

CASE 3764: Application of PAN
AMERICAN for LEASE COMMINGLING,
SAN JUAN COUNTY, NEW MEXICO.

Case Number

3764

Application
Transcripts.

Small Exhibits

ETC.

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. BOX 2088
SANTA FE

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

May 24, 1968

Mr. Lewis C. Ross
Pan American Petroleum Corporation
Security Life Building
Denver, Colorado 80202

Re: Case No. 3764
Order No. R-3417
Applicant:
Pan American Petroleum Corp.

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.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC X

Artesia OCC

Aztec OCC X

Other _____

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. 3764
Order No. R-3417

APPLICATION OF PAN AMERICAN PETROLEUM
CORPORATION FOR LEASE COMMINGLING, SAN
JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 16, 1968,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

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

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,
is the operator of the Navajo Tribal USG Section 18 (B) and the
Navajo Tribal USG Section 19 (A) Leases in Sections 18 and 19,
respectively, of Township 29 North, Range 16 West, NMPM, Hogback-
Dakota Oil Pool, San Juan County, New Mexico.

(3) That the applicant seeks authority to commingle the
Dakota oil production from said leases in a common tank battery
to be located in Unit J of said Section 19, allocating the
production to each of said leases on the basis of periodic
well tests.

(4) That approval of the subject application will result
in economic savings to the operator, prevent waste, and protect
correlative rights.

-2-

CASE No. 3764

Order No. R-3417

IT IS THEREFORE ORDERED:

(1) That the applicant, Pan American Petroleum Corporation, is hereby authorized to commingle the Dakota production from its Navajo Tribal USG Section 18 (B) and from its Navajo Tribal USG Section 19 (A) Leases in Sections 18 and 19 of Township 29 North, Range 16 West, NMPM, Hogback-Dakota Oil Pool, San Juan County, New Mexico, allocating the production to each lease on the basis of monthly well tests.

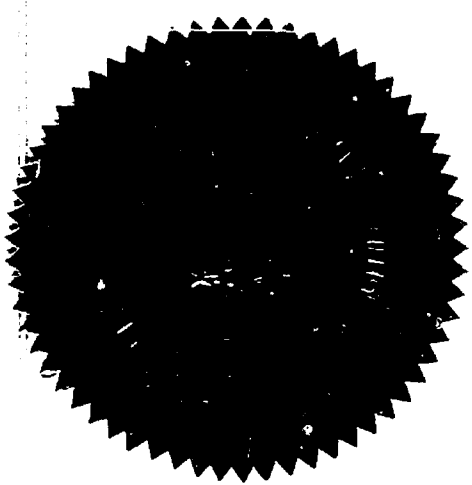
(2) That adequate facilities shall be installed and maintained by the applicant in conformance with applicant's Exhibit No. 1 introduced in this case to permit determining the producing capacity of each well on each lease at least once each month.

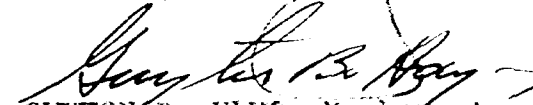
(3) That the applicant shall conduct monthly productivity tests on all commingled wells in the Hogback-Dakota Oil Pool on its Navajo Tribal USG Section 18 (B) Lease in Section 18, Township 29 North, Range 16 West, and shall file the results of said tests with the Commission District Office at Aztec on Commission Form C-116 each month.

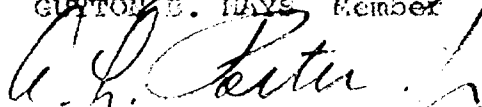
(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


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

CSL/

3764

Heard 5-16-68

Rec. 5-11-68

Grant Paul Am. permission to
commingle their U.S.S. "B" section
18 lease with their U.S.S. "A" section
19 lease in a common bank
batter to be located in Unit I of
sec. 19 - 28 N - 16 W. S.D. Co.

Waters ^{Central} bank batteries shall
so arranged that each well can
be tested ~~thru~~ ^{thru} a meter each
30 days and in conformance
with their exhibit #1 of this
Case.

The A & B lease are in fact the
same. Ordian lease however
the A. Lease has some Royalty
interest not present in the B
lease.

This order is for the Hogback
Dakota Pool only.

Thos A. M.

Docket No. 15-68

DOCKET: EXAMINER HEARING - THURSDAY - MAY 16, 1968

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:

- CASE 3760: 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 water produced in the South Vacuum-Devonian Pool into the Devonian formation in the interval from 12,000 feet to 12,180 feet in its John Trigg Lea Federal J Well No. 2 located in Unit P of Section 14, Township 18 South, Range 35 East, Reeves-Devonian Pool, Lea County, New Mexico.
- CASE 3761: Application of Harlan Production Company for an unorthodox oil well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Etz-State Well No. 15 at an unorthodox location 1650 feet from the North line and 1325 feet from the West line of Section 16, Township 17 South, Range 30 East, Grayburg-Jackson Pool, Eddy County, New Mexico.
- CASE 3762: Application of Shannick Oil Company for authority to operate an oil treating plant, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to install a combination chemical and hot-water wash oil treating plant, said plant to be located approximately four miles West of Crossroads, New Mexico, and to purchase, transport, treat, and sell oil, condensate, and sediment oil in connection with the operation of said plant.
- CASE 3763: Application of Pan American Petroleum Corporation for salt water disposal, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Dakota formation in the interval from 712 feet to 715 feet in its USG Section 18 Well No. 28, located in Unit C of Section 18, and/or in the interval from 757 feet to 762 feet in its USG Section 19 Well No. 24 located in Unit C of Section 19, both in Township 29 North, Range 16 West, Hogback-Dakota Pool, San Juan County, New Mexico.

