Case Number 5993

Application

Transcripts.

Small Exhibits

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# BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico 20 July 1977

#### EXAMINER HEARING

IN THE MATTER OF:

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Application of Lively Exploration Company )
for an exception to the provisions of Order )
No. R-5459, San Juan County, New Mexico.

CASE 5993

BEFORE: Richard L. Stamets

### TRANSCRIPT OF HEARING

## APPEARANCES

For the New Mexico Oil Conservation Commission:

Lynn Teschendorf, Ezq.

Negal Counsel for the Commission

State Land Office Building

Santa Fe, New Mcxico

For the Applicant:

W. Thomas Kellahin, Esq. KELLAHIN & FOX 500 Don Gaspar Santa re, New Mexico

For Blackwood & Nichols:

William F. Carr, ESq. CATRON, CATRON & SAWTELL 53 Old Santa Fe Trail Santa Fe, New Mexico

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MR. STAMETS: Call next Case 5993.

MS. TESCHENDORF: Case 5993. Application of Lively Exploration Company for an exception to the provisions of Order R-5459, San Juan County, New Mexico.

MR. KELLAHIN: Tom Kellahin of Kellahin and Fox,
Santa Fe, New Mexico, and I have one witness to be sworn.

MR. CARR: William F. Carr, Catron, Catron, and Sawtell, appearing on behalf of Blackwood and Nichols, and I have one witness.

(Witnesses sworn.)

#### VINCENT SHRYACK

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

#### DIRECT EXAMINATION

BY MR. KELLAHIN:

Mr. Shryack, would you please state your name, by whom you're employed, and in what capacity?

A. My name is Vincent Shryack, and I'm employed as a Consulting Petroleum Engineer by Lively Exploration Company.

Shryack, have you previously testified before the New Mexico Oil Conservation Commission and had your qualifications as a Petroleum Engineer accepted and made a matter of record?

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Did you testify in the previous hearing related to this case that resulted in Order Number R-5459 in Case 5893? You did testify in that case, did you not?

Yes, sir, I did.

MR. KELLAHIN: If the Examiner please, are the witness' qualifications acceptable?

MR. STAMETS: They are.

(Mr. Kellahin continuing.) Mr. Shryack, would you briefly state what Lively Exploration Company is seeking to accomplish by its application today?

Lively Exploration Company is seeking an exception to the provisions of Order Number R-5459, San Juan County, New Mexico, to exclude its Chacra Well Number 7-Y in Unit E of Section 35, Township 30 North, Range 8 West, San Juan County, New Mexico, from the vertical limits of the Blanco-Mesaverde Pool as defined by said order.

Would you please refer to what has been marked as Applicant Exhibit Number One, and read this into the record for us, please?

Exhibit Number One is a Well Data and Information Sheet.

"Item 1. In an agreement dated February 12, 1974, El Paso Natural Gas Company farmed out to Lively Exploration Company the operating rights to the interval from 3650 feet

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to 3750 feet of depth under the rest half of Section 35, Township 30 North, Range 8 West, NMPM, in San Juan County, New Mexico.

Item 2. A designation of operator, Form NM 121, dated April 3, 1974, was filed with the Bureau of Land Management in which El Paso Natural Gas Company designated Lively Emploration Company as operator of the interval from 3650 feet to 3750 feet of depth in the northwest quarter of Section 35, Township 30 North, Range 8 West, San Juan County, New Mexico.

provals from the New Mexico Oil Conservation Commission and the United States Geological Survey to complete the Lively Well Number 7-Y in the undesignated Chacra Sand through perforations from 3685 feet to 3700 feet of depth. The monetary investment was made in good faith and the Chacra Sand was completed as a gas producer on April 20, 1974, with date of open flow potential test taken on April 30, 1974.

Liem 4. Under Order Number MC2109 of the New Mexico Oil Conservation Commission, which was issued May 28, 1974, approving the undesignated Chacra Sand completion in the Lively Well Number 7-Y. First delivery of gas into the pipeline was made on June 7, 1974

New Mexico Oil Conservation Commission Order

Number R-5339, effective January 25, 1977, placed the Lively

Well Number 7-Y in the Navajo City Chacra gas pool.

Item 6. In 1976 El Paso Natural Cas Company, under valid permits received from the New Mexico Oil Conservation Commission and the United States Geological Survey, drilled and completed the Howell "L" Number 3-A, located in the northwest quarter of Section 35, Township 30 North, Range 8 West, San Juan County, New Mexico, in the Blanco-Mesaverde Pool.

Item 7. The El Paso Natural Gas Company Howell

"L" 3-A, Blanco-Mesaverde completion, and the Lively Exploration Company Chacra completion, are both located in the northwest quarter of Section 35, Township 30 North, Range 8 West, San Juan County, New Mexico.

Order Number 5459, dated June 14, 1977, and effective August 1, 1977, will reclassify the Lively Well Number 7-Y into the Blanco-Mesaverde Pool, thus establishing three Blanco-Mesaverde wells in the west half of Section 35, Township 30 North, Range 8 West, San Juan County, New Mexico. The third well being the El Paso Natural Gas Company Howell "L" Number 3. located in the southwest quarter of Section 35.

Item 9. The ownership of the Lively Well Number 7-Y is different from the ownership of the Howell "L" Well Numbers 3 and 3-A.

Item 10. Lively Exploration Company and El Paso

Natural Gas Company have both proceeded in good faith and with all the required permits from the State of New Mexico and the United States Geological Survey in developing the Lively Well Number 7-Y and the Howell "L" Well Numbers 3 and 3-A.

correlative rights it is requested that the Chacra Sand completion in the Lively Exploration Company Lively Well Number 7-Y receive an exception to New Mexico Oil and Gas Commission Order Number R-5459, insofar as said order applies to the northwest quarter of Section 35, Township 30 North, Range 8 West, San Juan County, New Mexico."

