE 5. The allowable assigned to any injection well on a 160-acre proration unit shall be top unit allowable for the Media-Entrada Oil Pool.

RULE 6. The allowable assigned to any well which is shut-in or curtailed in accordance with Rule 3, shall be determined by a 24-hour test at a stabilized rate of production, which shall be the final 24-hour period of a 72-hour test throughout which the

well should be produced in the same manner and at a constant rate. The daily tolerance limitation set forth in Commission Rule 502 I (a) and the limiting gas-oil ratio (2,000 to 1) for the pool shall be waived during such tests. The project operator shall notify all operators offsetting the well, as well as the Commission, of the exact time such tests are to be conducted. Tests may be witnessed by representatives of the offsetting operators and the Commission, if they so desire.

RULE 7. The basic allowable assigned to each producing well in the Project shall be equal to the well's ability to produce or to top unit allowable for the pool, whichever is less. Wells capable of producing more than top unit allowable may also receive transfer allowable, provided however, that no producing well in the project area which directly or diagonally offsets a well outside the project area producing from the same common source of supply shall receive an allowable or produce in excess of two times top unit allowable for the pool. Each producing well shall be subject to the limiting gas-oil ratio (2,000 to 1) for the pool.

RULE 8. By the 25th day of each month the project operator shall submit to the Commission a Pressure Maintenance Project Operator's Report, on a form prescribed by the Commission, outlining thereon the data required, and requesting allowables for each of the several wells in the Project as well as the total project allowable. The aforesaid Pressure Maintenance Project Operator's Report shall be filed in lieu of Form C-120 for the Project.

RULE 9. The Commission, shall, upon review of the report and after any adjustments deemed necessary, calculate the allowable for each well in the Project for the next succeeding month in accordance with these rules. The sum of the allowables so calculated shall be assigned to the Project and may be produced from the wells in the Project in any proportion except that no well in the Project which directly or diagonally offsets a well outside the project area and producing from the same common source of supply shall produce in excess of two times top unit allowable for the pool.

RULE 10. The Secretary-Director of the Commission is hereby authorized to approve a project area and such producing wells and injection wells at orthodox and unorthodox locations as may be necessary to establish and maintain an efficient production and injection pattern; provided said wells are drilled no closer

than 330 feet to the outer boundary of the project area nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided further, that the application therefor has been filed in accordance with the following:

(1) A plat showing the proposed project area, proposed production and injection wells for the Project, and wells and operators that offset the proposed Project.

(2) A schematic drawing of the proposed injection wells which fully describes the casing, tubing, perforated interval, and depth showing that the injection of water will be confined to the Entrada formation.

(3) A letter stating that all offset operators to the proposed Project have been furnished a complete copy of the application and the date of notification.

The Secretary-Director may approve the proposed project area and production and injection wells if, within 20 days after receiving the application, no objection to the proposal is received. The Secretary-Director may grant immediate approval, provided waivers of objection are received from all offset operators.

Expansion of the project area may be approved by the Secretary-Director of the Commission administratively when good cause is shown therefor.

IT IS FURTHER ORDERED:

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

BRUCE KING, Chairman

ALEX J. ARMIJO, Member

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

esr

Docket No. 2-72

DOCKET; EXAMINER HEARING - WEDNESDAY - JANUARY 19, 1972

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

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

ALLOWABLE: (1) Consideration of the allowable production of gas for February, 1972, from fifteen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico;

(2) Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for February, 1972.

CASE 4645: Application of Acoma Oil Corporation for down-hole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Drinkard Pool and Wantz-Abo Pool in the well-bore of its S. J. Sarkeys A Well No. 1, a triple completion, located in Unit A of Section 26, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 4648: Application of Aztec Oil & Gas Company for an unorthodox well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the off-pattern unorthodox location for its Vasaly Federal Well No. 1-Y to be located 790 feet from the North line and 1795 feet from the West line of Section 31, Township 32 North, Range 11 West, Blanco-Mesaverde Pool, San Juan County, New Mexico.

CASE 4625: (Continued from the December 15, 1971, Examiner Hearing) Application of Texaco Inc. for downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Paduca-Morrow and Paduca-Wolfcamp Gas Pools in the well-bore of its Cotton Draw Unit Well No. 65 located in Unit G of Section 2, Township 25 South, Range 31 East, Eddy County, New Mexico.

CASE 4642: (Continued from the January 5, 1972, Examiner Hearing) Application of Fluid Power Pump Company for special pool rules and a pressure maintenance project, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the Media-Entrada Pool, including a provision for 160-acre spacing and proration units. Applicant further seeks authority to

(Case 4642 continued)

institute a pressure maintenance project in said pool by the injection of water into the Entrad formation through various wells located in Sections 10, 11, 22, and 23 of Township 19 North, Range 3, West, Sandoval County, New Mexico, and the promulgation of rules for said project including a procedure whereby additional injection or production wells at orthodox or unorthodox locations may be approved administratively.

CASE 4646: Application of Manning Gas and Oil Company for down-hole commingling and a non-standard proration unit, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from undesignated Gallup and Dakota oil pools in the well-bore of its Apache Well No. 100 to be drilled 435 feet from the North line and 475 feet from the East line of Section 3, Township 24 North, Range 4 West, Rio Arriba County, New Mexico. Applicant further seeks a procedure whereby similar approval may be granted administratively for other wells to be drilled in the area of the above-described well. Applicant further seeks approval for a non-standard 32-acre proration unit comprising all of Lot 1 to be dedicated to the above-described Well No. 100.

CASE 4647: Application of Apache Corporation for the creation of a new pool and special pool rules, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for the production of oil from the Mesaverde formation for its Jicarilla Apache Well No. 1-7 located in the SE/4 NE/4 of Section 7, Township 22 North, Range 5 West, Sandoval County, New Mexico. Applicant further seeks the promulgation of special rules for said pool including provisions for 80-acre spacing units with wells to be drilled in the northwest or southeast quarter-quarter sections.

CASE 4650: Application of Walter W. Krug dba Wallen Production Company for an exception to Order No. R-111-A and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the potash-oil area casing and cementing rules as set forth in Commission Order No. R-111-A for his Wallen Federal Well No. 2 located 990 feet from the North line and 1650 feet from the West line of Section 20, Township 20 South, Range 34 East, North Lynch Yates-Seven Rivers Pool, Lea County, New Mexico. Applicant proposes to drill and complete said well in such a manner that upon completion, the well would be equipped with a 7-inch production casing to the top of the pay and a 4 1/2-inch liner through the pay, with cement to the surface. Applicant further seeks the promulgation of special pool rules for similar casing and cementing, of all wells drilled in the above-described pool.

CASE 4649: Application of the Oil Conservation Commission on its own motion for the amendment of the gas well testing procedures promulgated by Order No. R-333-F for Northwest New Mexico. The Commission proposes to amend Chapter I of said Order No. R-333-F in such a manner as to provide that most annual deliverability and shut-in pressure tests required by said order be filed within 60 days following the completion of the test and to provide for notice to the Commission of any re-scheduling of shut-in pressure tests. The Commission further proposes to amend the ninth paragraph of Chapter II, Section 2 of said order to permit shutting in gas wells for the required shut-in test other than immediately following the 7-day deliverability flow test and to permit measuring the shut-in test pressure during the 8th to 15th day of shut-in of of the well rather than on the 8th day as presently required.

CASE 4637: (Continued from the December 15, 1971, Examiner Hearing)
In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Luttrell Oil Company and all other interested persons to appear and show cause why the following-described wells in New Mexico should not be plugged and abandoned in accordance with a Commission-approved plugging program:

Luttrell Oil Company State Well No. 1 -
Unit M, Section 28, Township 2 South,
Range 26 East, De Baca County;

Luttrell Oil Company Corn Well No. 1 -
Unit A, Section 5, Township 8 South,
Range 24 East, Chaves County.

CASE 4651: Southeastern New Mexico nomenclature case calling for an order for the creation and extension of certain pools in Lea and Roosevelt Counties, New Mexico.

(a) Create a new pool in Roosevelt County, New Mexico, classified as a gas pool for San Andres production and designated as the Baker-San Andres Gas Pool. The discovery well is the Cactus Drilling Corporation of Texas Kewanee State No. 2 located in Unit G of Section 9, Township 7 South, Range 35 East, NMPM. Said pool would comprise:

TOWNSHIP 7 SOUTH, RANGE 35 EAST, NMPM
SECTION 9: NE/4

(Case 4651 continued)

(b) Extend the Bluitt-San Andres Associated Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 37 EAST, NMPM
SECTION 15: All

(c) Extend the Littman-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 38 EAST, NMPM
SECTION 20: SE/4

(d) Extend the West Sawyer-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 37 EAST, NMPM
SECTION 27: SW/4

(e) Extend the North Vacuum-Abo Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM
SECTION 18: W/2

(f) Extend the Vada-Pennsylvanian Pool in Lea and Roosevelt Counties, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 34 EAST, NMPM
SECTION 36: NW/4

TOWNSHIP 9 SOUTH, RANGE 34 EAST, NMPM
SECTION 17: NW/4
SECTION 18: N/2

MONTGOMERY, FEDERICI, ANDREWS, HANNAHS & MORRIS
ATTORNEYS AND COUNSELORS AT LAW
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J. O. SETH (1883-1963)

A. K. MONTGOMERY
WM. FEDERICI
FRANK ANDREWS
FRED C. HANNAHS
RICHARD S. MORRIS
SUMNER G. BUELL
SETH D. MONTGOMERY
FRANK ANDREWS III

OWEN M. LOPEZ

January 17, 1972

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

Attention: Honorable Elvis A. Utz
Hearing Examiner

Re: Case No. 4642, Application of Fluid Power Pump Company for Special Pool Rules and a Pressure Maintenance Project, Sandoval County, New Mexico; Examiner Hearing of January 19, 1972

Gentlemen:

This firm represents Mrs. Billie Robinson and Mr. L. Claude Roark, who are the owners of overriding royalty interests in the NW/4 of Section 23, Township 19 North, Range 3 West, Sandoval County, New Mexico, which lands lie within the pressure maintenance project proposed by Fluid Power Pump Company in the subject case. Mrs. Robinson and Mr. Roark also own overriding royalty interests in the NE/4 of said Section 23, and in the E/2 NW/4 of Section 22, and in other lands in the vicinity of the proposed pressure maintenance project.

It is our understanding from the application in this case that Fluid Power Pump Company intends to drill a water injection well in the SE/4 NW/4 of Section 23 to be used in connection with its proposed pressure maintenance project covering portions of Sections 10, 11, 14, 15, 22 and 23, Township 19 North, Range 3 West, Sandoval County, New Mexico. Our clients do not own any interest in the lands covered by the proposed pressure maintenance project other than the overriding royalty interest in the NW/4 of said Section 23. At the present time, there is no producing well located in the NW/4 of Section 23, and under the proposed pressure maintenance project a water injection well, but no producing well, would be located on that quarter section.

On behalf of Mrs. Robinson and Mr. Roark, we object to the proposed pressure maintenance project unless the applicant is willing to unitize the project or dedicate proration units across the section line common to Sections 14 and 23 in such a manner as to protect

the correlstive rights of our clients.

As part of its application, Fluid Power Pump Company seeks the establishment of 160-acre oil proration units for this area; however, the SW/4 of Section 14 already has been developed on 40-acre spacings. In view of the wells that already have been drilled in the SW/4 of Section 14 and the absence of producing wells in the NW/4 of Section 23, we would suggest that a 160-acre proration unit be established consisting of the E/2 SW/4 of Section 14, and the E/2 NW/4 of Section 23, and that another 160-acre proration unit be established consisting of the W/2 SW/4 of Section 14 and the W/2 NW/4 of Section 23. Of course, another alternative for protecting my clients' correlative rights would be for the applicant to drill one or more producing wells in the N/2 NW/4 of Section 23 as direct offsets to the wells in the S/2 SW/4 of Section 14, depending upon what spacing is adopted for this pool.

If necessary for the protection of my clients' correlative rights, we request that the decision on the subject application be postponed until such time as the additional or supplemental spplications are filed and heard pertaining to unitization of the pressure maintenance project or the establishment of non-standard proration units covering the SW/4 of Section 14 and the NW/4 of Section 23.

Very truly yours,

Richard S. Morris

RSM:F

cc: Mr. Jason W. Kellahin
Attorney at Law
P.O. Box 1769
Santa Fe, N.M. 87501

Docket No. 1-72

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 5, 1972

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 4621: (Continued from the November 10, 1971 Examiner Hearing)
Application of Jack L. McClellan for a dual completion, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of his Bar-J Federal Well No. 1 located in Unit E of Section 15, Township 6 South, Range 27 East, Chaves County, New Mexico, in such a manner as to produce oil from an undesignated Siluro-Devonian pool through tubing and gas from the Haystack-Cisco Gas Pool through the casing-tubing annulus.

CASE 4609: (Continued from the November 17, 1971 Examiner Hearing)
Application of Jack L. McClellan for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Sulimar-Queen Unit Area comprising 1520 acres, more or less, of Federal lands in Sections 13, 23, 24, 25, and 26 of Township 15 South, Range 29 East, and Sections 18 and 19 of Township 15 South, Range 30 East, Chaves County, New Mexico.

CASE 4482: (Reopened):
In the matter of Case 4482 being reopened pursuant to the provisions of Order No. R-4093, which order established 160-acre spacing units and established a maximum gas-oil ratio limitation of 3,000 cubic feet of gas for each barrel of oil produced for the Parkway-Strawn Pool, Eddy County, New Mexico. All interested parties may appear and show cause why said pool should not be developed on 40-acre or 80-acre spacing units and why the limiting gas-oil ratio should not revert to the statewide limit of 2,000 to one.

CASE 3709 (Reopened):
In the matter of Case 3709 being reopened pursuant to the provisions of Order No. R-3366-B, which order continued 80-acre spacing for the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, for an additional one-year period. All interested persons may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 4638: Application of Holder Petroleum Corporation for downhole

(Case 4638 continued)

and surface commingling, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Todd Lower-San Andres Pool and the Todd Upper-San Andres Gas Pool in the well-bores of its BA Wells Nos. 1 and 2, located respectively, in Units A and H of Section 34, Township 7 South, Range 35 East, Roosevelt County, New Mexico. Applicant further seeks authority to commingle, on the surface, production from said wells prior to measurement.

CASE 4639: Application of Great Western Drilling Company to directionally drill, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill out its State Well No. 1, having a surface location 330 feet from the North and East lines of Section 17, Township 16 South, Range 35 East, Townsend-Morrow Gas Pool, Lea County, New Mexico, to a depth of approximately 8,000 feet and whipstock the well in a southwesterly direction to a bottom-hole location within the NE/4 of said Section 17 at a depth of approximately 11,800 feet.

CASE 4640: Application of Amoco Production Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the East Gem-Yates Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.

CASE 4641: Application of Reserve Oil and Gas Company for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its South Langlie Jal Unit Jalmat Waterflood Project, Jalmat Oil Pool, by the conversion of water injection of its Unit Well No. 23, located 2310 feet from the South and West lines of Section 17, Township 25 South, Range 37 East, Lea County, New Mexico.

CASE 4642: Application of Fluid Power Pump Company for special pool rules and a pressure maintenance project, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special rules for the Media-Entrada Pool, including a provision for 160-acre spacing and proration units. Applicant further seeks authority to institute a pressure maintenance project in said pool by the injection of water into the Entrada formation through various wells located in Sections 10, 11, 22, and 23 of Township 19 North, Range 3 West, Sandoval County, New Mexico, and promulgation of rules for said project including a procedure wherey additional injection or production wells at orthodox or un-orthodox locations may be approved administratively.

CASE 4643: Application of Cities Service Oil Company for compulsory pooling and unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the N/2 of Section 19, Township 22 South, Range 27 East, South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico, to form a standard 320-acre proration unit for the production of gas from the Morrow formation with said unit to be dedicated to a well to be drilled at an unorthodox location 2173 feet from the North line and 1200 feet from the East line of said Section 19.

CASE 4644: Application of Continental Oil Company for four non-standard gas proration units and rededication of acreage, Lea County New Mexico. Applicant, in the above-styled cause, seeks the rededication of acreage and the establishment of the following-described non-standard gas proration units for wells on its Meyer A-29 Lease in Section 29, Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

1. A 240-acre unit comprising the SE/4 and E/2 SW/4 to be dedicated to Well No. 3 in Unit N;

2. An 80-acre unit comprising the W/2 SW/4 to be dedicated to Well No. 4 in Unit L;

3. An 80-acre unit comprising the E/2 NE/4 to be dedicated to Well No. 5 in Unit A;

4. A 240-acre unit comprising the NW/4 and W/2 NE/4 to be dedicated to Well No. 9 in Unit E.

CASE 4563: (Continued from the December 1, 1971, Examiner Hearing) Application of Corrinne Grace for special gas-oil ratio limitation and pressure maintenance project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to produce her State Well No. 1 located in Unit A of Section 1, Township 15 South, Range 29 East, Double L-Queen Pool, Chaves County, New Mexico, with no gas-oil ratio limitation, strip the liquids, and institute a pressure maintenance project by the injection of all said gas back into the producing formation through her State Well No. 2 located in Unit B of said Section 1, Applicant further seeks to transfer an oil allowable from said Well No. 2 to said Well No. 1.

