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. 12,666

APPLICATION OF TEXLAND PETROLEUM-HOBBS, L.L.C., FOR APPROVAL OF A WATERFLOOD PROJECT FOR ITS HOBBS UPPER BLINEBRY POOL COOPERATIVE WATERFLOOD AREA AND QUALIFICATION OF SAID PROJECT FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE ENHANCED OIL RECOVERY ACT, LEA COUNTY, NEW MEXICO

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

June 14th, 2001

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, June 14th, 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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Examiner Hearing
CASE NO. 12,666

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A P P E A R A N C E S

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By: WILLIAM F. CARR

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RICHARD EZEANYIM
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* * *

ALSO PRESENT:

NAGI SOAS, Hobbs, New Mexico
Texas Resources of Houston
Paul Bliss
RM&S Enterprise of Hobbs, New Mexico

WHEREUPON, the following proceedings were had at 10:14 a.m.:

EXAMINER CATANACH: All right, at this time I'll call the hearing back to order and call Case 12,666, which is the Application of Texland Petroleum-Hobbs, L.L.C., for approval of a waterflood project for its Hobbs Upper Blinebry Pool Cooperative Waterflood Area and qualification of said project for the Recovered Oil Tax Rate pursuant to the Enhanced Oil Recovery Act, Lea County, New Mexico.

Call for appearances in this case.

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe office of Holland and Hart, L.L.P. We represent Texland Petroleum-Hobbs, L.L.C., and I have one witness.

EXAMINER CATANACH: Call for additional appearances.

There being none, can I get the witness to stand and be sworn in?

(Thereupon, the witness was sworn.)

<u>JAMES H. WILKES, JR.</u>,

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

DIRECT EXAMINATION

BY MR. CARR:

Q. Would you state your name for the record, please?

A. James Howard Wilkes, Jr.
Q. Mr. Wilkes, where do you reside?
A. In Fort Worth, Texas.
Q. By whom are you employed?
A. Texland Petroleum, Inc.
Q. And what is your position with Texland Petroleum, Inc.?
A. I'm the president and chief operating officer of Texland Petroleum, which is the managing member of Texland Petroleum-Hobbs, L.L.C.
Q. Have you previously testified before the Oil Conservation Division?
A. No, I have not.
Q. Would you summarize your educational background for Mr. Catanach?
A. I have a bachelor of science degree in petroleum engineering from Texas A&M University in 1978.
Q. And since graduation, for whom have you worked?
A. I worked six years with Sun Exploration and Production Company and 17 years for Texland Petroleum.
Q. At all times have you been employed as a petroleum engineer?
A. Yes, I have.
Q. Are you familiar with the Application filed in this case on behalf of Texland Petroleum-Hobbs?

A. Yes, I am.

Q. Are you familiar with Texland's plans to implement a cooperative waterflood project in the Hobbs-Upper Blinebry Pool in Lea County, New Mexico?

A. Yes, I am.

Q. Are you familiar with the status of the lands in the area which is the subject of this Application?

A. Yes, I am.

Q. And have you made an engineering study of the area which is the subject of this case?

A. Yes, I have.

Q. Are you prepared to share the results of that work with Mr. Catanach?

A. Yes, I am.

MR. CARR: We tender Mr. Wilkes as an expert witness in petroleum engineering.

EXAMINER CATANACH: Mr. Wilkes is so qualified.

Q. (By Mr. Carr) Initially, would you summarize for the Examiner what it is that Texland Petroleum-Hobbs seeks with this Application?

A. Texland is seeking authorization to implement a cooperative waterflood project by the injection of water through 15 new 20-acre infill injection wells in the Blinebry formation of the Hobbs-Upper Blinebry Pool, which is -- it contains 12 leases, located in Township 18 South, Range 38 East, Lea County, New Mexico, and it's on the western boundary of the City of Hobbs, New Mexico.

Q. Do you also seek the adoption of procedures for administrative approval of additional injection wells within the project area?

A. Yes, we do.

Q. And are you seeking to qualify this project for the Recovered Oil Tax Rate pursuant to the New Mexico Enhanced Oil Recovery Act?

A. Yes, we are.

Q. I think it would be helpful if initially you would explain to the Examiner who Texland Petroleum is.

A. Texland Petroleum is an independent exploration and production company, privately held, headquartered in Forth Worth, Texas. We operate 23 waterflood projects in the Permian Basin, this being the first one in New Mexico; the rest are in Texas.

We have approximately 410 producing wells and 250 water injection wells in our various floods. Our gross oil production rate that we operate is approximately 6500 barrels per day.

Q. What success have you had with cooperative waterflood projects?

A. We have done a number of cooperative waterflood projects. The largest one that we have conducted is in the

Fullerton field, which is in Andrews County, Texas. We purchased from Shell Oil Company in 1994 seven different leases which we have drilled 115 new wells on and have increased the oil production rate from 700 to 2300 barrels per day. This success was achieved without unitizing any of the properties. It's involved five different operators, 42 leaseline injection wells and 19 different leases.

Q. Why is Texland proposing a cooperative waterflood project in this case instead of coming forward and unitizing a project area?