Mr. Shryack, I show you what has been marked as Applicant Exhibit Number Two and ask you to identify it and state what information it contains.

A. Exhibit Number Two is an isobaric map of 1974 pressure information from annual well tests and limited to the geographical area around the Lively Well Number 7-Y, which is colored red on this exhibit.

Please note that I have drawn a 500 PSIA isobar and a 600 PSIA isobar, utilizing the pressure information on the map.

The Lively Well Number 7-Y is located between the 500 and 600 PSIA isobars, indicating that a Blanco-Mesaverde well completed at the location of the Lively Well Number 7-Y

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would have an initial shut-in pressure somewhere between 500 and 600 PSIA.

Instead, the Lively Well Number 7-Y has an initial shut-in pressure of 748 PSIA, which is significantly higher than would be expected in the Blanco-Mesaverde, thus indicating a lack of pressure interference between the Chacra Sand completion in the Lively Well Number 7-Y and the surrounding Blanco-Mesaverde Pool wells.

9 Please refer to what has been marked as Exhibit
Number Three, identify it, and explain what information it
contains.

A. Exhibit Number Three is a map showing the locations of the Lively Well Number 7-Y and the El Paso Natural Gas

Company Howell "L" Number 3-A.

The Howell "L" Number 3-A was completed in the Blanco-Mesaverde Pool in 1976 with its initial shut-in pressure of 586 PSIA recorded on April 12, 1976. Please note that the Lively Well Number 7-Y and the Howell "L" Number 3-A are twin wells, being only 353 feet apart.

Number 7-Y taken in June 30, 1976, was FED PSIA after a cumulative production of 1.28 billion cubic feet of gas. It is noted that there is still a pressure differential at this point in time of 64 PSIA still indicating no pressure interference between the Chacra Sand completion in the Lively Well

Number 7-Y and the Blanco-Mesaverde completion in its twin well, the Howell "L" Number 3-A.

- Please refer to what has been marked as Exhibit
  Number Four, identify it, and state what information it contains.
- Lexhibit Number Four is the same map showing the locations of the Lively Well Number 7-Y and the El Paso Howell "L" Number 3-A, with the shut-in pressures for 1977 noted the reon. As of May 31st, 1977, accumulative gas product on from the Lively Well Number 7-Y was 1,911,931,000 cubic feet, and from the Howell Well 3-A, was 391,207,000 for a two-well total of approximately 2.3 billion cubic feet.

The 1977 shut-in pressure in the Lively Well Number 7~Y was 598 PSIA on May 17th, 1977, and the 1977 shut-in pressure in the Howell "L" 3-A was 421 PSIA on June 14th, 19/7.

The pressure difference between these two wells in 1977 is 177 PSIA, which is nearly three times the difference that was noted in 1976, thus indicating clearly that there is no pressure interference between the Chacra Sard completion in the Lively Well Number 7-Y and the Blanco-Mesaverde completion in the Howell "L" 3-A.

Please refer to what has been marked as Exhibit
Number Five, identify it, and state what information it contains.

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A Exhibit Number Five is a copy of a section of the induction gamma ray log of the Lively Well Number 7-Y.

The Huerfanito bentonite is shown at 3555 feet of depth.

The Chacra Sands perforations are shown in red from 3685 to 3700 feet of depth.

The base of the Chacra Sand is shown at 3 15 feet of depth.

The top of the productive Cliff House is shown at 4622 feat of depth.

Lewis Shale Latweer the base of the Chacra Sand and the top of the productive Cliff House member. This long section of shale provides an effective impermeable barrier between the Chacra Sand and the productive Cliff House Member of the Blanco-Mesaverde Pool.

- Q In your opinion, Mr. Shryack, is the Lively 7-Y well producing from a separate and distinct reservoir from the Mesaverde tormation?
  - A Yes.
  - g From that of the Mesaverde formation?
  - A That is my opinion, yes, sir.
- In your opinion, Mr. Shryack, will it be in the best interests of conservation, prevention of waste, and the protection of correlative rights that your application in

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this matter be granted?

A. Yes, sir.

a And if your application is not granted for an exception, what, if any, adverse effect will this have upon Lively's correlative rights?

Neil, this will unquestionably reduce the productivity of this well; in example, the allowable, if that's the proper term. We will not be allowed to produce as much gas.

Q Were Exhibits One through Five prepared by you directly or under your direction and supervision?

A. Yes, they were.

MR. KELLAHIN: If the Examiner please, we move the introduction of Exhibits One through Five.

MR. STAMETS: Exhibits One through Five will be admitted.

MR. KELLAHIN: That concludes our direct examination.

MR. STAMETS: Are there questions of this witness?

MR. CARR: We have no questions of Mr. Shryack.

And I'd like to advise, it is not our intention to call Mr.

Blackwood as a witness in this case. He would, however,

like to make a statement.

#### CROSS EXAMINATION

BY MR. STAMETS:

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- Q Mr. Shryack, are there any other quote Chacra wells in the immediate vicinity of the Lively 7-Y?
- A. At this time there are two wells that are classified as Chagra.
  - Q. Where are those located?
- A. The Tenneco Florence 29-A, according to my records is located in Unit F of Section 25, Township 30 North, Range & West.

And the Blackwood-Nichols Northeast Blanco Well Number 64 is located in Unit P of Section 24, 30 North, 8 West, to the best of my recollection. Those at the present time are classified as Navajo City Chacra.

- And those wells are more or less in a direct line with your well. Wouldn't that be about right?
  - A In what respect, sir?
- Q Well, you could draw a straight line from the northeast to the southwest and more or less connect all three of those wells.
  - A Yes, wir, I think you could do that.

MR. CARR: Mr. Examiner, I'd like the record to reflect that the two paragraphs which designated the two Chacro pools that were referred to just now by Mr. Shryack were deleted by a subsequent order.

