CASE 6662: CHEVRON ENERGY CORPORATION FOR A DUAL COMPLETION AND DOWNHOLE COMMINGLING, RIO ARRIBA COUNTY, NEW MEXICO

Cont to Oct 17

CASE NO.

6662

APPLICATION,

TRANSCRIPTS,

SMALL EXHIBITS,

ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. William F. Carr
Campbell and Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Re: CASE NO. 6662
ORDER NO. R-6326

Applicant:

Supron Energy Corporation

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD x

Other _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 6662
Order No. R-6326

APPLICATION OF SUPRON ENERGY CORPORATION FOR A DUAL COMPLETION AND DOWNHOLE COMMINGLING, RIO ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 17, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 30th day of April, 1980, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Supron Energy Corporation, seeks authority to complete its Jicarilla "A" Well No. 22Y, located in Unit K of Section 24, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico, as a dual completion (conventional) to produce gas from the Blanco Mesaverde Pool through tubing and to commingle and produce the Wildhorse Gallup and Basin-Dakota zones through a parallel tubing string.

(3) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices insofar as the Blanco Mesaverde and one or the other of the other two zones are concerned.

(4) That the shut-in surface pressure of the Dakota formation in the subject well is 1725 psi.

(5) That although the shut-in surface pressure of the Gallup formation in the subject well is unknown, the shut-in surface pressure of the Gallup formation in eight nearby wells ranges from 323 psi to 448 psi, and averages 572 psi.

(6) That there is no reason to believe that the pressure in the Gallup formation in the subject well is substantially different than in the nearby wells and, in fact, applicant stated that the Gallup pressure in the subject well "...would be 350 psi, plus or minus 25 psi."

(7) That assuming a Gallup pressure of 350 psi and a Dakota pressure of 1725 psi, without regard to any pressure build-up due to gas gradient, the Dakota pressure would be some 4.9 times the Gallup pressure.

(8) That such a pressure differential is not conducive to the prevention of cross-flow between zones, particularly during intervals when the well may be shut in, and could result in waste.

(9) That the application to commingle the Gallup and Dakota formations in the well bore of the subject well should be denied.

(10) That the applicant should be permitted to dually complete the subject well to produce gas from the Blanco Mesaverde Pool through one string of tubing and to produce gas from either the Gallup formation or the Dakota formation through another parallel string of tubing, but only after taking such action as may be necessary to isolate the Gallup and Dakota formations from each other.

IT IS THEREFORE ORDERED:

(1) That the application of Supron Energy Corporation for authority to complete its Jicarilla "A" Well No. 22Y, located in Unit K of Section 24, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico, as a dual completion (conventional) to produce gas from the Blanco Mesaverde Pool through tubing and to commingle and produce the Wildhorse Gallup and Basin-Dakota zones through a parallel tubing string is hereby denied.

PROVIDED HOWEVER, that the applicant is hereby authorized to seek approval, pursuant to the provisions of Rule 112-A of the Division Rules and Regulations, of the dual completion of

the aforesaid well to produce gas from the Blanco Mesaverde Pool and from the Wildhorse Gallup or the Basin-Dakota Pools through parallel strings of tubing.

PROVIDED FURTHER, that prior to such approval, applicant shall furnish evidence to the Division Director that the Wildhorse Gallup and the Basin-Dakota reservoirs in the subject well have been adequately isolated from each other to prevent communication between the two reservoirs.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

R R A L.

Ed/

Dan Nutter

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

October 12, 1979

Case No. 6662.

Mr. Rudy Motto
Supron Energy Corp.
P. O. Box 808
Farmington, NM 87401

RECEIVED
OCT 19 1979
OIL CONSERVATION DIVISION
SANTA FE

Re: Supron Energy Corp.
Jicarilla A #22Y
K-24-26N-4W

Dear Mr. Motto:

We agree with the following production split for the captioned downhole commingled well:

Gallup	75% of all produced gas 50% of all produced oil
Dakota	25% of all produced gas 50% of all produced oil

If there are questions please contact us.

Yours very truly,

A. R. Kendrick
Supervisor, District #3

ARK:mc

xc: Oil Conservation Division, Santa Fe, NM
Gas transporter- Gas Company of New Mexico
Oil Transporter- Plateau, Inc.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
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October 12, 1979

Case 6662

Mr. Rudy Motto
Supron Energy Corp.
P. O. Box 808
Farmington, NM 87401

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OCT 19 1979
OIL CONSERVATION DIVISION
SANTA FE

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K-24-26N-4W

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A R Kendrick

A. R. Kendrick
Supervisor, District #3

ARK:mc

xc: Oil Conservation Division, Santa Fe, NM
Gas transporter- Gas Company of New Mexico
Oil Transporter- Plateau, Inc.

SUPRON ENERGY CORPORATION
POST OFFICE BOX 808
FARMINGTON, NEW MEXICO 87401

October 10, 1979

Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Attention: Mr. A. R. Kendrick

Al,

Per our conversation on 10-9-79 the production split on our Jicarilla "A" No. 22-Y well (24-26N-4W) will be as follows:

	Gas	Oil
Gallup	75%	50%
Dakota	25%	50%

Kenneth E. Roddy
Production Superintendent

KER:bjs

cc: Bob Large - Kutz

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
State Land Office Building
Santa Fe, New Mexico
17 October 1979

EXAMINER HEARING

IN THE MATTER OF: CASE 6662

Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico.

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For Supron Energy Corporation: William F. Carr, Esq.
CAMPBELL AND BLACK
Jefferson Place
Santa Fe, New Mexico, 87501

For the Oil Conservation Divison: Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Building
Santa Fe, New Mexico 87503

I N D E X

JERRY LEE

E X H I B I T S

MR. NUTTER: We'll call Case Number 6662.

MR. PADILLA: Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico.

MR. CARR: Mr. Examiner, my name is William F. Carr, law firm of Campbell and Black, P. A., Santa Fe, appearing on behalf of the applicant. I have one witness who needs to be sworn.

(Witness sworn.)

MR. CARR: Mr. Examiner, I believe the record should reflect that this case was continued from the September 19, 1979, Examiner Hearing, and was continued to enable the applicant to put together additional data concerning pressures of the downhole commingled zones.

MR. NUTTER: I believe that's correct but I don't have the case file. We'll have a short recess and I'll get the case file.

(Thereafter a brief recess was taken.)

JERRY LEE

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your full name and place of residence?

A. Jerry Lee, Dallas, Texas.

Q. Mr. Lee, by whom are you employed and in what position?

A. Supron Energy Corporation as a Drilling and Production Engineer.

Q. Have you previously testified before this Commission and had your credentials accepted and made a matter of record?

A. Yes, I have.

Q. Are you familiar with the application in this case?

A. Yes, I am.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: They are.

Q. (Mr. Carr continuing.) Mr. Lee, have you prepared for introduction at this hearing today certain exhibits?

A. Yes, I have.

Q. And are those exhibits stapled together

and labeled Supron Exhibit A?

A. They are.

Q. Will you please refer to those exhibits and explain the information contained therein to Mr. Nutter?

A. Exhibit A consists of three parts, the first being a map showing the offset Gallup or Wild Horse Gallup completions to the A-22-Y Well.

The second is a table summarizing the 1977 annual shut-in pressures for each of the Supron operated wells in the Wild Horse Gallup Field.

In addition there is -- I have made some analyses of this data, to the effect that basically the shut-in pressures of all Wild Horse or Supron operated Wild Horse Gallup Wells are within 100 psi of the same in 1977.

In 1978, February of 1978, Supron drilled its Jicarilla E-15 Well. Even though the well was located in excess of a half mile from the closest producing Gallup Well, or Wild Horse Gallup well, its original shut-in pressure was within 30 psi of that closest offset. This is indicative of a high degree of pressure communication in the Wild Horse Gallup Field. This is further supported by the lack of major differences in shut-in pressure of each of the offset wells; i. e., all of the shut-in pressures were within 100 psi of each other.

The third portion of the exhibit basically

just states the shut-in pressure for the Dakota formation, being in the Jicarilla A-22-Y Well, being 1725 psi on November 28th, 1978. This pressure is the maximum shut-in pressure that has been observed in the subject well and it is in line with the anticipated shut-in pressure for the Dakota formation in this area.

Q. Has the Commission approved downhole commingling of Dakota and Gallup production in other wells in the area?

A. Yes, they have in the Jicarilla A-8 Well in the northwest quarter of Section 23, and in the Jicarilla E-7 Well in Section 13 of Township 26 North, 4 West, and in the Jicarilla E-8 Well, also in that same section.

MR. NUTTER: Let's see, what were those two wells, Mr. Lee?

A. The Jicarilla --

MR. NUTTER: In Section 13?

A. Jicarilla E-7 and E-8. Those are Supron operated wells.

Or excuse me, that is not Section 13. It should be in Section 15.

MR. NUTTER: Oh.

A. It's not on this map.

MR. NUTTER: It's not on the map. Okay.

Q. Now, Mr. Lee, directing your attention to

the subject well, are both of the zones that you are proposing to downhole commingle capable of only marginal production?

A. That is correct. On testing of these zones only extremely marginal shows of gas, in fact, shows too small to actually measure at a rate, sustained rate, were encountered in either zone.

Q. Do you believe the proposed completion will be such as to prevent migration between zones?

A. The -- as long as the well is in the producing situation the shut-in pressures of either zone exceed the line pressure in the area, so in that sense, as long as the well is producing, obviously there can be no communication because the drawdown at the surface is -- exceeds the, or is lower than the pressure of either zone, and therefore the flow would be to the surface.

Since the wells are both -- both zones are marginal production, there would be no reason to shut this well in other than to meet certain State requirements; i. e., packer tests or annual deliverability tests.

If the well is required to be shut in for some reason, there is the possibility of cross flow occurring between the two zones. The differential pressure of approximately 1400 psi between zones could result in some minor cross flow. This flow would be extremely between zones, of

course the flow would be from the higher pressured Dakota Zone to the Gallup Zone. It would necessarily be due to the tight nature of both zones, and particularly the Dakota reservoir, which would be the zone which would be doing the flowing, the amount of flow that could occur would be restricted primarily due to the permeability of the Dakota Zone.

Any flow that did occur in this shut-in situation would serve to tend to pressure up the Gallup Zone and thereby would further tend to restrict the ability of cross flow to occur.

If however, there were some cross flow that did occur between the two zones, as soon as the well was returned to the producing status, a drawdown would then again occur on the Gallup formation and by the same virtue that the Gallup could take the production from the Dakota Zone, it would then turn around and give it back up to the production stream.

Since the interest in both Dakota and Gallup Zones is the same, there would be no loss to any of the interest owners involved.

Q. Do you believe that the proposed application would be in the interest of conservation, the protection of correlative rights, and the prevention of waste?

A. Yes, I do.

Q. Are you prepared to make a recommendation

to the Examiner as to the allocation of production between zones?

A. Yes, I am. In a meeting in Aztec between Mr. Ken Roddy with Supron and Mr. Al Kendrick, the District Supervisor for the Commission, a proposed allocation of production is as follows: On the gas portion, 25 percent to the Dakota Formation and 75 percent to the Gallup Formation. On the oil production, commingled oil production, 50 percent would be attributed to the Dakota and 50 percent to the Gallup. This proposed allocation was arrived at on the basis of analysis of offset production primarily in the Jicarilla, Supron Jicarilla A No. 12 Well, located in the northwest quarter of Section 24.

It was also compared to the Jicarilla A-14 Well, also located in the northeast quarter of 24.

Q. Do you have anything further to add to your testimony?

A. No, I don't.

MR. CARR: At this time, Mr. Examiner, I would offer into evidence Supron's Exhibit A.

MR. NUTTER: Supron Exhibit A will be admitted into evidence.

MR. CARR: I have nothing further of Mr. Lee on direct.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Lee, you stated that individually these two zones were very low marginal and neither could sustain commercial producing rates, yet you have this test that was submitted at the last hearing, and the two zones together have an absolute open flow of 1.2 million. That's a pretty fair well for the San Juan Basin, isn't it?

A. 1.2 million absolute open flow, no, sir, from the Gallup in particular. From the Gallup formation an absolute open flow of that degree is very low for the Gallup.

Q. What's your pipeline pressure in this area?

A. Approximately 300 psi, and it's my understanding that that should be reduced significantly below that in the near future due to some plans of Gas Company of New Mexico to put additional compression in in that area.

Q. What do you think that a well with an absolute open flow of 1.2 million would make into the pipeline at that pressure?

A. As a general rule, the maximum in the San Juan Basin for any formation, a maximum of about 10 percent of the absolute open flow is deliverability to the pipeline.

Q. And then this is a dual completion and the

Mesaverde side is much better, is that correct?

A. Yes, sir, that is correct.

Q. I think it potentialed for about 5.5 million.

A. I am not --- I don't remember --- recall the figures offhand, but that seems about right.

Q. Now, have you made any calculations as to the actual pressure of the Dakota at the Gallup datum? In other words, measured that pressure by coming up the hole?

A. No, sir, I haven't? I have not made a calculation of that nature. It would be essentially the same The zones are only approximately 7 or 800 feet, and the gas --

Q. And what you've got --- right, and the gradient is negligible and ---

A. Yes.

Q. And what you've got here are shut-in pressures taken at the surface?

A. Yes, sir, these are shut-in pressures at the surface for the offset wells.

MR. NUTTER: Are there any further questions for Mr. Lee? He may be excused.

Do you have anything further, Mr. Carr?

MR. CARR: No, Mr. Examiner.

MR. NUTTER: Does anyone have anything they wish to offer in case Number 6662?

We'll take the case under advisement.

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of the Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6662, heard by me on 10/17 1979.

Oil Conservation Division, Examiner

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2010 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
State Land Office Building
Santa Fe, New Mexico
17 October 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico.

CASE 6662

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

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CAMPBELL AND BLACK
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MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: They are.

Q. (Mr. Carr continuing.) Mr. Lee, have you prepared for introduction at this hearing today certain exhibits?

A. Yes, I have.

Q. And are those exhibits stapled together

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A. They are.

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It was also compared to the Jicarilla A-14 Well, also located in the northeast quarter of 24.

Q. Do you have anything further to add to your testimony?

A. No, I don't.

MR. CARR: At this time, Mr. Examiner, I would offer into evidence Supron's Exhibit A.

MR. NUTTER: Supron Exhibit A will be admitted into evidence.

MR. CARR: I have nothing further of Mr. Lee on direct.

CROSS EXAMINATION

BY MR. NUTTER:

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MR. CARR: No, Mr. Examiner.

MR. NUTTER: Does anyone have anything they wish to offer in case Number 6662?

We'll take the case under advisement.

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I, SALLY W. BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of the Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, from my notes taken at the time of the hearing.

Sally W. Boyd C.S.R.
Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6663 heard by me on 10/17 1979.

Examiner
Oil Conservation Division

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
1010 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

CASE 6680: (Continued from October 2, 1979, Examiner Hearing)

Application of Robert C. Anderson for surface commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the surface commingling of all production from his Ute Mountain Ute Lease, Wells Nos. 1, 3 and 4, located in Section 14, Township 31 North, Range 16 West.

CASE 6631: (Continued from August 22, 1979, Examiner Hearing)

Application of Reserve Oil, Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat gas and Langlie Mattix oil production in the wellbore of its Cooper Jal Unit Well No. 149-306 located in Unit J of Section 18, Township 24 South, Range 37 East.