CASE 3764: Application of Pan American Petroleum Corporation for lease commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Dakota oil production from its Navajo Tribal USG Section 19 (A) and its Navajo Tribal USG Section 18 (B) leases in Sections 18 and 19 of Township 29 North, Range 16 West, Hogback-Dakota Oil Pool, San Juan County, New Mexico, allocating the production to each lease on the basis of periodic well tests even though there is a difference in over-riding royalty interests between Sections 18 and 19.

CASE 3765: Application of D. J. Simmons for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of his General Petroleum-Rock Island Well No. 2 at a point 1850 feet from the North line and 810 feet from the West line of Section 24, Township 29 North, Range 9 West, Blanco-Mesaverde Pool, San Juan County, New Mexico, in exception to the pool rules which require locations to be in either the Northeast or Southwest of the Section.

CASE 3766: Application of Tamarack Petroleum Company, Inc., for an amendment to Order No. R-3396, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3396, which authorized a waterflood project in its South Pearl Queen Unit Area, Pearl Queen Pool, Lea County, New Mexico, to delete the water injection wells previously authorized in Unit B of Section 3, Units G and L of Section 4, Unit I of Section 5, and Unit C of Section 10, and to authorize for water injection its Saunders Federal Well No. 7 in Unit P of Section 5 and its Saunders Federal Well No. 3 in Unit D of Section 10, all in Township 20 South, Range 35 East.

CASE 3767: Application of Mobil Oil Corporation for lease commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Grayburg-San Andres production from its Bridges State Wells Nos. 8 and 53 located in Units J and H, respectively, of Section 23, with Grayburg-Jackson production from its Bridges State Lease comprising the W/2 of Section 24, all in Township 17 South, Range 34 East, Vacuum Grayburg-San Andres Pool, Lea County, New Mexico, allocating the production on the basis of periodic well tests, even though there is a

difference in over-riding royalty interest between
Sections 23 and 24.

CASE 3768: Application of Mobil Oil Corporation for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the triple completion (conventional) of its Bridges State Well No. 126 located in Unit J of Section 11, Township 17 South, Range 34 East, Lea County, New Mexico, in such a manner as to produce oil from the Abo, Upper Pennsylvanian, and Morrow formations, Vacuum Field, through parallel strings of tubing.

PAN AMERICAN PETROLEUM CORPORATION

SECURITY LIFE BUILDING
DENVER, COLORADO 80202

April 19, 1968

File: AMR-1234-986.511

Re: Application of Pan American Petroleum Corporation
To Commingle Production From Navajo Tribal Leases
USG Section 19(A) and USG Section 18(B),
Hogback Dakota Field, San Juan County, New Mexico

Case 3764

Mr. A. L. Porter, Jr. (3)
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Sir:

Pan American Petroleum Corporation hereby makes Application for a hearing to secure approval, as an exception to Rule 309-B (5), to commingle production from its oil wells on its Navajo Tribal Leases in the Hogback Dakota Pool, San Juan County, New Mexico. In connection with this Application, Applicant states the following:

1. All production to be commingled is from the same common source of supply.
2. Adequate facilities will be provided for accurately determining production from each well at reasonable intervals.
3. The Navajo Tribal Lease I-80-IND-58 is a single lease, with the Navajo Tribe having the same royalty rate, and all production from the field is from this lease. Pan American is the only working interest owner in the field and there are no other interests in Section 18, T29N-R16W, but in Section 19, T29N-R16W, there are the following interests:

Vida F. Ellison Estate	1.0%
Douglas W. Knox Estate	0.2%
H. C. Bretschneider	2.6%
Klea Y. Foutz	5.0%
Dines Worsham Company	1.0%

One hundred percent (100%) interest owners have consented to the commingling of production from Section 18 and 19 as evidenced by the letters that were enclosed with my letter to you of March 29, 1968, AMR-1010-986.511, in which we requested your administrative approval of this proposed commingling procedure. In a reply dated April 8, 1968, Daniel S. Nutter informed us that the rules of the Oil Conservation Commission would not permit administrative approval and implied therefore that a hearing to secure such approval would be necessary.

Mr. A. L. Porter, Jr.
April 19, 1968
Page 2

4. The U. S. Geological Survey, as the representative of the royalty owner, has indicated by a letter from Regional Supervisor, John A. Anderson, dated April 12, 1968, that they have no objection to the proposed lease commingling.

A map of the Hogback Dakota Field showing the location of all the wells drilled to date and Sections 18 and 19 referred to above was submitted to you by my heretofore referenced letter of March 29, 1968.

