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NEW MEXICO OIL CONSERVATION DIVISION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date	MAY 17, 2001	Time 8:15 A.M.
NAME	REPRESENTING	LOCATION
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Lisa Gusek	DJ Summers	Farmington, NA
JOHN LYRON		(1)
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STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

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

CASE NO. 12,658

APPLICATION OF CROSS TIMBERS OIL COMPANY FOR UNIT EXPANSION, LEA COUNTY, NEW MEXICO

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

May 17th, 2001

Santa Fe, New Mexico

01 KW 31

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, May 17th, 2001, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

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* * *

APPEARANCES

FOR THE APPLICANT:

JAMES G. BRUCE, Attorney at Law 3304 Camino Lisa Santa Fe, New Mexico 87501 P.O. Box 1056 Santa Fe, New Mexico 87504

* * *

WHEREUPON, the following proceedings were had at 1 2 8:25 a.m.: EXAMINER STOGNER: This hearing will come to 3 order. Please note today's date, May 17th, 2001. Docket 4 5 Number 16-01 is what we're all gathered here for today. I'm Michael Stogner, appointed Hearing Examiner for today's 6 7 cases, and we're pretty much going to take them in order. One of the last cases that we'll have today --8 and that will be after lunch -- is an opposed case of 9 10 McElvain. So at this point we'll start on page 2 and call 11 Case Number 12,658, which is the Application of Cross 12 Timbers Oil Company for unit expansion in Lea County, New 13 Mexico. 14 At this time I'll call for appearances. 15 MR. BRUCE: Mr. Examiner, James Bruce of Santa Fe 16 17 representing the Applicant. I have three witnesses. 18 EXAMINER STOGNER: Are there any other 19 appearances in this matter? Will the witnesses please stand to be sworn? 20 21 (Thereupon, the witnesses were sworn.) 22 MR. BRUCE: Mr. Examiner, just a brief statement 23 before we begin. This case involves the Southeast Maljamar-24 Grayburg-San Andres Unit, which was formed, I believe, back 25

1 in the 1960s. It was approved by Order Number R-3130. 2 There's also a waterflood for the unit that was approved by Order Number R-3134. 3 In 1997, the unit was expanded for the first time 4 by adding 200 acres. That order -- It was a consolidated 5 order, Order Numbers R-3130-A and R-3134-C. 6 7 And at this time we're seeking to expand the unit a second time. 8 9 TIM WELCH, the witness herein, after having been first duly sworn upon 10 his oath, was examined and testified as follows: 11 12 DIRECT EXAMINATION BY MR. BRUCE: 13 Would you please state your name and city of 14 Q. 15 residence for the record? My name is Tim Welch, and I live in Grapevine, 16 Α. 17 Texas. Who do you work for and in what capacity? 18 Q. Cross Timbers Oil Company. I'm a senior landman. 19 Α. Have you previously testified before the 20 Q. Division? 21 Yes, I have. 22 Α. And were your credentials as an expert petroleum 23 0. landman accepted as a matter of record? 24

Α.

25

Yes, they were.

And are you familiar with the land matters 1 Q. 2 involved in this application? 3 Α. I am. MR. BRUCE: Mr. Examiner, I tender Mr. Welch as 4 5 an expert petroleum landman. EXAMINER STOGNER: Is it Welch or Wells? 6 7 THE WITNESS: Welch. EXAMINER STOGNER: Welch. Mr. Welch is so 8 qualified. 9 (By Mr. Bruce) Mr. Welch, what does Cross 10 0. Timbers seek in this case? 11 Cross Timbers requests approval to expand the 12 Southeast Maljamar-Grayburg-San Andres Unit. 13 What is Exhibit 1? 14 Q. Exhibit 1 is a land plat of the expanded area. 15 The unit is outlined, and the tract that we seek to add to 16 17 the unit is highlighted in blue, the 40-acre tract. 18 Q. Okay. The unit currently covers 1280 acres of federal 19 20 and state land, and we're seeking to add one additional federal tract, again covering 40 acres. 21 22 Q. What percentage of the unit is federal land and 23 what percentage is state land? It would be -- 33.34 percent would be federal 24 25 land; and the state land, 66.66 percent.