CASE 6700: Application of Doyle Hartman for an unorthodox well location, a non-standard proration unit, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 120-acre non-standard proration unit comprising the NW/4 NW/4 and S/2 NW/4 of Section 29, Township 25 South, Range 37 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the North line and 330 feet from the West line of said Section 29; applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

CASE 6701: Application of Doyle Hartman for compulsory pooling, non-standard gas proration unit, unorthodox well location, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Seven Rivers-Queen formations underlying the SE/4 of Section 30, Township 21 South, Range 36 East, Eumont Gas Pool, to form a 160-acre non-standard gas proration unit to be dedicated to his J. K. Rector Well No. 1 at an unorthodox location 2310 feet from the South line and 330 feet from the East line of said Section 30. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well. Applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

CASE 6676: (Continued from October 2, 1979, Examiner Hearing)

Application of Doyle Hartman for an unorthodox well location and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre non-standard gas proration unit comprising the SW/4 NE/4 and SE/4 NW/4 of Section 36, Township 24 South, Range 36 East, Jalmat Gas Pool, to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the North line and 1650 feet from the East line of said Section 36.

CASE 6664: (Continued from September 19, 1979, Examiner Hearing)

Application of Doyle Hartman for an unorthodox well location, two non-standard proration units and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 40-acre non-standard proration unit comprising the NW/4 SW/4 of Section 27, Township 25 South, Range 37 East, Jalmat Pool, to be dedicated to El Paso Natural Gas Company's Harrison Well No. 1, and also a 120-acre unit comprising the E/2 SW/4 and SW/4 SW/4 of said Section 27 to be dedicated to a well to be drilled at an unorthodox location 330 feet from the South and West lines of the section; applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of an existing proration unit which cannot be so drained by the existing well.

CASE 6662: (Continued from September 19, 1979, Examiner Hearing)

Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Jicarilla "A" Well No. 22Y located in Unit K of Section 24, Township 26 North, Range 4 West, to produce gas from the Blanco Mesaverde Pool through tubing and to commingle and produce the Wildhorse Gallup and Basin-Dakota zones through a parallel tubing string.

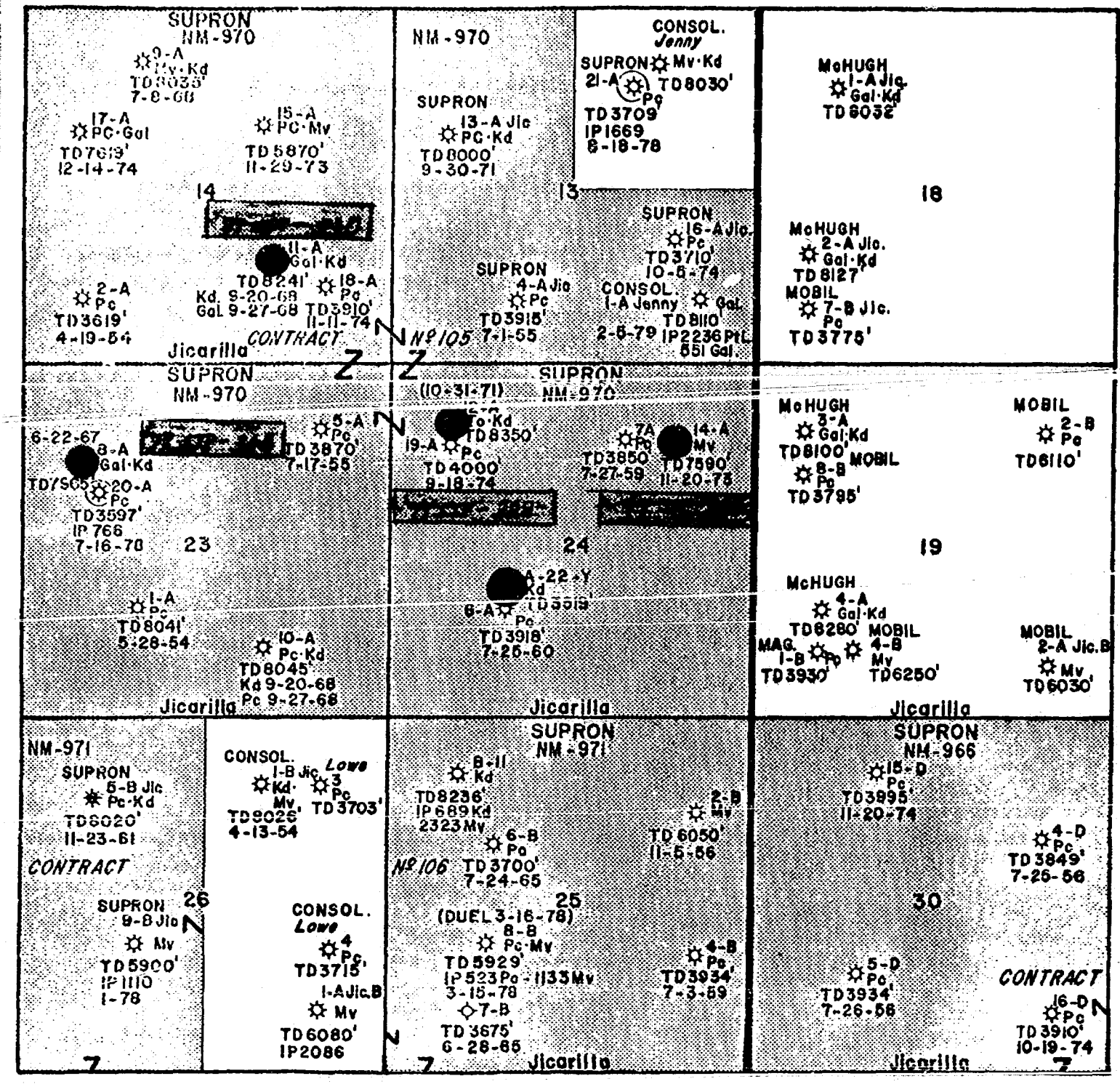
CASE 6702: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco-Pictured Cliffs and Blanco Mesaverde production in the wellbore of its San Juan 27-5 Unit Well No. 67 located in Unit B of Section 31, Township 27 North, Range 5 West.

Supron Energy Corporation

WELL LOCATION & OFFSET OPERATOR PLAT

JICARILLA A-22-Y
SEC. 24 T26N, R4W
RIO ARRIBA COUNTY

OIL CONSERVATION DIVISION
Supron EXHIBIT NO. 4
CASE NO. 6662



OFFSET OPERATORS

- ☐ CONSOLIDATED OIL & GAS
- ☐ JEROME P. McHUGH
- ☐ DAKOTA/GALLUP - JEROME P. McHUGH
- ☐ Mv/Pc - MOBIL OIL CORPORATION

WELL IDENTIFICATION CODE

- ● JICARILLA A-22-Y
- ○ MESAVERDE COMPLETION
- ◒ GALLUP COMPLETION
- ○ DAKOTA COMPLETION

ANNUAL SHUT-IN PRESSURES
Wild Horse Gallup Field

WELL NAME	LOCATION	DATE OF TEST	SHUT-IN PRESSURE
Jicarilla E-15*	SW/4 Sec 16	2/78	448 psi
Jicarilla E-6	NE/4 Sec 21	5/77	413 psi
Jicarilla E-8	NW/4 Sec 15	5/77	388 psi
Jicarilla E-7	SE/4 Sec 15	5/77	369 psi
Jicarilla A-8	NW/4 Sec 23	4/77	364 psi
Jicarilla A-11	SE/4 Sec 14	4/77	340 psi
Jicarilla A-12	NW/4 Sec 24	4/77	328 psi
Jicarilla A-14	NE/4 Sec 24	4/77	323 psi

*The Jicarilla E-15 well was completed in February, 1978. Even though this well was in excess of one half mile from the closest producing Gallup well, its original pressure was within 30 psi of the closest offset. This is indicative of the high degree of pressure communication that exist in the Wild Horse Gallup Field. This pressure communication is further supported by the fact that the annual shut-in pressure of all Supron operated wells were within 100 psi of each other in 1977. From this data,it is obvious that the shut-in pressure of the Gallup in the Jicarilla A-22-Y well would be 350 psi,plus or minus 25 psi.

JICARILLA A-22-Y

Dakota Shut-In Pressure

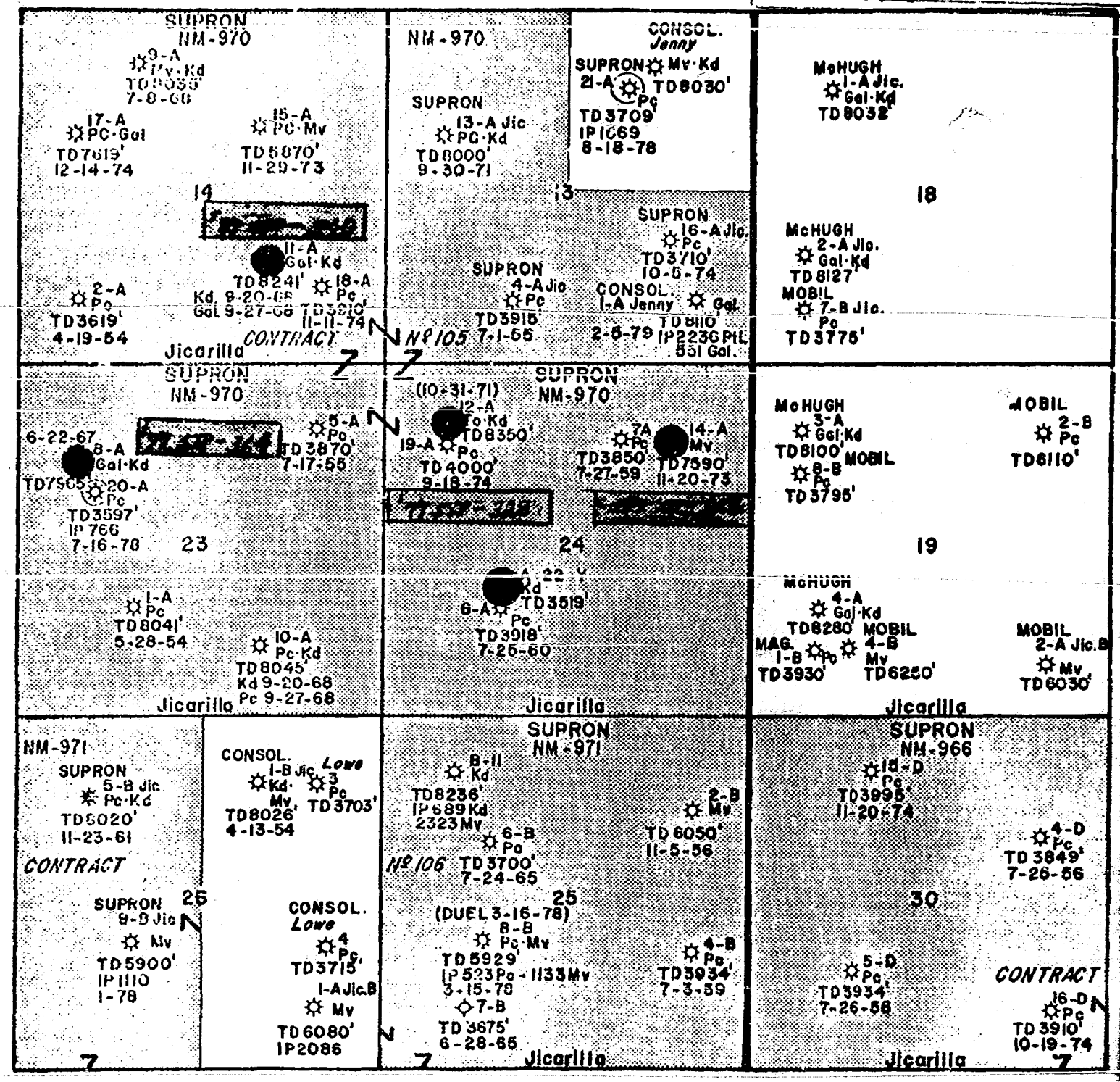
On November 28, 1978, the surface shut-in pressure of the Dakota Formation was 1725 psi in the Jicarilla A-22-Y well. This is the maximum shut-in pressure that has been observed in the subject well and appears to be in line with anticipated shut-in pressure for the Dakota Formation in this area.

Supron Energy Corporation

WELL LOCATION & OFFSET OPERATOR PLAT

JICARILLA A-22-Y
SEC. 24 T26N, R4W
RIO ARRIBA COUNTY

BEFORE EXAMINER NUTTE
OIL CONSERVATION DIVISION
Supron EXHIBIT NO. A
CASE NO. 6662



OFFSET OPERATORS

- ☐ CONSOLIDATED OIL & GAS
- ☐ JEROME P. McHUGH
- ☐ DAKOTA/GALLUP - JEROME P. McHUGH
- ☐ Mv/Pc - MOBIL OIL CORPORATION

WELL IDENTIFICATION CODE

- ● JICARILLA A-22-Y
- ○ MESAVERDE COMPLETION
- ● GALLUP COMPLETION
- ○ DAKOTA COMPLETION

ANNUAL SHUT-IN PRESSURES
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alloc

25% DK 75% Gp gas
50% DK 50% Gp oil

A-12 in Sec 24 A-14 in NE Sec 24
basis for allocation

JICARILLA A-22-Y

Dakota Shut-In Pressure

On November 28, 1978, the surface shut-in pressure of the Dakota Formation was 1725 psi in the Jicarilla A-22-Y well. This is the maximum shut-in pressure that has been observed in the subject well and appears to be in line with anticipated shut-in pressure for the Dakota Formation in this area.