A. We have several reasons. The main reason is, we want to expedite the installation of this project. We have worked with two other operators in the field, Occidental Permian and Apache, and have negotiated cooperative injection agreements that provide for cost-sharing of leaseline water injection wells as well as cost-sharing on the expense of operating those wells.

Our development plan is an infill plan where we're drilling 20-acre infill injection wells to develop 40-acre fivespot waterflood patterns, and is identical to the plan that we would do if we unitized this field. We feel this plan will protect correlative rights and the injection wells will fall very near leaseline boundaries, between the leases, so there will be no oil migrating from one lease to another.

Also, in this case, there are more than 300 different royalty owners in this field. It has been handed down through a number of generations, because they're 1930s-vintage leases and it would be very difficult to contact and have all these royalty owners ratify. In the case of the cooperative waterflood, we don't need to get any approval from the royalty owners.

Q. You'll just be paying the royalty owners based on the terms of their leases for production from their leases; is that right?

A. That's correct.

Q. Generally, Mr. Wilkes, how will Texland assure the production from the cooperative waterflood project is accurately attributed to each lease?

A. We will have -- Individual tank batteries that are existing now will remain active on each lease, and those tank batteries will meter all the oil sales, and so it will be attributed just to that lease.

Q. Texland is the lessee under how many of the leases which are involved in this Application?

A. Texland is the lessee of 10 of the leases, Apache Corporation has one lease, and Occidental Permian, Ltd., has one lease.

Q. Will Texland actually be the operator of the leaseline injection wells pursuant to your agreement with

Apache and Occi?

A. Yes, it will.

Q. And have those agreements been finalized and executed?

A. Those agreements have been ratified by all three parties.

Q. Let's go to what has been marked Texland Exhibit Number 1, and using this exhibit I'd like you to explain to Mr. Catanach what it is that you're proposing to do with these individual tracts.

A. This map is a map of the Hobbs-Upper Blinebry Pool in Lea County, New Mexico. It's on a scale of one inch to 1000 feet. It shows the cooperative waterflood area outlined in red. This cooperative waterflood area contains 1580 acres.

The yellow leases on the exhibit are operated by Texland Petroleum, the blue is Apache, and the green is Occidental Permian.

The status of the existing wells are shown by colored circles around each well. We have the active Blinebry wells outlined in green, the Drinkard production is in blue, lower Blinebry is in orange, Grayburg-San Andres is in purple, and the Yates-Queen is in red.

Also shown are the 15 proposed water injection wells. They are shown in blue with blue triangles around them.

Q. Are these all the injection wells at this time you are proposing for this waterflood?

A. Yes.

Q. And do you request that an order that results from this hearing provide for or adopt a procedure whereby additional wells may be added without the need for an additional hearing?

A. Yes, we do.

Q. Have your plans to implement a waterflood project been reviewed with the State Land Office?

A. Yes, they have.

Q. And what was the reaction from the State Land Office?

A. They have been very favorable and indicated that they do not have anything to approve or disapprove in this regard.

Q. And they thanked us and asked us to let them know when it was done; is that right?

A. Yes.

Q. Okay. What is Exhibit Number 2? Is this our affidavit confirming that notice of this Application has been provided to all affected owners in accordance with Oil Conservation Division Rules?

A. Yes, it is.

Q. And to whom was notice provided?

A. Notice was provided to all of the offset operators within two miles of the injection wells and the surface owners within -- well, surface owners of the tracts where we're drilling the water injection wells.

Q. And all offset operators within a half mile of each injection well have been notified?

A. Yes, they have.

Q. Let's go now to the geological portion of the case, and I would ask you initially to describe the general characteristics of the Blinebry formation in the area of the proposed cooperative waterflood project.

A. The Blinebry formation is a productive interval that -- in this field between the depths of 5700 and 6100 feet, produces from dolomite with a gross thickness of about 200 feet. These units are part of a complex sequence that was deposited in a broad, flat, shallow shelf setting, which persisted on the Central Basin Platform through Leonardian time. Fluctuating sea-level conditions probably controlled the deposition. The productive dolomites were deposited in an intertidal to subtidal marine environment. The average pay thickness is about 58 feet, with an average porosity of 10.6 percent.

Q. And there is a geological summary contained in Exhibit 5 at page 110, is there not?

A. Yes.

Q. Let's go now to Texland Exhibit Number 3, and I'd ask you to identify this and review the information on the exhibit for Mr. Catanach.

A. Exhibit Number 3 is an east-west cross-section that cuts across the entire productive portion of the Hobbs-Upper Blinebry field. Below the cross-section there's a map with cumulative production that shows the section A-A', going from west to east. The wells are identified at the top by the original operator name, the lease name and well number, the KB elevation is shown, and then below that in green the cumulative production of each well is shown.

Each well is presented with three separate tracks, a gamma ray on the left-hand side, a calculated porosity in the middle track, and a calculated water saturation in the right-hand track. The perforations in each well are marked in black.

It's a structural cross-section. We have three stratigraphic markers that we have picked throughout the field. The top one we call just the top of the upper Blinebry, the middle one we call the top of the lower portion of the upper Blinebry, and then the bottom one we call the base of the upper Blinebry.

