CASE 6812: MARALO INC. TO AMEND ORDER NO. R-5816, LEA COUNTY, NEW MEXICO

Case No.

Application
Transcripts

Small Exhibits

To Dick

Attached is Exhibit #4 from

Maralo Cose 6812, with corrected

Queen tops. Top Queen was

Corrulated from Tex. Pac. - Harner #1

Well in 20-25-37, a nomenclature x section

Log, to the Reserve - S. L. J Unit # 28

in 18-25-37 and then to the Maralo

wells.

As an average, Moralo picked their queen top 210' too high. Well \$20 on Maralo's crossection is actually Comp. 17' (±5') into Langlie Mattix pool.

John

MARALO JALMAT YATES UNIT COMPLETION DATE FIRST SEVEN INJECTION WELLS

(a H	25	20	19	F4	9	t	ELL
No completion attempted	1 BO & est 226 MCFG/D (SI)	6 BO + 3 BW & 151 MCFG/D	No completion attempted	5 30 + 3 BW & 35 MCFG/D	8 BO + 3 BN & 1.6 MCFG/D	5 BO + 55 BW & 1 MCFG/D	HAST TEST
10-25-79	10-18-79	9-5-79	10-5-79	9-27-79	9-20-79	11-2-79	DATE COMPLETED DRILLING
3508 (-384')	3510 (-374')	3500 (-334')	3540 (-382)	3570 (-373')	355.7 (-363')	3500 (-336')	TD
3508	3510	3500	3540)	3570	3557	3500)	CASING
	3130-3228' 🔑	3196-3486		2954-3174	3069-3184'	2917-3002	PEFORATIONS
	7-Rivers	& Queen		Yates	Yates	Yates .	PRODUCTIVE
2824 1/2 (+300')	2854' (*) (+282')	2906; % (+260;)	2895' / ** (+264')	2954' &c (+243')	2954' % (+240')	2916'727	FORI YATES
3052'	3076,7	3148 (+18)	3141 %	3180 1/2 (+17')	3192 1/2	3140 %	FORMATION TOPS S 7-RIVERS
32/1: 3477	3284' y 3510	3363'33' (-197') 1041	33/8:-3563	3470'-3 156 (-213')	3409 536 881 (-215)	3366; 3 ; 7 , 165 (-202;)	QUEEN BO
		494 15341		93 1071	214 151	961 27	CUMULATIVES BW CF/GAS

Total To February 1, 1980

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 4

CASE NO. 6812
Submitted by Manals
Hearing Date 2/27/80

2243 1762 16590



Other

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

March 24, 1980

Re:	CASE NO. 5812
Mr. Conrad E. Coffield	ORDER NO. R-5916-A
Hinkle, Cox, Eaton, Coffield	
& Hensley	
Attorneys at Law	Applicant:
P. O. Box 3580	
Midland, Texas 79702	
	Maralo Inc.
Dear Sir:	
Enclosed herewith are two copies	of the above-referenced
Division order recently entered i	
Yours very truly,	
J. M. J.	
THE XXXIII	
JOE D. RAMEY	
Director	
<i>y</i>	
JDR/fd	
Copy of order also sent to:	
copy of order also sent to:	
Hobbs OCD x	
Artesia OCD x	
Aztec OCD	
TABLECO OCD	

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

CASE NO. 6812 Order No. R-5816-A

APPLICATION OF MARALO INC. TO AMEND ORDER NO. R-5816, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on February 27, 1980, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 19th day of March, 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, Maralo Inc., seeks to amend Order No. R-5816 to permit the seven Maralo Jalmat Yates Unit Waterflood Project injection wells authorized to be drilled at unorthodox locations by said order to be produced until May 1, 1980, or until depleted, prior to being placed on water injection.
- (3) That said wells have been drilled at the following unorthodox locations:

UNIT WELL	LOCAT	ION							
4	1440	PSL	and	1150	PEL,	Sec.	12,	T-25-S,	R-36-E
9	400	FSL	and	1000'	FEL,	Sec.	12,	T-25-S.	R-36-E
15	1050	FNL	and	1100'	FEL,	Sec.	13,	T-25-S,	R-36-E
19	1300	FNL	and	1350	FWL,	Sec.	18,	T-25-S,	R-37-E
20	1250	FNL	and	70'	FWL,	Sec.	18,	T-25-S,	R-37-E
25								T-25-5,	
31	16501	FSL	and	1700	FWL.	Sec.	18,	T-25-S.	R-37-E

-2-Case No. 6812 Order No. R-5816-A

- (4) That approval of this application will result in the recovery of hydrocarbons from the aforesaid seven wells which would not otherwise be recovered, thereby preventing waste.
- (5) That no offset operator appeared and objected to production.
 - (6) That the application should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Maralo Inc., is hereby authorized to produce the following described seven proposed Maralo Jalmat Yates Unit Waterflood project injection wells, at unorthodox locations, Jalmat Pool, Lea County, New Mexico, pending conversion of such wells to water injection:

UNIT WELL NO.	LOCATION
4	1440' FSL and 1150' FEL, Sec. 12, T-25-S, R-36-E
9	400' FSL and 1000' FEL, Sec. 12, T-25-S, R-36-E
15	1050' FNL and 1100' FEL, Sec. 13, T-25-S, R-36-E
19	1300' FNL and 1350' FWL, Sec. 18, T-25-S, R-37-E
20	1250' FNL and 70' FWL, Sec. 18, T-25-S, R-37-E
25	2500' FNL and 1550' FWL, Sec. 18, T-25-S, R-37-E
31	1650' FSL and 1700' FWL, Sec. 18, T-25-S, R-37-E

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

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

JOE D. RAMEY

Director

SEAL

dr/

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

Order No. 6812

Order No. R-5816-A

APPLICATION OF MARALO INC. TO
AMEND ORDER NO. R-5816, LEA
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

don

BY THE DIVISION:

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, Maralo Inc., seeks to amend Order Moralo Julmut Ya fos Unit Water flood Project.

 No. R-5816 to permit the seven waterflood injection wells authorized to be drilled at unorthodox locations by said order to be produced until May 1, 1980, or until depleted, prior to being placed on water injection:
 - 19) That said wells have been drilled at the following unorthodox locations:

That approval of this application will result in the recovery of hydrocarbons from the aforesaid seven wells which would not other wise be recovered, thereby preventing wante.

