THE DESIGNATION, LEA COUNTY, NEW MEX.

Continued to May 23

CASE NO.

6861

APPlication,
Transcripts,
Small Exhibits,

ETC.

HOBBS, NEW MEXICO 88240

August 21, 1980

Energy and Minerals Department Uil Conse. vation Division P. O. Box 2088 Santo Fey NM 87501

Attention: Mr Dan Nutter

Chief Engineer NMOCD

NMOCD Case No. 6861 Re:

Dear Mr. Nutter:

Tom Kellahin informed me that I had used some incorrect tax rates in my revenue calculation. Apparently the tax rates that I used were effective later in the year 1977.

Enclosed is an amended Page 20. You will note in the oil revenue calculation that I used \$13.03 for the price of oil and above it was given as \$13.00 per barrel. This error was corrected as well as the tax rates.

These corrections do not affect the final outcome, as you have already noted.

If therE GEIN English questions, please call on me.

OIL CONS ERVATION DIVISION SANTA FE

Very truly yours,

Farris Belson

Farris Nelson

cc: Mr. Thomas Kellahin P. O. Box 1769 Santa Fe, NM 87501

Revenue Calculation For New Onshore San Andres Reservoir Well

Calculation based on the following data:

Recoverable oil	13,406 bbls
Price for Oil - April 1977	\$13.00/bbl
Recoverable Gas	328,500 MCF
Price for Gas - April 1977	\$0.62/MCF
Royalty rate	12.5%
Tax rate - April 1977	7.5005%

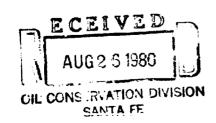
Oil Revenue: (13406) (13.00) (.875) (.924995) = \$141,055

Gas Revenue:
(328,500) (.62) (.875) (.924995) = 164,845

Total Revenue \$305,900

Formula for "could have been produced in commercial quantities" test:

Therefore, the "Behind-the-Pipe Exclusion" does not apply and this San Andres reservoir qualifies for the Sec. 102 (New Onshore Reservoir) price category.



Revenue Calculation For New Onshore San Andres Reservoir Well

Calculation based on the following data:

Gas Revenue:

	Recoverable oil		13,406 bbis
	Price for Úil - April 1977		\$13.00/bbl
	Recoverable Cas		328,500 MCF
	Price for Gas - April 1977		\$0.62/MCF
	Royalty rate		12.5%
	Tax rate - April 1977		7.5005%
Oil Rev	venue:		
(13406)	(13.00) (.875) (.924995)	=	\$141,055

(328,500) (.62) (.875) (.924995) = 164,845

Total Revenue \$305,900

Formula for "could have been produced in commercial quantities" test:

Revenue [1.6 x Capital Exp]+ Oper Costs

$$305,900 - [(1.6)(112,230)] + 273,285 = minus $146,953$$

Therefore, the "Behind-the-Pipe Exclusion" does not apply and this San Andres reservoir qualifies for the Sec. 102 (New Onshore Reservoir) price category.



Revenue Calculation For New Onshore San Andres Reservoir Well

Calculation based on the following data:

Recoverable oil Price for Oil - April 1977 Recoverable Gas Price for Gas - April 1977 Royalty rate Tax rate - April 1977		13,406 bb!s \$13.00/bb! 328,500 MCF \$0.62/MCF 12.5% 7.5005%
Oil Revenue: (13406) (13.00) (.875) (.924995)	=	\$141,055
Gas Revenue:		164,845
Gas Revenue: (328,500) (.62) (.875) (.924995)		\$305,900

Total Revenue

Formula for "could have been produced in commercial quantities" test:

Revenue
$$\frac{[1.6 \times \text{Capital Exp}] + \text{Oper Costs}}{[1.6)(112,230)] + 273,285} = \text{minus $146,953}$$

Therefore, the "Behind-the-Pipe Exclusion" does not apply and this San Andres reservoir qualifies for the Sec. 102 (New Onshore Reservoir) price category.





ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

September 24, 1980

PCST OFFICE SOX 2089 STATE LAND OFFICE SULLING SANTA FE, NEW MEXICO S7501 (SDS) 887-2434

Mr. Thomas Kellahin Kellahin & Kellahin	Re: CASE NO. 6861 OPDER NO. R-6466-A
Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico	Applicant:
Janua 16, Now Mexico	
	Zia Energy, Inc.
Dear Sir:	
Enclosed herewith are two conditions order recently enter	pies of the above-referenced ered in the subject case.
Pours very truly,	
JOE D. RAMEY Director	

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other	 	 		 · · · · · · · · · · · · · · · · · · ·	 ·	 	
		-	•		 		

STATE OF NEW HEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE CIL CONSERVATION DIVISION FOR THE PURPOSE OF BONSIDERING:

CASE NO. 6861 Order No. R-6466

APPLICATION OF ZIA ENERGY, INC. FOR POOL CREATION, SPECIAL POOL RULES, AND AN NGPA DETERMINATION, EA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 e.m. on May 7, 1980, at Senta Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, en this 10th day of September, 1980, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises.

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Zia Energy, Inc., seeks the creation of a new San Andres oil pool for its State "C" Well No. 1, which is located 1988 feet from the North line and 1982 feet from the West line of Section 17, Township 22 South, Range 37 East, NNPM, Les County, New Hexico, and the promulgation of special rules for said pool, including a provision for a gas-oil ratio limitation of 10,000 cubic feet of gas per barrel of oil.
- (3) That the applicant further seeks a determination that said State "C" Well No. 1 has discovered a new enshere reservoir and should be exempt from the behind-the-pipe exclusion, and that new wells completed in said new reservoir are entitled to the NGPA Section 102 "New Onshore Reservoir," Wellhead Price Ceiling Category, although said reservoir had been penetrated by ether wells which penetrated the San Andres formation prior to April 20, 1977, alleging that oil and gas could not have been produced

-2-Case No. 6861 Order No. R-6466

In commercial quantities by such old wells prior to Arpil 20, 1977.

- (4) That the evidence establishes that to have plugged back and recompleted one of said wells in the San Andres formation in April, 1977, would have cost \$112,230, and that actual operating costs plus overhead expense during an estimated 15-year life for such a well would total \$273,285.
- (5) That the evidence establishes that the estimated milreserves available to the subject well total 13,406 barrels, and
 that its gas reserves total some 328,500 Mcf, and that the oil
 reserves at an April, 1977, stripper oil price of \$13.00 per
 barrel less 12.5 percent royalty and .075005 percent state taxes
 have a 1977 value of \$141,055, and that the gas reserves at an
 April, 1977, price of \$0.62 per Mef less 12.5 percent royalty
 and .075005 percent state taxes have a 1977 value of \$164,845,
 for a total 1977 value for the well's oil and gas reserves of
 \$305,900.
- (6) That using the subject well's reserves and applying the FERC economics test to determine whether an old well which penetrated the San Andres formation could have been economically plugged back and recompleted in the San Andres or whether it should be exempt from the "Behind-the-Pipe" exclusion (market value of the production less 1.6 times development cost plus operating costs) indicates that the economics of such a well would be:

\$305,900 - [1.6(\$112,230) + \$273,285] = -\$146,953

- (7) That pursuant to the above formula, such recompletion as described above would be an uneconomic venture, and the Behind-the-Pipe exclusion does not apply.
- (8) That the engineering and geological evidence presented patablishes that applicant's State "C" Well No. 1 is indeed producing oil and gas from a new onahore San Andres reservoir separate and distinct from any other San Andres reservoir, and that the nearest commercial San Andres production is some 2 3/4 miles away.
- (7) That a new peel for Sen Andres production should be prested and designated as the Southwest Eunice-Sen Andres Pool, with vertical limits comprising the Sen Andres formation and

Case No. 6861 Ürder No. R-6466

Morizontal limita ma followa:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPH Section 17: NW/4

- (10) That a epecial gas-cil ratio limitation for said pool hould be established and a ratio of 5000 cubic feet of gas per barrel of cil is reasonable and should be adopted.
- (11) That entry of an order embodying the above findings ill prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That a new San Andres oil pool, discovered by the Zia Fnergy, Inc., State "C" Well No. 1, located in Unit F of Section 17. Township 22 South, Range 37 East, NMPH, Les County, New Nexico, with perferations from 3830 feet to 3834 feet is hereby treated and defined, said peel to bear the designation of Southwest Eunise-San Andres Pool with vertical limits comprising the San Andres fermation and horizontal limits as follows:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM Section 17: HM/4

- (2) That a special gas-oil ratio limitation of 5000 cubic reet of gas per barrel of oil is hereby established for said Southwest Eunice-San Andres Pool.
- (3) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

> STATE OF NEW MEXICO DIL CONSERVATION DIVISION

JOE D. RAMEY

Director

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

CASE NO. 6861 Order No. R-6466-A

APPLICATION OF ZIA ENERGY, INC. FOR POOL CREATION, SPECIAL FOOL RULES, AND AN NGPA DETERMINATION, LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE DIVISION:

It appearing to the Division that Order No. K-6466, dated September 10, 1980, does not correctly state the intended order of the Division,

IT IS THEREFORE ORDERED:

- (1) That Order No. (3) of Order No. R-6466 is hereby renumbered Order No. (4)
- (2) That a new Order No. (3) be and the same is hereby inserted, reading in its entirety as follows:
- "(3) That it is hereby determined that said Southwest Eunice-San Andres Pool is a new onshore reservoir pursuant to the provisions of Section 102 of the Natural Gas Policy Act of 1978 and that the Behind-the-Pipe Exclusion in Section 102(c)(1)(C)(ii) of the NGPA does not apply."
- (3) That the corrections set forth in this order be entered nunc pro tune as of September 10, 1980.

DONE at Santa Fe, New Mexico, on this 22nd day of er, 1980.

> SIATE OF NEW MEXICO DIL CONSERVATION DIVISION

JUE D. KAHET

Director

14/



ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

September 12, 1980

FOST OFFICE BOX 2088 STATE LAND OFFICE BUILDING BANTA PS, NEW MEXICO 87501 (505) 627-2434

	Pos CACE NO
14 91 - 14 19 14 1	Re: CASE NO. 6861
Mr. Thomas Kellahin	ORDER NO. R 6466
Kellahin & Kellahin	
Attorneys at Law	A
Post Office Box 1769	Applicant:
Sante Fe, New Mexico	•
-	Zia Fnergy. Inc.
Doom Cim.	
Dear Sir:	
Enclosed harewith are two	copies of the above-referenced
	entered in the subject case.
Division Order recently en	acered in the subject case.
Ypurs very truly,	
1 ml da	
the Skeiner	•
JOE D. RAMEY	
Director	
Director	
•	
JDR/fd	
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Copy of order also sent to	:o:
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Aztec OCD	
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Other	

7, BOYD, C.S.R. 1 Berl 189-8 New Meader 87301 (305) 435-7409

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
7 May 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Zia Energy, Inc., for) pool creation, special pool rules,) and an NGPA determination, Lea County,) New Mexico.

CASE 6861

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernect L. Padilla. Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501

For the Applicant:

W. Thomas Kellahin, Esq. KELLAHIN & KELLAHIN 500 Don Gaspar Santa Fe, New Mexico 87501

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MR. NUTTER: Call next Case 6861. Which is in the matter of the application of Zia Energy, Inc., for pool creation, special pool rules, and an NGPA determination, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf of the applicant, and I have one witness.

MR. NUTTER: We are on Case Number 6861. We will now recess the hearing until 1:30.

> (Thereupon the noon recess was taken.)

MR. NUTTER: The hearing will come to order I believe we're on Case Number 6861. It has already been called and the witness is under oath.

Please proceed, Mr. Kellahin.

FARRIS NELSON

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Mr. Nelson, will you please state your

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full name, by whom you are employed, and in what capacity?

A. My name is Farris Nelson. I'm employed as a petroleum engineer for Zia Energy, and also a co-owner of Zia Energy.

Mr. Nelson, have you previously testified before the Division and had your qualifications as a petroleum engineer accepted and made a matter of record?

A Yes.

 $\tilde{\mu}$ And have you made a study of the facts surrounding this particular application?

Yes, I have.

MR. KELLAHIN: We tender Mr. Nelson as an expert engineer.

MR. NUTTER: Mr. Nelson is qualified.

Mr. Nelson, if you'll turn to what we've marked as Zia Exhibit Number One, which is the packet of exhibits contained in the blue folder, and if you'll turn to page six of that exhibit, I would like you to commence by first of all identifying the location of the subject well that is the basis for the application.

A. All right. The basis of this case is concerning the Zia Energy State "C" Well No. 1, which is located in Unit letter F of Section 17, Township 22 South, Range 37 East, Lea County, and in this case we're seeking the creation of a new San Andres oil pool and special GOR, asking

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for a limiting GOR ratio of 10,000-to-1, and in addition, we're asking for a determination that this is a new onshore reservoir, as per the NGPA regulations.

All right, sir, if you'll turn to page six of your Exhibit Number One, there is a plat on that page, and would you locate for us the subject well on that plat?

A Yes, The subject well is the one there in Section 17 circled by the red circle.

All right, would you identify for us the two closest San Andres Pools in this area?

A Okay, the closest San Andres production is the Eunice-San Andres South, which is 2-3/4 miles to the slightly northeast.

Then a second San Andres Field is the Eunice-San Andres, almost due north of the subject well.

O Directing your attention to the Eunice-San Andres South, is the limits of that pool identified by the red line?

A. The red line approximately is the limits of this pool.

O. Approximately how far is the subject well from the nearest San Andres producing well?

A Approximately 2-3/4 miles.

Would you describe generally what you believe to be the reservoir configuration for the San Andres

all right. If you'll refer to the cross section which is in the front flap of your packet there.

That's Exhibit Number Two?

Right. "here's a structure map there with the subject well charm in red. It's right there in front of you, Mr. Nutter.

In this structure map -- this structure map shows that the formation is dipping to the south/southeast trending north/northwest to south/southeast, and the Eunice-San Andres South Field would be off the structure map approximately two miles to the east.

We feel like that this contour map will give us the trend of the subject reservoir that we're proposing as being northwest to southeast, which is found so often in the reservoirs in southeastern New Mexico.

In your opinion is the subject well in a new San Andres onshore reservoir?

Yes. Our opinion is that it is a new San Andres reservoir. According to the definitions of a new onshore reservoir, as contained in the NGPA '78 regulations, the term reservoir means any producable natural accumulation of natural gas, crude oil, or both, confined by impermeable rock or water barriers and characterized by a single natural pressure system.

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And we want to stress the water barrier and the single natural pressure system.

All right. Explain to me some of the reasons behind your opinion that this is a new reservoir, Mr. Nelson. Can you describe for us the general water producing characteristics of the wells involved?

We've outlined -- we have a line that is a green line on the map/plat there that we are suggesting as the limits, eastern limits and the northeastern limits, of this producing formation, and that line is established by a line of wells which are shown by the blue circles that have tested the San Andres formation and have been noncommercial producers in the San Andres.

"C" Well No. 1 is a well that Zia Energy drilled in the early part of 1979, and we tested the San Andres formation between the intervals of 3841 and 3942 and received 100 percent water.

Then directly south of that is another well drilled several years ago. On page 34 is a tabulation of all the wells that have either tested the San Andres or penetrated the San Andres, 34 and 35 pages contain this tabulation of the wells.

Q. Now those are wells that have drilled to the San Andres prior to April 20th, 1977?

Yes, that's true.

ALILY W. BOYD, C. (Bt. 1 Box 195-B Santa Pt. New Mendos 8736 Phone (505) 435-7409

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The well immediately -- three locations south of the subject well was drilled by Millard Deck on his Patsy: "B" lease in July of '71, and they tested the San Andres on that well and it produced 100 percent water.

Then coming across following the green line that we propose as the reservoir boundaries, to an Anadarko Production well, E. W. Walden No. 11, in the Unit letter M of Section 15, this well was drilled, let's see, referring to page 8 is a well data sheet concerning this E. W. Walden No. 11, and you'll notice there that at least three different attempts were made to produce the San Andres and in each case it produced 100 percent sulphur water.

Then coming up the line to Section 9, Unit letter M, there's a well which was drilled by Stoltz, Wagner, and Brown. Well information for this is on page 34. This well was drilled also in 1971. It was drilled and abandoned as a noncommercial well. It never produced from any formation.

Then the next well in Section 8, Unit letter P, was drilled by Morris Antweil. And this well was drilled in 1970, January of 1970. It was also drilled and abandoned as a nonproducer.

Then Gulf drilled the South Penrose-Skelly Unit Well No. 262 in Unit letter P, also, I believe, yes. No, Unit letter O of Section 8. They also tested the

they specifically tested the San Andres and it made some gas and a large volume of water.

MR. NUTTER: Is that the No. 9?

A That is -- no, it's the No. 262.

MR. NUTTER: Okay.

It's about the tenth from the top of page

MR. NUTTER: Right, I found it.

A. Going on northward, then, along our proposed boundary there, to Unit number -- Section 5, Gulf South Penrose-Skelly Unit Well No. 220 also tested the San Andres and it was noncommercial there.

Amoco drilled their No. 5, Unit letter L in Section 5, in 1974. They drill stem tested the San Andres and the test showed some oil, some free oil, and some small volume of gas. The main significant point about this test is the bottom hole pressure that was reported.

The bottom hole pressure reported was approximately 1400 psi.

Then finally in the Section 36, Township

21 South, Range 36, Getty drilled -- excuse me, it's Shell,

drilled the State "D" Well No. 1 in Unit letter 0. This

well was drilled and abandoned in all formations as noncommercial.

So we have formed a line of wells which

LLLY W. BOYD, C.S.F R1 1 But 193-B Santa Fe, New Mexico 97301 Phone (303) 435-7409 10

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have tested the San Andres and in all cases these wells have shown excessive water production and have been noncommerical.

MR. NUTTER: Now how about the well that's immediately south of your well?

A. The one that Zia Energy drilled in 1979?

MR. NUTTER: Yeah. Where is it on page

A I don't believe it's on page 34 but you can find a well data sheet -- no, you don't. I'm sorry but I didn't include a well data sheet for that well.

MR. NUTTER: Can you give us --- do you have the information on it that would be equivalent to the information you've got on pages 34 and 35 for these wells?

A. Yes.

MR. NUTTER: It was drilled by Zia.

A. It was drilled by Zia.

MR. NUTTER: What's the lease name?

A Federal Well No. 1.

MR. NUTTER: The location?

A. Unit letter is K.

MR. NUTTER: Section, township, and range?

A. Section 17, 22, 37.

MR, NUTTER: Completion date?

A. Can I give you am approximate date on

that?

34 or 35?

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It was drilled -- yes. I overlooked it, Mr. Nutter.

MR. NUTTER: Yeah.

MR. NUTTER: Oh, it's there.

MR. KELLAHIN: On 34.

MR. NUTTER: Next to the last one, okay.

Next to the last item on 34.

MR. NUTTER: Okay, it is here. So as this exhibit states, it tested 100 percent salt water from the San Andres.

Yes, that's right.

MR. NUTTER: Okay.

Can we go back for a moment, Mr. Nelson, and see if I understand you.

Your plat on page number 6, you have just described and summarized the kinds of wells encountered, each of which is circled in blue, some ten wells.

Right.

Each of those wells penetrated the San Andres formation.

Right.

And none of them were physically capable of producing gas from the San Andres formation. No?

They were capable of producing gas but not in commercial quantity.

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all right.

In some cases.

Your analysis of those ten wells demonstrates in your opinion, as I understand it, that it generally represents the eastern limits of this new reservoir and shows that the reservoir trends from northwest to southeast and that it is separated from the Eunice-San Andres South Pool by some 2-1/2 miles from the subject well.

Yes, that's correct.

All right. Would you describe for us now the characteristics of water production encountered in the proposed new reservoir as opposed to the kinds of quality or quantity of water encountered in the Eunice-San Andres South

The water broduction from the sia Energy bool; State "C" Well No. 1 is -- it is producing approximately 241 barrels of water per day. It includes about 12 barrels of oil and 280 Mof per day of gas,

This is accusing only about 3 parcent oil The character of the production in the Eunice-San Andres South, the wells there are making more on the order of 10 to 15 percent oil with their production.

How does the pressure information, whatever pressure information you have available, how does that pressure information compare with the proposed new reservoir

as to the Eunice-San Andres South reservoir?

All right. A drill stem test taken on the State "C" Well No. 1 indicated a bottom hole pressure of 1336 psi. Another drill stem test taken on the Gulf South Penrose-Skelly Well No. 262, that information is included on your tabulation -- excuse me, I'd rather you'd look at the well data sheet, page number 10.

On this page 10 you notice that Gulf actually drill stem tested not only the San Andres but also the Queen and the Grayburg formations and on the drill stem test in the Queen section from 3419 to 3590, they indicated a final shutin pressure of 379.

The Grayburg drill stem test between 3590 and 3800 they indicated a final shutin pressure of 589.

The drill stem test on the San Andres form 3860 to 3900 indicated a final shutin pressure of 1316.

This gives us two bottom hole pressure tests, the one on the State "C", the one on the Gulf South Penrose-Skelly 262, then finally the Amoco well up in Section 5 also reported approximately a 1400 psi bottom hole pressure in the San Andres.

Then this pressure compared to the bottom hole pressure test taken on a well which is located in Eunice San Andres South in Section 11, Unit letter E, it is the Anadarko Woltham No. 6, this well showed up 1365 pound bottom

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hole pressure, but that was reported at a depth of 4035 feet. Correcting that back to the 4900 feet that the other wells reported, we have 1322 pounds bottom hole

pressure reported on this well in 1971, in July of 1971.

We're saying that in the nine years since this well was completed there had been continuous production from four wells on this Anadarko lease, and that it's reasonable to assume that in that length of time you'd get a significant drop in bottom hole pressure. That significant drop is not reflected by the bottom hole pressure tests that we have indicated as recently as June -- no, excuse me, February of this year, I believe it was.

What do you conclude by that pressure information?

This pressure information indicates to us that there is a definite separation of pressure; that we have two pressure systems operating here.

Let me ask you about the plat on page 6. Mr. Nelson. You have indicated on that plat, I assume, all the San Andres wells that have been drilled, or all wells that have penetrated the San Andres formation regardless of the date that they did so.

This map indicates all wells that were drilled prior to April 20th, 1977, that penetrated the San Andres. They're indicated on this plat on page 6. Then in-

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formation is included on pages 34 and 35 in the tabulation.

What is the significance of those wells that have penetrated the San Andres formation that are indicated by the green circles?

Each of these wells that penetrated the San Andres formation are actually potentially disqualifying wells according to the NGPA '78 regulations.

nid any of those wells produce gas from the San Andres formation prior to April 20th, 1977?

None of them produced commercial quantities of San Andres oil or gas.

Let me ask you this, Mr. Nelson. I'd like to direct your attention to that part of the application that deals with the gas/oil ratio limitation and your request to increase the statewide limitation to 10,000-to-1. Would you discuss that for us?

Yes. We have a gas/oil ratio test on page 17. This test was taken on March the 10th of this year. The well produced 12 barrels of oil, 341 barrels of water, and 291 Mcf of gas on potential test on that date. The indication of this test is that were

we to try to restrict our production to only produce the State statutory 200-to-1 ratio, we could only produce 160 Mcf of gas per day. Were we to try to produce at this rate, we would probably not produce anything at all except water.

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We're saying that we must produce it at the maximum possible rate in order for it to produce the cil and the gas.

Q. If that portion of the application that requests a special limiting gas/oil ratio of 10,000-to-1 is not granted, will oil and gas be left in the formation that would otherwise be recovered if the application was granted?

A Yes, it will be.

Now, with regards to that portion of the application dealing with the new onshore reservoir determination, the Section 102, new onshore reservoir determination for the subject well, let me see if I understand your testimony.

You have indicated a potentially new reservoir in an elliptical shape running from northwest to southeast, and that in your opinion it is confined to the area as shown on page 6, indicated with the blue and the green wells, and that represents the physical limits, as you understand them, for this reservoir. And that in addition you believe it is separated from the Eunice-san andres South, not only because of structure but because of differences in the capacity of the wells to produce water and because of pressure differences between the two reservoirs, is that correct?

- A Yes, that's correct.
- Q. All right. Now, within the are you've defined as being a potential new reservoir, you have investi-

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LV W. BOYD, C.S.R. Rt. 1 Box 193-31 mis Fe, New Metics 67501 Phogs (505) 435-7409 gated some 50 or more wells that were drilled prior to April 20th, 1977, that could potentially disqualify your subject well from being declared the first well in a new reservoir, is that correct?

- A That's correct.
- All right, and of those wells, the ones you've identified in blue, you have determined from your testimony already that they could not economically produce the San Andres.
 - A That's correct.
- Q. We have remaining then all the wells left in green.
 - A That's correct.
- Q All right. In your opinion do any of those wells disqualify the subject well from being declared the first well in a new reservoir?
- issued by the Federal Regulator; Commission, their Order
 No. 42-A, spells out the requirements for potentially disqualifying well, concerning the behind the pipe exclusion, for reserves behind the pipe, and we propose to try to show that none of these wells that penetrated the San Andres could have produced San Andres reserves in commercial quantities.
- Q Order No. 42-A of the Federal Energy
 Regulatory Commission sets forth some guidelines for making

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the economic test to allow you to obtain an exception from this behind the pipe exclusion, and have you followed the guidelines set forth in that order in making your economic test?

A. Yes, we have. That order that you referred to presents a formula for this test, and the following formula is to be used applying the economic test.

The market price available as of April 20th, 1977, times the recoverable reserves, net of royalty producable from the subject reservoir, through the potentially disqualifying well, minus the sum of incremental operating expenses, plus 1.6 times the incremental capital costs.

If this formula comes out to be a negative number, then the behind the pipe exclusion does not apply.

If it's a positive figure, then of course, the behind the pipe exclusion does apply.

And we propose to show that in this case we come up with a negative number.

then, by directing your attention to all the wells circled in green and have you explain for us how you determined the optimum reserves that could be dedicated to the best of any of those wells.

A. We took a number of logs of wells scattered throughout these wells that penetrated the San

Andres. Several of those are included in the back of the book here. And we determined that the State "C" Well No. 1 and the Texas Pacific Elliott "B" 17 Well No. 4 were perhaps two of the better wells of all of those that penetrated the San Andres formation.

Then we asked Natural Resources Evaluation and Engineering: Incorporated, in Hobbs, New Mexico, to give us a reserves evaluation based on the State "C" Well No. 1 electric logs.

Q Where do we find your reserves calculation?

A On page 18 is the Natural Resources Evaluation and Engineering evaluation.

assumptions that they have made, or rather I should say, beginning with porosity they have calculated at 7.5 percent porosity; connate water was 60 percent. They have assumed a shrinkage factor of — they show here .8, but in using it in your formular you have to use the reciprocal of that, which is 1.25. They have estimated recovery efficiency of 12 percent. From the logs they were able to effectively — to determine a net effective thickness to be 15 feet. It's a standard 40-acre proration unit, and a gas/oil ratio was 24,500.

Using these they used a standard volumetric

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calculation to determine the oil in place. From this they came up with recoverable reserves of 13,406 barrels of oil.

Then applying the GOR, the measured GOR on the State "C" Well No. 1, we have 328,500 Mcf of recoverable gas reserves.

Mr. Nelson, do those reserve numbers for the gas and oil reserves represent the maximum reserves that could have been recovered from any of the wells that potentially disqualify the reservoir?

A It is our opinion that it does.

All right. If you'll turn to page 19 then and explain what you've done there.

All right. Part of the formula presented in this order 42-A was that we had to determine the cost. On page 19 you see the cost for plugging back from a typical average potentially disqualifying well. We have shown a plugback, perforate, stimulate, test, and equip cost of \$30,000.

Q Let me interrupt you for a moment. These are all costs based upon April, 1977, figures.

That's correct.

And they represent taking an existing well that has penetrated the San Andres formation and produces from some other horizon.

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A. From a deeper zone.

Q. And recompleting that well in such a way that it could produce from the San Andres formation.

A ... That's correct.

Q All right.

A. Then the other factors that you see there are capital, tangible expenditures, also based on prices in effect in April, 1977.

Q The \$30,000 cost figure is not equipment.

It's labor and salaries and that sort of thing?

A. Right.

Q They're intangibles.

A. Intangibles.

Q. All right, and the rest of the figures represent tangible costs of equipment and et cetera?

A That's correct.

Then, as a part of the cost basis for this comparison, for this economic test, we also have shown over-head expenses, estimating \$200 per well per month for a 15-year producing life for the field.

Q. Are those overhead charges of \$200 a month typical in the area for San Andres wells in April of 1977?

A Yes, they are.

Q. Is a 15-year life the 15 years used by

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FERC in their Order 42-A?

A Yes, that order is definitely used in their examples number one and two, hypothetical cases one and two, of FERC. And then, also, based on the producing history from the Eunice South San Andres, the 15-year producing life seems like a reasonable rigure.

Q All right, sir.

A Still on page 19, the lease operating cost we have shown on page number 33 an IBM run sheet from a well in the South Eunice-San Andres Field.

This IBM lease analysis report reports the October, November, and December operating cost by month.

Then it has a year-to-date column, which you will note more or less in the center of the page that the total controllable expenses for the year-to-date was \$15,819.

MR. NUTTER: Was that January through December, then?

A That was January through December.

A How does that expense figure for that sample well compare to its total income?

The total income for that same lease was \$16,867.

So the well over in the Eunice-San Andres
South was just marginally profitable back in April of '77?

A That's correct, This -- this is the

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lease operating cost figure then that we used, 15 times the \$15,819 gives you \$237,060 for a 15-year operating life.

Then page 20, we have taken the reserves presented to us by Natural Resources and have calculated the revenue to be expected from selling these reservoirs of oil and gas, reserves of oil and gas. We had to come up with the oil and gas price for April of 1977. Pages 21 and 22 show you the basis for that. Page 21 is a pipeline run statement for April of 1977 on the Zia Energy Christmas lease, which is two locations east of the State "C" Well No. 1.

Q. That's gas produced from what formation?

A. That's gas produced from the Grayburg

That's gas comparable to the gas that would have been produced out of the San Andres formation?

A Yes, it is comparable. It's casinghead gas and very much the same thing that you'd be producing from the San Andres.

Q So in your opinion you compare the prices of that formation gas with San Andres gas?

A Yes, that's correct.

Q Is the 62 cents an Mcf the gas price you used for April of '77?

A Yes, it is.

Q Is that gas price the maximum price paid

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in the area which you would believe applicable to the San Andres formation if that had produced in April of '77?

Yes, I think it is, because you would be producing casinghead gas and this is the price that was being paid for casinghead gas at that point in time.

How did you determine the oil price?

On page 22 is a pipeline run statement from Shell Oil Company, also on our Zia Energy Christmas lease and from this you see that the price received was \$13.03, which is the stripper price for production in April of 1977. Actually, a new completion in the San Andres would not qualify for stripper oil price that first year, but we have assumed that in the second year production that it would have qualified for a stripper price, and so we used the \$13.03 throughout the 15 year or throughout the reserves calculation. M... NUTTER: What do they do on this oil

trend statement? They give you \$5.21 a barrel for 182 barrels and then ther give you an adjustment for stripper over on the righthand side?

That's correct.

MR. NUTTER: So you add the 950 and 1427 together to get the total value paid, is that it?

That's it.

MR. NUTTER: Okay, and that's where this 2372,36 at the bottom comes from?

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That's correct.

MR. NUTTER: Okay.

Then back on page 20 we have used the numbers for the oil and gas prices that we just established here to calculate the oil revenue and the gas revenue. In addition to the price for each oil and gas, we need to set forth that the royalty rate was 12-1/2 percent and then the tax rate for oil was 7.38 percent.

MR. NUTTER: Now where are you now?

Page 20.

A.

MR. NUTTER: Okay.

We've used just a standard royalty of 1/8th, 4-1/2 percent, and the tax rate for oil and gas was 7.38 percent and 11.79 percent.

You've not taken a credit for any over-

riding royalties, have you? No. The FERC regulations are a little

unclear concerning that.

But you've assumed a lease without over riding royalties.

We've assumed a lease without overriding

Using these numbers we calculate oil royalty. revenue of \$141,565. Gas revenue of \$157,200. For a total revenue figure from all reserves of \$298,765.

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Then going back to the formula, which

FERC has spelled out in their Order No. 42-A, we've included

in that formula the \$298,765 of revenue, subtracted from that

the sum of 1.6 times your capital expenditures that you get

back from page 19, \$112,230, plus the total operating costs

of \$273,285. This gives us a minus figure of \$154,088, and

therefor, from this figure we conclude that the behind the

pipe exclusion does not apply in this San Andres reservoir.

Ω Let me go back to page 19. You've indicated your capital cost in April of '77 figures. I'd like you to summarize and tell me whether or not those items there represent the minimum items required in order to conservatively recomplete for San Andres production.

A All right. You might notice the second item there, the 2-7/8ths OD tubing. You find 2-3/8ths far more common. But lifting the volume of water that we have to handle from this well, we are going to be forced to use a 2-inch bore pump and this will require the 2-7/8ths tubing. Therefor, the larger, the heavier circle rods and the large bore pump are necessary because of the large volume of water which is necessary to be moved.

Then the free water knockout would be made necessary to separate as much of the free water as possible, and the 4x20 heater-treater is simply needed just to separate the remaining part of the water.

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Then the pumping unit which is spelled out there is sized according to American Manufacturing calculations to be the correct size and the engine supplies the correct horsepower to lift that volume of water from that depth.

I might add one more thing there.

MR. NUTTER: Are you calculating that this well would produce this 341 barrels of water per day to its depletion or is the water going to increase, or what?

A I think --

MR. NUTTER: Or are these pumping unit sizes and pump sizes based on the present 341?

A. They're based on approximately 400 barrels per day.

MR. NUTTER: About 400.

A Which is basically the fluid volume that is being lifted currently.

MR. NUTTER: Okay.

A Another big item in your cost is for salt water disposal. We have salt water disposal system installation of 25,200, which is based on figures given to us by Agua, Incorporated, which is a salt water disposal company that would serve this area. Their estimate of a line that they did lay in the early part of 1977 is on pages 31 and 32. From that they have indicated 25,167 dollars of estimated

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cost, and this is the figure that we used in our calculation.