The cross-section shows that -- The hotter colors between wells are calibrated to the porosity, so the hotter colors are high porosity, the cold colors, the blues, are low porosity.

Going from west to east across the field, the westernmost well has a lot of calculated high porosity, but there's a lot of shaly porosity in there, and it really doesn't have very much permeability. That well only made 64,000 barrels. But as you go east of that, the Bowers "A" Federal 38 is in the best portion of the field, and you can see how much of the section is very high porosity.

And continuing to the east, the good portion of the field goes through the Standard Oil Company of Texas State Number 1. You can see some changes as you go across the field, in that most of the porosity development is in the lower portion of the upper Blinebry in that State of Texas Number 1, but it is the best cumulative production well in the field.

And then east of that there's an area that has very poor, low porosity development, very tight permeability, and the cumulative production from the State B Number 5 is 44,000 and the State B Number 6 is 6000.

And then there's another area to the east of that where it gets better again, and it's mainly in the lower portion of the Blinebry. As you can see, the Grimes B Number 7 has a cum of 205,000 barrels.

And then the well on the far right is a very low quality well.

Q. How were the boundaries for the project area determined?

A. We have prepared an Exhibit Number 4, which shows the cumulative production from the field. We have again outlined the cooperative waterflood area in red, and the cumulative production from each well is shown.

And it's very evident from the cumulative production where the good part of the field is. There's a sweet spot that lies in Sections 29 and 30 and 32, and those -- the bulk of that area has produced over 200,000 barrels per well on primary.

And we have also shown there the placement of the 20-acre infill water injection wells, and that is the area that we're targeting for the waterflood development plan.

Q. Let's go back to the orientation map, and I'd ask you to review the current status of the project area and the wells producing.

A. Okay, we have -- in the area, the current status of the wells, we have 15 proposed water injection wells that we want to drill. There are eight existing Blinebry wells that still produce from the upper Blinebry, that are outlined in green. And the rest of the wells have all been recompleted. Many of them produced from the Blinebry but have been recompleted to the other horizons.

You can see that the Grayburg-San Andres, there's a lot -- a number of wells that produce from it, because the North Hobbs Unit overlies the entire area. They've been recompleted back to the Grayburg-San Andres.

Q. Now, you intend to commence injection. How soon do you plan to move into the phase where you'll be drilling additional development wells or producing wells?

A. We plan to -- as soon as we get an order, to begin development of the water-injection wells. We have a rig committed to us that we have had drilling for us all year, and the plan is to move it over here and to begin the drilling program on the injection wells.

Q. When will you start drilling producing wells?

A. After we complete the injection well drilling program, we will watch for response in the existing producing wells.

We have very low bottomhole pressure, approximately 300 p.s.i., from pressure buildup tests that we've conducted, and we think that there's a considerable fill-up volume, so we don't think that the response will happen immediately, so when we begin to get response in the existing producing wells, then we will begin drilling the -- either recompleting or redrilling replacement producing wells.

Q. And it makes no sense to drill producing wells until you start getting a response in the wells that are there; is that correct?

A. That is correct, because if you drilled a well today you'd have a very marginal well.

Q. What is the total cumulative production from the area encompassed by this cooperative flood to date?

A. We have produced 6.4 million barrels of oil in the area outlined in red.

Q. And what is the anticipated additional recovery?

A. We anticipate that we will produce an incremental 4.8 million barrels of oil.

Q. Why does Texland seek to implement the cooperative waterflood project at this time?

A. We have a significant sum of money invested in this field through acquisitions, and we feel that the economics are very favorable for this project. We have old wellbores that are approximately 30 years old, and these wellbores, as you can see, many have been recompleted. Some of them are TA and no longer useable. We're concerned about the longevity of those wellbores.

We also believe that in order to maximize the recovery, that the sooner that we begin this project the better, because of shrinkage of the crude oil and increasing viscosity of the crude oil with continued primary depletion.

Also, the economics are favorable because the oil prices are very high right now.

Q. What you've got is, you've got a fairly substantial fill-up period you're looking at --

A. Yes, we do.

Q. -- perhaps, at the front end; is that right?

A. That is correct.

Q. Why don't we move to Exhibit Number 5, the Form C-108, and I'd ask you to refer to that. And initially I think it would be helpful to point out the last six pages that are attached to this exhibit.

A. Okay. Beginning with page 114, we have submitted in the package -- this is in addition to the original package that we submitted -- two injection well data sheets, one for the State I-29, Number 9; it's an alternate location. And on the Exhibit Number 1 we have shown that alternate location, which is further to the north of the blue triangle.

The second one that we have submitted is the State A Number 9, and that well is an alternative to the original State 1-29 Number 8, and it is shown in the northeast corner of the Apache lease. We feel that both of these locations are better than the original proposed locations.

Q. And what we have in Exhibit 5 is the original C-108 as filed with the Oil Conservation Division?

A. That's correct.

Q. And what you have just reviewed are two new really replacement wellbore diagrammatic sketches and wellbore data sheets for two injection wells?

A. That is correct.

Q. And you've enclosed those because we're proposing to move the location slightly?

A. Right.

Q. Behind that are additional well data sheets, and these are revised data sheets for documents that are in the original C-105?

A. That is correct, they are updated data sheets for some additional information that we discovered after our original filing.