At the present time, Proration Unit "N" of Section 18 and Proration Units "B," "C," "G" and "H" of Section 19 are top allowable, with Proration Unit "O" of Section 18 and Proration Units "F" and "J" of Section 19 being below top allowable. The flowline and well test lines were indicated on the referenced map, and all individual wells can be tested by diverting its flow through the necessary test manifolds to the test separator where both oil and water are metered independently. A sketch and flow schematic of the central tank battery was shown on the referenced map.

While the proposed commingling facility does not provide for continuous metering of the hydrocarbon production from the two Sections concerned, the monthly well tests will accurately account for the capacity of each individual well and provide a satisfactory means to allocate the proper production to each of these Sections. This requested commingling procedure will permit Pan American to handle and dispose of the produced water in the most efficient manner (which disposal incidentally is the subject of a separate Application being filed with you this date and could, if you agree, be heard as a consolidated hearing since the subjects of the two Applications on the Hogback Dakota Field are interrelated). The requested commingling procedure also will permit Pan American to operate the field at less cost and ultimately permit the field to recover more oil by producing it to a lower economic limit.

Yours very truly,

RB Giles

cc: Mr. E. C. Arnold
New Mexico Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico

U. S. Geological Survey
Drawer 1857
Roswell, New Mexico

Four Corners Pipe Line Co.
P. O. Box 5585
Compton, California

Shell Oil Company
P. O. Box 3397 Terminal Annex
Los Angeles, California 90054

U. S. Geological Survey
P. O. Box 965
Farmington, New Mexico



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Drawer 1857
Roswell, New Mexico 88201

RECEIVED PRODUCING DEPT. DENVER	
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Pan American Petroleum Corporation
Security Life Building
Denver, Colorado 80202

Attention: Mr. R. B. Giles

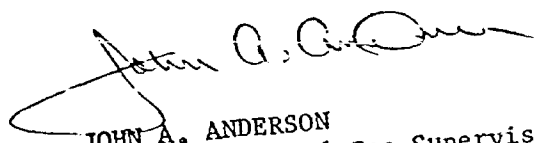
Gentlemen:

By copy of your letter dated March 29, 1968, to the New Mexico Oil Conservation Commission, you request our approval to commingle Dakota production from secs. 18 and 19, T. 29 N., R. 16 W., N.M.P.M., Navajo tribal lease I-89-Ind-58.

Pan American Petroleum Corporation is the lessee of record and owner of all working interest in lease I-89-Ind-58 and, as such, approval by this office to commingle production from a single formation on the Indian lease involved is not required.

We have no objection to commingling Dakota production from secs. 18 and 19, T. 29 N., R. 16 W., N.M.P.M., Navajo tribal lease I-89-Ind-58. A copy of this letter is being forwarded to the New Mexico Oil Conservation Commission for its files.

Sincerely yours,



JOHN A. ANDERSON
Regional Oil and Gas Supervisor

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF PAN AMERICAN PETROLEUM
CORPORATION FOR LEASE COMMINGLING,
SAN JUAN COUNTY, NEW MEXICO.

Case No. 3764

ENTRY OF APPEARANCE

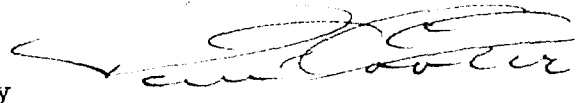
60 MAY 9 AM 8 31

The undersigned attorneys, duly licensed to practice law in the
State of New Mexico, hereby enters their appearance in this cause as
New Mexico counsel for Pan American Petroleum Corporation.

DATED at Roswell, New Mexico, this 8th day of May, 1968.

ATWOOD & MALONE

By



P. O. Drawer 700
Roswell, New Mexico

dearnley-meier reporting service, inc.

CONVENTIONS

DAILY COPY

EXPERT TESTIMONY

STATEMENTS

DEPOSITIONS

HEARINGS

ALBUQUERQUE, NEW MEXICO

PHONE 243-4491

BOX 1092

P. O.

1120 SIMMS B'LDG.



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
May 16, 1968
EXAMINER HEARING

IN THE MATTER OF:

Application of Pan American Petroleum
Corporation for lease commingling,
San Juan County, New Mexico.

Case 3764

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3764.

MR. HATCH: Case 3764. Application of Pan American Petroleum Corporation for lease commingling. San Juan County, New Mexico.

MR. ROSS: For the record my name is Louis C. Ross. I am an attorney for Pan American Petroleum Corporation, the Applicant, out of the Denver Division Office. Co-counsel are Atwood & Malone and I believe that they have entered their appearance in this case also, is that correct?

MR. UTZ: Yes, they have.

MR. ROSS: This case is an application for an exception to Rule 309-B which would permit Pan American to commingle production from oil wells located on the Navajo Tribal Leases in the Hogback Dakota Pool in San Juan County, New Mexico. Here again all of the production to be commingled is from the same common source of supply. We intend to show the Commission that adequate facilities will be provided to accurately measure the production from each well at the monthly intervals and I would like to make the statement that Navajo Tribal Lease I-80-IND-58 is a single lease and the royalty rate to the Navajo Tribe is all at the same rate, and I would further state that all of the production from this field is developed on this one lease.