(b) that no offset operator appeared and objected to production

(6) that the application should be

IT IS THEREFORE ORDERED:

seven proposed Maralo Jalant Vates Unit alterflood
project injection wells, New Marico, Jalant to produce

From Pool, Lee County, New Marico, pending conversion of such wells to water

Injection:

UNIT WELL									
NO.	LOCATI	<u>ION</u>							
	1440'			1150	•				
4	1575	FSL	and	1050 1	FEL,	Sec.	12,	T-25-S,	R-36-E
9	400'	FSL	and	1000'	FEL,	Sec.	12,	T-25-S,	R-36-E
15	1050'	FNL	and	1100'	FEL,	Sec.	13,	T-25-S,	R-36-E
19	1300'	FNL	and	1350'	FWL,	Sec.	18,	T-25-S,	R-37-E
20	1250 '	FNL	and	70 '	FWL,	Sec.	18,	T-25-S,	R-37-E
25	2500'	FNL	and	1550'	FWL,	Sec.	18,	T-25-S,	R-37-E
31	1650'	FSL	and	1700'	FWL,	Sec.	18,	T-25-S,	R-37-E

(2) Jurisdiction

SALLY W. BOYD, C.S.R.Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409 2ū

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

EXAMINER HEARING

)	
IN THE MATTER OF:	
)	
Application of Maralo, Inc., to amend) CA	SE
Order No. R-5816, Lea County, New) 68	312
Mexico.	
)	

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

APPEARANCES

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

For the Applicant:

Conrad E. Coffield, Esq.
HINKLE, COX, EATON, COFFIELD
& HENSLEY
P. O. Box 3580
Midland, Texas 79701

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R. A. LOWERY

Direct Examination by Mr. Coffield

13 Cross Examination by Mr Stamets

E X H I B I T S

6 Applicant Exhibit One, Plat Applicant Exhibit Two, Plat and Log Applicant Exhibit Three, Cross Section 10 Applicant Exhibit Four, Tabulation

We will call next Case 6812.

SALLY W. BOYD, C.S.R. Rt. ! Box 193-B Santa Fe, New Mexico 87301

MR. PADILLA: Application of Maralo, Inc. to amend Order Number R-5816, Lea County, New Mexico. MR. STAMETS: Call for appearances. MR. COFFIELD: Conrad Coffield, with the 6 Hinkle Law Firm of Midland, Texas, appearing on behalf of 7 Maralo, Inc., and I have one witness to be sworn. MR. STAMETS: Any other appearances in 9 this case? I'd like to have the witness stand and be sworn, 10 please. 11 Are you going to appear in this case, 12 sir? 13 MR. LUCCOCK: USGS, we're up here to make 14 an appearance. 15 MR. STAMETS: Will you identify yourself 16 for the record? 17 MR. LUCCOCK: Henry Luccock, and Joe 18 Lara. 19 MR. STAMETS: Henry -- how do you spell 2û your last name? 21 MR LUCCOCK: L-U-C-C-O-C-K. **22** L-U-C-C-O-C-K. You intend MR. STAMETS: 23 to make any sworn statements today?

MR. LUCCOCK: No, we have none.

MR. STAMETS: Okay.

MR. STAMETS:

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(Witness sworn.)

R. A. LOWERY

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

DIRECT EXAMINATION

BY MR. COFFIELD:

Mr. Lowery, would you please for the record state your name, address, occupation, and employer?

A. My name is R. A. Lowery. I reside in Midland, Texas. I am employed by Maralo, Incorporated, as their Production Manager ang Engineer.

9. Have you previously testified before the Division as a petroleum engineer?

A. I have not.

Q. Please tell the Examiner a brief outline of your educational background and work experience as an engineer.

A. I have a degree in mining engineering from the Colorado School of Mines. After graduation I was employed by Shell Oil Company for a total of 27 years, including 2 years military service in the Army Corps of En-

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gineers, and $25\ \mathrm{years}\ \mathrm{service}\ \mathrm{in}\ \mathrm{various}\ \mathrm{capacities}\ \mathrm{of}$ petroleum engineering, including 6 years as a drilling evaluation engineer, a production engineer, reservoir engineer, for a total of 6 years, along with 7 years experience as an engineering supervisor, including 6 years as District Exploitation Engineer with Shell in their Roswell office, responsible for their activities in southeastern New Mexico and western Texas, and year as a Division Exploitation Engineer in east Texas.

For the last 10 years I was with Shell I worked as a Production Superintendent in various areas, including all of Texas, parts of Oklahoma, and New Mexico.

Are you familiar with Maralo's application in this case, Mr. Lowery?

> A. I am.

Are you familiar with the properties involved and the well locations involved in this case?

> A. Yes, sir.

MR. COFFIELD: Mr. Examiner, do you have any other questions of the witness?

MR. STAMETS: No. The witness is considered qualified.

Mr. Lowery, would you please state what it is that Maralo seeks by this application?

> Maralo seeks an amendment of Order No. A.

Rt. I Box 193-B unta Fe, New Mexico 87501 Phone (505) 455-7409 R-5816, to permit the seven waterflood injection wells authorized to be drilled at unorthodox locations by said order, to be produced until May 1st, 1980, or until depleted, prior to being placed on water injection.

Q. All right, Mr. Lowery, please refer to what we've marked as Exhibit One and explain to the Examiner what this shows, what it represents?

A. Exhibit One is a location plat showing the Maralo Jalmat-Yates Unit, which is located approximately two miles northwest of Jal. The plat shows the outline of the 560-acre unit colored in yellow. It shows the seven injection wells that we're talking about shaded in red down the center of the unit, and then it has the ten proposed injection wells, line wells, colored in green around the perimeter of the unit.

It also indicates that this unit is located in Lea County, Range 36 and 37 East, Township 25 South.

It also shows offset wells to the Jalmat-Yates Unit.

Q. Mr. Lowery, is this Maralo Jalmat-Yates
Unit a secondary recovery unit?

A. Yes, it is.

Q. And was it previously approved by the Oil Conservation Division both as a unit and for the

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secondary waterflood operation to be conducted?

A Yes, it has been.

Would you please refer now to what we've marked as Exhibit Two and explain this to the Examiner.

MR. STAMETS: While we're on Exhibit One let me ask some questions.

I would presume that the seven injection wells marked in red on this exhibit are the ones that you're seeking this specific approval for.

A. That is true. We have no intention of trying to produce the line wells because of the inherent problems there.

Along -- excuse me, along that same line,
Mr. Lowery, then let's further for the record establish the
fact that all seven of those wells have been drilled.

A. They have.

Q. And the line wells have not yet been drilled, the ones in green, is that true?

A. That's right. None of the line wells have been drilled.

Q. Okay. All right, now let's go on to Exhibit Two, and would you please explain that exhibit to the Examiner?

A. Exhibit Two is another plat that happens to have a type log shown on the left of the plat. This type

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log happened to be from Jalmat-Yates 20, which is located in the center of the unit and one of the new wells that is recently drilled.

The plat itself, once again we have the seven injection wells that have been drilled shaded in red triangles. The proposed line wells are once again in green. We have further shown on this plat the eight old wells that we had to re-enter and replug, as requested by the Commission when the unit was approved. Those eight wells have been re-entered and replugged. That work has been done.

The type log, we show the Yates interval shaded in green; the Seven Rivers in red; and the upper part of the Queen in brown. We'll later get into a cross section when we get to the specific wells that we're asking to continue the allowable on.

Q. Did you have anything further on this exhibit?

A. I have not.

Q. Let's go then to what we've marked as

Exhibit Three and would you please explain what that exhibit represents and why you're submitting it for purposes of this application?

A. Exhibit Three is a cross section running down through the seven wells, the seven injection wells that we're talking about in the center of the unit.

It -- from left to right we go from north to south through the unit. Once again we have the Yates formation shaded in green. I should say the Yates pay.

Seven Rivers pay is shaded in red, and the Queen in brown.