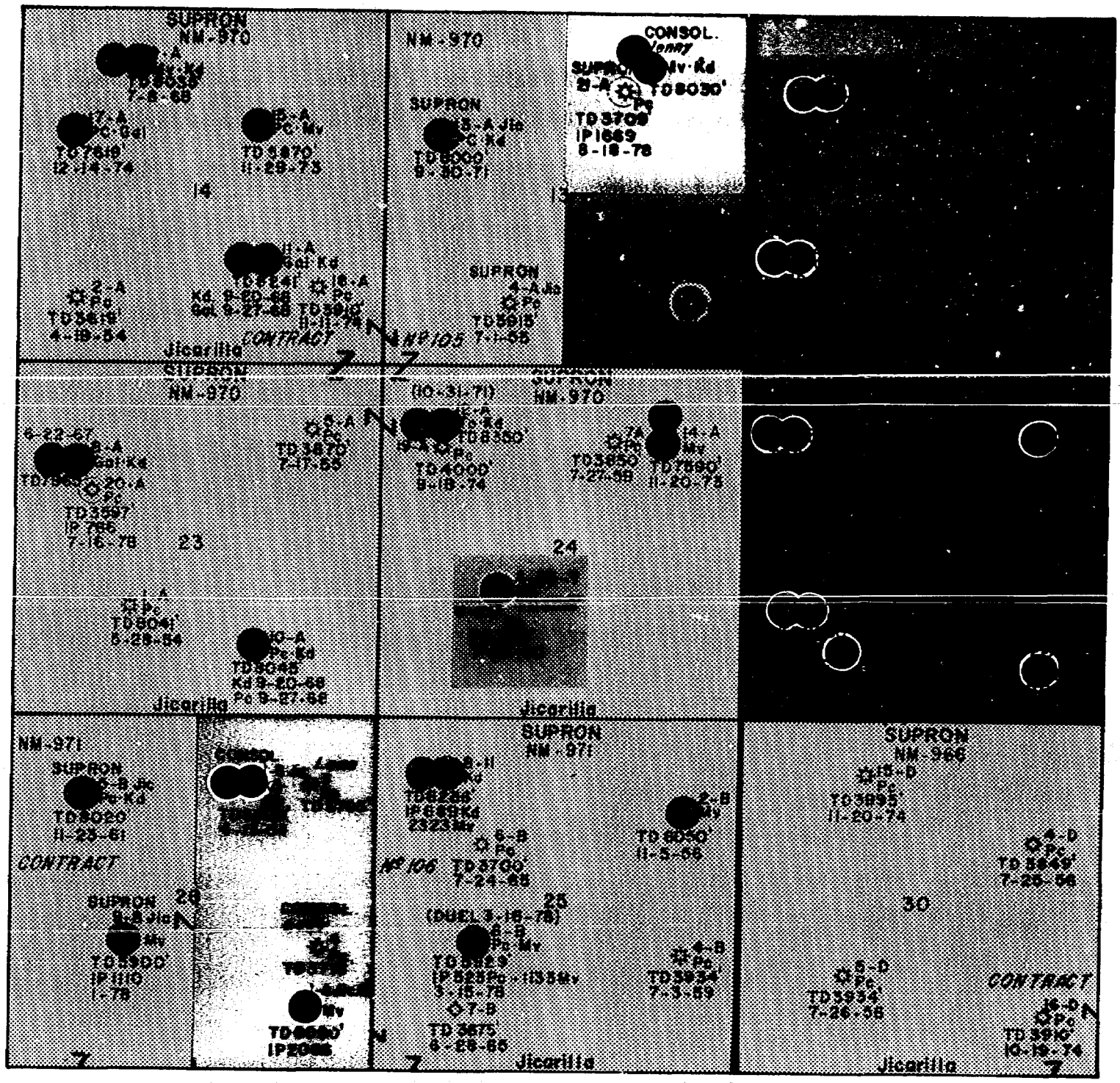
Supron Energy Corporation

WELL LOCATION & OFFSET OPERATOR PLAT

JICARILLA A-22-Y

SEC. 24 T26N, R4W

RIO ARRIBA COUNTY



OFFSET OPERATORS

- CONSOLIDATED OIL & GAS
- JEROME P. McHUGH
- DAKOTA/GALLUP - JEROME P. McHUGH
- Mv/Pc - MOBIL OIL CORPORATION

WELL IDENTIFICATION CODE

- JICARILLA A-22-Y
- MESAVERDE COMPLETION
- GALLUP COMPLETION
- DAKOTA COMPLETION

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SUPRON EXHIBIT NO. 1
CASE NO. 6662

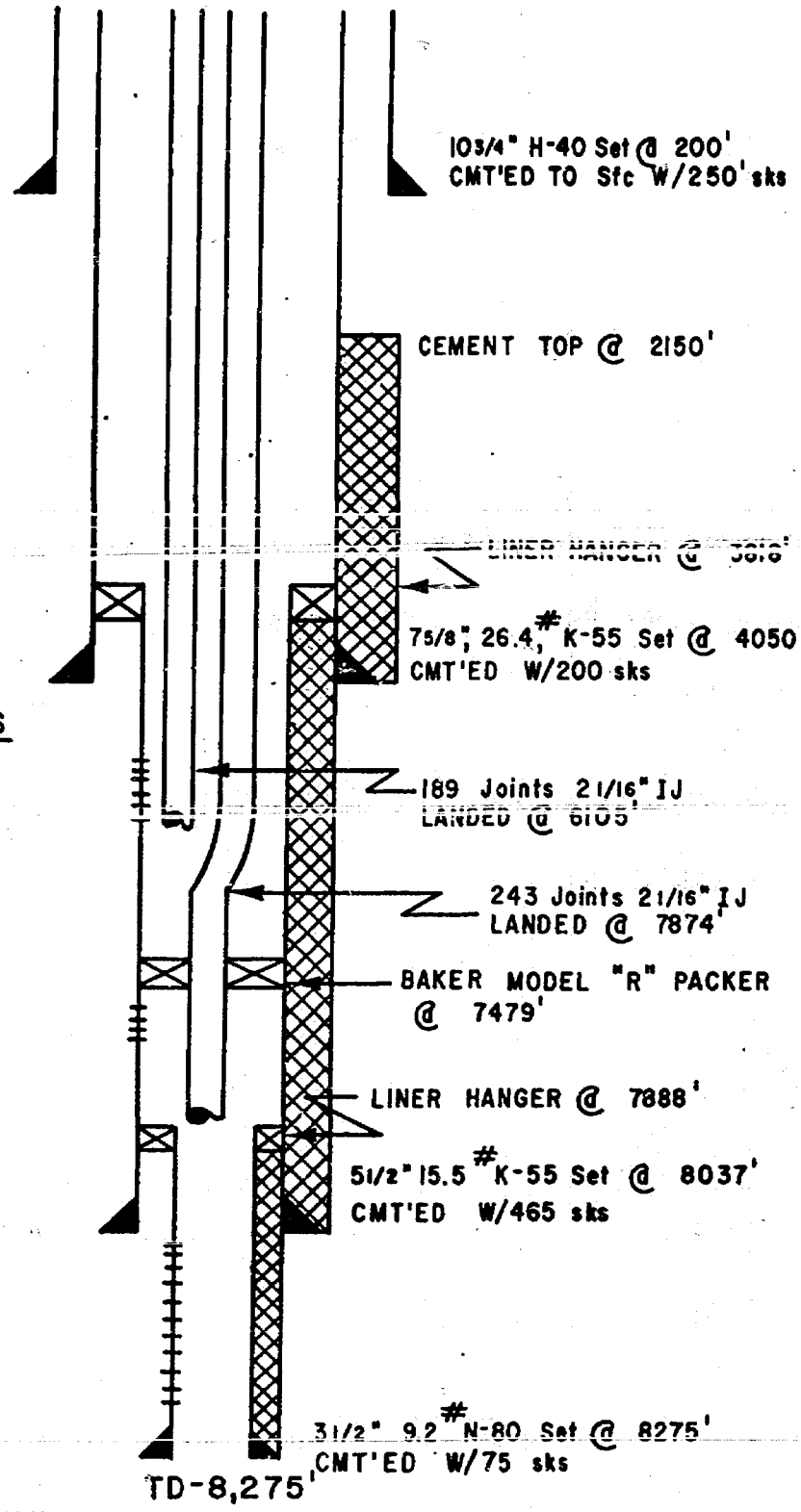
BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SUPRON EXHIBIT NO. 2
CASE NO. 6662

Supron Energy Corporation

JICARILLA A-22Y
SW/4 Sec. 24, T26N R4W
RIO ARRIBA CO., NEW MEXICO

ZONE	STIMULATION
Dakota	3134 BBLS Gel Water 196,000 # Sand
Gallup	1233 BBLS Gel Water 62,500 # Sand
Mesa Verde	2280 BBLS Water 57,000 # Sand

ZONE	PERFORATIONS
Mesa Verde	5964 - 6100
Gallup	7537 - 7548
Dakota	8044 - 8214



This form is not to be used for reporting packer leakage tests in Southeast New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

Revised 11-1-58

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator *SUPRON ENERGY CORPORATION* Lease *Jicarilla "A"* Well No. *22-Y*

Location of Well: Unit *K* Sec. *24* Twp. *26 North* Rge. *4 West* County *Rio Arriba*

	Name of Reservoir or Pool	Type of Prod. (Oil or Gas)	Method of Prod. (Flow or Art. Lift)	Prod. Medium (Tbg. or Csg.)
Upper Completion	*Mesaverde*	*Gas*	*Flow*	*Tubing*
Lower Completion	*Dakota - Gallup*	*Gas*	*Flow*	*Tubing*

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	*9:00 a.m. 5-28-79*	Length of time shut-in	*7 days*	SI press. psig *1222*	Stabilized? (Yes or No) *No*
Lower Compl	Hour, date Shut-in	*9:00 a.m. 5-28-79*	Length of time shut-in	*7 days*	SI press. psig *1613*	Stabilized? (Yes or No) *No*

FLOW TEST NO. 1

Commenced at (hour, date)* *9:00 a.m. 6-4-79* Zone producing (Upper or Lower): *Lower*

Time (hour, date)	Lapsed time since*	Pressure Upper Compl.	Pressure Lower Compl.	Prod. Zone Temp.	Remarks
9:00 a.m. 6-4-79	*-0-*	*1222*	*1613*		
9:15 a.m. 6-4-79	*15 min.*	*1223*	*377*	*55°*	
9:30 a.m. 6-4-79	*30 min.*	*1223*	*293*	*56°*	
9:45 a.m. 6-4-79	*45 min.*	*1223*	*231*	*56°*	
10:00 a.m. 6-4-79	*1 hour*	*1223*	*197*	*56°*	
12:00 noon 6-4-79	*3 hours*	*1223*	*90*	*57°*	

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hrs. _____ Grav. _____ GOR _____

Gas: _____ MCFPD; Tested thru (Orifice or Meter): *Orifice*

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	*9:00 a.m. 5-28-79*	Length of time shut-in	*17 days*	SI press. psig *1241*	Stabilized? (Yes or No) *No*
Lower Compl	Hour, date Shut-in	*12:00 noon 6-4-79*	Length of time shut-in	*10 days*	SI press. psig *1627*	Stabilized? (Yes or No) *No*

FLOW TEST NO. 2

Commenced at (hour, date)** *9:30 a.m. 6-14-79* Zone producing (Upper or Lower): *Upper*

Time (hour, date)	Lapsed time since **	Pressure Upper Compl.	Pressure Lower Compl.	Prod. Zone Temp.	Remarks
9:30 a.m. 6-14-79	*-0-*	*1241*	*1627*		
9:45 a.m. 6-14-79	*15 min.*	*576*	*1629*	*60°*	
10:00 a.m. 6-14-79	*30 min.*	*450*	*1630*	*61°*	
10:15 a.m. 6-14-79	*45 min.*	*397*	*1630*	*61°*	
10:30 a.m. 6-14-79	*1 hour*	*364*	*1630*	*62°*	
12:30 a.m. 6-14-79	*3 hours*	*270*	*1630*	*62°*	

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SUPRON EXHIBIT NO. 3
CASE NO. 6662

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hrs. _____ Grav. _____ GOR _____

Gas: _____ MCFPD; Tested thru (Orifice or Meter): *Orifice*

REMARKS: _____

I hereby certify that the information herein contained is true and complete to the best of my knowledge.

Approved: _____ 19____
New Mexico Oil Conservation Commission

By _____

Title _____

Operator *SUPRON ENERGY CORPORATION*

By *Kenneth E. Roddy* Kenneth E. Roddy

Title *Production Superintendent*

Date *September 18, 1979*

NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

1. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Commission.

2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Commission in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.

3. The packer leakage test shall commence when both zones of the dual completion are shut-in for pressure stabilization. Both zones shall remain shut-in until the well-head pressure in each has stabilized, provided however, that they need not remain shut-in more than seven days.

4. For Flow Test No. 1, one zone of the dual completion shall be produced at the normal rate of production while the other zone remains shut-in. Such test shall be continued for seven days in the case of a gas well and for 24 hours in the case of an oil well. Note: If, on an initial packer leakage test, a gas well is being flowed to the atmosphere due to the lack of a pipeline connection the flow period shall be three hours.

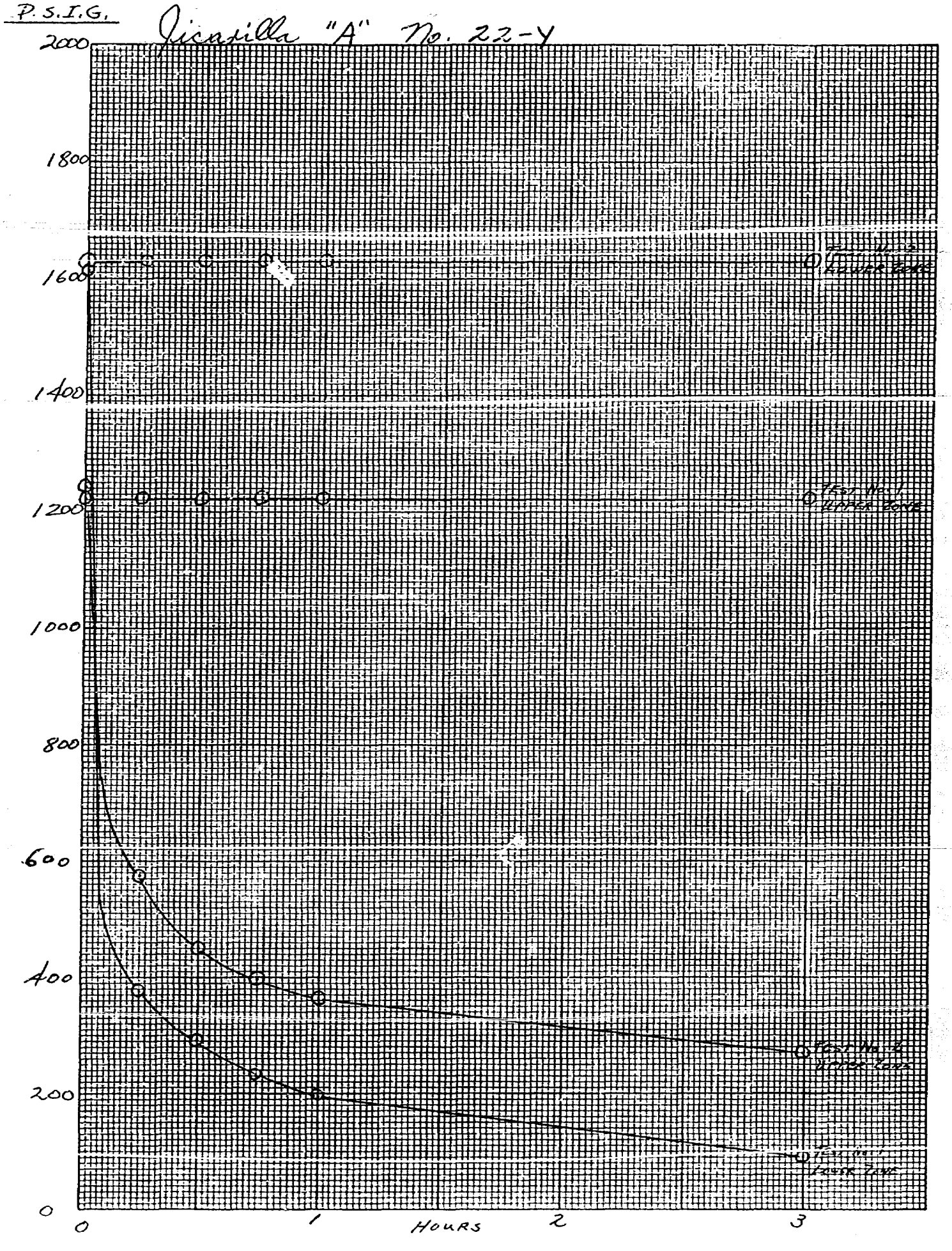
5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.

6. Flow Test No. 2 shall be conducted even though no leak was indicated during Flow Test No. 1. Procedure for Flow Test No. 2 is to be the same as for Flow Test No. 1 except that the previously produced zone shall remain shut-in while the zone which was previously shut-in is produced.