Pages 23 through 32 are simply included as verification of some of the cost figures for equipment, for the April of 1977 prices.

In your opinion, then, Mr. Nelson, are the items reflected on page 19 the minimum capital expenditures necessary to recomplete an existing well for production from the San Andres formation in April of '77?

A. Yes, they are.

"C" Well No. 1 San Andres production is 2-3/4 miles from the closest well producing from the San Andres formation. From the map that is presented, it is apparent that noncommercial San Andres tests are located north, south, and east of the State "C" Well No. 1, separating it from both the Eunice-San Andres and the Eunice-San Andres Scuth Pools.

Bottom hole pressure data obtained by drill stem test survey, indicate that more than 1300 psi, which indicate that this is original bottom hole pressure, and that the San Andres has not been produced in this area.

MR. NUTTER: Now, let's see, Mr. Nelson, your bottom hole pressure in this well on the original DST was 1334, was it?

1336.

MR. NUTTER: 13 -- well, I thought you

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said 1336 and then here on page 7, ran DST 3860 to TD. Closed in bottom hole pressure 1334.

Okay, that's a typographical error.

MR. NUTTER: That should be a 36, there.

A. Correct.

MR. NUTTER: Okay, that's what had me confused. I thought you said 36 and then I read 34.

Go ahead.

A We did not go over these, but gas analysis and oil gravity information was presented to confirm that this is San Andres production, as compared to the Grayburg and Queen production of that area.

Finally, at the time that the earlier noncommercial tests in the San Andres were made, the price of oil and gas was approximately \$13.03 per barrel and 62 cents per Mcf of gas.

Considering the large volume of water to be handled, these earlier tests were noncommerical. An operator can expect to produce the San Andres at a profit now provided he can sell the oil and gas at the prices specified by new onshore reservoirs and provided that the special GOR rule will make it possible to produce the well without any restriction imposed by limiting GORs.

Then in summary concerning the economic test required by FERC Order 42-A, we have supplied exhibits

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potentially disqualifying wells due to the behind the pipe exclusion in Section 102 (c) 1 C-2 I of the NGPA. Electric log sections from several of these wells are presented to indicate the -- that the relative uniform character of the San Andres throughout the proposed new field.

Exhibits on pages 19, I believe it is, yes, 19 and 20, were presented to show the economic test prescribed by the FERC order No. 42-A, that the behind the pipe exclusion did not apply.

The Oil Conservation Division is requested to establish a new San Andres Pool with a special limiting GOR ratio of 10,000-to-1.

The Oil Conservation Division is further requested to make a determination that this is a new onshore reservoir and that this and all future wells completed in this new onshore reservoir will be eligible for the NGPA Section 102 gas pricing category.

By approving these requests the Oil Conservation Division will be promoting conservation, protecting
correlative rights, and providing incentive for the production
of oil and gas that would not be otherwise produced for
consumption.

Q. Mr. Nelson, were Exhibits One through
Eleven prepared by you directly or compiled under your direction

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and supervision?

A Yes, they were.

MR. KELLAHIN: We move the introduction of Exhibits One through Eleven.

MR. NUTTER: Exhibits One through Eleven will be admitted in evidence.

CROSS EXAMINATION

BY MR. NUTTER:

Q Did you give us a log of this well so that we can determine that it is completed in the San Andres formation?

- A Of the State "C"?
- Q Yes, sir.
- Yes, it should be in that group. I think it's the second log. Yes, if yours are numbered the same as mine it should be the second log.
- Now, let's see, and where are we perforated on this log, Mr. Nelson?
- A. We're perforated two holes at 3830 and two holes at 3834.
 - 3830 and two holes at 3834.
 - A. 3834.
- g 3834. Now, Mr. Nelson, I don't understand why you need a GOR limit of 10,000-to-1 in this pool.

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ě	Ā.	The	standard	statewide	GOR	rule	is	2000-
to-1.						•		

Q Right.

If we applied that to an 80-barrel a day top allowable well we would only be able to produce 160 Mcf of gas per day.

But you're asking for 10,000-to-1.

That's going to give you 800,000 and this well will only make
341 at the most, won't it, or 280?

A 280 to 90 is -- has been its production rate, but we're not sure that this is going to be the top of any future well that we might complete.

But as of now we know that we've got a well here that produces a ratio of 23 to 24,000-to-1.

A Yes, that's correct.

And it's in no trouble as far as making its oil allowable because it's not penalized. It's ineffective because of the low oil productivity and I just don't understand the necessity for 800,000 cubic feet of gas per day gas allowable on a 40-acre well.

A Well, at this point in time we could probably live with a 5000-to-1 ratio.

Q 5000 would be more than the well is capable of producing now by another 25 percent even.

A. Yes, that would give us 400, which is

approximately 25 percent more than what it's producing.

What are the GOP limits that are in effect in the Eunice-San Andres and the South Eunice-San Andres, do you know?

No, I'm sorry, I don't.

We will take administrative notice of our GOR limits in those two pools. They're the closest San Andres pools to this discovery.

Yes, they are. The Eumont, which of course is another formation, the Queen, and the Grayburg are both 10,000-to-1.

Right.

In that area.

They're recognized as being gas pools -gas reservoirs.

MR. NUTTER: Are there any other questions of Mr. Farris -- Mr. Nelson?

MR PADILLA: I have one, Mr. Examiner.

CROSS EXAMINATION

BY MR. PADILLA:

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Mr. Nelson, I just want to clarify what's on page 6, go over that once more.

The wells circled in blue were the ones that were tested in the San Andres, is that correct?

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Some of	them	had	spec	ific	San	Andre	es	tests	5.	At	lea	st t	hree	
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mention	bein	g ma	đe of	: spe	cifi	c San	Aı	ndres	te	sts	•			

And the ones circled in green penetrated the San Andres but did not test the San Andres.

A That is correct. They have produced at some deeper formation prior to April 20th, 1977.

Do you know if any of these wells were ever perforated in the San Andres, the ones circled in green, were they ever perforated in the San Andres?

A. None that I'm aware of.

Basically, the reason that these wells are noncommercial in the San Andres is too much water, is that correct?

That's a big part of it because that increased the equipment cost for handling the large volume of water. Then, also, it adds a lot of cost to salt water disposal costs.

MR. PADILLA: I have no further questions

RECROSS EXAMINATION

BY MR. NUTTER:

What rool are these wells producing from?

The green?

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0. Uh-huh.

A Several different formations. The Drinkard predominantly, but there is some Blinebry and some Tubb.

Tubb area, then?

A Yes, sir, it is.

Q Okay.

MR. NUTTER: Are there any other questions of the witness? He may be excused.

Do you have anything further in this case,

Mr. Kellahin?

MR. KELLAHIN: No, sir.

MR NUTTER: Does anyone have anything

they wish to offer in Case Number 6861?

We'll take the case under advisement.

(Hearing concluded.)

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing Before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Svey W. Boyd C.S.R.

do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case vo. 19.80.

On Conscryation Division

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
7 May 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Zia Energy, Inc., for) pool creation, special pool rules,) and an NGPA determination, Lea County,) New Mexico.

CASE 6861

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

Tor the Cil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501

For the Applicant:

W. Thomas Kellahin, Esq. KELLAHIN & KELLAHIN 500 Don Gaspar Santa Fe, New Mexico 87501

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MR. NUTTER: Call next Case 6861. Which is in the matter of the application of Zia Energy, Inc., for pool creation, special pool rules, and an NGPA determination, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf of the applicant, and I have one witness.

MR. NUTTER: We are on Case Number 6861. We will now recess the hearing until 1:30.

(Thereupon the noon recess was taken.)

MR. NUTTER: The hearing will come to order. I believe we're on Case Number 6361. It has already been called and the witness is under oath.

Please proceed, Mr. Kellahin.

FARRIS MELSON

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Mr. Nelson, will you please state your

Mr. Nelson, have you previously testified Q. before the Division and had your qualifications as a petroleum engineer accepted and made a matter of record? Yes. A.

of Zia Energy.

And have you made a study of the facts surrounding this particular application?

full name, by whom you are employed, and in what capacity?

as a petroleum engineer for Zia Energy, and also a co-owner

Yes, I have.

MR. KELLAHIN: We tender Mr. Nelson as an expert engineer.

MR. NUTTER: Mr. Nelson is qualified.

My name is Farris Nelson. I'm employed

Mr. Nelson, if you'll turn to what we've marked as Zia Exhibit Number One, which is the packet of exhibits contained in the blue folder, and if you'll turn to page six of that exhibit, I would like you to commence by first of all identifying the location of the subject well that is the basis for the application.

All right. The basis of this case is concerning the Zia Energy State "C" Well No. 1, which is located in Unit letter F of Section 17, Township 22 South, Range 37 East, Lea County, and in this case we're seeking the creation of a new San Andres oil pool and special GOR, asking

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for a limiting GOR ratio of 10,000-to-1, and in addition, we're asking for a determination that this is a new onshore reservoir, as per the NGPA regulations.

All right, sir, if you'll turn to page six of your Exhibit Number One, there is a plat on that page, and would you locate for us the subject well on that plat?

Yes. The subject well is the one there in Section 17 circled by the red circle.

All right, would you identify for us the two closest San Andres Pools in this area?

Okay, the closest San Andres production is the Eunice-San Andres South, which is 2-3/4 miles to the slightly northeast.

Then a second San Andres Field is the Eunice-San Andres, almost due north of the subject well.

Directing your attention to the Eunice-San Andres South, is the limits of that pool identified by the red line?

The red line approximately is the limits of this pool.

Approximately how far is the subject well from the nearest San Andres producing well?

Approximately 2-3/4 miles.

Would you describe generally what you be-Q. lieve to be the reservoir configuration for the San Andres

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reservoir of which the subject well is a part?

All right. If you'll refer to the cross section which is in the front flap of your packet there.

That's Exhibit Number Two?

Right. There's a structure map there with the subject well shown in red. It's right there in front of you, Mr. Nutter.

In this structure map -- this structure map shows that the formation is dipping to the south/southeast trending north/northwest to south/southeast, and the Eunice-San Andres South Field would be off the structure map approximately two miles to the east.

We feel like that this contour map will give us the trend of the subject reservoir that we're pro-Fosing as being northwest to southeast, which is found so often in the reservoirs in southeastern New Mexico.

In your opinion is the subject well in a new San Andres onshore reservoir?

Yes. Our opinion is that it is a new San Andres reservoir. According to the definitions of a new onshore reservoir, as contained in the NGPA '78 regulations, the term reservoir means any producable natural accumulation of natural gas, crude oil, or both, confined by impermeable rock or water barriers and characterized by a single natural pressure system.

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And we want to stress the water barrier and the single natural pressure system.

Q All right. Explain to me some of the reasons behind your opinion that this is a new reservoir, Mr. Nelson. Can you describe for us the general water producing characteristics of the wells involved?

A We've outlined — we have a line that is a green line on the map/plat there that we are suggesting as the limits, eastern limits and the northeastern limits, of this producing formation, and that line is established by a line of wells which are shown by the blue circles that have tested the San Andres formation and have been noncommercial producers in the San Andres.

The Timediately south of the Zia Energy State
"C" Well No. 1 is a well that Zia Energy drilled in the early
part of 1979, and we tested the San Andres formation between
the intervals of 3841 and 3942 and received 100 percent water.

Then directly south of that is another well drilled several years ago. On page 34 is a tabulation of all the wells that have either tested the San Andres or penetrated the San Andres, 34 and 35 pages contain this tabulation of the wells.

Now those are wells that have drilled to the San Andres prior to April 20th, 1977?

A Yes, that's true.

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south of the subject well was drilled by Millard Deck on his Patsy; "B" lease in July of '71, and they tested the San Andres on that well and it produced 100 percent water. Then coming across following the green

The well irrediately -- three locations

line that we propose as the reservoir boundaries, to an Anadarko Production well, E. W. Walden No. 11, in the Unit letter M of Section 15, this well was drilled, let's see, referring to page 8 is a well data sheet concerning this E. W. Walden No. 11, and you'll notice there that at least three different attempts were made to produce the San Andres and in each case it produced 100 percent sulphur water.

Then coming up the line to Section 9, Unit letter M, there's a well which was drilled by Stoltz, Wagner, and Brown. Well information for this is on page 34. This well was drilled also in 1971. It was drilled and abandoned as a noncommercial well. It never produced from any formation.

Then the next well in Section 8, Unit letter P, was drilled by Morris Antweil. And this well was drilled in 1970, January of 1970. It was also drilled and abandoned as a nonproducer.

Then Gulf drilled the South Penrose-Skelly Unit Well No. 262 in Unit letter F, also, I believe, yes. No, Unit letter O of Section 8. They also tested the -

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have tested the San Andres and in all cases these wells have shown excessive water production and have been noncommerical.

MR. NUTTER: Now how about the well that's immediately south of your well?

The one that Zia Energy drilled in 1979? MR. NUTTER: Yeah. Where is it on page 34 or 35?

I don't believe it's on page 34 but you can find a well data sheet -- no, you don't. I'm sorry but I didn't include a well data sheet for that well.

NR. NUTTER: Can you give us --- do you have the information on it that would be equivalent to the information you've got on pages 34 and 35 for these wells?

Yes.

MR. NUTTER: It was drilled by Zia.

It was drilled by Zia.

MR. NUTTER: What's the lease name?

Federal Well No. 1.

MR. NUTTER: The location?

Unit letter is K.

MR NUTTER: Section, township, and range?

Section 17, 22, 37.

MR NUTTER: Completion date?

Can I give you an approximate date on

that?

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HR. NUTTER: Yeah.

It was drilled -- yes. I overlooked it, Mr. Nutter.

MR. NUTTER: Oh, it's there.

MR. KELLAHIN: On 34.

MR. NUTTER: Next to the last one, okay.

Next to the last item on 34.

MR. NUTTER: Okay, it is here. So as this exhibit states, it tested 100 percent salt water from the San Andres.

Yes, that's right.

MR. NUTTER: Okay.

Can we go back for a moment, Mr. Nelson, and see if I understand you.

Your plat on page number 6, you have just described and summarized the kinds of wells encountered, each of which is circled in blue, some ten wells.

> Right. A.

Each of those wells penetrated the San Andres formation.

Right.

And none of them were physically capable of producing gas from the San Andres formation. No?

They were capable of producing gas but not in commercial quantity.

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c All right.

A. In some cases.

your analysis of those ten wells demonstrates in your opinion, as I understand it, that it generally represents the eastern limits of this new reservoir and shows that the reservoir trends from northwest to southeast and that it is separated from the Eunice-San Andres South Pool by some 2-1/2 miles from the subject well.

A Yes, that's correct.

All right. Would you describe for us now the characteristics of water production encountered in the proposed new reservoir as opposed to the kinds of quality or quantity of water encountered in the Eunice-San Andres South Pool?

The water production from the Ziz Energy

State "C" Well No. 1 is -- it is producing approximately 241

barrels of water per day. It includes about 12 barrels of cili

and 280 Mcf per day of gas.

This is actually only about 3 percent oil.

The character of the production in the

Eunice-San Andres South, the wells there are making more on

the order of 10 to 15 percent oil with their production.

ever pressure information you have available, how does that pressure information compare with the proposed new reservoir

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as to the Eunice-San Andres South reservoir?

A All right. A drill stem test taken on the State "C" Well No. 1 indicated a bottom hole pressure of 1336 psi. Another drill stem test taken on the Gulf South Penrose-Skelly Well No. 262, that information is included on your tabulation -- excuse me, I'd rather you'd look at the well data sheet, page number 10.

on this page 10 you notice that Gulf actually drill stem tested not only the San Andres but also the Queen and the Grayburg formations and on the drill stem test in the Queen section from 3419 to 3590, they indicated a final shutin pressure of 379.

The Grayburg drill stem test between 3590 and 3800 they indicated a firal shutin pressure of 589.

The drill stem test on the San Andres form 3860 to 3900 indicated a final shutin pressure of 1316.

tests, the one on the State "C", the one on the Gulf South
Penrose-Skelly 262, then finally the Amoco well up in Section
5 also reported approximately a 1400 psi bottom hole pressure
in the San Andres.

Then this pressure compared to the bottom hole pressure test taken on a well which is located in Eunice San Andres South in Section 11, Unit letter E, it is the Anadarko Woltham No. 6, this well showed up 1365 pound bottom

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hole pressure, but that was reported at a depth of 4035 feet.

Correcting that back to the 4900 feet that the other wells reported, we have 1322 pounds bottom hole pressure reported on this well in 1971, in July of 1971.

We're saying that in the nine years since this well was completed there had been continuous production from four wells on this Anadarko lease, and that it's reasonable to assume that in that length of time you'd get a significant drop in bottom hole pressure. That significant drop is not reflected by the bottom hole pressure tests that we have indicated as recently as June -- no, excuse me, February of this year, I believe it was.

Q. What do you conclude by that pressure information?

This pressure information indicates to us that there is a definite separation of pressure; that we have two pressure systems operating here.

Mr. Nelson. You have indicated on that plat, I assume, all the San Andres wells that have been drilled, or all wells that have penetrated the San Andres formation regardless of the date that they did so.

A This map indicates all wells that were drilled prior to April 20th, 1977, that penetrated the San Andres. They're indicated on this plat on page 6. Then in

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formation is included on pages 34 and 35 in the tabulation.

What is the significance of those wells that have penetrated the San Andres formation that are indicated by the green circles?

A Each of these wells that penetrated the San Andres formation are actually potentially disqualifying wells according to the NGPA '78 regulations.

Q Did any of those wells produce gas from the San Andres formation prior to April 20th, 1977?

A None of them produced commercial quantities of San Anches oil or gas.

Let me ask you this, Mr. Nelson. I'd like to direct your attention to that part of the application that deals with the gas/oil ratio limitation and your request to increase the statewide limitation to 10,000-to-1. Would you discuss that for us?

A. Yes. We have a gas/oil ratio test on page 17. This test was taken on March the 10th of this year. The well produced 12 barrels of oil, 341 barrels of water, and 291 Mcf of gas on potential test on that date.

we to try to restrict our production to only produce the State statutory 200-to-1 ratio, we could only produce 160 Mcf of gas per day. Were we to try to produce at this rate, we would probably not produce anything at all except water.

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We're saying that we must produce it at the maximum possible rate in order for it to produce the oil and the gas.

If that portion of the application that requests a special limiting gas/oil ratio of 10,000-to-1 is not granted, will oil and gas be left in the formation that would otherwise be recovered if the application was granted?

Yes, it will be.

Now, with regards to that portion of the application dealing with t'e new onshore reservoir determination, the Section 102, new onshore reservoir determination for the subject well, let me see if I understand your testimony.

You have indicated a potentially new reservoir in an elliptical shape running from northwest to southeast, and that in your opinion it is confined to the area as shown on page 6, indicated with the blue and the green wells, and that represents the physical limits, as you understand them, for this reservoir. And that in addition you believe it is separated from the Funice-San Andres South, not only because of structure but because of differences in the capacity of the wells to produce water and because of pressure differences between the two reservoirs, is that 22 correct?

Yes, that's correct.

All right. Now, within the are you've defined as being a potential new reservoir, you have investi-

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gated some 50 or more wells that were drilled prior to April 20th, 1977, that could potentially disqualify your subject well from being declared the first well in a new reservoir, is that correct?

- A That's correct.
- All right, and of those wells, the ones you've identified in blue, you have determined from your testimony already that they could not economically produce the San Andres.
 - A That's correct.
- We have remaining then all the wells left in green.
 - A That's correct.
- All right. In your opinion do any of those wells disqualify the subject well from being declared the first well in a new reservoir?
- In our opinion they do not. The order issued by the Federal Regulatory Commission, their Order No. 42-A, spells out the requirements for potentially disqualifying well, concerning the behind the pipe exclusion, for reserves behind the pipe, and we propose to try to show that none of these wells that penetrated the San Andres could have produced San Andres reserves in commercial quantities.
- Q Order No. 42-A of the Federal Energy
 Regulatory Commission sets forth some guidelines for making

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the economic test to allow you to obtain an exception from this behind the pipe exclusion, and have you followed the guidelines set forth in that order in making your economic test?

Yes, we have. That order that you referred to presents a formula for this test, and the following formula is to be used applying the economic test.

The market price available as of April 20th, 1977, times the recoverable reserves, net of royalty producable from the subject reservoir, through the potentially disqualifying well, minus the sum of incremental operating expenses, plus 1.6 times the incremental capital costs.

If this formula comes out to be a negative number, then the behind the pipe exclusion does not apply.

If it's a positive figure, then of course, the behind the pipe exclusion does apply.

And we propose to show that in this case we come up with a negative number.

All right. Let me start the discussion, then, by directing your attention to all the wells circled in green and have you explain for us how you determined the optimum reserves that could be dedicated to the best of any of those wells.

A We took a number of logs of wells scattered throughout these wells that penetrated the San

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Andres. Several of those are included in the back of the book here. And we determined that the State "C" Well No. 1 and the Texas Pacific Elliott "B" 17 Well No. 4 were perhaps two of the better wells of all of those that penetrated the San Andres formation.

Then we asked Natural Resources Evaluation and Engineering, Incorporated, in Hobbs, New Mexico, to give us a reserves evaluation based on the State "C" Well No. 1 electric logs.

Where do we find your reserves calculation?

A On page 18 is the Natural Resources Evaluation and Engineering evaluation.

assumptions that they have made, or rather I should say, beginning with porosity they have calculated at 7.5 percent porosity; connate water was 60 percent. They have assumed a shrinkage factor of — they show here .8, but in using it in your formular you have to use the reciprocal of that, which is 1.25. They have estimated recovery efficiency of 12 percent. From the logs they were able to effectively — to determine a net effective thickness to be 15 feet. It's a standard 40-acre proration unit, and a gas/oil ratio was 24,500.

Using these they used a standard volumetric

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calculation to determine the oil in place. From this they came up with recoverable reserves of 13,406 barrels of oil.

Then applying the GOR, the measured GOR on the State "C" Well No. 1, we have 328,500 Mcf of recoverable gas reserves.

Let me ask you this. In your opinion, Mr. Nelson, do those reserve numbers for the gas and oil reserves represent the maximum reserves that could have been recovered from any of the wells that potentially disqualify the reservoir?

A It is our opinion that it does.

All right. If you'll turn to page 19 then and explain what you've done there.

All right. Part of the formula presented in this order 42-A was that we had to determine the cost. On page 19 you see the cost for plugging back from a typical average potentially disqualifying well. We have shown a plugback, perforate, stimulate, test, and equip cost of \$30,000.

Let me interrupt you for a moment. These are all costs based upon April, 1977, figures.

A. That's correct.

And they represent taking an existing well that has penetrated the San Andres formation and produces from some other horizon.

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Yes, that order is definitely used in their examples number one and two, hypothetical cases one and two, of FERC. And then, also, based on the producing history from the Eunice South San Andres, the 15-year producing life seems like a reasonable figure.

> All right, sir. \mathbf{Q}

Still on page 19, the lease operating cost we have shown on page number 33 an IBM run sheet from a well in the South Eunice-San Andres Field.

This IBM lease analysis report reports the October, November, and December operating cost by month. Then it has a year-to-date column, which you will note more or less in the center of the page that the total controllable expenses for the year-to-date was \$15,819.

MD MUDDED: Mas that January through

December, then?

That was January through December. A.

How does that expense figure for that sample well compare to its total income?

The total income for that same lease was \$16,867.

So the well over in the Eunice-San Andres South was just marginally profitable back in April of '77?

That's correct. This -- this is the

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lease operating cost figure then that we used, 15 times the \$15,819 gives you \$237,000 for a 15-year operating life.

presented to us by Natural Resources and have calculated the revenue to be expected from selling these reservoirs of oil and gas, reserves of oil and gas. We had to come up with the oil and gas price for April of 1977. Pages 21 and 22 show you the basis for that. Page 21 is a pipeline run statement for April of 1977 on the Zia Energy Christmas lease, which is two locations east of the State "C" Well No. 1.

That's gas produced from what formation?

A That's gas produced from the Grayburg formation.

A That's gas comparable to the gas that would have been produced out of the San Andres formation?

A Yes, it is comparable. It's casinghead gas and very much the same thing that you'd be producing from the San Andres.

So in your opinion you compare the prices
 of that formation gas with San Andres gas?

A Yes, that's correct.

Q Is the 62 cents an Mcf the gas price you used for April of '77?

A Yes, it is.

Q Is that gas price the maximum price paid

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in the area which you would believe applicable to the San Andres formation if that had produced in April of '777

A Yes, I think it is, because you would be producing casinghead gas and this is the price that was being paid for casinghead gas at that point in time.

Q How did you determine the oil price?

A On page 22 is a pipeline run statement from Shell Oil Company, also on our Zia Energy Christmas lease, and from this you see that the price received was \$13.03, which is the stripper price for production in April of 1977. Actually, a new completion in the San Andres would not qualify for stripper oil price that first year, but we have assumed that in the second year production that it would have qualified for a stripper price, and so we used the \$13.03 throughout the 15 year or throughout the reserves calculation.

MR. NUTTER: What do they do on this oil have trend statement? They give you \$5.21 a barrel for 182 barrels and then they give you an adjustment for stripper over on the righthand side?

A That's correct.

MR. NUTTER: So you add the 950 and 1427 together to get the total value paid, is that it?

A That's it.

MR. NUTTER: Okay, and that's where this 2378.36 at the bottom comes from?

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That's correct.

MR. NUTTER: Okay.

Then back on page 20 we have used the numbers for the oil and gas prices that we just established here to calculate the oil revenue and the gas revenue. In addition to the price for each oil and gas, we need to set forth that the royalty rate was 12-1/2 percent and then the tax rate for oil was 7.38 percent.

MR. NUTTER: Now where are you now?

Page 20.

MR. NUTTER: Okay.

We've used just a standard royalty of 1/8th, 4-1/2 percent, and the tax rate for oil and gas was 7.38 percent and 11.79 percent.

You've not taken a credit for any overriding royalties, have you?

No. The FERC regulations are a little unclear concerning that.

But you've assumed a lease without overriding royalties.

We've assumed a lease without overriding royalty.

Using these numbers we calculate oil revenue of \$141,565. Gas revenue of \$157,200. For a total revenue figure from all reserves of \$298,765.

SALLY W. BOYD, C.S. 14. 1 Box 193-B Santa 14, New Medico 67501 Physic (505) 455-7409 Then going back to the formula, which FERC has spelled out in their Order No. 42-A, we've included in that formula the \$298,765 of revenue, subtracted from that the sum of 1.6 times your capital expenditures that you get back from page 19, \$112,230, plus the total operating costs of \$273,285. This gives us a minus figure of \$154,088, and therefor, from this figure we conclude that the behind the pipe exclusion does not apply in this San Andres reservoir.

Let me go back to page 19. You've indicated your capital cost in April of '77 figures. I'd like you to summarize and tell me whether or not those items there represent the minimum items required in order to conservatively recomplete for San Andres production.

All right. You might notice the second item there, the 2-7/8ths OD tubing. You find 2-3/8ths far more common. But lifting the volume of water that we have to handle from this well, we are going to be forced to use a 2-inch bore pump and this will require the 2-7/8ths tubing.

Therefor, the larger, the heavier excess and the large bore pump are necessary because of the large volume of water which is necessary to be moved.

Then the free water knockout would be made necessary to separate as much of the free water as possible, and the 4x20 heater-treater is simply needed just to separate the remaining part of the water.

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Then the pumping unit which is spelled out there is sized according to American Manufacturing calculations to be the correct size and the engine supplies the correct horsepower to lift that volume of water from that depth.

I might add one more thing there.

MR. NUTTER: Are you calculating that this well would produce this 341 barrels of water per day to its depletion or is the water going to increase, or what?

A I think --

MR. NUTTER: Or are these pumping unit sizes and pump sizes based on the present 341?

A They're based on approximately 400 barrels per day.

MR. NUTTER: About 400.

which is basically the fluid volume that is being lifted currently.

MR. NUTTER: Okay.

Another big item in your cost is for salt water disposal. We have salt water disposal system installation of 25,200, which is based on figures given to us by Agua, Incorporated, which is a salt water disposal company that would serve this area. Their estimate of a line that they did lay in the early part of 1977 is on pages 31 and 32. From that they have indicated 25,167 dollars of estimated

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cost, and this is the figure that we used in our calculation.

Pages 23 through 32 are simply included as verification of some of the cost figures for equipment, for the April of 1977 prices.

In your opinion, then, Mr. Nelson, are the items reflected on page 19 the minimum capital expenditures necessary to recomplete an existing well for production from the San Andres formation in April of '77?

A Yes, they are.

"C" Well No. 1 San Andres production is 2-3/4 miles from the classest well producing from the San Andres formation. From the map that is presented, it is apparent that noncommercial San Andres tests are located north, south, and east of the State "C" Well No. 1, separating it from both the Eunice-San Andres and the Eunice-San Andres South Pools.

Bottom hole pressure data obtained by drill stem test survey, indicate that more than 1300 psi, which indicate that this is original bottom hole pressure, and that the San Andres has not been produced in this area.

MR. NUTTER: Now, let's see, Mr. Nelson, your bottom hole pressure in this well on the original DST was 1334, was it?

1336.

MR. NUTTER: 13 -- well, I thought you

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said 1336 and then here on page 7, ran DST 3860 to TD. Closed in bottom hole pressure 1334.

A Okay, that's a typographical error.

MR. NUTTER: That should be a 36, there.

Correct.

MR. NUTTER: Okay, that's what had me confused. I thought you said 36 and then I read 34.

Go ahead.

A. We did not go over these, but gas analysis and oil gravity information was presented to confirm that this is San Andres production, as compared to the Grayburg and Queen production of that area.

Finally, at the time that the earlier noncommercial tests in the San Andres were made, the price of oil and gas was approximately \$13.03 per barrel and 62 cents per Mcf of gas.

Considering the large volume of water to be handled, these earlier tests were noncommerical. An operator can expect to produce the San Andres at a profit now provided he can sell the oil and gas at the prices specified by new onshore reservoirs and provided that the special GOR rule will make it possible to produce the well without any restriction imposed by limiting GORs.

Then in summary concerning the economic test required by FERC Order 42-A, we have supplied exhibits

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listing 40 -- that should be corrected to about 54, I believe, potentially disqualifying wells due to the behind the pipe exclusion in Section 102 (c) 1 C-2 I of the NGPA. Electric log sections from several of these wells are presented to indicate the -- that the relative uniform character of the San Andres throughout the proposed new field.

Yes, 19 and 20, were presented to show the economic test prescribed by the FERC order No. 42-A, that the behind the pipe exclusion did not apply.

The Oil Conservation Division is requested to establish a new San Andres Pool with a special limiting GOR ratio of 10,000-to-1.

The Oil Conservation Division is further requested to make a determination that this is a new onshore reservoir and that this and all future wells completed in this new onshore reservoir will be eligible for the NGPA Section 102 gas pricing category.

by approving these requests the Oil Conservation Division will be promoting conservation, protecting correlative rights, and providing incentive for the production of oil and gas that would not be otherwise produced for consumption.

Q. Mr. Nelson, were Exhibits One through
Eleven prepared by you directly or compiled under your direction

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and supervision?

A. Yes, they were.

MR. KELLAHIN: We move the introduction of Exhibits One through Eleven.

MR. NUTTER: Exhibits One through Eleven will be admitted in evidence.

CROSS EXAMINATION

BY MR. NUTTER:

Did you give us a log of this well so that we can determine that it is completed in the San Andres formation?

- A Of the State "C"?
- Q Yes, sir.
- Yes, it should be in that group. I think it's the second log. Yes, if yours are numbered the same as mine, it should be the second log.
- Now, let's see, and where are we perforated on this log, Mr. Nelson?
- A. We're perforated two holes at 3830 and two holes at 3834.
 - a 3830 and two holes at 3834.
 - A 3834.
- g 3834. Now, Mr. Nelson, I don't understand why you need a GOR limit of 10,000-to-1 in this pool.

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to-1.

Q		Right.
A	•	If we applied that to an 80-barrel a day
top allowab	le well w	e would only be able to produce 160 Mcf
of gas per	day.	
Q	•	But you're asking for 10,000-to-1.
That's goin	g to give	you 800,000 and this well will only make
341 at the	most, won	't it, or 280?
A	•	280 to 90 is has been its production
rate, but w	e're not	sure that this is going to be the top of
any future	well that	we might complete.
Q	ı	But as of now we know that we've got a
well here t	hat produ	ces a ratio of 23 to 24,000-to-1.
A		Yes, that's correct.
Q		And it's in no trouble as far as making
its cil all	ed eldero.	cause it's not penalized. It's ineffacti
because of	the low o	il productivity and I just don't under-
stand the n	ecessity	for 800,000 cubic feet of gas per day

gas allowable on a 40-acre well.

probably live with a 5000-to-1 ratio.

able of producing now by another 25 percent even.

The standard statewide GOR rule is 2000-

Well, at this point in time we could

5000 would be more than the well is cap-

Yes, that would give us 400, which is

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approximately 25 percent more than what it's producing.

What are the GOR limits that are in effect in the Eunice-San Andres and the South Eunice-San Andres, do you know?

No, I'm sorry, I don't.

We will take administrative notice of our GOR limits in those two pools. They're the closest San Andres pools to this discovery.

Yes, they are. The Eumont, which of course is another formation, the Queen, and the Grayburg are both 10,000-to-1.

Right.

In that area.

They're recognized as being gas pools -gas reservoirs.

MR. NUTTER: Are there any other questions of Mr. Farris -- Mr. Nelson?

MR. PADILLA: I have one, Mr. Examiner.

CROSS EXAMINATION

BY MR. PADILLA:

Mr. Nelson, I just want to clarify what's on page 6, go over that once more.

The wells circled in blue were the ones that were tested in the San Andres, is that correct?

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Some of them had specific San Andres tests. At least three of them were drilled and abandoned as dry holes, without any mention being made of specific San Andres tests.

Q And the ones circled in green penetrated the San Andres but did not test the San Andres.

Those were noncommercial in the San Andres

A That is correct. They have produced at some deeper formation prior to April 20th, 1977.