We furthermore have -- on the producing wells we shaded in the perforations, where the wells are presently completed, and if you'll notice over on the left-hand side, Jalmat Unit 4, we have the upper part of the Yates shaded in in the center of the log in green. That represents the perforations.

You can see the same thing in Jalmat Unit 9, where we have the bottom part of the Yates interval perforated. And then you move on to 15, you'll see that we have the entire Yates interval perforated and producing.

And then 20, in the center of the cross section, we have also -- well, we perforated the Queen and the Seven Rivers, and the Queen perforations are shaded in brown and the Seven Rivers in red.

And then No. 19, we have not attempted a completion of any kind in.

25, you'll notice we have perforated the Queen and Seven Rivers in it.

And then 31 on the righthand side, we've not attempted a completion.

Q All right, Mr. Lowery, now let us go to

SALLY W. BOYD, C.S.I Rt. I Box 193-B 2û

what has been marked as Exhibit Four, and please explain that exhibit for the Examiner.

Exhibit Four is a tabulation of the seven interior injection wells that have been drilled. We, again on the lefthand side with the Well No., the last test on each of these wells, the date that the well was completed, the total depth, where is casing cemented, the perforations that are presently being produced, and the formation that's being produced, along with the tops of the Yates, Seven Rivers, and Queen formations, that's also shown, plus the cumulative oil, water, and gas that's been produced from each of these wells.

Mr. Lowery, you may have already stated this, but is it correct that these seven injection wells have been on a testing allowable since they were first completed, for the purpose of testing these wells?

A. Four of the seven have been. Of course, two have never — we've never attempted a completion on, and 25 we just have a recent test on it, had 226 Mcf of gas and 1 barrel of oil, so we have not obtained a testing allowable on it.

Of the ones that you have completed and have been testing, is it your opinion that you have been able to recover hydrocarbons which may not have otherwise been recoverable from the Yates and Seven Rivers formations?

SALLY W. BOYD, C.S.R. Rt. 1 Box 193-B Santa Fe, New Mexico 87501 Phone (305) 455-7409 A. Yes, this is true, and it's especially true in the Seven Rivers in that to the best of my knowledge there's only one well in the unit of the fourteen producing wells that is drilled below the Yates. It was drilled in the Seven Rivers and Queen. And if — the existing wells are open hole completions, and we doubt that we can deepen those into the Seven Rivers and get this gas out of the Seven Rivers gas zone, and we don't think it's prolific enough to justify drilling another well to, so what we don't get here, in our opinion would probably never be produced, especially in the Seven Rivers.

Mr. Lowery, was the production from the Seven Rivers, then, something that you did not necessarily anticipate when you undertook this drilling of these seven wells?

A. We didn't really know what to expect in the Seven Rivers and Queen. These two formations are being waterflooded in the waterflood unit on our east flank.

It's the Reserve South Langlie-Jal Unit. And the feeling was that over to the west, where we're located, that we would probably either not have any porosity development or be waterbearing in those zones, but we didn't know, and that was the reason that we drilled these first seven injection wells to those zones, to gather data.

Q. Mr. Lowery, are you satisfied that these

SALLY W. BOYD, C.S.R. Rt. 1 Box 193-B Santa Fe, New Mexico 8750; seven wells of which you've been speaking are -- have been subjected to adequate testing and analysis at this point in order for you to make recommendations to the Division concerning continued production from these wells?

A. Yes.

Q What are your recommendations in this connection?

A. Our recommendations are that we be allowed to continue to produce oil from the Yates formation until the waterflood station is complete and we're in shape to start injecting water into the Yates.

Furthermore, we would like to be able to produce the Seven Rivers until that horizon -- let's say the Seven Rivers and Queen, until those horizons are depleted.

Q. With respect to the Yates production, would you expect that that production should be allowed to continue, then, until on or about May 1st, according to the application?

A. That's right. We think that we'll have our injection system complete and be ready to inject water at that point in time.

Q. And do you feel likewise that it is unlikely that the Seven Rivers would be depleted at that point, or can you tell?

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A. I think it's unlikely it will be depleted at that point in time.

Mr. Lowery, have these exhibits been prepared by you or under your supervision?

A. Yes, they have.

Q. And in your opinion will the approval of this application prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights?

A. It will.

MR. COFFIELD: Mr. Examiner, I move the admission of Exhibits One through Four.

MR. STAMETS: These exhibits will be admitted.

MR. COFFIELD: I have no other questions of Mr. Lowery on direct examination.

CROSS EXAMINATION

BY MR. STAMETS:

Mr. Lowery, why weren't all these zones that you show as pay zones by the color perforated in these wells?

Mell, we were -- we were trying to determine which ones were waterbearing and which ones were oil-bearing and which ones were depleted, and really, gathering

data to determine how to go forward with this waterflood.

And on Jalmat Unit 25 we did produce water out of the Queen, and I didn't point out earlier but the black mark in the center of the log in 25 represents a bridge plug that's been set. We set a bridge plug down over the very lowermost interval of the Queen after we tested it. We moved up above the Queen completely and are presently producing gas out of the Seven Rivers only.

But from a standpoint of economics, we didn't feel that we could afford to do the perforating, testing, and fracing on every well, nor did we feel it was necessary.

Q. I might point out one apparent problem faced on these wells. Well No. 20, it appears as though you may have some downhole commingling going on there with the base of the Jalmat Pool being all but the lower 100 feet of the Seven Rivers.

It looks like you've got some Seven Rivers and Queen perforations open in that well.

A Well, that's true. We do have -- we did run a flowmeter in that particular well and determined that the only thing that's contributing to production is the Seven Rivers interval, that nothing is coming out of the Queen in that particular well, but we do not have plug,

bridge plug set between the two.

You may have to have one there.

We'll certainly be happy to oblige.

Now, you indicated your waterflood station would be completed about May the 1st.

Right.

And you want also to produce the Seven Rivers and Queen to depletion. Do you intend to start injection into, for example, Well No. 4, which is not completed in the Seven Rivers, in May?

That's true. In fact, we would start injecting in all seven wells into the Yates interval, and on those that we -- if we were able to get a prolonged allowable on the Seven Rivers, what we'd probably do is run two strings of tubing and produce the Seven Rivers zone in the two wells that we have tested it as gas-bearing.

So it would flow, or does flow.

That creates yet another potential hearing for dual completion.

For a dual.

Right.

It may be that by the time May 1st rolls around we'll decide that the gas production is down to such a level that we couldn't justify the expense of a dual, and --

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Q Well, you're aware of this?

A Right, right.

Q. And will act accordingly.

Mr. Lowery, all of these wells are well within the unit boundary, with the exception of Well No. 31. How far is that well from the outer boundary of the unit?

A. I don't know. I can check that out and give you the answer on that. We do, Maralo has the lease to the south of it; looks like it's 330 feet from the south line of the unit.

Are you talking about 31?

O. Yes.

A. Well No. 31.

Q. All right.

MR. STAMETS: Are there any other questions of this witness?

He may be excused.

Anything further in this case?

The case will be taken under advisement.

(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.

Snely W. Boyd C.S.R.