MR. STAMETS: No. The order that un-created the

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two Chacra pools was effective as of the date of the order that created them. In essence, they were never created.

they are not -- if there is no Navajo City Chacra Field, then I would yield to you as to the classification of those two wells. I don't know what their classification is.

MR. STAMETS: I believe Mr. Carr is correct. There is no classification on any of these wells at the present time.

- A. They're nothing at this point, is that correct?

  MR. STAMETS: That's right.
- Well, then I'd so testify.

MR. STAMETS: Are there any questions? Mr.

Kendrick?

#### CROSS EXAMINATION

BY MR. KENDRICK:

Q Mr. Shryack, did you testify as to the interval of completion of the El Paso Howell "L" Number 3-A?

A No, sir, I did not.

to compare it to the comparable depth of the completion of the Lively Number 7-Y well?

A. I referred to the top of the Cliff House in the -I'm sorry, no, I did not.

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- Q Do you have that information with you?
- MR. KENDRICK: Thank you.

#### RECPOSS EXAMINATION

#### BY MR. STAMETS:

- Q Do you know what kind of pressures were encountered at the 29-A well and the 64 well?
  - A Yes, sir, I do.
  - Q Do you have that information with you?
- A. Yes, sir. The 29-A on August 20th of 1975 recorded a P<sub>C</sub> of 580 PSIA, and on March 25th of 1976 recorded a pressure of 548 PSIA.
  - Q Okay.
- A And the -- I have one pressure for the Number 64 well, Northeast Blanco 64, which was 640 PSIA on July 14th, 1976.
- Q To go back to your Exhibit Number Three, the pressure on the 7-Y well in June of '76, was 650 pounds.
  - A Yes, sir.
- Q But then we have the 29-A well in between these two with about 100 pound differential, 100 pounds less pressure.
  - A Yes, sir.
  - A Your well was drilled in ''4 as a Chacra well and

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you had no intention of completing this in the Blanco-Mesaverde Pool?

A No, sir, that's not quite correct. The well was drilled as a Basin Dakota well. I'm sorry, it might have even been in 1973. Then we dual-completed it as a Chacra well in 1974 with no intention of Blanco-Mesaverde. As a matter of fact, we do not have the Blanco-Mesaverde rights, at that point in time.

- Q And the investment that was made, was made on the basis that this was not a Blanco-Mesaverde well.
  - A. That is correct, yes, sir,
- Q And a decision that it is could have an adverse affect on the -- such an investment?
  - A Yes, sir.

MR. STAMETS: Any other questions of the witness?
He may be excused. Mr. Carr.

MR. CARR: Mr. Shryack, could you tell us how the well was completed?

MR. BLACKWOOD: Whether it was fractured or --

- A, Sand fraced, you mean?
  - MR. BLACKWOOD: Yes.
- A Yes, sir, it was sand rraced.

MR. BLACKWOOD: What was it's flow rate just after perforating prior to sand fracing?

A It did not flow after perforation. We did not

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flow it until after we fraced it.

MR. CARR: That's all.

MR. STAMETS: Any other questions? The witness may be excused. Anything further in this case?

MR. KELLAHIN: We have some statements in this case, Mr. Examiner.

MR. STAMETS: Mr. Carr, do you have a statement?

MR. CARR: Mr. Blackwood has a statement.

MR. STAMETS: We'll let Mr. Blackwood go ahead and give Mr. Kellahin the last word.

MR. BLACKWOOD: I would just like to point out that a publication of the Oil and Gas Commission from Mr.

N. E. Maxwell, Junior, has provided us with statistical data for some 306 Mesavarde infill wells, which have been drilled over the past three years, and the pressures of those 306 wells averages 732 pounds for the initial average shut-in pressure.

The offset Mesaverde old wells, which have been in existence and producing gas for a number of years, have an average pressure in 1976 of 452 pounds, by Mr. Maxwell's report, for an average pressure difference of 280 pounds. In other words, any time an infill Mesaverde well is drilled offsetting another Mesaverde well which has been produced for a number of years, there exists an average of 280 pounds pressure difference. This difference is seen to dissipate

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over a couple of years production and they come out about the same.

According to Mr. Shryack's testimony, the pressure difference between the Lively well and the offsetting Mesaverde wells is approximately 180 pounds, or considerably less pressure difference than the average pressure difference throughout the entire field. Therefore, I find the pressure argument very weak or non-existent.

Also, the pressure -- the loss of pressure of the Lively well during two years production has been approximately 100 pounds. The offsetting Mesaverde well has lost pressure at a comparable rate. They have not yet approached the exact same pressure, but they are losing pressure at a comparable rate, and I think that's significant.

I have no argument with Mr. Shryack in saying that the area in which this well is completed is now within the new definition of the Mesaverde as defined by the Oil and Gas Commission recently.

I also do not argue that at the time this was drilled there was no good definition, and they have a number of fairly good reasons pertaining to ownership and farming out rights and all of these things that would indicate they have a fairly strong legal position that they might not -- you, perhaps, should not change their definition in the middle of the stream.

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I merely want to point out that if we take the engineering alone, and the geology, this well is within the geologic limits of the Mesaverde, as currently defined, and the pressure indications, to me, indicate that the well is in communication with the Mesaverde Reservoir.

Had it have been a new, undrained reservoir, it should have had a pressure in excess of a 1000 pounds when it was completed, rather than only 180 pounds different from the Mesaverde.

MR. STAMETS: Mr. Kellahin?

MR. KELLAHIN: Mr, Kendrick has a statement.

MR. STAMETS: On, I'm sorry.

MR. KENDRICK: I'm H. L. Kendrick, El Paso Natural Gas Company.

El Paso concurs with Lively Exploration Company in designating the Lively 7-Y well as a Chacra well.

this statement on behalf of Lively Exploration Company and they are joined therein by Tenneco Oil Company and Continental Oil Company.

