CASE 6065: ODESSA NATURAL CORP. FOR A SPECIAL WELL CLASSIFICATION, RIO ARRIBA COUNTY, NEW MEXICO

# ase Number

6065

Application

Transcripts.

Small Exhibits

PETROLEUM ENGINEERING RESERVOIR STUDIES EVALUATIONS GEOLOGICAL STUDIES LEASE MANAGEMENT CONTRACT PUMPING DRILLING SUPERVISION WORKOVER SUPERVISION

#### WALSH ENGINEERING & PRODUCTION CORP. Ewell N. Walsh, P. E., President

EXECUTIVE BLDG. - 413 W. MAIN
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FARMINGTON, NEW MEXICO 87401

TELEPHONE 325-8203

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NEW MEXICO OIL CONS Santa Fe,	RE THE SERVATION COMMISSION New Mexico Der, 1977	
EXAMINE	R HEARING	
IN THE MATTER OF:		- } }
Application of Odessa for a special well cla Arriba County, New Mex	assification, Rio	
BEFORE: Richard L. Stamets	•	
TRANSCRIPT	F OF HEARING	
<u>A P P E A</u>	RANCES	
For the New Mexico Oil Conservation Commission:	Lynn Teschendorf, Legal Counsel for State Land Office Santa Fe, New Mex	the Commission Building
For the Applicant:	Gary R. Kilpatric, MONTGOMERY, ANDREW Paseo de Peralta	S & HANNAHS

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## EWELL N. WALSH

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MR. STAMETS: Call next Case 6065.

MS. TESCHENDORF: Case 6065. Application of Odessa Natural Corporation for a special well classification, Rio Arriba County, New Mexico.

MR. STAMETS: Call for appearances in this case. MR. KILPATRIC: Yes, I'm Gary Kilpatric from the law firm of Montgomery, Andrews and Hannahs, Santa Fe, New Mexico, representing the applicant. We have one witness, Mr. Walsh.

(Witness sworn.)

#### EWELL N. WALSH

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

#### DIRECT EXAMINATION

BY MR. KILPATRIC:

Will you please state your name, your address, your occupation, and your relationship to the applicant in this case for the record?

My name is Ewell N. Walsh. I'm president of Walsh Engine and Production Corporation, Farmington, New Mexico. I'm acting as consultant to the client -- to the Odessa Natural Corporation.

Q. Have you previously testified before the Commission?

- A. Yes, I have.
- Q Have your qualifications as a petroleum engineer been accepted by this Commission?
  - A. They have.
- Q Would you briefly state what you are seeking in this case?

MR. KILPATRIC: Please, Mr. Examiner, have the witness' qualifications been accepted and are they satisfactory?

MR. STAMETS: They are.

MR. KILPATRIC: Thank you.

A. We are seeking classification of the Odessa Natural Corporation ARCO-Little Federal Number 1 Well, located in Unit D, Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, as a gas well rather than an oil well under the definition of oil and gas wells as set forth in the Special Rules for the Chacon-Dakota Associated Oil Pool.

We are requesting an exception to such rules which define an oil well as any well with a GOR of less than 30,000 standard cubic feet of gas to one barrel of oil, and a gas well as any well with a GOR of 30,000 or more cubic -- 30,000-to-l or more.

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We will show through that oil well initially the GOR of the ARCO-Little Federal No. 1 Well was only 4,190-to-1, and our experience in this pool shows that this will soon be increased to more than 30,000-to-1.

Although the ARCO-Little Federal No. 1 Well has not yet officially been classified as being in the Chacon-Dakota Associated Oil Pool, we believe that it should and will soon be so classified. In fact, an application to so be classified will be heard at this hearing.

- Q. Will you delineate the history of the well for the Examiner?
- The ARCO-Little Federal No. 1 was spudded by A. Odessa Natural Corporation on June 7th of 1977. 4-1/2 inch casing -- production casing was run to a depth of 2688 feet on July 10th, 1977.

The well was perforated and sand and water fracted in two intervals of the Dakota Formation and was completed on July 28th, 1977.

- Referring to what has been marked Exhibit Number 1, a map, could you explain this to the Commission, please?
- This is a map, basically of Township 23 North, Range 3 West, and the surrounding town -- sections.

On this map, as indicated by the solid circles or dots, are the wells that are currently producing or are completed preparing to be produced in the area the Chacon-Dakota

Associated Oil Pool. Also the circles which are not closed in are locations for proposed wells in this area.

The subject well of this hearing, the ARCO-Little Federal No. 1 is indicated on the map by the arrow in the northwest quarter of Section 32, Township 24 North, Range 3 West.

Also on the map, in the small dashed line, is the current horizontal limits of the pool.

The heavy dashed line is the proposed horizontal limits for the pool. There is a drafting error. The southwest quarter of Section 4, Township 23 North, Range 4 West should have been included within that parameter.

Q Do you concur in the proposed extension of the Chacon-Dakota Associated Pool?

A. Yes, I do. The ARCO-Little Federal is completed in the same geological horizons as the majority -- all the wells within the majority of the pool.

Q. Referring to what has been marked as Exhibit Number 2, would you explain that?

A. Exhibit Number 2 is a plot or curve of the monthly gas/oil ratios as determined from the monthly oil and monthly gas production. On this you will note that the GOR are on the vertical side of the scale. These numbers, 10, 20, 30, are actually 10,000, 20,000, and 30,000.

The heavy line at the 30,000 GOR indicates the

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breakover GOR below which a well is classified an oil well; above which the well is classified as a gas well under the pool rules.

The -- horizontally you have indicated there months.

These are months starting with the first month of production

after the well was tied in to the pipeline.

All of these wells were not -- were only produced for a very short period of time to clean up and obtain initial potential tests and then they were shut in until a pipeline connection could be made to actually sell gas rather than vent jt.

On the Exhibit 2, which is of the Odessa Natural Corporation Chacon Jicarilla "D" No. 1, this well is located on the map in the southwest and the southeast quarter of Section 15, Township 23 North, Range 3 West. This was the second well drilled in the field.

You may note there on the curve that this wasn't field logged during the first month of sustained production. It was almost 8000-to-1. This GOR increased to a point where in five months it had a GOR of almost 47,000-to-1, and then there are variations continuing across there. Some of them are what you call normal variations in a well's producing capacity; some of them, the lower GOR's have been affected by higher line pressures, which the well had to produce against in the area.