I do here'ly control that the foregoing is a constitute that the propositions in O Examiner Oll Conservation Division

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The Markett ENDRGY AND GIVE RALS DEPARTMENT Other and Committee and SIVICION STATE DAND OFFICE BLDG. WALLEY , JAW MEXICO

27 February 1980

ENAMETHED HEARING

IN THE MATTER OF:

Application of Maralo, Inc., to amend order No. R-3810, Les County, New Mexico.

CASE 6812

BEFORD: Richard L. Stamets

TRANSCRIPT OF HEARING

APPEARANCES

For he Oil Conservation Di Mon:

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

For the Applicant:

Conrad E. Coffield, Esq. HINKLE, CCX, EATON, COFFIELD

& HEMSLEY P. O. Box 3580 Midland, Texas 79701

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Direct induced one of Mr. 1977 indi-

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SXBIBICS

Applicant Exhibit One, Plat Applicant Exhibit Two, Plat and Log Applicant Exhibit Garee, Gross Section Applicant Exhibit Four, Tabulation

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Sola Bell Case 6713.

on of Madle, Inc.

SALLY W. BOYD, C.S.R.

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Sants Fc, New Mexico 87501

Phone (303) 453-7409

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3 . Commission. inje od alkons. A. COMPLETE Court Coffield, with the 6 Hindle Law Firm of Pictaco, Screen and arring on behalf of 7 Maralo, the., and a live of withour to be sworn. 8 TP. SUMMISS In other appearances in 9 this case? I'd like the late the although stand and be sworn, 10 please. 11 Tra you going to appear in this case, 12 sir? 13 TH. LUCCCCH: UNGS, velie up here to make 14 an appearance. 15 MP. MANTES: Will you identify yourself 16 for the record? 17 ID. HERCOCH: Henry Buccock, and Joe 18 Lara. 19 TR. SEANTER. Herry -- how do you spell 20 your last name? LUCCCCK: L-U-C-C-C-K. 22 L-U-C-C-O-C-K. You intend HR. STAMMES: 23 to make any sworn statements today?

MR. LUCCOCK: No, we have none.

MR. STAMETS: Ohay.

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T. F. LOWING

being called as a officers and having keen duly sworn upon his oath, testified at Collows, to site

HERE STUDY STUDY

DY MR. COPFIELD:

Mr. bowery, would you please for the record state your warms, address, accupation, and employer? My mane is R. A. Lowery. I reside in Midland, Texas. I am employed by Baralo, Incorporated, as their Production Manager ang Engineer.

Have you previously testified before the Division as a petroleum engineer?

I have not.

Please tell the Unaminer a brief outline of your educational background and work experience as an engineer.

I have a degree in mining engineering from the Colorado School of Mines. After graduation I was employed by Shell Gil Company for a total of 27 years, including 2 years military scrvice in the Army Corps of En-

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gineers, and 25 years service in various capacities of petroleum engineering, including 6 years as a drilling evaluation engineer, a production engineer, reservoir engineer, for a total of 6 years, along with 7 years experience as an engineering supervisor, including 6 years as District Exploitation Engineer with Shell in their Roswell office, responsible for their activities in southeastern New Mexico and western Texas, and year as a Division Exploitation Engineer in east Texas.

For the last 10 years I was with Shell I worked as a Production Superintendent in various areas, including all of Texas, parts of Oklahoma, and New Mexico.

Are you familiar with Maralo's application in this case, Mr. Lowery?

> A. I am.

Are you familiar with the properties involved and the well locations involved in this case?

> λ. Yes, sir.

MR. COFFIELD: Mr. Examiner, do you have any other questions of the witness?

MR. STAMETS: No. The witness is considered qualified.

Mr. Lowery, would you please state what it is that Maralo seeks by this application?

Maralo seeks an amendment of Order No.

prior to being placed on water injuction. All right, Mr. Lowery, please refer to what we've marked as Exhibit One and explain to the Examiner what this shows, what it represents?

Exhibit One is a location plat showing the Maralo Jalmat-Yates Unit, which is located approximately two miles northwest of Jal. The plat shows the outline of the 560-acre unit colored in yellow. It shows the seven injection wells that we're talking about shaded in red down the center of the unit, and then it has the ten proposed injection wells, line wells, colored in green around the perimeter of the unit.

8-5816, to permit the seven waterflood injection wells

authorized to be drilled at unorthodox locations by said

order, to be produced until May 1st, 1980, or until depleted,

It also indicates that this unit is located in Lea County, Range 36 and 37 East, Township 25 South.

It also shows offset wells to the Jalmat-Yates Unit.

Mr. Lowery, is this Maralo Jalmat-Yates Unit a secondary recovery unit?

> Yes, it is. A.

And was it previously approved by the Oil Conservation Division both as a unit and for the

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secondary waterflood operation to be conducted?

A Yes, it has been.

Pould you please refer now to what we've marked as unhibit Two and emplain this to the Examiner.

MR. STAMETS: While we're on Exhibit One let me ask some questions.

I would presume that the seven injection wells marked in red on this exhibit are the ones that you're seeking this specific approval for.

A That is true. We have no intention of trying to produce the line wells because of the inherent problems there.

Along -- excuse me, along that same line, Mr. Lowery, then let's further for the record establish the fact that all seven of those wells have been drilled.

A. They have.

Q. And the line wells have not yet been drilled, the ones in green, is that true?

A. That's right. None of the line wells have been drilled.

Q Okay. All right, now let's go on to Exhibit Two, and would you please explain that exhibit to the Examiner?

A Exhibit Two is another plat that happens to have a type log shown on the left of the plat. This type

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log happened to be from Jalmat-Yatos 20, which is located in the center of the unit and one of the new wells that is recently drilled.

The plat itself, once again we have the seven injection wells that have been drilled shaded in red triangles. The proposed line wells are once again in green. We have further shown on this plat the eight old wells that we had to re-enter and replug, as requested by the Commission when the unit was approved. Those eight vells have been re-entered and replugged. That work has been done.

The type log, we show the Yates interval shaded in green; the Seven Rivers in red; and the upper part of the Queen in brown. We'll later get into a cross section when we get to the specific wells that we're asking to continue the allowable on.

Did you have anything further on this exhibit?

I have not.

Let's go then to what we've marked as Exhibit Three and would you please explain what that exhibit represents and why you're submitting it for purposes of this application?

Exhibit Three is a cross section running down through the seven wells, the seven injection wells that we're talking about in the center of the unit.

SALLY W. BOYD, C.S.I Rt. 1 Box 193-B Santi Fe, New Mexico 87501 It -- from left to right we go from north to south through the unit. Once again we have the Yates formation shaded in green. I should say the Yates pay.

Seven Rivers pay is shaded in red, and the Oueen in brown.

We furthermore have -- on the producing wells we shaded in the perforations, where the wells are presently completed, and if you'll notice over on the left-hand side, Jalmat Unit 4, we have the upper part of the Yates shaded in in the center of the log in green. That represents the perforations.

You can see the same thing in Jalmat Unit 9, where we have the bottom part of the Yates interval perforated. And then you move on to 15, you'll see that we have the entire Yates interval perforated and producing.