We want to show that Pan American is the only working interest owner and that there are no other interests in Section 18 but that in Section 19 there is a diversity of interests. I know you will be interested in the nature of this interest so I'll tell you that as a lawyer I've looked into the particular file and what we have is an instrument way back in 1922 when the field originated that is rather ambiguous according to present legal terms, but it is my opinion that it is substantially a net profits interest and is not a working interest; in other words, we are dealing with something that is more like an overriding royalty and I would like to go on from there and qualify our one witness, if it please the Commission.

MR. UTZ: And you are distinguishing a net profits interest from a working interest in that net profits does not share in the expense?

MR. ROSS: That's right, these people just receive a share of production. And I might state in advance that five of our exhibits are letter agreements from all of the interest owners where we asked them for permission to install this system. Would the witness please stand, please?

MR. UTZ: Let the record show that the witness was sworn in the previous case and he is one and the same.

Other appearances? You may proceed.

MR. ROSS: Here again we have eight exhibits which I would like to introduce at this time. They are numbered consecutively one through eight and they are attached together, the first being on the top.

(Whereupon, Applicant's Exhibits
1 through 8 marked for
identification)

FRANK H. HOLLINGSWORTH

Called as a witness, having been previously sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. ROSS:

Q Referring to Exhibit 1 which appears to be a map of a pipeline system or a flow line system, referring to the map I would like to ask the witness what production now is to be commingled?

A In reference to Exhibit No. 1 there are two producing wells in Section 18. They are located, Well No. 8 in the southwest quarter of the southeast quarter, Well No. 27 located in the southeast quarter of the southwest quarter of Section 18, and this is Township 29 North, Range 16 West in which only Pan American and the Navajo Tribe have an interest in these wells. In Section 19 we have ten producers as shown,

which as previously stated is the same basic Navajo Tribal lease in which there are other interests amounting to 9.8 per cent. The dividing line between the diverse ownership will be the line between Sections 18 and 19.

MR. UTZ: Excuse me. Section 18 is a B lease?

A Right.

MR. UTZ: And 19, all of 19 is an A lease?

A Right. This is the way we have reported them on our previous State reports as A and B.

MR. UTZ: This is your own designation, this has nothing to do with your lease?

A Right. The proposed flow line system will have individual flow lines for each well to a header. There are six headers as shown on the map and each one of these headers, there'll be a manifold system and a two-inch test line going all the way to the tank battery where the test separator will be. Each well by operation of a manifold valve can be put on test to the test separator. The point of actual physical point of commingling will be this header No. 5 for Well No. 27 and header No. 6 for this Well No. 8. As you can see, the Chaco Wash runs between these two wells so this is about the best flow line system we can come up with to get that production across Chaco Wash. Now in reference to this

test separator we have, it separates the oil and the water at the battery there and each of these are metered by an A.O. Smith APM type APM-2 Piston type meter. This is a positive displacement meter that is extremely accurate meter.

MR. UTZ: Now, is this each well or each header will be metered?

A Sir?

MR. UTZ: Each well or --

A Each well on test, in other words, the method of testing a well will be to, say, we want to test Well 27 we'll go up to header No. 5, open its flow line to the two-inch test line which is the dotted line, production would go on to the tank battery and into the test separator. Now, I would like to point out there is no measurable gas produced with this oil. This is an active water drive field, the best we can determine, so production is very steady and there is very little variation and the field can be considered in the latter stages of depletion, since it is 45 years old.

Now, on this basis we think a monthly test of each individual well in the field will be very representative of the well's production capacity and continued production and this test by commingling all of the oil in the field, individual production to each well, will be allocated based

on this test.

Q (By Mr. Ross) I think the Commission might be interested in what type of metering you plan to install.

A I said it's -- the meter is at the test separator, we have both an oil meter and a water meter and it's this A.O. Smith APM-2 Model. As I say is a positive displacement meter, a very accurate fluid meter.

Q That's what I wanted to do is emphasize that this is about the best meter that you can get for the situation.

MR. UTZ: There will be a meter at each station?

A No.

MR. UTZ: Each header?

A Actually two meters, one oil meter, one water meter at the central tank battery.

MR. UTZ: Then how are you going to test all these wells one at a time?

A Well, there is twelve producers. We'll test them once a month for a twenty-four hour period. We can actually test twice a month if need be.

MR. UTZ: So eleven producers will be off while you're making your well test?

A No, the eleven producers will go on into the free water knockout shown on the diagram there.

Q (By Mr. Ross) You just test one well at a time?

A In other words, header No. 3 which is located at the central tank battery, all other production will be going into that lower line that goes up into the free water knockout, and the one well will be going into the test separator. Total field production will be based on the lack.

MR. UTZ: How many lines have you got running between each well to your headers, just one line?

A One flow line. This is a new system. in other words. prior to --

MR. UTZ: Is there any storage at the headers?

A No.

MR. UTZ: I can't get it through my mind how you are going to produce and test at the same time.

A We have two lines --

MR. ROSS: They are parallel lines.

A At the header we have two lines.

MR. UTZ: That's what I was asking.