You may note that at the end we had the well shutin for bottom hole pressure survey, and this well was shut-in for, oh, some forty or forty-five days.

Then after the well was brought on production again during that first month the GOR was some 60,000-to-1.

- Q Referring to what has been marked as Exhibit 3, can you explain that to the Examiner?
- A. Exhibit 3 is also a GOR curve of the Odessa Natural.

  Corporation Chacon Jicarilla "D" No. 2, which is located in
  the northeast of the southeast quarter of Section 16, Township

  23 North, Range 3 West.

For your information this was the third well that we drilled in the field.

Again the graphs are the same. On this well, for this well the initial GOR for the first month, as you can see, is some 10,000-to-1. It increased the second month to above 30,000-to-1. It dipped and it did come down below. We made some adjustments in our producing type -- the way we were producing the well. We lowered the GOR but it did overcome this, even, and continued to come back up above 30,000-to-1, and stayed at this point.

Again, where it comes down toward the end of the curve below 30,000-to-1, again, this is basically due to higher line pressure, and at the current time this well is still shut-in on bottom hole pressure survey and has been

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shut-in some forty, forty-five days, and we plan to leave it another twenty-six.

- Q Referring to what has been marked Exhibit Number
  4, would you explain that, please?
- A. Our Exhibit 4 is a GOR curve for the Dave M. Thomas

  Jr. Chacon Jicarilla Apache "D" No. 3. This well is located

  in the northwest quarter of the northwest quarter of Section

  15, Township 23 North, Range 3 West.

Again I would like to point out here that your initial GOR for the first month was over -- just over 8000-to-1. This gradually did increase to a high point of almost 47,000-to-1 and then there was a drop again due to high line pressure in the area.

In this, however, in this well, with the information I'm getting from the field, the GOR is coming back up and is over 30,000-to-1 at this time.

- Q. Referring to what has been marked as Exhibit Number 5, would you explain that, please?
- A. Exhibit Number 5 is also a GOR curve of the Dave

  M. Thomas Jr. Chacon Jicarilla Apache "D" No. 5, located in
  the northeast quarter of the northwest quarter of Section 16,

  Township 23 North, Range 3 West.

This well has not been on production as long as some of the other wells. The initial month GOR was some 7500-to-1. It was increasing, was increased to above 30,000-to-1

in six months. Then the seventh month it dropped back, but I would call this kind of a variation in production.

Again, this well is -- the GOR is, from field data, coming above -- going above 30,000-to-1.

- Q Referring to what has been marked as Exhibit 6, will you explain that, please?
- A. Exhibit 6 is a GOR curve of the Odessa Natural Corporation Chacon Jicarilla "D" No. 8, located in the northeast quarter of the northwest quarter of Section 9, Township 23 North, Range 3 West.

This well also hasn't been producing as long as the others; however, you may note that starting with the initial GOR from 17,500-to-1, the GOR went over -- up to and over the 30,000 line in five months. Again, this well was shut-in for a bottom hole pressure survey of some thirty days. The well was put back on production and you may note at the last part of the curve there how the GOR is rapidly increasing and is now currently, from field data, above 30,000-to-1.

- Q. Why did you select the wells that are delineated on Exhibits 2 through 6 for study?
- A. I selected these wells because they were the closes wells to the subject well in this hearing that had sufficient production history to show how the GOR's were increasing with time in the field and area.
  - Q. What do the GOR curves that are shown on Exhibits

2 through 6 indicate to you? If anything?

A. They indicate to me that for this field area in general, that as the wells are produced their GOR's are basically increasing and will increase above 30,000-to-1 and be classified as gas wells under the Special Pool Rules.

Q Referring to what has been marked as Exhibit Number
7 would you explain that, please?

A. Exhibit 7 is the New Mexico Oil Conservation Commission's Gas/Oil Ratio Report Form C-116 which was filed with the Commission concerning the initial potential test of the ARCO-Little Federal No. 1.

This initial potential test was obtained after flowing the well approximately six days, allowing it to clean up, in other words produce the fract water; however, we did not continue the test any longer because it is simply a waste of gas at the rate of over a million a day; that's considerable money, plus just a waste of energy, and at that time the well was shut-in and at this time remains shut-in waiting on a pipeline connection, which is some two months later; we hope we'll have it on the line.

On this Form C-116, in addition to the normal information for the well, you'll note that we potentialed for 272 barrels of oil per day, 1,140 MCF of gas per day, giving the well a GOR of 4,190-to-1.

O. In your opinion is there anything significantly

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- A. No, I don't see anything real significant difference.
- Q How many wells have you supervised drilling and completion of in this area of the pool area?
  - A Twenty-two.
- How many wells have been drilled and completed in
  the area of the pool since the discovery well?
  - A. Twenty-seven.
- Q Have you seen anything recently that would indicate to you that future wells completed in this pool might be classified as gas wells rather than oil wells?
- A. Yes. Odessa Natural Corporation's present drilling program is drilling what they call the Jicarilla Joint Venture "KD" Lease, which is in Section 3, 4, and 10 of Township 23 North, Range 3 West.

We have -- Odessa Natural has drilled wells No. 1, as indicated in the southwest quarter of Section 4; No. 2 in the northwest quarter of Section 10; No. 3 in the northwest quarter of Section 3, and just the last three days ran production casing on No. 4, which is located in the northwest quarter of Section 4.

Jicarilla Joint Venture "KD" 1, and 2 have been

completed and have been flowed to clean-up and a production -or an initial potential test conducted. The wells are currently shut-in. Well No. 3 is completed. Tank battery equipment is presently being installed and should -- we should
commence the clean-up and production test, oh, today or tomorrow.

Before the Joint -- Jicarilla Joint Venture "KD" No. 1, located in the southeast quarter of Section 4, the initial potential for this well was 120 barrels of oil per day, 1,400 MCF gas per day, with a GOR of 11,670-to-1.

For the Jicarilla Joint Venture "KD" No. 2, located in the northwest quarter of Section 10, the initial potential of 88 barrels of oil per day, gas was 1,020 MCF per day; a GOR of 11,590-to-1.

By virtue of these two initial potential tests, it indicates to me as this field develops to the north, that we are going to run into higher -- into wells -- have wells that will have a high GOR initially and probably a very short time.

- Q In your opinion will the ARCO-Little Federal No.