Q Do you know if any of these wells were ever perforated in the San Andres, the ones circled in green, were they ever perforated in the San Andres?

A None that I'm aware of.

Q Basically, the reason that these wells are noncommercial in the San Andres is too much water, is that correct?

A. That's a big part of it because that increased the equipment cost for handling the large volume of water. Then, also, it adds a lot of cost to salt water disposal costs.

MR. PADILLA: I have no further questions.

RECROSS EXAMINATION

BY MR. NUTTER:

Q What pool are these wells producing from?

A The green?

Uh-huh.

Okay.

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Tubb.

Tubb area, then?

Mr. Kellahin?

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing Before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

> I do hereby cartify that the foregoing is a complete reneral of the processilans in the Examiner hearing of C Otl Conservation Division

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: CASE NO. 6861

Application of Zia Energy, Inc. for pool creation, special pool rules, and an NGPA determination, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Andres oil pool for its State "C" Well No. 1 located in Unit F of Section 17, Township 22 South, Range 37 East, and special rules therefor, including a provision for a limiting gas-oil ratio of 10,000 to 1. Applicant further seeks a new onshore reservoir determination for said State "C" Well No. 1.

ZIA ENERGY, INC. HOBBS. NEW MEXICO 88240

May 2, 1990

Energy and Minerals Department Oil Conservation Division P. O. Box 2088 Santa Fe, NM 87501

Re: Case No. 6861

Case No. 6861 is an Application by Zia Energy, Inc. for pool creation, special pool rules and an NGPA determination. Zia Energy seeks the creation of a new Gentlemen: San Andres oil pool for its State "C" Well No. 1 located in Unit F of Section 17, Township 22 South, Range 37 East, and special rules therefor, including a provision for a limiting gas-oil ratio of 10,000 to 1. Zia Energy further seeks a New Onshore Reservoir determination for said State "C" Well No. 1 in Lea

In support of this application, several exhibits have been prepared and are County, New Mexico. hereby offered for your consideration.

A map section has been prepared to show the existing San Andres pools which are nearest to the proposed new San Andres pool for the State "C" Well No. 1. You will note from this map that the closest well producing from the San Andres is the Gulf Oil Company Eaves No. 4 in Unit H, Sec. 10, T225, R37E. The Gulf Eaves No. 4 is 2 3/4 miles northeast from the Zia Energy State "C" No. 1. This well, along with several other wells in Sections No.5 2, 11, and 14, is producing in the Eunice San Andres-South pool. Two other wells, the Mobil Carson No. 23-G in Section 33, T21S, R37E, and the Amoco Owens "B" No. 1-L in Section 34, T21S, R37E, have produced from the Eunice San Andres pool, located northward.

This map section also locates several other wells in the area of interest which have heen tested in the San Andres and determined to be non-commercial at the nave neen tested in the pair Andres and determined to be non-commercial at the time of testing. Included as non-commercial are Gulf Oil Company South Penrose Skelly Unit No. 220-N (5-22-37) and No. 262-P (8-22-37), Millard Deck Patsy "B" Skelly Unit No. 220-N (5-22-37) and No. 262-P (8-22-37). No. 1-C (20-22-37), Anadarko Production Company E. W. Walden No. 11-M (15-22-37), Rowan Drlg. Elliott No. 1-K (17-22-37), and Zia Energy, Inc. Federal

A contour map and a cross-section of the area of interest is presented. The No. 1-K (17-22-37). cross-section commences at the Gulf SPSU No. 262-P (8-22-37) and progresses Energy and Minerals Department May 2, 1980 Page 2

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southward through the State "C" No. 1 to the Millard Deck Patsy "B" No. 1-C (20-22-37). It will be noted from the contour map and the cross-section that the State "C" No. 1 is only slightly higher structurally than the other wells. Another well, the Anadarko Walden No. 11-M (15-22-37), which is located east and south of the State "C", is structurally lower.

From the map section and the contour map and cross-section, it is apparent that the State "C" No. 1 is isolated from other San Andres pools by non-commercial wells to the north, to the south, and to the east. There is no San Andres pool to the west and no San Andres tests have been conducted, of which we are aware.

Experience, and the information that we have, indicates that structural position has less to do with whether a well is a commercial or non-commercial producer than porosity and water saturation. Another factor that is most important in determining whether a well is commercial or not is the price to be received for the oil and gas production. San Andres production in this area can be expected to produce large volumes of water. Therefore, salt water disposal cost and price for oil and gas can determine whether a well is commercial or non-commercial.

In order to further support that this is a new San Andres pool, we present DST bottom hole pressure information, gas analysis data, and oil gravity comparisons. Enclosed is a DST on the State "C" No. 1 which indicated a bottom hole pressure of 1336 psi. A well data sheet on the Gulf Oil Company SPSU No. 262 reports DST results taken in the Queen, Grayburg, and San Andres formations. BHP in the Queen was reported as 414 psi, in the Grayburg the BHP was 810 psi, and the San Andres 1316 psi. Bottom hole pressures in excess of 1300 psi would certainly indicate the San Andres has not previously been produced in this area.

A gas analysis of the gas produced from the Queen formation and the gas produced from the San Anores in the State "C" No. 1 indicates a significant difference in BTU content. Also, a significant difference is noted in the gravity of the oil produced from the San Andres in the State "C" No. 1 and the oil produced from the Queen and the Grayburg formations. This evidence is presented to support that this is San Andres production.

A gas-oil ratio test is submitted that indicates the State "C" No. 1 is currently producing with a GOR of 24,250 to 1. The regular GOR rule would restrict gas production to 160 MCF per day while the well is currently producing 291 MCF per day. Since the well is producing 341 barrels of water per day, it would not be possible to restrict gas production to only 160 MCF. This will make it necessary that special GOR rules be adopted for the pool allowing a 10,000 to 1 GOR.

The Oil Conservation Division is further requested to make a determination that this San Andres well is in a New Onshore Reservoir as defined in NGPA Section

Energy and Minerals Department May 2, 1980 Page 3

102(c) (1) (C). Section 102(c) (1) (C) of the NGPA applies to gas produced from New Onshore Reservoirs which are generally defined as onshore reservoirs from which natural gas was not produced in commercial quantities before April 20, 1977. Under the Behind-the-Pipe Exclusion, if an old well penetrated the subject reservoir and produced oil or gas in commercial quantities from any formation prior to April 20, 1977, the penetrated reservoir is disqualified if gas from that subject reservoir "could have been produced in commercial quantities" through such old well prior to April 20, 1977.

Federal Energy Regulatory Commission Order No. 42 originally only specified a physical capability test, meaning "could have been produced" and it ignored the later part of the test for determining the status of the Behind-the-Pipe Exclusion. This later part included the words "in commercial quantities."

FERC Order No. 42-A, issued November 29, 1979, sought to more clearly implement the intent of Congress. It was the wish of Congress to encourage the production of previously non-commercial reserves by allowing an incentive price, but Congress also wished to deny this incentive price to production withheld from the market place for purposes of price speculation. Therefore, FERC adopted regulations to implement the Behind-the-Pipe Exclusion to achieve both of these purposes.

In this case we have shown that the San Andres formation is a new field. But, in order for wells producing in this new field to qualify for Section 102 (New Onshore Reservoir) gas pricing category, we must satisfy FERC regulations concerning the Behind-the-Pipe Exclusion. In summary, the regulations state that any well which penetrated the subject reservoir prior to April 20, 1977 can be a potentially disqualifying well unless it can be shown, using an economic test outlined in Order No. 42-A, that the subject reserves from the subject reservoir "could not have been produced in commercial quantities" before April 20, 1977, through the potentially disqualifying well by perforating and recompleting in the subject reservoir. This economic test is outlined in detail in Order No. 42-A. The key components of this test are estimates of reserves, costs and the market place of the gas. The following formula is to be used in applying the economic test: (market price available as of April 20, 1977 x reserves net of royalty producible from the subject reservoir through the recompleted potentially disqualifying wells) - (incremental operating expenses) + (1.6 x incremental capital costs). If the result is negative, then the Behind-the-Pipe Exclusion does not apply.

In order to supply the information required by the economic test, we submit a reserves estimate prepared by Natural Resources Evaluation and Engineering, Inc. wherein they estimate ultimate recovery from the sample potentially disqualifying well to be 13,406 barrels of oil and 328,500 MCF of gas. Capital

Energy and Minerals Department May 2, 1980
Page 4

costs for recompleting and operating costs, for the sample potentially disqualifying well, were collected from numerous sources and are summarized in Exhibit No. ____. All prices for material and labor are those in effect in April 1977, and these were obtained through CE-Natco, Mid-Continent Supply, Pumping Units Services, Cooper Energy Services, Hobbs Repair Services, Lone Star Steel Co., Agua, Inc., B. F. Walker, The Western Company, Packer Sales and Rental, and Dresser-Atlas. The formula outlined by FERC Order No. 42-A allowed 1.6 x incremental capital costs plus incremental operating expenses. The total for both of these is \$452,853. The market price of the reserves is shown in Exhibit No. ___ to be \$298,765. The market price used for oil and gas was the price being paid in April 1977 by Shell and Getty for oil and gas of similar quality two locations away on our Christmas lease. The royalty rate was assumed to be 12½ per cent. The tax rate used was the rate which applied to oil and gas in 1977.

Using the information from these exhibits and the formula adopted by FERC in Order No. 42-A we are able to show that a negative value of \$154,088 is obtained and, therefore, the Behind-the-Pipe Exclusion in Section 102(c)(1)(C)(ii) of the NGPA does not apply to the potentially disqualifying wells and, furthermore, this new San Andres reservoir will qualify for Section 102 gas pricing category.

In summary, we have shown that the State "C" No. 1 San Andres production is 2 3/4 miles from the closest well producing from the San Andres formation. From the map that is presented, it is apparent that non-commercial San Andres tests are located north, south, and east of the State "C" No. 1, separating it from both the Eunice San Andres and the Eunice San Andres-South pools. Bottom hole pressure data obtained by DST surveys indicate more than 1300 psi, which indicates that this is original BHP and that the San Andres has not been produced in this area. Then, gas analysis and oil gravity information was presented to confirm that this is San Andres production. Finally, at the time that earlier non-commercial tests in the San Andres were made, the price of oil and gas was approximately \$13.03 per barrel and \$0.62 per MCF, respectively. Considering the large volume of water to be handled, these earlier tests were non-commercial. An operator can expect to produce the San Andres at a profit now, provided he can sell the oil and gas at the prices specified for new onshore reservoirs and provided that a special GOR rule will make it possible to produce the well without any restriction imposed by limiting GORs.

Then, in summary concerning the economic test required by FERC Order No. 42-A, we have supplied an Exhibit No. _____ listing 40 potentially disqualifying wells due to the Behind-the-Pipe Exclusion in Section 102(c)(1)(C)(ii) of the NGPA. Electrical log sections from several of these wells are presented to indicate the relative uniform character of the San Andres formation throughout this proposed new field. Exhibit Nos. ____ and ____ were presented to show by the economic

Energy and Minerals Department May 2, 1980 Page 5

test prescribed by FERC Order No. 42-A that the Behind-the Pipe Exclusion did not apply.

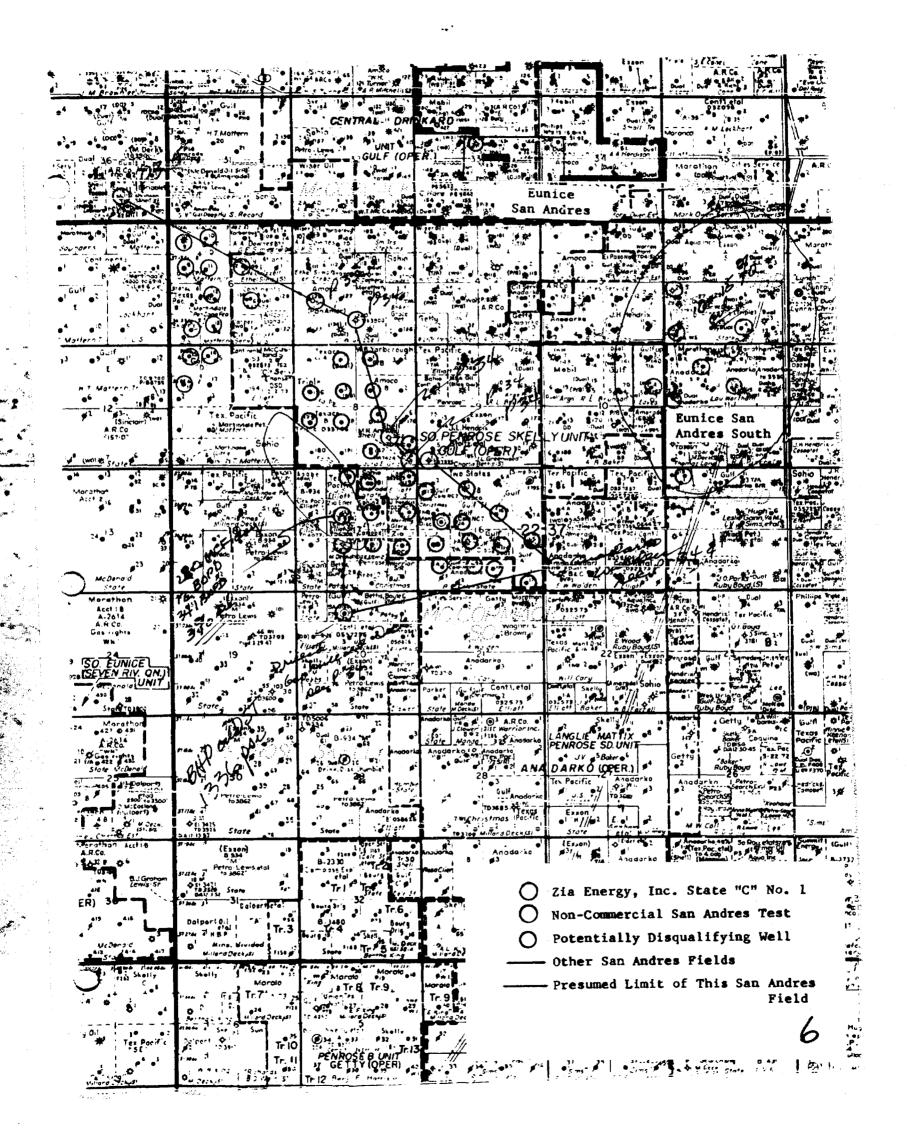
The Oil Conservation Division is requested to establish a new San Andres pool with a special rule for GOR limiting it to a 10,000 to 1 ratio. The Division is further requested to make a determination that this is a new onshore reservoir and that this and all future wells completed in this New Onshore Reservoir will be eligible for the NGPA Section 102 gas pricing category.

By approving these requests the Oil Conservation Division will be promoting conservation, protecting correlative rights, and providing incentive for the production of oil and gas that would not be otherwise produced for consumption by energy hungry consumers.

Yours very truly,

ZIA ENERGY, INC.

m3 nelson



Company: Lease:	Zia Energy, Inc. Well No. 1	
Field:	Undesignated San Andres Unit Letter F Sec. 17 , T 22 S , R 37 E	
	Lea County, New Mexico	
Date Compl	leted 1/23/80 Total Depth 3929' Elevation 3405' GR	
Intermedia	ate Casing: Size 8 5/8" Depth 315' Cement 210 sx	
	on Casing: Size 5 1/2" Depth 3435' Cement 300 sx	
	on:Open Hole:	
Formation	Tops: TATSBSTY	
	T7RTQuTGb	
	ion:	
Initial P	Potential: BOPD 12 BWPD 341 MCF/D 291	
	ve Production to: BO MCF	
Remarks:	10/25/79: Deepened from 3542' to 3929'. Ran DST 3860'-TD. closed in BHP 1334-psi. Ran CNL-GR logs. Ran 525' 4" OD 12.5# FJ liner. Cmtd using 70 sx Cl "C" cmt. Rev. out 15 sx. Perf 3 JS at 3864'. Trt w/100 GA. Swb 100% wtr. Set cmt ret at 3856'. Sqzd perfs with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' with 10 sx cmt, rev. out 150 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' with 10 sx cmt, rev. out 150 sx cmt, rev. out	34 ' 20%

Company:	Anadarko Production Company
Lease:	E. W. Walden Well No. 11
Field:	Penrose-Skellv
	Unit Letter M Sec. 15 , T 22 S , R 37 E
	Lea County, New Mexico
Date Comp	pleted 2/3/74 Total Depth 4600' Elevation 3408' RKP
Intermedi	ate Casing: Size 8 5/8" Depth 351' Cement 150 sx
Production	on Casing: Size 5 1/2" Depth 4600' Cement 315 sx
Perforati	ion: <u>See below</u> Open Hole:
Formation	Tops: TA 1124' TS 1220' BS 2418' TY 2563'
-1	T7R 2782: TQu 3335' TGb 3650' TSA 3905'
Stimulati	Ion: See below
Initial f	Potential: 80PD 160 BWPD 275 MCF/D 350
Cumulativ	ve Production to : BO MCF
Remarks:	
1/6/74	Perf 4307-12', 4419-22', 4500-05', 4524-28'. Breakdown perfs w/500 GA 15% reg. Treat w/3000 gals 20% acid. Swab 100% sulfur water. Set
	retainer at 4000' and squeezed w/400 sks cmt. Drld out to 4260'. Perf 4207-12', 4222-26'. Breakdown perfs w/500 GA 15% reg. Swab tested. 100% sulfur with fluid level @ 2000'. Set retainer @ 4161' and squeezed
1/17/74	<pre>w/275 sks. Perf 4070-79', 4094-98', 4121-28'. Breakdown perfs w/250 GA 15% reg. Swab tested 100% sulfur water. Set retainer @ 4058'. Squeezed w/11 sks cmt.</pre>
1/22/74	Swab tested 100% sulfur water. Set retainer @ 4058'. Squeezed w/11 sks cmt. Perf 3944-50'. 3975-78'. 3988-93'. 4002-05'. 4012-16'. Breakdown perfs w/1000 GA 15% reg. Swab tested 100% sulfur water. Set retainer @ 3930'.
1/25/74	Squeezed w/150 sks cmt. Perf w/1 JS @ each 3735', 3753', 3778', 3780', 3791', 3797', 3801', 3804', 3839', 3857', 3867', 3871', 3876' & 3885'. Breakdown perfs w/700 GA 15% reg. & 12 ball sealers. Fracture treat using 60,000 gals 9# gelled brine and 62,000# sand in 3 stages.

company:	miliard Deck	
Lease:	Patsy "B" Langlie Mattix	Well No. 1
Field:	Langile Mattix	
	unit Letter C Sec. 20) , T 22 S , R 37 E
	Lea County, New Mexico	
Date Compl	eted 7/28/71 Total Depti	h <u>4412'</u> Elevation <u>3378'R</u> KE
Intermedia	te Casing: Size 8 5/8" Depth	300' Cement 250 sx
Production	Casing: Size 5 1/2" Depth	4225' Cement 500 sx
Perforatio	on: See below Open 1	Hole:
Formation	Tops: TA 1020' TS 1070'	BS 2400' TY 2605'
	77R 2810' TQu 3315'	TGb 3608' TSA 3845'
Stimulatio	on: See below	
Initial Po	otential: BOPD 90 BWPD	75 MCF/D 289
Cumulative	Production to: BO	MCF
	6/28/71: TD 305'; Prep drill 7/6/71: Drlg. 4304' 7/13/71: TD 4412'; WOC	
	7/19/71: TD 4412'; PBD 4225'; 8/9/71: TD 4412'; PBD 3800'; Perf 4053'93' w/8 sh	WO Comp
,	0/9//I: IU 4412'; PBU 3800';	, istg
•	Acid (4054'93') 1000	nots (overall) I mals
	Swbd wtr (4054-93')	94.0
	Sqzd 4053-93'w/100's	x
	Perf 3973-95' w/5 sh	ots (overall)
	Acid (3973-95') 2000 Swbd wtr (3973-95')	gais
	BP @ 3800'	

Company: _ Lease: _ Field: _	Gulf Oil Company South Penrose Skelly Unit Well No. 262 Penrose Skelly Init Letter P Sec. 8 , T 22 S , R 37 E
Date Complet	ted 9/26/75 Total Depth 3900' Elevation 3407' GR e Casing: Size 8 5/8" Depth 1182' Cement 600 sx
Production Perforation	Casing: Size 5 1/2" Depth 3900' Cement 475 sx See below Open Hole:
Formation T	TOPS: TA 1122' TS BS TY 2560' T7R 2815' TQu 3320' TGb 3590' TSA 3816'
Initial Po	n: See below tential: BOPD BWPD MCF/D Production to: BO MCF
Remarks: 3476-3536 Cored (Quarec 390' 3590-3656 (Grayb) 3 DST (Gray FP 400-44 no desc; 1 hr 30W FSIP 1310 w/4 SPF;	Comp Info: Cored (Queen) 3416-76rec 60', no desc; Cored (Queen) 7, rec 60', no desc; Cored (Queen 3536-45', rec 8', no desc; 8, rec 60', no desc; Cored (Queen 3536-45', rec 8', no desc; 8, rec 60', no desc; DST (Queen) 2419-3590', op 2 hrs, 9, rec 60', no desc; Cored (Grayb) 379\$\frac{1}{2} \text{ hrs, HP 1741-1729}\frac{1}{2}; Cored (Grayb) 10, rec 60', no desc; Cored (Grayb) 3770-3800', rec 30', no desc; 10, rec 60', no desc; Cored (Grayb) 3770-3800', rec 30', no desc; 10, rec 60', no desc; Cored (Grayb) 3770-3800', rec 30', no desc; 10, rec 60', no desc; Cored (Grayb) 3770-3800', rec 30', no desc; 10, rec 60', no desc; Cored (San And) 3800-60', rec 60', 11, rec 60', no desc; DST (San And) 3860-3900', op Cored (San And) 3860-3900',

Company:	Gulf	Oil Co	rporatio	n				
Lease:		_				Well No.		
Field:	Euni	ce San	Andres -	とついもん				
	Unit Let	ter H	Se	c 1/) T	22.6	, R_ 37 E	
				··	, '_	22 3	, R 3/ E	
	Lea Count	ty, New	Mexico					
Date Compl	eted5/16	5/72	Tota	1 Depth	5182	Elev	ation	
Intermedia	te Casing:	Size_	9 5/8"	Depth	2850'	_Cement_	1300 sx	
Production	Casing:	Size	7"	Depth_	5182'	_Cement_	500 sx	_
Perforation	n: See be	low		Open H	ole:			_
Formation 1	Tops: TA_		TS		B\$	Ţ	Υ	-
	T7R		TQu_		TGb_			
Stimulation	: See	below					_	
Initial Pot	ential:	BOPD	42	BWPD_	8	MCF/D		-
Cumulative								
Remarks:	6/5/72	Orig OTD 5 TD 518 PB to Perf 4 4200-(Acid (Non-Co Acid (Non-Co PB to	52' WO (. comp 1, 182'; OP 32'; PBD 4993' 1018-20', 02' w/2 (4018-42(0mmercial	San And /16/47 B 5118' 4162'; 4046- SPF 02') 40 I (4018 02') 25 I (4018	ires) thru Gio COMPLET 48', 408 00 gals -4202') 00 gals -4202')	• .	erfs 5050-51	15

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)	P. O. BOX 1181 HOSSE, H.M. 26340

CERTIFICATE	OF	ANALYSIS
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Run No		-10-80)
Date of	-		30
Date Se	ecured	1-4-	

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FRACTIONAL ANALYSIS

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-					., El.	135 Gr H25	100 SCI
entanes		426			44	2133 PPM	
so-Penione		307	, 061		***	0.2133 Mol\$	
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	And the second s	0.23
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NAVAJO CRUDE OIL PURCHASING CO. RUN TICKET

	ZIA ENCLYY
OPERATOR ZIA ENCrgy	LEASE NAME ST- C
TEASE NAME ST. C	10 24 79 15 TICKET NO. 524
3 1/2 180 FIST TICKET NO. 738	10 24 79 15 524 TANK NO. 11499 -1 8987
TANK NO. 1 4 98-3 (EASE NO. 8987)	SPFICE CODES
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11-48 BAYS MEV. 9-1-64

NAVAJO CRUDE OIL PURCHASING CO. RUN TICKET

THE SHELL PIPE LINE CORPORATION	^{REV. 9-1-64} NAVAJO CRUDE OIL PURCHASING CO. RUN TICKET
Dea Energy Inc 17-560	
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	SAUGER TIME 730
	OPERATOR'S WITHESS (OR WAIVER NO.) OFF SEAL
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THE THO PACTOR	OPERATIR'S WITHESS (OR WATVER NO.) OH SEAL
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1 / see \$501639	
10/ Mina 94 13/	This ticket covers all claims for allowance. The oil represented by the ticket was received and run as the property of Novoja Crudo Oil Purch
STERATOR'S WITHESS OF SANUESPO. SEAL OF \$5/1796	Ing Company.
4/pag \$5/7796	

FLUID SA	W	ATA	Dote 1	1-8-79	Но	mber Iliburton	619022		Location Twp Ra		
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Recovered Remarks SEE	Feet of Feet of PRODUCTION Gauge No. 7	563	Sauge No.	7562	Gouge No.		Ft. Tool	TIME	- Const	ested Interval	3929'
Recovered Remarks SEE	Feet of Feet of PRODUCTION Gauge No. 7	563 845 Pt. 1	Sauge No.	7562 3925 Ft.	Depth:	Hour Cl	Fr. Tool Opens			ested Interval	3929'
Recovered Remorks SEE TEMPERATURE Call.	Feet of Feet of PRODUCTION Gauge No. 7 Depth: 3	563 845 Ft. 1	Sauge No.	7562 3925 Ft.	_	Hour Ch		<u>d</u> 103	A.M.	ested Interval	3929'
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ENERGY NO MINIERALS DEPARTMENT

GAS-OIL RATIO TESTS

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ZIA ENERGY, INC.				Sán	Andr	es Wildca						<u> </u>	<u>:a</u>				
1	P. O. Box 603. Hobbs, NM 88240								TYPE OF TEST - (X) Scheduled		Completion X				Spec	Special [
	WELL		LOC	ATION		DATEOF	5	CHOKE	TBG.	DAILY	. E467H	RESTH PROD.		URING	TEST	GAS - CIL	
. LEASE NAME	NO.	U	s	;	Я	TEST	37.4	1	PRESS.	ALLOW-	TEST HOURS	WATER BBLS.	GRAV.	OIL BBLS	GAS M.C.F.	RATIO CU.FT/88L	
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State "C" R-934	1	F	17	22S	37E	3/10/80	F	32/64	120	8	24	341	30.6	12	291	24,250	
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ed allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 pain and a temperature of 60° F. Specific gravity base

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

Engineer

3/12/80

Mains Resonices Ensimation and Engineering Inc.

(505) 393-6364 • SUITE 240 • BROADMOOR BUILDING HOBBS, NEW MEXICO 88240

April 25, 1980

Zia Energy, Inc. r. o. Box 603 Hobbs, NM 88240

Dear Mr. Nelson:

At your request I have estimated reserves on your State "C" #1 well located 1981' FWL & 1980' FNL, Section 17, T-25-S, R-37-E. Since there is very little history on San Andres production in the near vicinity of your well, the decision was made to go on volumetric calculations. This method is probably the best way to calculate reserves in the early life of a well or field, as there is no production history and few reservoir properties are known. The following parameters were used in the reserve calculations:

Porceity Connate water 7.5% Shrinkage factor calculated (log) 60.0% Recovery efficiency calculated (log) .80 Net effective thickness estimated 12.0% Drainage area 15.0 feet estimated G.O.R. calculated (log) 40.0 ac. proration unit

The estimated ultimate recovery on this well is 13406 BBLS of oil and based on a gas oil ratio of 24,500:1. The gas reserves

I hope this meets your requirements and if I can be of any further assistance feel free to contact me.

Very truly yours,

tisuca

Joe T. Janica PE 20097

JTJ/kg

ZIA ENERGY, INC.

Cost Analysis To Plug Back and Recomplete, Equip and Operate a New Onshore San Andres Reservoir Well

Cost Basis For All Figures - April 1977

Item	Cost
Plug back, perforate, stimulate, test & equip 2 7/8" OD EUE J-55 tubing - 3800' med 218" instead 7/8" Gr. 40 sucker rods - 1300' y 238 lecture of 3/4" Gr. 40 sucker rods - 2500' y pump & large 2½" x 2" x 16' subsurface pump 1 - 4' x 20' heater treater - installed 1 - 4' x 10' free water knockout - installed Miscellaneous well head connections 1 - pumping unit - Amcot T20F86-20-D228Z 1 - Ajax engine - EA-30 1 - pumping unit concrete base plus installation Salt Water Disposal System installation (from Parit 32)	\$ 30,000 intangibles 9,430 1,200 1,800 632 10,000 3,500 1,500 18,530 9,050 1,388 25,200
TOTAL CAPITAL COST	\$112,230
Overhead Expense - \$200/well/month - 15 yrs Lease operating costs - 15 yrs TOTAL OPERATING COST	\$ 36,000 237,285 \$273,285
- 15819 juga 9 X 15	rom P33

ZIA ENERGY, INC.

Revenue Calculation For New Onshore San Andres Reservoir Well

12000

Calculation based on the following data:

 Recoverable oil
 13,406 bbls

 Price for Oil - April 1977
 \$13.00/bbl

 Recoverable Gas
 328,500 MCF

 Price for Gas - April 1977
 \$0.62/MCF

 Royalty rate
 12.5%

 Tax rate - Oil
 -7.38% - D75005

 Tax rate - Gas
 11.79% 075005

Oil Revenue: 여기에이 = 1413위 숙단하다

Gas Revenue: (224.75) (328,500) (.62) (.875) (-8821) = 164.845

Total Revenue 306,226 \$298,765

Formula for "could have been produced in commercial quantities" test:

Reserve 1.6 x Capital Exp + open Could

306,226 -298,765 - [[1.6] (112,230] + 273,285 =

1.0000000

700 298,765 - (179,568 + 273,285)

306,276 - 452,853 = minus \$154,088

Therefore, the "Behind-the-Pipe Exclusion" does not apply and this San Andres reservoir qualifies for the Sec. 102 (New Onshore Reservoir) price category.

.075005

Getty Oil Smpany

P.O. BOX 3000 TULSA, OKLAHOMA 74102

KFEP ALL STATEMENTS.
DUPLICATES WILL NOT BE FURNISHED.

STATEMENT OF GAS PURCHASED

OBM 13-875 2-77									
PL/ NAME	ANT NO.	- sı	ATE	со	UNTY	STATION NUMBER	METER NUMBER	MO.	YEAR
EUNICE	41	NEW MEXI	CO	LEA		04950			1977
	PRODUCER			LEASE		WELLS NO.			
ZIA EN	ZIA ENERGIES INC			CHRISTMAS					
		;	GA	SOLINE CONTI	ENT VALUE				
TOTAL GAS PURCHASED-M. C. F.			CORRECTED TEST GALS.	PRICE/M.C.F. OR PRICE/GAL.	CONTRACT PERCENT	ALTERNATE PRESSURE BASE	CORRECTED M. C. F.	GASOUN CONTENT V	
1.153	1.015	1,170		.1473219	33.33	19-025	1,124		37,43
			BUTANE/PR	OPANE SALES	VALUE OF THE	GAS			
GALLONS AVERAGE VALUE DUE SOLD PRICE/GAL ALL LEASES			CONTRACT PERCENT	TOTAL TEST GALS.				BUTANE/PRO VALUE DUE	
11,560,269	.1357805	523.167.54	3.3	2,150,225				2	78.7
-			RE	SIDUE VALUE O	F THE GAS	-			
PERCENTAGE RESIDUE REM.	VOLUME RESIDUE REM.	RESIDUE GAS RETURNED TO LSE.	REPRESSURE GAS LEASE	AVAILABLE FOR SALE FROM LSE,	TOTAL FOR SALE FROM PLANT	TOTAL SOLD FROM PLANT	NET PROCEEDS DUE ALL LEASES	RESIDUE (VALUE DUE	
35.58	761			761	1.884.214	1,884,214	937,425	3	74 6
	- H-75	بلات د سخت د اساستستنه		1					

STATION SUMMARY AND TAX VALUES

PLANT FACTOR	% COVERED BY THIS SUMMARY	TOTAL GROSS VALUE	TAX EXEMPT ROYALTY VALUE	TAXABLE VALUE	PRODUCTION TAX	EXCISE TAX	TOTAL TAX	NET VALUE DUE LEASE
.797236C		714.77		714.77	26.60	1.29	23.61	cc1-16
-0102050		0	NEW MEXICO AD	VALOREM TAX	.010/99	SCH TAX	16.23	
	Ges I	Price	-				.0255	

714.77 = .62

1153

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SHELL OIL COMPANY

OPERATOR

OPERATOR

ZIA ENERGY INC

CHRISTNAS

PENDS SKELLY

PENDSE SKELLY

LEA

N MEX

04

DAY TICKET NO GRAV.

BARRELS

PRICE

VALUE

MO. DAY TICKET NO. GRAV.

BARRELS

PRICE

VALUE

VALUE

4 15 5 34.4

182.53 × 5.2100

950.98

4/77 STRIPPER-WELL VALUE ADJ.

1,427.36

182.53 × 5.2100

1,427.36

î L

X85043A00 SHELL CIL 182.53 TOTAL VALUE COPY MALED TO

182.53 TOTAL VALUE COPY MALED TO

2.378.36 ZIA22000

Tel. 505/393-6126

C-E Natco Chemicals
A Subsidiary of
Combustion Engineering, Inc.
Post Office Box 447
Hohbs, New Mexico 88240



29 April, 1980

TO WHOM IT MAY CONCERN

To the best of my knowledge the following prices on material specified were in effect on or about April, 1977:

Α.	210 barrel flat bottom welded steel stock tank	\$2,250.00
В.	4' x 20' Vertical ASME Code Emulsion Treater	\$8,952.00
_	A' v 10' Harizantal Free Water Knockout	\$2,630.00

May Y, Janus MAX V. LAND Office Manager

PUMPING UNITS SERVICES, INC.