A You said from the wells. There are individual flow lines from the wells to the header.

MR. UTZ: The dashed line is your test line?

A Sir?

MR. WITZ: Is the dashed line beginning at your header No. 6 and No. 5 --

A Right, that's our test line and the other one will be our trunk line. We've changed our methods of operating out here in the past year. Prior to this time water and oil were separated at the well head and only oil went down to the battery through a surface flow line, in other words, water was disposed of at each well. Well, under our new disposal system we have to run the water and oil both through the flow line to avoid freezing during winter operations, we had to ditch and bury all these lines. The old flow lines were about 18 years old so we had to junk them all and just put in new lines. Also prior to this time well No. 8 was the only producer that we had up there in Section 18 and it had an individual flow line that went all the way to the central battery and production was kept in separate tanks down at the battery, and we just accounted for it by gauging there. Well, this was an 18-year old flow line which has to be replaced and rather than maintain separate tankage which is really unwieldy, this is our request to commingle production here.

Q (By Mr. Ross) By commingling this production it's going to mean that your costs are lower, is that correct?

A Right, our initial investment to commingle our flow lines will be considerably less as estimated to be ten to fifteen thousand dollars to set up separate flow line system and tankage or set up a separate system for metering continuously at some point in the north part of Section 19. Also if we meter continuously we'll have a higher monthly operating cost due to having to maintain extra oil meters. We think that by going this commingling system we keep operating cost to a minimum which, in the long run will allow us to produce more oil from the field by producing the field to a lower economic limit.

Q Then what you are saying, in effect, is that every person in this field, including the royalty owners, if you can cut down your cost everybody is going to benefit proportionate to their interest, is that correct, in the production?

A This is correct.

MR. ROSS: At this point I would like to introduce our Exhibits 2 through 6 which are letters that we presented to the other interest owners and these letters each are individual letters signed by different people owning interest and I would like to go through and detail this for the record. Exhibit 2 is a letter from Pan American to

Klea Y. Foutz under date of January 19, 1968 and it was accepted January 26, 1968 by the addressee.

MR. UTZ: Was that Exhibit 2, did you say?

MR. ROSS: Yes, sir, there are five letters there.

The third letter is -- they're all dated the same date.

This is to Dines Worsham Company care of Thomas M. Dines and this was accepted on February 13, 1968.

MR. UTZ: That would be No. 3?

MR. ROSS: That's correct if you want to number them the way I'm reading them off. No. 4 then, letter would be to a Mr. H.C. Bretschneider and his acceptance is shown as February 21, 1968. No. 5 is to a Mr. Douglas W. Knox. This letter was Accepted March 22, 1968, by Cecil S. Knox.

A Mr. Knox is deceased. That was his son.

MR. ROSS: He inherited the interest. The sixth letter and the last one is to a Mrs. Vida F. Ellison, same date, January 19, 1968 and accepted February 5 1968 by the coexecutor of this estate, of her estate. She also is deceased, and I might say here we probably should have checked with our division order section in Tulsa before we sent the letters out but people that really were supposed to get them, got them ultimately, although they were misaddressed.

MR. UTZ: Without objection these exhibits will
be entered into the record.

(Whereupon, Applicant's Exhibits
2 through 6 were offered and
admitted in evidence)

MR. UTZ: Other questions of the witness?

MR. ROSS: Yes.

Q Exhibit 8 is a summary of water and oil production?
Oh, I'm sorry, I would like to ask you if you have sent
any notice of this proposal to the USGS?

A Yes, I have.

Q And what was the reply?

A They replied they had no objections to commingling
the production between Sections 18 and 19, Township 29 North,
Range 16 West.

Q Do you have a copy of their letter?

A Yes.

MR. ROSS: I would like to introduce it in
evidence as Exhibit No. 7.

MR. UTZ: Yes, we have it.

Q (By Mr. Ross) Exhibit 8 is a summary of the
oil and water production which I would like to introduce
and ask the witness what is the current production at this
time from the two Sections from the wells?

A Section 18, Township 29 North, Range 16 West, is currently producing 86 barrels of oil per day with 225 barrels of water a day. Section 19 is producing 286 barrels of oil per day and 901 barrels of water per day. The 86 barrels of oil per day from Section 18 is approximately 23 per cent of the field total and the 286 barrels of oil per day from Section 19 is 77 per cent of the field total. At this point, again I would like to restate the fact that this field as being on an active water drive with no associated gas makes these wells very steady producers, I mean, there is just no variation from day to day and on this basis I think that a monthly well test will be very representative of the wells' ability to produce and that by multiplying this by the number of days produced in a month, each well will be properly allocated as far as what it produces.

I would also like to restate the fact that all the different ownership parties which are involved in Section 19 do not object to this commingling.

Q As a matter of fact, they are kind of happy with us for increasing production, aren't they?

A Yes, I think they should be. We have been able to get about a sixfold increase out of field production.

MR. ROSS: Well, I believe that's all the Direct we have.

MR. UTZ: Are there questions of the witness?

Witness may be excused.

(Witness excused)

MR. ROSS: I would like to ask one questions.

Q In your judgment, Frank, do you think that this proposal will protect the correlative rights of all the people in the field?