7. Pressures for gas-zone tests must be measured on each zone with a deadweight pressure gauge at time intervals as follows: 3-hour tests: immediately prior to the beginning of each flow-period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals thereafter, including one pressure measurement immediately prior to the conclusion of each flow period. 7-day tests: immediately prior to the beginning of each flow period, at least one time during each flow period (at approximately the midway point) and immediately prior to the conclusion of each flow period. Other pressures may be taken as desired, or may be requested on wells which have previously shown questionable test data.

24-hour oil zone tests: all pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges, the accuracy of which must be checked at least twice, once at the beginning and once at the end of each test, with a deadweight pressure gauge. If a well is a gas-oil or an oil-gas dual completion, the recording gauge shall be required on the oil zone only, with deadweight pressures as required above being taken on the gas zone.

8. The results of the above-described tests shall be filed in triplicate within 15 days after completion of the test. Tests shall be filed with the Aztec District Office of the New Mexico Oil Conservation Commission on Northwest New Mexico Packer Leakage Test Form Revised 11-1-58, with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only). A pressure versus time curve for each zone of each test shall be constructed on the reverse side of the Packer Leakage Test Form with all deadweight pressure points taken indicated thereon. For oil zones, the pressure curve should also indicate all key pressure changes which may be reflected by the recording gauge charts. These key pressure changes should also be tabulated on the front of the Packer Leakage Test Form.



NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SUPRON
EXHIBIT NO. 5
CASE NO. 6662

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 6-4-79

Company: SUPRON ENERGY CORPORATION	Connection: Gas Company of New Mexico			Unit:
Pool: Basin	Formation: Dakota			
Completion Date: 5-17-79	Total Depth: 8275	Plug Back TD: 8265	Elevation: 7175 GR	Farm or Lease Name: Jicarilla "A"
3.625 / 3.500 / 3.500 — 26.40 / 13.50 / 9.20 — 6.969 / 4.090 / 2.992 — 4050 / 7810-8037 / 7888-8275		Perforations: From 8044 To 8214		Well No.: 22-X
Tbg. Size: 2.0625	Wt.: 3.25	d: 1.750	Set At: 7874	Perforations: From 7836 To 7842
Unit: K	Sec.: 24	Twp.: 26N	Rge.: 4W	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual - Gas - Gas		Packer Set At: 7479		County: Rio Arriba
Producing Thru: Tubing	Reservoir Temp. °F: e	Mean Annual Temp. °F	Baro. Press. – P_a: 12	State: New Mexico
L: 7822	H	Gg: 0.700	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps

	FLOW DATA					TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	2"	3/4"				1613				7 days
1.						90	57°			3 hours
2.										
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.3650		102	1.0029	0.9258	1.000	1171
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_t	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 1625 P_c^2 2,640,625

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			89,235	2,551,390
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0350$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0261$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1202$

Absolute Open Flow 1202 Mcfd @ 15.025 — Angle of Slope θ _____ — Slope, n 0.75

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	John C. Rector	Kenneth E. Roddy	

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

BEFORE EXAMINER NUTTE
OIL CONSERVATION DIVISION
EXHIBIT NO. 6
CASE NO. 6662

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 6-14-79 Supron	
Company: SUPRON ENERGY CORPORATION			Connection: Gas Co. of New Mexico		
Pool: Blanco			Formation: Mesaverde		Unit:
Completion Date: 5-17-79	Total Depth: 8275		Plug Back TD: 8265	Elevation: 7175 Gr.	Farm or Lease Name: Jicarilla "A"
OD: 5.500 / 3.500	Wt: 15.50 / 9.20	d: 4.950 / 2.992	Set At: 3818-8037 / 7888-8275	Perforations: From 5964 To 6100	Well No.: 22-X
Tbg. Size: 2.0625	Wt.: 3.25	d: 1.750	Set At: 6105	Perforations: Open end tbg. From To	Unit: K / Sec.: 24 / Twp.: 26N / Rge.: 4W
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual - Gas - Gas			Packer Set At: 7479		County: Rio Arriba
Producing Thru: Tubing	Reservoir Temp. °F:	Mean Annual Temp. °F:	Baro. Press. – P_a: 12		State: New Mexico
L: .6091	H:	Gg: 0.650	% CO_2:	% N_2:	% H_2S: Prover: Meter Run: Taps:

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g.	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI	2"		3/4"				1241		1241		14 days
1.							270	62°	841		3 hours
2.											
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.3650		282	0.9981	0.9608	1.028	3438
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_f	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 1253 P_c^2 1,570,009

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		853	727,609	842,400
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8637$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.5950$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5484$

Absolute Open Flow 5484 Mcfd @ 15.025 | Angle of Slope θ _____ | Slope, n 0.75

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	John C. Rector	Kenneth E. Roddy	

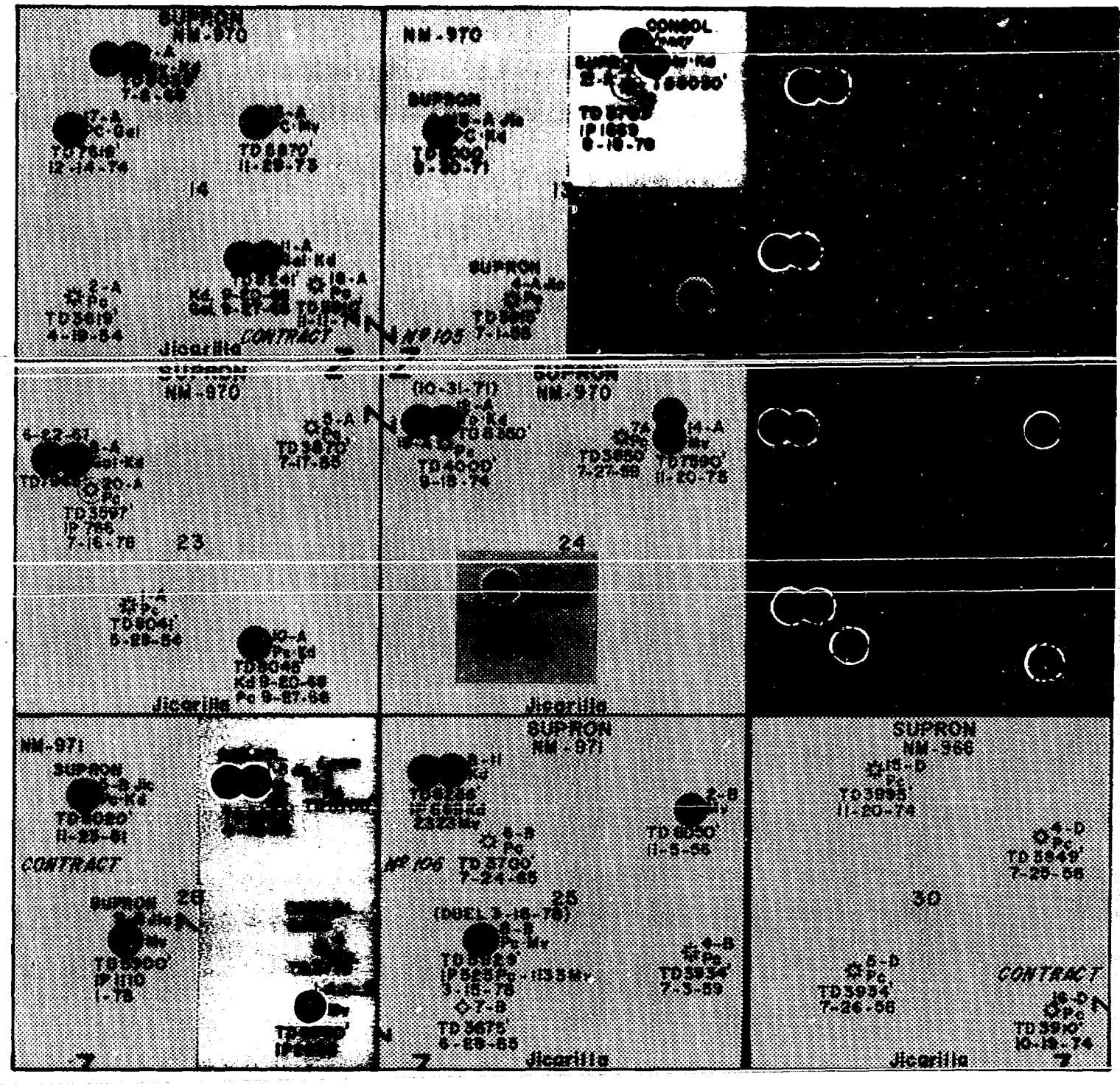
Supron Energy Corporation

WELL LOCATION & OFFSET OPERATOR PLAT

JICARILLA A-22-Y

SEC. 24 T26N, R4W

RIO ARRIBA COUNTY



OFFSET OPERATORS

- CONSOLIDATED OIL & GAS
- JEROME P. McHUGH
- DAKOTA/GALLUP - JEROME P. McHUGH
- Mv/Pc - MOBIL OIL CORPORATION

WELL IDENTIFICATION CODE

- JICARILLA A-22-Y
- MESAVERDE COMPLETION
- GALLUP COMPLETION
- DAKOTA COMPLETION

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SUPRON EXHIBIT NO. 1
CASE NO. 6662

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SUPRON EXHIBIT NO. 2
CASE NO. 6662

Supron Energy Corporation

JICARILLA A-22Y
SW/4 Sec. 24, T 26N R4W
RIO ARRIBA CO., NEW MEXICO

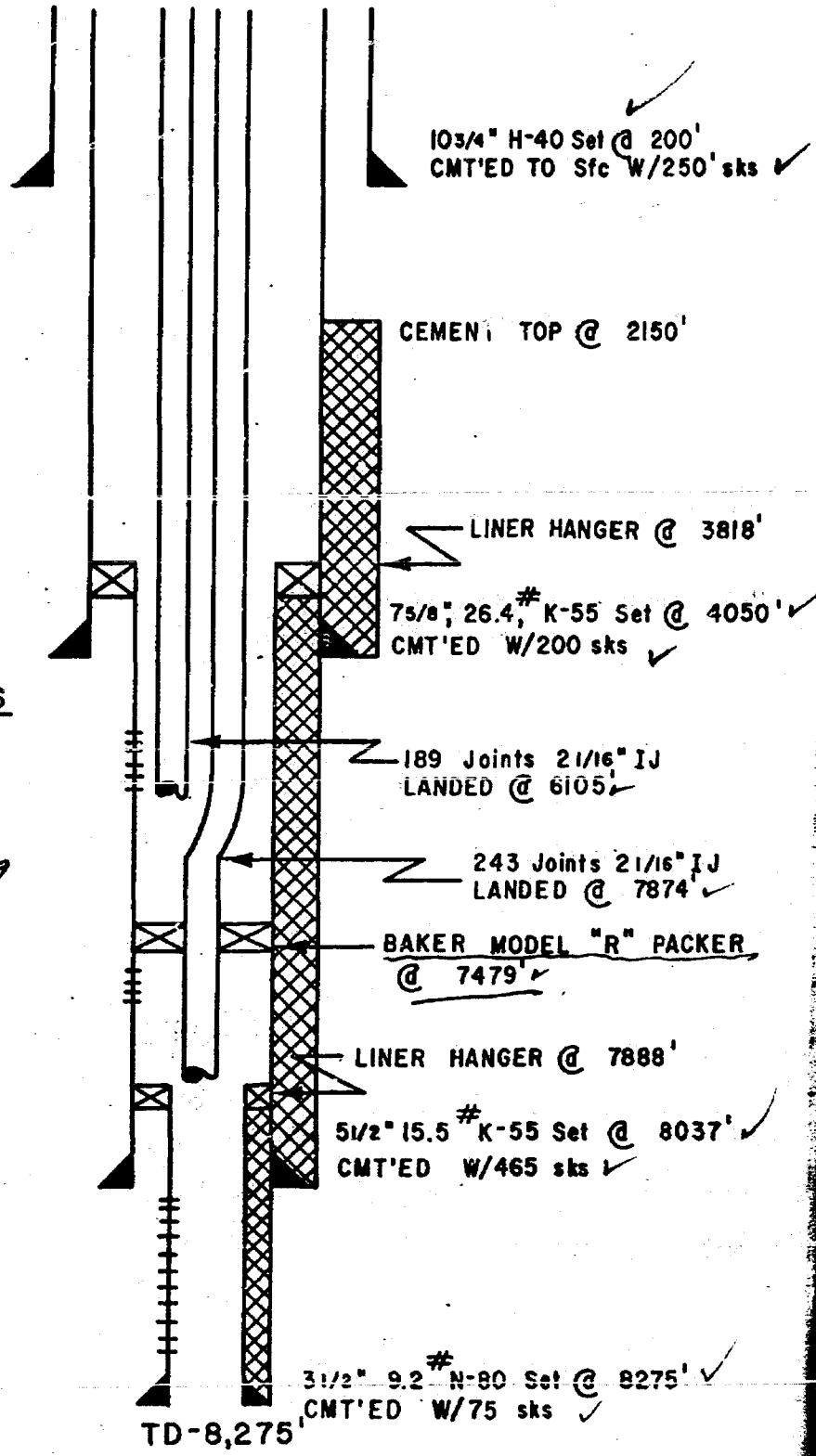
ZONE	STIMULATION
Dakota	3134 BBLS Gel Water 196,000 # Sand
Gallup	1233 BBLS Gel Water 62,500 # Sand
Mesa Verde	2280 BBLS Water 57,000 # Sand

ZONE	PERFORATIONS
Mesa Verde	5964 - 6100
Gallup	7537 - 7548
Dakota	8044 - 8214 ✓

AOF: 5484 MCF 6-14-79

AOF 1202 6-4-79

no pressure differential information
prod data on Gp or Dak:



This form is not to be used for reporting packer leakage tests in Southeast New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

Revised 11-1-58

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator *SUPRON ENERGY CORPORATION* Lease *Jicarilla "A"* Well No. *22-Y*

Location of Well: Unit *K* Sec. *24* Twp. *26 North* Rge. *4 West* County *Rio Arriba*

	Name of Reservoir or Pool	Type of Prod. (Oil or Gas)	Method of Prod. (Flow or Art. Lift)	Prod. Medium (Tbg. or Csg.)
Upper Completion	*Mesaverde*	*Gas*	*Flow*	*Tubing*
Lower Completion	*Dakota - Gallup*	*Gas*	*Flow*	*Tubing*

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	*9:00 a.m. 5-28-79*	Length of time shut-in	*7 days*	SI press. psig	*1222*	Stabilized? (Yes or No) *No*
Lower Compl	Hour, date Shut-in	*9:00 a.m. 5-28-79*	Length of time shut-in	*7 days*	SI press. psig	*1613*	Stabilized? (Yes or No) *No*

FLOW TEST NO. 1

Commenced at (hour, date)* *9:00 a.m. 6-4-79* Zone producing (Upper or Lower): *Lower*

Time (hour, date)	Lapsed time since*	Pressure Upper Compl.	Pressure Lower Compl.	Prod. Zone Temp.	Remarks
9:00 a.m. 6-4-79	*-0-*	*1222*	*1613*		
9:15 a.m. 6-4-79	*15 min.*	*1223*	*377*	*55°*	
9:30 a.m. 6-4-79	*30 min.*	*1223*	*293*	*56°*	
9:45 a.m. 6-4-79	*45 min.*	*1223*	*231*	*56°*	
10:00 a.m. 6-4-79	*1 hour*	*1223*	*197*	*56°*	
12:00 noon 6-4-79	*3 hours*	*1223*	*90*	*57°*	

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hrs. _____ Grav. _____ GOR _____

Gas: _____ MCFPD; Tested thru (Orifice or Meter): *Orifice*

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	*9:00 a.m. 5-28-79*	Length of time shut-in	*17 days*	SI press. psig	*1241*	Stabilized? (Yes or No) *No*
Lower Compl	Hour, date Shut-in	*12:00 noon 6-4-79*	Length of time shut-in	*10 days*	SI press. psig	*1627*	Stabilized? (Yes or No) *No*

FLOW TEST NO. 2

Commenced at (hour, date)** *9:30 a.m. 6-14-79* Zone producing (Upper or Lower): *Upper*

Time (hour, date)	Lapsed time since **	Pressure Upper Compl.	Pressure Lower Compl.	Prod. Zone Temp.	Remarks
9:30 a.m. 6-14-79	*-0-*	*1241*	*1627*		
9:45 a.m. 6-14-79	*15 min.*	*576*	*1629*	*60°*	
10:00 a.m. 6-14-79	*30 min.*	*450*	*1630*	*61°*	
10:15 a.m. 6-14-79	*45 min.*	*397*	*1630*	*61°*	
10:30 a.m. 6-14-79	*1 hour*	*364*	*1630*	*62°*	
12:30 a.m. 6-14-79	*3 hours*	*270*	*1630*	*62°*	

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SUPRON EXHIBIT NO. 3
CASE NO. 6662

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hrs. _____ Grav. _____ GOR _____

Gas: _____ MCFPD; Tested thru (Orifice or Meter): *Orifice*

REMARKS: _____

I hereby certify that the information herein contained is true and complete to the best of my knowledge.