CIN 386 PHONE 500 393/3101 HORDS, NEW MEXICO 882/40

April 24, 1980

Zia Energy P. O. Box 603

Hobbs, New Mexico 88240

Attention: Mr. Farris Nelson

Regarding: Prices in effect April 1977

Mr. Nelson:

Attached is a copy of our pumping unit foundation and labor price list dated November 1, 1976 and in effect April 1977.

Estimate labor and trucking to go to your location, set and level foundation, and assemble the 228 pumping unit and gas engine.

10 hrs @65.60 per hr.

656.00

1 Pumping Units Services, Inc. foundation for 228 unit w/gas engine drive. F.O.B. Hobbs yard

570.00

Bolts and tiedowns

109.32

\$1,335.32

4% Sales TAx

53.41 \$1,388.73

Should you need further information, please feel free to contact our office.

Sincerely;

Pumping Units Services, Inc.

Marion Hightower

President

Encls.

III. A.P.I. CONVENTIONAL PUMPING UNITS

- A. PUMPING UNITS SERVICES, INC. Precast Concrete Foundations only for A.P.I. Conventional pumping units (F.O.B. Hobbs
- Plant):

API Unit Size	Electric Motor Drive	Gas Engine Drive
	\$250.00	\$ 300.00
40	285.00	325.00
57	300.00	335.00
80		405.00
114	330.00	490.00
160	415.00	570.00
228	505,00	635.00
320	540.00	- ·
	675.00	780.00
456	775.00	925.00
640	910.00	1,070.00
912	310.00	

B. Contract prices for furnishing labor, tools, equipment and a PUMPING UNITS SERVICES, INC. Precast Concrete Foundation, erect pumping unit complete:

•	Electric Motor Drive	Gas Engine Drive
API Unit Size		\$ 555.00
40	\$ 430.00	595.00
• •	525.00	
57	540.00	635.00
êû		690.0ũ
114	585.00	
	815.00	945.00
160		1,115.00
228	975.00	1,275.00
	1,130.00	
320	1,275.00	1,430.00
456		1,585.00
640	1,430.00	1,855.00
	1,635.00	1,655.00
912	.,	

PUMPING UNITS SERVICES, INC.

Box 356 - Phone 505/393-3191 Hobbs, New Mexico 88240

PRICE LIST EFFECTIVE NOVEMBER 1, 1976

I. HOURLY RATES

Α.	Skilled Personnel:	
	Construction Foreman	\$ 8.60 per hour
	Construction Workman	6.50 per hour
	Field Superintendent	12.00 per hour
	Shop Machinist	11.50 per hour
	Welder	16.00 per hour

Air Compressor w/Jack Hammer less Operator

9.50 per hour

B. Trucking:

Operating in New Mexico under authority of NMSCC Permit No. 7379, Tariff 30-E.

Operating in Texas under authority of RRC Permit No. 27167, Tariff 6-R. Hourly rates will be charged as per published OILFIELD HAULERS ASSOCIATION Rate Schedule.

C. Outside Services:

Outside Services for material, labor and fabricating will be charged at local prices in effect at time of delivery.

II. SPECIAL PRECAST CONCRETE FOUNDATIONS

A. Heater Treater & Separator Foundations:

cate. a capa. att.	 	
3' diameter		\$ 55.0G
42" diameter		60.00
4' diameter		65.00
51 diameter		75.00
6' diameter		105.00
7' diameter		130.00
9' diameter		200.00
11' diameter	-	325.00

B. Sills & Piers:

ers:	
3 × 6	15000
4' x 12' x 10"	\$135.00
3' x 8'6" x 16"	160.00
3' x 10' x 16"	215.00
5' x 12' x 16"	325.00
5' x 10' s 22"	327.00
13' Dia Tank Ring	405.00
41 x 816" x 16"	240.00
41 × 10 ⁸ × 16 ⁶	275.00

FROM HOBBS REPAIR SERVICE BOX 1076 EUNICE, NEW MEXICO 88231 Phone: 394-2506 Zia Energy, Inc. Box 603, Hobbs, New Mexico 88240 4-16-80 DATE:_ 1977 Pump price (22x2x16) ATTN: FARRIS NELSON 190.25 60-252 K 4 167.40 barrel 15.09 222 K 16 cage 113 L 6 46.21 ball & seat 5.63 11 L 4 156 L 1 lock nut 40.96 ditto 29.13 11 K 4 pody 95 L 1 10.32 cups 68.66 190 L 70 pull tube 3 232 K 134 11.43 adapter 613.03 91 K 4 13.76 24.52 tax cage 110 L 6 637.55 14.19 adapter 81 K 1 James N. Evans PLEASE REPLY TO --SIGNED SIGNED DATE THIS COPY FOR PERSON ADDRESSED







Section 2050 Page 1 April 26, 1977 Supersedes 5-6-76

AJAX HORIZONTAL GAS ENGINES PRICE SCHEDULE

			ν	/				•		
	All Units	EA-22	EA-30	E-42	DP-60	DP-80A	<u>DP-125</u>	DP-165	DP-250	DP-325
Base Engine with Clutch	-	\$8280	\$8570	\$9530	\$13230	\$15760	\$23950	\$30000	\$44910	\$55340
Base Engine without Clutch	-	-	-	9170	12790	15090	22750	28800	43260	53670
Optional Equipment										
Governor Air Motor	320	रक्ष	-	-	-	-		-	-	-
Gas Injection Fuel System		0.A.	0.A.	1040	1170	1230	Std.	Std.	Std.	Std.
Shielded Ignition Systems				•						
Altronic I	0.A.	-	-	-	-	-	•	-	-	-
Altronic III	-	N.A.	· N.A.	N.A.	790	900	900	900	1270	1270
lexplosion Proof Shutdowns - Add	360	-	_	-	-	-	-	-		-
2Electric Starting Equipment	+ .	460	460	460	870	N.A.	N.A.	N.A.	N.A.	N.A.
Air Gas Starting Equipment	_	110	110	110	Std.	Std.	Std.	Std.	Std.	Std.
Deductions										
Standard Engine Radiator		O.A.	O.A.	0.A.	O.A.	O.A.	O.A.	0.A.	1880	1880

Explosion proof overspeed, water temperature and oil level shutdowns.

Battery and cable not included.

O.A. - On Application N.A. - Not Available Std. - Standard Equipment

. ANE STAR STEEL COMPANY

OIL COUNTRY TUBULAR GOODS PRICE LIST EFFECTIVE MARCH OL, 1977

PRICES DOLLARS PER 100 FEET - F.O.B. MILL, LONE STAR, TEXAS

enices	S DOLLARS PER	100 FEE!	- F.0000		MFG.	HILL
	WEIGHT	WALL INCHES	GRADE	TEC END	SPECS-	PRICE
51 ZÉ 0•0•	LBS. PER FT.	Induca		FINISH		673.63
NCHES	LEK LIG		5-105	LONG	LSS	720.26
	15.00	.296	5-105	BUTTRESS	LSS	1800-
5.000	_		• • • • • • • • • • • • • • • • • • • •		API	713.21
. •	- •	.362	N-80	LONG	API	762.50
5.000	18.00	305	N-80	EUTTRESS LOWE	API	783-63
7			L-80	BUTTRESS	MPI	837-85
			L-80	FEMP	LSS	881-50 942-58
			55-95 55-95	BUTTRESS	LSS	801-43
•			5-95	LONG	LSS	856-90
			5-95	BUTTRESS	ል \$ \$ ኤ \$ \$	880 - 67
			CYS-95	LOWS	4.5S	341-69
			CYS-95	BUTTRESS	API	955-78
		•	€-95	LONG	API	1022-05
		•	C-95	BUTTRES:S	~ SS	809-31
			S-105			865-33
			5-105	BUTTHESS		
				LONG	AP1	919-23
	-0.20	.478	N-80		API	982.76
5.000	23.20	• • • •	N-80		API	1009-99
_			L-8(API	1079.88 118 5.7 7
			L-86		£33	1269.03
•			SS-9!		S LSS	1103.75
			55-9 - 5- 9	K LEDNOS	L 3 3	1186-20
			3-7 5- 9	S BUTTIFRES	s LSS	1212-97
			C42-0	e KDAG	F 22	1297-07
			CY5-9	15 BU WRACE-	S LSS LSS	1114.60
	•		5-10			1191.81
•			5-10	5 BUTTHEE	22 633	
					API	414.85
		.244	K-	55 35 HCR		
5.500	14.00	• 6-4-4			T API	450.96
#		.275	X-			473-12
5.500	15.50		K-		· · · · · · · · · · · · · · · · · · ·	
- -			K-	22 STULLAR		485.92
,				.55 SHOR	IT API	509-79
	17.00	.304		ST LONG	MAIL	544.88
5.500			K T	SS BUTTRI	ESS API	653.02
				_in LDN	6 471	698-14
			<u> </u>	LO BUTTRE	- 12 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	717.47
				_DA LON		767.10
			I_	-80 BUTTR	633	807.49
* * * * * * * * * * * * * * * * * * *			\$3	- os 1.0N	·	B63.44
			SS	-95 BUTTR	E33	732.01
			•	-95 LON		c 783•>0
)			9	-95 BUTT		
			CY:	5-95 !.O'	-	OCTG-

	·	LONES	EAR S	TEEL	O M P 4	N Y	
		C	L COUNTRY	TUBULAR GO	000S CH 01, 197	7	
-1	•	PATCE I	ST EFFECT	_			XAS_
	PRICE			GRADE K	TEC	MFG.	PILL
	SIZE O.D.	WEIGHT LBS. PER FT.	INCKER		END FINISH	SPECS.	PRICE
	INCHES			H-40	NUE	API	170.50
	2.375	4.60	J.170 /	J-55	NUE	API	174.81
		1	127	C-75	NUE	API	258.48
	`	. 1	21.	N-80	NUE	API	235.19
		. 38	.190 M	H-40	EUE	API	179.98
	2.375	4.70	.13640	1 J-55	EUE	API	184.53
		•	' 1	C-75	EUE	API	272.88 248.29
	•		ر بر ه	N-80	EUE	API	240.27
	•		_0	H-40	NUE	API	221.50
	2.875	6.40	.217	J-55	NUE	API	227.10
				C-75	NUE	API	335.70
		•		N-80	NUE	API	305.47
				40	EUE	API	231.28
	2.875	6.50	.217	H-40 J-55	EUE	API	237.13
		4		Ç-75	EUE	API	350.56
		N.		N-80	EUE	API	318.99
					NUE	API	314.87
T	3.500	9.20	-254	H-40	NUE	API	322-83
	30000	•	• •	J-55 C-75	NUE	API	477.17
				N-80	NUE	API	434.21
	•				EUE	API	327.39 .
	3.500	9.30	•254	H-40	EUE	API	335.67
	30000	•		J-55 C-75	EUE	API	496-22
				N-80	EUE	API	451.53
-		•			CHOOT	API	299.00
	4.500	9.50	.205	K-55	SHORT	A	
. *			.224	K-55	SHORT	APT	326-04
i i i	4,500	10.50	• 2 2 4	X-55	EUTTRESS	API	365.66
				K-55	SHORT	API	353.49
	4.500	11.60	.250	K-55	LONG	API	370.87
₩ •				K-55	BUTTRESS	API	396 - 42
				N-80	LONG	API	475.18
a E				N-80	BUTTRESS	API	508.04
				L-80	LONG	AFI	522 . 12
				L-80	BUTTRESS	API	558.26 581.86
				\$5-95	LONG	LSS LSS	622.18
1				55-95	BUTTRESS	LSS LSS	549.89
. 1				S-95	LONG BUTTRESS		587.98
- C	•			S-95	LONG	LSS	604.30
	,			CYS-95 CYS-95	BUTTRESS		646.20
5-;				C+3-75	LONG	API	636-86
ć. ·				-	-		

PRICE IN EFFECT AT TIME OF SHIPMENT WILL APPLY

OCTG- 1 30

AFE No. 157

•		TOTAL FOR LINES TOTAL FOR VALVES TOTAL FOR FITTINGS TOTAL FOR CONTRACT LABOR TOTAL TOTAL \$ 19630 \$ 1077
		√ % of \$ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
iscellaneous:	Terri-NM 1612	0461 rods @ \$ /rd \$ 473
ight-of-Way:	Charlie Bettis .	94.61 rods @ \$/rd = \$/
amages:	1261'	3 days @ \$ 100 /day = \$
Supervision:	•	4 % of \$ \ \frac{59381}{381}
Sales Tax:	•	₹ % of \$ 11,110
Engineering:		6 % \$ 15.670 = \$ 15.45
Pfice Overh	ead:	37158
. •	•	AFE No. 157 TOTAL
•		\$ 34.160

Initials
Prepared By

Approved By B-D AFE 157 Line Loop Jet Horses to Jet Wall ITEM Est. Gest oct Seet. Dou. August 15980 98 R-O-H Damages Supr. Einst. 3/2/160 28 -

APPLICATION FOR P			ſ	SA, D. A. Ster Lype of Leater
APPLICATION FOR P				B-934
APPLICATION FOR P			ļ	77777777777777777777777777777777777777
APPLICATION FOR P	TO DOLL DEED	EN OR PLUG BAC	K	
	PERMIT TO DRICE, DECE	en, en reconsta		To the Wiscommit to the
	DEEPEN [X]		LUG BACK	a, i who or lie use None
OIL X GAS O) Ht R	X INOT	MULTIPLE ZONI L.	State "C"
Zia Energy, Inc.				
D Day 603 Hobbs	s, NM 88240		14	MARITATION OF THE
Fortion of West San Street, Street	1981.5) PER PHONE THE	vest	Hillelle
, 1980 - Francisco de . N	lorth space 17	225	37E	
MARIE PROFESTION OF THE PARTY O				Lea
		3925'	San And	res Reverse Ci
The state of the s		ent the Collins Con	poot of	10/29/79
3405' GR	Blanket on file			10/25/15
3.	PROFUSED CASI	NG AND CEMENT PROC	RAM	and the same and t
SIZE OF HOLE SIZE	OF CASING (WEISH) PER	FOOT SETTING T	EPTH SACKS C	OF SEMENT EST. TO
* 3/4" reamed to 4	1/2" 11.60#	3925	100	
6 T/4"				
1. Rig up well servicing 2. Pull 2 3/8" tubing at 3. Mix mud and circulat 4. Drill 4 3/4" hole fr 5. Log, DST, test as ne 6. Ream 4 3/4" hole to 7. Run 500' - 4½" OD 11 8. Perforate, treat and	te hole. rom 3542' to 3925'- ecessary to evaluate 6 1/4". 1.60 FJ liner. Ceme	nt using 100 sa		it.
		,	•	
\tau				
			0.14.0~ #6151#1	FREDUCTIVE ZOVE AND PROPOSED (
IN ABOVE SHACE LIESCHIRE PROPOSE	D PROGRAM: IF PROLICES IN TO	DELPEN ON PLUG BACK, S	IVE DATA ON PRESENT	PRODUCTIVE 2016 AND PROPOSED (
THE PONE. SIVE SECRET	a to true and consists to the best	it of my kny wtedge and t	ellef.	
THE PONE. SIVE SECRET	D PROGRAM: IF PROFITAL IN TO MARK, IS ANY. TO BE True and complete to the heat	it of my kny wtedge and t	ellef.	

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102 Supersedes C-128 Effective 1-1-65

		All distances must be	from the outer boundarie	of the Section.	
d Jai			Leane		Well No.
Zia E	nergy. Inc.		State	"C" B-934	1
Unit Letter	Section	Township	Hunge	County	
F	17	22 South	37 East	Lea	a .
Actual Footage Loca	ition of Well:			•	
1981.5	feet from the	West line and	1980	teet from the North	line
Ground Level Elev.	Producing For		Fool		Dedicated Acreage:
34051	San	Indres	Undesigna	ted	40 Acres
) Duller ik		4. 1. 201			
2. If more the interest an	an one lease is d royalty).	dedicated to the wel	l, outline each and		thereof (both as to working
dated by control Yes If answer in this form if the No allowab	No II a seemon it is "no." list the Inecessary.)	nswer is "yes!" type o owners and tract deso ed to the well until al	ing. etc? of consolidation criptions which have l interests have bee	actually been consolidated (by co	dated. (Use reverse side of mmunitization, an approved by the Commis-
sion.			!		CERTIFICATION
	1 1		() ()	fained f	r certify that the information con- terein is true and complete to the my knowledge and ballef.
:				Position Company	M.) Nelson Engineer
			.	Date	Zia Energy, Inc. 10/24/79
	 			shown on notes of under notes of under notes of the notes	by certify that the well location on this plat was plotted from field of actual surveys made by me army supervision, and that the same and correct to the best of my dge and belief.
)	·	2 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1 1	eyed d Professional Engineer and Surveyor
<u> </u>				Centificati	e No

STATE OF NEW MEXICO ENERGY AND AMMERIALS DEPARTMENT OIL CONSERVATION DIVISION	
DISTRIBUTION IF O BOX 2068	Form C-103 Rc+18ed 10-1-73
SANTA FE, NEW MEXICO 07501	In Indicate Type of Lease
LAND OFFICE	Stone X Fee ()
UPERATOR TO THE PROPERTY OF TH	B-934
BO NOT THE THIRD PROPERTY OF THE PROPERTY OF T	To Coal Agencies Store
Site X Street Contract	
ZIA ENERGY, INC.	State "C"
3. Address of Cherator P. O. Box 603, Hobbs, NM 88240	5, Well No.
4. Location of Well West Leve and 1980 FEET FROM THE West LINE AND 1980 FEET FROM	San Andres Wildcat
North LINE, SECTION 17 TORSSHIP 22 S MANGE 37 E	
15. Elevation (Show whether DF, RT, GR, etc.,) 3405 GR	1:. County Lea
PERFORM REMEDIAL WORK PERFORM REMEDIAL WORK PERFORM REMEDIAL WORK PULL ON ALTER CABINE CHANGE PLANS CHANGE PLANS CHANGE PLANS CASING TEST AND CEMENT JOB OTHER Deepen & Set lin 17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, and business and busi	
 Rig up pulling unit. Pulled tubing and rods 10/25/79. Rig up reverse circulation equipment & commence deepening using 4 3 Deepened from 3542' to 3929'. Attempted to ream; reamer failed. F Ran 525' of 4" OD 12.5# FJ liner. Cemented using 70 sacks Class "CREVERSED OUT 15 sacks cement. SI 11/17/79. Tested liner top to 1500# on 11/19/79. 	Ran GR-CNL log.
	•
18.1 hereby certify that the information above is true and complete to the best of my knowledge and belief.	, , , , , , , , , , , , , , , , , , ,
m Inelson Engineer	DATE 2/29/80
Orig Signed by	MAR 6 1980
CONDITIONS OF APPROPAU, IT SHE	38

BTATE OF BLW MEXICO. HIS WIN WITH HALE DE PARTMENT OIL CONSERVATION DIVISION P. O. BOX 2688 SANTA PE, NEW MEXICO 07501 REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OF AND NATURAL GAS ZIA ENERGY, INC. P. O. Box 603, Hobbs, NM 88240 Recion(s) for liling (Check purper bos) Not amiletten If change of ownership give name and addicas of previous DESCRIPTION OF WILL AND LUASE | Well No. | Funt finds, Including Formation State "C" San Andres Wildcat State. Federal or Fee State Le 91103 1981.5 Feet From The West Sine and 1980 Feet From The North Unit Latter time of tection 17 Township 22 S House 37 E House Lea DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS Antiens there address to a high approved copy of this form is to be a Navajo Crude Oil Purchasing P. O. Drawer 159, Artesia, NM 88210 Mane of Authorises Trunsporter of Cosinglead Gus (A) P. O. Box 1492, El Paso, TX 79978 El Paso Natural Gas Company If well produces oil or liquids, . 17 22 S : 37 E 10/10/79 Yes give location of tanks. If this production is commingled with that from any other lease or pool, give commingling order number COMPLETION DATA Now Well Designate Type of Completion - (X) Date Comps. Ready to Fred. P.D.T.D. 10/25/79 1/23/80 3856 39291 ations (DF, REB, RT, GR, etc., ome of Producting Amortion Top Oll/Gas (m) Tuling Leith 3405' GR San Andres 3830' 3650' Douth Casing 5 3830'-2 JS, 3834'-2 JS 39291 TUBING, CASING, AND CEMERTING RECORD HOLE SIZE CASING & TUBING SIZE 8 5/8" 5 1/2" 315 210 34351 300 4" OD liner 3400'-3929 TEST DATA AND REQUEST FOR ALLOWABLE (Test must be ofter recovery of total values of load oil and must be equal Oil, WELL.

OIL WELL. Date First New Oil Hun To Tanks L'ete of Tees Treducting Liebbod (Firm, pump, gas lift, etc.) 1/23/80 2/27/80 Flow uping Pressure Chose Size Casing Pleasure 24 32/64" 120# Packer Actual Fred, During Test Cii-bile. Nater - Istie. Q 389 ŝõi 283 GAS WELL Actual Frod. Toot-MCF/D Longth of Test Bbls. Confenente/AMCF Gravity of Condensate pinad (pital, back pr.) Tubing Plessure (Shut-Im) Castry Freesme (Ehet-in) Choke Sine ATE OF COMPLIANCE **OIL CONSERVATION DIVISION** lify that the rules and regulations of the Oil Conservation been complied with end that the information given and complete to the best of my knowledge and bellef. ERVISOR DISTRICTO This form is to be filed in compliance with autilia. If this in a request for elinwable for a newly dillist or deer J Telson well, this form must be accompanied by a tabulation of the design tests telled on the well in accordance with four fitt.

All partions of this fores many by filled out completely for allo

Fill out only Sections I. H. Bl., and VI for changes of ownwell name or timber, or transporter, or other such change of conduct Separate Locios C-104 must be filled for each pool to mulch; completed wells.

a on new and recompleted wells.

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17 141

(linte)

<u>Engineer</u>

2/29/80

(7 14)

(line)

OIL CONSERVATION DIVISION P. O. HOX 2088

SANTA PE, NEW MEXICO 87501 REQUEST FOR ALLOWABLE (IHA AUTHORIZATION TO TRANSPORT OIL AND HATURAL GAS ZIA ENERGY, INC. -P.-0. Box 603, Hobbs, NM 88240 nerson(s) for filing (Cares perper bes) Other (Please coplain) Lar Gra Change In Consenting If change of wamership give name and address of previous owner ___ DESCRIPTION OF WELL AND LEASE | Well No. | Foot State, Including Extremition State "C" San Andres Wildcat B-934 Legilas Feet From The West Line and 1980 Feet From The North Limited Freezen 17 Township 22 S. Honge 37 E. Shipping MESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS morens flowe address to which approved copy of this form is to be Ravajo Crude 011 Purchasing P. O. Drawer 159, Artesia, NM 88210 P. O. Box 1492, El Paso, TX 79978 El Paso Natural Gas Company If well produces oil or liquids, give lucation of tanks. 22 S 37 E Yes 10/10/79 If this production is commingled with that from any other lease or pool, give communging order COMPLETION DATA Designate Type of Completion - (X) Date Spelded Date Compl. Ready to Prod. Total Death P.B.T.D. 10/25/79 1/23/80 3856 39291 tions (IIF, REB, RT, GR, etc., ame of Freducing Cormusion Tep Oil/Gas I'ny Tuting Le; 3405' GR San Andres 38301 3650' enth Costair Lines 3830'-2 JS, 3834'-2 JS 39291 TUBING, CASING, AND CEMENTING RECORD HOLE SIZE DEPTH SET CASING & TUBING SIZE SACKS CLAU 8 5/8" 315 5 1/2° 3435 300 4" OD liner 3400'-3929 TEST DATA AND REQUEST FOR ALLOWABLE (Test must be ofter recovery of total volume of load oil and must be equal to able for this depth of he for full 28 hours) Date First New Oil Hun To Tanks Dete of Test Producting Method (Faste, pump. gas isfe, etc.) 1/23/80 2/27/80 Flow Tueing Pressure Chose Size Les Test Castne Pressure 120# Packe: 32/04 Actual Pred. Duting Test Cil-Billa. Water - Bble. 389 8 381 283 GAS WELL Livel Prod. Test-MCF/D Longth of Tool Gravity of Condensate Bble. Contenegte/AMCF pihad (pitol, back pr.) Tubing Fleesure (Shut-Im) Castry l'ressue (Ehut-in) Choke Size CATE OF COMPLIANCE **OIL CONSERVATION DIVISION** APPHOVED riffy that the rules and regulations of the Oil Conservation we been complied with end that the information given so and complete to the best of my knowledge and belief. mindelson If this is a sequest for allowable for a newly diffied or seeper well, this form must be accompanied by a tabulation of the deviati

All sections of this form must be filled out completely for allo

FIR and only Sections I. H. HI, and VI for changes of owners make or number, or transporter or other such change of conduct to posite 1 arms C-104 must be filled for each peak in male's dried vella.

ENERGY AND MUTRAL		OIL (CONSERVA	ATION LIVE	SION	(Table)	deute laype of a	
CHETRIBUTION			₽ О. ВС	X 2006			a- { x }	
ARTAPE		SAT	STA FU, NU	MEXICO 87	501	5.44.11	-934	se to s
LAND OFFICE		LL COMPLE	HUN ON RUC	OMPLETICE RE	TTORY AL	t reco (Villa)	iniiiili.	inii
OPERATOR								
d. TYPE OF HILL	0 4.	X]			Sugram i trot (144)	.•
A TYPE OF COMPLE						1	a Torilliease Kala -a - Hou	
Nesse of Creater	Deres		1 tire.	1 1,75		उट । ज करा	ate "C"	
ZIA ENER	GY, INC.					1	• • • • • • • • • • • • • • • • • • • •	
. Comment of the mon	ner and a series of the series					<u> </u>	नेतं को भिन्ने, स	
P. O. Bo	x 603, Hobbs	, NM 8824	0	emine management of the control of		Sa	n Andres W	ildcat
· Localitation of the								
mir 12771# F	LOCATED 1981	.5	West	tiscast	980			
"Horth	sec. 17 16	22 \$	37 E			Le	10.0	
10/25/79	11/7/79	1/	23/80	· · · · · · · · · · · · · · · · · · ·)5' GR		3405'	
0. ford Dep	3856	Back J.D. 1	Many Many	to Comple, How	D.Bled I	, forthly Tools /- 	A Service S	to in
4. Producting Intervalue	A, of this completic	m - Top, Policin	, Nome	orthogologia ethio, shallana kalenda va arabida (h.)	Control of the Contro		15. Vans bar Mode	eculosi
							No	
G. Type Electric and C	Mhar Legs iran			en de la companya del companya de la companya del companya de la c	*\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		No No	red
CASING SIZE	helout LP./F	 	الشدادة وللمستحدد	moet alt stier, a ser				
0 5/9*	delon crav	315		LE SIZE 2	10 sx	ING RECORD		
5 1/2"	15.5#	3435			800 sx			
							<u>. </u>	
		IER ILLCORD			30.	18500	necorr	
SIZE	:	BOTTON	SACKS CEMENT	SCREEN	SIZE	CEPTH SE		GKIF SET
	3400'	3929	70	none	2 3/8"	i 3650'	36	50'
		- 1	;	1				
il. Personnion Record	(In email sice and I	umter)		02. ACT		ACTION, CENTA	IL BUILD HATER	
3830' - 2 JS				3830'-34'		1000 gal. 1	5% HCL	
3834' - 2 JS	(.375")					4500 gal. 2	0% HCL	
and Harrison Table 1 (1997) Table 1 (1997)	•		The second of th			The second secon	6	
Rate of the second seco			riu	DOC HOS				
Trest Production 7/23/80		om Merros (Fila Owing	ing, gos lift, pun	ping - Size and iv:	re vump)	Well	Prod.	SCEATT
2/27/80	Hours Terror	32/64"	Prodfn, For Tent I stud	8	Gus MCF 283	ишиг — In. 381	35375	
New Tehing Press.	Castry Pressure Pkr	Calculates 5 : Hour land	511 - 1661.	283	_	7 - 165. 381	35.4	1.: 1 (Lor.)
4. Disposition of time					1	Teu Witner	<u></u>	
	aso Natural	Gas Compan	у		· · · · · · · · · · · · · · · · · · ·			
GR - CNL		_						
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CASE NO. 6861

Application of Zia Energy, Inc. for pool creation, special pool rules, and an NGPA determination, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Andres oil pool for its State "C" Well No. 1 located in Unit F of Section 17, Township 22 South, Range 37 East, and special rules therefor, including a provision for a limiting gas-oil ratio of 10,000 to 1. Applicant further seeks a new onshore reservoir determination for said State "C" Well No. 1.

ZIA ENERGY, INC.

HOBBS, NEW MEXICO 88240

May 2, 1980

Energy and Minerals Department Oil Conservation Division P. O. Box 2088 Santa Fe, NM 87501

Re: Case No. 6861

Gentlemen:

Case No. 6861 is an Application by Zia Energy, Inc. for pool creation, special pool rules and an NGPA determination. Zia Energy seeks the creation of a new San Andres oil pool for its State "C" Well No. 1 located in Unit F of Section 17, Township 22 South, Range 37 East, and special rules therefor, including a provision for a limiting gas-oil ratio of 10,000 to 1. Zia Energy further seeks a New Onshore Reservoir determination for said State "C" Well No. 1 in Lea County, New Mexico.

In support of this application, several exhibits have been prepared and are hereby offered for your consideration.

A map section has been prepared to show the existing San Andres pools which are nearest to the proposed new San Andres pool for the State "C" Well No. 1. You will note from this map that the closest well producing from the San Andres is the Gulf Oil Company Eaves No. 4 in Unit H, Sec. 10, T22S, R37E. The Gulf Eaves No. 4 is 2 3/4 miles northeast from the Zia Energy State "C" No. 1. This well, along with several other wells in Sections No.s 2, 11, and 14, is producing in the Eunice San Andres-South pool. Two other wells, the Mobil Carson No. 23-G in Section 33, T21S, R37E, and the Amoco Owens "B" No. 1-L in Section 34, T21S, R37E, have produced from the Eunice San Andres pool, located northward.

This map section also locates several other wells in the area of interest which have been tested in the San Andres and determined to be non-commercial at the time of testing. Included as non-commercial are Gulf Oil Company South Penrose Skelly Unit No. 220-N (5-22-37) and No. 262-P (8-22-37), Millard Deck Patsy "B" No. 1-C (20-22-37), Anadarko Production Company E. W. Walden No. 11-M (15-22-37), Rowan Drlg. Elliott No. 1-K (17-22-37), and Zia Energy, Inc. Federal No. 1-K (17-22-37).

A contour map and a cross-section of the area of interest is presented. The cross-section commences at the Gulf SPSU No. 262-P (8-22-37) and progresses

southward through the State "C" No. 1 to the Millard Deck Patsy "B" No. 1-C (20-22-37). It will be noted from the contour map and the cross-section that the State "C" No. 1 is only slightly higher structurally than the other wells. Another well, the Anadarko Walden No. 11-M (15-22-37), which is located east and south of the State "C", is structurally lower.

From the map section and the contour map and cross-section, it is apparent that the State "C" No. 1 is isolated from other San Andres pools by non-commercial wells to the north, to the south, and to the east. There is no San Andres pool to the west and no San Andres tests have been conducted, of which we are aware.

Experience, and the information that we have, indicates that structural position has less to do with whether a well is a commercial or non-commercial producer than porosity and water saturation. Another factor that is most important in determining whether a well is commercial or not is the price to be received for the oil and gas production. San Andres production in this area can be expected to produce large volumes of water. Therefore, salt water disposal cost and price for oil and gas can determine whether a well is commercial or non-commercial.

In order to further support that this is a new San Andres pool, we present DST bottom hole pressure information, gas analysis data, and oil gravity comparisons. Enclosed is a DST on the State "C" No. 1 which indicated a bottom hole pressure of 1336 psi. A well data sheet on the Gulf Oil Company SPSU No. 262 reports DST results taken in the Queen, Grayburg, and San Andres formations. BHP in the Queen was reported as 414 psi, in the Grayburg the BHP was 810 psi, and the San Andres 1316 psi. Bottom hole pressures in excess of 1300 psi would certainly indicate the San Andres has not previously been produced in this area.

A gas analysis of the gas produced from the Queen formation and the gas produced from the San Andres in the State "C" No. 1 indicates a significant difference in BTU content. Also, a significant difference is noted in the gravity of the oil produced from the San Andres in the State "C" No. 1 and the oil produced from the Queen and the Grayburg formations. This evidence is presented to support that this is San Andres production.

A gas-oil ratio test is submitted that indicates the State "C" No. 1 is currently producing with a GOR of 24,250 to 1. The regular GOR rule would restrict gas production to 160 MCF per day while the well is currently producing 291 MCF per day. Since the well is producing 341 barrels of water per day, it would not be possible to restrict gas production to only 160 MCF. This will make it necessary that special GOR rules be adopted for the pool allowing a 10,000 to 1 GOR.

The Oil Conservation Division is further requested to make a determination that this San Andres well is in a New Onshore Reservoir as defined in NGPA Section

102(c) (1) (C). Section 102(c) (1) (C) of the NGPA applies to gas produced from New Onshore Receivers which are generally defined as onshore reservoirs from which natural gas was not produced in commercial quantities before April 20, 1977. Under the Behind-the-Pipe Exclusion, if an old well penetrated the subject reservoir and produced oil or gas in commercial quantities from any formation prior to April 20, 1977, the penetrated reservoir is disqualified if gas from that subject reservoir "could have been produced in commercial quantities" through such old well prior to April 20, 1977.

Federal Energy Regulatory Commission Order No. 42 originally only specified a physical capability test, meaning "could have been produced" and it ignored the later part of the test for determining the status of the Behind-the-Pipe Exclusion. This later part included the words "in commercial quantities."

FERC Order No. 42-A, issued November 29, 1979, sought to more clearly implement the intent of Congress. It was the wish of Congress to encourage the production of previously non-commercial reserves by allowing an incentive price, but Congress also wished to deny this incentive price to production withheld from the market place for purposes of price speculation. Therefore, FERC adopted regulations to implement the Behind-the-Pipe Exclusion to achieve both of these purposes.