CASE 4619: (Continued from the December 1, 1971, Examiner Hearing)
Application of Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the N/2 of Section 25, Township 22 South, Range 26 East, which acreage is within one mile of the South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico. Said acreage to be dedicated to a well to be drilled to the Morrow formation at a location 1980 feet from the North and East lines of said Section 25. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges of supervision of said well.

CASE 4620: (Continued from the December 1, 1971, Examiner Hearing)
Application of Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the N/2 of Section 24, Township 22 South, Range 26 East, which acreage is in the vicinity of the South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico. Said acreage to be dedicated to a well to be drilled to the Morrow formation at a location 1980 feet from the North and East lines of said Section 24. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

BHP • BU • PI • DD • GWT • RFT • GOR • FL • IS

TEFTELLER, INC.

reservoir engineering data

Associated with Dennis Oxsens Co.

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

P. O. Box 5247
Midland, Texas 79701

April 13, 1971

Don C. Wiley & Fluid Power Pump Company
900 Bank of New Mexico Building
Albuquerque, New Mexico

Attention: Mr. Val R. Reese

Subject: Fluid Level Measurements
2 Wells
Sandoval County, New Mexico
Our File No. 2-4183-FL

Gentlemen:

Attached hereto are the results of the fluid level measurements which were made on the above captioned wells April 5, 1971.

The data presented are in graphical form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

Neil Tefteller

NT/kb

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TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Company: DON C. WILEY & FLUID POWER PUMP COMPANY

Page 1 of 1

County : SANDOVAL

File 2-4183-FL

Date : APRIL 5, 1971

TEST DATA

Lease and Well Number	Strokes Per Minute	Casing Pressure Psi	Average Tubing Length Feet	Number Joints To Fluid	Fluid Level Feet
Medio No. 1	10-60"s/m	30			Flowing thru casing
Medic No. 2	10-60"s/m	30			Flowing thru casing

CWP • BU • PI • OD • GWT • RFS • GOR • PL • TI

TEFTELLER, INC.

reservoir engineering data

Associated with Dennis Owens Co.

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

P. O. Box 5247
Midland, Texas 79701

July 12, 1971

Don C. Wiley & Fluid Power Pump Co.
900 Bank of New Mexico Bldg.
Albuquerque, New Mexico

Attention: Mr. Val R. Reese

Subject: Fluid Level Measurements
3 wells
Sandoval County, New Mexico
Our File No. 2-4291-FL

Gentlemen:

Attached hereto are the results of fluid level measurements which were made in subject county July 5, 1971.

The data presented are in tabular form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at anytime.

Respectfully submitted,

TEFTELLER, INC.

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Farrest Tefteller

FT/bt

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Company : DON C. WILEY & FLUID POWER PUMP CO.

Date : JULY 5, 1971

Field :

File No. : 2-4291-FL

TEST DATA

Lease and Well Number	Strokes Per Minute	Casing Pressure Psi	Average Tubing Length Feet	Number Joints to Fluid	Fluid Level Feet
MEDIO NO. 1	10-s/m	0	31.5	13	410
MEDIO NO. 2	20-s/m	0	31.5	6	189
MEDIO NO. 4	16-s/m	5	31.5	28	882

BHP • BU • PI • DD • GWT • BPS • GOR • FL • IS

TEFTELLER, INC.

reservoir engineering data

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

Associated with Dennis Owens Co.

P. O. Box 5247
Midland, Texas 79701

October 4, 1971

Don C. Wiley & Fluid Power Pump Co.
900 Bank of N. M. Building
Albuquerque, New Mexico

Attention: Mr. Val R. Reese

Subject: Fluid Level Measurements
Medio No. 1 & 2
Sandoval County , New Mexico
Our File No. 2-4371-FL

Gentlemen:

Attached hereto are the results of fluid level measurements which were made on the above captioned well September 27, 1971.

The data presented are in tabular and graphical form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

Neil Teftellar

Neil Tefteller

NT/ct

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Company : DON C. WILEY & FLUID POWER PUMP CO.

Page 1 of 1

Field :

File 2-4371-F1

TEST DATA

Date	Lease and Well Number	Strokes Per Minute	Casing Pressure Psi	Average Tubing Length Feet	Number Joints to Fluid	Fluid Level Feet
9-27-71	Medio #1		Vac.	31.5	10	315
9-27-71	Medio #2		Vac.	31.5	11	347

TEFTELLER, INC.
reservoir engineering data
Associated with Dennis Oneus Co.

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

P. O. Box 5247
Midland, Texas 79701

December 6, 1971

Fluid Power Pump Company
900 Bank of N. M. Bldg.
Albuquerque, New Mexico

Attention: Mr. Val R. Reese

Subject: Pumping Fluid Level Measurements
Three Wells
Sandoval County, New Mexico
Our File No. 2-4443-FL

Gentlemen:

Attached hereto are the results of pumping fluid level measurements which were made on the above captioned county November 30, 1971.

The data presented are in tabular form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

Neil Tefteller

Neil Tefteller

NT/ct

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Company : FLUID POWER PUMP COMPANY

Date : NOVEMBER 30, 1971

Field :

File No. : 2-4443-FL

Lease and Well Number	Strokes Per Minute	Casing Pressure Psi	Average Tubing Length Feet	Number Joints to Fluid	Fluid Level Feet
Media No. 1	18 s/m	Vac.	31.5	20	630
Media No. 2	18 s/m	2	31.5	14	441
Fluid Power Pump No. 1	14 s/m	Vac.	31.5	18	567

BHP * BU * PI * DD * GWT * EFS * GOR * FL * IS

TEFTELLER, INC.

reservoir engineering data

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

Associated with Dennis Owens Co.

P. O. Box 5247
Midland, Texas 79701

December 22, 1971

Fluid Power Pump Company
1130 Bank of N. M. Building
Albuquerque, New Mexico

Subject: Fluid Level Measurements
Fluid Power Pump No. 1
Sandoval County, New Mexico
Our File No. 2-4448-FL

Gentlemen:

Attached hereto are the results of fluid level measurements which were made on the above captioned well December 4, 1971.

The data presented are in tabular form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

Neil Teftellar
Neil Teftellar

NT/ct

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Company : FLUID POWER PUMP COMPANY

Field :

Date : DECEMBER 4, 1971

File No. : 2-4448-FL

Lease and Well Number	Strokes Per Minute	Casing Pressure Psi	Average Tubing Length Feet	Number Joints to Fluid	Fluid Level Feet
Fluid Power Pump #1	14 s/m	Vac	31.5	20	630
Fluid Power Pump #1	Pump down 20 min.	0	31.5	16	504

Memo

From
IDA RODRIGUEZ
Secretary to Director

To

Affidavits of publication for Fluid Power Pump Company:

January 5, 1972...Case 4642

March 1, 1972.....Case 4673

April 5, 1972.....Case 4685

February 13, 1974 Case 5167

notice pursuant to law and the Rules and Regulations of said Commission promulgated thereunder of the following public hearing to be held at 9 o'clock a.m. on January, 5, 1972, at the OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO, before Daniel S. Nutter, Examiner, or Elvis A. Utz, Alternate Examiner, both duly appointed for said hearing as provided by law.

STATE OF NEW MEXICO TO:

All named parties and persons having any right, title, interest or claim in the following cases and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian, whether or not so stated.)

CASE 4402 (Reopened):

In the matter of Case 4402 being reopened pursuant to the provisions of Order No. R-4093, which order established 160-acre spacing units and established a maximum gas-oil ratio limitation of 3,000 cubic feet of gas for each barrel of oil produced for the Parkway-Strawn Pool, Eddy County, New Mexico. All interested parties may appear and show cause why said pool should not be developed on 40-acre or 80-acre spacing units and why the limiting gas-oil ratio should not revert to the statewide limit of 2,000 to one.

CASE 3709 (Reopened):

In the matter of Case 3709 being reopened pursuant to the provisions of Order No. R-3366-B, which order continued 80-acre spacing for the Akah Nez-Devonian Oil Pool, San Juan County, New Mexico, for an additional one-year period. All interested persons may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 4438:

Application of Holder Petroleum Corporation for downhole and surface commingling, Roosevelt County, New Mexico.

Applicant, in the above-styled cause, seeks authority to commingle production from the Todd Lower-San Andres Pool and the Todd Upper-San Andres Gas Pool in the wellbores of its BA Wells Nos. 1 and 2, located, respectively, in Units A and H of Section 34, Township 7 South, Range 35 East, Roosevelt County, New Mexico. Applicant further seeks authority to commingle, on the surface, production from said wells prior to measurement.

CASE 4439:

Application of Great Western Drilling Company to directionally drill, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks authority to drill out its State Well No. 1, having a surface location 330 feet from the North and East lines of Section 17, Township 16 South, Range 35 East, Townsend-Morrow Gas Pool, Lea County, New Mexico, to a depth of approximately 8,000 feet and whipstock the well in a southwesterly direction to a bottom-hole location within the NE-4 of said Section 17 at a depth of approximately 11,800 feet.

CASE 4440:

Application of Amoco Production Company for special pool rules, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks the promulgation of special rules for the East Gem-Yates Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.

CASE 4441:

Application of Reserve Oil and Gas Company for a waterflood expansion, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks authority to expand its South Langlie Jal Unit Jalmat Waterflood Project, Jalmat Oil Pool, by the conversion to water injection of its Unit Well No. 23, located 2310 feet from the South and West lines of Section 17, Township 25 South, Range 37 East, Lea County, New Mexico.

CASE 4442:

Application of Fluid Power Pump Company for special pool rules and a pressure maintenance project, Sandoval County, New Mexico.

Applicant, in the above-styled cause, seeks the promulgation of special rules for the Media-Entrada Pool, including a provision for 160-acre spacing and proration units. Applicant further seeks authority to institute a pressure maintenance project in said pool by the injection of water into the Entrada formation through various wells located in Sections 10, 11, 22 and 23 of Township 19 North, Range 3 West, Sandoval County, New Mexico, and promulgation of rules for said project including a procedure whereby additional injection or production wells at orthodox or unorthodox locations may be approved administratively.

CASE 4443:

Application of Cities Service Oil Company for compulsory pooling and unorthodox gas well location, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the N-2 of Section 19, Township 22 South, Range 27 East, South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico, to form a standard 320-acre proration unit for the production of gas from the Morrow formation with said unit to be dedicated to a well to be drilled at an unorthodox location of 2173 feet from the North line and 1200 feet from the East line of said Section 19.

CASE 4444:

Application of Continental Oil Company for four non-standard gas proration units and rededication of acreage, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks the rededication of acreage and the establishment of the following described non-standard gas proration units for wells on its Meyer A-29 Lease in Section 29, Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico:

1. A 240-acre unit comprising the SE-4 and E-2 SW-4 to be dedicated to Well No. 3 in Unit N;

2. An 80-acre unit comprising the W-2

I, ... , being first duly sworn, declare and say that I am the (Legal Clk Manager (Editor) of The New Mexican, a daily newspaper, published in the English Language, and having a general circulation in the City and County of Santa Fe, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 of the Session Laws of 1937; that the publication, a copy of which is hereto attached, was published in said paper once each week for 1 consecutive weeks, and on the same day of each week in the regular issue of the paper during the time of publication, and that the notice was published in the newspapers proper, and not in any supplement, once each week for 1 weeks consecutively, the first publication on the 22 day of December, 19 71; and the last publication on ..... day of ....., 19.....; that payment for said advertisement has been (duly made), or (assessed as court costs); that the undersigned has personal knowledge of the matters and things set forth in this affidavit.

$ 27.45

$

$ 1.17

$ 28.62

Rec

By

Arabella Lucero

Editor-Manager

Subscribed and sworn to before me this 23 day of December, A.D., 19 71

Notary Public

My commission expires August 13, 1974

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
SANTA FE--NEW MEXICO

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the Rules and Regulations of said Commission promulgated thereunder of the following public hearing to be held at 9 o'clock a.m. on January 5, 1972, at the OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO, *before* Daniel S. Nutter, Examiner, or Elvis A. Utz, Alternate Examiner, both duly appointed for said hearing as provided by law.

STATE OF NEW MEXICO TO:
All named parties and persons having any right, title, interest or claim in the following cases and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian, whether or not so stated.)

CASE 4642:
Application of Fluid Power Pump Company for special pool rules and a pressure maintenance project, Sandoval County, New Mexico.

Applicant, in the above-styled cause, seeks the promulgation of special rules for the Media-Entrada Pool, including a provision for 160-acre spacing and proration units. Applicant further seeks authority to institute a pressure maintenance project in said pool by the injection of water into the Entrada formation through various wells located in Sections 10,11,22, and 23 of Township 19 North, Range 3 West, Sandoval County, New Mexico, and promulgation of rules for said project including a procedure whereby additional injection or production wells at orthodox or unorthodox locations may be approved administratively.

GIVEN under the seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 17th day of December, 1971.

(SEAL) STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
/s/ A. L. PORTER, Jr.,
Secretary-Director

Sandoval County Times-Independent
December 24, 1971

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO }
COUNTY OF SANDOVAL } SS.

Mary Beth Acuff being duly sworn declares and says that he is the Publishing Director of The Sandoval County Times-Independent, a newspaper published in and having a general circulation in the Town of Bernalillo, County of Sandoval and State of New Mexico and duly qualified for that purpose within the meaning of The Publication of Notice Act, Sec. 10-2-1 et seq; N.M.S.A., 1953 comp; that the publication, a copy of which is hereby attached, was published in said newspaper in the regular edition and entire issue of every number of the paper during the period and time of publication, and that the notice was published in the newspaper proper and not in a supplement.

for one Consecutive weeks the first publication being on the 24th day of December, 19 71 and the subsequent publications on ....., 19.....

and that payment therefor has been.....(.....19.....)

Mary Beth Acuff

Sworn and subscribed to before me, a Notary Public this 24th day of December, 19 71

Notary Public

My Commission expires: 8-16-1975

OIL CONSERVATION COMMISSION
SANTA FE—NEW MEXICO

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the Rules and Regulations of said Commission promulgated thereunder of the following public hearing to be held at 9 o'clock a.m. on March 1, 1972, at the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico, before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner, both duly appointed for said hearing as provided by law.

STATE OF NEW MEXICO TO:

All named parties and persons having any right, title, interest or claim in the following cases and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian, whether or not so stated.)

CASE 4468:
In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider instituting gas prorationing in the South Carlsbad-Morrow and South Carlsbad-Strawn Gas Pools, Eddy County, New Mexico.

The Commission will consider limiting gas production from the South Carlsbad-Morrow and South Carlsbad-Strawn Gas Pools in Eddy County, New Mexico, to reasonable market demand and to the capacity of gas transportation facilities. The Commission will also consider methods for allocating the allowable production among the gas wells in the pools.

CASE 4469:
In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit El Paso Natural Gas Company to appear and show cause why it should not take immediate action to repair each of the five following dual completions in such a manner as to prevent communication between zones in the wellbores:

San Juan 27-4 Unit No. 30 N-32-27N-4W, Rio Arriba
San Juan 27-5 Unit No. 31 A-24-27N-5W, Rio Arriba
Bolack C No. 14 B-30-27N-8W, San Juan
Huerfano Unit No. 60 M-4-26N-9W, San Juan
Allison Unit No. 17 K-24-32N-7W, San Juan

CASE 4470:
Application of BTA Oil Producers for a special gas-oil ratio limitation, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks as an exception to Rule 506 of the Commission Rules and Regulations, a limiting gas-oil ratio of 10,000 cubic feet of gas per barrel of oil for the Vada-Pennsylvanian Pool, Lea County, New Mexico.

CASE 4471:
Application of V. F. Vasicek and J. M. Fullinwider, dba V-F Petroleum for compulsory pooling, Lea County, New Mexico.

Applicants, in the above-styled cause, seek an order pooling all mineral interests from the surface of the ground down to and including the Wolfcamp formation underlying the SE-4 SW-4 of Section 1, Township 15 South, Range 36 East, Lea County, New Mexico, to form a standard oil proration unit to be dedicated to a well to be drilled at a standard location on said unit. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4472:
Application of Paul M. Mershon, Jr., and Vincent Shryack for compulsory pooling, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the W-2 of Section 15, Township 17 South, Range 29 East, Grayburg-Morrow Gas Pool, Eddy County, New Mexico, to form a standard 320-acre unit for the production of gas to be dedicated to a well to be drilled at a standard location for said unit. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4508 (Reopened):
In the matter of Case 4508 being reopened pursuant to the provisions of Order No. R-4117, which order established special rules and regulations for the Warren-Devonian Pool, Lea County, New Mexico, including a provision for 80-acre spacing units. All interested persons may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 4473:
Application of Fluid Power Pump Company for two non-standard oil proration units, Sandoval County, New Mexico.