  1 Well eventually be classified as a gas well rather than as
  an oil well?
  - A. In my opinion, yes, it will.
- Q. If this application is approved, what period of time would you recommend be included in an order as a period

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of time to observe production from the ARCO-Little Federal
No. 1 Well to determine when the GOR exceeds the 30,000-to-1
ratio?

- A. I would recommend one year.
- Q. In your opinion, Mr. Walsh, will the approval of this application be in the best interests of conservation, prevention of waste, and the protection of correlative rights?
  - A. Yes.
- Q Were these exhibits 1 through 7 prepared by you or under your direction?
  - A. Yes, they were.

MR. KILPATRIC: We request that the exhibits be accepted into evidence.

MR. STAMETS: Exhibits 1 through 7 will be admitted.

MR. KILPATRIC: We have no more direct testimony and the witness is available for cross examination.

We do have one statement to be submitted. It's a statement from Dave M. Thomas, Junior supporting the pool request, and I believe the Commission may also receive a statement from Atlantic Richfield by telegram supporting the request.

#### CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Walsh, why does Odessa desire this approval of this application?

A. To enable to produce a well essentially at a good producing rate not detrimental to the reservoir and to determine for this area around -- well, where the subject well is, that this GOR is going to increase.

The increasing of the GOR in that manner may bring the thought of the type of development to be for this area; if it does increase at a high gas rate volume the wells probably would be developed on essentially 320 acres; therefore, by being able to conduct this test early in the life -- have this type allowable early in the life of the well, we're trying to essentially prevent economic waste by drilling an unnecessary well and ecological waste by disruption of more territory.

- Q. Ecological waste, I like that.
- A. I had to throw that in.
- Q To see if I understand this correctly, what you're proposing is that it would be classified as a gas well and have 320-acres dedicated to it thereby precluding the drilling of a second oil well on the other end of the 320.
  - A. That's essentially, yes.
- Q. Okay. Now, you asked for a period of one year for this classification. Looking at your Exhibits Number 2 through 6, it would appear to me that in almost every case the GOR

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increased within a period of six months to a level sufficient to cause the well to be classified as a gas well.

A. One of the reasons for a year, this well will be tied in to the gathering pipeline. It will go into a completely different gathering system of El Paso Natural Gas Company than the wells in the major portion of the field.

We, at the present time, I know the line pressure is similar in this area but I would hate -- wouldn't want the well to produce under adverse conditions that may prevent the actual production bringing it -- it would cause this GOR to increase. In other words, under different conditions down here in the pool area.

- Q You expect higher line pressures?
- A. I am expecting because of increased flow into a pipeline and other development on the part of some other operators, I would expect a line pressure up there to possibly be higher than down in the main pool area.
- Q Okay, now if I understood your testimony correctly, when line pressures are higher gas production decreases and gas/oil ratio decreases.
  - A. That is as indicated, yes.
- Q Now, does this indicate to you that more oil will be recovered at lower rates of production in these wells?
- A. No, there's a change on a day-to-day basis, you're talking about?

Q I'm talking about ultimate recovery. It seems to me that if the GOR decreases, that means you're producing more liquids per MCF of gas, and in the long run you will produce more liquids and surely get the gas.

A lagrac with you to a point. I believe there is a matter, though, in which you'll recall efficiently producing the reservoir.

This reservoir is a very tight reservoir and it takes stimulation to get your production.

To cut back completely, say, backpressuring, by backpressuring the well, you're decreasing both your gas and oil grade to an extreme level, I don't believe would be efficient producing methods. At the present time I don't see anything detrimental to the reservoir itself based on the present producing methods.

- Q The Commission records should reflect when these various wells went on-stream and what the production, gas/oil ratios and volumes were during the months that you labeled 1 through 21 on these --
- A. Yes, the points there for the GOR curves were from the daily -- utilized from the operators' monthly report, so the data is in the files.
- Q. Do you know offhand when each of these wells went on production?
  - A. The Odessa Natural Jicarilla Chacon "D" 1 was

April of 1976.

The Odessa Natural Corporation Chacon Jicarilla "D" 2, April, 1976.

The Dave Thomas Chacon Jicarilla "D" 3, November of 1976.

The Dave M. Thomas, Jr. Chacon Jicarilla Apache
"D" 5 was February of 1977.

The Odessa Natural Chacon Jicarilla "D" No. 8 was January of 1977.

- Q And I am correct in my assumption that this ARCO-Little Federal has not been placed on production yet, has it?
- A. No, sir, it hasn't. Hopefully, within the next three weeks we will have it on a -- connected to a gathering system and on production.
- Now, under the pool rules for the Chacon-Dakota Associated Pool, if this well was classified as an oil well it would be limited in the amount of oil and gas it could produce to 160-acre allowable.
  - A. That's right.
- Q Are you proposing that even though the well be classified as gas it would be limited to 160-acre allowable until such time as its GOR exceeded that of an oil well in this pool?
- A. No, sir, I would rather see a classification as a gas well under the pool rules right from the beginning.

O Do you have any evidence to indicate that this well could be produced at those rates without waste?

A. We will not have waste insofar as on the surface. Everything will be gathered and sold, and as I stated before, at these rates I don't believe it's detrimental to the reservoir.

Q I think that it goes without necessity of proof that wells operating in conformance with the rules and regulations for a particular pool are being efficiently and economically produced without waste, but when an exception is sought to the pool rules, especially one which would essentially double the allowable, it would seem to me that there should be some evidence then that that particular well can produce at those rates efficiently, economically, and without causing waste or damage to that well and the pool.

A This -- one reason for my statement stating that it should be Classified as a gas well initially, if we go through the standard GOR procedure and all for an oil well, we may end up with a penalized condition as far as oil production there. In actuality, I would expect this well to be produced with a daily gas volume of around 1-million to 1-million laround in that area. I would not recommend it as high as 1-million 7 a day, which would be a gas well allowable; I would not ever do that.

0. If the applicant had his choice of a denial or

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operating on 160-acre oil well, even though classified as a gas well, which would he choose?

160-acre.

MR. STAMETS: Anything -- any other questions of this witness? He may be excused.

Ms. Teschendorf, Mr. Thomas' telegram there, what is the essence of that? Concurrence or disagreement?

MS. TESCHENDORF: Concurrence with Odessa Natural's application. They say that Oil Conservation Commission appro-10 val of the request would be appreciated.