Q. And these are just correcting things like cement tops and things of that nature?

A. Yes, they are.

Q. So as to not create confusion, we have the original C-108 as filed, and then starting at the back we have two amended data sheets for injection wells, and then some --

A. And we have four different wells starting on page 116, where we have corrected wellbore schematics and well histories.

Q. Mr. Wilkes, this is not an expansion of an existing project, this is a new project; is that correct?

A. That is correct.

Q. Does the Exhibit Number 5 Form C-108 contain all information required by this form and the rules of the OCD?

A. Yes, it does.

Q. Could you turn to page 18 of this exhibit and just identify what that is?

A. Page 18 is a Midland Map Company plat of the Hobbs field, particularly the Hobbs-Upper Blinebry portion of the field. It shows, on a scale of one inch is equal to 4000 feet, the 15 proposed water injection wells, with the half-mile radius showing the area of review, as well as a two-mile radius. And on the left-hand side of the figure we have a tabular listing of all of the offset operators by field, operator and lease name.

Q. And these are the individuals to whom notice of the Application was provided; is that correct?

A. That is correct.

Q. Does this exhibit contain all of the information required for a full C-108 review of each of the wells which penetrate the injection interval in any of the areas of review?

A. Yes, it does.

Q. And the data is organized by section?
A. Yes, it's organized by section, and at the last section we have all of the plugged and abandoned wells separate. There are seven of those.
Q. Okay, so the well data sheets are from pages 20 to 109, correct?
A. That is correct.
Q. The data on plugged and abandoned wells is found at pages 94 through 109?
A. That is correct.
Q. Have you reviewed the information on each of the wells that has been plugged and abandoned?
A. Yes, I have.
Q. In your opinion, are all of them plugged so as to prevent the migration of injection fluids from the injection interval?
A. Yes, they are.
Q. What volumes does Texland propose to inject?
A. We propose to inject an average rate of 500 barrels per day per well, with a maximum rate of 1500 barrels per day per well.
Q. And what is the source of the water your propose to inject?
A. We will reinject all produced water from the Blinebry, Drinkard and Queen formations that we operate, as

well as using fresh water for makeup.

Q. Have you reviewed your plans with the State Land Office for the use of freshwater as makeup water for this project?

A. Yes, we have.

Q. And what has been the response from the State Land Office?

A. They have no problem with the use of that water.

Q. Can you review for Mr. Catanach the efforts of Texland to obtain a water supply for this project?

A. Yes, we began our search for water with -- the most obvious candidate was the Occidental Permian North Hobbs Unit, which their central facility is located within this area. They informed us that all of their produced water was reinjected in their project and they had none available.

We contacted the City of Hobbs concerning their city re-use water from the sewage treatment plant, which Occidental had at one time used for makeup water. That water was all committed to a farmer under contract, and it was all completely utilized.

We talked to the city manager about the use of Hobbs' potable water which was -- in terms of well capacity was available, but delivery capacity and their distribution system was a problem. And he directed us to a farmer in the area that was using water for agricultural purposes, and we have secured that as our source, and we believe it's the only viable source, the Ogallala formation.

Q. And who are you acquiring the water from?

A. We're acquiring it from the Grimes Land Company.

Q. And have applications been filed with the State Engineer's Office to convert the use to commercial use from agricultural?

A. Yes, they have been.

Q. And you're going to be using this fresh water as the makeup water for the project?

A. That is correct.

Q. And as you go through the project do you anticipate that the produced water volumes may increase over time?

A. Yes, we anticipate that early on, during the fill-up period, we'll use larger volumes of water that will gradually decrease. And then as we begin to get produced water breakthrough from the producing wells, then we'll gradually reduce the amount of makeup water.

Q. In your efforts to find a source of water for this cooperative waterflood project, you also talked to Occidental and others about sort of standing in a second position behind them, so if there was some other source of water available you could access that and then not have to rely on the freshwater supply?

A. That is correct.

Q. Were any of those sources available?

A. There are none of those available at this time, but in the future Occidental mentioned the possibility of CO_2, at which time they would have some excess produced water.

Q. But at this time there is no guarantee?

A. That is correct.

Q. Will this system be an open or a closed system?

A. It will be closed.

Q. What is the injection pressure that Texland will be seeking?

A. An average injection pressure of 2000 p.s.i. and a maximum pressure of 2875 p.s.i.

Q. And this equates to how many pounds per foot of depth?

A. That is .5 p.s.i. per foot of depth.

Q. Will Texland limit the injection pressure to .2 pound per foot of depth to the top of the injection interval until the requested pressures are justified by step-rate tests?

A. Yes, we will.

Q. And you would request that the order so provide?

A. Yes.

Q. Have you reviewed the data available on the wells within the areas of review for this cooperative waterflood project, and have you satisfied yourself that there is no remedial work required on any of these wells so that you can safely operate the project?

A. We have identified three wells that we have a concern about. Each one of these lacks a bridge plug between the Blinebry and the Drinkard when they were plugged back, according to our research. And we proposed that we meet with the Director of the Hobbs OCD District, Chris Williams, as well as the operators of these three wells, to discuss what cause of action we should do.