Applicant, in the above-styled cause, seeks approval for two 160-acre non-standard oil proration units in Township 19 North, Range 3 West, Media-Entrada Oil Pool, Sandoval County, New Mexico, said units comprising acreage as follows:

1. S-2 NW-4 and N-2 SW-4 of Section 14
2. S-2 NE-4 and N-2 SE-4 of Section 15

CASE 4474:
Application of Hanagan Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location for its Millman Deep Well No. 1 located 660 feet from the North line and 1924 feet from the East line of Section 4, Township 19 South, Range 28 East, undesignated Morrow gas pool, Eddy County, New Mexico, with the E-2 of said Section 4 to be dedicated to the well.

GIVEN under the seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 11th day of February, 1972.

STATE OF NEW MEXICO
OIL CONSERVATION
COMMISSION
A. L. Porter, Jr.,
Secretary-Director
(SEAL)

Legal No. 3251, Pub. Feb. 16, 1972

BILL

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Tax $ 1.01

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I

B

County of Santa Fe } ss.

I, Arabella Wheeler, being first duly sworn, declare and say that I am the (Legal Clk. ~~Manager (Editor)~~) of The New Mexican, a daily newspaper, published in the English Language, and having a general circulation in the City and County of Santa Fe, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 of the Session Laws of 1937; that the publication, a copy of which is hereto attached, was published in said paper once each week for 1 consecutive weeks, and on the same day of each week in the regular issue of the paper during the time of publication, and that the notice was published in the newspapers proper, and not in any supplement, once each week for 1 weeks consecutively, the first publication on the 16 day of February, 1972; and the last publication on ..... day of ....., 19.....; that payment for said advertisement has been (duly made), or (assessed as court costs); that the undersigned has personal knowledge of the matters and things set forth in this affidavit.

Arabella Wheeler
Editor-Manager

Subscribed and sworn to before me this 16 day of February, A.D., 1972

Notary Public

My commission expires August 13, 1974

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
SANTA FE — NEW MEXICO

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the Rules and Regulations of said Commission promulgated thereunder of the following public hearing to be held at 9 o'clock a.m. on MARCH 1, 1972, at the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico, before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner, both duly appointed for said hearing as provided by law.

STATE OF NEW MEXICO TO:
All named parties and persons having any right, title, interest or claim in the following cases and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian, whether or not so stated.)

CASE 4673:
Application of Fluid Power Pump Company for two non-standard oil proration units, Sandoval County, New Mexico.

Applicant, in the above-styled cause, seeks approval for two 160-acre non-standard oil proration units in Township 19 North, Range 3 West, Media-Entrada Oil Pool, Sandoval County, New Mexico, said units comprising acreage as follows:

1. S/2 NW/4 and N/2 SW/4 of Section 14
2. S/2 NE/4 and N/2 SE/4 of Section 15

GIVEN under the seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 11th day of February, 1972.

(SEAL) STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
/s/ A.L. PORTER, Jr., Secretary-Director

Sandoval County Times-Independent
February 18, 1972

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO }
COUNTY OF SANDOVAL. } SS.

Mary Beth Acuff being duly sworn declares and says that he is the Publishing Director of The Sandoval County Times-Independent, a newspaper published in and having a general circulation in the Town of Bernalillo, County of Sandoval and State of New Mexico and duly qualified for that purpose within the meaning of The Publication of Notice Act, Sec. 10-2-1 et seq; N.M.S.A., 1953 comp; that the publication, a copy of which is hereby attached, was published in said newspaper in the regular edition and entire issue of every number of the paper during the period and time of publication, and that the notice was published in the newspaper proper and not in a supplement.

for one Consecutive weeks the first publication being on the 18th day of February, 19 72 and the subsequent publications on ....., 19.....

and that payment therefor has been ..... (.....19.....)

Mary Beth Acuff

Sworn and subscribed to before me, a Notary Public this 18th day of February, 19 72

Notary Public

My Commission expires: 8-16-1975

RECEIVED
FEB 23 1972
OIL CONSERVATION COMM.
SANTA FE

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION
COMMISSION
SANTA FE—NEW MEXICO

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the Rules and Regulations of said Commission promulgated thereunder of the following public hearing to be held at 9 o'clock a.m. on APRIL 5, 1972, at the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico, before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner, both duly appointed for said hearing as provided by law.

STATE OF NEW MEXICO TO:

All named parties and persons having any right, title, interest or claim in the following cases and notice to the public. (NOTE: All land descriptions herein refer to the New Mexico Principal Meridian, whether or not so stated.)

CASE 4683:
Application of Mark Production Company for the creation of a new oil pool and special pool rules, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks the creation of a new pool for the production of oil to be designated the Metts Permo-Pennsylvanian Pool for its three wells located in Unit L of Section 29, Unit P of Section 30 and Unit D of Section 32, Township 14 South, Range 34 East, Lea County, New Mexico. Applicant further seeks the promulgation of special rules for the pool including a provision for 160-acre spacing and proration units.

CASE 4684:
Application of The Petroleum Corporation for creation of a new gas pool and special pool rules, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks the creation of a new gas pool for its Tenneco Federal Well No. 1 located 990 feet from the South line and 2310 feet from the West line of Section 12, Township 26 South, Range 37 East, Lea County, New Mexico. Applicant further seeks the promulgation of special rules therefor, including a provision for 640-acre spacing and proration units.

CASE 4685:
Application of Fluid Power Pump Company for two non-standard oil proration units, Sandoval County, New Mexico.

Applicant, in the above-styled cause, seeks aporoval for two 160-acre non-standard oil proration units in Township 19 North, Range 3 West, Media-Entrada Oil Pool, Sandoval County, New Mexico, comprising the following-described acreage:

1. S-2 SW-4 of Section 14 and the N-2 NW-4 of Section 23;
2. S 2 SE-4 of Section 15 and N-2 NE-4 of Section 22.

CASE 4686:
Application of Jack L. McClellan for a waterflood expansion, Chaves County, New Mexico.

Applicant, in the above-styled cause, seeks to expand the waterflood projects in the Sulimar-Queen Pool, Chaves County, New Mexico, authorized by Order No. R-4214, by the injection of water into said pool through three additional injection wells located in Township 15 South, Range 29 East, as follows:

Smernoff Federal No. 1
—Unit B—Section 24
Carthel Federal No. 2
—Unit P—Section 23
La Rue Federal No. 1
—Unit D—Section 25

Applicant further seeks amendment of the rules governing said projects to permit expansion administratively without a showing of well response.

CASE 4687:
Application of Riggs Oil & Gas Corporation for downhole commingling, San Juan County, New Mexico.

Applicant, in the above-styled cause, seeks authority to commingle production from an undesignated Fruitland gas pool and the Fulcher Kutz-Pictured Cliffs Gas Pool in the wellbore of its Federal Well No. 1 located in Unit F of Section 4, Township 29 North, Range 12 West, San Juan County, New Mexico.

CASE 4688:
Application of Gulf Oil Corporation for a non-standard proration unit, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks the consolidation of two non-standard gas proration units to form one 600-acre non-standard gas proration unit comprising the SW-4, S-2 NW-4, NW-4 NW-4, and E-2 of Section 4, Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to its J. F. Janda (NCT-F) Wells Nos. 7 and 13 located, respectively, in Units K and P of Said Section 4.

CASE 4689:
Application of Petroleum Corporation of Texas for an exception to Order No. R-3221, as amended, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, to dispose into unlined surface pits water produced by its Dexter Federal Well No. 15 located in Unit J of Section 15, and all of its wells located or to be located in the NW-4 of Section 20, Township 17 South, Range 30 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

CASE 4690:
Application of Shell Oil Company for downhole commingling, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks authority to commingle production from the Antelope Ridge-Morrow Pennsylvanian and Antelope Ridge-Devonian Gas Pools in the wellbore of its Antelope Ridge Well No. 2, a dual completion, in Unit B of Section 4, Township 24 South, Range 34 East, Lea County, New Mexico.

GIVEN under the seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 17th day of March, 1972.

STATE OF NEW MEXICO
OIL CONSERVATION
COMMISSION
A. L. PORTER, Jr.,
Secretary-Director

ZL

at $.....23.25

es $.....

ax $.....99

al $.....24.24

.....

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State of New Mexico } ss.
County of Santa Fe }

I, ...Arabella Wheeler....., being first duly sworn, declare and say that I am the (Legal..... Manager (~~Editor~~) of The New Mexican, a daily newspaper, published in the English Language, and having a general circulation in the City and County of Santa Fe, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 of the Session Laws of 1937; that the publication, a copy of which is hereto attached, was published in said paper once each week for ....1..... consecutive weeks, and on the same day of each week in the regular issue of the paper during the time of publication, and that the notice was published in the newspapers proper, and not in any supplement, once each week for .1..... weeks consecutively, the first publication on the ....23rd.. day of ...March....., 19...72.; and the last publication on ..... day of ....., 19.....; that payment for said advertisement has been (duly made), or (assessed as court costs); that the undersigned has personal knowledge of the matters and things set forth in this affidavit.

Arabella Wheeler
Legal Editor-Manager

Subscribed and sworn to before me this .....23rd..
day of .....March....., A.D., 19.72.....

Notary Public

My commission expires ..... August 13, 1974

OK E

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
SANTA FE — NEW MEXICO

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the Rules and Regulations of said Commission promulgated thereunder of the following public hearing to be held at 9 o'clock a.m. on APRIL 5, 1972, at the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico, before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner, both duly appointed for said hearing as provided by law.

STATE OF NEW MEXICO TO:

All named parties and persons having any right, title, interest or claim in the following cases and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian, whether or not so stated.)

CASE 4685:
Application of Fluid Power Pump Company for two non-standard oil proration units, Sandoval County, New Mexico.

Applicant, in the above-styled cause, seeks approval for two 160-acre non-standard oil proration units in Township 19 North, Range 3 West, Media-Entrada Oil Pool, Sandoval County, New Mexico, comprising the following-described acreage:

1. S/2 SW/4 of Section 14 and the N/2 NW/4 of Section 23;
2. S/2 SE/4 of Section 15 and N/2 NE/4 of Section 22.

GIVEN under the seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 17th day of March, 1972.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION
/s/ A. L. PORTER, Jr.,
Secretary - Director (SEAL)

Sandoval County Times-Independent
March 24, 1972

RECEIVED
MAR 28 1972
OIL CONSERVATION COMM.

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO }
COUNTY OF SANDOVAL } SS.

Mary Beth Acuff being duly sworn declares and says that he is the Publishing Director of The Sandoval County Times-Independent, a newspaper published in and having a general circulation in the Town of Bernalillo, County of Sandoval and State of New Mexico and duly qualified for that purpose within the meaning of The Publication of Notice Act, Sec. 10-2-1 et seq; N.M.S.A., 1953 comp; that the publication, a copy of which is hereby attached, was published in said newspaper in the regular edition and entire issue of every number of the paper during the period and time of publication, and that the notice was published in the newspaper proper and not in a supplement.

for one Consecutive weeks the first publication being on the 24th

day of March, 19 72 and the subsequent publications

on....., 19.....

and that payment therefor has been.....(.....19.....)

Mary Beth Acuff

Sworn and subscribed to before me, a Notary Public

this 24th day of March, 19 72

Notary Public

My Commission expires: 8-16-1975

Affidavit of Publication

State of New Mexico
County of Santa Fe } ss

I, Floraida Sisneros, being first duly sworn, declare and say that I am the Legal Advertising Manager of The New Mexican, a daily newspaper, published in the English Language, and having a general circulation in the City and County of Santa Fe, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 of the Session Laws of 1937; that the publication, a copy of which is hereto attached, was published in said paper once each day for one consecutive day, and that the notice was published in the newspapers proper, and not in any supplement; the first publication on the 1 day of February, 1974; and the last publication on the ..... day of ....., 19.....; and that the undersigned has personal knowledge of the matters and things set forth in this affidavit.

Floraida Sisneros
Legal Advertising Manager

Legal #10074

Subscribed and sworn to before me on this 5 day of February, A.D., 19 74

Josie Romero
Notary Public

My commission expires August 13, 1974

LL
at $ 44.85
es $
ax $ 1.91
al $ 46.76

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

STATE OF NEW MEXICO TO: All interested parties.

The Oil Conservation Commission of the State of New Mexico hereby gives public notice that a hearing will be held before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner, both duly appointed for said hearing as provided by law at 9:00 o'clock a.m. on February 13, 1974, for the purpose of setting the allowable production of gas from certain pools in Lea, Eddy, Roosevelt, and Chaves Counties, New Mexico, and from certain pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico for the 12-month proration period commencing April 1, 1974. Said hearing will be held in the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico, and shall concern the following established pools in Southeast New Mexico:

Aztec-Pennsylvanian Gas Pool
Blinebry Gas Pool
Bluitt-San Andres Associated Pool
Buffalo Valley-Pennsylvanian Gas Pool
Burton Flats-Morrow Gas Pool
Burton Flats-Strawn Gas Pool
South Carlsbad-Morrow Gas Pool
Catclaw Draw-Morrow Gas Pool
Crosby-Devonian Gas Pool
Eumont Gas Pool
Indian Basin-Morrow Gas Pool
Indian Basin-Upper Pennsylvanian Gas Pool
Jalmat Gas Pool
Justis Gas Pool
Monument McKee-Ellenburger Gas Pool
Todd-Lower San Andres Associated Pool
Tubb Gas Pool

and shall concern the following established pools in Northwest New Mexico:

Basin-Dakota Pool
Blanco-Mesaverde Pool
Aztec-Pictured Cliffs Pool
Ballard-Pictured Cliffs Pool
Fulcher Kutz-Pictured Cliffs Pool
South Blanco-Pictured Cliffs Pool
Tapacito-Pictured Cliffs Pool
West Kutz-Pictured Cliffs Pool
Devils Fork-Gallup Pool

GIVEN under the seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of January, 1974.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
A. L. PORTER, Jr.
Secretary-Director
(SEAL)

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the Rules and Regulations of said Commission promulgated thereunder of the following public hearing to be held at 9 o'clock a.m. on February 13, 1974, at the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico, before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner, both duly appointed for said hearing as provided by law.

STATE OF NEW MEXICO TO:

All named parties and persons having any right, title, interest or claim in the following cases and notice to the public. (NOTE: All land descriptions herein refer to the New Mexico Principal Meridian, whether or not so stated.)

CASE 5165:

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Western States Equipment Company, The Travelers Indemnity Company and all other interested parties to appear and show cause why the Hutcherson Com Well No. 1 located in Unit C of Section 27, Township 9 South, Range 34 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5166:

Application of Skelly Oil Company for an unorthodox location, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its South Salt Lake Unit Well No. 1 at a point 660 feet from the North and West lines of Section 21, Township 21 South, Range 32 East, Lea County, New Mexico. Applicant further seeks establishment of an administrative procedure for the approval of additional unorthodox locations in said South Salt Lake Unit Area without hearing.

CASE 5167:

Application of Fluid Power Pump Company and Petro-Lewis Corporation for compulsory pooling, Sandoval County, New Mexico.

Applicants, in the above-styled cause, seek an order pooling all mineral interests underlying two non-standard proration units in Township 19 North, Range 3 West, Media-Entrada Oil Pool, Sandoval County, New Mexico, described as follows:

Unit No. 1, the S-2 SW-4 of Section 14 and N-2 NW-4 of Section 23, dedicated to applicants' Media Well No. 1 located in Unit M of said Section 14;

Unit No. 2, the S-2 SE-4 of Section 15 and N-2 NE-4 of Section 22, to be dedicated to applicants' Media Well No. 2 located in Unit P of said Section 15.

Roosevelt County, New Mexico.

Applicant, in the above-styled cause, seeks authority to drill its proposed Humble-Tucker Well No. 5 at an unorthodox location 1315 feet from the South and West lines of Section 25, Township 7 South, Range 32 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 5169:

Application of Atlantic Richfield Company for an unorthodox oil well location and the amendment of Order No. R-3011, Lea County, New Mexico

Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 1200 feet from the South line and 1250 feet from the West line of Section 24, Township 17 South, Range 32 East, Johns Waterflood Project, Maljamar Pool, Lea County, New Mexico. Applicant further seeks the amendment of Order No. R-3011 which authorized said project to provide for administrative approval of additional infill locations in said project.

