

CASE 4274: Application of PAN AM.
FOR AN UNORTHODOX OIL WELL LOCA-
TION, SAN JUAN COUNTY, NEW MEXICO.

Case Number

4274

Application

Transcripts.

Small Exhibits

ETC.

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 25, 1969

EXAMINER HEARING

IN THE MATTER OF:

Application of Pan American Petroleum
Corporation for an unorthodox oil well
location, San Juan County, New Mexico.

) Case No. 4274

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 4274.

MR. HATCH: Case 4274. Application of Pan American Petroleum Corporation for an unorthodox oil well location, San Juan County, New Mexico.

MR. ROSS: Gentlemen, my name is Louis C. Ross, I am the attorney for Pan American Petroleum Corporation in its Denver Division Office, and I think the record shows that Atwood and Malone have entered their appearance in this case; is that correct?

MR. UTZ: Yes, twice.

MR. ROSS: We have one witness, his name is Mr. Charles Boyce, and he's often called Chuck Boyce. And I would like to have Mr. Boyce sworn at this time.

(Witness sworn).

(Whereupon, Applicant's Exhibits 1 through 3 were marked for identification.)

CHARLES (CHUCK) BOYCE

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

DIRECT EXAMINATION

BY MR. ROSS:

Q Mr. Boyce, have you ever testified before this Commission?

A No, I haven't.

Q Would you please state your employer and your place of employment?

A I'm employed as a senior petroleum engineer by Pan American Petroleum Corporation in Denver, Colorado.

Q Would you give us a brief outline of your engineering experience?

A Yes. I graduated from the Colorado School of Mines in 1955, with a degree of petroleum engineer. I have been employed continuously since that time by Pan American Petroleum in various capacities throughout the Rocky Mountain Region, in production and drilling operations.

For the last three years, I have been directly responsible for the producing operations, which include the Tocito Dome Field.

Q Then, you are familiar with the field?

A Yes, sir, I am.

MR. ROSS: I would like to ask at this time if the Commission is satisfied with the qualifications of the witness?

MR. UTZ: Yes, sir, he's qualified.

Q (By Mr. Ross) Now, you have prepared on behalf of the Applicant, three exhibits. and I would like to ask if these exhibits were prepared under your supervision or

by you?

A Generally, yes. The structural contours on Exhibit 1 were not actually prepared by me as such, but I have studied all of the logs in the field, and I agree with this structural interpretation.

Other than that, the exhibits were, yes, prepared by me.

Q Very good.

Now, I would like to take at this time the exhibits one by one, and I will ask you first, to describe what you are trying to show with the first exhibit.

A Exhibit 1 is a structural contour map on top of the "B" zone of the Pennsylvanian Formation, which is the productive horizon in the Tocito Dome Field.

The contour interval is ten feet. I might point out in Section 16, near the center of the exhibit, I have shown by two arrows, first the original gas-oil contact, which was estimated to be at a minus five ten datum.

Also, the original water-oil contact, which was estimated to be at a minus five hundred fifty-two datum, subsea depth.

These were estimated from drill stem tests and production histories of the wells as they were completed in

the field.

In Section 17 of Township 26 North. Range 18 West, I have shown, in the northwest quarter of that section, the regular one hundred and sixty acre spacing unit, under the present field rule.

I might point out that there are, at this time, no wells producing, nor have there been any wells drilled within that one hundred and sixty acre spacing unit.

The well which we propose to drill, as an exception to the present pool spacing regulations, is indicated by a red dot, pointed to by an arrow. It will be the Navajo Tribal "N", No. 11.

The elevation at which we expect to top the Penn "D" porosity, by drilling this well, is a minus five hundred twenty-seven feet.

I might point out that I had originally selected the well at a minus five hundred and twenty-five foot datum, based on data that I will offer later. However, we were forced to move that location one hundred feet west and one hundred feet north to its present location, which is a five hundred and sixty feet from the north line, eleven hundred fifty feet from the west line of Section 17.

The location was moved due to the close proximity

of two native hogans. Just north of Section 17, in the southwest quarter of Section 8, I would like to point out well No. "P-1", which was drilled in June, 1963, it recovered one hundred percent water on drill stem tests from the Penn "D" porosity.

It was therefore below the water-oil contact -- it topped the porosity at a minus five hundred and fifty-eight feet, subsea.

Higher structurally, in the southwest northeast of Section 17, Well No. "N" 6 was drilled in June, '65, and was completed with an initial potential of five thousand one hundred and eighty MCFB.