Approved: _____ 19____
New Mexico Oil Conservation Commission

By _____

Title _____

Operator *SUPRON ENERGY CORPORATION*

By *Kenneth E. Roddy* Kenneth E. Roddy

Title *Production Superintendent*

Date *September 18, 1979*

NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

1. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Commission.

2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Commission in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.

3. The packer leakage test shall commence when both zones of the dual completion are shut-in for pressure stabilization. Both zones shall remain shut-in until the well-head pressure in each has stabilized, provided however, that they need not remain shut-in more than seven days.

4. For Flow Test No. 1, one zone of the dual completion shall be produced at the normal rate of production while the other zone remains shut-in. Such test shall be continued for seven days in the case of a gas well and for 24 hours in the case of an oil well. Note: If, on an initial packer leakage test, a gas well is being flowed to the atmosphere due to the lack of a pipeline connection the flow period shall be three hours.

5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.

6. Flow Test No. 2 shall be conducted even though no leak was indicated during Flow Test No. 1. Procedure for Flow Test No. 2 is to be the same as for Flow Test No. 1 except that the previously produced zone shall remain shut-in while the zone which was previously shut-in is produced.

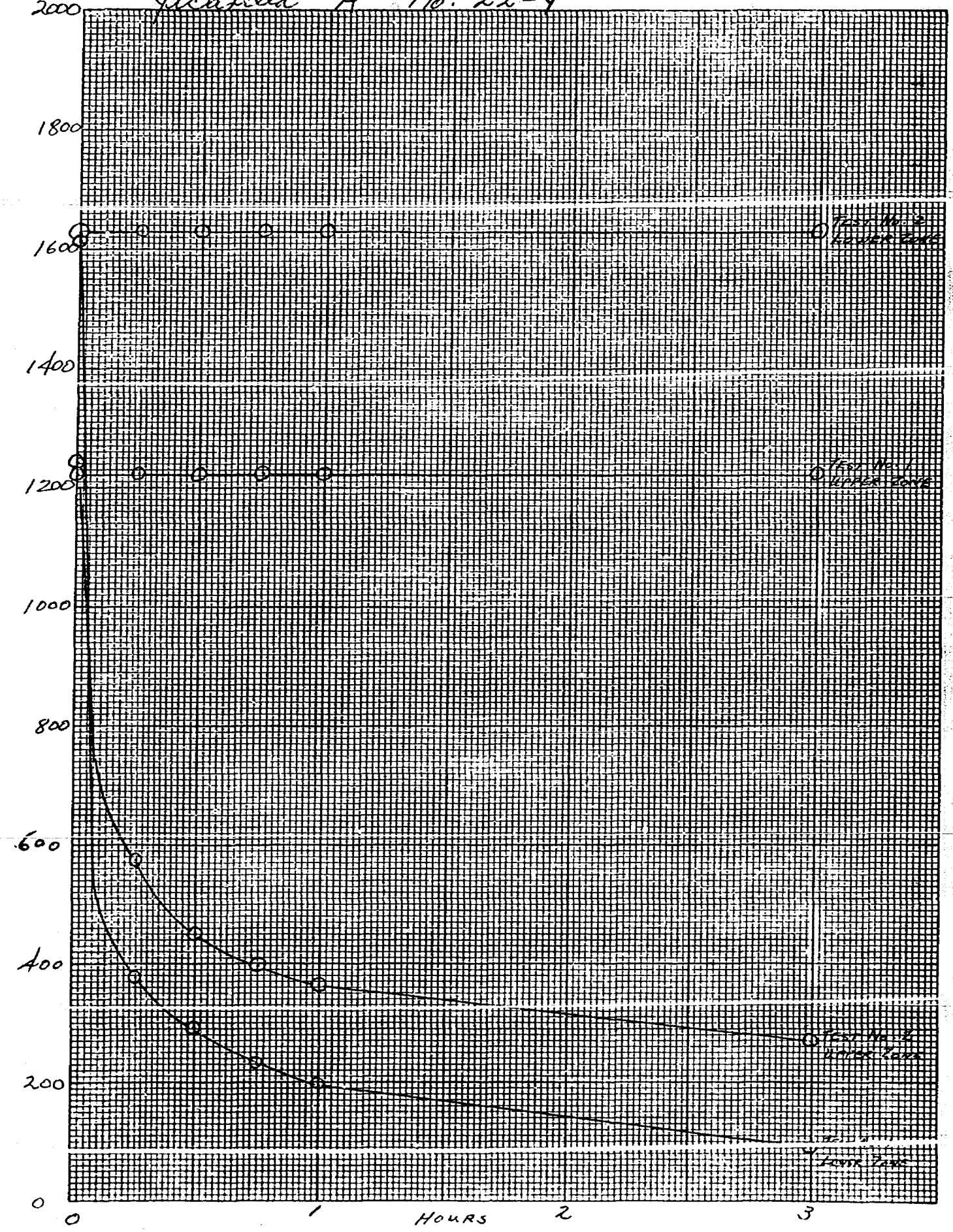
7. Pressures for gas-zone tests must be measured on each zone with a deadweight pressure gauge at time intervals as follows: 3-hour tests: immediately prior to the beginning of each flow-period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals thereafter, including one pressure measurement immediately prior to the conclusion of each flow period. 7-day tests: immediately prior to the beginning of each flow period, at least one time during each flow period (at approximately the midway point) and immediately prior to the conclusion of each flow period. Other pressures may be taken as desired, or may be requested on wells which have previously shown questionable test data.

24-hour oil zone tests: all pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges, the accuracy of which must be checked at least twice, once at the beginning and once at the end of each test, with a deadweight pressure gauge. If a well is a gas-oil or an oil-gas dual completion, the recording gauge shall be required on the oil zone only, with deadweight pressures as required above being taken on the gas zone.

8. The results of the above-described tests shall be filed in triplicate within 15 days after completion of the test. Tests shall be filed with the Aztec District Office of the New Mexico Oil Conservation Commission on Northwest New Mexico Packer Leakage Test Form Revised 11-1-58, with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only). A pressure versus time curve for each zone of each test shall be constructed on the reverse side of the Packer Leakage Test Form with all deadweight pressure points taken indicated thereon. For oil zones, the pressure curve should also indicate all key pressure changes which may be reflected by the recording gauge charts. These key pressure changes should also be tabulated on the front of the Packer Leakage Test Form.

P.S.I.G.

Jicarilla "A" No. 22-4



NEW MEXICO OIL CONSERVATION COMMSSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SUPRON EXHIBIT NO. 5
CASE NO. 6662

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 6-4-79	Unit
Company: SUPRON ENERGY CORPORATION			Connection: Gas Company of New Mexico		
Pool: Basin			Formation: Dakota & Mesaverde		
Completion Date: 5-17-79	Total Depth: 8275		Plug Back TD: 8265	Elevation: 7175 GR	Farm or Lease Name: Jicarilla "A"
OD: 7.625 / 5.500 / 3.500 — Wt: 26.40 / 15.50 / 9.20 — d: 6.969 / 4.950 / 2.992 — Set At: 4050 / 7818-8037 / 7888-8275				Perforations: From 8044 To 8214	Well No.: 22-X
Tbg. Size: 2.0625	Wt.: 3.25	d: 1.750	Set At: 7874	Perforations: From 7836 To 7842	Unit: K — Sec.: 24 — Twp.: 26N — Rge.: 4W
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual - Gas - Gas			Packer Set At: 7479		County: Rio Arriba
Producing Thru: Tubing	Reservoir Temp. °F: e	Mean Annual Temp. °F	Baro. Press. – P_a: 12		State: New Mexico
L: 7822	H	Gg: 0.700	% CO_2	% N_2	% H_2S — Prover — Meter Run — Taps

FLOW DATA						TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	2"	3/4"				1613				7 days
1.						90	57°			3 hours
2.										
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.3650		102	1.0029	0.9258	1.000	1171
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_f	Z
1				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 1625 P_c^2 2,640,625

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			89,235	2,551,390
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0350$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0261$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1202$

300 psi pipeline
10% into pipeline

Absolute Open Flow 1202 Mcfd @ 15.025 — Angle of Slope θ _____ — Slope, n 0.75

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	John C. Rector	Kenneth E. Roddy	

NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

BEFORE EXAMINER NUTTE
OIL CONSERVATION DIVISION
Supron EXHIBIT NO. 6
CASE NO. 6662

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 6-14-79	
Company: SUPRON ENERGY CORPORATION			Connection: Gas Co. of New Mexico		Unit
Pool: Blanco			Formation: Mesaverde		
Completion Date: 5-17-79	Total Depth: 8275		Plug Back TD: 8265	Elevation: 7175 Gr.	Farm or Lease Name: Jicarilla "A"
OD: 4.625 / 5.500 / 3.500	Wt: 26.40 / 15.50 / 9.20	d: 6.969 / 4.950 / 2.992	Set At: 4050 / 3818-8037 / 7888-8275	Perforations: From 5964 To 6100	Well No.: 22-X
Tbg. Size: 2.0625	Wt.: 3.25	d: 1.750	Set At: 6105	Perforations: Open end tbg. From To	Unit: K Sec.: 24 Twp.: 26N Rge.: 4W
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual - Gas - Gas			Packer Set At: 7479		County: Rio Arriba
Producing Thru: Tubing	Reservoir Temp. °F: e	Mean Annual Temp. °F	Baro. Press. – P_a: 12		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
.6091		0.650						

	FLOW DATA					TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	2"	3/4"				1241		1241		14 days
1.						270	62°	841		3 hours
2.										
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.3650		282	0.9981	0.9608	1.028	3438
2.							
3.							
4.							
5.							

NO.	P_r	Temp. °R	T_r	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid _____ X.XXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 1253 P_c^2 1,570,009

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		853	727,609	842,400
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8637$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.5950$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5484$

Absolute Open Flow 5484 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n 0.75

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	John C. Rector	Kenneth E. Roddy	

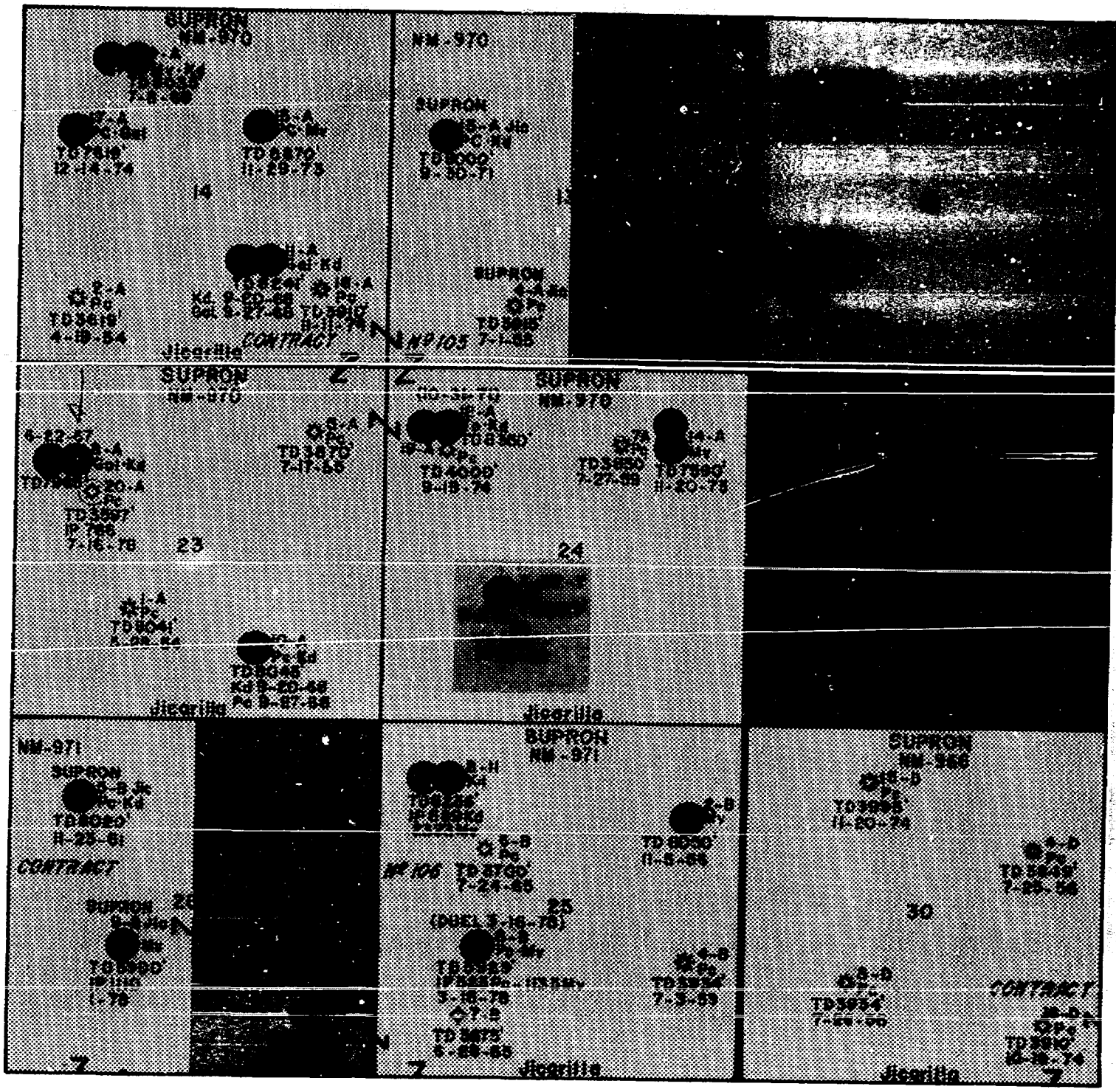
Supron Energy Corporation

WELL LOCATION & OFFSET OPERATOR PLAT

JICARILLA A-22-Y

SEC. 24 T26N, R4W

RIO ARRIBA COUNTY



OFFSET OPERATORS

- CONSOLIDATED OIL & GAS
- JEROME P. McHUGH
- DAKOTA/GALLUP - JEROME P. McHUGH
- Mv/Pc - MOBIL OIL CORPORATION

WELL IDENTIFICATION CODE

- JICARILLA A-22-Y
- MESAVERDE COMPLETION
- GALLUP COMPLETION
- DAKOTA COMPLETION

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SUPRON EXHIBIT NO. 1
CASE NO. 6662