CASE 5170:

Application of Monsanto Company for compulsory pooling, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the E-2 of Section 16, Township 19 South, Range 25 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location in the NE-4 of said Section 16. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5171:

Application of Coquina Oil Corporation for compulsory pooling and an unorthodox location, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests of Pennsylvanian age and older underlying the N-2 of Section 16, Township 19 South, Range 25 East, Eddy County, New Mexico, to be dedicated to a well proposed to be drilled at an unorthodox location 990 feet from the North and East lines of said Section 16. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5172:

In the matter of the application of the Oil Conservation Commission of New Mexico upon its own motion for the purpose of considering:

the creation of the Indian Draw-Delaware Pool in Township 22 South, Range 28 East, Eddy County, New Mexico, and for the assignment of approximately 16,300 barrels of oil discovery allowable to the discovery well, Amoco Production Company, Indian Draw Federal No. 1 located in Unit J of Section 18; and the creation of the following pools:

Avalon-Upper Pennsylvanian Gas Pool in Township 21 South, Range 26 East, Eddy County;

Rocky Arroyo-Atoka Gas Pool in Township 22 South, Range 22 East, Eddy County;

Rocky Arroyo-Canyon Gas Pool in Township 22 South, Range 22 East, Eddy County;

Winchester-Strawn Gas Pool in Township 20 South, Range 28 East, Eddy County; and the abolishment of the East Weir-Tubb Pool in Lea County; and the extension of the following pools in Lea County:

Monument-Tubb Pool

North Morton-Permo Pennsylvanian Pool

Quail Ridge-Morrow Gas Pool

South Salt Lake-Morrow Gas Pool

West Sawyer-San Andres Pool

Scharb-Bone Springs Pool

North Shoebar-Strawn Pool

North Vacuum-Abo Pool

Vada-Pennsylvanian Pool

and the extension of the following pools in Eddy County:

West Atoka-Cisco Gas Pool

West Atoka-Morrow Gas Pool

Burton-Flats-Morrow Gas Pool

Burton Flats-Strawn Gas Pool

Cabin Lake-Morrow Gas Pool

Catclaw Draw-Morrow Gas Pool

South Empire-Morrow Gas Pool

Fren Pool

Grayburg-Morrow Gas Pool

Golden Lane-Strawn Gas Pool

Logan Draw-Morrow Gas Pool

Penasco Draw San Andres-Yeso Pool

Red Lake-Pennsylvanian Gas Pool

Rocky Arroyo-Morrow Gas Pool

Square Lake Pool

Washington Ranch-Morrow Gas Pool

White City-Pennsylvanian Gas Pool

Winchester-Morrow Gas Pool

and the extension of the Cato-San Andres Pool in Chaves County; and the contraction of the Wantz-Abo Pool in Lea County and the Winchester-Wolfcamp Pool in Eddy County.

CASE 5173:

Application of Mobil Oil Corporation for compulsory pooling, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W-2 of Section 3, Township 23 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico, to be dedicated to its Maude Rickme Com Well No. 1 located in Unit L of said Section 3. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

GIVEN under the seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of January, 1974.

STATE OF NEW MEXICO

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

STATE OF NEW MEXICO TO: All interested parties.

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Burton Flats-Strawn Gas Pool
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Catclaw Draw-Morrow Gas Pool
Crosby-Devonian Gas Pool
Eumont Gas Pool
Indian Basin-Morrow Gas Pool
Indian Basin-Upper Pennsylvanian Gas Pool
Jalmat Gas Pool
Justis Gas Pool
Monument McKee-Ellenburger Gas Pool
Todd-Lower San Andres Associated Pool
Tubb Gas Pool

and shall concern the following established pools in Northwest New Mexico:

Basin-Dakota Pool
Blanco-Mesaverde Pool
Aztec-Pictured Cliffs Pool
Ballard-Pictured Cliffs Pool
Fulcher Kutz-Pictured Cliffs Pool
South Blanco-Pictured Cliffs Pool
Tapacito-Pictured Cliffs Pool
West Kutz-Pictured Cliffs Pool
Devils Fork-Gallup Pool

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STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
A. L. PORTER, Jr.,
Secretary-Director
(SEAL)

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SANTA FE, NEW MEXICO

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Unit No. 2, the S-2 SE-4 of Section 15 and N-2 NE-4 of Section 22, to be dedicated to applicants' Media Well No. 2 located in Unit P of said Section 15.

Affidavit of Publication

State of New Mexico
County of Santa Fe } ss

I, Floraida Sisneros, being first duly sworn, declare and say that I am the Legal Advertising Manager of The New Mexican, a daily newspaper, published in the English Language, and having a general circulation in the City and County of Santa Fe, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 of the Session Laws of 1937; that the publication, a copy of which is hereto attached, was published in said paper once each day for one consecutive day, and that the notice was published in the newspapers proper, and not in any supplement; the first publication on the 1 day of February, 1974; and the last publication on the ..... day of ....., 19.....; and that the undersigned has personal knowledge of the matters and things set forth in this affidavit.

Floraida Sisneros
Legal Advertising Manager

Legal #10074

Subscribed and sworn to before me on this 5 day of February, A.D., 1974

Notary Public

My commission expires August 13, 1974

LL
at $ 44.85
es $
ax $ 1.91
al $ 46.76

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

STATE OF NEW MEXICO TO:
All interested parties.

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Fulcher Kutz-Pictured Cliffs Pool
South Blanco-Pictured Cliffs Pool
Tapacito-Pictured Cliffs Pool
West Kutz-Pictured Cliffs Pool
Devils Fork-Gallup Pool

GIVEN under the seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of January, 1974.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
A.L. Porter, Jr., Secretary-Director

(SEAL)

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and the Rules and Regulations of said Commission promulgated thereunder of the following public hearing to be held at 9 O'clock a.m. on FEBRUARY 13, 1974, at the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico, before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner, both duly appointed for said hearing as provided by law.

STATE OF NEW MEXICO TO:

All named parties and persons having any right, title, interest or claim in the following cases and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian, whether or not so stated.)

✓ **CASE 5167:**
Application of Fluid Power Pump Company and Petro-Lewis Corporation for compulsory pooling, Sandoval County, New Mexico

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Unit No. 1, the S/2 SW/4 of Section 14 and N/2 NW/4 of Section 23, dedicated to applicants' Media Well No. 1 located in Unit M of said Section 14;

Unit No. 2, the S/2 SE/4 of Section 15 and N/2 NE/4 of Section 22, to be dedicated to applicants' Media Well No. 2 located in Unit P of said Section 15.

GIVEN under the seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of January, 1974.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
/s/ A.L. Porter, Jr., Secretary-Director

(SEAL)

Sandoval County Times-Independent
February 1, 1974

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO }
COUNTY OF SANDOVAL } SS.

Mary Beth Acuff being duly sworn declares and says that she is the Publishing Director of The Sandoval County Times-Independent, a newspaper published in and having a general circulation in the Town of Bernalillo, County of Sandoval and State of New Mexico and duly qualified for that purpose within the meaning of The Publication of Notice Act, Sec. 10-2-1 et seq; N.M.S.A., 1953 comp; that the publication, a copy of which is hereto attached, was published in said newspaper in the regular edition and entire issue of every number of the paper during the period and time of publication, and that the notice was published in the newspaper proper and not in a supplement.

for one Consecutive weeks the first publication being on the 1st

day of February, 19 74 and the subsequent publications

on ....., 19.....

and that payment therefor has been made or assessed as court costs.

Mary Beth Acuff

Sworn and subscribed to before me, a Notary Public

this 1st day of February, 19 74

Patricia R. McCrossen
Notary Public

My Commission expires: 2/19/77

RECEIVED
FEB - 5 1974
OIL CONSERVATION COMM.
SANTA FE

WELL HISTORIES

Harry L. Bigbee - No. 1-13 Torreon:

Location: 2310' fsl, 990' fwl
Section 13, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 7039' KB
T. D.: 5632', PB 3327'

Spudded: 10-31-63
Completed: 5-22-64
Results: D & A

Casing: 8-5/8" @ 123' w/75 sx, 4½" @ 3380' w/125 sx

Remarks: No cores or tests. Perforated 3240'-3266' w/2 per ft. Sand/water frac. Perforated 3066'-3092', 3118'-3126', 3154'-3468', 3182'-3196' w/2 per ft. Sand/water frac. Swabbed water (from perfs 3066'-3266').

Formations:

Name	Top	Datum	
Base of Pictured Cliffs	Surface		
Mesaverde	608'	+ 6430'	
Menefee	1382'	+ 5656'	
Point Lookout	2209'	+ 4829'	
Mancos	2372'	+ 4666'	
Gallup	3060'	+ 3978'	
Greenhorn	4168'	+ 2870'	
Graneros shale	4294'	+ 2744'	
Graneros Dakota	4342'	+ 2696'	
Dakota	4516'	+ 2522'	
Morrison	4710'	+ 2328'	
Todilto	5480'	+ 1558'	
Top of Oil	5504'	+ 1535'	(71')
Entrada	5574'	+ 1464'	
Oil/Water contact	5574'	+ 1464'	

WELL HISTORIES

Magnolia Petroleum - No. 1 Harvey-Federal:

Location: 1980' fnl, 660' fwl
Section 14, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6823' KB
T. D.: 5292'

Spudded: 2-7-54
Completed: 3-6-54
Results: D & A, completed as a water well

Casing: 10-3/4" @ 478' w/500 sx

Remarks: Cored 5187'-5232', recovered 45' - 44' anhydrite, 1' fine-grained sand, no show. DST 5217'-5232', open 2 hrs, recovered 90' slightly OCM, 90' slightly O&WCM, FP 200#, SIP 30 min 2075#, HP 2600#. DST 5227'-5242', open 1½ hrs, recovered 360' water cut mud, 4170' slightly salty water, FP 1075-1950#, SIP 30 min 2050#, HP 2625#.

Formations:

Name	Top	Datum	
Point Lookout	1974'	+ 4849'	
Mancos	2102'	+ 4721'	
Gallup	2794'	+ 4019'	
Greenhorn	3876'	+ 2947'	
Graneros Dakota	4040'	+ 2783'	
Dakota	4212'	+ 2611'	
Morrison	4448'	+ 2375'	
Todilto	5180'	+ 1643'	
Top of Oil	5210'	+ 1613'	(50')
Entrada	5238'	+ 1585'	
Oil/Water Contact	5260'	+ 1563'	

WELL HISTORIES

Magnolia Petroleum - No. 1 Hutchinson-Federal:

Location: 1980' fsl, 660' fwl
Section 14, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6845' KB
T. D.: 9684', PB 5231'

Spudded: 7-3-53
Completed: 11-20-53
Results: Pumped 79 BOPD, 33° gravity, from Entrada

Casing: 10-3/4" @ 452' w/550 sx, 7" @ 5478'

Remarks: DST #1 1491'-1511', tool open 1 hr, weak blow of air throughout, recovered 180' MCW, 30' water w/scum of oil, FP 0#, SIP 30 min 380#, HP 785#. DST #2 1725'-1743', open 1 hr, weak blow of air throughout, recovered 20' mud - bottom few ft oil cut, 1' free oil, FP 0#, SIP 30 min 380#, HP 795#. DST #3 1130'-1196', open 1 hr, slight blow of air throughout, recovered 90' WCM, FP 0-250#, SIP 30 min 250#, HP 590#. DST #4 1511'-1560', open 1 hr, good blow of air throughout, recovered 390' WCM, FP 0-150#, HP 695#. DST #5 1599'-1617', open 1 hr, weak blow of air throughout, recovered 90' MCW, SIP 30 min 380#, HP 790#. DST #6 1816'-1826', open 1 hr, recovered 60' fresh WCM, 150' fresh water, FP 0-60#, SIP 30 min 565#, HP 915#. DST #7 1972'-1982', open 1 hr, slight blow of air throughout, recovered 20' MCW, FP 0#, SIP 30 min 570#, HP 1010#. DST #8 2545'-2570', open 55 min, weak blow of air for 10 min and died, recovered 5' oil cut mud, FP 0#, SIP 15 min 0#, HP 1500#. DST #9 2805'-2822', open 41 min, weak blow of air, died in 11 min, recovered 5' oil cut mud, FP 0#, SIP 15 min 0#, HP 1475#. DST #10 2883'-2927', open 45 min, weak blow of air for 2 min, died, recovered 5' oil cut mud, FP 0#, SIP 15 min 0#, HP 1420#. DST #11 2995'-3011', open 1 hr, weak blow of air 2 min, died, recovered 10' oil cut mud, FP 0#, SIP 20 min 0#, HP 1420#. DST #12 3225'-3275', open 70 min, weak blow of air 6 min, died, recovered 5' oil cut mud, FP 0#, SIP 30 min 0#, HP 1480#. DST #13 5200'-5219', open 1½ hr, weak blow of air, increasing to fair, recovered 180' clean oil, 35.5° gravity at 60°, 60' MCO, FP 60-120#, SIP 30 min 1440#, HP 2490#. DST #14 5205'-5229', open 2 hr, weak blow of air increasing to fair, gas to surface in 25 min, recovered 310' clean oil, 90' OCM, FP 60-170#, SIP 1490# in 45 min, HP 2460#.

(continued on following page)

WELL HISTORIES

Magnolia Petroleum - No. 1 Hutchinson-Federal:

Remarks: (continued from previous page)

Core #1 1743'-1764', recovered 21' - 8' gray shale, 13' coarse-grained gray sand, no show. Core #2 3100'-3160', recovered dark gray shale, sandy. Core #3 3160'-3191', recovered 31' sandy shale. Core #4 3191'-3210', recovered 25' sandy shale. Core #5 3216'-3275', recovered 59' - 14' gray shaley sandstone (3230'-3250') 20' gray gray fine-grained sandstone, bleeding oil, 25' gray shaley sandstone. Core #6 5219'-5229', recovered 10' fine to medium-grained gray sandstone, good show of oil. Core #7 5229'-5263', recovered 34' light gray medium-grained Entrada sandstone, w/oil. Core #8 5263'-5289', recovered 26' light gray medium-grained Entrada sandstone, w/oil. Core #9 5289'-5348', recovered 54' light gray medium-grained Entrada sandstone, w/oil. Core #10 5348'-5408', recovered 60' fine to coarse-grained sandstone, no show.

Perforated w/40 5210'-5220', swabbed 22 bbls oil in 2 hrs, 31 bbls new oil, 267 BW in 23 hrs, swabbed 11 bbls oil, 166 BW 8 hrs. Squeezed. Perforated 5210'-5217', swabbed 22 BO, 22 hrs, 7BO 7 hrs, swabbed 41 BO 22 hrs. Acidized w/250, squeezed perforations 5210'-5217', plugged back to 5231'. Perforated 5210'-5215' w/20, swabbed 22 bbls load oil, 3 hrs; 24 bbls oil, 12 hrs; swabbed 59 bbls oil 24 hrs, 35° gravity.

Losing circulation while drilling 3191'-3216'.

Formations:

Name	Top	Datum	
Point Lookout	1970'	+ 4875'	
Mancos	2116'	+ 4729'	
Gallup	2796'	+ 4049'	
Greenhorn	3986'	+ 2879'	
Graneros Dakota	4048'	+ 2797'	
Dakota	4218'	+ 2627'	
Morrison	4444'	+ 2401'	
Todilto	5190'	+ 1655'	
Top of Oil	5208'	+ 1637'	(54')
Entrada	5218'	+ 1627'	
Oil/Water Contact	5262'	+ 1583'	
Chinle	5548'		
Permian	6558'		
Pennsylvanian	8459'		
Hermosa	9526'		
Pre-Cambrian	9660'		

WELL HISTORIES

Harry L. Bigbee - No. 1 Media:

Location: 330' fsl, 2310' fel
Section 14, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6865' KB
T. D.: 5351'

Spudded: 7-27-62
Completed: 8-12-62
Results: D & A

Casing: 8-5/8" @ 224' w/150 sx

Remarks: DST 2755'-2970', open 1 hr, recovered 1130' sli GCM, trace of oil, 1030' mud, FP 810-1105#, SIP 30 min 1120#, HP 1310#. Cored 5133'-5169', recovered 36' sand. Cored 5197'-5247', recovered 50' sand w/shale streaks.

Formations:

Name	Top	Datum	
Mesaverde	400'	+ 6465'	
Point Lookout	1950'	+ 4915'	
Mancos	2116'	+ 4749'	
Gallup	2816'	+ 4049'	
Greenhorn	3938'	+ 2927'	
Graneros Dakota	4092'	+ 2773'	
Dakota	4264'	+ 2601'	
Morrison	4470'	+ 2395'	
Todilto	5236'	+ 1629'	
Top of Oil	5248'	+ 1617'	(92')
Entrada	5330'	+ 1535'	
Oil/Water Contact	5340'	+ 1525'	

WELL HISTORIES

Don C. Wiley & Fluid Power Pump Company - No. 1 Federal Media:

Location: 990' fsl, 660' fwl
Section 14, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6851' KB
T. D.: 5312', PB 5299'

Spudded: 3-26-69
Completed: 4-16-69
Results: 220 BOPD, producing from Entrada

Casing: 8-5/8" @ 200' w/150 sx, 4-1/2" @ 5310' w/300 sx

Remarks: DST 4033'-4055', 22', IFP 5" 72 lbs, ICIP 95" 1173 lbs, FFP 30" 78 lbs, FCIP 45" 783 lbs, recovered 100' slightly gas cut mud, HP 1943#. DST 5239'-5256', 17', IFP 15" 634 lbs, ICIP 30" 2020 lbs, FFP 2 hrs 1674 lbs, FCIP 1 hr 2020 lbs, recovered 4650' of oil, no water, in 2 hrs. HP 2528#.