This well, then, was in the gas cap and above the original gas-oil contact, or at least a large portion of the porosity was above --

Two oil wells, offsetting our proposed location encountered the Penn "D" porosity within the oil zone to the east of our location, well No. "N-8" was completed in October, 1965, for three hundred and fifty-seven BOPD, a GOR of two thousand, showing that a well, at this location was above the oil-water contact, and below the gas-oil contact.

To the west, in Section 18, our well No. "N-4"

was completed in November, 1964, for an additional -- two hundred and fifty-one BOPD, a GOR of fourteen hundred sixty-five cubic feet per barrel.

Again, indicating that this well was completed within the oil phase of the reservoir. We have selected a location, which will penetrate the Penn "D" porosity, some distance lower than these two wells --- even though we have fairly good control on the original water-oil contacts, we know there has been some movement of fluid since the well Nos. "N-4" and "N-8" were completed.

I might point out that their accumulative production to date, this is to October first, 1969, well No. "N-4" produced three hundred and three thousand barrels; well No. "N-8" produced three hundred and twenty-five thousand barrels.

These figures are shown on the exhibit. Also shown on the exhibit are the recent tests of these wells --- production tests --- for well No. "N-4", nineteen barrels of oil, twenty-four barrels of water, a GOR of fifty-seven eighty-nine, indicating that the well is producing some water.

It is producing at a substantially higher GOR than on completion. Again, well No. "N-8", on a recent

test, one hundred and forty-seven barrels of oil, seven barrels of water, a COR of sixty-nine hundred and eighteen.

Again, evidenced that with continued production, we have had some migration of water up structure to these wells.

From pressure data in the field, we know that there has been some expansion of the gas cap, as evidenced by higher GOR's on these wells and upon completion.

Therefore, an order to penetrate the Penn "D" porosity, at a depth which will insure maximum recovery from the one hundred and sixty acre spacing unit, we have selected a datum, somewhat between the present indication of the gas-oil contact and the water-oil contact.

The well we propose should top the porosity, as I said before, at a minus five hundred and twenty-seven feet. We expect nineteen feet of gross porosity this will place the bottom of the porosity at a minus five hundred and forty-six feet.

I believe that covers all that I have indicated on this exhibit, pointing out the reasons why we have selected this particular location, with respect to the water-oil and gas-oil contacts.

I might point one more thing. Since well No.

"N-4" and "N-8" are producing some water and are producing a GOR substantially higher than those originally obtained, and since the production of water and/or gas might reduce the recovery from the well we propose, we have selected a location as nearly as possible, midway between those two, feeling that any water entry from down structure, possibly has custed toward these wells, as evidenced many times from bottom water drive reservoirs.

Also, the same thing, probably has occurred in any migration down structure of the gas cap. A well midway between the two should, therefore, provide the best opportunity of recovering maximum oil from this one hundred and sixty acre spacing unit, and minimizing the production of water and/or gas.

To summarize, then, in my opinion, a well at the proposed location will recover maximum oil from this spacing unit.

Q Exhibit 2 seems to be a cross log section of the Tocito Dome Field; would you please explain your Exhibit 2?

A Exhibit 2 is a log cross section, shown as "AA" prime on Exhibit 1, passing from well Nos. "P-1" through "N-4", through "N-8," through "N-6," to show in a

pictorial manner, where we expect to penetrate the porosity with out proposed well No. "N-11."

Shown on the cross section, below each log is the initial potential test of these wells. I pointed these out earlier, so I won't repeat them. They show, of course, that "P-1" was below the water-oil contact -- the higher structural well, "N-6" was in the gas phase, above the gas-oil contact.

Between the two logs on the left, "E-1" and "N-4" are shown a structural projection, along an equal elevation line to show where our "N-11" will penetrate the porosity, relative to the two wells above an below us structurally.

As I mentioned before, we will top it at a minus five hundred twenty-seven feet, which is seventeen feet below the original gas-oil contact, which was at five hundred and ten feet.

With nineteen feet above expected porosity, the bottom of the porosity should be encountered at a minus five hundred and forty-six feet, which would be eight feet above the original water-oil contact of minus five hundred and fifty-two feet.

That's all that is depicted on the cross section.

Q Now, proceeding onto Exhibit 3, will you please state what this exhibit represents?

A Yes. I might refer again to Exhibit 1, which shows that Pan American Petroleum Corporation owns all of the working interest rights on all acreage offsetting, either directly or diagonally, the proposed one hundred and sixty acre drilling location.

The royalty is identical, both on the drilling location and on all offsetting drilling units, being twelve and a half percent government royalties -- it's a Navajo Tribal Land.

Exhibit No. 3 is our form 331-C, which was submitted to the USGS for their approval, indicating our proposal for drilling the well at the location that we have mentioned here.