Lively 7-Y Chacra was completed with all the necessary approvals from the New Mexico Oil Conservation Commission and the USGS and has been producing into the pipeline for over three years.

In 1976 a twin completion, El Paso Howell well

was made in the Blanco-Mesaverde Pool under full approval of the New Mexico Oil Conservation Commission and the USGS. And that well has been producing into the pipeline for over a year.

The pressure production information that we've introduced into evidence this afternoon clearly indicates that the Lively Well Number 7-Y is completed in the Chacra Sand, and that the Howell "L" 3-4 well, the El Paso well, is completed in the Blanco-Mesaverde Pool. They are producing from two different sources of supply.

behalf of Blackwood-Nichols, but the Maxwell information has not been introduced into the evidence in this case, nor has Blackwood-Nichols sought to put their witness under oath and subject to cross examination. I'm at a loss to -- to refute the statements with regards to the Maxwell publication. I would suggest that the Examiner could disregard that testimony entirely. I think it's inappropriate to make reference to such a statement.

To continue, though, we believe these are from distinct separate sources of supply. You'll see from the testimony that we presented, that there's some 907 feet of impermeable shale between the Chacra and the Cliff House zone in this Lively well, Number 7-Y. This seems to me to provide an effective impermeable barrier between the two sources of

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supply.

In view of the fact that New Mexico Oil Conservacion Commission and the USGS have previously approved the two completions, the one in the Chacra for Lively Exploration and the other one for El Paso, in side-by-side locations, and because ownerships are different in these two pools, and because of the pressure production data indicates the separate sources of supply, it is respectfully requested on behalf of the applicant that they be excluded from the provision of Order R-5459 and that the Lively Well 7-Y remain classified as a Chacra Sand completion.

We believe that this action is necessary in order to protect the correlative rights of Lively Exploration Company. Thank you.

MR. STAMETS: Do you have anything further in this case? The case will be taken under advisement.

(Hearing concluded.)

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#### REPORTER'S CERTIFICATE

I, Sally Walton Boyd, a Certified Shorthand Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill, and ability.

Sally Walton Boyd, C. S. R.

do hereby certify that the foregoing 10
a complete record of the proceedings in
the Examiner hearing of Case No. 19
heart by me h

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## OIL CONSERVATION COMMISSION

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

87501

DIRECTOR
JOE D. RAMEY

PHIL R. LUCERO August 30, 1977



Re: CASE NO. 5993 ORDER NO. R-5512

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

Applicant:

Lively Exploration Company

Dear Sir:

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

Yours very truly,

Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC x

Other William F. Carr, H. L. Kendrick

#### BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

> CASE NO. 3993 Order No. R-5512

> > जीपस

THE APPLICATION OF LIVELY EXPLORATION COMPANY FOR AN EXCEPTION TO THE PROVISIONS OF ORDER NO. R-5459, SAN JUAN COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 20, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 30th day of August, 1977, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That by its Order No. R-5459, entered on June 14, 1977, the Commission redefined the vertical limits of the Blanco-Mesaverde Pool, Rio Arriba and San Juan Counties, New Mexico.
- (3) That such redefinition resulted in the inclusion of "Chacra" equivalent fractured shales or siltstone zones within the vertical limits of said pool in approximately one-half of said pool north and east of a certain line traversing the pool.
  - (4) That in said Order No. R-5459 the Commission found:
  - "(17) That there are 4 wells north and east of the line defined in Finding No. 15 above and Exhibit A which may be producing from fractured shale or siltstone zones equivalent to said Chacra sands and which may or may not be connected to other producing zones in said Blanco-Mesaverde Pool." and
  - "(18) That to protect the correlative rights of the owners of said four wells, the effective date of any redefinition of the vertical limits of said Blanco-Mesaverde Pool should be delayed to provide such owners with the opportunity to bring a case for an exception before the Commission."

-2-Case NO. 5993 Order No. R-5512

- (5) That the applicant, Lively Exploration Company, is the operator of one of the wells referenced in Findings Nos. (17) and (18) of said Order No. R-5459, the well being its Chacra Well No. 7Y located in Unit E of Section 35, Township 30 North, Range 8 West, San Juan County, New Mexico.
- (6) That the applicant seeks an exclusion from the vertical limits of said Blanco Mesaverde Pool for said Chacra Well No. 7Y as an exception to said Order No. R-5459.
- (7) That said Chacra Well No. 7Y was completed as a gas producer on April 20, 1974, through "Chacra" perforations from 3,685 feet to 3,700 feet.
- (8) That said Chacra Well No. 7Y first delivered gas into the pipeline on June 7, 1974.
- (9) That on April 12, 1976, El Paso Natural Gas Company completel its Howell L Well No. 3A as an infill well in said Blanco-Mesaverde Pool through perforations from 4,564 feet to 5,435 feet on the same quarter section with said Chacra Well No. 7Y.
- (10) That there are differences in ownership between said Chacra Well No. 7Y and said Howell L Well No. 3A.
- (11) That the applicant only has operating rights to the interval from 3,650 feet to 3,750 feet of depth in the NW/4 of said Section 35.
- (12) That there was no testimony in opposition to said application.
- (13) That approval of said application will not result in waste nor violate correlative rights.
  - (14) That the application should be approved.

#### IT IS THEREFORE ORDERED:

(1) That effective August 1, 1977, the Lively Exploration Company Chacra Well No. 'Y located in Unit E of Section 35, Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico, is hereby excluded from the Blanco-Mesaverde Pool as an exception to Commission Order No. R-5459.

PROVIDED HOWEVER, that such exclusion and exception shall apply only to such zone or zones producing in said well from within the interval from 3,650 feet to 3,750 feet of depth.