Core No. 1, 5196'-5256', 60' recovered, 5196'-5245' red shale and red and gray limestone, 5245'-5256' sandstone, oil saturated, dark brown. Core No. 2, 5256'-5296', 40' recovered, 5156'-5169' sandstone, oil saturated, dark brown, 5169'-5196' sandstone, gray, water saturated.

Perforated 5252'-5258' w/3 holes per ft. Acidized w/200 gallons 10% acetic acid.

Formations:

Name	Top	Datum	
Mesaverde	370'	+ 6481'	
Point Lookout	1966'	+ 4885'	
Mancos	2108'	+ 4743'	
Gallup	2792'	+ 4059'	
Greenhorn	3936'	+ 2915'	
Graneros shale	3944'	+ 2907'	
Graneros Dakota	4050'	+ 2801'	
Dakota	4216'	+ 2635'	
Morrison	4450'	+ 2401'	
Todilto	5238'	+ 1613'	
Top of Oil	5249'	+ 1611'	(38')
Entrada	5249'	+ 1602'	
Oil/Water Contact	5278'	+ 1573'	

WELL HISTORIES

Don C. Wiley & Fluid Power Pump Company - No. 1 Federal Media:

Location: 990' fsl, 660' fwl
Section 14, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6851' KB
T. D.: 5312', PB 5299'

Spudded: 3-26-69
Completed: 4-16-69
Results: 220 BOPD, producing from Entrada

Casing: 8-5/8" @ 200' w/150 sx, 4-1/2" @ 5310' w/300 sx

Remarks: DST 4033'-4055', 22', IFP 5" 72 lbs, ICIP 95" 1173 lbs, FFP 30" 78 lbs, FCIP 45" 783 lbs, recovered 100' slightly gas cut mud, HP 1943#. DST 5239'-5256', 17', IFP 15" 634 lbs, ICIP 30" 2020 lbs, FFP 2 hrs 1674 lbs, FCIP 1 hr 2020 lbs, recovered 4650' of oil, no water, in 2 hrs. HP 2528#.

Core No. 1, 5196'-5256', 60' recovered, 5196'-5245' red shale and red and gray limestone, 5245'-5256' sandstone, oil saturated, dark brown. Core No. 2, 5256'-5296', 40' recovered, 5156'-5169' sandstone, oil saturated, dark brown, 5169'-5196' sandstone, gray, water saturated.

Perforated 5252'-5258' w/3 holes per ft. Acidized w/200 gallons 10% acetic acid.

Formations:

Name	Top	Datum	
Mesaverde	370'	+ 6481'	
Point Lookout	1966'	+ 4885'	
Mancos	2108'	+ 4743'	
Gallup	2792'	+ 4059'	
Greenhorn	3936'	+ 2915'	
Graneros shale	3944'	+ 2907'	
Graneros Dakota	4050'	+ 2801'	
Dakota	4216'	+ 2635'	
Morrison	4450'	+ 2401'	
Todilto	5238'	+ 1613'	
Top of Oil	5240'	+ 1611'	(38')
Entrada	5249'	+ 1602'	
Oil/Water Contact	5278'	+ 1573'	

WELL HISTORIES

Don C. Wiley & Fluid Power Pump Company - No. 4 Federal Media:

Location: 990' fsl, 1650' fwl
Section 14, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6886' KB
T. D.: 5344', PB 5311'

Spudded: 5-19-69
Completed: 7-7-69
Results: IPP 18 BOPD, 96 BWPD, producing from Entrada

Casing: 8-5/8" @ 200' w/150 sx, 4-1/2" @ 5344' w/300 sx

Remarks: Cored 5291'-5313', recovered 13' oil saturated sand, 7' water saturated sand. No DST.

Perforated 5293'-5297' w/3 per ft, acidized. Squeezed perforations 5293'-5297' w/75 sx. Perforated 5290'-5295.5' w/4 per ft, acidized.

Formations:

Name	Top	Datum	
Mesaverde	404'	+ 6482'	
Point Lookout	2006'	+ 4880'	
Mancos	2150'	+ 4736'	
Gallup	2834'	+ 4052'	
Greenhorn	3990'	+ 2896'	
Graneros shale	4048'	+ 2838'	
Graneros Dakota	4102'	+ 2784'	
Dakota	4272'	+ 2614'	
Morrison	4514'	+ 2372'	
Todilto	5282'	+ 1604'	
Top of Oil	5282'	+ 1604'	(26')
Entrada	5290'	+ 1596'	
Oil/Water Contact	5308'	+ 1578'	

WELL HISTORIES

Don C. Wiley - No. 1 Beard:

Location: 1980' fsl, 1650' fwl
Section 14, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6866' KB
T. D.: 5346'

Spudded: 7-1-69
Completed: Not complete
Results: Temporarily shut down

Casing: 8-5/8" @ 212' w/100 sx, 5-1/2" @ 5346' w/275 sx

Remarks: No cores or tests.

Formations:

Name	Top	Datum	
Mesaverde	402'	+ 6464'	
Point Lookout	1994'	+ 4872'	
Mancos	2140'	+ 4726'	
Gallup	2824'	+ 4042'	
Greenhorn	3972'	+ 2894'	
Graneros shale	4030'	+ 2836'	
Graneros Dakota	4178'	+ 2688'	
Dakota	4250'	+ 2616'	
Morrison	4451'	+ 2415'	
Todilto	5210'	+ 1656'	
Top of Oil	5230'	+ 1636'	(55')
Entrada	5282'	+ 1584'	
Oil/Water Contact	5285'	+ 1581'	

WELL HISTORIES

Fluid Power Pump Company - No. 1 Fluid Power Pump:

Location: 1980' fsl, 330' fwl
Section 14, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6825' GR, 6842' KB (Datum)
T. D.: 5351'

Spudded: 10-10-71
Completed: 11-1-71
Results: IPP 508 BOPD, 1500 BWPD, producing from the Entrada

Casing: 10-3/4' @ 217' w/140 sx, 7" @ 5340' w/300 sx

Remarks: No cores or tests. Perforated 5206' - 5254' w/2 per ft. Acidized w/500 gallons 15% mud acid.

Formations:

Name	Top	Datum
Lewis shale	0'	+ 6842'
Mesaverde	380'	+ 6462'
Menefee	1148'	+ 5694'
Point Lookout	1970'	+ 4872'
Mancos	2098'	+ 4744'
Gallup	2790'	+ 4052'
Dakota "A"	4202'	+ 2640'
Dakota "B"	4312'	+ 2530'
Morrison	4456'	+ 2386'
Todilto	5200'	+ 1642'
Entrada	5218'	+ 1624'

WELL HISTORIES

Magnolia Petroleum - No. 2 Hutchinson:

Location: 1980' fsl, 660' fel
Section 15, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6800' KB
T. D.: 5209'

Spudded: 11-18-53
Completed: 1-2-54
Results: Pumped 62 BO and 162 bbls salt water in 24 hrs, 33.8° gravity oil from Entrada 5200'-5209', open hole.

Casing: 9-5/8" @ 470' w/475 sx, 7" @ 5200' w/520 sx

Remarks: DST 5187'-5202', open 1 hr, recovered 1380' clean oil, FP 130-540#, SIP 30 min 2020#, HP 2460#.

Cored 5160'-5175', recovered 5' sand, 1' shale and lime, 3' shale and sand, 5' sand. Cored 5175'-5202', recovered 20.5' anhydrite, 3.5' sand.

Formations:

Name	Top	Datum	
Point Lookout	1932'	+ 4868'	
Mancos	2064'	+ 4736'	
Gallup	2756'	+ 4044'	
Greenhorn	3840'	+ 2960'	
Graneros shale	3955'	+ 2845'	
Graneros Dakota	4000'	+ 2800'	
Dakota	4172'	+ 2628'	
Morrison	4430'	+ 2370'	
Todilto	5182'	+ 1618'	
Top of Oil	5193'	+ 1607'	(16')
Entrada	5207'	+ 1593'	

WELL HISTORIES

Don C. Wiley and Fluid Power Pump Company - No. 2 Federal Media:

Location: 914' fsl, 320' fel
Section 15, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6821' KB
T. D.: 5280'

Spudded: 4-14-69
Completed: 6-1-69
Results: IPP 124 BOPD, 72 BWPD, producing from Entrada

Casing: 8-5/8" @ 208' w/175 sx, 4-1/2" @ 5283' w/150 sx

Remarks: Cored 5192'-5252', recovered 46' - 5192'-5218' limestone and anhydrite, 5218'-5238' oil saturated sandstone, lost core from 5238'-5252'.

Formations:

Name	Top	Datum	
Mesaverde	350'	+ 6471'	
Point Lookout	1939'	+ 4882'	
Mancos	2066'	+ 4755'	
Gallup	2760'	+ 4061'	
Greenhorn	3906'	+ 2915'	
Graneros shale	3962'	+ 2859'	
Graneros Dakota	4010'	+ 2811'	
Dakota	4186'	+ 2635'	
Morrison	4436'	+ 2385'	
Todilto	5170'	+ 1651'	
Top of Oil	5184'	+ 1637'	(64')
Entrada	5218'	+ 1603'	
Oil/Water Contact	5248'	+ 1573'	

WELL HISTORIES

Fluid Power Pump Company - No. 2 Fluid Power Pump:

Location: 2310' fn. 330' fel
Section 15, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6781' GR, 6795' KB (Datum)
T. D.: 5300'

Spudded: 11-29-71
Completed: Not complete
Results: Pump being set, preparing to test.

Casing: 10-3/4" @ 210' w/140 sx, 7" @ 5300' w/310 sx

Remarks: No cores or tests. Perforated 5188'-5202' and 5202' - 5214' w/2 per ft.

Formations:

Name	Top	Datum
Lewis shale	0'	+ 6795'
Mesaverde	334'	+ 6461'
Menefee	958'	+ 5837'
Point Lookout	1944'	+ 4851'
Mancos	2074'	+ 4721'
Gallup	2752'	+ 4043'
Greenhorn	3844'	+ 2951'
Graneros shale	3966'	+ 2824'
Graneros Dakota	4006'	+ 2789'
Dakota "A"	4182'	+ 2613'
Dakota "B"	4284'	+ 2511'
Morrison	4422'	+ 2373'
Todilto	5166'	+ 1629'
Entrada	5203'	+ 1592'

WELL HISTORIES

F. L. Harvey - No. 1-C Gonzales:

Location: 1980' fsl, 660' fel
Section 16, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6868' KB
T. D.: 3568'

Spudded: 6-26-56
Completed: 7-14-56
Results: D & A

Casing: 8-5/8" @ 92' w/70 sx

Remarks: No cores or tests.

Formations:

Name	Top	Datum
Mesaverde	637'	+ 6231'
Point Lookout	2209'	+ 4659'
Mancos	2350'	+ 4518'
Gallup	3042'	+ 3826'

WELL HISTORIES

Don C. Wiley and Fluid Power Pump Company - No. 3 Federal Media:

Location: 470' fnl, 1690' fel
Section 22, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6882' KB
T. D.: 5341', PB 3102'

Spudded: 5-4-69
Completed: 6-4-69
Results: IPP 97 BOPD, producing from Gallup, 40° gravity.

Casing: 8-5/8" @ 233' w/175 sx, 4-1/2" @ 3102' w/175 sx

Remarks: No drillstem tests made. Cored 5278'-5327', recovered 49' - 5278'-5317' limestone, anhydrite, and black shale, 5317'-5327' sandstone - 4' total oil saturation from 5317'-5319' and 5321'-5323'.

Plugged back to 3102'. Perforated 70' w/2 per ft as follows: 2826'-2836', 2838'-2849', 2856'-2860', 2872'-2878', 2900'-2916', 2926'-2930', 2933'-2942', 2950'-2954' and 3013'-3019'. Acidized w/1000 gal 15% mud acid. Sand/oil fractured w/40,000# sand and 31,810 gal oil. IR 41 BPM, TP 2000#, MP 3000#, dropped 75 balls.

Formations:

Name	Top	Datum	
Mesaverde	422'	+ 6460'	
Point Lookout	1998'	+ 4884'	
Mancos	2136'	+ 4746'	
Gallup	2818'	+ 4064'	
Greenhorn	3922'	+ 2960'	
Graneros shale	4020'	+ 2862'	
Graneros Dakota	4074'	+ 2808'	
Dakota	4240'	+ 2642'	
Morrison	4436'	+ 2446'	
Todilto	5241'	+ 1641'	
Top of Oil	5266'	+ 1616'	(57')
Entrada	5317'	+ 1565'	
Oil/Water Contact	5323'	+ 1569'	

WELL HISTORIES

Don C. Wiley and Fluid Power Pump Company - No. 5 Federal Media:

Location: 1650' fnl, 660' fel
Section 22, Township 19 North, Range 3 West, NMPM
Sandoval County, New Mexico

Elevation: 6866' KB
T. D.: 5379', PB 3380'

Spudded: 6-1-69
Completed: 9-21-69
Results: IPF 5 BOPD, FTP 30#.

Casing: 8-5/8" @ 200' w/150 sx, 4-1/2" @ 3433' w/322 sx

Remarks: No drillstem tests. Sidewall cores made at 1611', 1705' 1711', 1714', 1718', 1720', 1769', 1811', 1833', 1844', 1892', 1896'. Menefee sandstone samples at each foot.

Perforated 2784'-2798', 2812'-2816', 2824'-2828', 2836'-2850', 2870'-2876', 2890'-2900', 2904'-2910' (4th stage) w/4 per ft. Perforated 2964'-2972', 2984'-2992', 3006'-3014', 3024'-3032', 3046'-3058' (3rd stage) w/4 per ft. Perforated 3176'-3182', 3188'-3192', 3198'-3202', 3210'-3216', 3224'-3231', 3236'-3244', 3262'-3268' (2nd stage) w/4 per ft. Perforated 3290'-3294', 3300'-3304', 3318'-3322', 3330'-3338', 3363.5'-3367.5', 3374'-3378' (1st stage) w/4 per ft.

First stage: Sand/water fractured 3290'-3378' w/50,000# sand and 50,730 gal water. Broke down with 500 gallons 15% mud acid. Breakdown pressure 800#. Maximum pressure 2400#. Average pressure 2300#. ISIP 200#, 5 min 50#. Average injection rate 68 BPM. Dropped 25 rubber balls.

Second stage: Sand/water fractured 3176'-3268' w/50,000# sand and 49,030 gal water. Treated w/500 gal mud acid. Breakdown pressure 0#. Maximum pressure 2400#. Average pressure 2200#. ISIP 200#, 5 min 100#. Average injection rate 72 BPM. Dropped 75 rubber balls.

Third stage: Sand/oil fractured 2964'-3058' w/50,000# sand and 52,950 gal oil. Treated w/500 gal mud acid. Breakdown pressure 400#. Average treating pressure 3000#. ISIP 0#, 5 min 0#. Average injection rate 46 BPM. No balls dropped.

Fourth stage: Sand/water fractured 2784'-2910' w/75,000# sand and 60,690 gal water. Treated w/500 gal mud acid. Breakdown pressure 0#, maximum pressure 1950#. Average pressure 1900#. ISIP 100#, 5 min 50#. Average injection rate 79 BPM. Dropped 150 rubber balls.