A Yes, I believe so.

Q And it is the most efficient method of doing this costwise?

A Yes, for initial investment and future operating cost to be involved this is the most efficient.

MR. ROSS: I believe that's all except I would like to make a closing statement if there is no other questions.

MR. UTZ: Witness may be excused.

(Witness excused)

MR. UTZ: You may make your statement.

MR. ROSS: I think there are three points here. The first is that all of the interest owners have been contacted and are satisfied and things have been explained to them, we didn't have any trouble at all getting their concurrence. They will all benefit if this application

is favorable considered. We are positive that we will have an accurate metering of each of the individual wells because of the nature of the field and the equipment we plan to install and the third thing is that this field is an advanced state of depletion which makes the production susceptible to accurate measurement and with that statement I believe that concludes our case.

MR. UTZ: Case will be taken under advisement.

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

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

Witness my Hand and Seal this 27th day of May, 1968.

Kay Embree
 NOTARY PUBLIC

My Commission Expires:

November 19, 1971

I do hereby certify that the foregoing is
 a true and correct record of the proceedings in
 the above hearing of Case No. 326 X
 held on May 16, 1968.
Thomas A. Dyer, Executive
 New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

April 8, 1968

*File Case
376d*

Pan American Petroleum Corporation
Security Life Building
Denver, Colorado 80202

Attention: Mr. R. B. Giles

Gentlemen:

Reference is made to your application dated March 29, 1968, wherein you request authority to commingle Hogback Dakota oil production from your Navajo Tribal Section 18 Lease and your Navajo Tribal Section 19 Lease, allocating the production on the basis of monthly well tests.

Please be advised that the rules of the Oil Conservation Commission do not permit administrative approval for this type of commingling unless all interests including working interests, royalty interests, and overriding royalty interests are identical.

Very truly yours,

DANIEL S. NUTTER
Chief Engineer

DSN/esr

cc: Mr. E. C. Arnold
Supervisor, District 3
Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico

Mr. John Anderson
United States Geological
Survey
Drawer 1957
Roswell, New Mexico

PAN AMERICAN PETROLEUM CORPORATION

SECURITY LIFE BUILDING
DENVER, COLORADO 80202

January 19, 1968

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
<i>Applic</i>	EXHIBIT NO. <u>25</u>
CASE NO.	<u>3764</u>

File: AMR-151-986.510.1

Re: Request to Commingle Production
Hogback Dakota Field
San Juan County, New Mexico

Mr. Douglas W. Knox
1700 Broadway
Denver, Colorado

Dear Mr. Knox:

As an interest owner in Pan American Petroleum Corporation's Navajo Tribal lease in Section 19, Township 29 North, Range 16 West, in the old Hogback Dakota Field, you are probably aware that we have increased production considerably during the past year by pursuing an active work-over and development drilling program. To meet the objections of the U.S. Geological Survey and the Navajo Indian Tribe, who no longer sanction the surface disposal of the increased water production, it has been necessary to revise the old flowline system in the field and install an injection well type water disposal system. We are incurring and will incur considerable expense in carrying out this operation which is made more difficult because of the rough terrain. Our present estimate is that producing operations in this field will be another ten to fifteen years.

Prior to this contemplated water disposal operation only one well was producing in Section 18 to the north of Section 19. Production from all wells in Section 18 is segregated from the production from wells in Section 19 (where you have your interest) by using separate tankage. Maintaining separate tankage is not desirable from the overall operating standpoint and in connection with the injection well water disposal system.

We have now drilled another well in Section 18 and are attempting to work over the old well and have experienced increased production. We may want to drill additional wells in the area. In order to handle the increased production from Section 18 in the most efficient manner, Pan American proposes to commingle the production from Sections 18 and 19 through a common flowline gathering system, and allocate the production back to the wells on the basis of monthly well tests.

January 19, 1968

This procedure will permit us to operate the lease at less cost and ultimately permit the lease to recover more oil by producing it to a lower economic limit. If you agree to this procedure, please sign and return two copies of this letter in the enclosed self-addressed envelope.

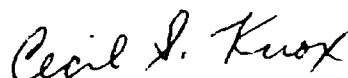
Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION

By



AGREED TO AND ACCEPTED this
22nd day of March, 1968.



UNITED STATES DEPARTMENT OF THE INTERIOR

SECURITY LIFE BUILDING
DENVER, COLORADO 80202

January 19, 1964

RE: DENVER, COLORADO

Re: Department of the Interior, Division of
Geological Survey, Denver, Colorado
San Francisco, California, 1964

Ms. W. H. H. H.
c/o John H. G. H.
P. O. Box 1100
Denver, Colorado

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 26

CASE NO. 2764

Dear Ms. H. H. H.:

As an interest owner in Pan American Petroleum Corporation's Navajo Tribal lease in Section 19, Township 29 North, Range 16 West, in the old Heglnok Dakota Field, you are probably aware that we have increased production considerably during the past year by pursuing an active work-over and development drilling program. To meet the objections of the U.S. Geological Survey and the Navajo Indian Tribe, who no longer sanction the surface disposal of the increased water production, it has been necessary to revise the old flooding system in the field and install an injection well type water disposal system. We are incurring and will incur considerable expense in carrying out this operation which is made more difficult because of the rough terrain. Our present estimate is that producing operations in this field will be another ten to fifteen years.