Q. Can you identify those wells to Mr. Catanach?

A. Yes, I can. We have the North Hobbs Unit 30-412, which is operated by Occi, Occidental Permian. That well is located in the northeastern corner of Section 30. It's identified there as NHU-412, and it was originally the McKinley Number 11.

The second one is the McKinley Number 9, which is also in Section 30. It's southwest of that 412 that I just identified. This well is a TA producing well that is operated by Texaco. It's on our acreage, but we do not have that wellbore.

The third well is in Section 33. It's called 33-112, North Hobbs Unit, operated by Occidental Permian.

This well was originally the State B Number 5. And those are the three.

Q. Mr. Wilkes, what is the status of the wells you propose to utilize for injection?

A. We have not drilled any of those wells.

Q. When you drill these wells, how are you going to monitor them to assure the integrity of the wellbore?

A. We will -- First of all, we plan to cement both strings of casing back to the surface, both the surface and the production string. We will fill the annular space with an inner packer fluid and monitor the pressure on that.

Q. Are there freshwater zones in the area?

A. Yes, there are.

Q. And what are they?

A. The Ogallala formation is the only freshwater zone. It produces from about 50 feet to approximately 200 feet of depth, and that's the only one in the area.

Q. Are there freshwater wells within a mile of any of the proposed injection wells?

A. Yes, there are.

Q. And does Exhibit Number 5, the Form C-108, contain water analyses on wells -- on some of these sampled water wells?

A. Yes, it does, on page 111 of the C-108 package we have identified the location of two domestic-type water wells that are in the area. One is at 1717 Gary Street, and the other is called the Ayers Number 1. These are both in Section 30.

And below that is the chemical analysis showing the constituents plus the total dissolved solids, which are in the range of 606 to 486 parts per million, and those are typical of the Ogallala formation.

Q. Do you anticipate any compatibility problems, utilizing the fresh water and mixing it with the produced water?

A. No, I do not. We treat the Ogallala formation water for oxygen, to remove oxygen, to prevent corrosion, and we have no problems with the injectivity of that water.

Q. In your opinion, will the injection of water as proposed by Texland pose any threat to fresh water supplies in the area?

A. No, it will not.

Q. And have you examined the available geologic and engineering data on this reservoir?

A. Yes, I have.

Q. As a result of that examination, have you found any evidence of open faults or other hydrologic connections between an injection interval and any underground source of drinking water?

A. No, I have not.

Q. Let's now go to what has been marked as Exhibit Number 6. Would you identify that?

A. Exhibit Number 6 is the application for the Recovered Oil Tax Rate pursuant to the Enhanced Oil Recovery Act for the Hobbs Upper Blinebry Cooperative Waterflood Project.

Q. Does this application contain all information required for an application of this nature by the rules of the Oil Conservation Division?

A. Yes, it does.

Q. And to the best of your knowledge, is it complete?

A. Yes, it is.

Q. What are the additional capital costs to be incurred in this project?

A. We -- For facilities, we estimate that the cost is $1,080,000, and the total cost $5.8 million.

Q. And how much additional production does Texland expect to obtain from the cooperative waterflood?

A. We believe that there's 4.8 million barrels of secondary -- incremental secondary reserves in this field.

Q. Will there be any significant contribution in terms of gas production?

A. Not very significant.

Q. Have you been able to estimate the total value of this additional production?

A. Yes, using an oil price of $20 per barrel, that would be a total value of $96 million.

Q. Does Texland Exhibit Number 6 set out the production history and contain production forecasts of oil, gas and water from the project area as required by Division rules for applications of this nature?

A. Yes, it does. I've got two exhibits, the last two exhibits. The first one is a production history and forecast curve of the active Texland Petroleum-Hobbs L.L.C.-operated wells in the Hobbs-Upper Blinebry Pool. This is on logarithmic scale, and the oil production rate is approximately 150 barrels per day. Currently we show the forecast for that.

The next curve we have is for the Shell State A Number 6, which is the only active well on the Occidental Permian lease, and it makes approximately 11 barrels of oil per day, and we show their forecast decline on that well.

And the Apache lease has no active Blinebry production on it, so there's no curve for it.

Q. Mr. Wilkes, in your opinion, will approval of this Application and the implementation of the proposed cooperative waterflood project be in the best interest of conservation, the prevention of waste and the protection of correlative rights?

A. Yes, it will.

Q. Were Exhibits 1 through 7 prepared by you?

A. Yes, they were.

MR. CARR: Mr. Catanach, at this time I move the admission of Texland Exhibits 1 through 7.

EXAMINER CATANACH: Exhibits 1 through 7 will be admitted as evidence.

MR. CARR: And that concludes my direct examination of Mr. Wilkes.

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. Wilkes, can we identify these separate leases, please?

A. Yes.

Q. And you can start wherever you want.

A. Okay. Let's start at the northwestern part.

Q. Okay.

A. There's an 80-acre tract, which is the south half of the northeast quarter, which we have identified as the McKinley Lease. That is a tract we've acquired from Texaco.

Q. Okay.

A. Okay, below that in the southeast quarter of Section 30 as well as, say, the western quarter of Section 29 to the east of it is the Bowers A Federal Lease.