1	Q. Whe	n was the unit originally formed?
2	A. In	1966.
3	Q. And	it is a voluntary unit, is it not?
4	A. Tha	t is true.
5	Q. It	wasn't formed under the State's Statutory
6	Unitization A	ct?
7	A. No,	sir.
8	Q. Oka	y. What is Exhibit 2, Mr. Welch?
9	A. Exh	ibit 2 is the notice of the proposed
10	enlargement o	f the unit. This was submitted to the
11	Commissioner of Public Lands, the BLM and the Division on	
12	August the 15th of 2000.	
13	Q. Let	's go through the notice very quickly. What
14	does it conta	in?
15	A. The	first page simply sets forth the area that we
16	request to be	included in an expansion.
17	Pag	es 2 through 9 contain engineering and
18	geological da	ta, which our next witnesses will speak to.
19	Pag	es 10 through 12 contain revised Exhibit B to
20	the unit agree	ement, which lists all the owners in the unit.
21	Pag	e 13 is the revised Exhibit C to the unit
22	agreement, wh	ich contains revised tract participation
23	factors.	
24	Page	es 14 and 15 will be the new plan of
25	operations and	d the two new well numbers.

And again, there are geologists and engineers 1 Q. here to further discuss the technical matters, are there 2 not? 3 That is true. 4 Α. Other than the revised Exhibits A, B and C to the 5 Q. unit agreement, were there any changes to the agreement? 6 7 No, sir. Α. MR. BRUCE: Mr. Examiner, just so you have a 8 copy, here is a copy of the unit agreement. 9 0. (By Mr. Bruce) Who are the working interest 10 owners in the unit, Mr. Welch? 11 12 Cross Timbers Oil Company is the only working 13 interest owner in the unit. And the tract that we seek to 14 add to the unit, we also own 100 percent of that working 15 interest. 0. What is Exhibit 3. 16 Α. Exhibit 3 would be the ratification signed by 17 Cross Timbers committing the working interest in the 18 additional tract to the unit, and also we have a 19 ratification signed by Phillips Petroleum, who happens to 20 have record title to that 40-acre tract that we are seeking 21 22 to add to the unit. 23 Okay. Although they have record title, they have

no working interest in this particular formation; is that

Q.

correct?

24

A. That is correct.

- Q. Okay. What are Exhibits 4 and 5?
- A. Those would be the preliminary approval letters from the Commissioner and the BLM.
- Q. Okay. And of course they await final approval by the Division before they give their final approval; is that correct?
 - A. Yes, sir.
- Q. Are there any overriding royalties in the additional tract that is to be added to the unit?
- A. Yes, on January 11th of this year we sent a letter to all the overriding royalty owners. This letter is marked as Exhibit 6. It contains a list of all the override owners.
- Q. Have you received ratifications from these owners?
- A. Yes, we've received ratification from all of them.
- Q. Okay. So in other words, 100 percent of the royalty and 100 percent of the overriding royalty and 100 percent of the working interest in this additional tract, which I believe is Tract 14, is committed to the unit?
 - A. Yes, sir, that is true.
- Q. Okay. Were Exhibits 1 through 7 prepared by you or compiled from company business records?

Yes, they were. 1 Α. And in your opinion is the granting of this 2 Q. Application in the interests of conservation and the 3 prevention of waste? 4 Yes. 5 Α. MR. BRUCE: Mr. Examiner, at this time I'd move 6 7 the admission of Cross Timbers Exhibits 1 through 7. EXAMINER STOGNER: Exhibits 1 through 7 will be 8 admitted into evidence at this time. 9 10 EXAMINATION BY EXAMINER STOGNER: 11 12 Could you point out to me in Exhibit Number 2 13 this new 40-acre tract we're expanding? Which tract number 14 is that assigned? 15 Α. That would be Tract 14. That would be on the third page of the revised -- Actually, it has revised 16 17 Exhibit B at the top of it. Now, did Cross Timbers already have some 18 Q. 19 operations in that 40-acre tract? We just bought that lease approximately a year 20 Α. ago. 21 From Phillips? 22 Q. Yes, sir. 23 Α. And they had some activity on it? 24 Q.

