NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date SEPTEMBER 1, 1994 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
Maurice Trimmer	R.W. Byram	SF
Eric Haas	Amerada Hess Corp.	Monument, NM
Rob Williams	Amerada Hess Corp.	" "
Terry Payne	Bass Enterprises Production Co.	Midland
[illegible]	[illegible]	Santa Fe
William F. Carr	Campbell, Carr, Berge & Sheridan	Santa Fe
Jerry W. Hoover	Conoco Inc.	Midland, TX
Terry McCance	Texaco	Midland
Jim Bruce	Hinkle Law Firm	SF
Curtis D. Smith	Santa Fe Energy	Midland, Tx
Mike Dillon	SANTA FE Energy	Midland TX
DAVID White	Santa Fe Energy	Midland, TX
Daniel [illegible]	SANTA FE ENERGY	MIDLAND, TX

NEW MEXICO OIL CONSERVATION DIVISION

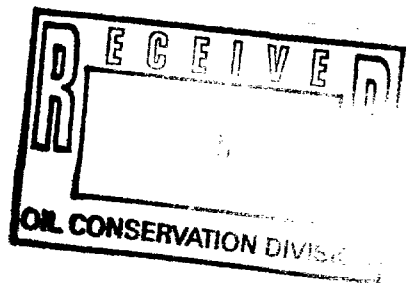
STATE LAND OFFICE BUILDING

STATE OF NEW MEXICO

CASE NO. 10444

IN THE MATTER OF:

Case No. 10444 Being Reopened Pursuant to the Provisions of Order No. R-9696 Which Order Promulgated Special Rules and Regulations for the Hobbs-Lower Blinebry Pool, Including a Provision for 80-Acre Spacing Units.



BEFORE:

JIM MORROW

Hearing Examiner

State Land Office Building

September 1, 1994

REPORTED BY:

CARLA DIANE RODRIGUEZ, NMCCR No. 4
Certified Shorthand Reporter
for the State of New Mexico

ORIGINAL

A P P E A R A N C E S

FOR THE OIL CONSERVATION DIVISION:

State of New Mexico Oil Conservation Division
Room 206, Land Office Building
Post Office Box 2088
Santa Fe, New Mexico 87504-2088
By: **RAND L. CARROLL, ESQ.**

FOR THE APPLICANT:

CAMPBELL, CARR, BERGE & SHERIDAN, P.A.
Post Office Box 2208
Santa Fe, New Mexico 87504-2208
BY: **WILLIAM F. CARR, ESQ.**

I N D E X

E X H I B I T S

EXAMINER MORROW: Call Case 10444. Call for appearances.

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe law firm Campbell, Carr, Berge & Sheridan.

I represent Amerada Hess Corporation in this matter and I have one witness.

EXAMINER MORROW: Would the witness please stand to be sworn.

ERIC JOHN HAAS

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. CARR:

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

A. Eric John Haas.

Q. Mr. Haas, where do you reside?

A. Hobbs, New Mexico.

Q. By whom are you employed?

A. Amerada Hess Corporation.

Q. What is your current position with Amerada Hess Corporation?

A. Senior production foreman.

Q. Have you previously testified before

this Division?

A. No, I have not.

Q. Would you briefly summarize for Mr. Morrow your educational background, and then review your work experience?

A. Okay. I graduated from New Mexico Institute of Mining and Technology in June of 1984, with a bachelor of science degree in petroleum engineering.

Upon graduation, I went to work for Amerada Hess Corporation in the Monument district office, where I am currently employed.

Q. And your geographic area of responsibility includes the portion of Southeast New Mexico involved in this case?

A. Yes, it does.

Q. Are you familiar with the Hobbs-Lower Blinebry Pool and the producing capabilities of the wells in that pool?

A. Yes, I am.

Q. Have you prepared certain exhibits for presentation today in this hearing?

A. Yes, I have.

MR. CARR: Are the witness's qualifications acceptable?

EXAMINER MORROW: Yes.

Q. Would you briefly state what Amerada Hess seeks with its presentation in this case?

A. Amerada Hess seeks the adoption of permanent pool rules for the Hobbs-Lower Blinebry Pool, providing for 80-acre well spacing.

Q. Initially, Mr. Haas, could you provided the Examiner with a general background or history of this pool?

A. The Hobbs-Blinebry was established in November 1968 by order R-3530. The development occurred primarily in the late 1960s and early 1970s.