Going east of that, in Section 29 we have the State A 29 Lease, which is 120 acres.

East of that is the State 1-29 Lease, which has 80 acres.

East of that in Section 28, the southwest quarter, is the W.D. Grimes, which we have acquired from Occidental Permian, and that is 160 acres.

Then starting in Section 33, on the easternmost portion we have the W.D. Grimes NCT B Lease, which is 160 acres.

To the east of that we have an 80-acre State B Lease, and below that an 80-acre State G Lease.

MR. CARR: That's to the west of --

THE WITNESS: That's to the west of the Grimes B.

Then going east of that, the blue Apache lease is called the State A Lease.

MR. BROOKS: Again, west.

THE WITNESS: Going west, I'm sorry, I'm mixed up. Yeah, going west.

South of that is the Shell State A Lease, operated by Occidental Permian.

To the west of that is the Grimes NCT A Lease, which we operate.

And then in Section 31 we have a 40-acre lease called the Fowler.

Those are the 12 leases.

Q. (By Examiner Catanach) Okay, and the W.D. Grimes is 320 acres?

A. It is 320 acres, but the productive part of it is less than that.

Q. Okay. Now, some of these leases are state lands?

A. Yes, they are. There are six leases on the state lands.

Q. Six state leases. And the rest are fee leases or federal leases?

A. One federal lease, and the rest are fee leases.

Q. Okay. And you did talk to the Land Office about your plan?

A. Yes, we did.

Q. And they didn't have any concerns about it?

A. No, they didn't express any concerns about it.

Q. Did you also talk to the BLM about your proposal?

A. We have not met with the BLM.

Q. Which is the federal lease that we have here?

A. The Federal lease is the Bowers A Federal, which is in the southeast quarter of Section 30 and then the western portion of Section 29.

Q. Do you have any plans to talk to BLM about your proposal, Mr. Wilkes?

A. Well, at the current time we don't feel that they really have anything to approve or disapprove in the way that we're conducting this.

MR. CARR: Mr. Catanach, the reason they weren't involved in the process is, they sort of fall through the cracks. There is not federal surface there; the surface is fee. And so as to injection wells we've talked with them about it, and we've talked to the leasehold operators under those tracts. There's going to be no migration, we believe, from those properties under the adjoining tracts, and so that's why they weren't brought into the process.

EXAMINER CATANACH: Fee surface on that tract?

MR. CARR: Yeah. Yes, sir.

Q. (By Examiner Catanach) Okay, Mr. Wilkes, currently you have eight producing wells within this entire area?

A. That is correct, in the upper Blinebry.

Q. And those are identified on Exhibit 1 as being the green circles?

A. That is correct.

Q. Okay. Now, there are some of these leases that obviously do not have a producing well on them at the current time?

A. That's correct.

Q. Do you know at this point in what order producing wells will be drilled within the unit?

A. I don't have a -- No, I don't have a particular order of, you know, how the producing wells will be drilled. That will really depend upon the response, you know, the performance we see and the response in the existing wells.

Q. Do you know at this point how many producing wells will be drilled?

A. I'm estimating that there will be approximately 12 replacement wells drilled in this area, two of which would be on the Apache, and the rest would be on the Texland acreage.

Q. Two producing wells would be drilled on the Apache tract?

A. That's correct. Either that or they would, you know, would recomplete or re-work one of the existing wells.

Q. Okay. At this point you see no additional wells on the Occi tract?

A. No, because the easternmost well on the Occi tract was basically a dry hole in the Blinebry, and there's no pay there.

Q. Okay. Now, with regards to each of these leases, the interest is not common among these leases; is that your --

A. The royalty interest or the working interest?

Q. Well, the working or the royalty interest.

A. Okay, in the case of the working interest, everything in yellow is 100 percent Texland Petroleum-Hobbs, L.L.C. In the case of the Apache lease, I believe it's 100 percent Apache and the same for the Occidental Permian Lease, 100 percent Occidental Permian.

Q. Okay. Under the fee leases you obviously have what, several different royalty interest owners?

A. Yes, the Grimes is the primary -- you know fee leases, approximately 300 royalty owners under those tracts.

Q. Underneath the Grimes lease?

A. Yes.

Q. Wow.

A. I believe that's correct. There are over 300 in the total area, but most of those are on the Grimes.

Q. Okay. That's the W.D. Grimes, right?

A. It's -- Actually, I've got a number here. 272 are in the Grimes A and B, okay?

Q. Okay, Grimes A and B.

A. A and B.

Q. Okay.

A. I'm not certain -- There's another Grimes that we have just acquired that's in Section 28, and I'm not certain if that's common. There may be quite a few more in that, I'm not sure how common that is. But in the Grimes A and B it's 272.

Q. Mr. Wilkes, in order to protect the interest owners within this cooperative unit, do you ultimately plan on having a producing well, at least one producing well, on each lease?

A. Yes, we do.

Q. So when it's all said and done, you might have a total of 20 producing wells and 15 injection wells?

A. That's correct.

Q. Okay. Do you know when the producing wells are going to be drilled?

A. I would just estimate that the injection well drilling will take most of -- probably beyond the end of this year, into probably the first quarter of next year. If we get an order fairly quickly, we would begin our program, and those are roughly two-week wells. So that's a total of 30 weeks of drilling that we'd have just to drill the injection wells.