And then 20, in the center of the cross section, we have also -- well, we perforated the Queen and the Seven Rivers, and the Queen perforations are shaded in brown and the Seven Rivers in red.

And then No. 19, we have not attempted a completion of any kind in.

25, you'll notice we have perforated the Queen and Seven Rivers in it.

And then 31 on the righthand side, we've not attempted a completion.

All right, Mr. Lowery, now let us go to

SALLY W. BOYD, C.S.R. Rt. 1 Box 193-B Santa Fe, New Mexico 87501 Ō

what has been marked as Exhibit Four, and please explain that exhibit for the Examine:

A Publish Four is a tabulation of the seven interior injection walls that have been drilled. We, again on the lefthand side with the Well No., the last test on each of these wells, the date that the well was completed, the total depth, where is casing cemented, the perforations that are presently being produced, and the formation that's being produced, along with the tops of the Yates, Seven Rivers, and Queen formations, that's also shown, plus the cumulative oil, water, and gas that's been produced from each of these wells.

O. Mr. Lowery, you may have already stated this, but is it correct that these seven injection wells have been on a testing allowable since they were first completed, for the purpose of testing these wells?

A. Four of the seven have been. Of course, two have never -- we've never attempted a completion on, and 25 we just have a recent test on it, had 226 Mcf of gas and 1 barrel of oil, so we have not obtained a testing allowable on it.

Of the ones that you have completed and have been testing, is it your opinion that you have been able to recover hydrocarbons which may not have otherwise been recoverable from the Yates and Seven Rivers formations?

Tes, this is true, and it's especially true in the Seven Rivers in that to the best of my knowledge there's only one well in the unit of the fourteen producing wells that is drilled below the Yates. It was drilled in the Seven Rivers and Queen. And if — the existing wells are open hole completions, and we doubt that we can deepen those into the Seven Rivers and get this gas out of the Seven Rivers gas zone, and we don't think it's prolific enough to justify drilling another well to, so what we don't get here, in our opinion would probably never be produced, especially in the Seven Rivers.

Mr. Lowery, was the production from the Seven Rivers, then, something that you did not necessarily anticipate when you undertook this drilling of these seven wells?

the Seven Rivers and Queen. These two formations are being waterflooded in the waterflood unit on our east flank.

It's the Reserve South Langlie-Jal Unit. And the feeling was that over to the west, where we're located, that we would probably either not have any porosity development or be waterbearing in those zones, but we didn't know, and that was the reason that we drilled these first seven injection wells to those zones, to gather data.

Mr. Lowery, are you satisfied that these

SALLY W. BOYD, C.S.R. Rt. 1 Box 193-B Santa Fe, New Mexico 87301 Pt one (303) 455-7409 seven vells of which yearwe been speaking are -- have been subjected to adequate tentine and analysis at this point in order for yea to make recommendations to the Division concerning continued production from these vells?

A Yes.

O What are your recommendations in this connection?

A Our recommendations are that we be allowed to continue to produce oil from the Yates formation until the waterflood station is complete and we're in shape to start injecting water into the Yates.

Furthermore, we would like to be able to produce the Seven Fivers until that horizon -- let's say the Seven Rivers and Queen, until those horizons are depleted.

With respect to the Yates production, would you expect that that production should be allowed to continue, then, until on or about May 1st, according to the application?

A That's right. We think that we'll have our injection system complete and be ready to inject water at that point in time.

And do you feel likewise that it is unlikely that the Seven Rivers would be depleted at that point, or can you tell?

A. I think it's unlikely it will be depleted at that point in tire.

O Mr. Lowery, have these exhibits been prepared by you or under your supervision?

A Yes, they have.

O And in your opinion will the approval of this application prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights?

A It will.

MR. COFFIELD: Mr. Examiner, I move the admission of Exhibits One through Four.

MR. STAMETS: These exhibits will be admitted.

MR. COFFIELD: I have no other questions of Mr. Lowery on direct examination.

CROSS EXAMINATION

BY MR. STAMETS:

Mr. Lowery, why weren't all these zones that you show as pay zones by the color perforated in these wells?

A Well, we were -- we were trying to determine which ones were waterbearing and which ones were oil-bearing and which ones were depleted, and really, gathering

SALLY W. BOYD, C.S.I Rt. 1 Box 193-B Santa Fc, New Mexico 87501 data to determine how to do forward with this water [lood.

water out of the Queen, and I didn't point out carlier but the black mark in the center of the log in 25 represents a bridge plug that's been set. We set a bridge plug down over the very lowermost interval of the Queen after we tested it. We moved up above the Queen completely and are presently producing gas out of the Seven Rivers only.

Dut from a standpoint of economics, we didn't feel that we could afford to do the perforating, testing, and fracing on every well, nor did we feel it was necessary.

faced on these wells. Well No. 20, it appears as though you may have some downhole commingling going on there with the base of the Jalmat Pool being all but the lower 100 feet of the Seven Rivers.

It looks like you've got some Seven Rivers and Queen perforations open in that well.

Well, that's true. We do nave -- we did
run a flowmeter in that particular well and determined that
the only thing that's contributing to production is the
Seven Rivers interval, that nothing is coming out of the
Queen in that particular well, but we do not have plug,

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bridge plug set between the two.

Four may have to have one there.

A Se'll certainly be happy to oblige.

C Now, you indicated your waterflood station would be completed about May the 1st.

A Hight.

And you want also to produce the Seven Rivers and Queen to depletion. Do you intend to start injection into, for example, Well No. 4, which is not completed in the Seven Rivers, in May?

That's true. In fact, we would start injecting in all seven wells into the Yates interval, and on those that we — if we were able to get a prolonged allowable on the Seven Rivers, what we'd probably do is run two strings of tubing and produce the Seven Pivers zone in the two wells that we have tested it as gas-bearing.

So it would flow, or does flow.

Q That creates yet anothe potential hearing for dual completion.

A For a dual.

Q Right.

A. It may be that by the time May 1st rolls around we'll decide that the gas production is down to such a level that we couldn't justify the expense of a dual, and --

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t. night, right.

o and will of ecordingly.

Mr. Lowery, all of those wells are well within the unit boundary, with the exception of Well No. 31. How far is that well from the outer boundary of the unit?

A I don't know. I can check that out and give you the answer on that. We do, Maralo has the lease to the south of it; looks like it's 330 feet from the south line of the unit.

Are you talking about 31?

Q Yes.

Mell No. 31.

All right.

MR. STAMETS: Are there any other questions of this witness?

He may be excused.

Anything further in this case?

The case will be taken under advisement.

(Hearing concluded.)