25

Α.

Yes.

Q. Okay. Okay now, in looking at the schedule of		
tracts, Revised Exhibit B in Exhibit Number 2 today, you		
show the basic royalty and ownership percentage. Most of		
them have 12-1/2-percent royalty; is that correct?		
A. Yes, sir.		
Q. Okay, but there's a couple in here that says US		
Schedule D, Schedule B. What is that referring to?		
A. I believe that's the sliding-scale royalty.		
Q. Okay, I'm not familiar with that. How does that		
work?		
A. On the leases, the federal leases of an older		
vintage, it has a royalty that is tied to the amount of		
production that is produced from a particular well.		
Q. And does that adjust over the year, or		
A. Most of those leases, to my knowledge, can be		
adjusted in different time frames, and I'm not for sure		
particularly which one this is		
Q. Okay.		
A of the older leases.		
MR. BRUCE: Mr. Examiner, on those schedules it's		
a 12-1/2-percent royalty until I think it doesn't start		
increasing until production is 50 barrels of oil per day,		
per well.		
EXAMINER STOGNER: And that's what triggers the		
adjustment?		

1 MR. BRUCE: That's what triggers the adjustment. 2 If it gets above that rate, there's a Schedule B under which royalties vary from 12 1/2 to 25 percent, and then 3 there's a Schedule D under which royalties vary either from 4 12 1/2 to 25 percent or 12 1/2 to 33 1/3 percent, depending 5 on production and grade of oil. 6 7 EXAMINER STOGNER: Okay, and this was an old --MR. BRUCE: These are older --8 9 THE WITNESS: Yes, sir. MR. BRUCE: -- federal lease forms. 10 11 **EXAMINER STOGNER:** Okay. THE WITNESS: To my knowledge, that was one of 12 the leases that was part of the original unit back in the 13 early 1960s when Cities Service formed the unit. 14 15 0. (By Examiner Stogner) Okay. Now, back in 1994 -- I don't have a copy of the original orders -- was 16 17 Cross Timbers involved in the expansion in 1994, the first expansion? 18 19 Α. Yes. Okay. And when did Cross Timbers take over the 20 waterflood operation? You weren't the original operator, 21 were you? 22 No, the original operator was Cities Service. 23 And as to the date that -- the actual date that we bought 24

it, I would have to defer to the subsequent witness that's

1 coming up, because he was involved in that acquisition at the time. 2 Q. Okay, but that was before 1994, at least? 3 Well, I believe the expansion was in 1997, the 5 first additional expansion. That was the addition of 200 acres? Q. 6 7 Yes, sir. Α. In 1997? 8 Q. Yes, sir. I believe that was approved in March 9 Α. of 1997. 10 EXAMINER STOGNER: And that was Orders R-3130-A 11 and 3134-C that you alluded to --12 MR. BRUCE: Yes, sir. 13 EXAMINER STOGNER: -- so that was 1937 [sic], 14 15 okay. 1997. 16 THE WITNESS: Yes, sir. 17 EXAMINER STOGNER: Okay, I have no other --THE WITNESS: One other point of correction, if I 18 may. I think I stated the unit was formed in the early 19 20 1960s. It was formed in 1966. 21 EXAMINER STOGNER: Well, I guess when you reach a certain age, early, late, mid-Sixties, it don't matter, it 22 23 was so long ago. I'm there, I think. Okay, thank you, sir. I do appreciate it, Mr. 24 25 You may be excused. Welch.