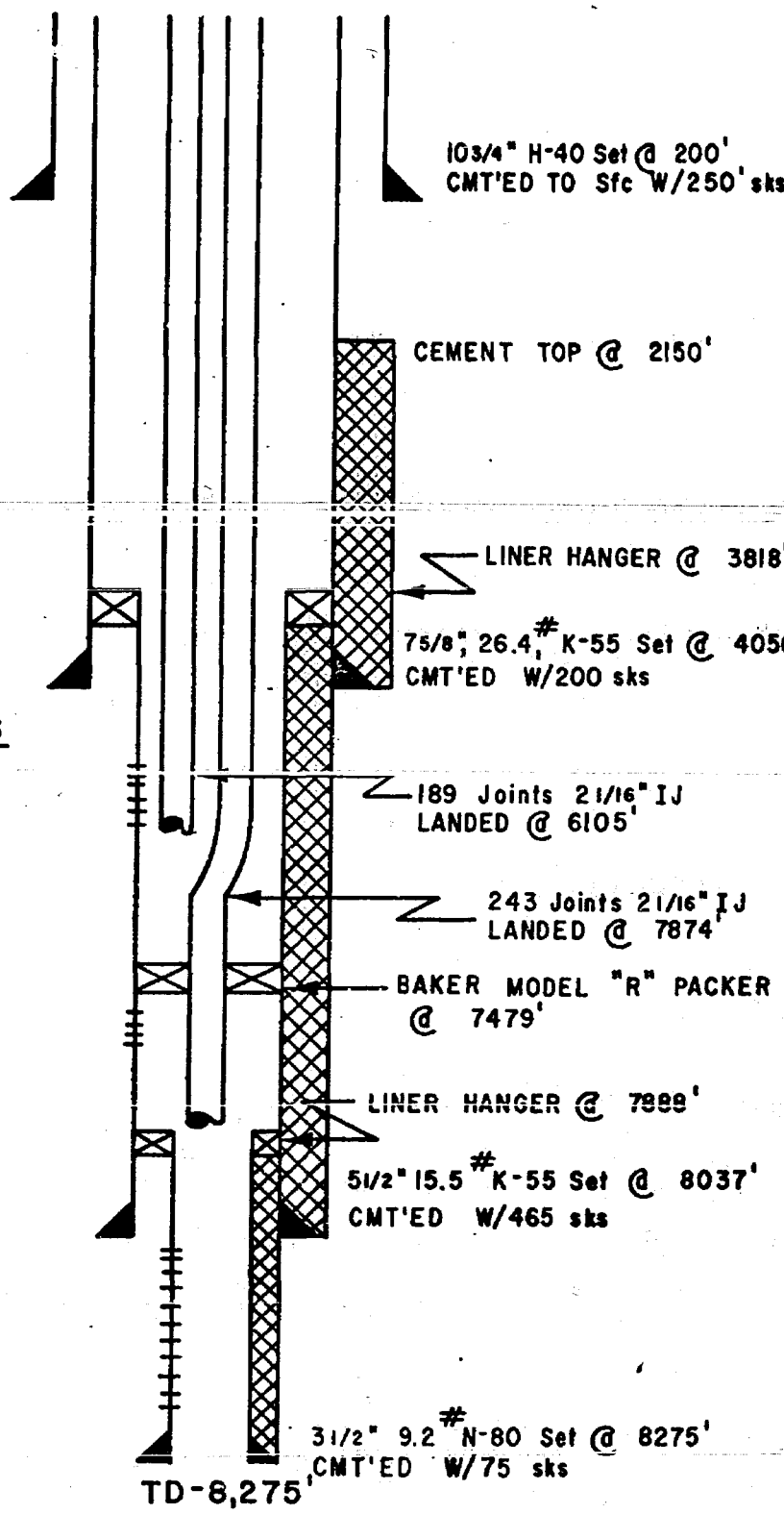
BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SUPRON EXHIBIT NO. 2
CASE NO. 6662

Supron Energy Corporation

JICARILLA A-22Y
SW/4 Sec. 24, T 26N R4W
RIO ARRIBA CO., NEW MEXICO

ZONE	STIMULATION
Dakota	3134 BBLS Gel Water 196,000 # Sand
Gallup	1233 BBLS Gel Water 62,500 # Sand
Mesa Verde	2280 BBLS Water 57,000 # Sand

ZONE	PERFORATIONS
Mesa Verde	5964 - 6100
Gallup	7537 - 7548
Dakota	8044 - 8214



This form is not to be used for reporting packer leakage tests in Southeast New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

Revised 11-1-58

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator *SUPRON ENERGY CORPORATION* Lease *Jicarilla "A"* Well No. *22-Y*

Location of Well: Unit *K* Sec. *24* Twp. *26 North* Rge. *4 West* County *Rio Arriba*

	Name of Reservoir or Pool	Type of Prod. (Oil or Gas)	Method of Prod. (Flow or Art. Lift)	Prod. Medium (Tbg. or Csg.)
Upper Completion	*Mesaverde*	*Gas*	*Flow*	*Tubing*
Lower Completion	*Dakota - Gallup*	*Gas*	*Flow*	*Tubing*

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	*9:00 a.m. 5-28-79*	Length of time shut-in	*7 days*	SI press. psig	*1222*	Stabilized? (Yes or No) *No*
Lower Compl	Hour, date Shut-in	*9:00 a.m. 5-28-79*	Length of time shut-in	*7 days*	SI press. psig	*1613*	Stabilized? (Yes or No) *No*

FLOW TEST NO. 1

Commenced at (hour, date)* *9:00 a.m. 6-4-79* Zone producing (Upper or Lower): *Lower*

Time (hour, date)	Lapsed time since*	Pressure Upper Compl.	Pressure Lower Compl.	Prod. Zone Temp.	Remarks
9:00 a.m. 6-4-79	*-0-*	*1222*	*1613*		
9:15 a.m. 6-4-79	*15 min.*	*1223*	*377*	*55°*	
9:30 a.m. 6-4-79	*30 min.*	*1223*	*293*	*56°*	
9:45 a.m. 6-4-79	*45 min.*	*1223*	*231*	*56°*	
10:00 a.m. 6-4-79	*1 hour*	*1223*	*197*	*56°*	
12:00 noon 6-4-79	*3 hours*	*1223*	*90*	*57°*	

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hrs. _____ Grav. _____ GOR _____

Gas: _____ MCFPD; Tested thru (Orifice or Meter): *Orifice*

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	*9:00 a.m. 5-28-79*	Length of time shut-in	*17 days*	SI press. psig	*1241*	Stabilized? (Yes or No) *No*
Lower Compl	Hour, date Shut-in	*12:00 noon 6-4-79*	Length of time shut-in	*10 days*	SI press. psig	*1627*	Stabilized? (Yes or No) *No*

FLOW TEST NO. 2

Commenced at (hour, date)** *9:30 a.m. 6-14-79* Zone producing (Upper or Lower): *Upper*

Time (hour, date)	Lapsed time since **	Pressure Upper Compl.	Pressure Lower Compl.	Prod. Zone Temp.	Remarks
9:30 a.m. 6-14-79	*-0-*	*1241*	*1627*		
9:45 a.m. 6-14-79	*15 min.*	*576*	*1629*	*60°*	
10:00 a.m. 6-14-79	*30 min.*	*450*	*1630*	*61°*	
10:15 a.m. 6-14-79	*45 min.*	*397*	*1630*	*61°*	
10:30 a.m. 6-14-79	*1 hour*	*364*	*1630*	*62°*	
12:30 a.m. 6-14-79	*3 hours*	*270*	*1630*	*62°*	

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SUPRON EXHIBIT NO. 3
CASE NO. 6662

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hrs. _____ Grav. _____ GOR _____

Gas: _____ MCFPD; Tested thru (Orifice or Meter): *Orifice*

REMARKS: _____

I hereby certify that the information herein contained is true and complete to the best of my knowledge.

Approved: _____ 19____
New Mexico Oil Conservation Commission

By _____

Title _____

Operator *SUPRON ENERGY CORPORATION*

By *Kenneth E. Roddy* Kenneth E. Roddy

Title *Production Superintendent*

Date *September 18, 1979*

NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

1. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Commission.

2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Commission in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.

3. The packer leakage test shall commence when both zones of the dual completion are shut-in for pressure stabilization. Both zones shall remain shut-in until the well-head pressure in each has stabilized, provided however, that they need not remain shut-in more than seven days.

4. For Flow Test No. 1, one zone of the dual completion shall be produced at the normal rate of production while the other zone remains shut-in. Such test shall be continued for seven days in the case of a gas well and for 24 hours in the case of an oil well. Note: If, on an initial packer leakage test, a gas well is being flowed to the atmosphere due to the lack of a pipeline connection the flow period shall be three hours.

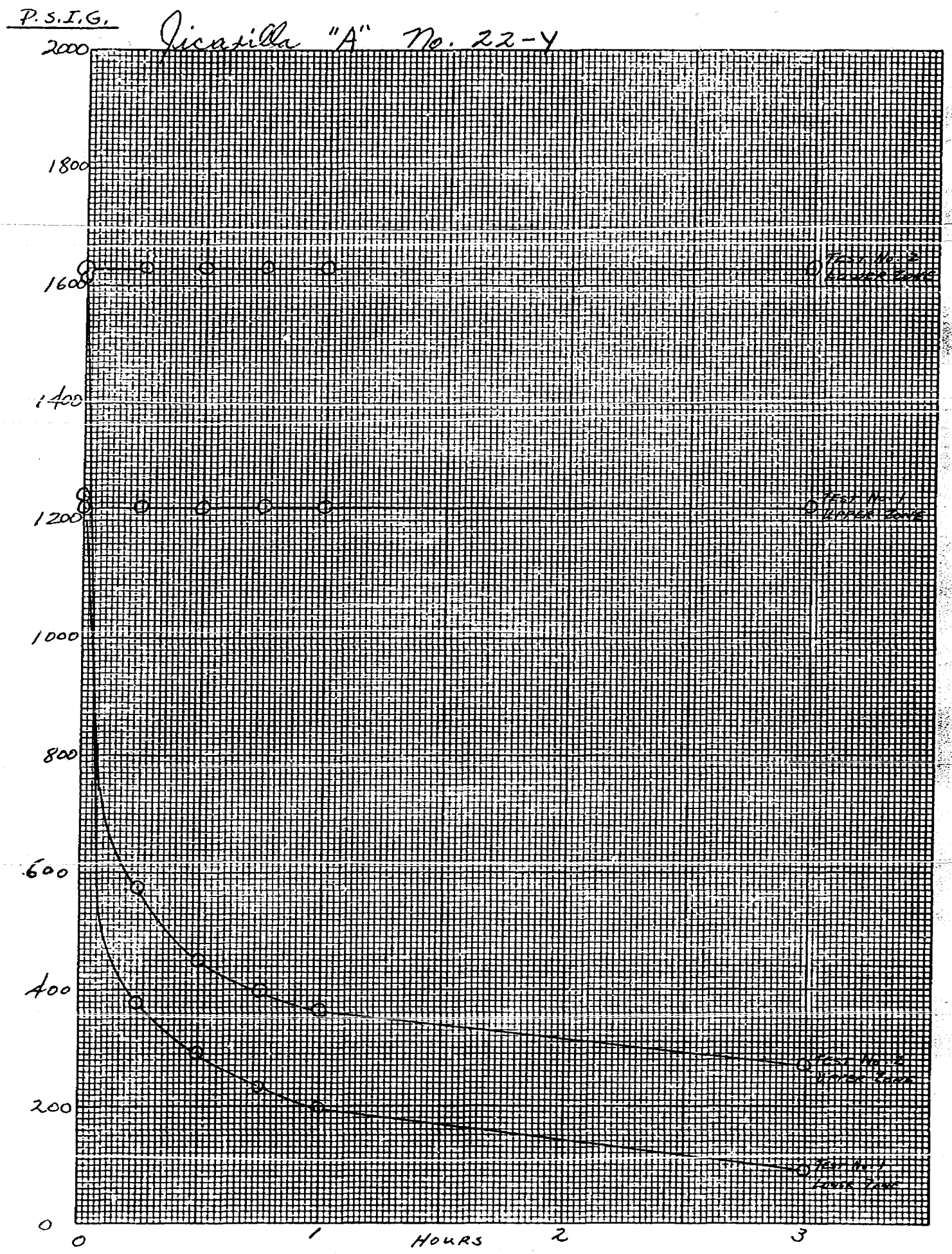
5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.

6. Flow Test No. 2 shall be conducted even though no leak was indicated during Flow Test No. 1. Procedure for Flow Test No. 2 is to be the same as for Flow Test No. 1 except that the previously produced zone shall remain shut-in while the zone which was previously shut-in is produced.

7. Pressures for gas-zone tests must be measured on each zone with a deadweight pressure gauge at time intervals as follows: 3-hour tests: immediately prior to the beginning of each flow-period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals thereafter, including one pressure measurement immediately prior to the conclusion of each flow period. 7-day tests: immediately prior to the beginning of each flow period, at least one time during each flow period (at approximately the midway point) and immediately prior to the conclusion of each flow period. Other pressures may be taken as desired, or may be requested on wells which have previously shown questionable test data.

24-hour oil zone tests: all pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges, the accuracy of which must be checked at least twice, once at the beginning and once at the end of each test, with a deadweight pressure gauge. If a well is a gas-oil or an oil-gas dual completion, the recording gauge shall be required on the oil zone only, with deadweight pressures as required above being taken on the gas zone.

8. The results of the above-described tests shall be filed in triplicate within 15 days after completion of the test. Tests shall be filed with the Aztec District Office of the New Mexico Oil Conservation Commission on Northwest New Mexico Packer Leakage Test Form Revised 11-1-58, with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only). A pressure versus time curve for each zone of each test shall be constructed on the reverse side of the Packer Leakage Test Form with all deadweight pressure points taken indicated thereon. For oil zones, the pressure curve should also indicate all key pressure changes which may be reflected by the recording gauge charts. These key pressure changes should also be tabulated on the front of the Packer Leakage Test Form.



NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

BEFORE EXAMINER NUTTE
OIL CONSERVATION DIVISION
EXHIBIT NO. 5
CASE NO. 6662

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 6-4-79	
Company: SUPRON ENERGY CORPORATION			Connection: Gas Company of New Mexico	Unit: J	
Pool: Basin			Formation: Dakota		
Completion Date: 5-17-79	Total Depth: 8275		Plug Back TD: 8265	Elevation: 7175 GR	Farm or Lease Name: Jicarilla "A"
OD: 2.625 / 5.500 / 3.500 — Wt: 26.40 / 15.50 / 9.20 — ID: 6.969 / 4.950 / 2.992 — Set At: 4050 / 3878-8037 / 7888-8275			Perforations: From 8044 To 8214		Well No.: 22-X
Tbg. Size: 2.0625	Wt.: 3.25	d: 1.750	Set At: 7874	Perforations: From 7836 To 7842	Unit: K — Sec.: 24 — Twp.: 26N — Rge.: 4W
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual - Gas - Gas			Packer Set At: 7479		County: Rio Arriba
Producing Thru: Tubing	Reservoir Temp. °F: e	Mean Annual Temp. °F	Baro. Press. – P_a: 12		State: New Mexico
L: 7822	H	Gg: 0.700	% CO_2	% N_2	% H_2S — Prover — Meter Run — Taps

FLOW DATA						TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	2"	3/4"				1613				7 days
1.						90	57°			3 hours
2.										
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.3650		102	1.0029	0.9258	1.000	1171
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_r	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 1625 P_c^2 2,640,625

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			89,235	2,551,390
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0350$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0261$

$AOF = Q\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1202$

Absolute Open Flow 1202 Mcfd @ 15.025 — Angle of Slope θ _____ — Slope, n 0.75

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	John C. Rector	Kenneth E. Roddy	

NEW MEXICO OIL CONSERVATION COMMSSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Supron EXHIBIT NO. 6
CASE NO. 6662

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 6-14-79	
Company: SUPRON ENERGY CORPORATION			Connection: Gas Co. of New Mexico		
Pool: Blanco			Formation: Mesaverde	Unit:	
Completion Date: 5-17-79	Total Depth: 8275		Plug Back TD: 8265	Elevation: 7175 Gr.	Farm or Lease Name: Jicarilla "A"
Csg. Size: 4.626 5.500 3.500	Wt.: 26.40 15.50 9.20	d: 6.969 4.950 2.992	Set At: 4050 3818-8037 7888-8275	Perforations: From 5964 To 6100	Well No.: 22-X
Tbg. Size: 2.0625	Wt.: 3.25	d: 1.750	Set At: 6105	Perforations: From Open end tbg. To	Unit: K; Sec.: 24; Twp.: 26N; Rge.: 4W
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual - Gas - Gas			Packer Set At: 7479		County: Rio Arriba
Producing Thru: Tubing	Reservoir Temp. °F: @	Mean Annual Temp. °F:	Baro. Press. – P_a: 12		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
.6091		0.650						

	FLOW DATA					TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	2"	3/4"				1241		1241		14 days
1.						270	62°	841		3 hours
2.										
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.3650		282	0.9981	0.9608	1.028	3438
2.							
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_r	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 1253 P_c^2 1,570,009

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		853	727,609	842,400
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8637$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.5950$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5484$

Absolute Open Flow 5484 Mcfd @ 15.025 | Angle of Slope θ _____ | Slope, n 0.75

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	John C. Rector	Kenneth E. Roddy	

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
Oil Conservation Division
State Land Office Bldg.
Santa Fe, New Mexico
19 September 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico.

CASE 6662

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87503

For the Applicant: William F. Carr, Esq.
CAMPBELL & BLACK P. A.
Jefferson Place
Santa Fe, New Mexico 87501

I N D E X

RUDY MOTTO

E X H I B I T S

MR. NUTTER: Call next Case Number 6662.

MR. PADILLA: Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico.

MR. CARR: May it please the Examiner, my name is William F. Carr, Campbell and Black, P. A., Santa Fe, appearing on behalf of the applicant and I have one witness who needs to be sworn.

(Witness sworn.)

RUDY MOTTO

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your full name and place of residence?

A. My name is Rudy Motto, Bloomfield, New Mexico.

Q. And how do you spell your last name?

A. M-O-T-T-O.

Q. Mr. Mottom, by whom are you employed and in what capacity?

A. Supron Energy Corporation, Area Superintendent at Farmington, New Mexico.

Q. Have you previously testified before this Commission and had your credentials accepted and made a matter of record?

A. No, I have not.

Q. Would you briefly summarize your work experience for the Examiner?

A. Yes. I've been employed by Supron Energy Corporation for a period of twenty-five years as production and operation superintendent in various places; also pipeline construction and well drilling and completion.

Q. While employed by Supron have you participated in a number of educational programs through the company?

A. I have, the various programs in different areas of my work.

Q. Are you familiar with the application of Supron in this case?

A. I am.

Q. Are you familiar with the area involved in this case?

A. Yes, I am.

MR. CARR: Mr. Examiner, are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q. Mr. Motto, will you briefly state what Supron is seeking with this application?

A. Yes. We're seeking approval to downhole commingle our Jicarilla "A" No. 22-Y Well, located in Unit K of Section 24, Township 26 North, Range 4 West, Rio Arriba County, New Mexico.

Q. Will you please refer to what has been marked for identification as Supron's Exhibit Number One, and explain to the Examiner what it is and what it shows?

A. Yes. Exhibit Number One is a well location offset operator plat showing Supron Energy Corporation's leases, Consolidated Oil and Gas leases, McHugh and Mobil Oil Company leases.

Also we have spotted -- the orange color is the Supron Energy "A" 22-Y Well. The green is Mesaverde completions on ours and offset operator wells. The blue circle is Gallup completion on Supron and offset operator wells, and the red circle is the Dakota completions on Supron and offset operator wells.

Q. What does the yellow block indicate?

A. The yellow block is the well that we are seeking approval to commingle and the dedication area of this well is the southwest quarter of Section 24.

Q. And what zones are you proposing to com-

mingle?

A. We are asking for approval to commingle the Gallup and Dakota zones.

Q. Are there other wells in the area in which these zones are downhole commingled?

A. Yes. The Jicarilla "A" No. 8 in the northwest quarter of Section 23 is commingled downhole in the same zones.

Q. Will you refer to what --

MR. NUTTER: All three? All three of the same zones?

A. No, sir, we're only asking for two zones to be commingled.

MR. NUTTER: Okay, so this well is to be commingled in Gallup and --

A. And Dakota.

MR. NUTTER: -- and Dakota?

A. Yes, sir.

MR. NUTTER: And the No. 8 over here in Section 23 is commingled in Gallup and Dakota?

A. Yes, sir.

MR. NUTTER: But you would also dual complete this well in the Mesaverde?

A. That is correct.

MR. NUTTER: Okay, go ahead.

Q. (Mr. Carr continuing.) Will you refer to what has been marked for identification as Exhibit Number Two and explain to the Examiner what this is and what it shows?

A. Exhibit Number Two is a diagrammatic sketch of the subject well, showing surface casing, size 10-3/4, set at 200 feet and cemented to the surface with 250 sacks of cement.

The intermediate casing, which is 7-5/8ths, 26.40 pound pipe, set at 4050 feet, cemented with 200 sacks of cement.

5-1/2 inch liner set at 8037 feet and 3-1/2 -- and that was cemented with 465 sacks of cement.

And 3-1/2 inch liner set at 8275 feet and cemented with 75 sacks of cement.

It also shows the Dakota zone perforations to be from 8044 feet to 8214 feet. That zone was perforated and fractured using 3134 barrels of gel water and 196,000 pounds of sand.

It also shows the Gallup zone to be perforated from 7537 feet to 7548 feet. That zone was fractured with 1233 barrels of gel water and 62,500 pounds of sand.

We have a packer set above that zone, a Baker Model "R" Packer, at 7479 feet, and the Mesaverde zone is perforated from 5964 feet to 6100 feet, and that zone was

fractured with 2280 barrels of water and 57,000 pounds of sand.

It also shows the strings of tubing. The long string of tubing is 2-1/16th IJ tubing landed at 6105 feet, and the short string of tubing, which is 2-1/16th IJ.

MR. NUTTER: That would be the long string.

A. Let's see. I'm sorry. The short string was landed at 6105 feet and the long string was landed with a Baker Model "R" Packer at 7479 feet.

Q. Is the well currently being produced?

A. No, it is not.

Q. When the well is put on production, do you anticipate that the zones will be flowing or will they have to be artificially lifted?

A. We anticipate they will be flowing.

Q. And has a packer leakage test been run?

A. Yes, it has been.

Q. And the results of that test are marked for identification as Exhibit Number Three, is that correct?

A. That is correct.

Q. Now I would like to direct your attention to what has been marked for identification as Supron's Exhibit Number Four, which is the well log, and ask you to explain that to the Examiner.

A. Exhibit Number Four is an induction gamma

ray log which was run on the well.

This log shows the top of the Mesaverde zone at 5480 feet. The perforations are marked with red dashed lines down through the point lookout from 5964 feet to 6100 feet. It shows the top of the Gallup zone at 7502 feet and the perforations from the Gallup zone from 7537 feet to 7548 feet, and shows the top of the Dakota zone to be at 8020 feet with perforations shown at 8044 feet 46 feet, 48 feet, and 50 feet, and 8060, 62, 64, 66, and 68 feet.

Now this log does not show additional perforations at 8208, 10, 12, and 14 feet, and these perforations were put in the casing using the "A" No. 8 log and overlaying it on this because we could not log that section of the hole.

Q. Will you now refer to what has been marked for identification as Exhibit Number Five and review this for the Examiner?

A. Exhibit Number Five is a New Mexico Oil Conservation Commission Multipoint Back Pressure Test on the Basin Dakota formation and that should be the Basin Dakota and Gallup formation. It's the commingled zone.

This test briefly shows the flow rate of this well to be 1171 Mcfd, with an absolute open flow of 1202 Mcfd, with a shut-in pressure of 1613 pounds.

Q. Will you now refer to what has been marked for identification as Exhibit Number Six and review this for

the Examiner?

A. Exhibit Number Six is the Multipoint Back Pressure Test for the Mesaverde zone of this same well. The Q flow rate of this well was 3438 Mcfd with an absolute open flow of 5484 Mcfd and shows a shut-in pressure of 1241 pounds.

Q. Mr. Motto, in your opinion are the pressure differentials in the zones to be commingled such as to prevent migration between zones?

A. Yes. I believe they are, in that we expect very marginal flows from these and we expect the well to be of a marginal classification, which means that they will be continuously flowing.

Q. Do you have independent pressure data on the zones that are to be commingled?

A. No, we do not.

Q. And what are you basing your conclusion on that you will not have the migration?

A. We expect this well to be of a marginal classification and as such will be on the line at all times. The pipeline pressures in that area run below 300 pounds at all times, and I do not believe that there can be commingling of zones with a lower line pressure than shut-in pressure on either zone.

Q. You have examined pressures in offsetting

wells that are completed in these zones?

A. Yes, we have.

Q. And their pressures are in excess of any anticipated line pressure?

A. That is so.

Q. Mr. Motto, will this well be equipped so that the pressure from each of the zones can be determined?

A. It is not. In the Gallup and Dakota zones it is not equipped that way.

Q. Are gas condensates being produced?

A. We are not producing the well at all pending outcome of this hearing; however, the well is expected to make small amounts of condensate and natural gas.

Q. And do you believe that the fluids have -- that will be produced will be compatible?

A. Yes, I do.

Q. Do you have a recommendation to make to the Examiner as to the allocation of production between the commingled zones?

A. No. Except that we would like to get with the District Supervisor of the Commission and ask him to meet with us and agree on some allocation of gas and oil out of each producing zone.

Q. In your opinion will granting this application result in the recovery of hydrocarbons that otherwise

would not be produced?

A. Yes, very much so. We think that we could not produce either zone without -- without commingling.

Q. In your opinion will granting the application be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes. This -- we have common ownership of the leases on this well and surrounding area.

Q. Mr. Motto, were -- have you reviewed Exhibits One through Six and can you testify of your own knowledge as to their accuracy?

A. Yes, I have, and they are accurate to the best of my knowledge.

MR. CARR: Mr. Examiner, at this time we would offer Applicant's Exhibits One through Six.

MR NUTTER: Applicant's Exhibits One through Six will be admitted in evidence.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Motto, you have no pressure information on either the Gallup or the Dakota formation in this well, is that correct?

A. That is correct, sir. We only have the commingled pressure, which is on the Multipoint Back Pressure

Test, of 1613 pounds.

Q. But we have no way of knowing what the differential is between the two zones.

A. No, sir.

Q. Whether there's any cross flow between those zones or not.

A. No, sir.

Q. You have no production data on either of the two zones separately?

A. No, sir, we cannot produce it until we -- we can get approval to produce it.

Q. Well, you're not going to be able to get any individual production if we give you approval to commingle it. Didn't you take any tests prior to the time you commingled it?

A. No, sir.

Q. Before you opened the other zone up? You have no individual tests on either zone?

A. No, sir.

Q. Well then you stated that you expect to meet with the District Supervisor of the Division and arrive at an allocation formula, what information are you going to be able to give him that you can't give us here today?

A. Hopefully on offset wells producing from the same horizons in those formations.

Q. I think you could have gotten that information and brought it here today, Mr. Motto. I don't see how we can approve this without any information at all to go on as far as pressure or production allocation is concerned.

MR. CARR: Mr. Nutter, would it be appropriate at this time to request that this be continued to enable the applicant to put together pressure data and then reopen the case at a later date?

MR. NUTTER: I'd be most happy to.

MR. CARR: Okay, at this time we'd like to --

MR. NUTTER: And I think since this Examiner started hearing the case --

MR. CARR: Yes, that we bring it back before you.

MR. NUTTER: -- it ought to come back before me.

MR. CARR: All right.

MR. NUTTER: I think with that information in mind we should continue the case and as far as I know, I'll be hearing the docket on October 17th.

MR. CARR: Okay, we would request that it be docketed on that date.

MR. NUTTER: Case Number 6662, then, will be continued to the Examiner Hearing scheduled to be held

at this same place at 9:00 o'clock a. m. October 17th, 1979.

(Hearing continued.)

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (505) 471-2463
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a court reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability from my notes taken at the time of the hearing.

Sally W. Boyd C.S.R.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6665 heard by me on 9/19 1979.

, Examiner
Oil Conservation Division

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
Oil Conservation Division
State Land Office Bldg.
Santa Fe, New Mexico
19 September 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico.

CASE 6662

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87503

For the Applicant: William F. Carr, Esq.
CAMPBELL & BLACK P. A.
Jefferson Place
Santa Fe, New Mexico 87501

I N D E X

RUDY MOTTO

E X H I B I T S

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RUDY MOTTO

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MR. NUTTER: Yes, they are.

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A. And Dakota.

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MR. NUTTER: That would be the long string.

A. Let's see. I'm sorry. The short string was landed at 6105 feet and the long string was landed with a Baker Model "R" Packer at 7479 feet.

Q. Is the well currently being produced?

A. No, it is not.

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A. We anticipate they will be flowing.

Q. And has a packer leakage test been run?

A. Yes, it has been.

Q. And the results of that test are marked for identification as Exhibit Number Three, is that correct?

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ray log which was run on the well.

This log shows the top of the Mesaverde zone at 5480 feet. The perforations are marked with red dashed lines down through the point lookout from 5964 feet to 6100 feet. It shows the top of the Gallup zone at 7502 feet and the perforations from the Gallup zone from 7537 feet to 7548 feet, and shows the top of the Dakota zone to be at 8020 feet with perforations shown at 8044 feet 46 feet, 48 feet, and 50 feet, and 8060, 62, 64, 66, and 68 feet.

Now this log does not show additional perforations at 8208, 10, 12, and 14 feet, and these perforations were put in the casing using the "A" No. 8 log and overlaying it on this because we could not log that section of the hole.

Q. Will you now refer to what has been marked for identification as Exhibit Number Five and review this for the Examiner?

A. Exhibit Number Five is a New Mexico Oil Conservation Commission Multipoint Back Pressure Test on the Basin Dakota formation and that should be the Basin Dakota and Gallup formation. It's the commingled zone.