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I do hereby control that the foregoing is I do hereby conservators mo toregoing is a constitution to the plant stage in the fact that the fact Oil Conservation Division

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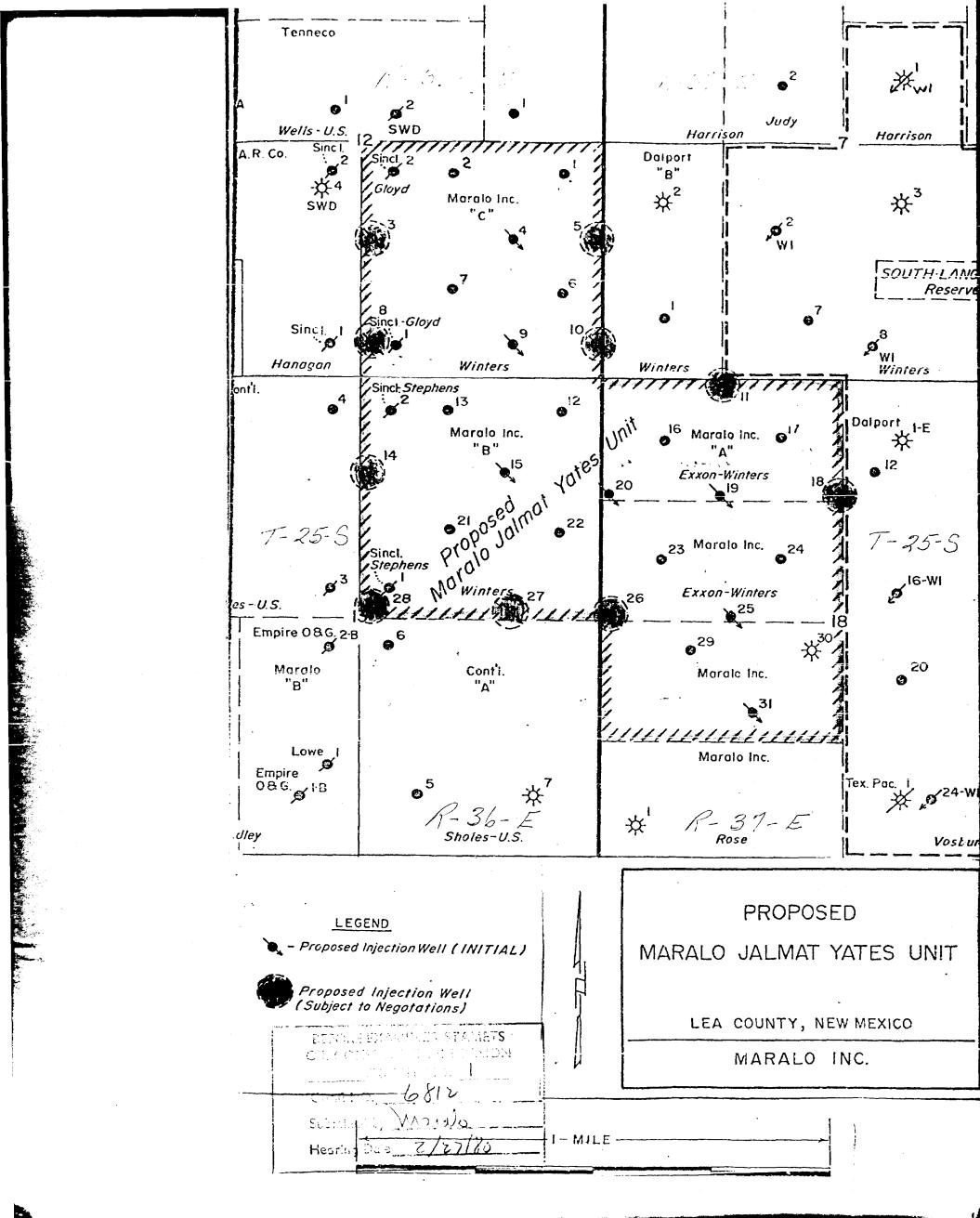
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unorthodox Localians for producing wells
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for injection wells. (R.5816)

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1575' FSL 12-25-36 1050 FEL 400' FSL 12-25-36 1000 FEL 1050' FNL 1100 FEL 13-25-36 1300' FNL 19 18-25-37 1350 FWL 1250' FUL 70' FWL 18-25-37 20 2500 FNL FUL 18-25-57 1550 1650 FSL 18-25-37 1700 FWL

5-1-80 or milit motherhier depleted



MARALO JALMAT YATES UNIT COMPLETION DATE FIRST SEVEN INJECTION WELLS

32	25	20	19	15	9	t,	WELL
No completion attempted	1 BO & est 226 MCFG/D (SI)	5 BO + 3 BW & 151 MCFG/D	No completion attempted	5 BO + 3 BW & 35 MCFG/D	8 BO + 3 BW & 1.6 MCFG/D	5 EO + 55 BW & 1 MCFG/D	# LAST TEST
10-25-79	10-18-79	9-5-79	10-5-79	9-27-79	9-20-79	11-2-79	DATE COMPLETED DRILLING
3508 (-384')	3510 (-374')	3500 (-334')	3540 (-382')	3570 (-373')	3557 (-363 ¹)	3500 (-336')	받
3508	3510	3500	3540	3570	3557	3500	CASING
	3130-3228'	3196-3486'		2954-3174'	3069-3184'	2917-3002'	PEFORATIONS
	7-Rivers	7-Rivers & Queen		Yates	Yates	Yates	PRODUCTIVE FORMATION
2824' (+300')	2854' (+282')	2906' (+260')	2895' (+264')	2954' (+243')	2954' (+240')	2916† (+248†)	FOR YATES
3052' (+72')	3076' (+60')	3148' (+18')	3141' (+18')	3180' (+17')	3192' (+2')	3140' (+24')	FORMATION TOPS
3271' (-147')	3294' (-158')	3363' (-197')	3348' (-189!)	3410' (-213')	3409' (-215')	3366' (-202')	S
		1041		156	881	165	B0 C1
		494 15341		93 1071	214 15.	961 27	CUMULATIVES BW CF/GAS

Total To February 1, 1980

2243 1762 16590

BEFORE EXAMINEN STAMETS
OIL CONSERVATION DIVISION
DOLLET NO. 4

CASE NO. 6812
Submitted by Magade
Hearing Dute 2/27/80

Dockets Nos. 6-80 and 7-80 are tentatively set for March 12 and 26, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 27, 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. Stanets, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 6787: (Continued from February 13, 1980, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to consider the approval of 12 non-standard proration units ranging in size from 261.51 acres to 334.24 acres for 320-acre spaced pools, and 19 non-standard proration units ranging in size from 162.65 acres to 207.57 acres for 160-acre spaced pools, all of the aforesaid units being in and resulting from the irregular size and shape of Sections 1 thru 7 and 18, 19, 30, and 31, along the North and West sides of Township 28 North, Range 3 West, Rio Arriba County.