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

-3-Case No. 5993 Order No. R-5512

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

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

SEAL

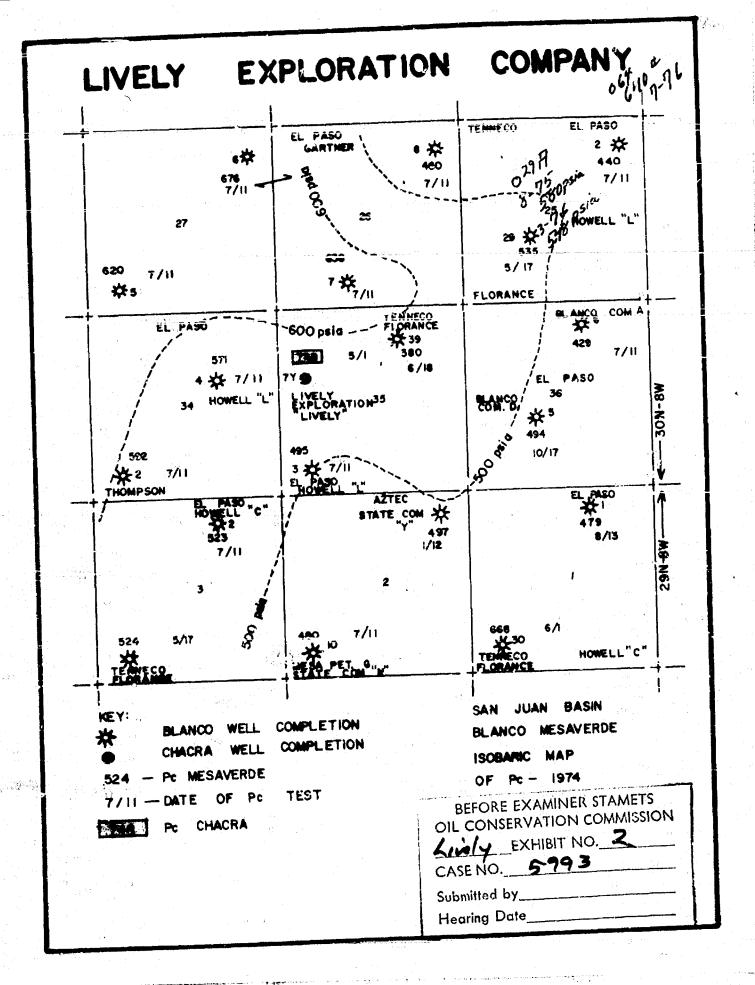
LIVELY EXPLORATION COMPANY 1010 First City National Bank Building HOUSTON, TEXAS 77002

	BEFORE EXAMINER STAMETS
O	L CONSERVATION COMMISSION
	EXHIBIT NO.
	SE NO. 5993
Sel	mitted by
	uring Date

#### WELL DATA AND INFORMATION SHEET

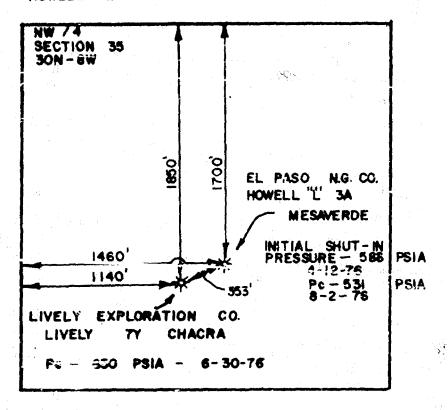
- In an agreement dated February 12, 1974, El Paso Natural Gas
  Company farmed out to Lively Exploration Company the operating
  rights to the interval from 3,650 feet to 3,750 feet of depth
  under the West Half of Section 35, T30N, R8W, NMPM in San Juan
  County, New Mexico.
- 2. A designation of operator, Form NM 121, dated April 3, 1974 was filed with the Bureau of Land Management in which El Paso Natural Cas Company designated Lively Exploration Company as operator of the interval from 3,650 feet to 3,750 feet of depth in the Northwest Quarter of Section 35, T30N, R8W, San Juan County, New Mexico.
- 3. Lively Exploration Company received approvals from the New Mexico Oil Conservation Commission and the United States Geological Survey to complete the Lively Well Me.7Y in the undesignated Chacra Sand through perforations from 3,685 feet to 3,700 feet of depth. The monetary investment was made in good faith and the Chacra Sand was completed as a gas producer on April 20, 1974 with date of open flow potential test taken on April 30, 1974.
- 4. Order No. MC2109 of the New Mexico Oil Conservation Commission was issued May 28, 1974 approving the undesignated Chacra Sand completion in the Lively Well No. 7Y. First delivery of gas into the pipeline was made on June 7, 1974.
- 5. New Mexico Oil Conservation Commission Order No. R-5339 effective January 25, 1977 placed the Lively Well No. 7Y in the Navajo City Chacra Gas Pool.
- 6. In 1976, El Paso Natural Gas Company, under valid permits received from the New Mexico Oil Conservation Commission and the United States Geological Survey, drilled and completed the Howell "L" 3A, located in the Northwest Quarter of Section 35, T30N, R8W, San Juan County, New Mexico, in the Blanco Mesaverde Pool.

- 7. The El Paso Natural Gas Company Howell "L" 3A, Blanco Mesaverde completion, and the Lively Exploration Company, Chacra completion, are both located in the Northwest Quarter of Section 35, T30N, R8W, San Juan County, New Mexico.
- 8. New Mexico Oil Conservation Commission Order No. 5459 dated
  June 14, 1977 and effective August 1, 1977 will reclassify the
  Lively Well No. 7Y into the Blanco Mesaverde Pool, thus establishing three Blanco Mesaverde wells in the West Half of
  Section 35, T30N, R8W, San Juan County, New Mexico. The third
  well being the El Paso Natural Gas Company Howell "L" No. 3
  located in the Southwest Quarter of Section 35.
- 9. The ownership of the Lively Well No. 7Y is different from the ownership of the Howell "L" Well Nos. 3 and 3A.
- 10. Lively Exploration Company and El Paso Natural Gas Company have both proceeded in good faith and with all the required permits from the State of New Mexico and the United States Geological Survey in developing the Lively Well No. 7Y, and the Howell "L" Well Nos. 3 and 3A.
- 11. In order to prevent waste and protect correlative rights it is requested that the Chacra Sand completion in the Lively Exploration Company Lively Well No. 7% receive an exception to New Mexico Oil and Gas Commission Order No. R5459 insofar as said order applies to the Northwest Quarter of Section 35, T30N, R8W, San Juan County, New Mexico.