And the application to drill was approved on November 3, 1969, by P. T. McGrath, District Engineer. No other working interest parties or royalty interests, therefore, have any acreage offsetting this proposed drilling site.

Q Let me ask you this. Do you think, and I rather gathered from your testimony, that you are of the opinion that by drilling a well at this location, that you are

going to recover oil that would ordinarily be left in the ground: is this correct?

A Yes, sir. That is right.

Q Then, you are telling the Commission that you believe that this would tend towards better conservation?

A It should: yes.

Q And there are no correlative rights really affected here: are there?

A Not that I can determine: no.

MR. ROSS: At this time, I would like to move the Commission to take into evidence Applicant's Exhibits 1, 2 and 3.

MR. UTZ: Without objection, Exhibits 1, 2 and 3 will be entered in the record of this case.

MR. ROSS: I believe that terminates our direct examination.

CROSS EXAMINATION

BY MR. UTZ:

Q The standard locations are within one hundred and fifty-three feet of the quarter quarter section?

A That's right: yes.

Q So, this well really isn't too much outstanding, is it, except that it's drilled north of the circles?

A Yes -- actually, it's being five hundred and sixty feet from the north line -- it's closer or it's farther from the lease line than would be allowed.

I might mention that I looked at the possibility of drilling the well at one of the other permitted locations, to the east or the west, and due either to their close proximity to offset wells or to their unfavorable structural elevations, I selected this location and feel that it will be much better than either of the two possible perimeter locations.

Q You say the standard location was pretty close to the hogans?

A No -- the initial location I picked, which was one hundred and fifty feet south and east of our final location, was near hogans, so we did move it some away -- as I said, from my original -- the subsea datum was five twenty-five, and this put it at five twenty-seven, within the accuracy of our --

Q How far from the hogans are you?

A It's -- I believe it's about four hundred feet.

Q And it's all right with these --

A It was approved by the Indians, yes -- that was the first step we took.

MR. UTZ: Any questions of the witness?

MR. ROSS: I would like to ask you, you do consider that a safe location with regard to the habitation, from an engineering standpoint?

THE WITNESS: I certainly do, yes, sir.

MR. ROSS: I believe that's all, gentlemen. I would like to make a statement.

MR. UTZ: The witness may be excused.

(Witness excused).

MR. UTZ: You may make your statement.

MR. ROSS: We have a drilling rig operating in the area --- it's somewhere down south of here, and I believe it will be free and ready to start on this well within the next two weeks: is that right, Chuck?

THE WITNESS: That's right; yes.

MR. ROSS: And we are very anxious to avoid any down time on that rig, and move right on, if we can, since it is in the area.

So, we will appreciate any consideration that the Commission could give us toward achieving this objective.

MR. UTZ: I think you will have an answer in less than two weeks.

MR. ROSS: That is satisfactory. Thank you,
sir.

MR. UTZ: The hearing is adjourned.

(Whereupon, at three P.M., the hearing was
adjourned).

I N D E X

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E X H I B I T S

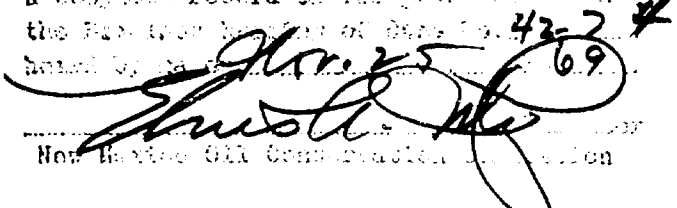
Applicant's Exhibits	
1 through 3	2

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, CA FENLEY, Court 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.



Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings of the New Mexico Oil Conservation Commission held on the 25th day of June 1969. 42-2 #

New Mexico Oil Conservation Commission

Case 4274

Heard 11-25-69

Rec. 11-26-69.

Grant Pan Am an exception to
R-2758 - Tonto Dome's special
rules for a NSL of their Horajo
Tribal 'N' #11, 1150/W + 560/N - 07
26 N-18W. This is for a better
structural position in a water
~~flow~~ ~~pool~~ ~~pool~~. Pan Am owns all
opposite acreage. The well is
only 20' NSL to the West of the
1/4 line.

Shirley W.

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. 4274
Order No. R-3885

APPLICATION OF PAN AMERICAN PETROLEUM
CORPORATION FOR AN UNORTHODOX OIL WELL
LOCATION, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 25, 1969, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 2nd day of December, 1969, 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, Pan American Petroleum Corporation, seeks an exception to the Special Rules and Regulations for the Tocito Dome-Pennsylvanian "D" Oil Pool to drill its Navajo Tribal "N" Well No. 11 at an unorthodox location 560 feet from the North line and 1150 feet from the West line of Section 17, Township 26 North, Range 18 West, NMPM, San Juan County, New Mexico, in order to be able to encounter the Pennsylvanian "D" producing section below the gas-oil contact and above the oil-water contact.