STEVE WEINER,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BRUCE:

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- Q. Would you please state your name for the record?
- 7 A. My name is Steve Weiner.
 - Q. Where do you reside?
 - A. Fort Worth, Texas.
 - Q. Who do you work for and in what capacity?
- 11 A. I'm a geologist for Cross Timbers Oil Company.
- Q. Have you previously testified before the Division?
 - A. No, sir, I have not.
 - Q. Would you briefly summarize your educational and employment background for the Examiner?
 - A. Yes, sir. I received a bachelor's degree in geology from Franklin and Marshall College in Pennsylvania in 1979 and a master's degree in geology from the University of Texas at Austin in 1981.

Subsequent to my graduation from UT I began working for Exxon, and I worked for them for 14 years. In 1995 I began working for Cross Timbers Oil Company, all this time as a geologist and the last ten years in the Permian Basin.

1 0. Does your area of responsibility at Cross Timbers 2 include this portion of New Mexico? Yes, sir. 3 Α. And are you familiar with the geology involved in 5 this Application? Yes, sir, I am. 6 Α. MR. BRUCE: Mr. Examiner, I tender Mr. Weiner as 7 an expert petroleum geologist. 8 EXAMINER STOGNER: Mr. Weiner, your 14 years' 9 experience with Exxon, was that primarily in the Permian 10 Basin, or were you some other place? 11 THE WITNESS: Other places as well, sir. I 12 worked for four years in the Permian Basin at Exxon and six 13 years at Cross Timbers in the Permian Basin. 14 EXAMINER STOGNER: Okay, just wanted to verify 15 that. Mr. Weiner is so qualified. 16 (By Mr. Bruce) Mr. Weiner, could you identify 17 Exhibit 8 for the Examiner and discuss the geology of the 18 19 injection zone in this area? 20 Yes, sir. Exhibit Number 8 is a net sand map. The map shows the sand thickness of the Premier sand, which 21 is the lower Grayburg sand which produces across the entire 22 unit area. Based on this map, one can see that the sand 23 thickness expected in the blue shaded or the proposed unit 24

expansion area would be approximately 60 feet thick.

Does that compare favorably with the thickness in 1 Q. other portions of the unit? 2 Yes, sir. It varies across the unit from 3 Α. anywhere from 10 feet to 70 feet thick. 4 5 Q. Okay. This is one common source of supply? Yes, sir. 6 A. One question I forgot to ask. What is the actual 7 ο. injection interval in this unit, or the unitized interval, 8 I should say? 9 The unitized interval extends from the top of the 10 Α. Grayburg formation and extends down 100 feet below the top 11 of the San Andres formation. 12 13 Q. Okay, if I can move on to your Exhibit 9, and 14 discuss that for the Examiner. 15 Exhibit Number 9 refers to what is commonly Α. called a ϕ h map or a sand pore-foot map. It incorporates 16 17 the sand thickness and also the porosity in the interval. And once again we can see that, based on this map, the 18 19 blue-shaded area not only has the sand present extending 20 from the unit into the proposed expansion area, but also shows that it is porous sand. 21 Okay, so there are no permeability or porosity 22 Q. barriers in this area, in this unitized interval? 23

On this map you have marked a cross-section,

That is correct.

24

25

Α.

Q.

A-A'. Could you move on to that and discuss it?

A. Yes, sir, that would be Exhibit Number 10. A would be the southwest extent of the cross-section, and A' extends to the north. The unitized interval is shown -- This is a stratigraphic cross-section, meaning it is a datum'd, and the datum surface is indicated by the second horizontal line going across.

The Premier sands are shaded in yellow, and they extend across the entire interval as we -- they do -- some of the lower sands actually thin across the middle part of the field and then pick up again opposite, but there are some sands that go all the way across the unit.

The unit boundary is shown between the second and third wells from the right, and the area that we would be proposing to be included in the unit would include the two wells on the lefternmost edge of the cross-section. So I believe that you can see that at least three of the sands go right across the unit boundary.

- Q. So because of the continuity of the reservoir, it should benefit from the waterflood injection program for the unit?
 - A. Yes, sir.
- Q. Were Exhibits 8 through 10 prepared by you or under your supervision?
 - A. Yes, sir, they were.