MR. STAMETS: Okay. Anything further in this case?

MR. WALSH: Atlantic is supposed to have sent in 14 a letter or a telegram supporting this application. It should 15 be in the file or received today at some time,

MR. STAMETS: All right, that does not appear to be here but if and when it's received, we will add it to the file.

MR. KILPATRIC: Thank you.

MR. STAMETS: Is there anything further in the case? If there is nothing further, the case will be taken under advisement.

(Hearing concluded.)

#### REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, 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 mc, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Sidney F. Worrish, C.S.R.

I de hereby certify that the foregoing is a comprove result of the productings in the Examiner hearing of Sude Ro. 19.22.

here by no open 19.22.

Examiner New Maxico Oil Conservation Commission



### **OIL CONSERVATION COMMISSION**

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

LAND COMMISSIONER PHIL R. LUCERO



STATE GEOLOGIST **EMERY C. ARNOLD** 

DIRECTOR JOE D. RAMEY

December 27, 1977

Mr. Gary R. Kilpatric Montgomery, Andrews & Hannal P. O. Box 2307 Santa Fe, New Mexico	Re:		6065 R-5601
		Applicant:	
		Odessa Nat	ural Corporation
Dear Sir:			
Enclosed herewith are commission order recent		•	
Yours very truly,  JOE D. RAMEY  Director		·	
JDR/fd			
Copy of order also sen	t to:		
Hobbs OCC x Artesia OCC x Aztec OCC x			

# 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. 6065 Order No. R-5601

APPLICATION OF ODESSA NATURAL CORPORATION FOR A SPECIAL WELL CLASSIFICATION, RIO ARRIBA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 12, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 27th day of December, 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 the applicant, Odessa Natural Corporation, seeks the classification of its ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, as a gas well rather than an oil well, thereby permitting the continued dedication of the W/2 of said Section 32. Said classification would be in exception to the statewide definition of gas wells, or to the Chacon-Dakota Associated Pool definition of gas wells, whichever is applicable.
- (3) That the evidence presented at the hearing demonstrated that said ARCO-Little Fed. Well No. 1 is completed as an extension of said Chacon-Daketa Associated Pool and is therefore subject to the special rules and regulations of said pool.
- (4) That said special rules and regulations define a gas well as one producing with a gas-oil ratio of 30,000 cubic feet of gas or more per barrel of oil.
- (5) That said ARCO-Little Fed. Well No. 1 is currently producing with a gas-oil ratio of less than 30,000 to 1 and is classified as an oil well.

-2-Case No. 6065 Order No. R-5601

- (6) That the production history of wells in said Chacon-Dakota Associated Pool demonstrates that the gas-oil ratio of said ARCO-Little Fed. Well No. 1 may be expected to rapidly rise to a level in excess of 30,000 to 1, causing said well to be reclassified as a gas well.
- (7) That within said pool, oil wells are spaced on 160-acre proration units and gas wells are spaced on 320-acre spacing units.
- (8) That the applicant seeks a special gas well classification for said well in order to dedicate 320 acres thereto until such time as the gas-oil ratio of said well shall increase to a level of 30,000 to 1 or more.
- (9) That such special classification and acreage dedication will prevent the drilling of a second oil well on the undrilled 150-acre tract (the SW/4 of said Section 32) which would be dedicated to said well if it should be classified as a gas well with 320 acres dedicated thereto.
- (10) That said limitation on development could prevent the drilling of an unnecessary well thereby preventing economic waste.
- (11) That the application for special classification of said ARCO-Little Fed. Well No. 1 as a gas well should be approved.
- (12) That the applicant should appear at an Examiner hearing in July, 1978, to show cause why said special well classification should not be rescinded or to request an amendment to the special rules and regulations for the Chacon-Dakota Associated Pool to provide for a period of gas well classification for all new completions therein.
- (13) That during the period of special gas well classification, said ARCO-Little Fed. Well No. 1 should receive an oil and gas allowable based upon a proration unit size of 160 acres.

#### IT IS THEREFORE ORDERED:

- (1) That effective December 1, 1977, the Odessa Natural Corporation ARCO-Little Fed. Well No. 1, located in Unix D of Section 32, Township 24 North, Range 3 West, Chacon-Dakota Associated Pool, Rio Arriba County, New Mexico, is hereby granted a special gas well classification.
- (2) That the W/2 of said Section 32 shall be dedicated to said ARCO-Little Fed. Well No. 1.
- (3) That during the period of special gas well classification, the allowable assigned to said ARCO-Little Fed. Well No. 1 shall be based upon a proration unit size of 160 acres.

-3-Case No. 6065 Order No. R-5601

- (4) That this case shall be reopened at an Examiner hearing during July, 1978, at which time the applicant shall appear to show cause why the special gas well classification granted by this order should not be rescinded or to propose an amendment to the special rules and regulations for said Chacon-Dakota Associated Pool to provide for a period of special gas well classification for all new wells completed therein.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

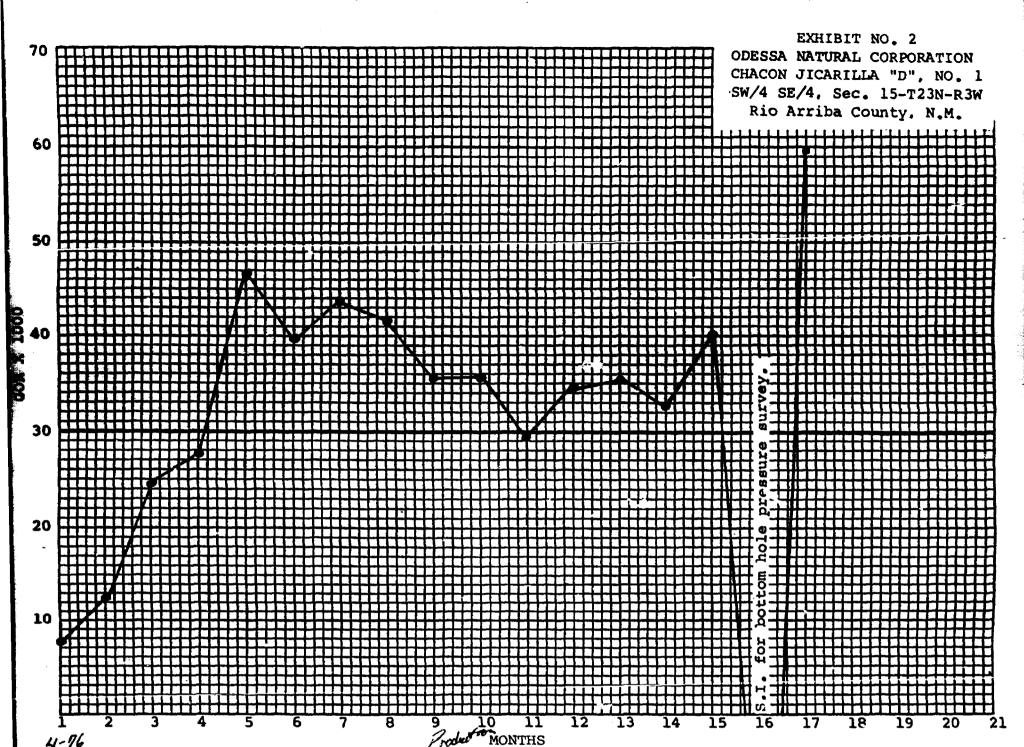
STATE OF NEW MEXICO
OII: CONSERVATION COMMISSION