(3) That a well drilled at the proposed location is more likely to encounter the Pennsylvanian "D" producing section below the gas-oil contact and above the oil-water contact than a well drilled at a standard location for said pool and should, therefore, result in greater ultimate recovery of oil.

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CASE No. 4274
Order No. R-3885

(4) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil in the Tocito Dome-Pennsylvanian "D" Oil Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Pan American Petroleum Corporation, is hereby granted an exception to the well location requirements of the Special Rules and Regulations governing the Tocito Dome-Pennsylvanian "D" Oil Pool and is hereby authorized to drill its Navajo Tribal "N" Well No. 11 at an unorthodox location 560 feet from the North line and 1150 feet from the West line of Section 17, Township 26 North, Range 18 West, NMPM, San Juan County, New Mexico.

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

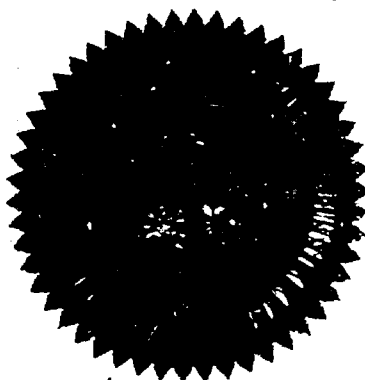
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


ALEX J. ARMIJO, Member


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



esr/

NOTE: DUE TO THE THANKSGIVING HOLIDAY, THIS HEARING IS SCHEDULED FOR TUESDAY RATHER THAN WEDNESDAY AS CUSTOMARY.

Docket No. 32-69

DOCKET: EXAMINER HEARING - TUESDAY - NOVEMBER 25, 1969

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 4259: Application of Aztec Oil & Gas Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from 5112 feet to 5138 feet in its State "SS" Well No. 1 located in Unit F of Section 24, Township 17 South, Range 36 East, Spencer-San Andres Pool, Lea County, New Mexico.
- CASE 4260: Application of Tamarack Petroleum Company, Inc. for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Northeast Pearl Queen Unit Waterflood Project, Pearl-Queen Pool, by the conversion to water injection one additional injection well, its Unit Well No. 18, located in Unit L of Section 23, Township 19 South, Range 35 East, Lea County, New Mexico.
- CASE 4261: Application of Pennzoil United, Inc., for special pool rules and unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Quail Ridge-Morrow Gas Pool, Lea County, New Mexico, including a provision for 320-acre spacing units. Applicant further seeks approval of the unorthodox location in said pool for its Mescalero Ridge Well No. 1 at a location 660 feet from the South line and 660 feet from the West line of Section 20, Township 19 South, Range 34 East.
- CASE 4262: Application of Plains Radio Broadcasting Company for an exception to Order No. R-3221, as amended, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for the applicant's White Ranch Well No. 1 located in Unit E of Section 34, Township 11 South, Range 29 East, White Ranch Siluro-Devonian Pool, Chaves County, New Mexico. Applicant seeks authority to dispose of salt

water produced by said well in an unlined surface pit located in the vicinity of said well. In the alternative, applicant seeks authority to dispose of said produced water into the Siluro-Devonian formation in the perforated interval from 8743 feet to 8750 feet in its White Ranch Well No. 3 located in Unit M of said Section 34.

CASE 4263: Application of Wynn & Brooks for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal "E" Well No. 3, to be located 590 feet from the South line and 1590 feet from the West line of Section 13, Township 27 North, Range 8 West, Blanco-Mesaverde and Basin-Dakota Pools, San Juan County, New Mexico.

CASE 4264: Application of Wynn & Brooks for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal "J" Well No. 1, to be located 2390 feet from the South line and 2410 feet from the East line of Section 11, Township 27 North, Range 8 West, Blanco-Mesaverde and Basin-Dakota Pools, San Juan County, New Mexico.

CASE 4265: Application of Union Oil Company of California for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates, San Andres and other formations in the open-hole interval from approximately 4450 feet to 5890 feet in its Midway State Well No. 3 located in Unit J, Section 12, Township 17 South, Range 36 East, Lovington Field, Lea County, New Mexico.