- CASE 6811: Application of Laguna Petroleum Company for compulsory pooling, Chaves 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 NE/4 of Section 13, Township 8 South, Range 32 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 6812: Application of Maralo Inc. to amend Order No. R-5816, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to amend Order No. R-5816 to permit the seven waterflood injection wells authorized to be drilled at unorthodox locations by said order to be produced until May 1, 1980, or until depleted, prior to being placed on water injection.
- CASE 6813: Application of Petroleum Development Corporation to amend Order No. R-6196, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks to amend Order No. R-6196 which authorized re-entry of a well at an unorthodox location in the Lusk-Morrow Gas Pool to be dedicated to the N/2 of Section 13,

 Township 19 South, Range 31 East. Applicant now seeks approval for a new revised location 750 feet from the North line and 660 feet from the West line of said Section 13.
- Application of Harvey E. Yates Company for a unit agreement, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks approval for the Betenbough Unit Area, comprising 1921 acres, more or less, of State and fee lands in Township 13 South, Range 36 East.
- CASE 6797: (Continued from January 30, 1980, Examiner Hearing)

Application of Yates Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Penn formations underlying the N/2 of Section 28, Township 18 South, Range 29 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 Florida Exploration 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 Ross Draw Unit Well No. 8, a Wolfcamp gas well 1650 feet from the North and East lines of Section 27, Township 26 South, Range 30 East, the N/2 of said Section 27 being dedicated to the well.
- CASE 6816: Application of Hanson Oil Corporation for salt water disposal, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Penrose Grayburg formation in the perforated interval from 3404 feet to 3633 feet in its Creek Well

 No. 1 located in Unit G of Section 35, Township 18 South, Range 30 East, Shugart Pool.
- CASE 6817: Application of Mewbourne Oil Company to amend Order No. R-6100, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks to amend Order No. R-6100 whereby the unorthodox Morrow location approved by said order would instead be applicable to the Wolfcamp and Bone Springs formations
- CASE 6818: Application of Tenneco Oil Company for an NCPA determination, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks a new onshore reservoir determination for its State HL
 11 Well No. 1 located in U-it N of Section 11, Township 19 South, Range 29 East.

LAW OFFICES

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February 4, 1980

ONLY ATTYS COFFIELD, MARTIN, BOZARTH, BUHANNON, FOSTER, ALLEN, ALLEN & BURFORD CICENSED IN TEXAS

Cash 684

Mr. Richard Stamets Oil Conservation Division Post Office Box 2088 Santa Fe, New Mexico 87501

> Re: Maralo, Inc. Application for Production of Unorthodox Wells, Jalmat Yates Unit

Dear Dick:

LEWIS C. COX.JR

PAUL W EATON, UR.

STUART D. SHANOR

PAUL J. KELLY, JR

JAMES H. BOZARTH

DOUGLAS LILUNSFORD PAUL M. BOHANNON

J. DOUGLAS FOSTER

K.DOUGLAS PERRIN

T. CALDER EZZELL,JR. JOHN S. NELSON RICHARD E.OLSON

C. RAY ALLEN JACQUELINE W ALLEN

C. D. MARTIN

CONRAD E.COFFIELD

HAROLD L. HENBLEY, UR.

Transmitted herewith you will find three executed copies of the Application in connection with the foregoing matter. As you will recall, we have discussed this on the telephone upon several occasions and it is my understanding that this matter has been accepted, by telephone request, to be set on the docket for February 27, 1980.

Please let me know immediately if there is anything in addition to the copies of the Application which you need for purposes of keeping this matter set on the docket for the February 27 hearing.

Thank you.

Very truly yours,

HINKLE, COX, EATON, COFFIELD & HENSLEY

Conrad E. Coffield

CEC:rh Enclosures

xc/enc: Maralo, Inc.
Post Office Box 832
Midland, Texas 79702
xc/enc: Mr. Bill Seltzer
514 Petroleum Building
Midland, Texas 79701

BEFORE THE OIL CONSERVATION DIVISION DEPARTMENT OF ENERGY AND MINERALS

STATE OF NEW MEXICO

APPLICATION BY MARALO, INC.,
UNIT OPERATOR OF THE JALMAT
YATES UNIT, TO SEEK APPROVAL
AND AUTHORIZATION FOR PRODUCTION
FROM CERTAIN PRODUCING WELLS
LOCATED AT UNORTHODOX LOCATIONS
WITHIN THE JALMAT YATES UNIT AREA

1443 68/2

APPLICATION

COMES NOW, Maralo, Inc., Unit Operator of the Jalmat Yates Unit, Lea County, New Mexico, acting by and through the undersigned attorneys and hereby makes application for approval and authorization of production from certain producing wells at unorthodox locations within the Jalmat Yates Unit Area, and in support thereof respectfully shows:

- 1. The Oil Conservation Commission of the State of New Mexico granted approval of the Jalmat Yates Unit Agreement by Order No. R-5817 dated September 26, 1978, and in a related matter, also granted approval of the Jalmat Yates secondary recovery project by Order No. R-5816 also dated September 26, 1978.
- 2. Pursuant to Order R-5816, Maralo, Inc. was authorized to drill certain wells as injection wells for injecting water into the Yates formation. Said wells were drilled at approved unorthodox locations in Sections 12 and 13, Township 25 South, Range 36 East, N.M.P.M. and in Section 18, Township 25 South, Range 37 East, N.M.P.M., Lea County, New Mexico. The wells and the locations at which they were authorized to be drilled are as follows:

Unit Well No.	Locat:	ion	· - · · · ·							
4	1575'	FSL	and	1050'	FEL,	Sec.	12,	T-25-S,	R-36-E	
9	400'	FSL	and	1000'	FEL,	Sec.	12,	T-25-S,	R-36-E	
15	1050 '	FNL	and	1100'	FEL,	Sec.	13,	T-25-S,	R-36-E	
19	1300'	FNL	and	1350'	FWL,	Sec.	18,	T-25-S,	R-37-E	
20	1250'	FNL	and	70'	FWL,	Sec.	18,	T-25-S,	R-37-E	
25	2500 '	FNL	and	1550'	FWL,	Sec.	18,	T-25-S,	R-37-E	
31	1650'	FSI.	and	1700'	FWI	Sec.	18.	T-25-S.	R-37-E	

3. The foregoing wells were drilled at the locations authorized except for Well No. 4. Because of topographical

problems, administrative approval was sought and granted for the drilling of the No. 4 Well at the following location:

Unit Well

No. Location

4 1440' FSL and 1150' FEL, Sec. 12, T-25-S, R-36-E

- 4. All of the foregoing wells were approved at the above described unorthodox locations as injection wells. However, upon completion of the same, Maralo, Inc., as Operator of said Unit, has conducted certain tests on said wells and has found that said wells are capable of certain marginal production of hydrocarbons.
- 5. In order to maximize production of hydrocarbons from the Jalmat Yates Unit Area, Applicant respectfully requests authority to produce the above described wells for the time period down to May 1, 1980 or until such production of hydrocarbons from said wells is shown to be sufficiently depleted from primary production efforts so that further efforts to produce the same should be abandoned. Thereupon, Maralo, Inc., as Operator of the said Jalmat Yates Unit, proposes to commence water injection into said wells, as originally anticipated and heretofore authorized in accordance with Oil Conservation Commission Order No. 5816.
- 6. In the opinion of the Applicant, authorization of production of said above described wells, located at unorthodox locations, is in the interest of conservation, prevention of waste and protection of correlative rights and will tend to promote the greatest recovery of oil and gas from the unitized area.
- 7. Applicant requests that this matter be set for hearing at the Examiner's hearing to be held on February 27, 1980.

Respectfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

Conrad E. Coffield

Attorneys for Maralo, Inc.