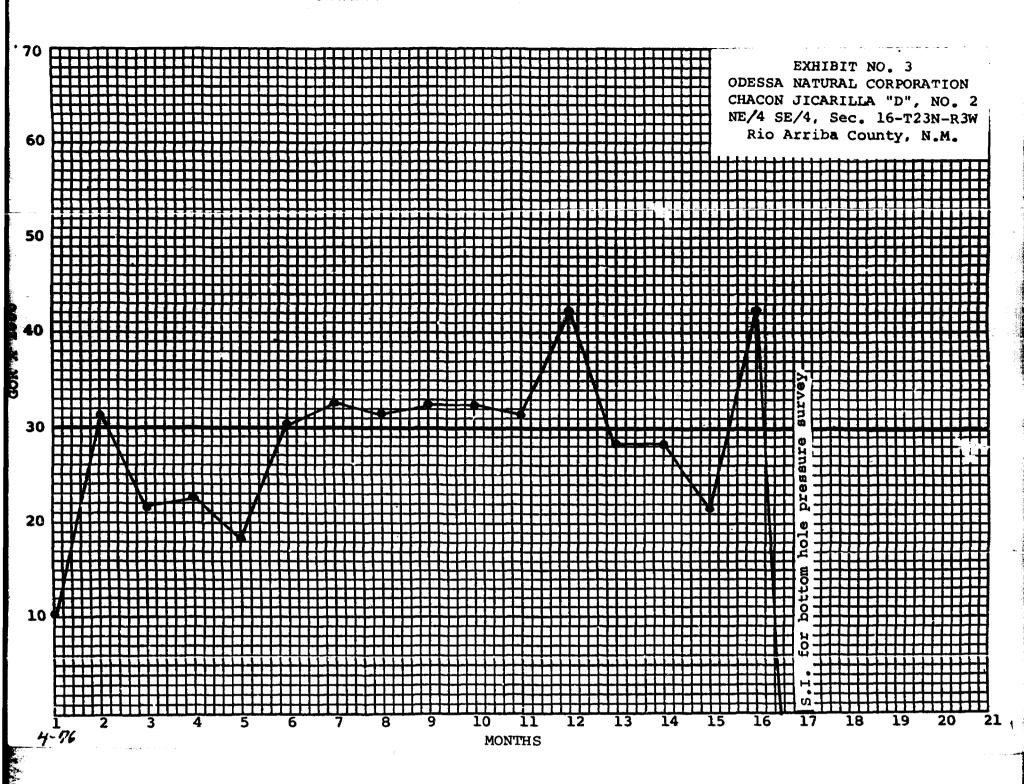
PHIL R. LUCERO, Chairman

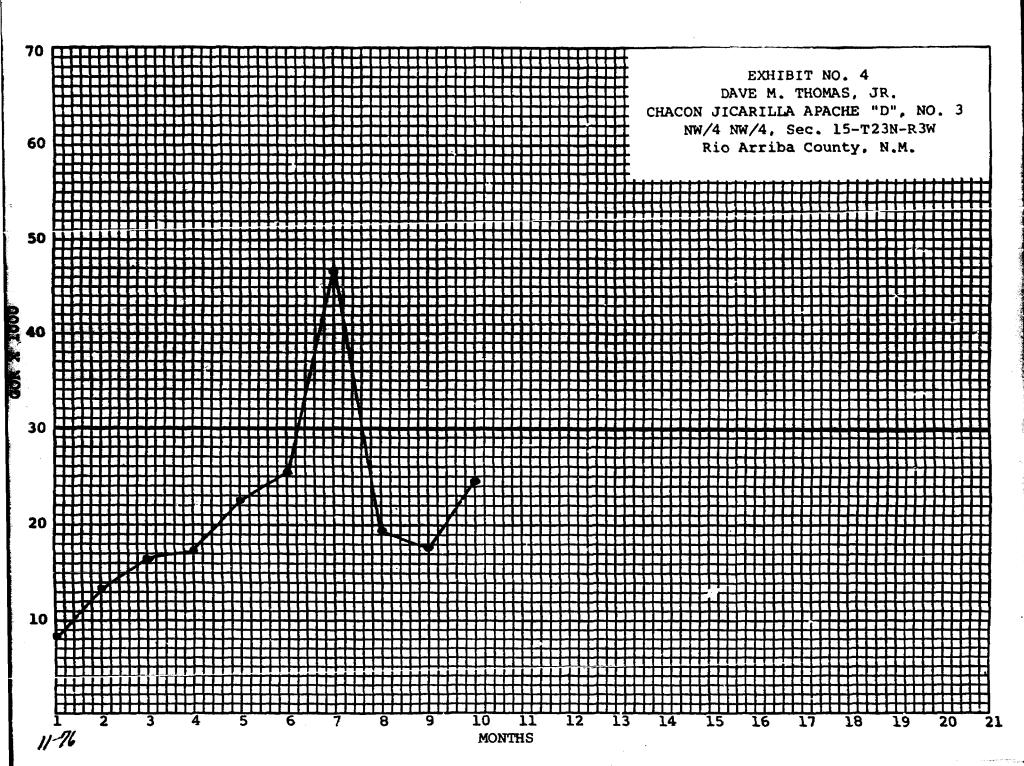
RMERY C. ARNOLD, Member

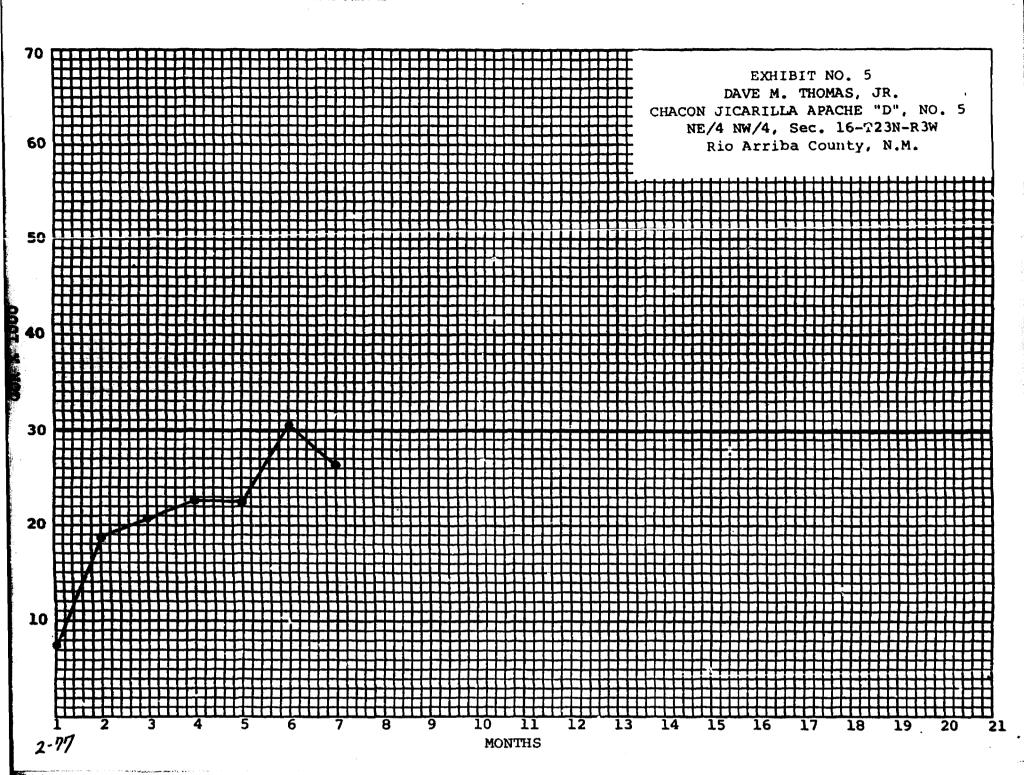
JOE D. RAMEY, Member & Secretary

SEAL

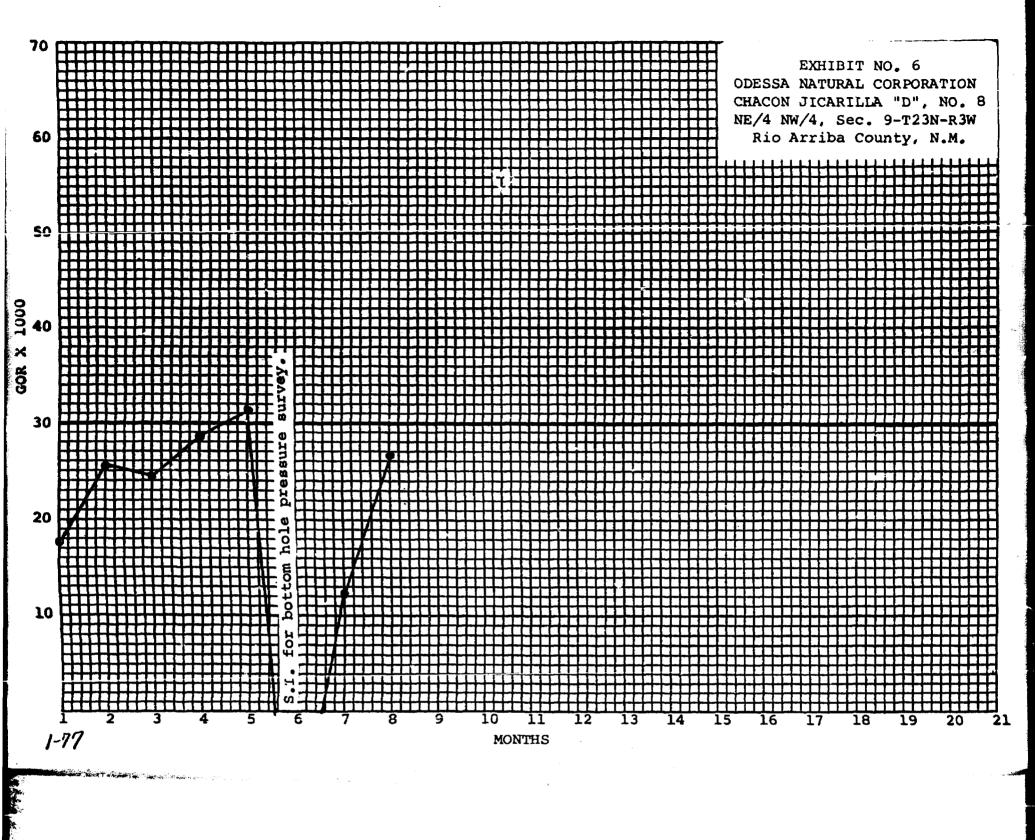








MARE IN NA.A.



#### NEW MEXICO OIL CONSERVATION COMMISSION GAS-OIL RATIO TESTS

C-116 Revised I-1-FS

Odessa Natural Corp Mires	ol Extens	TYPE OF			eduled	I	Rio Arriba Initial Potential X				Special					
LEASE NAME	WELL NO,		LOC	ATION		DATE OF TEST	BTATUS	CHOKE	TBG. PRESS.	DAILY ALLOW-	. ENSTH OF TEST	WATER	GRAV.	OIL	GAS	GAS - OIL RATIO
Arcq Little Federal	1	D	32	24N	3W	8-11-77	F			-0-	24	-0-	46.6	272	1,140	4,190
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•									•							•
•														7		
													06	6		
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He well will be engineed as allowable greater than the amount of all produced on the official test.