CASE 4245: (Continued from the November 5, 1969, Examiner Hearing)
Application of Texas Pacific Oil Company, Inc., for several non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the dedication and rededication of certain acreage and the establishment of the following non-standard gas proration units in Townships 22 and 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico:

(Case 4245 continued)

A 160-acre unit comprising the W/2 SE/4 and the E/2 SW/4 of Section 8, Township 22 South, Range 36 East, to be dedicated to the State "A" a/c-2 Well No. 56 located in Unit J of said Section 8;

A 200-acre unit comprising the NW/4 and the NW/4 SW/4 of Section 11, Township 22 South, Range 36 East, to be dedicated to the State "A" a/c-2 Well No. 42 located in Unit E of said Section 11;

A 280-acre unit comprising the SE/4, S/2 SW/4, and the NE/4 SW/4 of Section 11, Township 22 South, Range 36 East, to be dedicated to the State "A" a/c-2 Well No. 36 located in Unit M of said Section 11;

A 200-acre unit comprising the N/2 NE/4, the SE/4 NE/4, and the NE/4 NW/4 of Section 15 and the SE/4 SW/4 of Section 10, Township 23 South, Range 36 East, to be dedicated to the State "A" a/c-1 Well No. 31 located in Unit H of said Section 15;

A 160-acre unit comprising the S/2 NW/4, SW/4 NE/4 and the NW/4 NW/4 of Section 15, Township 23 South, Range 36 East, to be dedicated to the State "A" a/c-1 Well No. 33 located in Unit F of said Section 15;

A 240-acre unit comprising the SW/4 of Section 3, and the N/2 NW/4 of Section 10, Township 23 South, Range 36 East, to be dedicated to the State "A" a/c-1 Well No. 35 located in Unit D of said Section 3;

A 160-acre unit comprising the S/2 NW/4 and N/2 SW/4 of Section 10, Township 23 South, Range 36 East, to be dedicated to the State "A" a/c-1 Well No. 37 located in Unit F of said Section 10.

CASE 4266: Application of Texas Pacific Oil Company, Inc., for several non-standard gas production units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the dedication and rededication of certain acreage and the establishment of the following non-standard gas production units in Township 22 South, Range 36 East, Galmat Gas Pool, Lea County, New Mexico:

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(Case 4266 continued)

A 280-acre unit comprising the SW/4 of Section 9 and the E/2 SE/4 and SW/4 SE/4 of Section 8 to be dedicated to the State "A" a/c-2 Well No. 38 located in Unit K of said Section 9;

A 160-acre unit comprising the E/2 SW/4, SW/4 SW/4 and NW/4 SE/4 of Section 8 to be dedicated to the State "A" a/c-2 Well No. 56 located in Unit J of said Section 8;

A 120-acre unit comprising the S/2 NW/4 and NW/4 SW/4 of Section 8 to be dedicated to the State "A" a/c-2 Well No. 51 located in Unit F of said Section 8;

A 160-acre unit comprising the SW/4 of Section 5 to be dedicated to the State "A" a/c-2 Well No. 41 located in Unit M of said Section 5;

A 160-acre unit comprising the NW/4 of Section 5 to be dedicated to the State "A" a/c-2 Well No. 44 located in Unit F of said Section 5;

A 160-acre unit comprising the SE/4 of Section 5 to be dedicated to the State "A" a/c-2 Well No. 27 located in Unit P of said Section 5.

CASE 4267: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Edward M. Kriss and all other interested parties to appear and show cause why the Edward M. Kriss Little Chama Valley Company Well No. 1, a wildcat well, located 545 feet from the North line and 1530 feet from the West line of Section 2, Township 1 North, Range 2 East, Rio Arriba County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 4268: Application of Texaco Inc., for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the State "JD" Unit Area comprising 160 acres, more or less, of State lands in the NW/4 of Section 27, Township 26 South, Range 37 East, Rhodes (Yates-Seven Rivers) Pool, Lea County, New Mexico.

- CASE 4269: Application of Texaco Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its State "JD" Unit Area by the injection of water into the Yates-Seven Rivers formations through two wells located in Unit D and Unit F of Section 27, Township 26 South, Range 37 East, Rhodes (Yates-Seven Rivers) Pool, Lea County, New Mexico.
- CASE 4270: Application of Byron McKnight for an exception to Order No. R-111-A, 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. Applicant proposes to drill to a depth of approximately 3800 feet in the Yates formation two exploratory wells located in the SW/4 NE/4 and SE/4 NE/4 of Section 26, Township 19 South, Range 33 East, Lea County, New Mexico, in such a manner as to eliminate the necessity of running the salt protection string required by said Order No. R-111-A provided the production string would be cemented to the surface.
- CASE 4271: Application of Texaco Inc. for a waterflood expansion and amendment of Order No. R-2748, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its waterflood project in the Rhodes (Yates-Seven Rivers) Pool, authorized by Order No. R-2748, by the injection of water through four additional wells in Sections 22 and 27 of Township 26 South, Range 37 East, Lea County, New Mexico. Applicant further seeks amendment of said order to establish a procedure whereby additional injection wells as may be necessary to complete an efficient injection pattern may be approved administratively.
- CASE 4272: Application of Shell Oil Company for an unorthodox oil well location and to directionally drill, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Sanger Well No. 6 at an unorthodox surface location in Unit E 1490 feet from the North line and 330 feet from the West line of Section 27, Township 18 South, Range 38 East, Hobbs (Grayburg-San Andres) Pool, Lea County, New Mexico. Applicant further seeks authority to directionally drill said well in such a manner as to bottom the well in the subject pool at a point in Unit D of said Section 27 approximately 200 feet north of said surface location. Applicant proposes to dedicate said Unit D to the well.