1	Q. And in your opinion is the granting of this
2	Application in the interests of conservation and the
3	prevention of waste?
4	A. Yes, sir.
5	MR. BRUCE: Mr. Examiner, I'd move the admission
6	of Exhibits 8 through 10.
7	EXAMINER STOGNER: Exhibits 8 through 10 will be
8	admitted into evidence.
9	EXAMINATION
10	BY EXAMINER STOGNER:
11	Q. Mr. Weiner, just as a reference, on Exhibits 8
12	and 9 you have a type log, 604. Just for reference, where
13	would I find the top of the Grayburg, at what depth, if I
14	was to extend that log up to that point? What would the
15	depth be?
16	A. The top of the Grayburg is approximately 400 feet
17	above the top of that type log.
18	Q. Okay, so it's going to be about 3800 feet?
19	A. Yes, sir. The Premier sand is what is the
20	producing interval.
21	Q. Now, how does this Premier sand differ from the
22	rest of the Grayburg up above?
23	A. The Grayburg, as you move up into the section
24	in fact, you can see that on the cross-section becomes

primarily a limestone/dolomite sequence, and it is sandy

down here.

- Q. This is a sandstone of what kind of deposition environment?
- A. This is deposited in a low-stand depositional environment, meaning deep water. Well, it's a shallow sand -- It's a sand that was deposited shallow, and then sea level fell, and then that sand was washed down the continental shelf and deposited in its final resting place, in much deeper water, and sea level rose back up and covered it. And you got -- When sea level rose back up, you started getting these limes above it.
- Q. Okay. Now, when I'm looking at your Exhibit

 Number 8, and 9 for that matter, the map, back to the west

 there appears to be another waterflood project. Is that in

 the same Premier sand as yours? Does that mirror your

 project in any way?
- A. I believe so, yes, sir. However, we don't own any of that.
- Q. Right. Okay, you indicate that that 604 is the type log. That's the type log that you're referencing in these two exhibits; that's not the type log that's represented in the unit agreement; is that correct? Or do you --
- A. I'm not familiar with what type log was referenced in the unit agreement.

1	Q. But you're representing it as a type log on these
2	two exhibits today?
3	A. Yes, sir, it's pretty typical of the sand
4	development in the area.
5	EXAMINER STOGNER: Okay, no other questions of
6	this witness. You may be excused.
7	ERICH PALKO,
8	the witness herein, after having been first duly sworn upon
9	his oath, was examined and testified as follows:
10	DIRECT EXAMINATION
11	BY MR. BRUCE:
12	Q. Would you please state your name and city of
13	residence.
14	A. Erich Palko, Fort Worth, Texas.
15	Q. what is your occupation and who is your employer?
16	A. I'm a petroleum engineer for Cross Timbers. I'm
17	employed by Cross Timbers.
18	Q. Have you previously testified before the
19	Division?
20	A. No, I haven't.
21	Q. Would you please summarize your educational and
22	employment background?
23	A. I graduated from Texas Tech in 1995 with a BS in
24	petroleum engineering. Since that time I have worked with
25	Cross Timbers. Since I have been in Cross Timbers I have

worked in the Permian division. I've worked Maljamar since
1 1998.

- Q. And are you familiar with the engineering involved in this unit?
 - A. Yes, I am.

MR. BRUCE: Mr. Examiner, I'd tender Mr. Palko as an expert petroleum engineer.

EXAMINER STOGNER: Mr. Palko is so qualified.

- Q. (By Mr. Bruce) Mr. Palko, could you identify your Exhibit 11 and go through the exhibit, describe the injection and maybe a little bit of production history in the unit?
- A. Yes. The pool that we produce from, the Grayburg-San Andres Pool, was discovered in 1928. This is on the southeast end of the pool. This unit was developed in 1966 to increase -- to install waterflood operations. At that time the wells in the unit had produced about 2.1 MMBO.

Since that time when the waterflood was beginning, it was established on a 40-acre spacing fivespot waterflood. It was later despaced down to 20-acre, keeping the fivespot. Currently Cross Timbers has drilled it on 10-acre spacing, and as a north-south line drive pushing the oil east and west.