During gas-cil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is excled by more than 25 percent. Operator is one curaged to take advantage of this 25 percent tolerance in order that well can be assigned-accessed allowables when authorized by the Commission.

Gas valumes must be reported in MCF messured at a pressure base of 15,025 pale and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

itali original and one copy of this report to the district office of the New Mexico Oil Conservation Commission is accorded.

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

Odessa Natural Corp. For: Twell William

Ewell N. Walsh P.E. President Walsh Eng. & Prod.

Corporation (Tide)

August 15, 1977 (ljate)

Gus All 6052 Cont 5981 Court 5983 Cont 6059 Cont 6061 Get 6047 Cont 6062 -6063 -6064 Dismiss 6053 86025 Respen for reado only Kenneth Hated President Han 6055 Toschundorf & Kendrick In test 65 876 (8-76 Both 800 Report 5-77 showed asing hung Enotemented. Wrote opr to gened Situation, No response Instig-20 & 10-11 No work done or well. Willow Fed land Where complete pool &m witer on pay: ges escape? surf esg 85/8 189x 50 ft
groneras-Dakotu 5/2 D1780 120 days - Prod Expidite 6057 Tom Jacobs Landman 17 Move away from irrigation canal to Keep Chies out of canal & stay offrond Location amende L from ado. Calso better geologically Comus 5 sa 1940-1940 vs 1940-1886

6058 Hinkle - Chris Rhodes PE Arco R5430 Frand NSL Justis Fusselman

? Spacing Montoya turned out very good

Tuccoh... Fusselman poor Need approved both Whon toya & taxolina 6060 Tom Kellahin Victor Vasichek Pa Productor from Phodes 3800 Stream theat ? plantic cont poete - lad Egange pressure 400# 5000 PRESSUR 460# 5757 No appearance 6043 Tom Bellehin Victor Vesicak Crowding South - John Cox - soid 04

& un leased acreage

Grood Structural location 6065 Gery Kilpatrick Rid Walsh P.E. 36,000 Exception to Chaon Rules 30,000 How long Ties into diffsys tem with higher line presseres ? production limitation to 160 oil @ line press inc = dec in GOR ~ 06,2 6 Oil vogas @well not on prod. L

3 Order NO NSP 1044

Old Langlie Me Hix Oil Well

proposed to dual W/ Jalmet Ges 6068 - 1 & K show

DAVE M. THOMAS, JR.
SUITE 2-A -- EXECUTIVE BUILDING
413 W. MAIN -- PHONE 505-325-7701
FARMINGTON, NEW MEXICO 87401

OIL & GAS
ADDRESS REPLY TO
P. O. BOX 2026
FARMINGTON, N. M. 47401

October 10, 1977

Mr. Joe D. Ramey, Secretary-Directory New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Ref: Odessa Natural Corporation

Case 6065

Dear Mr. Ramey:

As operator of wells in the Chacon Dakota Associated Oil Pool, I support the request of Odessa Natural Corporation in Case No. 6065.

The permitting of the continued dedication of the W/2 of Section 32, T24N, R3W and producing the well as a gas well, an exception to the Chacon Dakota Associated Oil Pool definition of a gas well, will enable Odessa Natural Corporation to determine that the Gas Oil Ratio will increase to above 30,000 to 1.

Your approval of the request would be appreciated.

Yours very truly,

Dave M. Thomas, Jr.

Dhur m. Thomas J

DMT:jr

CASE 6065: Application of Odessa Natural Corporation for a special well classification, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the classification of its ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, as a gas well rather than an oil well, thereby permitting the continued dedication of the W/2 of said Section 32. Said classification would be in exception to the statewide definition of gas wells, or to the Chacon-Dakota Associated Pool definition of gas wells, whichever is applicable.

CASE 6066: Application of Texas Pacific Oil Company, Inc., for an unorthodox gas well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its State "A" A/c-l Well No. 53 located in the center of Unit E of Section 24, Township 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to a previously approved 480-acre multiple well non-standard proration unit comprising the NW/4 and S/2 of said Section 24.

Application of Texas Pacific Oil Co., Inc., for pool contraction and extension, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the Catclaw Draw-CASE 6067: Morrow Gas Pool, Eddy County, New Mexico, by the deletion of Section 3, Township 22 South, Range 25 East, therefrom, and the extension of the Revelation-Morrow Gas Pool to include said lands.

CASE 6068: In the matter of the hearing called by the Oil Conservation Commission upon its own motion for the creation and extension of certain pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico:

> (a) CREATE a new pool in San Juan County, New Mexico, classified as a gas pool for Fruitland production and designated as the Conner-Fruitland Pool. The discovery well is the Odessa Natural Corporation Little Federal Well No. 1 located in Unit K of Section 1, Township 30 North, Range 14 West, NMPM. Said pool would comprise:

> > TOWNSHIP 30 NORTH, RANGE 14 WEST, NMPM Section 1: W/2 Section 12: W/2

(b) CREATE a new pool in San Juan County, New Mexico, classified as a gas pool for Pictured Cliffs production and designated as the South Gallegos-Pictured Cliffs Pool. The discovery the Jerome P. McHugh Nassau Well No. 5 located in Unit A of Section 36, Township 27 North, Range 12 West, NMPM. Said pool would comprise:

> TOWNSHIP 27 NORTH, RANGE 12 WEST, NMPM Section 36: All

(c) EXTEND the Ojo-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 15 WEST, NMPM Section 25: S/2 & NW/4 Section 26: A11 Section 35: N/2 & SE/4 Section 36: All

and to extend the vertical limits of said pool to include the Fruitland formation and redesignate said pool the Ojo Fruitland-Pictured Cliffs Pool.

(d) EXTEND the WAM-Pictured Cliffs Fool in San Juan County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 13 WEST, NMPM Section 4: NW/4

TOWNSHIP 27 NORTH, RANGE 13 WEST, NMPM Section 26: SW/4 Section 27: SE/4 Section 29: All Section 30: E/2 Section 31: All Section 32: N/2 & SW/4 Section 33: All Section 34: N/2 & SW/4

and to extend the vertical limits of said pool to include the Fruitland formation and redesignate said pool the WAW Fruitland-Pictured Cliffs Pool.