November 25, 1969 - Examiner Hearing

Docket No. 32-69

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CASE 4273: Application of Tesoro Petroleum Corporation for an unorthodox oil well location and amendment of Order No. R-2807-A, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox oil well location of its Well No. 59, formerly classified as a water injection well, located 1430 feet from the South line and 2625 feet from the East line of Section 36, Township 18 North, Range 9 West, Hospah Upper Sand Oil Pool, McKinley County, New Mexico. Applicant further seeks the amendment of Order No. R-2807-A to permit a procedure whereby additional producing and injection wells in its Hospah Unit Area may be approved administratively.

CASE 4274: Application of Pan American Petroleum Corporation for an unorthodox oil well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Navajo Tribal "N" Well No. 11 at an unorthodox location 1150 feet from the West line and 560 feet from the North line of Section 17, Township 26 North, Range 18 West, Tocito Dome-Pennsylvanian "D" Oil Pool, San Juan County, New Mexico.

ATWOOD, MALONE, MANN & COOTER
LAWYERS

NOV 18 1969

JEFF D. ATWOOD [1883-1960]

CHARLES F. MALONE
RUSSELL D. MANN
PAUL A. COOTER
BOB F. TURNER
ROBERT A. JOHNSON
JOHN W. BASSETT

ROBERT E. SABIN
RUFUS E. THOMPSON

[505] 622-6221
P. O. DRAWER 700
SECURITY NATIONAL BANK BUILDING
ROSWELL, NEW MEXICO 88201

November 17, 1969

Mr. A. L. Porter, Jr.
Oil Conservation Commission
State Land Office
Santa Fe, New Mexico 87501

RE: Case No. 4274 on the November 25, 1969
Examiner Hearing Docket

Dear Mr. Porter:

Would you please file the enclosed Entry of Appearance in the above captioned case. The presentation will be handled by Louis C. Ross of Pan American Petroleum Corporation's Denver office.

Appreciating your courtesy, and with our kind regards, we are,

Very truly yours,



Paul Cooter

PC:sas
Encl.
cc: Louis C. Ross, Esquire

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION)
OF PAN AMERICAN PETROLEUM)
CORPORATION FOR AN UNORTHODOX) No. 4274
OIL WELL LOCATION, SAN JUAN COUNTY,)
NEW MEXICO.)

ENTRY OF APPEARANCE

The undersigned, Atwood, Malone, Mann & Cooter of Roswell,
New Mexico, hereby enters its appearance in this case as New Mexico
counsel for Pan American Petroleum Corporation.

DATED this 17th day of November, 1969.

ATWOOD, MALONE, MANN & COOTER

BY 

Post Office Drawer 700
Roswell, New Mexico 88201

ATWOOD, MALONE, MANN & COOTER
LAWYERS

NOV 21 1969

JEFF D. ATWOOD [1883-1960]

CHARLES F. MALONE
RUSSELL D. MANN
PAUL A. COOTER
BOB F. TURNER
ROBERT A. JOHNSON
JOHN W. BASSETT

ROBERT E. SABIN
RUFUS E. THOMPSON

[505] 622-6221
P. O. DRAWER 700
SECURITY NATIONAL BANK BUILDING
ROSWELL, NEW MEXICO 88201

NOVEMBER
20th
1969

Mr. A. L. Porter, Jr.
Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico 87501

Re: Case No. 4274
November 25 Examiner Hearing

Dear Mr. Porter:

I would very much appreciate your filing the enclosed Entry of Appearance of our firm in behalf of Pan American Petroleum Corporation, in the case mentioned above.

With best regards,

Very truly yours,



Charles F. Malone

C
F
M

*

v
Encls.

Cc: Charles Boyce, Esquire
w/encls.