## LIVELY EXPLORATION COMPANY

COMPARATIVE SHUT-IN SURFACE PRESSURE OF THE CHACRA FORMATION IN THE LIVELY THE EL PASO NATURAL GAS CO. HOWELL "L" 3A.



#### CUMULATIVE PRODUCTION:

HOWELL PRODUCTION AS OF

1,283,778 MCF PRODUCTION LIVELY 7 Y AS OF 6-30-76

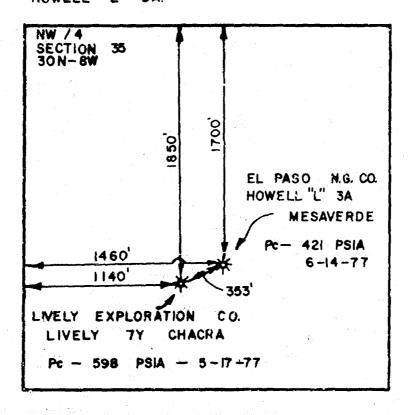
> BEFORE EXAMINER STAMETS QIL CONSERVATION COMMISSION Lively EXHIBIT NO. 3

CASE NO. 5793

Submitted by\_

## LIVELY EXPLORATION COMPANY

COMPARATIVE SHUT-IN SURFACE PRESSURE OF THE CHACRA FORMATION IN THE LIVELY TY & THE EL PASO NATURAL GAS CO. HOWELL "L" 3A.



CUMULATIVE PRODUCTION:

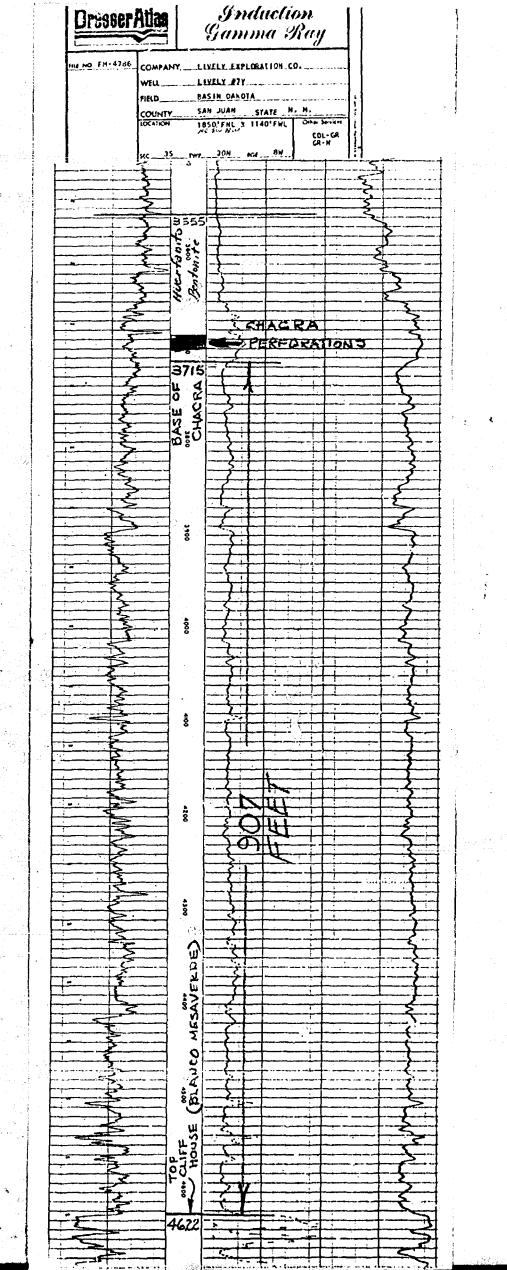
HOWELL "L" 3A - 5-31-77 391,207 MCF

LIVELY 7Y 5-31-77 1,911,931 MCF

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
AND EXHIBIT NO. 4
CASE NO. 5-993
Submitted by

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Hearing D



- Application of Continental Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Marshall Well No. 8 to be located 2600 feet from the South line and 1230 feet from the West line of Section 19, Township 23 South, Range 33 East, Cruz-Delaware Pool, Lea County, New Mexico.
- CASE 5990: Application of Continental Oil Company for an unorthodox location, Rio Arriba County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the unorthodox location of its AXI Apache
  "D" Well No. 5 to be located 2310 feet from the North line and 990 feet from the West line of
  Section 19, Township 24 North, Range 4 West, Ballard-Pictured Cliffs Pool, Rio Arriba County,
  New Mexico.
- CASE 5991: Application of Continental Oil Company for capacity allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a capacity allowable for its Pearl "B" Well No. 4 located 330 feet from the South line and 2310 feet from the West line of Section 25, Township 17 South, Range 32 East, Maljamar Grayburg-San Andres Pool, Lea County, New Mexico.
- Application of Burleson & Huff for compulsory pooling and a non-standard unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order proving all mineral interests underlying the SE/4 NW/4 of Section 14, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to form a non-standard 40-acre gas propation unit to be dedicated to applicant's Cooper Well No. 1 located in Unit F of said Section 14, or in the alternative to drill another well at a standard location thereon. Also to be considered will be the cost of recompletion or of drilling and completing the unit 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 recompleting or drilling said well.
- CASE 5993: Application of Lively Exploration Company for an exception to the provisions of Order No. R-5457, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the provisions of Order No. R-5459 to exclude its Chacra Well No. 7Y in Unit E of Section 35, Township 30 North, Range 8 West, San Juan County, New Mexico, from the vertical limits of the Elanco-Mesaverde Pool as defined by said order.
- CASE 5994:

  Application of Tenneco Oil Company for an exception to the provisions of Order No. R-5459,
  San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the
  provisions of Order No. R-5459 to exclude its Florance Well No. 29-A in Unit F of Section 25,
  and its Northeast Blanco Unit Well No. 64 in Unit P of Section 24, both in Township 30 North,
  Range 8 West, San Juan County, New Mexico, from the vertical limits of the Blanco-Mesaverde Pool.
- Application of Tenneco Oil Company for dual completions and waterflood expansions, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its South Hospah-Upper Sand and -Lower Sand Waterflood Projects by dually completing its Hospah Unit Wells Nos. 58 and 59, located in Units F and G, respectively, of Section 12, Township 17 North, Range 9 West, McKinley County, New Mexico, in such a manner as to permit water injection into each of said zones thru parallel strings of tubing.
- CASE 5996: Application of Petroleum Corporation of Texas for salt water disposal, Eddy County, New Mexico.

  Applicant, in the above-styled cause, seeks authority to dispose of produced salt unter into the Abo formation through the perforated interval from 6852 feet to 6877 feet in its Dexter Federal Well No. 3 located in Unit I of Section 22, Township 17 South, Range 30 Fast, Jackson Abo Pool, Eddy County, New Mexico.
- CASE 5997: Application of Atlantic Richfield Company for a unit agreement, Lea County. New Mexico.

  Applicant, in the above-styled cause, seeks approval for its East Drinkard Unit Area comprising 3080 acres, more or less, of Federal and fee lands in Sections 11, 12, 13, 14, 23 and 24, Township 21 South, Range 37 East, Lea County, New Mexico.
- CASE 5998: Application of Atlantic Richfield Company for a waterflood project, Lea County, New Mexico.

  Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its East Drinkard Unit Area, Lea County, New Mexico, by the injection of water into the Drinkard formation through 30 wells.
- CASE 5999: Application of Atlantic Richfield Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its East Blinebry Unit Area comprising 3080 acres, more or less, of Federal and fee lands in Sections 11, 12, 13, 14, 23, and 24, Township 21 South, Range 37 East, Lea County, New Mexico.
- Application of Atlantic Richfield Company for a waterflood project, Lea County, New Moxico.

  Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its
  East Blinebry Unit Area, Lea County, New Mexico, by the injection of water into the Dlinebry
  formation through 38 wells.

Dockets Nos. 25-77 and 26-77 are tentatively set for hearing on August 3 and August 17, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

#### DOCKET: EXAMINER HEARING - WELNESDAY - JULY 20, 1977

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

The following cases will be heard before Richard L. Stamets, Examiner, or Danie, S. Mutter, Alternate examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for August, 1977, from fifteen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.
  - (2) Consideration of the allowable production of gas for August, 1977, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.
- CASE 5982: Application of Sam H. Snoddy for directional drilling and non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause seeks approval for the directional drilling of two 14,000-foot Morrow gas wells in Unit P of Section 25, Township 20 South, Range 32 East, South Sait Lake-Morrow Gas Fool, Lea County, New Mexico, one of which would be vertically drilled to a depth of 4000 feet from a surface location 660 feet from the South line and 760 feet from the East line of said Section 25, then directionally drilled in a North-Northwesterly direction and bottomed in the approximate center of the NE/4 of said Section 25, the N/2 of the section being dedicated to the well; the other well would be vertically drilled to a depth of 4000 feet from a surface location 760 feet from the South line and 660 feet from the East line of said Section 25, then directionally drilled in a West-Northwesterly direction and bottomed in the approximate center of the SW/4 of said Section 25, which would be a 160-acre non-standard unit for said well.
- Application of Yates Petroleum Corporation for the amendment of Order No. R-5445, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5445 to provide for a 200 percent risk factor for drilling the unit well rather than 20 percent. Caid order pooled the N/2 of Section 19, Township 20 South, Range 25 Fast, Eddy County, New Mexico.
- CASE 5984: Application of Morris R. Antweil for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling 11 mineral interests in and underlying the N/2 of Section 20, Township 18 South, Range 25 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. 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.
- CASE 5985: Application of Orla Petco, Inc., for an unorthodox gas well location, Eddy County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the unorthodox location of its B. K.

  Morrison Well No. 1 to be located 1980 feet from the South line and 660 feet from the West line
  of Section 5, Township 19 South, Range 26 East, Eddy County, New Mexico, the S/2 of said Section
  5 to be dedicated to the well.
- CASE 5986: Application of J. Gregory Merrion for downhole commingling, Rio Arriba County, New Mexico.

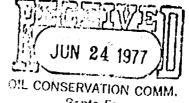
  Applicant, in the above-styled cause, seeks approval for the downhole commingling of Devils
  Fork-Gallup and Mesaverde production in the wellbore of his Edna Well No. 2 located in Unit O
  of Section 7, Township 24 North, Range 6 West, Ric Arriba County, New Mexico.
- Application of Getty Oil Company for downhole commingling, Rio Arriba County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the downhole commingling of Gallup,
  Mesaverde, and Dakota production in the wellbore of its C. W. Roberts Well No. 5, located in
  Unit F of Section 17, Township 25 North, Range 3 West, Rio Arriba County, New Mexico. Applicant
  also seeks approval for the reopening of its C. W. Roberts Wells Nos. 3 and 4 and its Lydia
  Rentz Well No. 4 to commingle Dakota, Mesaverde, and possibly Gallup production within the
  wellbores of the above-described wells located in Units O, M, and A of Sections 18, 17, and 19,
  respectively, of the same township.
- Application of Continental Oil Company for three unorthodox locations, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 2-A of the Blanco-Mesaverde Gas Pool Rules, to permit the drilling of its AXI Apache "N" Wells Nos. 12 and 14 in the NW/4 of Sections 11 and 1, respectively, and its AXI Apache "O" Well No. 10 in the SE/4 of Section 3, all in Township 25 North, Range 4 West, Rio Arriba County, New Mexico. Each of said wells is the first Mesaverde well on its proration unit.