Exhibit 12 contains the data on ultimate primary

and secondary production from the current unit. This exhibit shows that the total recovery from the existing unit wells will be about 5.364 MMBO, with 40 percent of that being secondary oil.

- Q. What about the -- You also have on Exhibit 12 the secondary recovery from the expansion area. Would you address that briefly?
- A. Yes, the ultimate primary for the expansion unit is about 386 MBO. If you apply the same secondary recovery factor that we see now in the main unit, .72, we're expecting about 281 MBO from secondary operations, including infill drilling and waterflooding.
 - O. What is Exhibit 13?

- A. Exhibit 13 is a plot of the production of the main unit. It starts in 1986 and goes to current. As you can see, production for 1995-1996 was relatively flat, about 5 percent. About that time, 1995-96, is when Cross Timbers started its infill drilling program, taking the wells down to 10-acre spacing.
- Q. When did -- To answer one of the Examiner's questions, when did Cross Timbers acquire an interest --
 - A. 1986, we acquired this from Cities Services.
 - Q. Okay, go ahead.
- A. In 1998 is when we started our north-south line drive, and you can kind of see a little bit after that is

when our production started to flatten back out and our gas came down.

- Q. Okay. So during that 1996-97 time frame there was some additional infill development by Cross Timbers?
 - A. Yes.

- Q. Okay.
- A. We anticipate that adding the new acreage and the new wells to the unit, which produces about 285 barrels of oil a day, we'll increase to about 293 barrels of oil per day, and decline at the same five percent that the unit's doing.
- Q. Assuming this tract, Tract Number 14, is added to the unit, what are Cross Timbers' plans for development of that additional tract?
- A. Submitted as Exhibit 14, what we have planned for that tract is to convert the Number 5 well, which is the only producer on the unit right now, and to drill a 10-acre infill, which would be north of the Number 5 well. We believe the addition of this lease and the drilling of the planned wells will enhance unit production. In addition, if performance justifies, we could add another injector and producer to this list -- to this lease.
- Q. Will the unit expansion and the expansion of the waterflood project result in an increase in the amount of oil that will be ultimately recovered from the reservoir?

A. Yes, it will.

O. Now, as you m

- Q. Now, as you mentioned, as is apparent from the other exhibits presented, there's a number of wells outside the unit area which are apparently completed in the same unitized interval; is that correct?
 - A. Uh-huh.
- Q. Do you see any harm to those wells outside the unit from your injection?
- A. No. To the south, the wells don't produce anymore. They're abandoned.

To the west is the MCA unit, and it's already waterflooded in the same unitized interval.

And to the north is Cross Timbers' unit, Southeast Maljamar.

- Q. What is the -- briefly, the tract-participation formula for the unit based on?
- A. It's based on the Phase 2 formula from Article XII of the unit agreement.
- Q. Okay, what is it based on? I don't have that in front of me. Is it based on ultimate --
- A. Oh, what it does is, it uses 90 percent of the primary, ultimate primary, it uses 5 percent of the tract acreage and then 5 percent of the developed acreage, and that's off of a ratio of the tract to the total unit.

STEVEN T. BRENNER, CCR (505) 989-9317

Q. Okay.

EXAMINER STOGNER: Hold it, run that formula by me again.

THE WITNESS: Okay, what it does is, it takes 90 percent of the ultimate primary of the tract, and it's 90 percent of the ratio of that tract divided by the total unit tracts, ultimate primary. Then it takes 5 percent of the tract acreage versus the total acreage, and then the developed acreage, another 5 percent is added for the developed acreage versus the unit acreage, developed acreage.

- Q. (By Mr. Bruce) In your opinion, has this formula fairly allocated production to each tract on an equitable basis?
- A. It has, and referring to Exhibit 15, what we've done is to show what the effects would be of adding the new unit. And we also had -- since the last ratification we had an adjustment in Tract 10. It went from a 40-acre developed tract to an 80-acre. So we made that adjustment on Tract 10, and that's highlighted in dark. And then we also show at the bottom what the new added tract factor would do.
- Q. Okay. Were Exhibits 11 through 15 prepared by you or under your supervision, Mr. Palko?
 - A. Yes.