(e) EXTEND the Ballard-Pictured Cliffs Pool in Rio Arriba and Sandoval Counties, New Mexico, to include therein:

STP 19 1977

d N

September 16, 1977

NEW MEXICO OIL CONSERVATION COMMISSION P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Request for Special Allowable

Gentlemen:

Odessa Natural Corporation has recently completed its ARCO-Little Federal No. 1 Well in the Dakota formation. The entire West Half of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico has been dedicated to this well. The well is actually located in Unit D (NW/4 NW/4) of this section.

On an initial potential test taken on August 11, 1977 the well potentialled 272 barrels of oil and 1,140,000 cubic feet of gas per day. The GOR was calculated to be 4190. The well is not in any classified oil or gas pool.

Odessa Natural Corporation hereby respectfully requests an exception to Rule 104, Section C, Subsection 1 of the Commission rules and regulations and that the Commission grant to Odessa a special allowable for the above well based upon its 320 acre dedication. Odessa requests that the Commission grant this special allowable for a period of six (6) months after date of first delivery to the purchasing gas pipeline. This special allowable is necessary for Odessa and the Commission to be able to observe production therefrom in order to properly evaluate and classify this well.

Odessa requests that its application be considered at the earliest possible Examiner hearing, which we understand will be October 12, 1977. We will be present at such time to present testimony in support of this application.

This application is submitted in triplicate, with a copy being forwarded simultaneously herewith to ARCO

NEW MEXICO OIL CONSERVATION COMMISSION September 16, 1977 Page 2 -

who has a carried working interest in this well. To our knowledge there are no adverse parties.

Very truly yours,

ODESSA NATURAL CORPORATION

Roland & Dambler

Roland L. Hamblin Attorney - Legal Department

RLH: EH

cc: ATLANTIC RICHFIELD COMPANY
501 Lincoln Tower Building
Denver, Colorado 80203
Attention: Mr. Jim Posey

## 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. 6065 Order No. R- 5601

APPLICATION OF ODESSA NATURAL CORPORATION FOR A SPECIAL WELL CLASSIFICATION, RIO ARRIBA COUNTY, NEW MEXICO.

Jour

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 12, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this day of December, 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 the applicant, Odessa Natural Corporation, seeks the classification of its ARCO-Little Fed Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, as a gas well rather than an oil well, thereby permitting the continued dedication of the W/2 of said Section 32. Said Classification would be in exception to the statewide definition of gas wells, or to the Chacon-Dakota Associated Pool definition of gas wells, whichever is applicable.
- (3) That the evidence presented at the hearing demonstrated that said ARCO-Little Fed. Well No. 1 is completed as an extension of said Chacon-Dakota Associated Pool and is therefore subject to the special rules and regulations of said pool.
- (4) That said special rules and regulations define a gas well as one producing with a gas-oil ratio of 30,000 cubic feet of gas or more per barrel of oil.

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-2-Case No. 6065 Order No. R-

- (5) That said ARCO-Little Fed. Well No. 1 is currently producing with a gas-oil ratio of less than 30,000 to 1 and is classified as an oil well.
- Dakota Associated Pool demonstrates that the gas-oil ratio of said ARCO-Little Fed. Well No. 1 may be expected to rapidly rise to a point in excess of 30,000 to 1, causing said well to be reclassified as a gas well.
- (7) That within said pool, oil wells are spaced on 160-acre proration units and gas wells are spaced on 320-acre spacing units.
- (8) That the applicant seeks a special gas well classification for said well in order to dedicate 320 acres thereto until such time as the gas-oil ratio of said well shall increase to a level of 30,000 to 1 or more.
- (9) That such special classification and acreage dedication will prevent the drilling of a second oil well on the undrilled (the Sw/H of Section 32)
  160-acre tract which would be dedicated to said well if it should be classified as a gas well with 320 acres dedicated thereto.
- (10) That said limitation on development could prevent the drilling of an unnecessary well thereby preventing economic waste
- (11) That the application for special classification of said ARCO-Little Fed. Well No. 1 as a gas well should be approved.
- in July, 1979, to show cause why said special well classification should not be rescinded or if the special rules and regulations for the Chacon-Dakota Associated Pool chould be amended to provide for a period of gas well classification for all new completions therein.

-3-Case No. 6065 Order No. R-

(13) That during the period of special gas well classification, said ARCO-Little Fed. Well No. 1 shall receive an oil and gas allowable based upon an acroage factor of 160 acres.

#### IT IS THEREFORE ORDERED:

(1) That effective January 1, 1977, the Odessa Natural Corporation ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Chacon-Dakota Associated Pool, Rio Arriba County, New Mexico, is hereby granted a special gas well classification.

(2) That said ARCO-Little Fed. Well No. 1 chall have a 320-acre dedicated thereto.

- (3) That during the period of special gas well classification, the allowable assigned to said ARCO-Little Fed. Well No. 1 shall be based upon a proration unit size of 160 acres.
- (4) That this case shall be reopened at an Examiner hearing during July, 1978, at which time the applicant shall appear to show cause why the special gas well classification granted by this order should not be rescinded or to propose an amendment to the special rules and regulations for said Chacon-Dakota

  Associated Pool to provide for a period of special gas well classification for all new wells completed therein.

(5) Air

of said Serkin 32 shellse

1977 DCT 12 All 9: 05

IPMFEKA SANA 2-816863E285 18/12/77 ICS IPMBNGZ CSP 3835734843 TBBN DENVER CO 57 18-12 8948A EST PNS STATE OF NEW MEXICO

OIL CONSERVATION COMMISSION

MS LYWN TESCHENDORD, RDM REPORT DELIVERY BY MAILGRAM, DLR LAND OFFICE BLDG RM 286
SANTA FE WN
ATLANTIC RICHFIELD COMPANY AS A WORKING INTEREST OWNER IN THE LANDS INVOLVED IN THE APPLICATION OF ODESSA NATURAL FOR A SPECIAL WELL CLASSIFICATION CASE #6862 SUPPORT THE CLASSIFICATION OF THE 1-32 LITTLE-ARCO FEDERAL WELL LOCATED IN THE NORTHWEST QUARTER SECTION 32 T24N R3W NMPM AS A GAS WELL.

A M BRACKENRIDGE DISTRICT MANAGER ROCKY MOUNTAIN DISTRICT NORTH AMERICAN PRODUCING DIVISION ATLANTIC RICHFIELD COMPANY (THE LAND DEPT 581 LINCOLN TOWER BLDG DENVER CO 88295)

8949 EST

IPMFEKA SANA