In this case we have shown that the San Andres formation is a new field. But, in order for wells producing in this new field to qualify for Section 102 (New Onshore Reservoir) gas pricing category, we must satisfy FERC regulations concerning the Behind-the-Pipe Exclusion. In summary, the regulations state that any well which penetrated the subject reservoir prior to April 20, 1977 can be a potentially disqualifying well unless it can be shown, using an economic test outlined in Order No. 42-A, that the subject reserves from the subject reservoir "could not have been produced in commercial quantities" before April 20, 1977, through the potentially disqualifying well by perforating and recompleting in the subject reservoir. This economic test is outlined in detail in Order No. 42-A. The key components of this test are estimates of reserves, costs and the market place of the gas. The following formula is to be used in applying the economic test: {market price available as of April 20, 1977 x reserves net of royalty producible from the subject reservoir through the recompleted potentially disqualifying wells) - (incremental operating expenses) + (1.6 x incremental capital costs). If the result is negative, then the Behind-the-Pipe Exclusion does not apply.

In order to supply the information required by the economic test, we submit a reserves estimate prepared by Natural Resources Evaluation and Engineering, Inc. wherein they estimate ultimate recovery from the sample potentially disqualifying well to be 13,406 barrels of oil and 328,500 MCF of gas. Capital

costs for recompleting and operating costs, for the sample potentially disqualifying well, were collected from numerous sources and are summarized in Exhibit No. ____. All prices for material and labor are those in effect in April 1977, and these were obtained through CE-Natco, Mid-Continent Supply, Pumping Units Services, Cooper Energy Services, Hobbs Repair Services, Lone Star Steel Co., Agua, Inc., B. F. Walker, The Western Company, Packer Sales and Rental, and Dresser-Atlas. The formula outlined by FERC Order No. 42-A allowed 1.6 x incremental capital costs plus incremental operating expenses. The total for both of these is \$452,853. The market price of the reserves is shown in Exhibit No. ____ to be \$298,765. The market price used for oil and gas was the price being paid in April 1977 by Shell and Getty for oil and gas of similar quality two locations away on our Christmas lease. The royalty rate was assumed to be 12½ per cent. The tax rate used was the rate which applied to oil and gas in 1977.

Using the information from these exhibits and the formula adopted by FERC in Order No. 42-A we are able to show that a negative value of \$154,088 is obtained and, therefore, the Behind-the-Pipe Exclusion in Section 102(c)(1)(C)(ii) of the NGPA does not apply to the potentially disqualifying wells and, furthermore, this new San Andres reservoir will qualify for Section 102 gas pricing category.

In summary, we have shown that the State "C" No. 1 San Andres production is 2 3/4 miles from the closest well producing from the San Andres formation. From the map that is presented, it is apparent that non-commercial San Andres tests are located north, south, and east of the State "C" No. 1, separating it from both the Eunice San Andres and the Eunice San Andres-South pools. Bottom hole pressure data obtained by DST surveys indicate more than 1300 psi, which indicates that this is original BHP and that the San Andres has not been produced in this area. Then, gas analysis and oil gravity information was presented to confirm that this is San Andres production. Finally, at the time that earlier non-commercial tests in the San Andres were made, the price of oil and gas was approximately \$13.03 per barrel and \$0.62 per MCF, respectively. Considering the large volume of water to be handled, these earlier tests were non-commercial. An operator can expect to produce the San Andres at a profit now, provided he can sell the oil and gas at the prices specified for new cashore reservoirs and provided that a special GOR rule will make it possible to produce the well without any restriction imposed by limiting GORs.

Then, in summary concerning the economic test required by FERC Order No. 42-A, we have supplied an Exhibit No. _____ listing 40 potentially disqualifying wells due to the Behind-the-Pipe Exclusion in Section 102(c)(1)(C)(ii) of the NGPA. Electrical log sections from several of these wells are presented to indicate the relative uniform character of the San Andres formation throughout this proposed new field. Exhibit Nos. ____ and ____ were presented to show by the economic

test prescribed by FERC Order No. 42-A that the Behind-the-Pipe Exclusion did not apply.

The Oil Conservation Division is requested to establish a new San Andres pool with a special rule for GOR limiting it to a 10,000 to 1 ratio. The Division is further requested to make a determination that this is a new onshore reservoir and that this and all future wells completed in this New Onshore Reservoir will be eligible for the NGPA Section 102 gas pricing category.

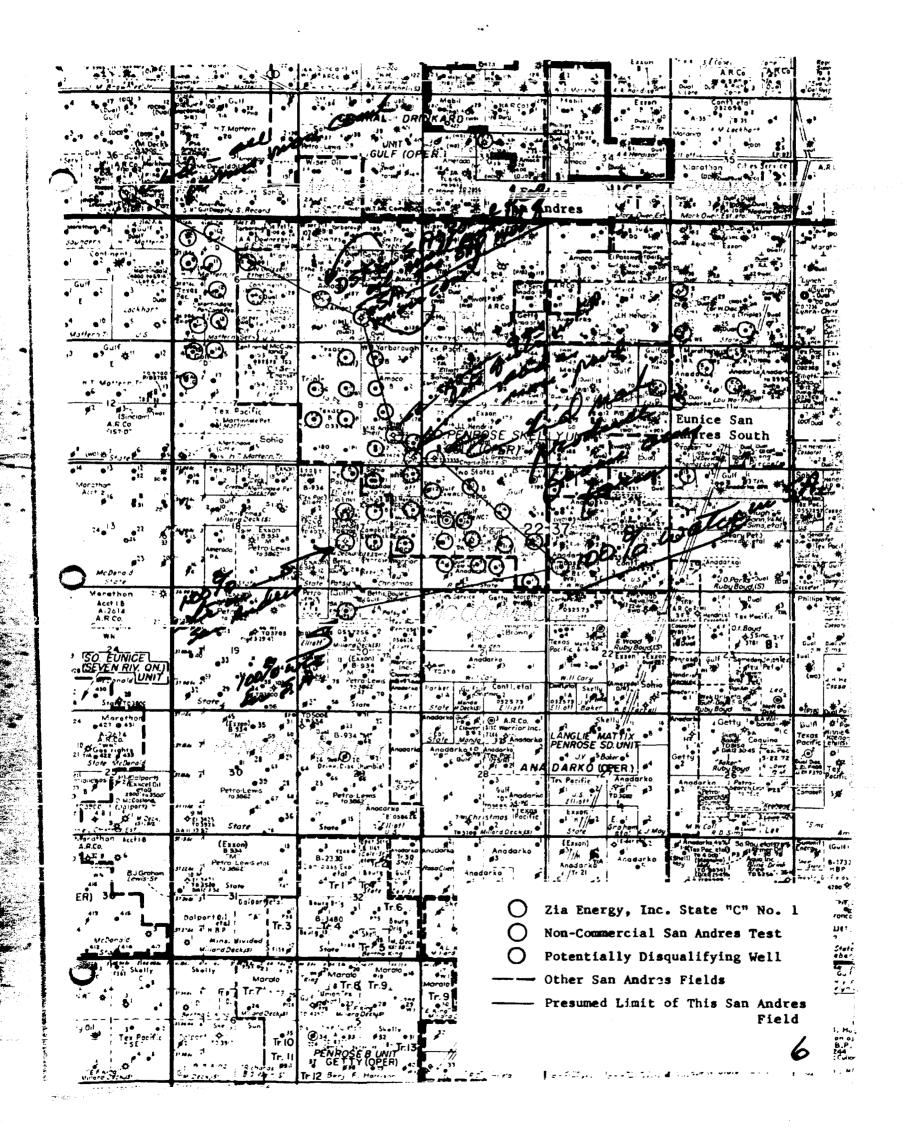
By approving these requests the Oil Conservation Division will be promoting conservation, protecting correlative rights, and providing incentive for the production of oil and gas that would not be otherwise produced for consumption by energy hungry consumers.

Yours very truly,

ZIA ENERGY, INC.

m3 nelson

M. F. Nelson



Company: Lease:	Zia Energy, Inc. State "C" Well No.]
Field:	ouges iduated sail Wifi(E2
	Unit Letter F Sec. 17 , T 22 S , R 37 E
	Lea County, New Mexico
Date Comple	eted 1/23/80 Total Depth 3929' Elevation 3405' GR
Intermedia	te Casing: Size 8 5/8" Depth 315' Cement 210 sx
Production	Casing: Size 5 1/2" Depth 3435' Cement 300 sx
Perforatio	n: 3830'-34' Open Hole:
Formation	Tops: TATSBSTY
	T7R TQu TGb
Stimulatio	n:
Initial Po	tential: BOPD 12 BWPD 341 NCF/D 291
Cumulative	Production to BO MCF
	10/25/79: Deepened from 3542' to 3929'. Ran DST 3860'-TD. closed in BHP 1334 psi. Ran CNL-GR logs. Ran 525' 4" OD 12.5# FJ liner. Cmtd using 70 sx Cl "C" cmt. Rev. out 15 sx. Perf 3 JS at 3864'. Trt w/100 GA. Swb 100% wtr. Set cmt ret at 3856'. Sqzd perfs with 10 sx cmt, rev. out 150 sx. Perf 2 JS at 3830' & 2 JS at 3834' Trt perfs w/1000 GA. Stimulate w/5000 GGBW frac pad & 4500 G of 20% HCL. Production test 3/10/80 12 BO w/341 BWPD & 291 MCF/day of gas.
	1336 Vizi

Company:	Anadarko Production Company
Lease:	E. W. Walden Well No. 14
Field:	Penrose-Skelly Unit Letter M Sec. 15 , T 22 S , R 37 E
	Unit Letter M Sec. 15, 1 22 S, R 3/E
	Lea County, New Mexico
Date Comp	leted 2/3/74 Total Depth 4600' Elevation 3408' RKP
Intermedi	ate Casing: Size 8 5/8" Depth 351' Cement 150 sx
Productio	n Casing: Size 5 1/2" Depth 4600' Cement 315 SX
Perforati	on: See bolow Open Hole:
Formation	Tops: TA 1124' TS 1220' BS 2418' TY 2563'
	T7R 2782' TQu 3336' TGb 3650' TSA 3905'
Stimulati	on: See Delow
Initial P	otential: BOPD 160 BWPD 275 NCF/D 350
Cumulati v	e Production to : BO MCF
Remarks:	
1/6/74	15% reg. Treat w/3000 gals 20% acid. Swab 100% sulfur water. Set retainer at 4000' and squeezed w/400 sks cmt. Drld out to 4260'.
•	Perf 4207-12', 4222-26'. Breakdown perfs w/500 GA 15% reg. Swab tested 100% sulfur with fluid level @ 2000'. Set retainer @ 4161' and squeezed w/275 sks.
· 3/17/74	PANE ANTO-79' ANGA-98' AIZI-ZN Breakdown Deric W/250 GA 15% Peg.
1/22/74	Swab tested 100% sulfur water. Set retainer @ 4058'. Squeezed w/ll sks cmt. Perf 3944-50'. 3975-78'. 3988-93'. 4002-05'. 4012-16'. Breakdown perfs w/1000 GA 15% reg. Swab tested 100% sulfur water. Set retainer @ 3930'. Squeezed w/150 sks cmt.
1/25/74	Perf w/1 JS @ each 3735', 3753', 3778', 3780', 3791', 3797', 3801', 3804', 3839', 3857', 3867', 3871', 3876' & 3885'. Breakdown perfs w/700 GA 15% reg. & 12 ball sealers. Fracture treat using 60,000 gals 9# gelled brine and 62,000# sand in 3 stages.

Company: Lease:	1/2 4/	ard Deck		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	h	ell No.	1
Field:	Lang	lie Matti	X	. 00			
	unit Leti	cer <u> </u>	— 260	20	' '-	22 S ,	R37_E
	Lea Count	ty, New Me	xico				
Date Compl	eted 7/28	3/71	Tota	l Depth	4412'	Eleva	tion <u>3378'</u> RKB
Intermedia	te Casing	: \$1ze <u>8</u>	5/8"	Depth_	300'	Cement_2	250 sx
Producti on	Casing:	Size5	1/2"	Depth_	42251	_Cement_5	500 sx
Perforation	on:S	ee below		Open H	ole:		
Formation	Tops: TA	1020'	_ TS	1070'	BS <u>24</u>	<u>00'</u> TY	2605'
	T7	R 2810'	Tọu	3315'	TGb	36081	TSA 3845'
Stimulatio	on: <u>See</u>	below		·····		·	
Initial Po	otential:	BOPD 90		BWPD	75	MCF/D_	289
Cumulative	Producti	on to		_: B0_	 · · ·	MCF_	
Remarks:	6/28/71: 7/6/71: 7/13/71:	Drlg. 43 TD 4412'	04' ; WOC				
•	7/19/71: 8/9/71:	TD 4412' Perf <u>405</u> Acid (40	: PBD ; PBD 3'93' 54'93'	4225'; 3800'; w/8 sh) 1000	Tstg ots (ove		
	t.	Swbd wtr Sqzd 405 Perf 397 Acid (39 Swbd wtr	3-93 \ 3-95 \ 73-95 \ (3973	ار/100 s س/5 shd 2000 (ots (ove	rall)	

Gulf Oil Company

Lease:	Penrose Skelly Unit Letter P Sec. 8 , T 22 S , R 37 E
Field:	Unit Letter P Sec. 8, T 22 S, R 37 E
	Lea County, New Mexico
Date Comple	eted 9/26/75 Total Depth 3900' Elevation 3407' GR
Intermedia	te Casing: Size 8 5/8" Depth 1182' Cement 600 SX
Production	Casing: Size 5 1/2" Depth 3900' Cement 475 sx
Perforation	n: See below Open Hole:
Formation	Tops: TA 1122' TS BS TY 2560"
	T7R 2815' TQu 3320' TGb 3590' TSA 3816
Stimulati	on: See below
Initial P	otential: BOPD BWPD MCF/D
Cumulativ	e Production to : BO MCF
Remarks: 3476-353 Cored (4 rec 390 3590-36 (Grayb) DST (Gr FP 400- no desc 1 hr 30 FSIP 13	Comp Info: Cored (Queen) 3416-76rec 60', no desc; Cored (Queen) 36', rec 60', no desc; Cored (Queen 3536-45', rec 8', no desc; Cored (Queen 3536-45', rec 8', no desc; Opt (Queen) 3419-3590', op 2 hrs, Queen) 3545-90', rec 44', no desc; DST (Queen) 3419-3590', op 2 hrs, Opt of DM, ISIP 414#/2 hrs, FP 150-196#, FSIP 3/9#/2 nrs, HP 1741-1729#; Cored (Grayb) 3650-3710', rec 60', no desc; Cored (Grayb) 3650-3710', rec 60', no desc; Cored (Grayb) 3770-3800', rec 30', no desc; 3710-70', rec 60', no desc; Cored (Grayb) 3770-3800', rec 30', no desc; avb) 3590-3800', op 2 hrs, rec 210' mud + 450' sulf wtr, ISIP 810#/2 hrs, avb) 3590-3800', op 2 hrs, rec 210' mud + 450' sulf wtr, ISIP 810#/2 hrs, Grayb) 3860-3900', rec 40', no desc; DST (San And) 3860-3900', op 3860-3900', rec 40', no desc; DST (San And) 3860-3900', op 3864/2 hrs, HP 2041-2041#, BHT 88 deg. Perf (Grayb) 3780-82', 3789-91', 3800-02' sulf#/2 hrs, HP 2041-2041#, BHT 88 deg. Perf (Grayb) 3698-3708' w/2 SPF; A/200 gals; S/16 BW/tr oil/8 hrs & S/dry; Perf (Grayb) 3698-3708' w/2 SPF; als; S/5 BW/tr oil/6 hrs & S/dry; Perf (Grayb) 3663-67' w/2 SPF; A/1000 gals; S/4 BLS w/tr oil/3 hrs & S/dry; C/Cactus Drlg.

Company:	Gulf Oil Corporation								
Lease: Field:	Eaves	San Andres		We	11 No.	4			
	Unit lette	San Andres	- South		<u> </u>	R_ 37 E			
	OIT ECCC		sec	,	22 5 ,	R_ 3/ E			
	Lea County	New Mexico)						
						tion			
Intermedia	te Casing:	Size 9 5/8	B" Depth	2850'	Cement_	1300 sx			
	Casing: Si								
Perforation	n: See belo)W	Open Ho	le:					
Formation '	Tops: TA	TS_	· · · · · · · · · · · · · · · · · · ·	BS	TY				
	T7R	то)u	TGb					
Stimulation	n: <u>See be</u>	low							
Initial Poi	tential: BC	PD 42	BWPD	8	MCF/D_				
Cumulative	Production	to	: 80	·	MCF	·			
Remarks:	6/5/72	F.R.C. 6/10 PD 4162' WO (Orig. comp OTD 5182'; TD 5182'; TD 5182'; PB to 4993' Perf 4C18-2 4200-02' w/ Acid (4018-2 Non-Commerc PB to 4162' Perf 4136-3	(San Andr 1/16/47 1 OPB 5118') DD 4162'; O', 4046-4 2 SPF 4202') 400 1a1 (4018- 4202') 250 ia1 (4018-	res) chru Glo COMPLET 8', 408 0 gals 4202') 10 gals	rieta) Pe <u>-</u> 4-86', 41 (15% NE)	erfs 5050-5115			

0	NEW-TEX LAB P. O. BOX 1181 HOBBS, N.M. 86240

No23	100
Run No	
Date of Run_	3-10-80
Date Secured.	3-10-80

A Sample of	Zia State C #1		
Secured from	Zia Energy		
	Box 603	Secured by	
	Hobbs. NM 88240	fime	
Sampling condition	onsPress		
	Temp,		

CERTIFICATE OF ANALYSIS

FRACTIONAL ANALYSIS

Percentage Composition

	MOL %	UQ. %	G.P.M.		
				Calc. Sp. Gr.— 0.7623	
*****				Calc. A.P.I.—	
****				Calc. Vapor Press.—	
Carbon Dioxide	10.445	 		Sp. Gr	
Air				Mol. Wt. 22.10	
gen	2.309				
Oxygen				LIQUID CONTENT	(GAL/MCF)
Hydrogen sulfide					•
Hydrogen				Propane Calc. G.P.M.	.972
Methane			4 4 20	Butanes Calc. G.P.M.	.510
Ethane			1.153	Pentanes Plus. G.P.M.	.358
Propone,			.972	Ethane Calc. G.P.M.	1.153
Butanes			- 4/4	FRVP Gasoline G.P.M.	
Iso-Butane			.161	P. T	
N-Butane			349	B.T.U./Cu. Ft. @ 14.696 P.S.I.A.	1034
N.				Dry Basis	1016
iso-Peniane	1.04		.156	Wet Basis	1010
			•130 •111	Sulfur Analysis by Titration	
N-Pentane			.064	Gr./100 Cu. Ft.	5 Gr H ₂ S/100 SCF
Hexanes Plus			.027	141111111111111111111111111111111111111	3 PPM
			.027	***************************************	3 Mol%
Octanes				Residual Sulfuri	
TOTAL	100.000	-	2.993	Tetal Sului:	
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Run by Deane S	impson		Checked by	Approved by	() myse
•					Company of

Additional Data and Remarks

<u> </u>	H ₂ S run	on location	on-Mol% H2	S not	included	in Gas	Analysis	Mol%.
								

EL PASO NATURAL GAS COMPANY

41	RPT-ASL	83 CHR	UMATUGRAPHIC	GAS ANALY	SIS REPORT		
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	TYPE CODE	SAMPLE DATE 10 09 79					LOCATION 1 M 13
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	SPECIF	FIC GRAVITY		C.	710		

MIXTURE HEATING VALUE (BTU/CF & 14.73 PSIA,60 DEGREES,URY) 1220

RATIO OF SPECIFIC HEATS 1.284
* NO TEST SECURED FOR DETERMINATION HZS CONTENT.

NAVAJO CRUDE OIL PURCHASING CO.
RUN TICKET

OPERATOR Z/A ENCRYY LEASE NAME ST. C DAY YEAR DISTRICT NO. 3		RUN TICKET
ASE NAME ST. CASE NAME ST. ST. ST. ST. ST. ST. ST. ST	OPERATOR ZIA ENELYY	·
THE HAME ST. C ST. C STORY STAN DISTRICT NO. 738 TICKET NO. 738 TANK NO. 14 98-3	LEASE HAME ST- C ILICKET NO.	RATOR - ENergy
TANK NO. 738 AND 12 80 818 TRICT NO. 738 14 98 3 89 87 AND 14 98 3 18 89 87 AND 15 10 10 10 10 10 10 AND 15 10 10 10 10 10 AND 15 10 10 10 10 AND 15 10 10 AND 15 10 10 AND 10	15 124 79 DISTRICT NO. 15 524	4/14
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This ticket covers all claims for allowance. The oil represented by this Ing Company. This ticket covers all claims for allowance. The oil represented by this Ing Company.		

NAVAJO CRUDE OIL PURCHASING CO.
RUN TICKET

SHELL PIPE LINE CORPORATION	11-48 BAX5 REV. 9-1-64 NAVAJO CRUDE OIL PURCHASING CO. RUN TIGKET
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OFERATOR S WITHESS OF SAIVE PORCE \$517796	REMARKS This ticket covers all claims for allowance. The oil represented by this ticket was received and run as the property of Navejo Crude Oil Purchaing Company.

FLUID	SAMPLE	DATA	·	Date 11-8-7	9	Ticket Number	6190	22	7.0
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FORMATION TEST DATA

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	ZIA ENER	GY, INC.									E (T -	OF - (X)	Scho	duled [Const	etion X	URING		GAS - CIL
•••	P. O. B	ж 603, Н	lobbs,	NM 882	40	LOCA	ATION		DATEO	1		HOKE	TBG.	DAILY ALLOW-	CHGTM OF TEST HOURS				GAS M.C.F.	CU.FT/BBL
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During gas-oil ratiq test, each well shall be produced at a rate not exceeding the unit allowable for the lacested by more than 25 percent. Operator is encouraged to take adventage of this 25 percent tolerance in order that increesed allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pre-wall be 0.60.

Mail original and one copy of this report to the district office of the New Mexico Oli Conser Rule 331 and appropriate pool rules.

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

Engineer 3/12/80



(505) 393-6364 • SUITE 240 • BROADMOOR BUILDING POST OFFICE BOX 2188 • HOBBS, NEW MEXICO 88240

April 25, 1980

Zia Energy, Inc. P. O. Box 603 Hobbs, NM 88240

Dear Mr. Nelson:

At your request I have estimated reserves on your State "C" #1 well located 1981' FWL & 1980' FNL, Section 17, T-25-S, R-37-E. Since there is very little history on San Andres production in the near vicinity of your well, the decision was made to go on volumetric calculations. This method is probably the best way to calculate reserves in the early life of a well or field, as there is no production history and few reservoir properties are known. The following parameters were used in the reserve calculations:

Porosity	7.5%	calculated (log)
Connate water	60.0%	calculated (log)
Shrinkage factor	.80	estimated
Recovery efficiency	12.0%	estimated
Net effective thickness	15.0 feet	calculated (log)
Drainage area	40.0 ac.	proration unit
G.O.R.	24,500:1	actual test

The estimated ultimate recovery on this well is 13406 BBLS of oil and based on a gas oil ratio of 24,500:1. The gas reserves are 328.5 MMCFG.

I hope this meets your requirements and if I can be of any further assistance feel free to contact me.

Very truly yours,

Jac T Janica

Joe T. Jahica PE 20097

JTJ/kg

ZIA ENERGY, INC.

Cost Analysis To Plug Back and Recomplete, Equip and Operate a New Onshore San Andres Reservoir Well

Cost Basis For All Figures - April 1977

16	Cost
Plug back, perforate, stimulate, test & equip 2 7/8" OD EUE J-55 tubing - 3800' 7/8" Gr. 40 sucker rods - 1300' 3/4" Gr. 40 sucker rods - 2500' 2½" × 2" × 16' subsurface pump 1 - 4' × 20' heater treater - installed 1 - 4' × 10' free water knockout - installed Miscellaneous well head connections 1 - pumping unit - Amcot T20F86-20-D228Z 1 - Ajax engine - EA-30 1 - pumping unit concrete base plus installation Salt Water Disposal System installation	\$ 30,000 9,430 1,200 1,800 632 10,000 3,500 1,500 18,530 9,050 1,388 25,200
TOTAL CAPITAL COST	\$112,230
Overhead Expense - \$200/well/month - 15 yrs Lease operating costs - 15 yrs	\$ 36,000 237,285
TOTAL OPERATING COST	7213,200

ZIA ENERGY, INC.

Revenue Calculation For New Onshore San Andres Reservoir Well

Calculation based on the following data:

Recoverable oil	13,406 bbis
Price for Oil - April 1977	\$13.00/bbl
Recoverable Gas	328,500 MCF
Price for Gas - April 1977	\$0.62/MCF
Royalty rate	12.5%
Tow rate - Oil	7.38%
Tax rate - Gas	11.79%

Oil Revenue: (13406) (13.03) (.875) (.9262) =

Gas Revenue: 157,200 (328,500) (.62) (.875) (.8821) =

\$298,765 Total Revenue

Formula for "could have been produced in commercial quantities" test:

Therefore, the "Behind-the-Pipe Exclusion" does not apply and this San Andres reservoir qualifies for the Sec. 102 (New Onshore Reservoir) price category.

\$141,565

9 | -

Getty Oil Company

P.O. BOX 3000 TULSA, OKLAHOMA 74102

KEEP ALL STATEMENTS. DUPLICATES WILL NOT BE FURNISHED.

STATEMENT OF GAS PURCHASED

-			S	TATEMENT OF GAS	PURCHASED				
PORM 13-875 2-77									
PLA	NT		TATE	CO	UNTY	STATION	METER		DATE
NAME	NO.	3,		CO	UNIT	NUMBER	NUMBER	MO.	YEAR -
EUNICE	ž1	NEW MEXI	Ca	LEA		04950		C4	1977
,	PRODUCER			LEASE			WELLS NO.		NO. COPIES
ZIA ENI	RGIES INC			CHRISTNAS					
			GA	ASOLINE CONTI	ENT VALUE				
POTAL GAS PURCHASED-M. C. F.	TEST GALS. FER M. C. F.	TOTAL TEST GALS.	CORRECTED TEST GALS.	PRICE/M.C.F. OR FRICE/GAL.	- CONTRACT PERCENT	ALTERNATE PRESSURE BASE	CORSCTED M. C. F.	GASO CONTENT	
1,153	1.015	1.170		.1473215	33.33	19.025	1.124		57.45
			BUTANE/PR	ROPANE SALES	VALUE OF TH	E GAS			

GALLONS SOLD	AYERAGE PRICE/GAL	YALUE DUE ALL LEASES	CONTRACT PERCENT	TOTAL TEST GALS.		BUTANE/PROPANE VALUE DUE LEASE	
1,560,269	.1357805	523.167.54	33	2.354.225		276.71	

RESIDUE VALUE OF THE GAS

PERCENTAGE	VOLUME	RESIDUE GAS	REPRESSURE GAS	AVAILABLE FOR SALE FROM LSE.	TOTAL FOR CALE	TOTAL SOLD	NET PROCEEDS	RESIDUE GAS
RESIDUE REM.	RESIDUE REM.	RETURNED TO LSE.	LEASE		FROM PLANS	FROM PLANT	DUE ALL LEASES	VALUE DUE LEASE
92.36	761			761	1,884,214	1.884,214	937,423	378-61

STATION SUMMARY AND TAX VALUES

PLANT FACTOR	% COVERED BY	TOTAL GROSS	TAX EXEMPT ROYALTY VALUE	TAXABLE VALUE	PRODUCTION TAX	EXCISE TAX	TOTAL TAX	NET VALUE DUE LEASE
.791236C		714.77		714.77	26.80	.0019	23.61	661-16
•010205¢		O	NEW MEXICO AD	VALOREM TAX	.010/99 T.29	SCH TAX	16.23	
	Ges .	Price	15				.0255	

714.77 = .62

12 (REV. 11-73)

SHELL OIL COMPANY

					STELL VIL			WIAI					
	OPERATOR			BATTERY					FIELD		COUNTY	STATE	MO.
ZIA	ENERGY IN	VC	CHRISTMAS			PEN	iROS	E SKEL	LY	. !	LEA	N MEX	04
DAY	TICKET NO.	GRAV.	BARRELS	PRICE	VALUE	MO.	DAY	TICKET NO.	GRAV.	BARRELS	PRICE	VALUE	<u></u>
4 15	5 34	4.4	182.53	5.2100	950.98			4/77	STRIF	PER-WELL VALUE	E ADJ.	1,4	27.3

Oil Price

 $\frac{2378.36}{182.53} = 13.03$

بإ

X85043A00 SHELL DIL 182.53 2,378.36 ZIA22000

C-E Natco Chemicals
A Subsidiary of
Combustion Engineering, Inc.
Post Office Box 447
Hobbs, New Mexico 88240

Tel. 505/393-6126



29 April, 1980

TO WHOM IT MAY CONCERN

To the best of my knowledge the following prices on material specified were in effect on or about April, 1977:

Α.	210 barrel flat bottom welded steel stock tank	\$2,250.00
8.	4' x 20' Vertical ASME Code Emulsion Treater	\$8,952.00
_	A' v 10' Horizontal Free Water Knockout	\$2,630,00

MAX V. LAND Office Manager

PUMPING UNITS SERVICES, INC.

THE PUMPING UNIT SPECIALIST

P 0 80X 306 PHONE 505 393-3191 HOBBS, NEW MEXICO 58240 April 24, 1980

Zia Energy P. O. Box 603 Hobbs, New Mexico 8824

Hobbs, New Mexico 88240 Attention: Mr. Farris Nelson

Regarding: Prices in effect April 1977

Mr. Nelson:

Attached is a copy of our pumping unit foundation and labor price list dated November 1, 1976 and in effect April 1977.

Estimate labor and trucking to go to your location, set and level foundation, and assemble the 228 pumping unit and gas engine.

10 hrs @65.60 per hr.

656.00

1 Pumping Units Services, Inc. foundation for 228 unit w/gas engine drive. F.O.B. Hobbs yard

570.00

Bolts and tiedowns

109.32

\$1,335.32

4% Sales TAx

53.41 \$1,388.73

Should you need further information, please feel free to contact our office.

Sincerely;

Pumping Units Services, Inc.

Marion Hightower

President

Encls.

III. A.P.I. CONVENTIONAL PUMPING UNITS

A. PUMPING UNITS SERVICES, INC. Precast Concrete Foundations only for A.P.I. Conventional pumping units (F.O.B. Hobbs Plant):

API Unit Size	Electric Motor Drive	Gas Engine Drive
40	\$260.00	\$ 300.00
57	285.00	325.00
80	300.00	335.00
114	330.00	405.00
160	415.00	490.00
_228	505.00	_570_00
320	540.00	635.00
456	675.00	780.00
640	775.00	925.00
912	910.00	1,070.00

B. Contract prices for furnishing labor, tools, equipment and a PUMPING UNITS SERVICES, INC. Precast Concrete Foundation, erect pumping unit complete:

API Unit Size	Electric Motor Drive	Gas Engine Drive
40	\$`_49 0 .00	\$ 555.00
57	525.00	595.00
80	540.00	635.00
114	585.00	690.00
160	815.00	945.60
228	975.00	1,115.00
320	1,130.00	1,275.00
456	1,275.00	1,430.00
640	1,430.00	1,585.00
912	1,635.00	1,855.00

PUMPING UNITS SERVICES, INC.

Box 356 - Phone 505/393-3191 Hobbs, New Mexico 88240

PRICE LIST EFFECTIVE NOVEMBER 1, 1976

I. HOURLY RATES

Α.	Skilled Personnel:	
	Construction Foreman	\$ 8.60 per hour
	Construction Workman	6.50 per hour
	Field Superintendent	12.00 per hour
	Shop Machinist	11.50 per hour
	Welder	16.00 per hour

Air Compressor w/Jack Hammer less Operator

9.50 per hour

B. Trucking:

Operating in New Mexico under authority of NMSCC Permit No. 7379, Tariff 30-E.

Operating in Texas under authority of RRC Permit No. 27167, Tariff 6-R. Hourly rates will be charged as per published OILFIELD HAULERS ASSOCIATION Rate Schedule.

C. Outside Services:

Outside Services for material, labor and fabricating will be charged at local prices in effect at time of delivery.