And then we would possibly drill some producing wells early on, but we might have a little bit of break there, but I'd anticipate we would start drilling those during 2002, again, just depending on the response that we see.

Q. Okay. Now, the unit that you've outlined here, is this just a portion of the Hobbs-Upper Blinebry Pool?

A. Well, it is probably 99 percent or nearly 99 percent of the cumulative production from the field. If you refer to Exhibit Number 4, I think we show every well that has produced from the Hobbs-Upper Blinebry Pool, with the cumulative production from those wells, and there's only -- it looks like four wells that produced any significant amount of oil that are outside of the red border. And those, it looks like maybe 300,000 barrels of -- and we have 6.4 million barrels inside the red border.

Q. Is there a reason why that was excluded?

A. Since we weren't really focused on the area to the east, we did contact one operator called Saga about the Section 32 and about participation in that well, and their well was a very poor producer and they weren't interested in participating in our cooperative plan.

Q. I show a well, it looks like to the north of Section 30. It's labeled Number 11. Was that a producing well in the pool?

A. I show 2000 barrels of production out of that well, so I believe it was a Blinebry producer, but just pretty much a dry hole.

Q. Okay. What is the plan with regards to -- I see where there's going to be an injection well drilled on the Apache acreage?

A. Yes. That would be in lieu of drilling the State 1-29 Number 8, that's shown in the southeast portion of that lease.

Q. Okay.

A. That's an alternative location that we want to drill, rather than the original one we submitted.

Q. Okay. Now, is Texland going to drill that well?

A. Yes, we're going to drill and complete and operate all 15 wells.

Q. Oh, you will operate that well, even though it's on Apache acreage?

A. Yes, as well as the one -- There's another well down there on the south line of the Apache acreage. That one as well.

Q. Okay. Now, as far as the way that the production is going to be allocated to each lease, is it just strictly going to be on a per-well basis, whatever the well produces?

A. We have existing batteries on each of those leases, with the exception of some of the leases that don't have any existing production, there's no active, you know, tank battery, but for example, the Bowers A Federal we have a battery, the State A 29 we have a battery, the State 1-29 we have a battery, and for the Grimes we have a battery.

Q. Uh-huh.

A. And we'll continue to, you know, meter the production off of each lease individually.

Q. Okay, and when waterflood operations are fully implemented, whatever production comes from the wells on that lease, that's what all the interest owners will share in --

A. That's correct.

Q. -- is that production?

A. Just the production off their lease.

Q. Okay. And I assume you've located the injection wells to where you would give each lease the optimum opportunity to recovery oil from their lease?

A. We do. In the case of wells that are on lease lines, we attempted to locate them as close as we possibly could. But in many cases there are roads, buildings, pipelines, existing wells, there's a tremendous amount of infrastructure out here in this area. And so we made the best attempt we could to locate the wells as close to lease lines as possible.

Q. The eight wells that are currently producing, what's the average producing rate of those, Mr. Wilkes?

A. The rate is approximately 20 barrels a day per well. However, two wells make the bulk of that production.

Q. So your rate would be -- average rate would be about --

A. Average rate would be about 20, right.

Q. All right. Do you have an estimate at this point on how much fresh water you'll be injecting into this unit?

A. As a total cumulative volume, or just -- well, okay, I do -- In terms of daily rates, initially I'm estimating that we can inject 1000 barrels per day per well during the initial fill-up period. And then as we begin to fill up and repressure the reservoir, that rate will drop to approximately 500 barrels per day per well, and that's what I'm predicting, you know, when we pretty much get pressured up -- built up, pressured up.

And then after that it would gradually decline as the produced water volumes increased.

Q. So you're looking at initially 15,000 barrels of fresh water a day?

A. That's correct.

Q. Did Occi indicate to you at what point CO_2 operations would begin in the North Hobbs Unit?

A. We discussed, I guess, where they are in the process. Right now it's an idea that hasn't even been presented to their working interest owners. So they have not -- you know, there was nothing firm there about -- He just said that it could be -- he thought it would be probably three years, minimum, before something would be implemented there.

Q. At that point you would explore the options of obtaining some of the produced Occi water?

A. That's correct.

Q. With regards to the three area-of-review wells that you think there may be a problem with, can you tell me, is there Drinkard production in this area?

A. Yes, there is.

Q. And there is currently not waterflood operations going on in the Drinkard formation?

A. The Drinkard is on primary depletion, and it's really not a waterflood candidate. It's a very high gas-oil-ratio reservoir. Basically, most of the wells are pretty much gas wells at this point. And those wells were plugged back -- I think in most cases those zones were commingled in those particular wells, and so when they plugged them back, apparently they didn't see the need to isolate the Drinkard with a bridge plug of its own.

Q. And it's your opinion that it's a good idea to isolate that interval?

A. I think that there's a potential for crossflow there. The three wells are all really edge-type wells in the Blinebry. None of them were very good Blinebry wells. But there is that potential, because the Drinkard is a fairy low-pressure formation.