Prior to this contemplated water disposal operation only one well was producing in Section 16 to the north of Section 19. Production from all wells in Section 16 is segregated from the production from wells in Section 19 (where you have your interest) by using separate facilities. Maintaining separate facilities is not desirable from the overall operating standpoint and in connection with the injection well water disposal system.

We have an old injection well in Section 16 and are attempting to work over this well and have acquired a new well and production separator in Section 16 to handle the increased production. In order to handle the increased production from Section 16 it is necessary to install a new well and production separator in Section 16. The new well and production separator will be installed in Section 16 and will be used to handle the increased production from Section 16. The new well and production separator will be installed in Section 16 and will be used to handle the increased production from Section 16.

File: 44-111-934, 312, 1

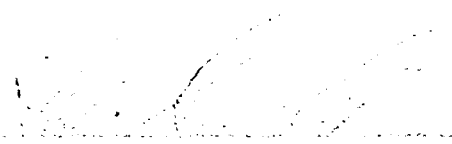
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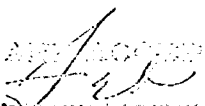
January 11, 1946


This proceeding will be held at the Court of the County of Los Angeles and will be held by
permit the Court to receive more of the proceeds of the sale of the property.
If you agree to this, please sign and return two copies of this letter
in the enclosed folder to the Court.

Yours very truly,

PAUL ALFRED HENDERSON CORPORATION

By 

ACCEPTED TO AND AGREED TO
5 day of  1946.


Co-Executor, Estate of Vida Francis Ellison, deceased.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
App. 10 EXHIBIT NO. 4
CASE NO. 3764

To: Margaret Le Gooch/Single Productions
 14344th Avenue Field
 San Diego County, New Mexico
 85801-1111

Herrn Hrn. Habschneider:

Due to this complicated well is designed so that only one well was producing in Section 18 to the north of Section 19. Production from all wells in Section 18 is segregated from the gas well in four wells in Section 19 (above pay zone your interest) by using separate packings. Maintaining separate packings is not desirable from the overall operating standpoint in connection with the injector well under the oil system.

[illegible]

1320: A 25.100, 900, 100, 1

...

January 10, 1961

This procedure will permit us to open the door of our court and ultimately permit the house to pass or make off by prohibiting it to a house committee limit. If you agree to this procedure, please sign, date and return a copy of this letter in the enclosed self-addressed envelope.

Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION

By

AGREED TO AND ACCEPTED AS
27th day of Aug., 1963.

579. *Salicaria*

THE AMERICAN RESEARCH COMPANY

SECURITY LIFE BUILDING
DENVER, COLORADO 80202

January 19, 1966

File: A111-181-956.010.1

Re: Layout to Comptroller's Production
 Meghann P. Levin Field
 One Six One One, New Yorker
 New York, New York 10017

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Applicant EXHIBIT NO. 52
CASE NO. 3764

Mr. Elton E. Norton
1562 Golden Main Rd.
44 D Street Beach, California

Dear Mr. Newton:

As an interest owner in the American Natural Gas Company's Navajo Tribal lease in Section 19, Township 29 North, Range 16 West, in the old Hogback-Eskate Field, you are probably aware that we have increased production considerably during the past year by pursuing an active work-over and development drilling program. To meet the objections of the U.S. Geological Survey and the Navajo Indian Tribe, who no longer sanction the surface disposal of the increased water production, it has been necessary to revise the old flexline system in the field and install an injection well type water disposal system. We are incurring and will incur considerable expense in carrying out this operation which is made more difficult because of the rough terrain. Our present estimate is that producing operations in this field will be another ten to fifteen years.

Prior to this contemplated water disposal operation only one well was producing in Section 18 to the north of Section 19. Therefore, from all wells in Section 18 is segregated from its production from wells in Section 19 (where you have your 1400 acre) by using separate bargeage. That bargeage, separate bargeage is not desirable from the overalls, water at a point and in connection with the injection well water disposal system.

[illegible]

File: AM 6-11-59 2,500.0

2.

January 12, 1960

This procedure will permit us to spend the same at less cost and ultimately permit the lease to recover more oil by producing it to a lower economic limit. If you agree to this procedure, please forward us two copies of this letter in the enclosed self-addressed envelope.

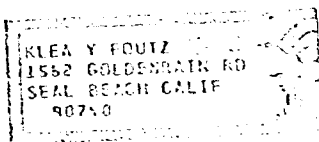
Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION

By _____

AGREED TO AND ACCEPTED this
12th day of January, 1960.