I. SPECIAL PRECAST CONCRETE FOUNDATIONS

A. Heater Treater & Separator Foundations:

3' diameter	\$ 55.00
42" diameter	60.00
41 diameter	65.00
51 diameter	75,00
6 ¹ diameter	105.00
7' diameter	130,00
9 ¹ diameter	200.00
11' diameter	325.00

B. Sills & Piers:

5 × 6	12000
4' x 12' x 10"	\$135.00
3' x 8'6" x 16"	160.00
3' x 10' x 16"	215.00
5' x 12' x 16"	325.00
5' x 10' s 22"	327.00
13' Dia Tank Ring	405.00
41 × 816" × 16"	240.00
4' x 10" x 16"	275.90

a E	nergy, Inc	New Mexico 8	8240		BOX 10	XICO 88231
	ATTN: FA	RRIS NELSON	1977 Pump	price (2½x2x16) 60-252 K 4	DATE:	4-16-80 190-25 15.09
	222 K 16	ball & seat	46.21	113 L 6	lock nut	5.63
3	11 K 4 190 L 70	ditto cups	10,32	95 L 1 232 K 134	body pull tube	29 .13 68 . 66
	91 K 4	sdapter cage	11.43	2,2	έ 8 Χ	613.03 24.52 637.55
	81 K 1	adapter	14.19	James N. Evan	s / mh	/
PLEA	ise repair	313.				
					•	
	N	SIG	NED			25.2
	3	222 K 16 11 L 4 11 K 4 190 L 70 91 K 4 110 L 6 81 K 1	ATTN: FARRIS NELSON 222 K 16 barrel 11 L 4 ball & seat 11 K 4 ditto 3 190 L 70 cups 91 K 4 sdapter 110 L 6 cage 81 K 1 adapter PLEASE REPEY TO — SIGN	ATTN: FARRIS NELSON 1977 Pump 222 K 16 barrel 167.40 11 L 4 ball & seat 46.21 11 K 4 ditto 40.96 3 190 L 70 cups 10.32 91 K 4 sdapter 11.43 110 L 6 cage 13.76 81 K 1 adapter 14.19	ATTN: FARRIS NELSON 1977 Pump price (2½x2x16) 222 K 16 barrel 167.40 60-252 K 4 11 L 4 ball & seat 46.21 113 L 6 11 K 4 ditto 40.96 156 L 1 190 L 70 cups 10.32 95 L 1 91 K 4 sdapter 11.43 232 K 134 110 L 6 cage 13.76 81 K 1 adapter 14.19 PLEASE REPORT TO SIGNED James N. Evans	A Knergy, Inc. 20 K 603, Hobbs, New Mexico 88240 ATTN: FARRIS NELSON 1977 Pump price (2½x2x16) DATE:. 222 K 16 barrel 167.40 113 L 6 cage 11 L 4 ball & seat 46.21 11 K 4 ditto 40.96 10.32 95 L 1 body 91 K 4 sdapter 11.43 232 K 134 pull tube 110 L 6 cage 13.76 81 K 1 adapter 14.19 PLEASE REPORTO SIGNED James N. Evans / Mexico 88240 EUNICE, NEW ME Phone: 394 DATE:. 10 ATTN: FARRIS NELSON 1977 Pump price (2½x2x16) DATE:. 10 L 6 cage 113 L 6 cage 13 L 6 cage 14.19 PLEASE REPORTO SIGNED James N. Evans / Mexico 89240 EUNICE, NEW ME Phone: 394 Please Report And Phone: 394 EUNICE, NEW ME Phone: 394 Please Report And Phone: 394 EUNICE, NEW ME Phone: 394 Please Report And Phone: 394 Please Report And Phone: 394 EUNICE, NEW ME Phone: 394 P







Section 2050 Page 1 April 26, 1977 Supersedes 5-6-76

AJAX HORIZONTAL GAS ENGINES . PRICE SCHEDULE

T

	\checkmark									
	All Units	EA-22	EA-30	E-42	<u>DP-60</u>	<u>DP-80A</u>	<u>DP-125</u>	DP-165	DP-250	DP-325
Base Engine with Clutch		\$8280	\$8570	\$9530	\$13230	\$15760	\$23950	\$30000	\$44910	\$55340
Base Engine without Clutch	-		-	9170	12790	15090	22750	28800	43260	53670
Optional Equipment										
Governor Air Motor	320	-	-	-	· -	-	5 F 🕳	-	**	-
Gas Injection Fuel System	· -	0.A.	O.A.	1040	1170	1230	Std.	Std.	Std.	Std.
Shielded Ignition Systems										
Altronic I	0.A.	-	-	-	-		-	-	-	•
Altronic III	-	N.A.	N.A.	N.A.	790	900	900	900	1270	1270
1Explosion Proof Shutdowns - Add	360	-	_	-		_	, -	-		-
2Flectric Starting Equipment	•	460	460	460	870	N.A.	N.A.	N.A.	N.A.	· N.A.
Air Gas Starting Equipment	-	110	110	110	Std.	Std.	Std.	Std.	Std.	Std.
Deductions										
Standard Engine Radiator	· -	O.A.	0.A.	O.A.	O.A.	O.A.	0.A.	O.A.	1880	1880

Explosion proof overspeed; water temperature and oil level shutdowns.

^{2.} Battery and cable not included.

O.A. - On Application
N.A. - Not Available
Std. - Standard Equipment

LONE STAR STEEL COMPANY

OIL COUNTRY TUBULAR GOODS PRICE LIST EFFECTIVE MARCH OL, 1977

PRICES DOLLARS PER 100 FEET - F.O.B. MILL, LONE STAR, TEXAS

	S DOLLARS PE	8 100 PEE			MFG.	MILL
PRICE			GRADE		SPECS.	PRICE
•	WEIGHT	INCHES		END	Brecor	
SIZE	LBS.	IMCuca		FINISH	·	
0.0.	PER FT.				LSS	673.63
NCHES		.296	S- <u>1</u> 05	LONG	LSS	720-26
5.000	15.00	. 2 , 0	5-105	BUTTRESS		
5.000				. ame	API	713.21
		.362	08 - 4	LOWE	API	762-50
5.000	18.00	• 302	N~80	BUTTRESS	API	783-63
5.000	•	•	L-80	LONG	API	837-85
•			L-80	BUTTRESS	ĹŠŠ	881.50
			55-95	LOWS	255	942-58
			55-95	BUTTRESS	i SS	801-43
			5-95	FOME	ณรร	856-90
			S-95	BUTTRESS). SS	880-67
			CYS-95	FDAZ	£ \$\$	741-69
			CYS-95	BUTTRESS	API	955-78
			C-95	LONG	API	1022-05
			C-95	BUTTRES:S	~ % \$\$	809-31
			S-105	LONG		865-33
			5-105		C33	-
	1		,			919-23
			N-80	L ENCE	API	982.76
	23.20	.478	N-8(BUT TREES	API	1009-99
5.000			L-8	LING	AFI	1079-88
			L-8	BUTTARES	S API	1185.77
*			55-9		£35	1269.03
•			22-ò	S BUTTHES	S LSS	1103.75
		•	53~? - c-0		. Laa	1189-20
			- S-9	-	S LSS	1212.97
			S-9		F 2 2	1297.07
			CA2-8		S LSS	1271.01
			CA2-		F 2 3	1114.60
•			5-10	·	SS LSS	Fraren
	•		S-10)5 00 mm		414-85
				55 SHOW	E API	41400
	14 00	.244	K-	77	-	450-96
5.500	14.00	•		55 SHOR	T API	473-12
- -		.275	¥-	- :IDM	, AF*-	473-12. 505-70
5.500	15.50	<u></u>	M -		SS API	302-10
	•		Ä-	22 WLIE		485.92
-				-55 SHOP	T API	509.79
		0 .304	, K		, AMI	507e17
5.500	17.0	0 123	K.		FCS AFI	544.88
242			16.	• •	G ANI	653.02
e e e e e e e e e e e e e e e e e e e			N.		ECC ALT	
		,			c ~··	747 10
				-00	ECS API	767.10
			L.		ESS LISS	807-49
			\$5	-95 LON	ESS LSS	B63-42
			S	-95 BUTTR	1633	732.01
•			9	1-95 LU	10	783.50
				-95 BUTT	(E33	
			~ ~	5-95 LOI	40	
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		LONE	s F.A/R s	TEEL	COMPA	NY	
			CIL COUNTRY	TUBULAR	GOODS		
1	•	PRICE	LIST EFFEC	TIVE MA	ARCH 01, 19	77	
<u></u>)	· ·	- 1	10	5 5 5			
y	PRICE	S DOLLARS PE	JE 100 FEET	<u> - F.U.B.</u>	MILL, LON	E STAR. I	EXAS
	SIZE	MEIGHT	WALL	GRADE	TEC	MFG.	MILL
	0.D.	L 85.	INCHES	1 / 1	END	SPECS.	PRICE
	INCHES	PER FT.	$\mathcal{I}(A)$		FINISH		
	4 276		1.10	H-40	MIC	API	170 50
	2.375	4-60	J.1.4 /	J-55	NUE	API	170.50 174.81
		1	` 1	C-75	NUE	API	258.48
		1	21.	N-80	NUE	API	235.19
			51		_		•
	2.375	4.70	~190 %	H-40	EUE	API	179.98
		*	" "	1 J-55 C-75	EUE EUE	API	184.53
	•		. 1	N-80	EUE	API API	272.88 248.29
			97		COL	WET	670467
	2.875	6-40	.217	H-40	NUE	API	221.50
				J~55	NUE	API	227.10
				C-75	NUE	API	335.70
				N-80	NUE	API	305.47
	2.875	6.50	-217	H-40	EUE	API	231.28
	2.617	0.00	461,	J-55	EUE :	API	237.13
		•		C-75	EUE	API	350-56
				N-80	EUE	API	316.99
٠ -							<u>.</u>
	3.500	9.20	.254	H-40	NUE	API	314.87
			•	J-55	NUE	API	322-83
				C-75 N-80	NUE NUE	API Api	477.17 434.21
				30	1100	~ .	737022
	3.500	9.30	.254	H-40	EUE	API	327.39
				J-55	EUE	API	335.67
				C-75	EUE	API	496.22
		•		N-60	EUE	API	451.53
	4.500	9.50	.205	K-55	SHORT	API	299.00
	4.500	10.50	.224	K-55	SHORT	API	326-04
				K-55	CUTTRESS	API	365.66
•	4-500	11.60	.250	K-55	SHORT	API	353.49
				K-55	LONG	API	370-87
				K-55	BUTTRESS	API	396.42
				N-80	LDNG	API	475.18
				N-80	BUTTRESS	API	508.04
				L-80	LONG	API	522.12
				L-80 SS-95	BUTTRESS	API	558.26 591.94
				55-95	LONG BUTTRESS	LSS LSS	581.86 622.18
_				5-95	LONG	ESS	549.89
				S-95	BUTTRESS	LSS	587.98
				CYS-95	LONG	LSS	604.30
				ĈŦŚ −9 5	BUTTRESS	LSS	646.20
	•			C-95	LONG	API	636-86
	•						

AFE No. 157

)	•	TOTAL FOR LINES TOTAL FOR VALVES TOTAL FOR FITTINGS TOTAL FOR CONTRACT LABOR TOTAL \$ 19630 \$ 1077 \$ 1077
•		~ % of \$ vr, 167 = \$ 503
Miscellaneous:	Texas-NM 1212	94.61 rods @ \$ 5 /rd = \$ 473
Right-of-Way:	Charlie Bettis	74.61 rods @ \$ /rd = \$ 473
Damages:	1561	/dox = 5 0000
Supervision:		$\frac{3}{4} \text{ days @ $\frac{103}{400} \text{ day}} = \frac{1175}{400}$
Sales Tax:	•	5 % of \$ 27,210 = \$ >177
Engineering:) \$ 1.70 = \$ 15#0
Fice Overhe	ad:	
		AFE No. 157 TOTAL \$ 37,158

Initials Date Prepared By

	B-D AFE 157 Line Loop Jet. H-22-1 to Jet. N-15 Jet. Pallact to Jet. N-16								
				det Pallet	to Jet. W-	15 <u> </u>			
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TTEM	Ed. Cest.	dugust	Sect.	oct	Nov.		1		
		1977	1977	1977	1977		1		
Lines	19630		15980 98	 			#,		
Valves							2		
Eitting	1087		79325	167-5] 3		
Continut Labor	1450	3 7255	5:020	75513	180511		14		
Musc. & Sales fax	1680	3:557	11 360	6.4			5		
R-O-WiDamage	906		111-	1456-3	93752		₩ 6		
Super & Engr.	2727	3535) 1 7 F3	15645	22822		#7		
CCH	1540	621/4		16 X 27			#		
1	37160	46166	1971617	1039 /-	2971125		9		
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. C.	CAS RI - GOCCOCO 	16. 101 C	UNICE SOUTH-:		CURRENT	YR-TO-DATE	PREV-YR-OTR	LYA	
<i>(</i>)	DESCRIPTION	001	NOV	DEC.	QUARTER	TR - TO - SAIC	V AEG - IN-GIN		
<u>پ</u>	COMPLETIONS - OTI DAS TOTAL ACTIVE COMPL INSCILLE COMPLETIONS		1 1	i i					
	SERVICE HELLS - ACTIVE INACTIVE								
	GROSS SALES VOLUMES - LIQ (BEL)	426 1,120	215 1,445	416 1,385	1,057 3,953	2,988 12,76	2 Zê6 2 331		
-	NET SALES VOLUMES - OIL/COND (SBL) GAS. (MCF)	296 . 734	149	289 943	734 2•755	2,075 3,395	1 1 9 9 9 2 3 5		
•	VALUE - OIL/COND : GAS OTHER INCOME 5	1,572	7 96 6 27	1,551 653	3,919 1,786	10,536	3 235]	
	TOTAL INCOME	2,046	1,423	2,234	5,705	15,86	7 1,351	<u>:</u>	
	CONTROLLABLE EXPENSE - GROSS								
· <u>-</u>	PUMPING POWER & FUEL LUSRICANTS CHEMICALS - DIL TREATING	155	2 4 5 1 3 2 4 5 4	2 46	657 194 459	1,03	3 69		
	CHEMICALS - WITER TREATING HATER PURCHASED ON DISPOSED SUPPLIES, TOOLS, MISC EXPENSE FACILITIES/SYSTEMS - OTHER COMPASSOR HATHTENANCE		311	.195	506				
	SPECIAL SURVEYS LEASE ERPT HITHT & REPAIRS WELL ERPT + SURVAGE HAIHT	709 117_	6 96	35	1,449	2,95	9		
	TRUE TO THE STAND THAT IN THE TRUE TO THE STANDARD STANDA	773	710	269 271	269 1,974	1,50	2		
	TOTAL CONTROLLABLE EXP = CROSS	1,027	2,743	1 - 334	\$÷\$89	15.81	9 323	<u>-27. m.s.</u>	
	NON-COMIROLLABLE EXPENSE - 63055 - 630					· · · · · · · · · · · · · · · · · · ·			
	TOTAL NOW-CONTR EXPS - 62055		A GATE STATE OF A THE STATE OF	•	-				
A	JOINT DUNERS PORTION								
رَی	NET EXPENSES JOINT OPERATIONS BY OTHERS								
	PRODUCTION & SEVERANCE TAX AD CALOREM TAX	168	124	21	313	1,28	7 101		
:	IOIAL_NET_EXPENSE	168.	124	21		1,26	7161		
	OVERHEAD EXPENSE	67	187	118	372	2 1,27	7 108		
	IOTAL APC EXPENSE	2+052	3,257	1:473	22. 36:59!	18:33	1.032	<u>.</u>	
	APC CASH FLOW - NET	14	1,636-	761	885	1,51	6- 319		
	GROSS LSE OR FACILITY EXPENSE AVE SALES PRICE/BPL 5	2,062 5,311 .507	3,059 5.342 .626	1,473 5.367 .709	6+594 5-33	7 5.07	9 5.608		
	LEDNTE EXPLORMEL LERGSS) APC CONTR EXPLS INCOME TOTAL APC EXPS / 5 INCOME	1,827 •892 1•350	2,743 1,931 2,149	1,234 .597 .659	1.965 1.033 1.15	7 1,31	3 823 7 609		
	LAPO GROSS INVESTMENT ANNUALIZED CASH FLOGVINGSTRENT	184 ,23 2 •802	164,232 - 198-	154,232 •F80	124 (23)	2 149.21 - 31	133,232	179	

.	DIY 85 467, 35 FLC 163	HOUSTON - TONES EUNICE SOUTH-S		00005784 0 Secretion 92	O1 PERATED	USE CODE 3023797 USE NAME HUGH 13 COUNTY LEA				
	0C T	ноч	DEC	CURRENT	YR-TC-DATE	PREV-YR-OTR	L Y A V F R CUPR-YR-GIR	A G E STTE		
OHPL	1	i 1 i 1					# ·			

EF)	1.122	1,443	1.385	1,057	2,98 12,76	u 266 2 331	352 1,310	249 1.769		
	296 784	149	289 9 <u>4</u> 3	73 ¹ 2.750	2,07	4 179 9 235	235 917	173 797		
	1,572		1,551	3,912 1,786			1.306	378 523		
	2,543	1,423	2,234	5,755	15,66	7 1,351	1,952	1,403		
	1 5 6 6 2	-	246	657 194	1,03		2:9	144 86 76		
		#54 311	[195	459 506			151 169	132		
	709 117	696	35 209],445 015	2:95 53	9	435 138	247 45		
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RCSS	1,927	7 2,743	1,334	5, 939	15,31	9	1,970	1,318		
7053 75					·			ĝ		
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	168	3 124	21	513	1,28	7 131	104	107		
	168	124	21	113	1,28	7161	104	167		
2+	61	7 187	118	372	1,27	7 108	124	106		
	2+04	2 3 . 257	1.973) 5,594	18,38	3 1,032	2,192_	1,532		
	14	1,635-	761	3 8 5	1,51	6- 319	2 96-	126-		
E	2,06 5,31 .50	7 _626	1,473 5,367 ,759	6:594 5:33 -645	• 71	3 1,032 9 5.608 2 1.000	.645	1.531 5.075 -717		
	. 1,82 ,89 1,00	2.743 2.1.931 2.149	1,234 .597 .659	1.969 1.035 1.155	• 5	7 .509 4 .763	1.97 1.03 1.15	1.269		
<u> </u>	124:23 200	2 1 <u>L4</u> ,232 2- 189-	104,232. • Fac	104,23	150,23 - 31	2 5- 134,232 5- 37	104,232	. 104.233		

ZIA ENERGY, INC.

Tabulation of Wells That Penetrated San Andres Prior to April 20, 1977

• ·			1 Imia		Completion		Commission		
Commanu	iesse	Well No.	Unit	C_T_D	Completion Date	Total Depth	Completion	Reported TSA	Remarks
Company	Lease	#### HO.	Letter	S-T-R	Date	iorai pehtu	Interval	Reported 13A	Keiner Ka
Oil Corp.	S.P.S.U.	220	0	5-22-37	5/15/75	3900'	Shut-in	3837'	SA tstd non-comm
is Antweil	Shell "G"	1	- P	8-22-37	1/5/70	74241	D&A	39841	Drilled & aband
D	Grizzell "B"	1	G	8-22-37	4/28/69	6580°	5498'-5907'		
	Falby "A"	1	Č	8-22-37	6/23/75	6570¹	5508'-5840'		
50 50 50	Falby "A"	3	F	8-22-37	7/17/71	6558'	5532'-5939'		
	Falby "A"	4	Ë	8-22-37	6/10/61	6555'	6455'-6518'	3980'	
co .	Falby "B"	1	ĸ	8-22-37	7/4/62	65491	6490'-6538'		
CO	Falby "B"	4	Ĺ	8-22-37	11/25/60	65501	6484'-6536'	3978 [†]	
	Grizzell	7	ر	8-22-37	8/28/52	65371	6450'-6515'		
	Grizzell	8	P	8-22-37	9/30/52	6513'	6420'-6500'		
	Grizzell	9	0	8-22-37	7/27/63	6575'	6459'-6509'		
rough	Grizzell	1	В	8-22-37	4/28/50	65761	6425'-6560'	3820¹	* *
Oil Corp.	S.P.S.U.	262	P	8-2?-37	6/2/75	3900'	Shut-in	3816¹	SA tstd non-comm
, Wagner & Brown	Greenwood	1	M	9-22-37	2/28/71	7335'	DδA		Drilled & aband
rke Production Co.	Walden	11	M	15-22-37	2/3/74	4600'	3735'-3885'	3905*	SA tstd 100% wtr
, Inc.	Gulf State	1	C	16-22-37	4/26/59	6602'	54921-55221	38301	
Oil Corp.	R. E. Cole	5	Ī	16-22-37	10/30/47	80661	7941'-8066'		
Oil Corp.	R. E. Cole	7	H	16-22-37	4/3/48	80421	78651-80421		
Oil Corp.	R. E. Cole	8	K	16-22-37	6/15/67	7302'	7186'-7210'	39841 ?	
Oil Corp.	R. E. Cole	. 9	N	16-22-37	10/11/67	73351	6770'-6887'	4006'	
Oil Corp.	R. E. Cole	10	E	16-22-37	7/25/67	7383¹	7312'-7325'	4013'	
Oil Corp.	R. E. Cole	11	j	16-22-37	2/1/68	7260'	7204'-7229'	3986'	•
Oil Corp.	R. E. Cole	12	ם	16-22-37	4/29/68	73501	71341-72161	39971	
Oil Corp.	R. E. Cole	13	Ò	16-22-37	3/30/69	7340¹	7120'-7204'	3994'	
Oil Cerp.	R. E. Cole	14	F	16-22-37	9/1/71	74021	7127'-7336'	4011'	
Bil Corp.	R. E. Cole	15	L	16-22-37	8/14/74	6700'	6398'-6572'	40101	
Carp.	R. E. Cole	16	G	16-22-37	8/20/76	′ 6650°	6338'-6602'		
Oil Corp.	R. E. Cole	17	P	16-22-37	1/17/77	7338¹	6308'-6517'	3988'	
ada Hess	State "P"	3	В	17-22-37	3/11/76	6650'	6470'-6533'	3840'	
	Christmas	4	1	17-22-37	7/11/73	66501	6370'-6637'	38851	
, Boyle & Stoval.	Patsy "B"	2	N	17-22-37	1/20/72	40301	3480'-3778'	3906'	SA tstd all water
bell & riedrick	Christmas	1	J	17-22-37	2/4/46	6550 '	Drilled & ab	andoned	
co	Elliott	1	K	17-22-37	6/12/35	4075'	Drilled & ab	andoned	
EO	Elliott	2	Α	17-22-37	12/1/74	6650'	6396'-6507'		
Hendrix Corp.	Morning Glory	1	#	17-22-37	10/24/74	6600 ⁱ	6357'-6479'	39061	
Pacific Gil Co.	Elliott State	1	F	17-22-37	9/24/74	6700'	Drilled ⁾ 8 ab	and SA DST18	MCF-no free oil
Pacific Oil Co.	Elliott B-17	3 ,	C	17-22-37	11/29/62		6465'-6529'		
Pacific Oil Co.	Elliott B-17	<i>t</i> į	G	17-22-37	3/31/74	74421	63781-64841	3925'	-
nergy, inc.	Federal	1	K	17-22-37	7/16/79	43101	26521-36141	3823'	SA tstd 100% water
ed Deck	Patsy "B"	1	C	20-22-37	7/28/71	4412°	34512-37574	38451	SA tstd 100% water

Tabulation of Wells That Penetrated San Andres Prior to April 20, 1977 - Continued

Company	Lease	Weli No.	Unit Letter	S-T-R	Completion Date	Total Depth	Completion Interval	Reported TSA	Remarks
alf Oil Corp.	Mattern	14	С	7-22-37	8/23/75		6488'-6644'	3 8 95'	
ilf Cil Corp.	Mattern	15	D	7-22-37	9/4/75		6516 ¹ -6658 ¹	38991	
alf Oil Corp.	Mattern	16	E	7-22-37	9/15/75		6510'-6670'		
nece	Elliott "B"	6	J	6-22-37	5/21/74		6595'-6710'		
uy	Grizzel!	2	Ğ	6-22-37	8/3/76		65581-66821	39631	
:If Cit Corp.	Mattern	8	E	6-22-37	5/24/76		6520'-6668'		
ilf Oil Corp.	Mattern	9	D	6-22-37	10/7/74		6433'-6675'		
ilf Oil Corp.	Mattern	10	Č	6-22-37	5/28/75		6456'-6700'		
if Oil Corp.	Mattern	11	F	6-22-37	6/8/75		6506'-6643'		· · · · · · · · · · · · · · · · · · ·
if Oil Corp.	Mattern	12	K	5-22-37	7/17/75		6548'-6657'	39081	•
Mf Oil Corp.	Mattern	13	N	6-22-37	8/2/75		6484'-6660'	3900'	
irtindale	Pan Cand	1	M	6-22-37	12/22/76		64621-66541	38981	
eli	State "D"	1	0	36-21-36	10/10/63		DεA		
loso	Grizzell	5	L	5-22-37	5/29/79	.	6458'-6644'	3851'	DST SA 112 MCFPD some free oil

APPLICATION FOR PERMIT TO DRILL, DELPEN, OR PLUG BACK Drive of Well DRILL DEEPEN DEEPEN DEEP	of Lorens
DEEPEN [X] PLUG BACK State "C" Zia Energy, Inc. P. O. Box 603, Hobbs, NM 88240 1980 North 17 225 37E Lea 1980 North 17 225 37E 100/29/79 FROF GSED CASING AND CEMENT PROGRAM SIZE OF HOLE 3/4" reamed to 4 1/2" 1 1604 1 1604 3325' 100 1 Rig up well servicing unit and reverse circulation equipment. Puil 2 3/8" tubing and rods. Run 2 7/8" tubing, drill collars & bit. DEEPEN [X] PLUG BACK State "C" State	 3345 EE
DEEPEN (X) PLUG BACK SLITH CELL CONTROL SLITH	
P. O. Box 603, Hobbs, NM 88240 F. 1980 North 17 225 37E Lea 1980 San Andres Revers 3405' GR Blanket on file FROFOSED CASES AND CEMENT PROGRAM 3/4" reamed to 4 1/2" 10/29/79 11.60# 12. Pull 2 3/8" tubing and rods. Run 2 7/8" tubing, drill collars & bit. 3. Mix mud and circulate hole. 4. Drill 4 3/4" hole from 3542' to 3925'. 5. Log, DST, test as necessary to evaluate. 6. Ream 4 3/4" hole to 6 1/4". 7. Run 500' - 4%" 001 11 60 El lings Company Com	
1980 Morth 17 22S 37E Lea 3925' San Andres Reveil 3405' GR Blanket on file FROTOSED CASING AND CEMENT PROGRAM 10/29/79 11.60# 12. Pull 2 3/8" tubing and rods. Run 2 7/8" tubing, drill collars & bit. 4. Drill 4 3/4" hole from 3542' to 3925'. 5. Log, DST, test as necessary to evaluate. 6. Ream 4 3/4" hole to 6 1/4". 7. Run 500' - 45" OD 11 60 F1 liner. Company of the content of the company of the content of	
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3925' San Andres Rever 3405' GR Blanket on file 10/29/79 FROF USED CASING AND CEMENT PROGRAM SIZE OF HOLE 172" 11.60# 3925' 100 1. Rig up well servicing unit and reverse circulation equipment. 2. Pull 2 3/8" tubing and rods. Run 2 7/8" tubing, drill collars & bit. 4. Drill 4 3/4" hole from 3542' to 3925'. 5. Log, DST, test as necessary to evaluate. 6. Ream 4 3/4" hole to 6 1/4". 7. Run 500' - 43" 0D 11 60 F1 lines Company 100 100 100 100 100 100 100 100 100 10	
3405' GR Blanket on file 10/29/79 FROM SIZE OF HOLE 3/4" reamed to 11.60# 12. Pull 2 3/8" tubing and rods. Run 2 7/8" tubing, drill collars & bit. Drill 4 3/4" hole from 3542' to 3925'. Log, DST, test as necessary to evaluate. Revent and reverse circulation equipment. 3925' San Andres Revent and Revent and Proceedings and Comment and Proceedings and Comment and Proceedings and Comment and Proceedings and Comment	
FROFOSED CASING AND CEMENT PROGRAM SIZE OF HOLE 3/4" reamed to 4 1/2" 11.60# 10/29/79 SETTING CEPTH SACKS OF CEMENT 11.60# 1. Rig up well servicing unit and reverse circulation equipment. 2. Pull 2 3/8" tubing and rods. Run 2 7/8" tubing, drill collars & bit. 3. Mix mud and circulate hole. 4. Drill 4 3/4" hole from 3542' to 3925'. 5. Log, DST, test as necessary to evaluate. 6. Ream 4 3/4" hole to 6 1/4". 7. Run 500' - 45" OD 11.60 El lings. Compat.	se Circu
SIZE OF HOLE 3/4" reamed to 4 1/2" 11.60# 39257 100 1. Rig up well servicing unit and reverse circulation equipment. 2. Pull 2 3/8" tubing and rods. Run 2 7/8" tubing, drill collars & bit. 3. Mix mud and circulate hole. 4. Drill 4 3/4" hole from 3542' to 3925'. 5. Log, DST, test as necessary to evaluate. 6. Ream 4 3/4" hole to 6 1/4". 7. Run 500' - 43" OD 11.60 El liner.	
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3. Mix mud and circulate hole. 4. Drill 4 3/4" hole from 3542' to 3925'. 5. Log, DST, test as necessary to evaluate. 6. Ream 4 3/4" hole to 6 1/4". 7. Run 500' - 4½" OD 11 60 Ed liner.	ST. TOP
	•
N ABOVE SHATE DESCRIBE PROPOSED PROGRAM IF PHOTOSAL IS TO CEIPEN IN PLUG BACK, SIVE DATA ON PRESINT PRODUCTIVE ZOTE AND PROPO	SED NOW Y.
hereby certify that the information above in true and count lete to the best of my key wiedge and hellef.	
(This paper for State Loc)	
SUPERVISOR DISTRICT ! OCT 25 1	

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102 Supersedes C-128 Effective 14-65

	All distance	es must be from the outer bou	nductes of the Section.	
900		Leane		Well No.
Unit Letter Sec	tion Township		ate "C" B-936	4
2000 Ferran		itange	County	
Actual Footage Location	17 22 Sout	h 37 Ea	35	Lea
	et from the 5 West	itne and 1980	feet from the NOT	rth line
Fround Level Elev.	Producing Formation	Fool	teet marine tvo	Deflicated Acresige:
34051	San Andres	Undes	ignated	40 Acres
1. Outline the ac	creage dedicated to the s	ubject well by colored	pencil or hachure mar	ks on the plat below
	one lease is dedicated t		•	crship thereof (both as to working
	unitization, unitization, f			rests of all owners been consoli-
		•		
If answer is " this form if ne		tract descriptions which	have actually been c	onsolidated. (Use reverse side of
No allowable w	rill be assigned to the wel			(by communitization, unitization, as been approved by the Commis-
		† }		CERTIFICATION
		İ		
		1		I hereby certify that the information com-
		· 1		tained herein is true and complete to the
·		ļ		best of my knowledge and belief.
		1		·
	i	i 	K	ame .
				m. Frelson
]	1	l P	esition
]	ę I		Engineer
		i		Zia Energy, Inc.
•	4	- 1		cre
		1		10/24/79
	<u></u>			:
•		1		
		i		I hereby certify that the well-location
				shown on this play was platted from field
				notes of actual surveys made by me or
		i i		under my supervision, and that the same
	1	ì	11	is true and correct to the bust of my
		1		knowledge and belief.
-			1	Survey A
			[] t	ate Surveyed
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		ار : ار :		edistered Professional Engineer
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				entiticate No.