Q. And in your opinion is the granting of Cross

1 Timbers' Application in the interest of conservation and 2 the prevention of waste? A. Yes. 3 MR. BRUCE: Mr. Examiner, I'd move the admission 4 of Exhibits 11 through 15. 5 6 EXAMINER STOGNER: Exhibits 11 through 15 will be 7 admitted into evidence. 8 EXAMINATION 9 BY EXAMINER STOGNER: Mr. Palko, in looking at Exhibit Number 15 --10 0. Yes, sir. 11 Α. 12 Q. -- tract acreage and tract developed acreage, what's the difference? 13 The difference is the total tract acreage. So 14 Α. 15 like on Tract Number 10, when it was first brought in it 16 had only had one well producing on a 40-acre tract. 17 tract was actually an 80-acre tract that was brought in. So it was a -- for the tract acreage it was given an 80 18 19 acres, divided by the total. For the development it was only given a 40, because only half of the acreage was 20 developed. 21 Since that time we drilled the one well to fully 22 23 develop that, so that's why it brings that one back to 80

And according to Exhibit Number 15, this has or

acres total developed.

Q.

24

```
will be fully developed, there's no --
 1
 2
          Α.
                Yes, sir.
 3
                -- nonproducing --
          Q.
                -- 40-acre space, no. Nonproduced, I should say.
 4
          Α.
                Okay, say that again.
 5
          Q.
                There will be no nonprodu- -- every unit had --
 6
          Α.
 7
     All the acreage has been officially potentialized. Not all
 8
     of them are currently producing right now.
                Okay, that makes sense then.
 9
          Q.
                Uh-huh.
10
          Α.
                Just because the well is produced, you don't
11
          Q.
     deduct acreage?
12
13
          A.
                Huh-uh.
                But if it's undeveloped, then that's --
14
          Q.
15
                Yes.
          Α.
                -- unincluded, okay. And that's an industry
16
          Q.
17
     practice, is it not?
18
          Α.
                (Nods)
19
          Q.
                What was that answer?
20
          Α.
                Yes.
21
                Okay.
          Q.
22
                Sorry.
          Α.
23
                Didn't hear you.
          Q.
24
          Α.
                Sorry.
25
                Okay. Okay, when I refer to Exhibit Number 11 --
          Q.
```

1 A. Uh-huh.
2 Q. -- now,

- Q. -- now, these lines are showing your waterflood pattern. Now, it's the Number 5 well that Cross Timbers is planning to convert?
 - A. I'm sorry, it's the Number 4, I misspoke.
 - Q. Number 4.
- A. Number 4. Number 5 is currently temporarily abandoned. It does not have any equipment on it.
- Q. Okay. Now, will that Number 5 be brought back to production?
- A. No. Phillips came back in and tried to refrac it and put too large a frac on it and frac'd out of zone, and in our opinion it's just not worth going back to.
- Q. Now when you say frac'd out of zone, out of the Premier sand?
- A. Out of the Premier sand. It's still inside the unit. The -- We only waterflood the Premier. The rest of the sands don't -- we don't pick up any other sands that you see in the area outside this area. We have just the Premier sand through our unit.
- Q. Now, where will the new well, the new producing well on this tract be roughly located? Along the line to the north?
- A. Exactly, it would be north. We would drill it as a producer, and then subsequently if it came in good or on

our expectations, we would convert that, filling out that line drive, and then we could drill a well to the left of that line and to the east of that line.

- Q. Okay, now I realize that today's -- we're talking about just unit expansion and not the waterflood expansion.
 - A. Uh-huh.