(continued on following page)

WELL HISTORIES

Don C. Wiley and Fluid Power Pump Company - No. 5 Federal Media:

(continued from previous page)

Formations:

Name	Top	Datum
Mesaverde	388'	+ 6478'
Point Lookout	1960'	+ 4906'
Mancos	2102'	+ 4764'
Gallup	2782'	+ 4084'
Greenhorn	3942'	+ 2924'
Graneros shale	4000'	+ 2866'
Graneros Dakota	4048'	+ 2818'
Dakota	4219'	+ 2647'
Morrison	4422'	+ 2444'
Todilto	5224'	+ 1642'
Entrada	5328'	+ 1538'

THE PERMIAN CORPORATION - HOUSTON, TEXAS

LEASE FEDERAL MEDIA DEC. 1971 PAGE 2 600

565230 LEASE NO.

STATEMENT OF
CRUDE OIL RUNS
OPER# 96732

PRODUCER DON C WILEY & FLUID
POWER PUMP CO
1116 BANK OF N M BLDG
ALBUQUERQUE N M 87101
C/C VAL REESE

GROSS VALUE	MARKETING	TAX	NET BARRELS	NET VALUE

DATE	TANK NO.	TICKET NO.	DEL.	ENTRY	GRAV.	PRICE	NET BARRELS	GROSS VALUE
12 16	41111	558255	623	1	32.5	3.3100	192.49	637.14
12 18	41112	558258	623	1	32.5	3.3100	192.52	637.24
12 19	41112	558260	623	1	32.5	3.3100	192.43	636.94
12 20	41112	558262	623	1	32.5	3.3100	192.43	636.94
12 21	41112	558263	623	1	32.5	3.3100	191.68	634.46
12 22	41111	558266	623	1	32.5	3.3100	192.46	637.04
12 23	41111	558267	623	1	32.5	3.3100	192.47	637.08
12 23	41111	558268	623	1	32.5	3.3100	193.31	639.86
12 23	41112	559911	623	1	32.5	3.3100	201.37	666.53
12 24	41112	558269	623	1	32.5	3.3100	191.77	634.76
12 26	41111	558272	623	1	32.5	3.3100	192.47	637.08
12 27	41111	558273	623	1	32.5	3.3100	192.47	637.08
12 27	41111	558274	623	1	32.5	3.3100	192.54	637.31
12 27	41112	559914	623	1	32.5	3.3100	201.35	666.47
12 29	41112	558278	623	1	32.5	3.3100	245.89	813.90
12 30	41112	558280	623	1	32.5	3.3100	192.43	636.94
12 31	41112	558281	623	1	32.5	3.3100	192.43	636.94
STATE CODE 02		TAX CODE 1					6,708.70	22,205.77 *

*ENTRY CODES: 1 - REGULAR RUN 2 - ESTIMATED RUN 3 - DEBIT CORRECTION 4 - CREDIT CORRECTION
5 - WASH OIL SOLD 6 - WASH OIL RECOVERED

PC 2 - 200M - 10-71

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 6
CASE NO. 4642

THE PERMIAN CORPORATION - HOUSTON, TEXAS

LEASE FEDERAL MEDIA DEC. 1971 600

565230 LEASE NO.

STATEMENT OF
CRUDE OIL RUNS
OPER# 96732

PRODUCER DON C WILEY & FLUID
POWER PUMP CO
1116 BANK OF N M BLDG
ALBUQUERQUE N M 87101
C/C VAL REESE

GROSS VALUE	MARKETING	TAX	NET BARRELS	NET VALUE
22,205.77	4,092.30	1,164.32	6,708.70	16,949.15

DATE	TANK NO.	TICKET NO.	DEL.	ENTRY	GRAV.	PRICE	NET BARRELS	GROSS VALUE
11 5	41112	558374	623	1	32.5	3.3100	192.43	636.94
12 1	41111	558368	623	1	32.5	3.3100	192.54	637.31
12 2	41112	558369	623	1	32.5	3.3100	192.43	636.94
12 3	41112	558371	623	1	32.5	3.3100	192.43	636.94
12 6	41110	557739	623	1	32.5	3.3100	202.13	669.05
12 6	41111	559971	623	1	32.5	3.3100	168.96	559.26
12 6	41112	559972	623	1	32.5	3.3100	30.84	102.08
12 7	41111	557741	623	1	32.5	3.3100	203.78	674.51
12 7	41110	559974	623	1	32.5	3.3100	204.98	678.48
12 9	41110	558527	623	1	32.5	3.3100	203.81	674.61
12 9	41111	558556	623	1	32.5	3.3100	202.37	669.84
12 10	41111	557577	623	1	32.5	3.3100	203.78	674.51
12 11	41112	558559	623	1	32.5	3.3100	202.13	669.05
12 12	41112	558375	623	1	32.5	3.3100	192.43	636.94
12 13	41112	558251	623	1	32.5	3.3100	192.43	636.94
12 14	41112	558252	623	1	32.5	3.3100	192.43	636.94
12 15	41112	558253	623	1	32.5	3.3100	192.43	636.94
12 15	41110	558542	623	1	32.5	3.3100	203.86	674.78

*ENTRY CODES: 1 - REGULAR RUN 2 - ESTIMATED RUN 3 - DEBIT CORRECTION 4 - CREDIT CORRECTION
5 - WASH OIL SOLD 6 - WASH OIL RECOVERED

PC 2 - 200M - 10-71

THE PERMIAN CORPORATION - HOUSTON, TEXAS

LEASE FLUIC PCWER PUMP #1 DEC. 1971

560450 LEASE NO.

PRODUCER FLUIC PCWER PUMP CO
1116 BANK OF NEW MEXICO
ALBUQUERQUE N M 87101
C/O VAL PEESE

STATEMENT OF
CRUDE OIL RUNS
OPER# 31550

GROSS VALUE	MARKETING	TAX	NET BARRELS	NET VALUE
34,967.65	6,444.10	1,833.48	10,564.23	26,690.07

DATE	TANK NO.	TICKET NO.	DEL.	ENTRY*	GRAV.	PRICE	NET BARRELS	GROSS VALUE
11 24	20031	558372	623	1	32.5	3.3100	192.01	635.55
11 24	20033	558502	623	4	32.5	3.3100	202.85CR	671.43CR
11 24	20033	558502	623	3	32.5	3.3100	202.30	669.61
11 25	20033	558503	623	3	32.5	3.3100	201.89	668.26
11 25	20033	558503	623	4	32.5	3.3100	202.44CR	670.08CR
11 25	20033	558504	623	4	32.5	3.3100	202.44CR	670.08CR
11 25	20033	558504	623	3	32.5	3.3100	201.92	668.36
11 26	20033	558505	623	3	32.5	3.3100	201.89	668.26
11 26	20033	558505	623	4	32.5	3.3100	202.44CR	670.08CR
11 26	20032	558506	623	4	32.5	3.3100	202.83CR	671.37CR
11 26	20032	558506	623	3	32.5	3.3100	202.43	670.04
11 27	20033	558507	623	3	32.5	3.3100	201.48	666.90
11 27	20033	558507	623	4	32.5	3.3100	202.03CR	668.72CR
11 27	20032	558508	623	4	32.5	3.3100	202.24CR	669.41CR
11 27	20032	558508	623	3	32.5	3.3100	201.76	667.83
11 28	20032	558509	623	3	32.5	3.3100	201.72	667.69
11 28	20032	558509	623	4	32.5	3.3100	202.24CR	669.41CR
11 29	20031	558510	623	4	32.5	3.3100	202.24CR	669.41CR

*ENTRY CODES: 1 - REGULAR RUN 2 - ESTIMATED RUN 3 - DEBIT CORRECTION 4 - CREDIT CORRECTION
5 - WASH OIL SOLD 6 - WASH OIL RECOVERED

PC 2 - 200M - 10-71

THE PERMIAN CORPORATION - HOUSTON, TEXAS

LEASE FLUIC PCWER PUMP #1 DEC. 1971 PAGE 2

560450 LEASE NO.

PRODUCER FLUIC PCWER PUMP CO
1116 BANK OF NEW MEXICO
ALBUQUERQUE N M 87101
C/O VAL REESE

STATEMENT OF
CRUDE OIL RUNS
OPER# 31550

GROSS VALUE	MARKETING	TAX	NET BARRELS	NET VALUE

DATE	TANK NO.	TICKET NO.	DEL.	ENTRY*	GRAV.	PRICE	NET BARRELS	GROSS VALUE
11 29	20031	558510	623	3	32.5	3.3100	201.79	667.92
11 29	20032	559956	623	3	32.5	3.3100	202.51	670.31
11 29	20032	559956	623	4	32.5	3.3100	202.08CR	668.88CR
11 30	20031	558511	623	4	32.5	3.3100	202.24CR	669.41CR
11 30	20031	558511	623	3	32.5	3.3100	201.83	668.06
11 30	20032	558512	623	3	32.5	3.3100	201.71	667.66
11 30	20032	558512	623	4	32.5	3.3100	202.24CR	669.41CR
11 30	20032	559959	623	4	32.5	3.3100	200.85CR	664.81CR
11 30	20032	559959	623	3	32.5	3.3100	201.28	666.24
12 1	20033	557731	623	1	32.5	3.3100	200.88	664.91
12 1	20032	558513	623	1	32.5	3.3100	201.69	667.59
12 1	20032	558514	623	1	32.5	3.3100	201.70	667.63
12 2	20032	558515	623	1	32.5	3.3100	201.71	667.66
12 3	20032	558370	623	1	32.5	3.3100	188.78	624.86
12 3	20032	558519	623	1	32.5	3.3100	201.68	667.56
12 4	20031	558373	623	1	32.5	3.3100	192.66	637.70
12 4	20031	558521	623	1	32.5	3.3100	202.63	670.71
12 4	20033	558522	623	1	32.5	3.3100	200.88	664.91

*ENTRY CODES: 1 - REGULAR RUN 2 - ESTIMATED RUN 3 - DEBIT CORRECTION 4 - CREDIT CORRECTION
5 - WASH OIL SOLD 6 - WASH OIL RECOVERED

PC 2 - 200M - 10-71

THE PERMIAN CORPORATION - HOUSTON, TEXAS

LEASE FLUID POWER PUMP #1 DEC. 1971 PAGE 3

560450
LEASE NO.

PRODUCER FLUID POWER PUMP CO
1116 BANK OF NEW MEXICO
ALBUQUERQUE N M 87101
C/C VAL REESE

STATEMENT OF
CRUDE OIL RUNS
OPER# 31550

GROSS VALUE	MARKETING	TAX	NET BARRELS	NET VALUE

DATE	TANK NO.	TICKET NO.	DEL.	*ENTRY	GRAV.	PRICE	NET BARRELS	GROSS VALUE
12 5	20032	558551	623	1	32.5	3.3100	201.74	667.76
12 6	20032	558524	623	1	32.5	3.3100	201.69	667.59
12 7	20032	558553	623	1	32.5	3.3100	201.83	668.06
12 8	20032	558526	623	1	32.5	3.3100	201.02	665.38
12 8	20032	559975	623	1	32.5	3.3100	200.89	664.95
12 9	20033	558554	623	1	32.5	3.3100	201.29	666.27
12 9	20031	558555	623	1	32.5	3.3100	202.12	669.02
12 10	20033	558528	623	1	32.5	3.3100	200.46	663.52
12 10	20032	558557	623	1	32.5	3.3100	201.71	667.66
12 10	20032	558558	623	1	32.5	3.3100	201.78	667.89
12 11	20032	558560	623	1	32.5	3.3100	201.72	667.69
12 12	20032	558561	623	1	32.5	3.3100	201.68	667.56
12 13	20031	558539	623	1	32.5	3.3100	204.96	678.42
12 13	20032	558562	623	1	32.5	3.3100	201.68	667.56
12 14	20031	558540	623	1	32.5	3.3100	200.88	664.91
12 14	20032	558541	623	1	32.5	3.3100	200.88	664.91
12 14	20031	558563	623	1	32.5	3.3100	201.83	668.06
12 15	20032	558565	623	1	32.5	3.3100	201.71	667.66

*ENTRY CODES: 1 - REGULAR RUN 2 - ESTIMATED RUN 3 - DEBIT CORRECTION 4 - CREDIT CORRECTION
5 - WASH OIL SOLD 6 - WASH OIL RECOVERED

PC 2 - 200M - 10-71

THE PERMIAN CORPORATION - HOUSTON, TEXAS

LEASE FLUIC PCWER PUMP #1 DEC. 1971 PAGE 5

560450 LEASE NO.

PRODUCER FLUIC PCWER PUMP CC
1116 BANK CF NEW MEXICO
ALBUCUERCUE N M 87101
C/C VAL REESE

STATEMENT OF
CRUDE OIL RUNS
OPER# 31550

GROSS VALUE	MARKETING	TAX	NET BARRELS	NET VALUE

DATE	TANK NO.	TICKET NO.	DEL.	ENTRY*	GRAV.	PRICE	NET BARRELS	GROSS VALUE
12 24	20C32	558270	623	1	32.5	3.3100	77.57	256.76
12 24	20033	558271	623	1	32.5	3.3100	108.13	357.91
12 26	20C33	558209	623	1	32.5	3.3100	201.68	667.56
12 26	20032	558550	623	1	32.5	3.3100	201.02	665.38
12 28	20C32	558275	623	1	32.5	3.3100	192.01	635.55
12 28	20032	558276	623	1	32.5	3.3100	192.06	635.72
12 29	20032	558277	623	1	32.6	3.3100	192.76	638.04
12 31	20032	558282	623	1	32.5	3.3100	189.57	627.48
STATE	CODE 02	TAX CODE 1					10,564.23	34,967.65 *

*ENTRY CODES: 1 - REGULAR RUN 2 - ESTIMATED RUN 3 - DEBIT CORRECTION 4 - CREDIT CORRECTION
5 - WASH OIL SOLD 6 - WASH OIL RECOVERED

PC 2 - 200M - 10-71

THE PERMIAN CORPORATION - HOUSTON, TEXAS

LEASE FLUID PCWER PUMP #1 DEC. 1971 PAGE 4

560450 LEASE NO.

PRODUCER FLUID PCWER PUMP CO
1116 BANK OF NEW MEXICO
ALBUCUERCUE N M 87101
C/C VAL REESE

STATEMENT OF
CRUDE OIL RUNS
OPER# 31550

GROSS VALUE	MARKETING	TAX	NET BARRELS	NET VALUE

DATE	TANK NO.	TICKET NO.	DEL.	ENTRY*	GRAV.	PRICE	NET BARRELS	GROSS VALUE
12 15	20032	558566	623	1	32.5	3.3100	201.76	667.83
12 16	20C32	558543	623	1	32.5	3.3100	201.02	665.38
12 16	20C32	558567	623	1	32.5	3.3100	201.71	667.66
12 17	20033	558257	623	1	32.5	3.3100	192.01	635.55
12 17	20C32	558544	623	1	32.5	3.3100	201.02	665.38
12 17	20032	558568	623	1	32.5	3.3100	201.70	667.63
12 18	20033	558259	623	1	32.5	3.3100	192.02	635.59
12 18	20033	558571	623	1	32.5	3.3100	201.68	667.56
12 19	20032	558261	623	1	32.5	3.3100	192.02	635.59
12 20	20C31	558201	623	1	32.5	3.3100	201.83	668.06
12 20	20C32	558575	623	1	32.5	3.3100	201.68	667.56
12 20	20033	559901	623	1	32.5	3.3100	200.88	664.91
12 21	20C33	558202	623	1	32.5	3.3100	201.68	667.56
12 21	20033	558203	623	1	32.5	3.3100	201.71	667.66
12 22	20C33	558204	623	1	32.5	3.3100	201.70	667.63
12 22	20033	558205	623	1	32.5	3.3100	201.81	667.99
12 23	20033	558207	623	1	32.5	3.3100	201.68	667.56
12 24	20C33	558208	623	1	32.5	3.3100	201.68	667.56

*ENTRY CODES: 1 - REGULAR RUN 2 - ESTIMATED RUN 3 - DEBIT CORRECTION 4 - CREDIT CORRECTION
5 - WASH OIL SOLD 6 - WASH OIL RECOVERED

PC 2 - 200M - 10-71

SUMMARY OF ENTRADA PRODUCTION

Media Entrada Field
Sandoval County, New Mexico

Operator	Well Name	Location	First Production	Total Bbls Produced	Remarks
Fluid Power Pump	#1 Media	SW SW Sec 14-19N-3W	4-16-69	63,947	
	#2 Media	SE SE Sec 15-19N-3W	6-1-69	38,875	Shut in Jan 1970 thru Feb 1971
	#4 Media	SE SW Sec 14-19N-3W	7-7-69	237	Shut in Aug 1969
	#1 Beard	NE SW Sec 14-19N-3W	Incomplete	None	Well being tested
	#1 Fluid	NW SW Sec 14-19N-3W	11-1-71	13,459	
	#2 Fluid	SE NE Sec 15-19N-3W	Incomplete	None	Well being tested
Magnolia	#1 Hutchinson	NW SW Sec 14-19N-3W	11-20-53	14,196	Abandoned in 1958
	#2 Hutchinson	NE SE Sec 15-19N-3W	1-2-54	3,915	Abandoned in 1958

PRODUCTION RECORDS

Don C. Wiley and Fluid Power Pump Company - No. 1 Federal Media well:

Location: SW¼SW¼ Section 14, Township 19 North, Range 3 West, N.M.P.M.
Media Entrada Field, Sandoval County, New Mexico

Completed: 4-16-69

Period	Days Produced	Bbls Oil Produced
April 1969	9	846
May	12	1,260
June	26	2,681
July	26	2,881
August	31	3,000
September	28	2,674
October	25	2,238
November	8	679
December	15	1,673
1969 Totals	180	17,932
January 1970	16	1,695
February	13	1,265
March	25	2,475
April	8	773
May	22	2,174
June	7	646
July	26	2,896
August	26	2,720
September	26	2,443
October	25	2,484
November	4	173
December	19	1,741
1970 Totals	217	21,485
Cumulative Production		39,417
January 1971	2	103
February	0	0
March	16	914
April	30	2,166
May	31	2,728
June	30	2,145
July	31	2,524
August	30	2,420
September	26	2,495
October	28	2,937
November	21	2,595
December	28	3,503
1971 Totals	273	24,530
Cumulative Production		63,947