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION DISTRIBUTION P O BOX 2068 BANTAFE SANTA FE, NEW MEXICO 87501 2.3.0.5. Strie (X) AND OFFICE THE OIL A G UPERATOR B-934 ** [X Name of Uperato: ZIA ENERGY, INC. State "C" Address of Cycento S. W. II No. P. O. Box 603, Hobbs, NM 98240 Lecation of Well It. I lele and Ford, or Validon 1981.5 THET FROM THE West San Andres Wildcat North 22 S 17 15. Elevation (Show whether DF, RT, GR, etc.) 3405' GR Lea Check Appropriate Box To Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF: Deepen & set liner 17. Describe Proposed of Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposes work) see MULE 1103. Rig up pulling unit. Pulled tubing and rods 10/25/79. Rig up reverse circulation equipment & commence deepening using 4 3/4" bit. Deepened from 3542' to 3929'. Attempted to ream; reamer failed. Ran GR-CNL log. Ran 525' of 4" OD 12.5# FJ liner. Cemented using 70 sacks Class "C" cement. Reversed out 15 sacks cement. SI 11/17/79. Tested liner top to 1500# on 11/19/79. MAR (1980 Orig. Signed lift Years Sezten

CONDITIONS OF APPROPAE, IF ANDI

OIL CONSERVATION DIVISION

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Dernatum		MD J'ORT OR AND NATURAL GAS			
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ZIA ENERGY, INC.			The state of the s	n sa=	
P. O. Box 603, Hob					
Non-Aell ()	Change in Trunsporter of:	Other (Please explain)			
Chaude to Chaustopit	CIB (_) Ear Go Casinghand Gas (_) Conde	; ' ≺		•	
If change of ownership give name and address of previous owner					
DESCRIPTION OF WELL AND LEGGE NOTE State "C"	1.EASE 1 San Andres Wi		sicero State B-93		
that Letter F : 1981	.5 Feet From the West Lie	ne and 1980 Feet From	The North		
time of Section 17 To	waship 22 S Him,-	37 E . 10.594,	Lea	C.	
DESIGNATION OF TRANSPOR	TER OF OIL AND NATURAL GA	S Antiers (Give address to a high appro	and consultantion is the se	e'1	
Navajo Crude Oil P	Paso Natural Gas Company P. O. Drawer 159, Artesia, NM 88210 Address (6 it a defication block approved copy of this form it to be real) P. O. Box 1492, E1 Paso, TX 79978				
		P. O. Box 1492, E1 Pas	so, TX 79978	nt)	
If well produces oil or liquids, give location of tooks.	Unit Sec. Twp. 1kge. F 17 22 S 37 E	Is gas actually connected? We Yes	10/10/79	. 2.	
f this production is commingled wi	th that from any other leave or pool,	give communiting order numbers		-	
Designate Type of Completion		New Well Werkever Deepen X		11 X	
10/25/79	Date Compl. Ready to Frod. 1/23/80	3929'	3856 ¹		
Llevations (DF, RKB, RT, GR, etc., 3405 GR	San Andres	Tep Off/Gus Pay	Tubing Depth 3650		
Perforations 38301-2 JS, 38341-			Depth Casing thice	-	
3030 -2 03, 3037 -		CEMENTING RECORD	3323		
HOLE SIZE	CASING & TUBING SIZE	осетн seт 315 '	SACKS CLAUNT 210	n mi mpandy "	
	5 1/2"	3435'	300		
<u> </u>	4" OD liner	3400'-3929'	70		
FEST DATA AND REQUEST FO		fier recovery of socal volume of load oil och or be for full 34 hours)	and must be equal to cr exceed t	p all	
Date First New Oil Bun To Tanks	1 Pate of Tees 2/27/80	Flow	fs, etc.)		
24	120#	Packer	32/64"		
Retual Fied, During 7494	011-15Lis. 8	Water-Bble.	Gcs-MCF 283		
303]_6	381		en en en en en en en en en en en en en e	
ASTUDI Prog. Teel-MCF/D	Length of Test	Bbls. Conference/MMCF	Gravity of Cendensate	39	
ihad (pilot, back pr.)	Tubing Pressure (ghut-im)	Cosing Pressure (Shut-in)	Choke Siee		
CATE OF COMPLIANC	E	OIL CONSERVA	TION DIVISION		
	rgulations of the Oil Conservation	APPHOVED	, 18	- •	
	and that the information given beat of my knowledge and belief,	UY SUPERVISOR DISTRICTO			
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momora		This from is to be filed in If this is a request for allow	validation a newly difficult or if	east to	
(Signa	Iwe)	well, this form must be eccompe	dance with fetter 111.	• • • • • • • • • • • • • • • • • • • •	
Engineer	[4]	All sections of this form me able on new and recompleted w	ist he filled out completely for elle.		
2/29/80	(4)	Fift out only Sections 3, 3	l, III, and VI for changes of		
		topers to some Control of the contro	e sa fita t filo moeta privit filo.	sades *	
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TENERCY AND NOVERALS DEPART	1				Revi	sed 10-1-76	
	MENT	CONSERVA	ATION DIVIS	SIOIs	(So, hateate)	Yue Ct , edse	
SUSTRIBUTION SAUTA FE	s/	11300 X	So, fostente l'yse ct l'euse trate X l'en l' 6, tratair il à that transmittal B-934				
WELL COMPLETION OR RECOMPLETION REPORT AND LOS							
TO TYPE OF HELL	200 X	and the	3		The Control of the	COMMITTERS	
D. TYPE OF COMPLETION						State "C"	
west out other second s						At well and	
ZIA ENERGY, INC.						Tre, finder all discuss de Calebrat de	
P. O. Box 603, Hobbs, NM 88240						San Andres Wildcat	
4. Location of well							
EMIT 12777 F 100127	. 1981.5	West		80			
			MILLER		103		
North LINE CF STC. 17	T.D. Henched 17, Dat	in Compl. (Ready to	Prod / 16, Prevote	e as the tents.	1.1 , GR. c.c.) 19. 1	Dev. Challe : a.	
10/25/79 11/7	7/79 1	/23/80	3405	' GR	3	405'	
20. Fetal Depth 2	11. Ping Back T.D. 3856 1	22. If Kinding	le Comple, Now	Deliver by	Fortung Tuols	Caste To In	
4. Producing Intervaluit, el tius e	ompletion - Top, Hotic	orn, 21 anie		<u></u>	[2:	Vas Diectrial na Made	
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16. Type Electric and Other Logs:	Four.				l .	START CORES	
CNL CNL		ASING RECORD (Se	moet all strings set in		i N	0	
CASING SIZE HEIGH	T LP./FT. DEPT	TH SET K	DLE SIZE	CEMENTING	FECORD	TUBERT FROMA	
8 5/8" 5 1/2" 1	315' 15.5# 3435'			210 sx 300 sx			
						· · · · · · · · · · · · · · · · · · ·	
29.	LINER LECORD			· · · · · · · · · · · · · · · · · · ·	nushia neco	<u> </u>	
SIZE	BOT TON	SACKS CEPENT	of the second second second second second	517 F	CEPTH SET	T PAGE E SET	
4" 3400'	3929'	70	none	2 3/8"	36 <u>50'</u>	3650'	
11. Perferation Record fin erval. se	ize and number)				URE, CEMEN' SQU	ESSE, ETC.	
3830' - 2 JS (.375")			1 3830'-34'	DEPTH INTERVAL AMOUNT AND KIND PATERIAL DIED 1880'-34' 1000 961. 15% HCL			
3834 - 2 03 (.375")		4500 gal. 20% HCL		CL			
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· · · · · · · · · · · · · · · · · · ·			michaes				
33.							
33.	Production Metrod (F)			herap)	Pro	•	
33. Date Pirat Freduction	Flowing	linistrigi, gas triji, par	ping - Size and type	283	1	•	
Date Plant Production 1/23/80 Date of Test Hours Ver	Flowing Choke Size 32/64" Versive Culc Sizes	Prod'm For	ping Size and type $Ca^2 = Fit.$	Sas = MCi	Pro	Gas - Oil haits	
Date Pirat Fix Juntion 1/23/80 Date of Test 2/27/80 Flow Tubing Press. 120 Pkr 34. Disposition of Gas (Sold, asc.)	Flowing Choke Size 32/64" Generate Culculated Hour Bate Jos fuel, vented, etc.)	Predta For Tent Dir - 101.		283	Pro	Gas = Off Nath. 35375 Garany = 2.17 (Corr.) 35.4	
Date Plant Production 1/23/80 Date of Teet 2/27/80 Plow Tubing Press. 120 Pkr	Flowing Choke Size 32/64" Generate Culculated Hour Bate Jos fuel, vented, etc.)	Predta For Tent Dir - 101.		283	Pro Waser = Pai.	Ges = Oil Nath. 35375 Gridly = 2.1 (Corr.) 35.4	
Date 1 Test Preduction 1/23/80 Date of Test 2/27/80 Place Tabing Press. 120 At Disposition of time (Sold, used) of Attention attention GR - CNL	Flowing Choke Size 32/64" Cula State Hour Bine Jos fuel, vented, etc.) tural Gas Compa	inding, gas lift, por Fred'n For Feel Feelal 21. 311 - 111. 8	Col = 1:21. 8	283 Votes = 38	Pro	Ges = Oil Nath. 35375 Gridly = 2.1 (Corr.) 35.4	
Date Plant Pre-suction 1/23/80 Date of Test 2/27/80 Plow Tebing Press. 120 Casing Pkr 34. Disposition of time (Sold, ascar Sold to E1 Paso Nat 35. Of Attentionals	Flowing Choke Size 32/64" Cula State Hour Bine Jos fuel, vented, etc.) tural Gas Compa	inding, gas lift, por Fred'n For Feet Feetal 21. 311 - 101. 8	Col = 1:21. 8	283 Votes = 38	Pro	Gas = Off Nath. 35375 Garany = 2.17 (Corr.) 35.4	

HISTRUCTIONS

This form is to be filed, with the appropriate District Office of the Division and later than 20 days after the completion of any newly-difficed or despended well. It shall be accompanied by one copy of all received and trib on fiving logication on the well as it is accompletely from the control of the first conducted. Including difficult to the first tests. All depths reported shall be recommended in the case of direct noisy difficults (wells, two vertical depths shall also be rejected. For earlighte completion, there is the conduction of the conduction of the first of the field in quintuplicate except on state lately where six replies are required, to define the file.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GLOGRAPHICAL SECTION OF STATE Northwestern New Mexico Sorcheastern New Mexico T. Canyon ______T. Ojo Alumo ______T, Penn. "B" ____ T. Strawn T. Kutland-Fruitland T. Penn. "C" T. Atoka _____ T. Picturel Cliffs _____ T. Penn. "D" _____ 2572' Cliff House ______ T. Leadville _____ T. 7 Rivers 2926! T Devenue T. Madison T. Madison 3542' T. Siturean T. Print Lookout T. Elbert T. Elbert T. Monteya T. MoCancken T. McCancken T. San Andres 3819 T Gallap T. Ignacio Quite T Simoson T. McKee _____ Desc Greenhern ____ T Granite T. Etterburger T. Dabota T. T. Gr. Wash ______T. Morrison ______T. T. Granite T. Toddie T. T. Delawate Sand ______ T. Entrada ______ T. T. Bone Springs _____ T. Wingste T. Wolfcemp______T. Chinle____ T Persian T. T Ciaco (Bough C) T. Penn "A" OIL OR GAS SANDS OR ZONES No. 2, from No. 5, from to to No. 3, from to No. 6, from to IMPORTANT MATER SANDS Include date on rate of water inflow and elevation to which water rate in hole. No. 2, from to feet No. 3, from _______feet ______ FORMATION RECORD (Attach additional sheets if necessary) Thickness Thickness Fermation To Formetion in Feet 3542 3929 387 Dolomite & lime stringers

STATE OF NEW MEXICO ENERGY AND MINEPALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 23 April 1980 EXAMINER HEARING IN THE MATTER OF: CASE Application of Zia Energy, Inc.,) for pool creation, special pool) 6861 rules, and an NGPA determination,) Lea County, New Mexico. BEFORE: Richard L. Stamets TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501

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MR. STAMETS: Call next Case 6861.

MR. PADILLA: Application of Zia Energy,

Inc., for pool creation, special pool rules, and an NGPA determination, Lea County, New Mexico.

MR. STAMETS: The applicant in this case has requested it be continued to the May 7th Examiner Hearing and it shall be.

(Hearing concluded.)

Pege ______3____

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

BALLY W. BOYD, C.S. Rt. 1 Box 183-8 Santa Rt. Now Marico 57301 Phone (305) 455-7479

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SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Sents Ft., New Mexico 87311
Phone (303) 455-7409

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
23 April 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Zia Energy, Inc.,) for pool creation, special pool) rules, and an NGPA determination,) Lea County, New Mexico.

CASE 6861

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501

MR. STAMETS: Call next Case 6861.

MR. PADILLA: Application of Zia Energy,

Inc., for pool creation, special pool rules, and an NGPA determination, Lea County, New Mexico.

MR. STAMETS: The applicant in this case has requested it be continued to the May 7th Examiner Hearing and it shall be.

(Hearing concluded.)

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Jany W. Boyd CSR

I do hereby certify that the foregoing & a complete record of the proceedings in the Examiner hearing of Case No. 6861 Oil Conservation Division

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BALLY W. BOYD, C.S.R. 11. 1 Bet 190-18 Sents Ft. New Maxic 27901 Prices (205) 455-749

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
9 April 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Zia Energy, Inc. for pool creation, special pool rules, and an NGPA determination, Lea County, New Mexico.

CASE 6861

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501 •

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MR. NUTTER: Call Case Number 6861.

MR. PADILLA: Application of Zia Energy, Inc., for pool creation, special pool rules, and an NGPA determination, Lea County, New Mexico.

MP. KELLARIN: If the Examiner please, I'm Tom Kellahin, appearing on behalf of the applicant.

We'd like to continue that case to the next Examiner Hearing on April 23rd.

MR. NUTTER: Case Number 6861 will be continued to the Examiner Hearing scheduled to be held at this same place at 9:00 o'clock a.m. April 23rd, 1980.

(Hearing concluded.)

ALLY W. BOYD, C.S. Rt. 1 Box 193-8 Seats Ft, New Mexico 27901

REPORTER'S CERTIFICATE

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

Souly W. Boyd C.S.R.

a complete record of the proceedings in the Examiner hearing of Case no. 19.8 heard by me on 6.1. Examiner Oil Conservation Division

BALLY W. BOYD, C.S.R. Rt. 1 Box 195-B Sharts Ft. New Meetler \$7501 Phone (705) 455-740

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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 9 April 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Zia Energy, Inc. for pool creation, special pool rules, and) an NGPA determination, Lea County, New) Mexico.

CASE 6861

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldy. Santa Pe, New Mexico 87501

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MR. NUTTER: Call Case Number 6861.

MR. PADILLA: Application of Zia Energy,
Inc., for pool creation, special pool rules, and an NGPA
determination, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please,
I'm Tom Kellahin, appearing on behalf of the applicant.

We'd like to continue that case to the next Examiner Hearing on April 23rd.

MR. NUTTER: Case Number 6861 will be continued to the Examiner Hearing scheduled to be held at this same place at 9:00 o'clock a.m. April 23rd, 1980.

(Hearing concluded.)

SALLY W. BOYD, C.4 Rt. 1 Box 195-R. Santa Pe, New Member 8730 Phone (105) 445-7409

REPORTER'S CERTIFICATE

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

> I do here of certification for going is I do here y cash mar ma soregoing is a complete renorm of the proceedings in the Examiner hearing of Cale No. 1980 heard by me on Examiner heard by me o Oil Conservation Division

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Dockets Nos. 14-80 and 15-80 are tentatively set for May 21 and June 4, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 7, 1980

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW HEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

CASE 6880: Application of Union Oil Company of California for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the West Lynch Deep Unit Area, comprising 1,280 acres, more or less, of fee and federal lands in Township 20 South, Range 34 East.

CASE 6857: (Readvertised)

Application of Holly Energy, Inc. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Wolfcamp-Pennsylvanian test well to be drilled 660 feet from the South line and 990 feet from the East line of Section 14, Township 18 South, Range 28 East, the E/2 of said Section 14 to be dedicated to the

Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Application of races recroteum corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet from the East line of Morrow test well to be drilled 1980 feet from the North line and 660 feet fr CASE 6881: Section 30, Township 17 South, Range 25 East, the N/2 of said Section 30 to be dedicated to the well.

(Continued from April 9, 1980, Examiner Hearing) CASE 6843:

Application of Yates Petroleum Corporation for two compulsory poolings, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Yeso Appricant, in the above-styled cause, seeks an order pooling all miletal interests in the less formation underlying two 40-acre proration units, the first being the SE/4 SE/4 and the second being the SW/4 SE/4 of Section 6, Township 19 South, Range 25 East, Penasco Draw Field, each unit 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 wells 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 wells and a charge for risk involved in drilling said

CASE 6882: Application of Amoco Production Company for compulsory pooling, Eddy County, New Mexico. Application of Amoco Production Company for computsory pooling, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 1, Township 19 South, Range 25 East, 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 cost of origing and completing said well and the affocation of the cost thereof as well as accoperating 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.

Application of Amoco Production Company for a waterflood project, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Indian Draw-Delaware Pool by the injection of water into the Delaware formation through its Old CASE 6883: Indian Draw Unit Wells Nos. 4 located in Unit 1 of Section 18 and 11 located in Unit A of Section 19, both in Township 22 South, Range 28 East.

Application of Supron Energy Corporation for compulsory pooling and a dual completion, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mesaverde and Dakota formations underlying the N/2 of Section 4, Township 30 North, Range 11 West, to be dedicated to a proposed dual completion to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well CASE 6884: and the allocation of the cost thereof as well as actual operating costs and charges for superand the allocation of the cost thereof as well as actual operating costs and charges for super vision. 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 6885: Application of Supron Energy Corporation for compulsory pooling and a dual completion, Rio Arriba Application of Supron energy corporation for computating and a dual completion, and article County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mesaverde and Pictured Cliffs formations underlying the E/2 of Section 8, Township 25 North, Range 3 West, to be dedicated to a proposed dual completion 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.

Examiner Hearing - Wednesday - May 7, 1980

(Continued from April 23, 1980, Examiner Hearing) CASE 6876:

Application of Maurice L. Brown Co. for compulsory pooling, Lea County, New Mexico. Application of Maurice L. Brown Co. for compulsory pooling, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Vada
Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Vada
Pennsylvanian Pool underlying the SW/4 of Section 5, Township 9 South, Range 34 East, 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 ollocation of the cost thereof as well 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 2s well and the allocation of the cost thereof 2s well as a standard completing said well and the allocation of the cost thereof 2s well as a standard completing said well and the allocation of the cost thereof 2s well as a standard completing said well and the allocation of the cost thereof 2s well as a standard completing said well and the allocation of the cost thereof 2s well as a standard completing said well and the allocation of the cost thereof 2s well as a standard completing said well and the allocation of the cost thereof 2s well as a standard completing said well and the allocation of the cost thereof 2s well as a standard completing said well and the allocation of the cost thereof 2s well as a standard completing said well and the allocation of the cost thereof 2s well as a standard completing said well and the allocation of the cost thereof 2s well as a standard completing said well and the allocation of the cost me the cost of drifting and completing said well and the disorderion of the cost thereor is well as actual operating costs and charges for supervision. Also to be considered will be the designation of annional costs and charges for supervision. 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.

Application of Aminoil USA, Inc. for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the S/2 of Section 10, Township 24 South, in the Wolfcamp and Pennsylvanian formations underlying the S/2 of Section 2080 feet from Page 28 Feet to be dedicated to a uell to be drilled at an unorthodox location 2080 feet from in the Wolfcamp and Pennsylvanian formations underlying the S/2 of Section 10, Township 24 South Range 28 East, to be dedicated to a well to be drilled at an unorthodox location 2080 feet from the South line and 1773 feet from the East line of said Section 10. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well the South line and 1773 feet from the East line of said Section 10. 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 and a charge for risk involved in drilling and a charge for risk involved in drilling and a charge for risk involved in drilling and a charge for risk involved in drilling and a charge for risk involved in drilling and a charge for risk involved in drilling and a charge for risk involved in drilling and a charge for risk involved in drilling and a charge for risk involved in drilling and a charge for risk involved in drilling and complete and the said and the s CASE 6886: 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.

Application of General Crude Processing for an oil treating plant permit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at a site in the SE/4 SE/4 of Section 21, Township 30 North, Range 12 West. CASE 6887:

Application of Conoco Inc. for a non-standard gas proration unit and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 120-acre non-standard Eumont gas proration unit comprising the S/2 SE/4 and NE/4 SE/4 of Section 12, Townstandard Eumont gas proration unit comprising the S/2 SE/4 and NE/4 SE/4 of Section 12, Township 10 South Pages 36 Fast to be dedicated to its State KN-12 Hall No. 7 drilled at an unorthodox gas well location. non-standard Eumont gas proration unit comprising the S/2 St/4 and NE/4 St/4 of Section 12, lown-ship 19 South, Range 36 East, to be dedicated to its State KN-12 Well No. 7 drilled at an unorthodox loss in 320 feet from the Feet line of said Section 12. snip 19 South, Kange 30 East, to be dedicated to its State KN-12 Well No. / drilled at an U location 330 feet from the South line and 1650 feet from the East line of said Section 12. CASE 6888:

Application of Belco Petroleum Corporation for directional drilling, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks authority to directionally drill a well, the surface location of which is 1980 feet from the North line and 920 feet from the West line of Section 36, Tomphio 22 South Range 30 Feet in such a manner as to bottom it at an unorthodox location Township 22 South, Range 30 East, in such a manner as to bottom it at an unorthodox location within 100 feet of a point 1320 feet from the North line and 2660 feet from the Morth line and 2660 feet from the Mor Township 22 South, Range 30 East, in such a manner as to bottom it at an unorthodox location within 100 feet of a point 1320 feet from the North line and 2640 feet from the West line of said within 100 feet of a point 1320 feet from the North line and 2640 feet from the West line of said section 36 to be dedicated to the well CASE 6889: within low reet or a point 1320 reet from the North line and 2640 reet from the West line of Section 36 to be dedicated to the well.

CASE 6861:

Application of Zia Energy, Inc. for pool creation, special pool rules, and an NGPA determination, (Continued from April 23, 1980, Examiner Hearing) Application of Zia Energy, Inc. for pool creation, special pool rules, and an NGPA determination, lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Lea County, New Mexico. Applicant new Andres oil pool for its State "" Well No. I located in unit F of Section 1/, Township 2/ South, Range 37 East, and special rules therefor, including a provision for a limiting gas-oil ratio of the control of the cont Range 3/ cast, and special rules therefor, including a provision for a limiting gas—oil fails of 10,000 to 1. Applicant further seeks a new onshore reservoir determination for said State "C"

Application of Tenneco Oil Company for a thermal enhanced recovery project, McKinley County, New Morico. Applicant in the showe-study cause seeks surhorize to initiate a cilot in circ company. Application of Tenneco Oil Company for a thermal enhanced recovery project, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to initiate a pilot in situ combustion enhanced recovery project in the South Hospah Upper Sand and South Hospah Lower Sand Oil Pools by the completion of an injection/ignition well at a point 1474 feet from the North line at bustion enhanced recovery project in the South Hospah Upper Sand and South Hospah Lower Sand Oil Pools by the completion of an injection/ignition well at a point 1474 feet from the North line and 2725 feet from the East line of Section 12, Township 17 North, Range 9 West, and by the drilling of up to give producing wells, all at unorthodox locations in close proximity to the injection/ignition well, and all accorded in Units F or G of said Section 12. CASE 6890:

Dockets Nos. 13-80 and 14-80 are tentatively set for May 7 and 21, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 23, 1980

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 6803: (Continued from February 13, 1980, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit EPROC Associates, Hartford Accident and Indemnity Company, and all other interested parties to appear and show cause why its Monsanto State H Well No. 1 located in Unit E of Section 2, Township 30 North, Range 16 West, San Juan County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6866: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Mare and McCoy and all other interested parties to appear and show cause why the M. L. Hare Well No. 2 located in Unit B of Section 23, Township 29 North, Range 11 West, San Juan County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6867: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit all interested parties to appear and show cause why the following abandoned wells drilled by unknown party or parties and located in Township 29 North, Range 11 West, San Juan County, should not be plugged and abandoned in accordance with a Division-approved plugging program: a rel1 in the SW/4 of Section 24, a well in the SE/4 of Section 22; and a well in the SE/4 of Section 28.

CASE 6850: (Continued from April 9, 1980, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Jack F. Grimm, N. B. Hunt, George R. Brown, Am-Arctic, Ltd., The Travelers Indemnity Company, and all other interested parties to appear and show cause why the Mobil 32 Well No. 1 located in Unit D of Section 32, Township 25 South, Range 1 East, Dona Ana County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

Application of Mass Enterprises Production Company for a dual completion, Les County, New Mexico.

Applicant, in the above-styled cause, seeks approval for the dual completion (commentional) of its

Bass State 36 Well No. 1 located in Unit E of Section 36, Township 15 South, Range 34 East, to

produce oil from the Townsend-Wolfcamp Pool and gas from an undesignated Morrow pool thru the tubing
and casing-tubing annulus, respectively, by means of a cross-over assembly.

CASE 6871: Application of Bass Enterprises Production Company to smend Order No. R-5693, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks to amend Order No. R-5693 to remove the restriction as to the time limit in which salt water may be disposed into Big Eddy Unit Well No. 56 located in Unit G of Section 35, Township 21 South, Range 28 East.

CASE 6872: Application of Amoco Production Company for a dual completion, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its

State "HQ" Well No. 1 located in Unit P of Section 26, Township 18 South, Range 34 East, Airstrip
Field, to produce Bone Springs and Wolfcamp oil thru parallel strings of tubing.

CASE 6873: Application of Harvey E. Yates Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Travis Deep Well Bo. 5, a Morrow test to be drilled 660 feet from the South line and 1650 feet from the East line of Section 12, Township 18 South, Range 28 East, the S/2 of said Section 12 to be dedicated to the well.

GASE 6874: Application of RNG Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the E/2 of Section 6, Township 22 South, Range 35 East, 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 6853: (Continued from April 9, 1980, Examiner Hearing)

Application of Caribou Four Corners, Inc. for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Cha-Callup Pool underlying the N/2 NE/4 of Section 18, Township 29 North, Range 14 West, 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.

- Application of Maurice L. Brown Co. for compulsory pooling, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying the SE/4 NW/4 of Section 4, Township 9 South, Range 34 East, 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.
- Application of Maurice L. Brown Co. for compulsory pooling, Lea County, New Mexico.

 Applicant, in the above-atyled cause, seeks an order pooling all mineral interests in the VadaPennsylvanian Pool underlying the SW/4 of Section 5, Township 9 South, Range 34 East, to be dedicated to a well to be drilled et 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 5467: (Reopened and Readvertised)

In the matter of Case 6467 being reopened pursuant to the provisions of Order No. R-5958 which order created the Grama Ridge-Bone Spring Pool in Lea County with temporary special rules therefor providing for 160-acre spacing. All interested parties may appear and show cause why the Grama Ridge-Bone Spring Pool should not be developed on 40-acre spacing units.

- CASE 6877: Application of Florida Exploration Company for compulsory pooling and unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp thru Ellenburger formations underlying the N/2 of Section 11, Township 25 South, Range 35 East, to be dedicated to a well to be drilled at an unorthodox location 1200 feet from the North and West lines of said Section 11. 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 6878: Application of Stevens Oil Company for a non-standard gas proration unit, Chaves County, New Mexico.

 Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit comprising the N/2 SW/4 and S/2 NW/4 of Section 25, Township 8 South, Range 28 East, Twin Lakes-San Andres Associated Pool, to be dedicated to its O'Brien "F" Well No. 4 located in Unit K of said Section 25.
- CASE 6879: Application of Jake L. Hamon for a tubingless completion, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks authority to produce his Amerada Federal Well No. 2
 located in Unit F of Section 17, Township 20 South, Range 36 East, North Osudo-Morrow Gas Pool, thru 4 1/2-inch drill pipe cemented in the hole.

CASE 6861: (Continued from April 9, 1980, Examiner Hearing)

Application of Zia Energy, Inc. for pool creation, special pool rules, and an MCPA determination, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Andres oil pool for its State "C" Well No. 1 located in Unit F of Section 17, Township 22 South, Range 37 East, and special rules therefor, including a provision for a limiting gas-oil ratio of 10,000 to 1. Applicant further seeks a new onshore reservoir determination for said State "C" Well Mo. 1.

CASE 6837: (Continued from April 9, 1980, Examiner Hearing)

Application of Curtis Little for compuisor; pooling, Rio Arriba County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the W/2 of Section 7, Township 25 North, Range 3 West, 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.

Examiner Hearing - Wednesday - April 23, 1980

Docket No. 12-80

CASE 6487: (Continued from February 13, 1980, Examiner Hearing)

Application of El Paso Natural Gas Company for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Shell E State Com Well No. 2 located in Unit N of Section 6, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6868:

In the matter of the hearing called by the Oil Conservation Division on its own motion for an order contracting and extending certain pools in San Juan, Rio Arriba, Sandoval, and McKinley Counties, Mew Mexico:

(a) CONTRACT the Bisti-Farmington Pool in San Juan County, New Mexico, by deleting:

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM Section 20: W/2

(b) CONTRACT the Blanco-Pictured Cliffs Pool in San Juan and Rio Arriba Counties, New Mexico, by deleting:

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM Section 35: NW/4

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

TCWMSHIP 32 NORTH, RANGE 8 WEST, NMPM
Section 24: W/2
Section 25: W/2
Section 26: SE/4
Section 36: W/2

(d) EXTEND the Aztec-Fruitland Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 10 WEST, NHPM Section 17: S/2

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

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM Section 34: NW/4

TOWNSHIP 30 NORTH, RANGE 10 WEST, NNPM Section 6: SE/4

TOWNSHIP 31 NORTH, RANGE 11 VEST, NMPM Section 7: SW/4 Section 17: S/2

TOWNSHIP 31 NORTH, RANGE 12 WEST, MHPM Section 23: NE/9

(2) EXITING the Smilerd-Fictured Cilifa Pool in Pio Apriba, Sandoval, and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 8 WEST, MHPM Section 15: NW/4

(g) EXTEND the Bisti-Farmington Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 12 WEST, MMPM Section 29: S/2 Section 30: SE/4 and W/2

(h) EXTEND the Bisti-Lower Gallup Oil Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 25 NORTH, RANGE 12 WEST, IMPM Bection 22: NW/4

(i) EXTEND the Blanco-Fruitland Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 MORTH, RANGE 9 WEST, MMPH

Section 1: SW/4
Section 2: SE/4

TOWNSHIP 30 NORTH, RANGE 9 WEST, NMPM Section 10: SW/4
Section 16: NW/4

(j) EXTEND the Blanco Mesaverde Pocl in Rio Arriba and San Juan Counties, New Mexico, to include

TOWNSHIP 25 NORTH, RANGE 3 WEST, MYPM

Section 3: N/2 N/2

Section 5:

Section 6: All

Section 7: All Section 8: W/2

TOWNSHIP 26 NORTH, RANGE 2 WEST, SMPM Section 4: All

TOWNSHIP 27 NORTH, RANGE 2 WEST, NMPM Section 17: E/2

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

TOWNSHIP 29 NORTH, RANGE 8 WEST, NMPM Section 10: NE/4 and S/2

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM Section 20: NE/4

TOWNSHIP 30 NORTH, RANGE 8 WEST, NMPM

Section 19: All Section 29: NW/4 Section 30: N/2

TOWNSHIP 30 NORTH, RANGE 9 WEST, NMPM Section 10: SW/4 Section 24: E/2

TOWNSHIP 30 NORTH, RANGE 10 WEST, MMPM Section 8: NW/4

TOWNSHIP 31 NORTH, RANGE 9 WEST, NMPM Section 7: NE/4 Section 19: NW/4

TOWNSHIP 31 NORTH, RANGE 10 WEST MARTINE Section 24: E/2 and SW/4

Section 15: SW/4
Section 18: NE/4
Section 21: NE/4
Section 22: NE/4

TOWNSHIP 31 NORTH, RANGE 12 WEST, IMPM Section 1: N/2

TOWNSHIP 32 MORTH, RANGE 10 WEST, MNPM Section 33: S/2

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TOWNSHIP 32 NORTH, RANGE 12 WEST, NAPK
Section 10: E/2
Section 11: A11
Section 13: SW/4
Section 14: A11
Section 24: NW/4
Section 25: N/2
Section 26: ME/4
Section 35: E/2 and SW/4
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(1) EXTEND the South Blanco-Pictured Cliffs Pool in Rio Arriba, San Juan, and Sandoval Counties, New Mexico, to include therein:

TOWNSHIP 23 NORTH, RANGE 1 WEST, NMPM Section 19: E/2 Section 30: NE/4

TOWNSHIP 23 NORTH, RANGE 2 WEST, NMPM Section 26: NE/4

TOWNSHIP 24 NORTH, RANGE 3 WEST, NMPM Section 36: NW/4

TOWNSHIP 27 NORTH, RANGE 7 WEST, NMPM Section 12: SE/4

TOWNSHIP 28 NORTH, RANGE 6 WEST, NMPM Section 34: NE/4

(m) EXTEND the East Blanco-Pictured Cliffs Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 30 NORTH, RANGE 4 WEST, NMPM Section 4: W/2

TOWNSHIP 31 NORTH, RANGE 4 WEST, NMPM Section 33: SW/4

(n) EXTEND the Bloomfield-Farmington Oil Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 11 WEST, NMPM Section 25: SE/4

(o) EXTEND the Campo-Gallup Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 4 WEST, NMPM Section 12: SE/4 Section 13: NE/4

(p) EXTEND the Cha Cha-Gallup Oil Pool in San Juan County, New Mexico, to include therein:

TOWESHIP 29 NORTH, RANGE 14 WEST, NMPM Section 18: N/2 SW/4 and NW/4 SE/4

TOWNSHIP 29 NORTH, RANGE 15 WEST, NMPM Section 13: NE/4 and N/2 SE/4

(q) EXTEND the Chacon-Dakota Associated Pool in Rio Arriba and Sandoval Counties, New Mexico, to include therein:

TOWNSHIP 23 NORTH, RANGE 3 WEST, NMPM
Section 25: NW/4
Section 36: NE/4
Section 36: NW/4

TOWNSHIP 24 NORTH, RANGE 3 WEST, NHPM Section 20: E/2 Section 34: NM/4 Examiner Hearing - Wednesday - April 23, 1980

(r) EXTEMD the Choza Mesa-Pictured Cliffs Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANCE 3 WEST, MMPM

Section 30: N/2

TOWNSHIP 28 NORTH, RANGE 4 WEST, NMPM

Section 9: £/2 Section 10: All

Section 16: E/2

Section 21: ME/4

(a) EXTEND the Escrito-Gallup Oil Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 24 NORTH, RANGE 7 WEST, RMPM Section 21: SW/4

(t) EXTEND the Fulcher Kutz-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANCE 11 WEST, NMPM

Section 25: SE/4

Section 36: NE/4 and S/2

(u) EXTEND the Gobernador-Pictured Cliffs Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 5 WEST, IMPM

N/2 and SE/4 Section 4:

N/2 Section 5:

Section 6:

Section 15: Section 23: NW/4 and SE/4

Section 25: NW/4

TOWNSHIP 29 NORTH, RANGE 6 WEST, NMPM

NE/4

TOWNSHIP 30 NORTH, RANGE 5 WEST, NMPM Section 31: SW/4

(v) EXTEND the Barner Hill Fruitland-Pictured Cliff's Fool in San Juan County, New Mexico, to include therein:

TOWNSHIP 30 NORTH, RANGE 14 WEST, NMPM

Section 27: SE/4

Section 34: NE/4

Section 35: SW/4

(w) EXTEND the Harris Mesa-Chacra Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 27 NORTH, RANGE 9 WEST, MMPM

Section 11: S/2

Section 12: SW/4 Section 13: N/2

Section 14: ME/4

(x) EXTEND the West Knrz-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 13 WEST, NMPM Section 24: S/2

(y) EXTEND the Lergo-Checra Pool in Rio Arriba and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 27 MORTH, RANGE 7 WEST, MMPM Section 28: SE/4

(z) EXTEND the South Lindrith Gallup-Dakota Oil Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 24 NORTH, RANGE 4 WEST, MIPM

Section 21: SW/4 Section 27: N/2

(as) EXTERD the West Lindrith Gallup-Dakota Oil Pool in Rio Arriba County, New Mexico, to include

TOWNSHIP 24 NORTH, RANGE 3 WEST, NMPM Section 17: NW/4

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM

SW/4 Section 3: Section 5: S/2

Section 6: S/2 N/2 and SW/4 Section 7:

Section 8: N/2

Section 11: SW/4
Section 14: NE/4
Section 24: SW/4

TOWNSHIP 25 NORTH, RANGE 4 WEST, NMPM

Section 20: NW/4
Section 30: SW/4

Section 31: SE/4

(bb) EXTEMS the South Los Pinos Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 31 NORTH, RANGE 7 WEST, NMPM

Section 1: W/2

Section 10: SE/4 Section 11: N/2

TOWNSHIP 32 NORTH, RANGE 7 WEST, NMPM Section 26: SE/4

Section 34: SE/4

(cc) EXTEND the Otero-Chacra Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM Section 23: N/2

Section 25: N/2 and SE/4

(dd) EXTEND the Otero-Gallup Oil Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 24 NORTH, RANGE 5 WEST, NMPM Section 2: N/2 NW/4

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM

Section 22: NE/4

Section 23: NW/4
Section 34: W/2 SW/4 and SE/4
Section 35: SW/4 SW/4

(an) FYTEMD the Rusty-Chacra Pool in Sandoval County, New Mexico, to include therein:

TOWNSHIP 22 NORTH, RANGE 6 WEST, NMPM

Section 18:

Section 19: All Section 20: SW/4

Section 28: MM/4

Section 29: N/2 Section 30: NE/4

TOWNSHIP 22 NORTH, RANGE 7 WEST, NNPM

Section 10: S/2 Section 11: SW/4

Section 14: W/2

Section 15: SE/4 Section 20: NE/4

(ff) EXTEND the Star-Mesaverde Oil Pool' in McKinley County, New Mexico, to include therein;