In July of 1992, the pool was divided into the Upper and Lower portions by Order R-9696. This was brought about by the completion of the Amerada Hess Corporation State "A" No. 5 in the Lower Blinebry Pool, and the subsequent application by Amerada Hess Corporation for special pool rules for the Hobbs-Lower Blinebry and 80-acre well spacing.

Q. Prior to July 1992, the pool was operated as one reservoir?

A. That's correct.

Q. Under statewide spacing that provided

for 40-acre oil well spacing?

A. That's correct.

Q. And Amerada Hess drilled and completed the State "A" No. 5 in the Lower zone?

A. That is correct.

Q. That was really the first well capable of producing from the Lower zone, was it not?

A. It was the first well that was produced from the Lower zone.

Q. Because of the information on that well, you came to the Division and obtained a division of the pool into two reservoirs?

A. That is correct. The evidence from the producing characteristics of the well indicated that it was producing from a separate source of supply and that it was, in fact, capable of draining the 80-acre State "A" lease.

Q. Amerada Hess was the original applicant?

A. That is correct.

Q. Have you reviewed the exhibits and the transcript of the hearing held in February of 92?

A. Yes, I have.

Q. Since that time, is there any new evidence concerning the separation of the

Blinebry into two reservoirs?

A. There is no new evidence, to my knowledge, but I would like at this time to present the first item in our exhibit packet, labeled Exhibit 1, which is a type log from the Amerada Hess Corporation State "A" No. 5 located in Section 32, Township 18 South, Range 38 East.

The type log shows the top of the Upper Blinebry formation at a depth of 5738, the top of the Lower Blinebry formation at a depth of 6203, and the top of the Tubb formation at a depth of 6418.

I also want to note the shale bed marker, which was identified in the 1992 testimony located at 6203, was identified as being continuous across the field, and this was supported by exhibits presented in 1992, which were numbered 4 and 5, and comprised cross-sections trending north/south and east/west.

The geological evidence presented at the time further suggested that this shale bed marker at 6203 provided an impermeable separation between the Upper and Lower formations.

Q. Mr. Haas, this type log was offered as

Amerada Hess's Exhibit No. 2 in the original hearing, was if not?

A. That's correct.

Q. Based on this type log, the Division defined the break between the Upper and Lower Blinebry at a depth on this log of 6203?

A. That's correct.

Q. In your opinion, are the Upper and Lower Blinebry separate sources of supply?

A. The geologic evidence suggests that they are. The producing characteristics of the two pools confirm that they are.

Q. Is there pressure and production information on the two reservoirs?

A. Yes, there is.

Q. Could you review that generally, for the Examiner?

A. In May of 1969, the Shell State "A" No. 6 had a bottomhole pressure taken in the Upper Blinebry interval at a depth of -2200 feet subsea. It was found to be 2008 psia.

In March 1985, Amerada Hess Corporation measured the static bottomhole pressure in the State "A" No. 5 well, also in the Upper Blinebry interval, and found it to be 630 psia at a depth

of -2227 feet subsea. This pressure was consistent with the marginally productive producing nature of the pool at that time.

In addition, in March of 1985, Amerada Hess Corporation conducted a pressure survey on the Lower Blinebry interval and determined the bottomhole pressure to be 2455 psia at a depth of -2600 feet subsea.

The difference in pressure between 2455 and 630 indicates that there is significant separation between the two pools.

Q. How do the gravities of the oils from the two intervals compare?

A. The Upper Blinebry Pool is characterized as a solution gas-type drive with a black oil, having an api gravity of approximately 38.4 degrees api.

The Lower Blinebry, on the other hand, is characterized as a gas condensate reservoir, producing a green condensate with an api gravity of 49.4.

Q. So, the gravities and the pressure information confirm what the geology shows, and that is the two separate sources of supply?

A. That is correct.

Q. At the original hearing in 1992, how many wells were actually completed in the Lower Blinebry?

A. One.

Q. Today, how many wells are completed in the pool?

A. There are two.

Q. Do you anticipate that there's going to be additional development in the reservoir?

A. I don't think it's likely.

Q. At the original hearing, Amerada Hess requested an increase in the gas/oil ratio for this pool, and Order R-9696 was entered, and I quote:

"Encouraged Amerada Hess to present any available data to support its request, should it desire a special gas/oil ratio for the newly formed Hobbs-Lower Blinebry Pool." My question is, does Amerada Hess still seek an increase in the gas/oil ratio for the pool?

A. No, we do not.

Q. Let's go to what has been marked for identification as Amerada Hess Exhibit No. 2. Would you identify this first and then review it for Mr. Morrow?