W. G. A. Smith



PAN AMERICAN PETROLEUM CORPORATION

SECURITY LIFE BUILDING

DENVER, COLORADO 80202

PRODUCING DEPARTMENT
H. E. HENDER
DIVISION PRODUCTION
MANAGERDISTRICT SUPERINTENDENTS
W. M. JONES
A. E. PIER
T. M. CURRIS
JOINT INTEREST
SUPERINTENDENT
S. B. RICHARDS

January 19, 1968

File: AMR-151-986.510.1

Re: Request to Commingle Production
Hogback Dakota Field
San Juan County, New Mexico**BEFORE EXAMINER UTZ**

OIL CONSERVATION COMMISSION

EXHIBIT NO. 63CASE NO. 3764Dines Worsham Company
c/o Thomas M. Dines
P. O. Box 2196
Colorado Springs, Colorado

Gentlemen:

As an interest owner in Pan American Petroleum Corporation's Navajo Tribal lease in Section 19, Township 29 North, Range 16 West, in the old Hogback Dakota Field, you are probably aware that we have increased production considerably during the past year by pursuing an active work-over and development drilling program. To meet the objections of the U. S. Geological Survey and the Navajo Indian Tribe, who no longer sanction the surface disposal of the increased water production, it has been necessary to revise the old flowline system in the field and install an injection well type water disposal system. We are incurring and will incur considerable expense in carrying out this operation which is made more difficult because of the rough terrain. Our present estimate is that producing operations in this field will be another ten to fifteen years.

Prior to this contemplated water disposal operation only one well was producing in Section 18 to the north of Section 19. Production from all wells in Section 18 is segregated from the production from wells in Section 19 (where you have your interest) by using separate tankage. Maintaining separate tankage is not desirable from the overall operating standpoint and in connection with the injection well water disposal system.

We have now drilled another well in Section 18 and are attempting to work over the old well and have experienced increased production. We may want to drill additional wells in the area. In order to handle the increased production from Section 18 in the most efficient manner, Pan American proposes to commingle the production from Sections 18 and 19 through a common flowline gathering system, and allocate the production back to the wells on the basis of monthly well tests.

File: AMR-151-986.510.1

-2-

January 19, 1968

This procedure will permit us to operate the lease at less cost and ultimately permit the lease to recover more oil by producing it to a lower economic limit. If you agree to this procedure, please sign and return two copies of this letter in the enclosed self-addressed envelope.

Yours very truly,

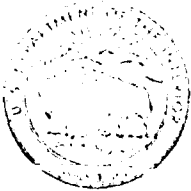
PAN AMERICAN PETROLEUM CORPORATION

By *[Signature]*

AGREED TO AND ACCEPTED this
13 day of February, 1968.

Davis Worsham Company

By *[Signature]*
General Partner



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Drawer 1857
Roswell, New Mexico 88201

April 12, 1968

	APR 15 1968
D-5	
FILE	

Pan American Petroleum Corporation
Security Life Building
Denver, Colorado 80202

Attention: Mr. R. B. Giles

Gentlemen:

By copy of your letter dated March 29, 1968, to the New Mexico Oil Conservation Commission, you request our approval to commingle Dakota production from secs. 18 and 19, T. 29 N., R. 16 W., N.M.P.M., Navajo tribal lease I-89-Ind-58.

Pan American Petroleum Corporation is the lessee of record and owner of all working interest in lease I-89-Ind-58 and, as such, approval by this office to commingle production from a single formation on the Indian lease involved is not required.

We have no objection to commingling Dakota production from secs. 18 and 19, T. 29 N., R. 16 W., N.M.P.M., Navajo tribal lease I-89-Ind-58. A copy of this letter is being forwarded to the New Mexico Oil Conservation Commission for its files.

Sincerely yours,

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 7
CASE NO. 2764

EXHIBIT

HOGBACK DAKOTA FIELD
SAN JUAN COUNTY, NEW MEXICO

U.S.G. Section 18, T29N-R16W

Well No.	Location	Completion Date	Current Producing Rate		*Cumulative Prod. Barrels Oil, to April 1, 1968
			BOPD	BWPD	
8	330' FSL & 2310' FEL	5-5-24	29	150	32,918
27	165' FSL & 2475' FWL	11-5-67	57	75	7,478
	Sub-total		86	225	40,396

U.S.G. Section 19, T29N-R16W

Well No.	Location	Completion Date	Current Producing Rate		*Cumulative Prod. Barrels Oil, to April 1, 1968
			BOPD	BWPD	
2	1020' FNL & 2327' FWL	7-21-23	15	45	297,477
5	1980' FSL & 1980' FEL	11-15-23	3	4	17,514
7	330' FNL & 2310' FEL	3-27-24	15	56	35,354
9	990' FNL & 1650' FEL	10- 3-24	9	4	207,891
11	2310' FNL & 1320' FEL	12-16-24	68	200	56,289
12	2244' FNL & 2453' FEL	3-31-25	2	10	227,929
14	2050' FNL & 1910' FEL	5-18-53	12	45	57,062
15	1600' FNL & 2374' FEL	10- 2-56	59	350	33,427
19	1650' FNL & 2310' FWL	2-24-60	--	--	15,116
23	990' FNL & 2310' FEL	9-14-67	48	112	7,482
26	165' FNL & 2475' FWL	10-10-67	55	75	10,430
	Sub-total		286	901	965,971
	FIELD TOTAL		372	1,126	*1,006,367

*Unallocated production prior to 1-1-50 is 2,904,483 barrels oil.

May 14, 1968

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 8

CASE NO.