Q. So what you would propose is to meet with the operators and see if either them or yourself could do the work on the wells to --

A. That's correct.

Q. -- set a bridge plug in there?

A. In the case of the two Occidental Permian wells, they're active producing wells in the Grayburg-San Andres.

Q. And the other one is what?

A. Is a TA, just a TA well now, temporarily abandoned with bridge plugs in it.

Q. Okay, Mr. Wilkes, you identified some project costs. You identified two different costs, and I want to distinguish what those --

A. The facilities, which would be the injection plant, the pump station, the distribution system and the water supply system we estimate to be -- I believe it was $1,080,000. The rest of it is the cost of drilling the 15 injection wells.

Q. Okay, so the rest, you say the $5.8 total cost --

A. That includes both the drilling of the injection wells and the facilities.

Q. Okay. Now, that doesn't include drilling producing wells?

A. No, it does not.

Q. Do you have any idea how much that would be?

A. Those are approximately $300,000 per well, and we've got 12 of those, so we're talking about in the neighborhood of $4 million additional dollars for producing wells.

Q. So you're looking at a total cost of about $10 million?

A. That's correct.

EXAMINER CATANACH: Okay, I think that's the only questions we have, Mr. Carr.

MR. CARR: Thank, you, Mr. Catanach, that concludes our presentation.

MR. SOAS: Mr. Catanach, I've got some questions.

EXAMINER CATANACH: And could you please identify yourself, sir?

MR. SOAS: My name is Nagi Soas. I'm representing Texas Resources of Houston.

EXAMINER CATANACH: Texas Resources?

MR. SOAS: Right.

EXAMINER CATANACH: And that is a --

MR. SOAS: -- operator.

EXAMINER CATANACH: Texas Resources. I'm sorry, could you spell your name for me, sir?

MR. SOAS: N-a-g-i, last name is S-o-a-s.

EXAMINER CATANACH: And the company again, I'm sorry?

MR. SOAS: Texas Resources --

EXAMINER CATANACH: Texas Resources.

MR. SOAS: -- of Houston.

EXAMINER CATANACH: Okay, and you're --

MR. SOAS: And Paul Bliss of Hobbs?

EXAMINER CATANACH: I'm sorry?

MR. SOAS: Paul Bliss of Hobbs?

EXAMINER CATANACH: And who is Paul Bliss?

MR. SOAS: He is part owner of W.D. Grimes Number 4.

EXAMINER CATANACH: He is a royalty interest owner?

MR. SOAS: He has an interest in the well.

EXAMINER CATANACH: And you are on his behalf also?

MR. SOAS: Yes, sir. And also I'm on behalf of surface owner/operator of RM&S Enterprise of Hobbs, New Mexico.

EXAMINER CATANACH: -- Enterprise. And what is the interest of Texas Resources?

MR. SOAS: Texas Resources has two wells, which is the W.D. Grimes Number 1 -- Excuse me, W.D. Grimes Number 4 and Number 24.

EXAMINER CATANACH: Now, you say they have two wells. Do they operate these wells or -- ?

MR. SOAS: Yes.

EXAMINER CATANACH: Okay. And -- Okay, you've got some questions of this witness?

MR. SOAS: Right.

EXAMINER CATANACH: Okay, you may --

EXAMINATION

BY MR. SOAS:

Q. From the operator's standpoint, the production zone on the Queen -- and that's a low-pressure zone -- and their concern about the cementing technique, you would be able to successfully cement across the Queen formation since you're offsetting to those two wells would be an injector well?

A. Okay, so the question is, can we successfully cement across the Queen?

Q. Right.

A. Yes, we believe we can.

Q. Okay, at what -- you know, can you explain, elaborate?

A. We plan to cement --

Q. -- stage tool or -- ?

A. No, we don't plan to use a stage tool at this time. We think we can cement from the bottom and get cement to the surface.

Q. The column of cement would not damage the formation?

A. I'm not aware of the Queen formation breaking down and taking cement.

Q. Okay, that's the only concern they had about that, you know, the cement technique.

A. Okay.

Q. You know, if you're not going to -- and then also to isolate, you know, because your injection is just -- in one instant you have -- it would probably be about 50 feet from the northeast line and about 250 from the northeast line of the other well, so it's close. That's

A. Okay, so these are going to be kind of twin-well situations --

Q. Right.

A. Okay.

Q. Right. That's the concern, since the Queen is a low pressure zone --

A. Okay.

Q. -- that's the concern about that.

A. Okay. We -- I mean, I have not seen any evidence that the Queen has broken down, and we had talked to Occidental Permian extensively about their infill drilling out there, and they cement from the bottom and they don't have any problem getting cement to the surface as far as I know.

Q. Okay, that's all, you know, as long as that would be on the record.

A. Okay.

MR. SOAS: Okay, that's all. Thank you.

THE WITNESS: Thank you, sir.

EXAMINER CATANACH: Anything further in this case, Mr. Carr?

MR. CARR: Nothing further, Mr. Catanach.

EXAMINER CATANACH: There being nothing further in this case, Case 12,666 will be taken under advisement.

(Thereupon, these proceedings were concluded at 11:15 a.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 12666, heard by me on June 14 2001.

David R. Catanach, Examiner
Oil Conservation 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 June 17th, 2001.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002