A. Yes. Exhibit No. 2 is a plat of the Hobbs field. Indicated on the plat are the wells which have penetrated the Lower Blinebry interval. In addition, the Amerada Hess ownership has been indicated by shading.

Additionally, the four significant production tests which were conducted in the Lower Blinebry formation are indicated.

Beginning in the upper left corner, the Shell McKinley "A" No. 11, located in Section 19, was tested in April of 1970, from 6375 to 6377, and swabbed at a daily rate of 360 barrels of water per day. The perforations were subsequently cement squeezed.

The Amerada Hess State "A" No. 5, located in Section 32, was tested in February of 1985, from perforations 6204 to 6275, resulting in a test of 35 barrels of oil per day, zero water, and 1125 Mcf per day, flowing on a 16/64" choke at 960 pounds flowing tubing pressure.

The Shell State "A" No. 7, also located in Section 32, was drill-stem tested in June 1969 and flowed gas to surface in 15 minutes at a rate of 326 Mcf per day.

The initial and final shut-in pressures

recorded were 2424 psia.

The final test in the Shell Grimes No. 10, located in Section 28, was performed in October of 1969, from perforations 6284 to 6324. The final flow test on this well resulted in production of 7 barrels of oil per day, 320 barrels of water per day, and an estimated gas rate of 500 Mcf per day on a 30/64" choke.

Q. How does this information relate to the general structure of the Lower Blinebry in this area?

A. This information indicates that there's significant variations in the producing characteristics of the pool, which can be explained if we refer to Exhibit No. 3.

Q. That's your structure map?

A. That's correct.

Q. Would you review that for Mr. Morrow?

A. Yes. Exhibit No. 3 is a structure map of the top of the Lower Blinebry Pool. As indicated, the Amerada Hess State "A" lease has significant structural advantage. It's also important to note that the Shell McKinley "A" No. 11 in Section 19, and the Shell Grimes No. 10 in Section 28, are more than 40 feet down structure

to our lease.

Q. Let's go now to Amerada Hess Exhibit No. 4. Would you identify that and review it?

A. Yes. Exhibit No. 4 is a volumetric analysis technique which was outlined in Applied Petroleum Reservoir Engineering by Kraft & Hawkins. It was also presented in the 1992 testimony as Exhibit No. 8.

The results of this analysis show that, assuming an 85-percent recovery factor and an 80-acre drainage area, we can expect to recover 32,200 barrels of oil and 1.03 Bcf.

Q. Did you also present, at that time, some pressure and cumulative production information?

A. Yes. In 1992, a pressure versus cumulative plot was also presented based on two bottomhole pressure values, which showed that the ultimate recovery would be 1.05 Bcf at an abandonment pressure of 500 psia.

Q. That's what you presented back in 1992?

A. That's correct.

Q. Has new information become available to Amerada Hess since that last hearing?

A. Yes, referring now to Exhibit No. 5, a

production plot of the State "A" No. 5, Hobbs-Lower Blinebry production, showing the production since March 1985 through March 1994.

Also indicated is the casinghead allowable with the increase which was granted in mid-1992.

Q. Basically,, what does this exhibit show?

A. It shows that we have taken advantage of the allowable increase, as outlined in the 1992 order.

Q. Let's go to Exhibit No. 6. Would you identify and review that?

A. Exhibit No. 6 is a refined pressure versus cumulative plot, based on a static bottomhole pressure which was obtained in July of this year.

It shows that the ultimate recovery, assuming a 300 psia abandonment pressure, will be 1.08 Bcf, showing a good agreement between not only the volumetric analysis presented in 1992 and here today, but also with the pressure versus cumulative information presented in 1992.

Q. Basically, what you've obtained is static bottomhole pressure information, and

that's enabled you to further refine your recovery projections, and they are in line with what you originally estimated?

A. That is correct.

Q. Do you anticipate any other operator needing a higher allowable, other than Amerada Hess?

A. No, I do not.

Q. You, in fact, have the only top allowable well in the pool?

A. That is correct.

Q. Do you recommend that permanent rules be adopted for the pool?

A. Yes. Based on the agreement between the volumetric analysis and the pressure versus cumulative recovery estimate, we feel that 80-acre well spacing is an efficient means of draining this pool.

Q. In your opinion, will adoption of permanent rules for the Lower Hobbs Blinebry Pool, providing for 80-acre spacing, be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes. The 80-acre well spacing is consistent with the data presented both in 1992

and today.