PRODUCTION RECORDS

Don C. Wiley and Fluid Power Pump Company - No. 2 Federal Media well:

Location: SE¼SE¼ Section 15, Township 19 North, Range 3 West, N.M.P.M.
Media Entrada Field, Sandoval County, New Mexico

Completed: 6-1-69

Period	Days Produced	Bbls Oil Produced
June 1969	26	2,681
July	26	2,882
August	31	3,000
September	28	2,673
October	25	2,237
November	8	680
December	15	1,674
1969 Totals	159	15,827
January 1970	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
October	0	0
November	0	0
December	0	0
1970 Totals	0	0
Cumulative Total		15,827
January 1971	0	0
February	0	0
March	10	327
April	26	780
May	28	1,188
June	27	2,621
July	27	2,627
August	31	2,840
September	23	2,522
October	26	3,057
November	29	3,583
December	28	3,503
1971 Totals	255	23,048
Cumulative Total		38,875

PRODUCTION RECORDS

Don C. Wiley and Fluid Power Pump Company - No. 4 Federal Media well:

Location: SE¼SW¼ Section 14, Township 19 North, Range 3 West, N.M.P.M.
Media Entrada Field, Sandoval County, New Mexico

Completed: 7-7-69

Period	Days Produced	Bbls Oil Produced
July 1969	20	212
August	12	25
September	0	0
October	0	0
November	0	0
December	0	0
1969 Totals	32	237
January 1970	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
October	0	0
November	0	0
December	0	0
1970 Totals	0	0
Cumulative Total		237
January 1971	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
October	0	0
November	0	0
December	0	0
1971 Totals	0	0
Cumulative Total		237

PRODUCTION RECORDS

Fluid Power Pump Company - No. 1 Fluid Power Pump well:

Location: NW¼SW¼ Section 14, Township 19 North, Range 3 West, N.M.P.M. Media Entrada Field, Sandoval County, New Mexico

Completed: 11-1-71

Period	Days Produced	Bbls Oil Produced
November 1971	7	3,368
December	26	10,091
1971 Totals	33	13,459
Cumulative Production		13,459

PRODUCTION RECORDS

Don C. Wiley and Fluid Power Pump Company – No. 3 Federal Nedia well:

Location: NW¼NE¼ Section 22, Township 19 North, Range 3 West, N.M.P.M. Undesignated Gallup Field, Sandoval County, New Mexico

Completed: 6-4-69

Period	Days Produced	Bbls Oil Produced
June 1969	20	762
July	17	934
August	31	336
September	30	147
October	3	40
November	1	20
December	0	0
1969 Totals	102	2,239
January 1970	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
October	0	0
November	0	0
December	0	0
1970 Totals	0	0
Cumulative Total		2,239
January 1971	0	0
February	0	0
March	0	0
April	0	0
May	18	82
June	25	70
July	13	53
August	18	66
September	3	31
October	0	0
November	0	0
December	0	0
1971 Totals	77	302
Cumulative Total		2,541

In order to arrive at the oil reserves of the Todilto/Entrada, the following Table II was prepared to determine the average thickness of the Todilto and Entrada horizons. Thicknesses shown were taken from the logs on the wells.

TABLE II

AVERAGE THICKNESS - TODILTO AND ENTRADA

	Todilto Thickness	Entrada Thickness
No. 1 Federal Media	9'	29'
No. 2 Federal Media	34'	30'
No. 3 Federal Media	48'	4'
No. 4 Federal Media	8'	18'
No. 1 Hutchinson Federal	10'	44'
No. 2 Hutchinson Federal	14'	Undetermined
No. 1 Beard	52'	3'
No. 1 Harvey	28'	22'
Total Thickness	203'	150'
Average Thickness	25'	21'

After determination of the average thickness of the porous section as shown in Table II, core analyses from the Todilto were averaged and the average porosity was found to be 5.0% while the average connate water was found to be 31.2%. Using a formation volume factor of 1.20, it was calculated that there would be 222 barrels of stock tank oil in place per acre/foot in the Todilto limestone portion of the Todilto/Entrada reservoir.

Four wells have been produced from the Entrada reservoir at Media Dome. Information obtained from core analyses on these four wells is summarized in Table III in order to arrive at the average barrels of oil per acre/foot in the Entrada horizon.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
applicants' EXHIBIT NO. 8
CASE NO. 4642

TABLE III

SUMMARY OF CORE ANALYSES - ENTRADA WELLS

	No. 1 Media	No. 2 Media	No. 4 Media	No. 1 Hutchinson
Cored Interval	5245-5269'	5217-5238'	5283-5294'	5219-5257'
Feet of Core Recovered	24'	21'	11'	38'
Average Permeability - Millidarcys	286	130.5	269	283
Productive Capacity, Millidarcy/Feet	6866	2740	2958	10754
Average Per Cent Porosity	23.3	22.6	25.0	22.8
Average Per Cent Residual Oil	20.7	20.2	18.8	26.2
Average Per Cent Connate Water	30.0	30.0	30.0	41.0
Formation Volume Factor	1.20	1.20	1.20	1.35
Calculated Stock Tank Barrels of Oil in Place per Acre Foot	1055	1023	1131	773

The four Entrada wells shown in Table III average 995 stock tank barrels of oil in place per foot.

The oil/water structural contact line of + 1560' as shown on the Entrada Structure Map encompasses the area shown to be the total productive area from which oil will be produced at Media Dome. By triangular method, it was calculated that the productive area encompassed a minimum of 416 acres.

Using an average of 21' of Entrada sandstone pay with 995 stock tank barrels per acre/foot in place, it is calculated that there is 20,895 stock tank barrels in place per acre or a total of 8,692,320 barrels in place under the 416 acres. Using an average of 25' of Todilto limestone pay with 222 stock tank barrels in place per acre/foot, it is calculated that there is 5,550 stock tank barrels in place per acre or 2,308,800 barrels in place under the 416 acres. The total calculated for the Todilto/Entrada reservoir is 11,001,120 barrels of oil in place at Media Dome.

At an estimated recovery of 33%, it is calculated that there are 3,630,370 barrels of recoverable oil under the Media Dome from the Todilto/Entrada reservoir. The following detail shows how the Todilto/Entrada reserves were calculated:

Entrada:	
Net Sand Thickness	21'
Calculated Stock Tank Barrels per Acre/Foot in Place	995
Calculated Stock Tank Barrels per Acre in Place	20,895
Todilto:	
Net Sand Thickness	25'
Calculated Stock Tank Barrels per Acre/Foot in Place	222
Calculated Stock Tank Barrels per Acre in Place	5,550
Combined Todilto/Entrada:	
Calculated Stock Tank Barrels per Acre in Place	26,445
Acres in Reserve Area	416
Total Calculated Stock Tank Barrels in Place under 416 acre Reserve Area	11,001,120
Calculated Recoverable Barrels of Oil @ 33%	3,630,370

FLUID POWER PUMP COMPANY

Media Entrada Field
Sandoval County, New Mexico

SUMMARY OF DRILLSTEM TESTS

Media No. 1 well - Drillstem test #1 not applicable (made in Dakota formation)

Drillstem test #2 from 5239' - 5256' (17'), IFP 15 min 634 lbs, ISIP 30 min 2020 lbs, FFP 2 hrs 1674 lbs, FSIP 1 hr 2020 lbs, recovered 4650' of oil, no water, in 2 hrs. HHP 2528 lbs.

Harvey-Federal No. 1 well - Drillstem test 5217' - 5232', open 2 hrs, recovered 90' slighly OCM, 90' slightly O&WCM, FP 200#, SIP 30 min 2075#, HP 2600#.

Drillstem test 5227' - 5242', open 1½ hrs, recovered 360' water cut mud, 4170' slightly salty water, FP 1075-1950#, SIP 30 min 2050#, HP 2625#.

Hutchinson-Federal No. 1 well - Drillstem test #13 5200' - 5219', open 1½ hr, weak blow of air, increasing to fair, recovered 180' clean oil, 35.5° gravity at 60°, 60' MCO, FP 60-120#, SIP 30 min 1440#, HP 2490#.

Drillstem test #14 5205' - 5229', open 2 hr, weak blow of air increasing to fair, gas to surface in 25 min, recovered 310' clean oil, 90' OCM, FP 60-170#, SIP 45 min 1490#, HP 2460#.

Hutchinson-Federal No. 2 well - Drillstem test 5187' - 5202', open 1 hr, recovered 1380' clean oil, FP 130-540#, SIP 30 min 2020#, HP 2460#.

FLUID POWER PUMP COMPANY

Media Entrada Field
Sandoval County, New Mexico

SUMMARY OF FLUID LEVEL MEASUREMENTS

	Date of Test	Strokes Per Minute	Casing Pressure	Fluid Level
Media No. 1 well:	4-5-71	10 s/m	30 psi	Flowing thru casing.
	7-5-71	10 s/m	0 psi	410'
	9-27-71		Vac.	315'
	11-30-71	18 s/m	Vac.	630'
Media No. 2 well:	4-5-71	10 s/m	30 psi	Flowing thru casing
	7-5-71	20 s/m	0 psi	189'
	9-27-71		Vac.	347'
	11-30-71	18 s/m	2 psi	441'
Media No. 4 well:	7-5-71	16 s/m	5 psi	882'
Fluid No. 1 well:	11-30-71	14 s/m	Vac.	567'
	12-4-71	14 s/m	Vac.	630'
	12-4-71	Pump down 20 min.	0 psi	504'

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
applicants EXHIBIT NO. 10
CASE NO. 4642

FLUID POWER PUMP COMPANY

Media Entrada Field
Sandoval County, New Mexico

SUMMARY OF FLUID LEVEL MEASUREMENTS

	Date of Test	Strokes Per Minute	Casing Pressure	Fluid Level
Media No. 1 well:	4-5-71	10 s/m	30 psi	Flowing thru casing.
	7-5-71	10 s/m	0 psi	410'
	9-27-71		Vac.	315'
	11-30-71	18 s/m	Vac.	630'
Media No. 2 well:	4-5-71	10 s/m	30 psi	Flowing thru casing
	7-5-71	20 s/m	0 psi	189'
	9-27-71		Vac.	347'
	11-30-71	18 s/m	2 psi	441'
Media No. 4 well:	7-5-71	16 s/m	5 psi	882'
Fluid No. 1 well:	11-30-71	14 s/m	Vac.	567'
	12-4-71	14 s/m	Vac.	630'
	12-4-71	Pump down 20 min.	0 psi	504'

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
applicants EXHIBIT NO. 10
CASE NO. 4642

BHP * BU * PI * DD * GWT * BPS * GOR * FL * IS

TEFTELLER, INC.

reservoir engineering data

Associated with Dennis Oweas Co.

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

P. O. Box 5247
Midland, Texas 79701

April 13, 1971

Don C. Wiley & Fluid Power Pump Company
900 Bank of New Mexico Building
Albuquerque, New Mexico

Attention: Mr. Val R. Reese

Subject: Fluid Level Measurements
2 Wells
Sandoval County, New Mexico
Our File No. 2-4183-FL

Gentlemen:

Attached hereto are the results of the fluid level measurements which were made on the above captioned wells April 5, 1971.

The data presented are in graphical form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

Neil Teftetler

NT/kb

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Company: DON C. WILEY & FLUID POWER PUMP COMPANY

County : SANDOVAL

File 2-4183-FL

Date : APRIL 5, 1971

TEST DATA

Lease and Well Number	Strokes Per Minute	Casing Pressure Psi	Average Tubing Length Feet	Number Joints To Fluid	Fluid Level Feet
Medio No. 1	10-60"s/m	30			Flowing thru casing
Medio No. 2	10-60"s/m	30			Flowing thru casing

BHP * BU * PI * DD * GWT * BPS * GOR * FL * TS

TEFTELLER, INC.

reservoir engineering data

Associated with Dennis Owens Co.

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

P. O. Box 5247
Midland, Texas 79701

July 12, 1971

Don C. Wiley & Fluid Power Pump Co.
900 Bank of New Mexico Bldg.
Albuquerque, New Mexico

Attention: Mr. Val R. Reese

Subject: Fluid Level Measurements
3 wells
Sandoval County, New Mexico
Our File No. 2-4291-FL

Gentlemen:

Attached hereto are the results of fluid level measurements which were made in subject county July 5, 1971.

The data presented are in tabular form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at anytime.

Respectfully submitted,

TEFTELLER, INC.

Farrest Tefteller

FT/bt

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Company : DON C. WILEY & FLUID POWER PUMP CO.

Date : JULY 5, 1971

Field :

File No. : 2-4291-Fl.

TEST DATA

Lease and Well Number	Strokes Per Minute	Casing Pressure Psi	Average Tubing Length Feet	Number Joints to Fluid	Fluid Level Feet
MEDIO NO. 1	10-s/m	0	31.5	13	410
MEDIO NO. 2	20-s/m	0	31.5	6	189
MEDIO NO. 4	16-s/m	5	31.5	28	882

BHP * BU * PI * DD * GWT * BPS * GOR * FL * IS

TEFTELLER, INC.

reservoir engineering data

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

Associated with Dessels Owens Co.

P. O. Box 5247
Midland, Texas 79701

October 4, 1971

Don C. Wiley & Fluid Power Pump Co.
900 Bank of N. M. Building
Albuquerque, New Mexico

Attention: Mr. Val R. Reese

Subject: Fluid Level Measurements
Medio No. 1 & 2
Sandoval County , New Mexico
Our File Nc. 2-4371-FL

Gentlemen:

Attached hereto are the results of fluid level measurements which were made on the above captioned well September 27, 1971.

The data presented are in tabular and graphical form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

Neil Teftellen

Neil Teftellen

NT/ct

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Company : DON C. WILEY & FLUID POWER PUMP CO.

Field :

File 2-4371-F1

TEST DATA

Date	Lease and Well Number	Strokes Per Minute	Casing Pressure Psi	Average Tubing Length Feet	Number Joints to Fluid	Fluid Level Feet
9-27-71	Medio #1		Vac.	31.5	10	315
9-27-71	Medio #2		Vac.	31.5	11	347

TEFTELLER, INC.
reservoir engineering data
Associated with Dennis Owens Co.

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

P. O. Box 5247
Midland, Texas 79701

December 6, 1971

Fluid Power Pump Company
900 Bank of N. M. Bldg.
Albuquerque, New Mexico

Attention: Mr. Val R. Reese

Subject: Pumping Fluid Level Measurements
Three Wells
Sandoval County, New Mexico
Our File No. 2-4443-FL

Gentlemen:

Attached hereto are the results of pumping fluid level measurements which were made on the above captioned county November 30, 1971.

The data presented are in tabular form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

Neil Tefteller

Neil Tefteller

NT/ct

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Company : FLUID POWER PUMP COMPANY

Date : NOVEMBER 30, 1971

Field :

File No. : 2-4443-FL

Lease and Well Number	Strokes Per Minute	Casing Pressure Psi	Average Tubing Length Feet	Number Joints to Fluid	Fluid Level Feet
Media No. 1	18 s/m	Vac.	31.5	20	630
Media No. 2	18 s/m	2	31.5	14	441
Fluid Power Pump No. 1	14 s/m	Vac.	31.5	18	567

BHP * BU * PI * DO * GWT * BPS * GOR * FL * TS

TEFTELLER, INC.

reservoir engineering data

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

Associated with Dennis Cuevas Co.

P. O. Box 5247
Midland, Texas 79701

December 22, 1971

Fluid Power Pump Company
1130 Bank of N. M. Building
Albuquerque, New Mexico

Subject: Fluid Level Measurements
Fluid Power Pump No. 1
Sandoval County, New Mexico
Our File No. 2-4448-FL

Gentlemen:

Attached hereto are the results of fluid level measurements which were made on the above captioned well December 4, 1971.

The data presented are in tabular form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

Neil Tefteller

NT/ct

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Company : FLUID POWER PUMP COMPANY

Field :

Date : DECEMBER 4, 1971

File No. : 2-4448-FL

Lease and Well Number	Strokes Per Minute	Casing Pressure Psi	Average Tubing Length Feet	Number Joints to Fluid	Fluid Level Feet
Fluid Power Pump #1	14 's/m	Vac	31.5 -	20	630
Fluid Power Pump #1	Pump down 20 min.	0	31.5	16	504

COOPERATIVE EXTENSION SERVICE • NEW MEXICO STATE UNIVERSITY • U. S. DEPARTMENT OF AGRICULTURE

WATER ANALYSIS REPORT

(Standard Irrigation , Test 3)

SOIL AND WATER TESTING LABORATORY

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
applicant EXHIBIT NO. 11
CASE NO. 4642

Lab No. 188 Date 8/4/69

NAME Don C. Wiley & Fluid Pump Co.