This test briefly shows the flow rate of this well to be 1171 Mcfd, with an absolute open flow of 1202 Mcfd, with a shut-in pressure of 1613 pounds.

Q. Will you now refer to what has been marked for identification as Exhibit Number Six and review this for

the Examiner?

A. Exhibit Number Six is the Multipoint Back Pressure Test for the Mesaverde zone of this same well. The Q flow rate of this well was 3438 Mcfd with an absolute open flow of 5484 Mcfd and shows a shut-in pressure of 1241 pounds.

Q. Mr. Motto, in your opinion are the pressure differentials in the zones to be commingled such as to prevent migration between zones?

A. Yes. I believe they are, in that we expect very marginal flows from these and we expect the well to be of a marginal classification, which means that they will be continuously flowing.

Q. Do you have independent pressure data on the zones that are to be commingled?

A. No, we do not.

Q. And what are you basing your conclusion on that you will not have the migration?

A. We expect this well to be of a marginal classification and as such will be on the line at all times. The pipeline pressures in that area run below 300 pounds at all times, and I do not believe that there can be commingling of zones with a lower line pressure than shut-in pressure on either zone.

Q. You have examined pressures in offsetting

wells that are completed in these zones?

A. Yes, we have.

Q. And their pressures are in excess of any anticipated line pressure?

A. That is so.

Q. Mr. Motto, will this well be equipped so that the pressure from each of the zones can be determined?

A. It is not. In the Gallup and Dakota zones it is not equipped that way.

Q. Are gas condensates being produced?

A. We are not producing the well at all pending outcome of this hearing; however, the well is expected to make small amounts of condensate and natural gas.

Q. And do you believe that the fluids have -- that will be produced will be compatible?

A. Yes, I do.

Q. Do you have a recommendation to make to the Examiner as to the allocation of production between the commingled zones?

A. No. Except that we would like to get with the District Supervisor of the Commission and ask him to meet with us and agree on some allocation of gas and oil out of each producing zone.

Q. In your opinion will granting this application result in the recovery of hydrocarbons that otherwise

would not be produced?

A. Yes, very much so. We think that we could not produce either zone without -- without commingling.

Q. In your opinion will granting the application be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes. This -- we have common ownership of the leases on this well and surrounding area.

Q. Mr. Motto, were -- have you reviewed Exhibits One through Six and can you testify of your own knowledge as to their accuracy?

A. Yes, I have, and they are accurate to the best of my knowledge.

MR. CARR: Mr. Examiner, at this time we would offer Applicant's Exhibits One through Six.

MR NUTTER: Applicant's Exhibits One through Six will be admitted in evidence.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Motto, you have no pressure information on either the Gallup or the Dakota formation in this well, is that correct?

A. That is correct, sir. We only have the commingled pressure, which is on the Multipoint Back Pressure

Test, of 1613 pounds.

Q. But we have no way of knowing what the differential is between the two zones.

A. No, sir.

Q. Whether there's any cross flow between those zones or not.

A. No, sir.

Q. You have no production data on either of the two zones separately?

A. No, sir, we cannot produce it until we -- we can get approval to produce it.

Q. Well, you're not going to be able to get any individual production if we give you approval to commingle it. Didn't you take any tests prior to the time you commingled it?

A. No, sir.

Q. Before you opened the other zone up? You have no individual tests on either zone?

A. No, sir.

Q. Well then you stated that you expect to meet with the District Supervisor of the Division and arrive at an allocation formula, what information are you going to be able to give him that you can't give us here today?

A. Hopefully on offset wells producing from the same horizons in those formations.

Q. I think you could have gotten that information and brought it here today, Mr. Motto. I don't see how we can approve this without any information at all to go on as far as pressure or production allocation is concerned.

MR. CARR: Mr. Nutter, would it be appropriate at this time to request that this be continued to enable the applicant to put together pressure data and then reopen the case at a later date?

MR. NUTTER: I'd be most happy to.

MR. CARR: Okay, at this time we'd like to --

MR. NUTTER: And I think since this Examiner started hearing the case --

MR. CARR: Yes, that we bring it back before you.

MR. NUTTER: -- it ought to come back before me.

MR. CARR: All right.

MR. NUTTER: I think with that information in mind we should continue the case and as far as I know, I'll be hearing the docket on October 17th.

MR. CARR: Okay, we would request that it be docketed on that date.

MR. NUTTER: Case Number 6662, then, will be continued to the Examiner Hearing scheduled to be held

at this same place at 9:00 o'clock a. m. October 17th, 1979.

(Hearing continued.)

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (505) 471-8462
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a court reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6662, heard by me on 9/19 1979.

, Examiner
Oil Conservation Division

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

CASE 6658: Application of Texas Pacific Oil Company, Inc. for an unorthodox well location and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit comprising the S/2 NE/4 and N/2 SE/4 of Section 14, Township 24 South, Range 36 East, Jalmat Gas Pool, to be dedicated to its J. W. Cooper Well No. 8 at an unorthodox location 2010 feet from the North line and 2310 feet from the East line of said Section 14.

CASE 6659: Application of Amoco Production Company for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221 to permit disposal of produced brine in several unlined surface pits located in Sections 27, 34 and 35, Township 18 South, Range 31 East.

CASE 6660: Application of B. & W. Oil Reclaiming for an oil treating plant permit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at a site in the NE/4 NE/4 NE/4 of Section 34, Township 18 South, Range 26 East.

CASE 6661: Application of LaRue and Muncy for an exception to R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the casing-cementing rules of Order R-111-A to permit a well to be drilled in Unit C of Section 22, Township 18 South, Range 30 East, Leo Queen-Grayburg Pool, to be cased by setting surface casing at the top of the salt, circulating cement on the oil string, and omitting the intermediate casing required by R-111-A; applicant further requests special rules to apply to all of Sections 15 and 22 of said township to permit additional wells to be completed in the same manner.

CASE 6662: Application of Supron Energy Corporation for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Jicarilla "A" Well No. 22Y located in Unit K of Section 24, Township 26 North, Range 4 West, to produce gas from the Blanco Mesaverde Pool through tubing and to commingle and produce the Wildhorse Gallup and Basin-Dakota zones through a parallel tubing string.

CASE 6663: Application of Doyle Hartman for an unorthodox well location and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well spacing requirements and a finding that the drilling of a well at an unorthodox location 330 feet from the South line and 2310 feet from the West line of Section 36, Township 23 South, Range 36 East, Jalmat Gas Pool, is necessary to effectively and efficiently drain that portion of the existing proration unit which cannot be so drained by the existing well.

CASE 6664: Application of Doyle Hartman for an unorthodox well location, two non-standard proration units and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 40-acre non-standard proration unit comprising the NW/4 SW/4 of Section 27, Township 25 South, Range 37 East, Jalmat Pool, to be dedicated to El Paso Natural Gas Company's Harrison Well No. 1, and also a 120-acre unit comprising the E/2 SW/4 and SW/4 SW/4 of said Section 27 to be dedicated to a well to be drilled at an unorthodox location 330 feet from the South and West lines of the section; applicant further seeks a waiver of existing well spacing requirements and a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of an existing proration unit which cannot be so drained by the existing well.

CASE 6647: (Continued from September 5, 1979, Examiner Hearing)

Application of O. H. Berry for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Seven Rivers well to be located 1650 feet from the North line and 330 feet from the East line of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, the NE/4 of said Section 15 to be dedicated to the well.

CASE 6665: Application of Amax Chemical Corporation for the amendment of Order No. R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-111-A to extend the boundaries of the Potash-Oil Area by the inclusion of certain lands in Sections 22 and 23, Township 19 South, Range 29 East, and Section 19, Township 19 South, Range 30 East.

CASE 6666: Application of Exxon Corporation for a non-standard proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 377.57-acre non-standard gas proration unit comprising Lots 1, 2, 3, and 4 and the N/2 N/2 of Section 36, Township 26 South, Range 25 East, and Lots 3 and 4 and the N/2 NW/4 of Section 31, Township 26 South, Range 26 East, to be dedicated to a Morrow test well to be located in Unit A of said Section 36.

CASE 6667: Application of Exxon Corporation for a non-standard proration unit, an unorthodox well location, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the approval of a 320-acre non-standard gas proration unit comprising the W/2 of Section 10, Township 21 South, Range 36 East, Eumont Pool, to be simultaneously dedicated to its A. J. Adkins Com Well No. 1 located in Unit L, and to its Well No. 2, at an unorthodox location 1650 feet from the North and West lines of said Section 10.

CAMPBELL AND BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
PAUL R. CALDWELL

POST OFFICE BOX 2208
JEFFERSON PLACE
SANTA FE, NEW MEXICO 87501
TELEPHONE (505) 988-4421

August 28, 1979

Mr. Joe D. Ramey, Director
Oil Conservation Division
Department of Energy and Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Enclosed herewith, in triplicate, is the application of Supron Energy Corporation for Downhole Commingling and Dual Completion, Rio Arriba County, New Mexico.

Supron Energy Corporation requests that this case be set for the examiner hearing to be held on September 19, 1979.

Very truly yours,

William F. Carr

WFC:tn

Enclosure

cc: Mr. William Jameson
Supron Energy Corporation
Building V., Fifth Floor
10300 North Central Expressway
Dallas, Texas 75231

BEFORE THE

OIL CONSERVATION DIBISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION
OF SUPRON ENERGY CORPORATION
FOR DOWNHOLE COMMINGLING AND
DUAL COMPLETION, RIO ARRIBA
COUNTY, NEW MEXICO.

CASE 6662

APPLICATION

COMES NOW, Supron Energy Corporation, by and through its undersigned attorneys, and hereby makes application to the Oil Conservation Division for Downhole Commingling and Dual Completion and in support thereof respectfully states:

1. Applicant is the operator of the Jicarilla "A" Well No. 22Y located 1,710 feet from the west line and 1,850 feet from the south line of Section 24, Township 26, North Range 4 West, N.M.P.M., Rio Arriba County, New Mexico.

2. Applicant proposes to commingle in one string of tubing in said well production from the Wildhorse Gallup and Basin Dakota Oil Pools.

3. Applicant seeks approval to dually complete said well to produce the Mesa Verde formation, Blanco Mesa Verde Pool, through a second string of tubing in said well.

4. The completion of this well will be in such a manner as to effectively prevent communication between the Wildhorse Gallup and Basin Dakota Pools and the Blanco Mesa Verde Pool and will result in the greater recovery of hydrocarbons.

5. Granting the application will prevent waste, protect correlative rights including those of all offset operators and will be in the interest of conservation.

WHEREFORE Applicant requests that this application be set for hearing before the Commission or one of the Division's duly appointed examiners, and that after notice and hearing as required by law, the Commission enter its order granting the application.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By William F. Carr
William F. Carr
Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

BEFORE THE

OIL CONSERVATION DIBISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF SUPRON ENERGY CORPORATION FOR DOWNHOLE COMMINGLING AND DUAL COMPLETION, RIO ARRIBA COUNTY, NEW MEXICO.

CASE 6662

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2. Applicant proposes to commingle in one string of tubing in said well production from the Wildhorse Gallup and Basin Dakota Oil Pools.

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Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By William F. Carr

William F. Carr
Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

BEFORE THE

OIL CONSERVATION DIBISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF SUPRON ENERGY CORPORATION FOR DOWNHOLE COMMINGLING AND DUAL COMPLETION, RIO ARRIBA COUNTY, NEW MEXICO.

CASE 6662

APPLICATION

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1. Applicant is the operator of the Jicarilla "A" Well No. 22Y located 1,710 feet from the west line and 1,850 feet from the south line of Section 24, Township 26, North Range 4 West, N.M.P.M., Rio Arriba County, New Mexico.

2. Applicant proposes to commingle in one string of tubing in said well production from the Wildhorse Gallup and Basin Dakota Oil Pools.

3. Applicant seeks approval to dually complete said well to produce the Mesa Verde formation, Blanco Mesa Verde Pool, through a second string of tubing in said well.

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5. Granting the application will prevent waste, protect correlative rights including those of all offset operators and will be in the interest of conservation.

WHEREFORE Applicant requests that this application be set for hearing before the Commission or one of the Division's duly appointed examiners, and that after notice and hearing as required by law, the Commission enter its order granting the application.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By William F. Carr

William F. Carr
Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

ROUGH

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6662

Order No. R- 6326

APPLICATION OF SUPRON ENERGY CORPORATION
FOR A DUAL COMPLETION AND DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 o'clock a.m. on October 17, 1979, 19 79, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of April, 1979, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Supron Energy Corporation, seeks authority to complete its Jicarilla "A" Well No. 22Y ~~Well No.~~ _____, located in Unit K of Section 24, Township 26 North, Range 4 West, NMPM, _____ County, New Mexico, as a dual completion (conventional) to ~~oil~~ produce gas from the Blanco Mesaverde Pool through tubing and to commingle and produce the Wildhorse Gallup and Basin-Dakota zones through a parallel tubing string.

(3) That the mechanics of ~~the proposed~~ the proposed dual completion are feasible and in accord with good conservation practices insofar as the Blanco Mesaverde and one or the other of the other two zones are concerned.

(4) That the shut-in surface pressure of the Dakota formation in the subject well is 1725 psi.

(5) That although the shut-in surface pressure of the Gallup formation in the subject well is unknown, the shut-in surface pressure of the Gallup formation in eight nearby wells ranges from 323 psi to 448 psi, and averages 372 psi

(6) That there is no reason to believe that the pressure in the Gallup formation in the subject well is substantially different than in the nearby wells and, in fact, applicant stated that the Gallup pressure in the subject well "... would be 350 psi, plus or minus 25 psi."

(7) That assuming a Gallup pressure of 350 psi and a Dakota pressure of 1725 psi, without regard to any pressure build-up due to gas gradient, the Dakota pressure would be some 4.9 times the Gallup pressure.

(8) That such a pressure differential is not conducive to the prevention of cross-flow between zones, particularly during intervals when the well may be shut in, and could result in waste.

(9) That the application should be denied to commingle in the well bore of the subject well the Gallup and Dakota formations

(10) That the applicant should be permitted to dually complete the subject well to produce gas from the Blanco Mesaverde Pool through one string of tubing and to produce gas from either the Gallup formation or the Dakota formation through another parallel string of tubing, but only after taking such action as may be necessary to isolate the Gallup and Dakota formations from each other.

IT IS THEREFORE ORDERED:

(1) That the applicant, ~~in~~ of Supron Energy Corporation, ~~is hereby authorized~~ for authority to complete its Jicarilla "A" Well No. 22Y, located in Unit K of Section 24, Township 26 North, Range 4 West, NMPM, Rio Arriba County, New Mexico, as a dual completion (conventional) ~~(combination)~~ ~~(tubingless)~~ ~~oil~~ gas to produce gas from the Blanco Mesaverde Pool through tubing and to commingle and produce the Wildhorse Gallup and Basin-Dakota zones through a parallel tubing string is hereby denied.

PROVIDED HOWEVER, that the applicant is hereby authorized to seek approval, pursuant to the provisions of Rule 112-A of the Division Rules and Regulations, for dual completion of the aforesaid well to produce gas from the Blanco Mesaverde Pool and from the Wildhorse-Gallup or the Basin Dakota Pools through parallel strings of tubing

PROVIDED FURTHER, that prior to such approval, applicant shall furnish evidence to the Division Director that the Wildhorse Gallup and the Basin Dakota reservoirs in the subject well have been adequately isolated from each other to prevent communication between the two reservoirs.

(2) Jurisdiction

DONE at . . .