- Q. But the Number 5 well, because that's frac'd out of zone, how's that going to affect your waterfloods?
- A. Well, we wouldn't use the well at all. And when I say out of zone, it's in the unitized interval; it's just not going to be effective for our waterflooding. So we're going to use the Number 4, which is the only producer on it, and Number 5 has produced a total of 15,000 barrels of oil. We don't consider it essential to our waterflooding operations.
 - Q. I guess what I'm asking is, when the sweep --
- 17 A. Yes.
 - Q. -- comes in contact with these fractures in that well, is that going to disperse it out of your injection zone?
 - A. You're saying as the sweep comes -- goes east --
- 22 Q. -- goes east --
 - A. -- is it going to hit that well and then go out of zone? No, because it was frac'd into an impermeable limestone --

1 Q. Okay.

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- A. -- and so it wouldn't go anywhere.
- Q. When you say frac'd out of zone in that particular well, are we talking above the Premier sand --
 - A. It would be above, yes.
 - Q. -- and below the San Andres, or just above?
- 7 A. Just above.
 - Q. Just above.
 - A. They had bridge-plugged off little perfs, and so it was above zone into the limestone, so...
 - Q. Will Cross Timbers plug and abandon that well?
 - A. Yes.
 - Q. Is there any producing zones above the Grayburg in this area?
 - A. Yes, it does produce -- In our unit it produces sporadically. It's lenticular that you get small little sands that pop up. They do produce a little better farther north in the Caprock Unit, which is north of us. We're right at the crest, our unit goes right on the crest, and as you come off that crest it does produce coming off that way. But inside our unit we don't flood it, and it's just an added bonus if you find it.
 - Q. And that's within the Grayburg?
 - A. It is all within the Grayburg. Grayburg total unit is --

1	Q.	But there's no producing horizons above the
2	Grayburg f	ormation?
3	Α.	That we produce?
4	Q.	Or that is producible out there?
5	Α.	There is, but we don't produce it, yes.
6	Q. 1	What formation is that?
7	Α.	Queen formation, I believe.
8	Q.	Okay. I'm going to refer back to Exhibit Number
9	14, becaus	e I want to make sure that we've got this right.
10	Α.	Okay.
11	Q. :	It says here that you are to convert the Well
12	Number 5,	but that's not the case?
13	Α.	Yeah, that would be
14	Q. '	That should be Well Number 4?
15	Α.	4, exactly.
16		EXAMINER STOGNER: Okay, I'm going to change on
17	my Exhibit	Number 14
18	ŗ	THE WITNESS: My fault.
19	:	EXAMINER STOGNER: the term "convert Well
20	Number 5"	to "Well Number 4." Let the record show.
21	:	EXAMINER STOGNER: Okay, I have no other
22	questions.	You may be excused.
23	ŗ	THE WITNESS: Thank you, sir.
24]	EXAMINER STOGNER: Anything further, Mr. Bruce?
25]	MR. BRUCE: Mr. Examiner, one thing. We would

like to get the unit in effect as soon as possible, and if 1 2 I could submit a proposed order to you --EXAMINER STOGNER: Okay, with that in mind, 3 what's the status of the injection application that is 4 necessary for that Number 4 well? Is that pending, is it 5 in our office? 6 7 MR. PALKO: No, we were waiting to get it put in the unit. 8 9 EXAMINER STOGNER: Okay, then it will be --MR. BRUCE: -- administratively. 10 11 EXAMINER STOGNER: Okay, I'd suggest, if it would 12 help, to go ahead and file that just as soon as you can. Don't wait on this order. Refer to the case, and that 13 should be sufficient. So either today when you get back or 14 15 tomorrow, feel free to go ahead and submit that. Okay, with that in mind, the request for an 16 17 expedited order, keep that in mind. And if there's nothing further in Case Number 18 12,658, then this matter will be taken under advisement. 19 (Thereupon, these proceedings were concluded at 20 9:06 a.m.) 21 22 I do heraby country that the foregoing is 23 e complete record of the proceedings in the Examiner hearing of Case No. 12658 24 heard by me/by) 17 Ma 25 manage Extension

Concervation Division

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL May 18th, 2001.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 2002