ADDRESS 1116 Bank of New Mexico Albuquerque, New Mexico

Sample Number: 1 Sample Received:

pH 7.6

Total Soluble Salts:
EC x 10^6 5500 Parts Per Million 3520

Total Dissolved Solids 16584 ppm* (or 44776 pounds per acre foot of water)

Sodium (Na) _____ meq/l** (or _____ pounds of Na per acre foot of water)
Sodium content too high to measure with out flame photometer.

Extremely poor water for irrigation pump., due to very high salt and sodium content.

Sodium - Adsorption - Ratio (SAR) _____

Residual Sodium Carbonate (RSC) _____

WATER CLASSIFICATION: ***

U. S. Salinity Laboratory System: C - 4

New Mexico State University System: _____

(See reverse side for explanation)

* ppm = parts per million
** meq/l = milliequivalents per liter

EXPLANATION ***

Salinity Hazard

☐ Low-Salinity Water (C1) can be used for irrigation with most crops in most soils with little likelihood that soil salinity will develop.

☐ Medium-Salinity Water (C2) can be used if a moderate amount of leaching occurs.

☐ High-Salinity Water (C3) cannot be used on soils with restricted drainage.

☑ Very-High-Salinity Water (C4) is not suitable for irrigation under ordinary conditions, but may be used occasionally under very special circumstances.

Sodium Hazard

☐ Low-Sodium Water (S1) can be used for irrigation on almost all soils with little danger of the development of harmful levels of sodium.

☐ Medium-Sodium Water (S2) will possibly cause a sodium hazard in fine-textured soils, under low-leaching conditions. This water can be used on course-textured soils with good permeability.

☐ High-Sodium Water (S3) may produce a sodium hazard and will require special soil management—good drainage, high leaching, and possibly the use of chemical amendments such as gypsum.

☐ Very-High-Sodium Water (S4) is usually unsatisfactory for irrigation purposes.

NMSU Classification System

The system used by the University is based upon three classes of water, which take into account salinity and sodium hazard.

☐ Class 1 water is suitable for use for most crops under most conditions.

☐ Class 2 water can be used satisfactorily for most crops if care is taken to prevent the accumulation of soluble salt and sodium in the soil.

☐ Class 3 water is generally unsatisfactory for crop production. Less salty waters in Class 3 may be used as a supplemental source if the regular water is of better quality.

*** Refer to the enclosed "Plant Science Guides" for additional information:

400 A-108 "Irrigation Waters"

400 A-110 "Classification of Irrigation Waters"

Sincerely,

C. D. Leedy
Extension Soils Specialist

COOPERATIVE EXTENSION SERVICE • NEW MEXICO STATE UNIVERSITY • U. S. DEPARTMENT OF AGRICULTURE

WATER ANALYSIS REPORT

(Standard Irrigation , Test 3)

SOIL AND WATER TESTING LABORATORY

Lab No. 189 Date 8/4/69

NAME Don C. Wiley & Fluid Pump Co.

ADDRESS 1116 Bank of New Mexico Albuquerque, New Mexico

Sample Number: 2 Sample Received: _____

pH 7.8

Total Soluble Salts:
EC x 10^6 5500 Parts Per Million 3520

Total Dissolved Solids 16692 ppm* (or 45068 pounds per acre foot of water)

Sodium (Na) _____ meq/l** (or _____ pounds of Na per acre foot of water)
Sodium content too high to measure with our flame photometer.

Extremely poor water for irrigation pump, due to very high salt and sodium content.

Sodium - Adsorption - Ratio (SAR) _____

Residual Sodium Carbonate (RSC) _____

WATER CLASSIFICATION: ***

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(See reverse side for explanation)

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400 A-108 "Irrigation Waters"

400 A-110 "Classification of Irrigation Waters"

Sincerely,

C. D. Leedy
Extension Soils Specialist

ANALYSIS OF ENTRADA OIL

Hutchinson-Federal No. 1 well
Media Entrada Field
Sandoval County, New Mexico

Sulfur	0.48%	
Gasoline	4.60	(6 octane)
Kerosene	18.00	
Gas Oil	33.50	(diesel)
Neutral distillate	11.80	
Risiduum	31.90	

LAW OFFICES OF
HUNKER, FEDRIC & HIGGINBOTHAM, P.A.
210 HINKLE BUILDING
POST OFFICE BOX 1837
ROSWELL, NEW MEXICO 88201

GEORGE H. HUNKER, JR.
DON M. FEDRIC
RONALD M. HIGGINBOTHAM

TELEPHONE 622-2700
AREA CODE 505

December 21, 1972

Mrs. Ida Rodriguez
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Case No. 4642
Fluid Power Pump
January 19, 1971

Dear Ida:

I return herewith the copy of the Transcript of Hearing in connection with the above styled case, together with the 12 exhibits which you were good enough to send me.

Thank you very much for your help and assistance. With best wishes for a Happy Holiday Season and a Prosperous New Year, we remain

Sincerely yours,

HUNKER, FEDRIC & HIGGINBOTHAM, P.A.

George H. Hunker, Jr.

GHH:dd
Encls.

P.S. You will recall that Exhibit 3 was omitted because of its size.

BEFORE THE

OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF FLUID POWER PUMP COMPANY FOR
ADOPTION OF POOL RULES, AND APPROVAL
OF A PRESSURE MAINTENANCE PROJECT,
AND ASSIGNMENT OF A PROJECT ALLOWABLE,
SANDOVAL COUNTY, NEW MEXICO

Case 4642

A P P L I C A T I O N

Comes now Fluid Power Pump Company and applies to the Oil Conservation Commission of New Mexico for the adoption of pool rules for the Media Entrada Pool, Sandoval County, New Mexico, with a provision for 160-acre spacing and proration units, and for approval of a pressure maintenance project and assignment of a project allowable for the production of oil from the Media-Entrada Pool, and in support thereof would show the Commission:

1. Applicant is the owner of the operating rights, and/or the working interest as to the Entrada formation in and under the following described lands:

Township 19 North, Range 3 West, N.M.P.M.

Section 10 - SE1/4
Section 11 - SW1/4
Section 14 - W1/2
Section 15 - E1/2
Section 22 - NE1/4
Section 23 - NW1/4

comprising 1280 acres more or less, Sandoval County, New Mexico.

2. Applicant has drilled and is operating producing wells designated as the No. 1 Fluid, the No. 1 Media, and the No. 4 Media in Section 14, and the No. 2 Media in Section 15; applicant further proposes to drill wells located in Sections

DOCKET MAILED
Date 1-6-72

DOCKET MAILED
Date 12-21-71

10, 11, 14, 15, and 23, as producing and/or injection wells, the injection wells to be located in Unit J of Section 10, Unit K of Section 11, and Unit F of Section 23. It is also proposed to convert the present water disposal well designated as the No. 5 Federal Media, located in Unit H of Section 22, for injection of water into the Entrada formation.

3. Because of the high permability of this reservoir, and the nature of the production from the reservoir, applicant believes that it can be more efficiently operated as a pressure maintenance project, with the assignment of a project allowable, to be produced from any well or wells in any combination. Such operation will not result in waste, and oil will be produced that could not otherwise be recovered. There are no offset operators to be affected by the operation of the project area.

4. Evidence available indicates that one well will economically drain and develop in excess of 160-acres, and to develop the pool on closer spacing would result in waste.

5. Applicant is the owner of the working interest in the entire producing area of the pool, and the proposed project area. The basic royalty interest is owned by the United States.

6. Applicant further seeks a provision for administrative approval of additional injection or producing wells in the project area and adjacent thereto, without notice or hearing whether said wells are located at orthodox or unorthodox well locations under the rules for the Media-Entrada Pool.

WHEREFORE applicant prays that this matter be set for hearing before the Commission or the Commission's duly appointed

examiner, and that after notice and hearing as required by law the Commission enter its order granting the relief prayed for.

Respectfully submitted,

FLUID POWER PUMP COMPANY

By Jason W. Kellahin

KELLAHIN & FOX
P. O. Box 1769
Santa Fe, New Mexico 87501

Attorneys for Applicant

DRAFT

GMH/esr
3-9-72

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

RECORDS CENTER

CASE No. 4642

Order No. R- 4277

APPLICATION OF FLUID POWER PUMP COMPANY
FOR SPECIAL POOL RULES AND A PRESSURE
MAINTENANCE PROJECT, SANDOVAL COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 19, 1972, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of March, 1972, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Fluid Power Pump Company, seeks the promulgation of special rules and regulations for the Media-Entrada Oil Pool, Sandoval County, New Mexico, including a provision for 160-acre spacing and proration units.

(3) That the applicant has established that one well in the Media-Entrada Oil Pool can efficiently and economically drain and develop 160 acres.

(4) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of

risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, special rules and regulations providing for 160-acre spacing units should be promulgated for the Media-Entrada Pool.

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

(6) That the applicant further seeks authority to institute a pressure maintenance project in the Media-Entrada Oil Pool by the injection of water into the Entrada formation through certain wells yet to be determined.

(7) That a pressure maintenance project in the Media-Entrada Oil Pool should result in greater ultimate recovery of oil, thereby preventing waste.

(8) That the applicant should be authorized to institute a pressure maintenance project in the Media-Entrada Oil Pool to be designated the Media-Entrada Pressure Maintenance Project.

(9) That special rules and regulations for the operation of the Media-Entrada Pressure Maintenance Project should be promulgated and said rules and regulations should include a procedure whereby the Secretary-Director of the Commission may approve the project area and production and injection wells for the project at orthodox and unorthodox locations as may be necessary to establish and maintain an efficient production and injection pattern.

project, and the establishment of an administrative procedure whereby said project area may be expanded for good cause shown and whereby additional injection or production wells at orthodox or unorthodox locations may be approved administratively.

(10) That special rules and regulations for the operation of the _____ Project should be promulgated, and for operational convenience, such rules should provide certain flexibility in authorizing the production of the project allowable from any well or wells in the project area in any proportion, provided that no well in the project area which directly or diagonally offsets a well on another lease producing from the same common source of supply should be allowed to produce in excess of top unit allowable for the Media-Entrada Pool until such time as the well has experienced a substantial response to water injection. When such a response has occurred, the well should be permitted to produce up to two times top unit allowable for the Media-Entrada Pool. Production of such well at a higher rate should be authorized only after notice and hearing.

IT IS THEREFORE ORDERED:

That, effective March 10, 1972, Special Rules and Regulations for the Media-Entrada Pool, Sandoval County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE OIL
MEDIA-ENTRADA POOL

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

RULE 2. Each well shall be located on a standard unit containing 160 acres, more or less, substantially in the form of a square, which is a quarter section being a legal subdivision of the United States Public Land Surveys.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit consisting of less than 160 acres or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. ~~Not~~ Each well shall be located no nearer than 330 feet to the outer boundary of the proration unit or to any governmental quarter-quarter section line nor nearer than 660 feet ~~the subject~~ to the nearest well drilling to or capable of producing from the same pool.

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

the unorthodox location has been entered within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (158 through 162 acres) shall be assigned a 160-acre proportional factor of 4.33 for allowable purposes, and in the event there is more than one well on a 160-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 160 acres.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the Media-Entrada Oil Pool or in the Entrada formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Aztec District Office of the Commission in writing of the name and location of the well on or before April 1, 1972.

(2) That, pursuant to Paragraph A. of Section 65-3-14.5, NMSA 1953, contained in Chapter 271, Laws of 1969, existing wells in the Media-Entrada Oil Pool shall have dedicated thereto 160 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 65-3-14.5, existing wells may have non-standard spacing or proration units established by the Commission and dedicated thereto.

Failure to file new Forms C-102 with the Commission dedicating 160 acres to a well or to obtain a non-standard unit approved by the Commission within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has

been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the Media-Entrada Oil Pool or in the Entrada formation within one mile thereof shall receive no more than one-fourth of a standard allowable for the pool.

IT IS FURTHER ORDERED:

(1) That the applicant, Fluid Power Pump Company, is hereby authorized to institute a pressure maintenance project in the Media-Entrada Oil Pool, ~~units~~ Sandoval County, New Mexico, to be designated the Media-Entrada Pressure Maintenance Project, by the injection of water into the Entrada formation through ~~the following described wells in Township 19 North, Range 3 West, NMPM, Sandoval County, New Mexico.~~ certain wells to be approved in accordance with the Special Rules and Regulations for the project as set forth below.

(2) That Special Rules and Regulations governing the operation of the Media-Entrada Pressure Maintenance Project, Sandoval County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
Media-Entrada PRESSURE MAINTENANCE PROJECT

RULE 1. The project area of the Media Entrada Pressure Maintenance Project, hereinafter referred to as the Project, shall comprise the ~~area described as follows:~~

~~SANDOVAL COUNTY, NEW MEXICO~~
~~TOWNSHIP 19 NORTH, RANGE 3 WEST, NMPM~~
~~Section 10: SE/4~~
~~Section 11: SW/4~~
~~Section 14: W/2~~
~~Section 15: E/2~~
~~Section 22: NE/4~~
~~Section 23: NW/4~~

the proration units upon which are located injection wells and production wells approved by the Secretary-Director of the Commission as injection wells and production wells for the project.

RULE 2. The allowable for the Project shall be the sum of the allowables of the several wells within the project area, including those wells which are shut-in, curtailed, or used as injection wells. Allowables for all wells shall be determined in a manner hereinafter prescribed.

RULE 3. Allowables for injection wells may be transferred to producing wells within the project area, as may the allowables for producing wells which, in the interest of more efficient operation of the Project, are shut-in or curtailed because of high gas-oil ratio or are shut-in for any of the following reasons: pressure regulation, control of pattern or sweep efficiencies, or to observe changes in pressures or changes in characteristics of reservoir liquids or progress of sweep.

RULE 4. The allowable assigned to any well which is shut-in or which is curtailed in accordance with the provisions of Rule 3 which allowable is to be transferred to any well or wells in the project area for production, shall in no event be greater than its ability to produce during the test prescribed by Rule 6, below, or greater than the current top unit allowable for the pool during the month of transfer, whichever is less.

RULE 5. The allowable assigned to any injection well on a 160-acre proration unit shall be top unit allowable for the Media-Entrada Oil Pool.

RULE 6. The allowable assigned to any well which is shut-in or curtailed in accordance with Rule 3, shall be determined by a 24-hour test at a stabilized rate of production, which shall be the final 24-hour period of a 72-hour test throughout which the well should be produced in the same manner and at a constant rate. The daily tolerance limitation set forth in Commission Rule 502 I (a) and the limiting gas-oil ratio (2,000 to 1) for the pool shall be waived during such tests. The project operator shall notify all operators offsetting the well, as well as the Commission, of the exact time such tests are to be conducted. Tests may be witnessed by representatives of the offsetting operators and the Commission, if they so desire.

RULE 7. The basic allowable assigned to each producing well in the Project shall be equal to the well's ability to produce or to top unit allowable for the pool, whichever is less. Wells capable of producing more than top unit allowable may also receive transfer allowable, provided however, that no producing well in the project area which directly or diagonally offsets a well ~~on another lease~~ outside the project area producing from the same common source of supply shall receive an allowable or produce in excess of two times top unit allowable for the pool. Each producing well shall be subject to the limiting gas-oil ratio (2,000 to 1) for the pool.

RULE 8. By the 25th day of each month the project operator shall ~~[illegible] days after the normal unit allowable for Northwest New Mexico has been established~~ submit to the Commission a Pressure Maintenance Project Operator's Report, on a form prescribed by the Commission, outlining thereon the data required, and requesting allowables for each of the several wells in the Project as well as the total project allowable. The aforesaid Pressure Maintenance Project Operator's Report shall be filed in lieu of Form C-120 for the Project.

RULE 9. The Commission shall, upon review of the report and after any adjustments deemed necessary, calculate the allowable for each well in the Project for the next succeeding month in accordance with these rules. The sum of the allowables so calculated

which directly or diagonally offsets a well outside the project area and producing from the same common source of supply shall produce in excess of two times top unit allowable for the pool.

RULE 10. The Secretary-Director of the Commission is hereby ~~also~~ authorized to approve a project area and such producing wells and injection wells at orthodox and unorthodox locations as may be necessary to establish and maintain an efficient production and injection pattern; provided said wells are drilled no closer than 330 feet to the outer boundary of the ~~operator's leases~~ project area nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided further, that the application therefor has been filed in accordance with the following:

(1) A plat showing the proposed project area, proposed production and injection wells for the Project, and wells and operators that offset the proposed Project.

(2) A schematic drawing of the proposed injection wells which fully describes the casing, tubing, perforated interval, and depth showing that the injection of water will be confined to the Entrada formation.

(3) A letter stating that all offset operators to the proposed Project have been furnished a complete copy of the application and the date of notification.

The Secretary-Director may approve the proposed project area and production and injection wells if, within 20 days after receiving the application, no objection to the proposal is received. The Secretary-Director may grant immediate approval, provided waivers of objection are received from all offset operators.

Expansion of the project area may be approved by the Secretary-Director of the Commission administratively when good cause is shown therefor.

IT IS FURTHER ORDERED:

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

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