Q. 80-acre spacing would, in fact, be consistent with how this reservoir actually produces?

A. That is correct.

Q. Do you recommend that these zones continue to be produced as separate reservoirs?

A. Yes, we do.

Q. Is Amerada Hess Exhibit 7 a summary of your presentation in this case?

A. Yes, it is.

Q. Were Exhibits 1 through 7 prepared by you?

A. Yes.

MR. CARR: At this time, Mr. Morrow, we move the admission into evidence of Amerada Hess Exhibits 1 through 7.

EXAMINER MORROW: Exhibits 1 through 7 are admitted.

MR. CARR: That concludes my direct examination of Mr. Haas.

EXAMINATION

BY EXAMINER MORROW:

Q. Mr. Haas, on Exhibit 1, you quoted some bottomhole pressure information and the depth to

date and I didn't get all that down. I believe all the pressures I would like to have now would be from this well on this exhibit.

A. Okay. Not indicated on this type log are the original Upper Blinebry perforations, from 5905 to 5957.

Q. In the Upper?

A. Yes, that's correct.

Q. Now, the little dash or minus marks, or dashes, I guess--

A. That is not subsea, no. The pressure in that interval was 630 psia in March of 1985.

Q. And that was at that perforation depth?

A. That's correct.

Q. Okay. All right.

A. Okay. In the lower interval, from 6204 to 6275, bottomhole pressure also obtained in March of 1985, it was found to be 2455 psia.

Q. Were there some subsequent pressures measured at a later date, that you testified to?

A. Yes. In the lower interval, July 14th of this year, we measured a pressure of 901 psia.

Q. 901?

A. Yes. And on March 15, 1991, a pressure of 1596 psia. And these are all extrapolated to

the same depth.

Q. And the Upper zone is still on pump, I guess?

A. No, the Upper zone we abandoned following the completion of the Lower zone, due to its marginal producing nature.

Q. Did you cite some pressures in other wells from the Upper zone, or was this the only thing you gave me the first time around?

A. I have an original bottomhole pressure from a well to the south, the Shell State "A" No. 6.

Q. Okay.

A. It's probably fairly close to the original reservoir pressure. It was obtained in May of 1969, at a depth of -2200 feet subsea, and it was 2008 psia.

Q. Okay. On Exhibit No. 2, the two producing wells are what? Which wells?

A. The Amerada Hess State "A" No. 5 in unit letter A of Section 32, 18-38.

Q. And that was a discovery well?

A. That's correct. And the other well is the Shell State "A" No. 7, located in Unit H of Section 32, 18 South, 38 East.

Q. Are the current pool limits as shown on this map?

A. Yes, that's correct.

Q. Do you see any reason to change those?

A. Not at all.

Q. Even though you do think that's all the development you're going to have?

A. Looking at the structure map, it's conceivable that there is another structural high down to the southeast of our property, that there is potential for development.

Q. The recovery that you show on your Exhibit No. 4, that is for just the one well, as I understand?

A. That is correct. It's for the State "A" No. 5 reservoir parameters, based on an 80-acre drainage area.

Q. What about the other well? Is it half as good as this one?

A. The Shell State "A" No. 7 was completed from perforations 6205 to 6260 in March of 1993, and had an initial potential test of three barrels of oil per day, zero water, and 300 Mcf per day, flowing at about 30 pounds flowing tubing pressure.

Q. So, what is your current gas/oil ratio?
A. In our well?
Q. Yes, sir.
A. 55,000.
Q. So you're primarily just producing your gas limit on what oil you can get with it, is that correct?
A. That's correct.
Q. How much oil are you given if you're gas limited?
A. In April of 1994, we averaged six barrels of oil per day, two water, and 335 Mcf.
Q. How much Mcf?
A. 335.
Q. I believe the limit's 4?
A. 444, that's correct.
Q. So you're not quite making your gas allowable, either?
A. No, we're not, but we've attributed that partially to some operational problems. We've had to swab the well occasionally, and it's actually been higher since then.
Q. You're just about at the allowable?
A. That's correct; 395 in August.
EXAMINER MORROW: Thank you.

MR. CARR: Mr. Morrow, that's all we have to present in this case.

EXAMINER MORROW: All right. Thank you, Mr. Carr.

Case 10444 will be taken under advisement.

(And the proceedings concluded.)

CERTIFICATE OF REPORTER

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

I, Carla Diane Rodriguez, Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I caused my notes to be transcribed under my personal supervision; 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 September 16, 1994.

Carla Diane Rodriguez

CARLA DIANE RODRIGUEZ, RPR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 10444 heard by me on Sep. 1 1994.

Examiner
Oil Conservation Division