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
PAN AMERICAN PETROLEUM CORPORATION)
FOR AN UNORTHODOX OIL WELL LOCATION,) No. 4274
TOCITO DOME-PENNSYLVANIAN "D" OIL POOL,)
SAN JUAN COUNTY, NEW MEXICO.)

ENTRY OF APPEARANCE

The undersigned, Atwood, Malone, Mann & Cooter of Roswell,
New Mexico, hereby enter their appearance herein in behalf of Pan
American Petroleum Corporation.

DATED at Roswell, New Mexico, this 20th day of November,
1969.

ATWOOD, MALONE, MANN & COOTER

By 
Post Office Drawer 700
Roswell, New Mexico 88201

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		6. LEASE DESIGNATION AND SERIAL NO. 14-20-603-5035	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		8. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo Tribal	
2. NAME OF OPERATOR PAN AMERICAN PETROLEUM CORPORATION		7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR 501 Airport Drive, Farmington, New Mexico 87401		8. FARM OR LEASE NAME Navajo Tribal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface *560' FNL & 1150' FNL, Unit "D" At proposed prod. zone Same		9. WELL NO. 11	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 30 miles south of Shiprock, New Mexico		10. FIELD AND POOL, OR WILDCAT Tocito Dome Penn. "D"	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 560' N		11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA NW/4 Section 17, T26N, R18W	
16. NO. OF ACRES IN LEASE 2544-1/2		12. COUNTY OR PARISH San Juan	
17. NO. OF ACRES ASSIGNED TO THIS WELL 160 (NW/4)		13. STATE New Mexico	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1813' W		19. PROPOSED DEPTH 6300'	
20. ROTARY OR CABLE TOOLS Rotary		21. APPROX. DATE WORK WILL START* 11-17-69	
22. ELEVATIONS (Show whether DF, RT, GR, etc.) Will report later			
23. PROPOSED CASING AND CEMENTING PROGRAM			

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/4"	13-3/8"	61#	100'	100 SX
11"	8-5/8"	32#	1500'	400 SX
7-7/8"	5-1/2"	15.5#	6300'	400 SX

Well to be drilled through Morrison water zones and 8-5/8" intermediate casing set. Well is then to be drilled through Pennsylvanian "D" and completion designed from open hole logs.

Copy of Location Plat attached.

*Application is being made to the New Mexico Oil Conservation Commission for unorthodox location.

RECEIVED

NOV 13 1969

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED E. R. Chan TITLE Petroleum Engineer DATE 11-7-69

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY
CONDITIONS OF APPROVAL ANY:

TITLE

DATE

NOV 8 1969

P. T. McGRATH
DISTRICT ENGINEER

*See Instructions On Reverse Side

Exhibit No. 3

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. <u>1</u>
CASE NO. <u>4274</u>

JUN 7 1969

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
PAN AMERICAN PETROLEUM CORPORATION
FOR AN ORDER PERMITTING THE DRILLING
OF A WELL IN THE PENNSYLVANIAN "D"
FORMATION, AS AN EXCEPTION TO THE
WELL LOCATION PROVISIONS OF THE POOL
RULES, TOCITO DOME PENNSYLVANIAN "D"
POOL, SAN JUAN COUNTY, NEW MEXICO.

Case 11274

APPLICATION

COMES NOW Pan American Petroleum Corporation and respectfully presents this Application to the Oil and Gas Conservation Commission of the State of New Mexico for an order permitting the drilling of one (1) additional well in the Pennsylvanian "D" formation, Tocito Dome Penn "D" Pool, San Juan County, New Mexico. In support of this Application, Pan American Petroleum Corporation states:

1. That the Applicant, Pan American Petroleum Corporation (hereinafter called Pan American or Applicant) is a Delaware Corporation and is duly authorized to transact business in, and is transacting business in the State of New Mexico.
2. That Pan American is Operator and sole Working Interest Owner of the Navajo Tribal "N" Lease which lies within the Tocito Dome Pennsylvanian "D" Pool limits as specified in Order R-2758, on which the proposed well is located.
3. That the Oil and Gas Conservation Commission of the State of New Mexico has adopted Pool Rules, Order No. R-2758, which in part established 160-acre drilling and spacing units for all oil wells. That each standard drilling and spacing unit under said order consists of a governmental quarter section comprising 160 acres or of a non-standard unit consisting of less than 160 acres comprising a governmental quarter-quarter section or lot, or governmental quarter-quarter sections or lots contiguous by common bordering sides and lying within a governmental quarter section, with the permitted well located as near the center of a governmental quarter-quarter section as possible with a tolerance of 150 feet in any direction from the center location.
4. That Applicant proposes that a well be drilled as an exception to the Commission's Tocito Dome Pennsylvanian "D" Pool Rule at the following surface location:

Navajo Tribal "N" No. 11
1150 FWL and 560 FNL
Section 17, T26N-R18W

DOCKET MAILED

Date 11-14-69

117 8
79 0-2

Applicant states that a well drilled at the above-described location will be more than 150 feet from the center of a governmental quarter-quarter section, and that an exception to Order No. R-2758 is therefore necessary before it may be drilled.