BEFORE THE OIL CONSERVATION DIVISION DEPARTMENT OF ENERGY AND MINERALS

STATE OF NEW MEXICO

APPLICATION BY MARALO, INC.,
UNIT OPERATOR OF THE JALMAT
YATES UNIT, TO SEFK APPROVAL
AND AUTHORIZATION FOR PRODUCTION
FROM CERTAIN PRODUCING WELLS
LOCATED AT UNORTHODOX LOCATIONS
WITHIN THE JALMAT YATES UNIT AREA

Case 68/2

APPLICATION

COMES NOW, Maralo, Inc., Unit Operator of the Jalmat Yates Unit, Lea County, New Mexico, acting by and through the undersigned attorneys and hereby makes application for approval and authorization of production from certain producing wells at unorthodox locations within the Jalmat Yates Unit Area, and in support thereof respectfully shows:

- 1. The Oil Conservation Commission of the State of New Mexico granted approval of the Jalmat Yates Unit Agreement by Order No. R-5817 dated September 26, 1978, and in a related matter, also granted approval of the Jalmat Yates secondary recovery project by Order No. R-5816 also dated September 26, 1978.
- 2. Pursuant to Order R-5816, Maralo, Inc. was authorized to drill certain wells as injection wells for injecting water into the Yates formation. Said wells were drilled at approved unorthodox locations in Sections 12 and 13, Township 25 South, Range 36 East, N.M.P.M. and in Section 18, Township 25 South, Range 37 East, N.M.P.M., Lea County, New Mexico. The wells and the locations at which they were authorized to be drilled are as follows:

Unit Well No.	Locati	on_							
4	1375'	FSL	and	1050'	FEL,	Sec.	12,	T-25-S,	R-36-E
9	400'	FSL	and	1000'	FEL,	Sec.	12,	T-25-S,	R-36-E
15	1050'	FNL	and	1100'	FEL,	Sec.	13,	T-25-S,	R-36-E
19	1300'	FNL	and	1350'	FWL,	Sec.	18,	T-25-S,	R-37-E
20	1250'	FNL	and	70 '	FWL,	Sec.	18,	T-25-S,	R-37-E
25	2500'	FNL	and	1550;	FWL,	Sec.	18,	T-25-S,	R-37-E
31	1650'	FSL	and	1700'	FWL,	Sec.	18,	T-25-S,	R-37-E

3. The foregoing wells were drilled at the locations authorized except for Well No. 4. Because of topographical

problems, administrative approval was sought and granted for the drilling of the No. 4 Well at the following location:

Unit Well

No.

Location

- 4 1440' FSL and 1150' FEL, Sec. 12, T-25-S, R-36-E
- 4. All of the foregoing wells were approved at the above described unorthodox locations as injection wells. However, upon completion of the same, Maralo, Inc., as Operator of said Unit, has conducted certain tests on said wells and has found that said wells are capable of certain marginal production of hydrocarbons.
- 5. In order to maximize production of hydrocarbons from the Jalmat Yates Unit Area, Applicant respectfully requests authority to produce the above described wells for the time period down to May 1, 1980 or until such production of hydrocarbons from said wells is shown to be sufficiently depleted from primary production efforts so that further efforts to produce the same should be abandoned. Thereupon, Maralo, Inc., as Operator of the said Jalmat Yates Unit, proposes to commence water injection into said wells, as originally anticipated and heretofore authorized in accordance with Oil Conservation Commission Order No. 5816.
- 6. In the opinion of the Applicant, authorization of production of said above described wells, located at unorthodox locations, is in the interest of conservation, prevention of waste and protection of correlative rights and will tend to promote the greatest recovery of oil and gas from the unitized area.
- 7. Applicant requests that this matter be set for hearing at the Examiner's hearing to be held on February 27, 1980.

Respectfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

Conrad E. Coffield

Attorneys for Maralo, Inc.

BEFORE THE OIL CONSERVATION DIVISION

DEPARTMENT OF ENERGY AND MINERALS

STATE OF NEW MEXICO

APPLICATION BY MARALO, INC.,
UNIT OPERATOR OF THE JALMAT
YATES UNIT, TO SEEK APPROVAL
AND AUTHORIZATION FOR PRODUCTION
FROM CERTAIN PRODUCING WELLS
LOCATED AT UNORTHODOX LOCATIONS
WITHIN THE JALMAT YATES UNIT AREA

Caso 6.8/2

APPLICATION

COMES NOW, Maralo, Inc., Unit Operator of the Jalmat Yates Unit, Lea County, New Mexico, acting by and through the undersigned attorneys and hereby makes application for approval and authorization of production from certain producing wells at unorthodox locations within the Jalmat Yates Unit Area, and in support thereof respectfully shows:

- 1. The Oil Conservation Commission of the State of New Mexico granted approval of the Jalmat Yates Unit Agreement by Order No. R-5817 dated September 26, 1978, and in a related matter, also granted approval of the Jalmat Yates secondary recovery project by Order No. R-5816 also dated September 26, 1978.
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Unit Well No.	Locat	ion							
4	1575'	FSL	and	1050'	FEL,	Sec.	12,	T-25-S,	R-36-E
9	400'	FSL	and	1000'	FEL,	Sec.	12,	T-25-S,	R-36-E
15	1050'	FNL	and	1100'	FEL,	Sec.	13,	T-25-S,	R-36-E
19	1300'	FNL	and	1350'	FWL,	Sec.	18,	T-25-S,	R-37-E
20	1250'	FNL	and	70'	FWL,	Sec.	18,	T-25-S,	R-37-E
25	2500 '	FNL	and	1550'	FWL,	Sec.	18,	T-25-S,	R-37-E
31	16501	FSL	and	1700'	FWI	Sec.	18.	T-25-S.	R-37-E

3. The foregoing wells were drilled at the locations authorized except for Well No. 4. Because of topographical

problems, administrative approval was sought and granted for the drilling of the No. 4 Well at the following location:

Unit Well

No. Location

- 4 1440' FSL and 1150' FEL, Sec. 12, T-25-S, R-36-E
- 4. All of the foregoing wells were approved at the above described unorthodox locations as injection wells. However, upon completion of the same, Maralo, Inc., as Operator of said Unit, has conducted certain tests on said wells and has found that said wells are capable of certain marginal production of hydrocarbons.
- Jalmat Yates Unit Area, Applicant respectfully requests authority to produce the above described wells for the time period down to May 1, 1980 or until such production of hydrocarbons from said wells is shown to be sufficiently depleted from primary production efforts so that further efforts to produce the same should be abandoned. Thereupon, Maralo, Inc., as Operator of the said Jalmat Yates Unit, proposes to commence water injection into said wells, as originally anticipated and heretofore authorized in accordance with Oil Conservation Commission Order No. 5816.
- 6. In the opinion of the Applicant, authorization of production of said above described wells, located at unorthodox locations, is in the interest of conservation, prevention of waste and protection of correlative rights and will tend to promote the greatest recovery of oil and gas from the unitized area.
- 7. Applicant requests that this matter be set for hearing at the Examiner's hearing to be held on February 27, 1980.

Respectfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

By:

Conrad E. Coffield \\Attorneys for Maralo, Inc.