TOWNSHIP 19 NORTH, RANGE 6 WEST, NMPM Section 16: N/2 NE/4

(gg) EXTEND the Ute Dome-Dakota Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 32 NORTH, RANGE 14 WEST, NAPPM Section 25: W/2

(hh) EXTEND the WAW Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM Section 19: S/2 and NW/4
Section 30: NW/4
Section 31: NE/4
Section 36: NW/4

TOWNSHIP 26 NORTH, RANGE 13 WEST, MMPM

Section 2: S/2
Section 3: S/2
Section 9: NE/4
Section 10: N/2
Section 11: All
Section 12: W/2
Section 13: HW/4
Section 14: N/2
Section 24: E/2

TOWNSHIP 27 NORTH, RANGE 13 WEST, NMPM

Section 7: W/2 and SE/4
Section 17: W/2 and SE/4
Section 20: E/2

Section 20: E/2 Section 21: W/2 Section 28: All

CASE 6869: In the matter of the hearing called by the Uil Conservation Division on its own motion for an order creating, contracting and extending the vertical and horizontal limits of certain pools in Chaves, Eddy, Lea, and Roosevelt Counties, New Mexico:

(a) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production and designated as the East Anderson Ranch-Wolfcamp Pool. The discovery well is Holly Energy, Inc. Pogo State Well No. 1 located in Unit H of Section 19, Township 16 South, Range 33 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 33 EAST, NMPM Section 19: NE/4

(b) CREATE a new pool in Chaves County, New Mexico, classified as an oil pool for San Andres production and designated as the Bull's Eye-San Andres Pool. The discovery well is Ralph Nix Union Happy Well No. 1 located in Unit O of Section 1, Township o south, Range 20 East, MICH. Cold pool would comprise:

TOWNSHIP 8 SOUTH, RANGE 28 EAST, NMPM Section 1: SE/4 and S/2 NE/4 Section 12: NE/4

TOWNSHIP 8 SOUTH, RANCE 29 EAST, HMPK Section 6: W/2 SW/4 Section 7: W/2 NW/4

(c) CREATE a new pool in Les County, New Mexico, classified as an oil pool for San Andres Production and designated as the Cary-San Andres Pool. The discovery well is Zia Energy, Inc. State C Well No. 1 located in Unit F of Section 17, Township 22 South, Range 37 East, NMPM. Said pool would comprise:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, IMPH Section 17: NW/4

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(d) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Grayburg production and designated as the Diamond Mound-Grayburg Gas Pool. The discovery well is Mesa Petroleum Company Sink Federal Well No. 1 located in Unit 1 of Section 9, Township 16 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM Section 9: SE/4

(e) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Diamond Mound-Morrow Gas Pool. The discovery well is Mesa Petroleum Company Derrick Federal Com Well No. 1 located in Unit K of Section 5, Township 16 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 28 EAST, NMPM Section 5: Lots 3, 4, 5, 6, 11, 12, 13, and 14

(f) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Abo production and designated as the Gopher-Abo Gas Pool. The discovery well is Mesa Petroleum Company Catclaw State Well No. 1 located in Unit G of Section 31, Tewnship 17 South, Range 24 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 24 EAST, NMPM Section 31: NE/4

(g) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Upper Pennsylvanian production and designated as the Grayburg-Upper Pennsylvanian Pool. The discovery well is Depco, Inc. Conoco State Well No. 1 located in Unit K of Section 15, Township 17 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 29 FAST, NMPM Section 15: SW/4

(h) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Drinkard production and designated as the Hardy-Drinkard Pool. The discovery well is Amoco Production Company State C Tr. 11 Well No. 11 located in Unit X of Section 2, Township 21 South, Range 36 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM Section 2: SE/4 Section 11: NE/4

(i) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Logan Draw-Atoka Gas Pool. The discovery well is Mesa Petroleum Company Haralo Federal Com Well No. 1 located in Unit L of Section 22, Township 17 South, Range 27 East, MMPM. Said pool would comprise:

TOWNSHIP 1/ SOUTH, MANGE 2/ EAST, NMPM Section 22: W/2

(j) CREATE a new pool in Chaves County, New Mexico, classified as an oil pool for Queen production and designated as the Rabbit Flats-Queen Pool. The discovery well is Rapid Company, Inc. Copelan State Well No. 1 located in Unit C of Section 31, Township 10 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 10 SOUTH, RANGE 27 EAST, NMPM Section 31: NE/4 NW/4 and N/2 NE/4

(k) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the Ross Draw-Wolfcamp Gas Pool. The discovery well is Florida Gas Exploration Company Ross Draw Unit Well No. 7 located in Unit J of Section 26, Township 26 South, Range 30 East, NMPM. Said pool would comprise:

TOWNSHIP 26 SOUTH, RANGE 30 EAST, NMPM

Section 26: S/2 Section 27: All (1) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Sand Point-Morrow Gas Pool. The discovery well is Perry R. Bass Big Eddy Unit Well No. 72 located in Unit R of Section J, Township 21 South, Range 28 East, MMM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 28 EAST, NMPM

(m) CREATE a new pool in Chaves County, New Mexico, classified as a gas pool for Mississippian production and designated as the Sand Ranch-Mississippian Gas Pool. The discovery well is MGF Oil Corporation Bikar Federal Well No. 1 located in Unit G of Section 14, Township 10 South, Range 29 East, NMPM. Said pool wou'l comprise:

TOWNSHIP 10 SOUTH, RANGE 29 EAST, NMPM Section 14: N/2

(n) CREATE a new pool in Chaves County, New Mexico, classified as an oil pool for San Andres production and designated as the North Tom Tom-San Andres Pool. The discovery well is NRM Petroleum Corporation Mooney Well No. 1 located in Unit A of Section 17, Township 7 South, Range 31 East, NMPM. Said pool would comprise:

TOWNSHIP 7 SOUTH, RANGE 31 EAST, MMPM Section 17: NE/4

(a) Cheate a new pool in Lea County, New Mexico, classified as an oil pool for Bone Springs production and designated as the Tonto-Bone Springs Pool. The discovery well is Amoco Production Company Nellis A Federal Well No. I located in Unit E of Section 8, Township 19 South, Range 33 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 33 EAST, NMPM Section 8: NW/4

(p) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Mississippian production and designated as the Townsend-Mississippian Gas Pool. The discovery well is Allen K. Trobaugh Eidson Com Well No. I located in Unit G of Section 28, Township 16 South, Range 35 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM Section 28: NE/4

(q) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Fusselman production and designated as the Wantz-Fusselman Pool. The discovery well is N. B. Hunt Mittie Weatherly Well No. 8 located in Unit G of Section 21, Township 21 South, Range 37 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, K. PM

(r) EXTEND the Airstrip-Lower Bone Springs Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM Section 43: NW/

(a) EXTERD the West Arkansas Junction-San Andres Pool in Les County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 36 EAST, NMPM Section 28: NW/4

(t) EXTEND the Avalon-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 26 EAST, NMPM Section 5: S/2

(u) EXTEND the Bar U-Pennsylvanian Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANCE 33 EAST, MMPM Section 31: N/2 More than the second of the se

(v) EXTEND the Blinebry Oil and Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 38 EAST. NAPPH Section 20: NF/4

(#) EXTEND the Boyd-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 25 EAST, KMPM Section 11: All

(x) EXTEND the East Caprock-Pennsylvanian Pool in Les County, New Mexico, to include therein:

TOWNSHIP 12 SOUTH, RANGE 32 EAST, NMPM Section 14: SW/4 Section 23: W/2

(y) CONTRACT the horizontal limits of the Cato-San Andres Pool in Chaves County, New Mexico, by the deletion of the following described area:

TOWNSHIP 8 SOUTH, RANGE 31 EAST, NMPM Section 5: NU/4

and EXTEND the horizontal limits of said pool to include therein:

TOWNSHIP 8 SOUTH, RANGE 30 EAST, NMPM Section 4: SE/4

(z) EXTEND the Chaveroo-San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM Section 34: NW/4

(as) EXTEND the Communche Stateline Tansill-Yates Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 36 EAST, NMPM Section 21: NW/4

(bb) EXTEND the South Culebra Bluff-Bone Springs Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM Section 22: NE/4 Section 23: NW/4

icc) EXTEND the Custer-Devonian Gas Pool in Les County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 36 EAST, NMPM Section 25: W/2

(dd) EXTEND the Double L-Queen Associated Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 29 EAST, NMPM Section 1: W/2, SW/4 NE/4 and W/2 SE/4

(ee) EXTEND the Eagle Creek Permanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 25 EAST, RMPH Section 3: All

(ff) EXTEND the South Emice-San Andres Pool in Les County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, MMPM Section 10: SE/4

(gg) EXTEND the East Gen-Horrow Gas Pool in Les County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 33 EAST, MMPH Section 26: S/2

(bh) EXTEND the East Grama Ridge-Horrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 34 EAST, MMPH Section 1: W/2

(ii) EXTEND the Gramm Ridge-Wolfcamp Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 34 EAST, IMPM Section 36: N/2 and SE/4

(jj) EXTEND the Hobbs-Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 38 EAST, MIPM Section 34: W/2

TOWNSHIP 19 SOUTH, RANGE 38 EAST, NMPM Section 3: NW/4

(kk) EXTERD the Jalmat Yates-Seven Rivers Fool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 36 EAST, NAPPA Section 28: S/2 NW/4

(11) EXTEND the Justis-Paddock Pool in Les County, New Nexico, to include therein:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM Section 25: S/2

TOWNSHIP 25 SOUTH, RANGE 38 EAST, NMPM Section 30: SW/4

(mm) EXTEND the Langley-Devonian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM Section 17: S/2 Section 28: N/2

(nn) EXTEND the Langley-Ellenburger Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM Section 17: S/2

EXTEND the Leamex-Wolfcamp Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM Section 21: N/2 N/2

(pp) EXTEND the Logan Draw-Horrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSRIP 17 SOUTH, RANGE 27 EAST, NMPM Section 20: All Section 21: S/2 Section 28: E/2

Section 33: E/2 (and) FRITIMD the Mortheast Lovington-Pennsylvanian Pool in Lea County, New Mexico, to include

therein:

TOWNSHIP 16 SOUTH, RANGE 37 EAST, NHPM Section 18: NE/4

(rr) EXTEND the Parkway-Strawn Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, MIPM

(ss) EXTEND the West Parkway-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, MIPH Section 21: S/2 Section 22: All

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(tt) EXTERD the South Peterson-Passelman Pool in Roosevelt County, New Hexico, to include therein:

TOWNSHIP 5 SOUTH, RANGE 32 EAST, NMPM Section 25: SE/4

(wa) EXTEND the North Quail Ridge-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANCE 33 EAST, NMPM Section 12: E/2

TOWNSHIP 19 SOUTH, RANGE 34 EAST, NMPM Section 7: W/2

(ww) EXTEND the South Salt Lake-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 32 EAST, NMPM Section 25: SW/4 Section 36: NW/4

(ww) EXTEND the Scoggin Draw-Horrow Cas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 27 EAST, MMPM Section 3: E/2 Section 10: E/2

(xx) EXTEND the Shugart Yates-Seven Rivers Queen-Grayburg Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 50 EAST, EMPN Section 35: N/2 NE/4

(yy) EXTEND the vertical limits of the Sioux-Yates Pool in Lea County, New Mexico, to include the Tansill formation and redesignate said pool as the Sioux Tansill-Yates Pool, and extend the horizontal limits of said pool to include therein:

TOWNSHIP 26 SOUTH, RANGE 36 EAST, INSING Section 16: N/2 and SE/4

(EE) EXTEND the Tom-Tom San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 31 EAST, NMPM Section 25: NW/4 Section 26: SE/4 Section 28: SW/4

TOWNSHIP 8 SOUTH, RANGE 31 EAST, NMPM Section 5: NM/4 and N/2 SW/4

(ass) EXTEND the West Tonto-Pennsylvanian Gas Pool in Les County, New Mexico, to include therein:

TOWNSRIP 19 SOUTH, RANGE 33 EAST, NMPM Section 18: NE/4

(bbb) EXTEND the Turkey Track-Horrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSRIP 19 SOUTH, RANGE 29 EAST, NMPM Section 11: All Section 14: E/2

(ccc) EXTEND the North Turkey Track-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM Section 27: S/2

(ddd) EXTEND the Warren-Tubb Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, MMPM Section 20: NE/4

(eee) EXTEND the White Ranch-Mississippism Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 29 EAST, INFM Section 34: E/2

(fff) EXTEND the Wilson-Strawn Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANCE 34 EAST, RNPN Section 12: 5E/4 Section 13: NE/4

Dockets Nos, 12-80 and 13-80 are tentatively set for April 23 and May 7, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 9, 1980

9 A.M. - CIL CONSERVATION DIVISION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

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

- CASE 6850: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Jack F. Grimm, N. B. Hunt, George R. Brown, Am-Arctic, Ltd., The Travelers Indemnity Company, and all other interested parties to appear and show cause why the Mobil 32 Well No. I located in Unit D of Section 32, Township 25 South, Range I East, Dona Ama County, should not be plugged and abandoned in accordance with a Division-approved plugging program.
- CASE 6851: In the matter of the hearing called by the Oil Conservation Division on its own motion to consider amendments to its SPECIAL RULES FOR APPLICATIONS FOR WELLHEAD PRICE CEILING CATEGORY DETERMINATIONS as promulgated by Division Order No. R-5878 and amended by R-5878-A. The proposed amendments would make said SPECIAL RULES conform to FERC Order No. 65 which promulgated final regulations implementing filing requirements of the Natural Cas Policy Act of 1978.
- CASE 6852: In the matter of the hearing called by the Oil Conservation Division on its own motion to consider special rules and procedures for the designation of "tight formations" or "tight sands" as outlined in the FERC interim rules and regulations issued February 20, 1980, relating to Section 107(b) of the Natural Gas Policy Act of 1978.
- CASE 6853: Application of Caribou Four Corners, Inc. for compulsory pooling, San Juan County, New Mexico.

 Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Cha-Callup Pool underlying the N/2 NE/4 of Section 18, Township 29 North, Range 14 West, 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 6854: Application of Jack A. Cole for an unorthodox gas well location, Rio Arriba County, New Mexico.

 Applicant, in the above-styled cause, seeks approval for the unorthodox location of his Apache
 Hills Well No. 6, 1326 feet from the North line and 1843 feet from the West line of Section 17,
 Township 23 North, Range 3 West, Ballard-Pictured Cliffs Pool, the NW/4 of said Section 17 to be
 dedicated to the well.
- CASE 6841: (Continued from March 26, 1980, Examiner hearing)

Application of CIG Exploration, Inc. for two non-standard gas proration units, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of two non-standard gas proration units in Township 16 South, Range 28 East, the first being 219.6 acres comprising lots 1 thru 8 of Section 1 and the second being 219.92 acres comprising Lots 1 thru 8 of Section 2, for the Wolfcamp, Pennsylvanian, and Mississippian formations, each unit to be dedicated to a well to be drilled at a standard location thereon.

- CASE 6855: Application of Dome Petroleum Corporation for an unorthodox well location, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Santa F2 3 Well No. 1 to be drilled 1220 feet from the North line and 900 feet from the West line of Section 3, Township 21 North, Range 10 West.
- Application of Texaco Inc. for downhole commingling, Lea County, Mark Morico. Applicant, in the above-styled cause, sachs approval for the downhole commingling of Blinebry, Tubb-Brinkard, and Fusselman production in the wellbore of its U. U. Fribio. "" Foderal NOT-2 Well No. 6 located in Unit H of Section 34, Township 24 South, Range 37 East, Sustis Field.
- CASE 6657: Application of Holly Energy. 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 State 14

 Well No. 1, a Morrow test to be drilled 660 feet from the South line and 990 feet from the East

 line of Section 14, Township 18 South, Range 28 East, the S/2 of said Section 14 to be dedicated
 to the well.

CASE 6843: (Continued from March 26, 1980, Examiner Hearing)

Application of Yates Petroleum Corporation for two compulsory poolings, Eddy County, New Medico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Yeso formation underlying two 40-acre proration units, the first being the SE/4 SE/4 and the second being the SW/4 SE/4 of Section 6, Township 19 South, Range 25 East, Penasco Draw Field, each unit 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 wells and the sllocation 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 wells and a charge for risk involved in drilling and wells.

- CASE 6858: Application of H. L. Brown, Jr. for gas well commingling, Roosevelt County, New Mexico.

 Applicant, in the above-styled cause, seeks authority to commingle Biuitt-Wolfcamp gas and condensate production from ten federal wells located as follows: Units K and P of Section 33 and L of 34, Township 7 South, Range 37 East; Units B and L of Section 3, C and J of 4, I of 5, C of 9 and G of 10; and one fee well in D of 10, all in Township 8 South, Range 37 East. Applicant would separate and meter the gas and condensate production from each well, then recombine the well's stream and commingle all wells into a small gasoline plant. Allocation of gas and condensate to each well would be on the basis of wellhead meter readings and allocation of gasoline plant production would be on the basis of gas production and BTU content at each well.
- CASE 6859: Application of R & G Drilling Company for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 1890 feet from the North line and 1830 feet from the East line of Section 28, Township 28 North, Range 11 West, Kutz-Fruitland Pool, the NE/4 of said Section 28 to the well.
- CASE 6860: Application of Flag-Redfern Oil Company for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221 to permit disposal of produced brine into an unlined surface pit located in Unit P of Section 3, Township 19 South, Range 31 East.
- CASE 4861: Application of Zia Energy, Inc. for pool creation, special pool rules, and an NGPA determination, lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Andres oil pool for its State "C" Well No. I located in Unit F of Section 17, Township 22 South, Range 37 East, and special rules therefor, including a provision for a limiting gas-oil ratio of 10,000 to 1. Applicant further seeks a new onshore reservoir determination for said State "C" Well No. 1.
- CASE 6837: (Continued from March 26, 1980, Examiner Hearing)

Application of Curtis Little for compulsory pooling, Rio Arriba County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the W/2 of Section 7, Township 25 North, Range 3 West, 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 6862: Application of ARCO Oil and Gas 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 State 157 "D" Well No. 11 drilled 2123 feet from the South line and lower feet from the East line of Section 12. Township 22 South, Mange 36 East, Drinkerd Pool, the NW/4 SE/4 of said Section 12 to be dedicated to the well.
- Application of Bass Enterprises Production Co. for a dual completion, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its
 Big Eddy Unit Well No. 72 located in Unit R of Section 3, Township 21 South, Range 28 East, to
 produce undesignated Atoks and Morrow gas thru parallel strings of tubing.
- CASE 6864: Application of Crace Petroleum Corporation for an unorthodox gas well location, Les County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Smith Ranch Well No. 11, to be drilled 1980 feet from the North line and 660 feet from the West line of Section 11, Township 20 South, Range 33 East, Teas-Penn Gas Pool, the N/2 of said Section 11 to be dedicated to the well.

Fage 3 of 3 Examiner Hearing - Wednesday - April 9, 1980 Docket No. 9-80

CASE 6846: (Amended)

In the matter of Case No. 6846 being amended to reflect that the location for the unorthodox location of the well on the second unit is 330 feet from the North line and 2310 feet from the East line of Section 13, Township 21 South, Range 36 East, Les County.

CASE 6846: (Continued from March 26, 1980, Examiner Hearing)

Application of Doyle Hartman for two compulsory poolings, two non-standard gas proration units, and two unorthodox well locations, ica County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Eumont Gas Pool underlying two 80-acre non-standard gas proration units, the first being the S/2 NE/4 of Section 13, Township 21 South, Range 36 East, to be dedicated to a well to be drilled at an unorthodox location 1550 feet from the North line and 2310 feet from the East line of said Section 13, and the second being the N/2 NE/4 of said Section 13 to be dedicated to a well to be drilled at an unorthodox location 330 feet from the North line and 2310 feet from the East line of said Section 13. Also to be considered will be the cost of drilling and completing said wells 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 wells and a charge for risk involved in drilling said

CASE 6865: Application of Getty Oil Company to reopen Case No. 6608, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks to reopen Case No. 6608 for consideration of the establishment of maximum efficient rates of withdrawal from the Grama Ridge-Wolfcamp Gas Pool.

Docket No. 10-80

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 16, 1980

8:45 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard befor Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

ALLOWABLE: (1) Consideration of the allowable production of gas for May, 1980, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for May, 1980, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

Docket No. 11-80

DOCKET: COMMISSION HEARING - WEDNESDAY - APRIL 16, 1980

STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 6609: (DE MOVO) (Continued from March 11, 1980, Commission Hearing)

Application of Napeco Inc. for pool creation and special pool rules, Eddy County, New Mexico.
Applicant, in the above-styled cause, seeks the creation of a new Strawn oil pool for its Benson
Deep Unit Weil No. 1 located in Unit O of Section 33, Township 18 South, Range 30 East, and special
rules therefor, including 160-acre spacing and standard well locations.

Upon application of Yates Petroleum Corporation and Napeco Inc. this case will be heard De Novo pursuant to the provisions of Rule 1220. Applicants allege this is not an "oil" pool but is a "volatile" oil pool.

KELLAHIN and KELLAHIN ATTORNEYS AT LAW

SANTA FE, NEW MEXICO 87501

TELEPHONE 988-4288 AREA CORE 998

OIL COMST WITH DIVISION

Mr. Joe D. Ramey Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

Case 6861

re: Zia Energy, Inc.

Dear Joe:

I would appreciate you setting the enclosed Application for hearing on April 9, 1980.

Very truly yours,

W. Thomas Kellahin

Eccl. Farris Nelson WTK:msf

KELLAHIN and KELLAHIN

ATTORNEYS AT LAW BCO DON GASPAR AVENUE
P. O. BOX 1769
SANTA FE, NEV! MEXICO 87501

March 10, 1980

Mr. Joe D. Ramey Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

Case (2861

re: Zia Energy, Inc.

Dear Joe:

I would appreciate you setting the enclosed Application for hearing on April 9, 1980.

cc: Farris Nelson WTK:msf

OIL COMSERVATION DIVISION

STATE OF NEW MEXICO

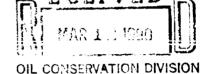
DEPARTMENT OF ENERGY AND MINERALS

OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF ZIA ENERGY, INC., FOR NGPA NEW ONSHORE RESERVOIR DETERMINATION; FOR CREATION OF A NEW POOL; AND FOR SPECIAL POOL RULES, INCLUDING A SPECIAL GOR LIMITATION OF 10,000-1, LEA COUNTY, NEW MEXICO.

No. 6861

APPLICATION



COMES NOW ZIA ENERGY, INC., and applies to the New TMAFFICO
Oil Conservation Division for New Onshore Reservoir Determination,
for the creation of a new pool for San Andres production with
special pool rules providing for a gas-oil ratio of 10,000 to 1
for its Zia Energy, Inc. State "C" Well No. 1, located in
Unit F, Section 17, T22S, R37E, NMPM, Lea County, New Mexico,
and in support thereof would show:

- 1. That Applicant has recompleted its State "C" Well No. 1, 1981.5 feet from the west line and 1980 feet from the north line of Section 17, T22S, R37E, NMPM.
- 2. That Applicant has dedicated the Se/4NW/4 of said Section to the well.
- 3. That Applicant requests a hearing to determine that the San Andres production from the subject well constitutes a new onshore reservoir pursuant to Section 102 of the Natural Gas Policy Act, and the appropriate advertisement for such findings and hearing.
- 4. That Applicant further seeks the creation of a new pool for the San Andres production including a provision for a gas-oil ratio of 10,000 to 1.
- 5. That the Application is in the best interests of conservation, the prevention of waste, and the protection of correlative rights.

WHEREFORE, Applicant requests that this matter be set for hearing and that after notice and hearing, the Application be granted as requested.

ZIA ENERGY, INC.

W. Thomas Kellahin
KELLAHIN & KELLAHIN
P. O. Box 1769
Santa Fe, New Mexico 87501
Phone: (505) 982-4285
ATTORNEYS FOR APPLICANT

STATE OF NEW MEXICO

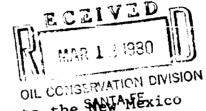
DEPARTMENT OF ENERGY AND MINERALS

OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF ZIA ENERGY, INC., FOR NGPA NEW CNSHORE RESERVOIR DETERMINATION; FOR CREATION OF A NEW POOL; AND FOR SPECIAL POOL RULES, INCLUDING A SPECIAL GOR LIMITATION OF 10,000-1, LEA COUNTY, NEW MEXICO.

No. 686

APPLICATION



COMES NOW ZIA ENERGY, INC., and applies to the MewAMexico
Oil Conservation Division for New Onshore Reservoir Determination,
for the creation of a new pool for San Andres production with
special pool rules providing for a gas-oil ratio of 10,000 to 1
special pool rules providing for a gas-oil ratio of 10,000 to 1
for its Zia Energy, Inc. State "C" Well No. 1, located in
for its Zia Energy, Inc. State "C" Well No. 1, located in
Unit F, Section 17, T22S, R37E, NMPM, Lea County, New Mexico,
and in support thereof would show:

- 1. That Applicant has recompleted its State "C" Well No. 1, 1981.5 feet from the west line and 1980 feet from the north line of Section 17, T22S, R37E, NMPM.
- 2. That Applicant has dedicated the Se/4NW/4 of said
- 3. That Applicant requests a hearing to determine that the San Andres production from the subject well constitutes a new onshore reservoir pursuant to Section 102 of the Natural Gas Policy Act, and the appropriate advertisement for such findings and hearing.
 - 4. That Applicant further seeks the creation of a new pool for the San Andres production including a provision for a gas-oil ratio of 10,000 to 1.
 - 5. That the Application is in the best interests of conservation, the prevention of waste, and the protection of correlative rights.

WHEREFORE, Applicant requests that this matter be set for hearing and that after notice and hearing, the Application be granted as requested.

ZIA ENERGY, IN

W. Thomas Kellahin
KELLAHIN & KELLAHIN
P. O. Box 1769
Santa Fe, New Mexico 87501
Phone: (505) 982-4285
ATTORNEYS FOR APPLICANT

STATE OF NEW MEXICO

DEPARTMENT OF ENERGY AND MINERALS

OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF ZIA ENERGY, INC., FOR NGPA NEW ONSHORE RESERVOIR DETERMINATION; FOR CREATION OF A NEW POOL; AND FOR SPECIAL POOL RULES, INCLUDING A SPECIAL GOR LIMITATION OF 10,000-1, LEA COUNTY, NEW MEXICO.

No. (086)



COMES NOW ZIA ENERGY, INC., and applies to SMETNEW Mexico
Oil Conservation Division for New Onshore Reservoir Determination,
for the creation of a new pool for San Andres production with
special pool rules providing for a gas-oil ratio of 10,000 to 1
for its Zia Energy, Inc. State "C" Well No. 1, located in
Unit F, Section 17, T22S, R37E, NMPM, Lea County, New Mexico,
and in support thereof would show:

- 1. That Applicant has recompleted its State "C" Well No. 1, 1981.5 feet from the west line and 1980 feet from the north line of Section 17, T22S, R37E, NMPM.
- 2. That Applicant has dedicated the Se/4NW/4 of said Section to the well.
- 3. That Applicant requests a hearing to determine that the San Andres production from the subject well constitutes a new onshore reservoir pursuant to Section 102 of the Natural Gas Policy Act, and the appropriate advertisement for such findings and hearing.
- 4. That Applicant further seeks the creation of a new pool for the San Andres production including a provision for a gas-oil ratio of 10,000 to 1.
- 5. That the Application is in the best interests of conservation, the prevention of waste, and the protection of correlative rights.

WHEREFORE, Applicant requests that this matter be set for hearing and that after notice and hearing, the Application be granted as requested.

ZIA ENERGY, INC.

W. Thomas Kellahin
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Santa Fe, New Mexico 87501
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ATTORNEYS FOR APPLICANT



STATE OF NEW MEXICO

DEPARTMENT OF ENERGY AND MINERALS OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF ZIA ENERGY, INC., FOR NGPA NEW ONSHORE RESERVOIR DETERMINATION; FOR CREATION OF A NEW POOL; AND FOR SPECIAL POOL RULES, INCLUDING A SPECIAL GOR LIMITATION OF 10,000-1, LEA COUNTY, NEW MEXICO.

No. 6861

APPLICATION

COMES NOW ZIA ENERGY, INC., and applies to the New Mexico Oil Conservation Division for New Onshore Reservoir Determination, for the creation of a new pool for San Andres production with special pool rules providing for a gas-oil ratio of 10,000 to 1 for its Zia Energy, Inc. State "C" Well No. 1, located in Unit F, Section 17, T22S, R37E, NMPM, Lea County, New Mexico, and in support thereof would show:

- 1. That Applicant has recompleted its State "C" Well No. 1, 1981.5 feet from the west line and 1980 feet from the north line of Section 17, T22S, R37E, NMPM.
- 2. That Applicant has dedicated the Se/4NW/4 of said Section to the well.
- 3. That Applicant requests a hearing to determine that the San Andres production from the subject well constitutes a new onshore reservoir pursuant to Section 102 of the Natural Cas Policy Act, and the appropriate advertisement for such findings and hearing.
- 4. That Applicant further seeks the creation of a new pool for the San Andres production including a provision for a gas-oil ratio of 10,000 to 1.
- 5. That the Application is in the best interests of conservation, the prevention of waste, and the protection of correlative rights.

WHEREFORE, Applicant requests that this matter be set for hearing and that after notice and hearing, the Application be granted as requested. ZIA ENERGY, INC.

KELLAHIN & KELLAHIN
P. O. Box 1769
Santa Fe, New Mexico 87501
Phone: (505) 982-4285
ATTORNEYS FOR APPLICANT

ROUGH

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

JAK

Order No. R-(04/06

APPLICATION OF ZIA ENERGY, INC. FOR POOL CREATION, SPECIAL POOL RULES, AND AN NGPA DETERMINATION, LEA COUNTY, NEW MEXICO.

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ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on May 7

19 80 , at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this day of August , 19 80 , the

Division Director, having considered the testimony, the record,

and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Zia thergy, Inc., seeks the creation of a new San Andres oil pool for its State "C" Well No. 1, which is located 1980 feet from the North line and 1982 feet from the West line of Section 17, Township 22 South, Range 37 East, NMPM, Lea

-2-Case No. 6861 Order No. R-

County, New Mexico, and the promulgation of special rules for said pool, including a provision for a gas-oil ratio limitation of 10,000 cubic feet of gas per barrel of oil.

- (3) That the applicant further seeks a determination that onshore said State "C" Well No. 1 has discovered a new reservoir and should he exempt from the behind-the-pipe exclusion, and that new wells completed in said new reservoir are entitled to the NGPA Section 102 "New Onshore Reservoir," Wellhead Price Ceiling Category, although said reservoir had been penetrated by other wells which penetrated the San Andres formation prior to April 20, 1977, alleging that oil and gas could not have been produced in commercial quantities by such old wells prior to April 20, 1977.
- (4) That the evidence establishes that to have plugged back and recompleted one of said wells in the San Andres formation in April, 1977, would have cost \$112,230, and that operating costs and overhead expense during an estimated 15-year life to such a well would be \$273,265.
- (5) That the evidence establishes that the estimated oil reserves available to the subject well total 13,406 barrels, and that its gas reserves total some 328,500 Mcf, and that the oil etan April, ATT, Stripper oil price of \$15.00 per barrel reserves, less 12.5 percent royalty and .075005 percent state taxes have a 1977 value of \$141,055, and that the gas reserves at an April, 1977, price of \$0.42 per mer less 12.5 percent royalty and .075005 percent state taxes have a 1977 value of \$164,845, for a total 1977 value for the well's oil and gas reserves of \$305,900.
- (6) That using the subject well's reserves and applying the FERC economics test to determine whether an old well which penetrated the San Andres formation could have been economically plugged back and recompleted in the San Andres or whether it should be exempt from the "Behind-the-Pipe" exclusion (market value of

the production less 1.6 times development cost plus operating costs) indicates that the economics of such a well would be:

\$305,900 - [1.6(\$112,230) + \$273,285] = -\$146,953

- (7) That pursuant to the above formula, such recompletion as described above would be an uneconomic venture, and the Behind-the-Pipe exclusion does not apply.
- (8) That the engineering and geological evidence presented establishes that applicant's State "C" Well No. 1 is indeed producing oil and gas from a new onshore San Andres reservoir separate and distinct from any other San Andres reservoir, and that the nearest commercial San Andres production is some 2 3/4 miles away.
- (9) That a new pool for San Andres production should be created and designated as the Southwest Eunice-San Andres Pool, with vertical limits comprising the San Andres formation and horizontal limits as follows:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPH Section 17: NW/4

- (10) That a special gas-oil ratio limitation for said pool should be established and a ratio of 5000 cubic feet of gas per barrel of oil is reasonable and should be adopted.
- (11) That entry of an order embodying the above findings will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That a new San Andres oil pool, discovered by the Zia Energy, Inc., State "C" Well No. 1, located in Unit F of Section 17, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico, with perforations from 3830 feet to 3834 feet is hereby created and defined, said pool to bear the designation Southwest Eunice-San Andres Pool with vertical limits comprising the San Andres formation and horizontal limits as follows:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM Section 17: NW/4

(2) That a special gas-oil ratio limitation of 5000 cubic feet of gas per barrel of oil is hereby established for said Southwest Eunice San Andree Pool.

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

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

DRAFT RSF

STATE OF NEW MEXICO EFERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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JOK

CASE NO. 6861

Order No. R- 6466-A

APPLICATION OF ZIA ENERGY, INC. FOR POOL

CREATION, SPECIAL POOL RULES, AND AN NEPA DETERMINATION, LEACOUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE DIVISION:

It appearing to the Division that Order No. R-646

dated <u>September 10</u>, 19 80, does not correctly state the intended order of the Division,

IT IS THEREFORE ORDERED:

(1) That Example (3) of Order NO. R-6466 is hereby rerum Gersel Order No. (4).

(2) That a new Order No. (3) be inserted, Tealing in its entirely as fallows:

(3) That it is tereby between sol that said

Santhwest Eurice. San Andrew Pool is a

new anchare severain pursuant to the

provisions of Section 102 of the

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specially that the Behind-the-Pipe
Exclusion in Section 102(c)(1)(C)(11) of

The NGPO bees not apply."