5. That a well drilled at the above-described location rather than at one of the locations permitted under Order No. R-2758 will be more ideally located with respect to both nearby producers and the water-oil and gas-oil contacts and will allow maximum recovery of oil remaining under that 160-acre spacing unit comprising the NW/4 Section 17, T26N-R18W. The proposed location and above-described spacing unit are shown on the structural contour map, Tocito Dome Penn "D" reservoir, which is attached hereto as a part of this Application.

6. That it is imperative that the Pennsylvanian "D" producing section be encountered above the oil-water contact and below the gas-oil contact. That based on our present interpretation of the structure using available control, the proposed location will encounter the Pennsylvanian "D" producing section at a datum which will be commercially productive.

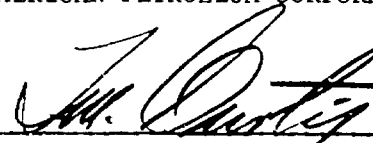
7. That Pan American is the sole owner and operator of all direct and diagonally offsetting 160-acre pattern locations, that these tracts all have identical royalty ownership, and that no person other than Pan American and the royalty owner under these lands will be affected by the granting of this application.

Wherefore, Pan American respectfully requests that it be granted an exception from Order No. R-2758, Tocito Dome Pennsylvanian Pool Rules, which will permit the drilling of a well at the location above set out. Since Applicant and its royalty owner are the only parties who would be affected by the granting of the Application, Applicant requests that a hearing on this matter be waived and that this Application be granted upon the basis of the evidence contained in this verified Application. If the Commission is of the opinion that this Application cannot be granted without a hearing, Applicant requests that this matter be set for hearing, notice thereof given as required by law, and that the hearing be held at the earliest convenient time.

Respectfully submitted,

PAN AMERICAN PETROLEUM CORPORATION

By

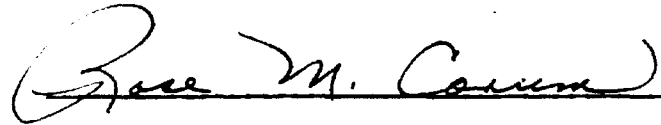


STATE OF COLORADO)
) SS
COUNTY OF DENVER)

T. M. CURTIS, of lawful age, being first duly sworn on oath, deposes and says: That he is District Production Superintendent of PAN AMERICAN PETROLEUM CORPORATION. That he has read the foregoing Application and knows the contents thereof, and states that the matters therein set forth are true and correct to the best of his information, knowledge, and belief.



Subscribed and sworn before me this 6th day of November, 1969.



My Commission expires My Commission expires June 23, 1973

DRAFT

GMH/esr

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. 4274

Order No. R- 3885

gmh
esr
APPLICATION OF PAN AMERICAN PETROLEUM
CORPORATION FOR AN UNORTHODOX OIL WELL
LOCATION, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 25, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1 Dec day of 1969, 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, Pan American Petroleum Corporation,
seeks an exception to the Special Rules and Regulations for the
Tocito Dome-Pennsylvanian "D" Oil Pool to drill its Navajo Tribal
"N" Well No. 11 at an unorthodox location 560 feet from the North
line and 1150 feet from the West line of Section 17, Township 26
North, Range 18 West, NMPM, San Juan County, New Mexico, in order
to be able to encounter the Pennsylvanian "D" producing section
below the gas-oil contact and above the oil-water contact.

(3) That a well drilled at the proposed location is more
likely to encounter the Pennsylvanian "D" producing section below
the gas-oil contact and above the oil-water contact than a well

drilled at a standard location for said pool and should, therefore, result in greater ultimate recovery of oil.

(4) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil in the Tocito Dome-Pennsylvanian "D" Oil Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Pan American Petroleum Corporation, is hereby granted an exception to the well location requirements of the Special Rules and Regulations governing the Tocito Dome-Pennsylvanian "D" Oil Pool and is hereby authorized to drill its Navajo Tribal "N" Well No. 11 at an unorthodox location 560 feet from the North line and 1150 feet from the West line of Section 17, Township 26 North, Range 18 West, NMPM, San Juan County, New Mexico.

(2) 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.

CASE 4275:

SOUTHEASTERN NEW MEXICO
NOMENCLATURE