KELLAHIN AND FOX ATTORNEYS AT LAW BOO DON GASPAR AVENUE POST OFFICE BOX 1786 SANTA FE, NEW MEXICO 87501

JASON W. KELLAHIN ROBERT E. POX W. THOMAS KELLAHIN

June 22, 1977



Santa Fe

TELEPHONE 982-4315 AREA CODE 505

Care 5993

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Re: Lively Exploration
Blanco-Mesa Verde Pool

Gentlemen:

On behalf of Lively Exploration Company, please set the enclosed application for hearing on July 20, 1977.

The application seeks an exception to NMOCC Order No. R-5459.

Very truly purs,

W. Thomas Kellahin

CC: Mr. Vince Shryack Lively Exploration Company

WTK: kfm

Enclosure



#### BEFORE THE

#### OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF LIVELY EXPLORATION COMPANY FOR AN EXCEPTION OF COMMISSION ORDER NO. R-5459, VERTICAL LIMITED OF THE BLANCO-MESAVERDE POOL, RIO ARRIBA AND SAN JUAN COUNTIES, NEW MEXICO

#### APPLICATION

COMES now the Applicant by and through its Attorneys,
Kellahin & Fox, and applies to the New Mexico Oil Conservation
Commission for an Exception to Commission Order No. R-5459
insofar as said order applies the NW/4 of Section 35, Township
30 North, Range 8 West, NMPM, and in support thereof would
show:

- 1. That Lively Exploration Company is the operator of the Number 7Y Chacra well located in Unit E of Section 35, T36N, R8W, NMPM.
- 2. That said well was completed in the Chacra formation on April 20, 197 with the top of the perforated interval at 3,685 feet.
- 3. That this was the discovery well for the Navajo City-Chacra Pool established by NMOCC Order No. R-5339.
- 4. That the subject well is not producing from the Cliff House of any other Mesaverde sands and therefore should be excluded from the provision of Order No. R-5459.
- 5. Approval of the application will not impair correlative rights and will prevent waste.

WHEREFORE Applicant respectfully requests that this application be set for hearing before the Commission's duly appointed Examiner and that upon hearing, an order be entered granting an exception as requested.

LIVELY EXPLORATION COMPANY

Kellahin & For P. O. Box 1769 Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

dr/

## BEFORE THE CIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

CASE	NO.	5993

Order No. R- 55/2

THE APPLICATION OF LIVELY EXPLORATION COMPANY FOR AN EXCEPTION TO THE PROVISIONS OF ORDER NO. R-5459, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION (

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#### BY THE COMMISSION:

Thi cause came on for hearing at 9 a.m. on July 20 ,

NOW, on this day of August , 1977 , the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That by its Order No. R-5459, the Commission redefined the vertical limits of the Blanco-Mesaverde Pool, Rio Arriba and San Juan Counties, New Mexico.
- "Chacra" equivalent fractured shales or siltstone zones within the vertical limits of said pool within the approximately Northeastern half of said pool with and East of a time Certain line theversing the peal.

- "(17) That there are 4 wells North and East of
  the line defined in Finding No. 15 above and Exhibit A which
  may be producing from fractured shale or siltstone
  zones equivalent to said Chacra sands and which may
  or may not be connected to other producing zones
  in said Blanco-Mesaverde Pool." and
- "(18) That to protect the correlative rights of the owners of said four wells, the effective date of any redefinition of the vertical limits of said Blanco-Mesaverde Pool should be delayed to provide such owners with the opportunity to bring a case for an exception before the Commission."
- operator of one of the wells referenced in Findings Nos. (17) of said Order No. 5459 being its Chacra Well No. 7Y located in Unit E of Section 35, Township 30 North, Range 8 West, San Juan County, New Mexico.
- (6) That the applicant seeks an exception from the vertical limits of said Blanco Mesaverde Pool for said Chacra Well No. 74
- (7) That said Chacra Well No. 7Y was completed as a gas producer on April 20, 1974, through "Chacra" perforations from 3,685 feet to 3,700 feet.
- (8) That said Chacra Well No. 7Y first delivered gas into the pipeline on June 7, 1974.
- (9) That on April 12, 1976, El Paso Natural Gas Company completed its Howell L Well No. 3A as an infill well in said Blanco-Mesaverde Pool through perforations from 4,564 feet to 5,435 feet on the same quarter section with said Chacra Well No. 7Y.

- (10) That there are differences in ownership between said Chacra Well No. 7Y and said Howell L Well No. 3A.
- (11) That the applicant only has operating rights to the interval from 3,650 feet to 3,750 feet of depth in the NW/4 of said Section 35.
- (12) That there was no testimony in opposition to said application.
- (13) That approval of said application will not result in waste nor violate correlative rights.
  - (14) That the application should be approved.

#### IT IS THEREFORE ORDERED:

- (1) That effective August 1, 1977, the Lively Exploration Company Chacra Well No. 7Y located in Unit E of Section 35,

  Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico, is hereby exempted from the provisions of Commission Order No. P. 5455 and such well is excluded from the Blanco-Mesaverde Poolas an exception to Commission Order NO. R-5457.

  PROVIDED HOWEVER, that such exception and exclusion shall
- apply only to such zone or zones producing in said well from within the interval from 3,650 feet to 3,750 feet of depth.
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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