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NEW MEXICO OIL CONSERVATION DIVISION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date JANUARY 20, 2000 Time 8:15 A.M.

NAME	REPRESENTING	LOCATION
D.B. Champlin	Altuva Energy LLC	Hou. TX
Stella Wilson	Altura Energy LLC	Houston, TX
Paul R Owen	Campbell, Carr, Berge & Sheehan	Santa Fe
Scott Hall	Miller Law Firm	SF
Mitch Cheney	J.L. Cox	
Mike Brown	Marzano Oil	Roswell
[illegible]	[illegible]	Santa Fe
[illegible]	—	SF
James Bruce		
James Hall	Ocean Energy	Houston TX
Richard Corcoran	Energen Res	Farmington
Joe Niedernhofer	Energen Res	Farmington
Brian Blome	Ocean Energy	Houston, TX
Robert Silver	Ocean Energy	Houston TX
Derold Maney	Ocean Energy	Houston TX
[illegible]	[illegible]	[illegible]
Alan Alexander	Burlington Resources	Farmington

Robert Henry	Chesapeake	OKC, OK
[illegible]	[illegible]	[illegible]
Donna Nelson	[illegible]	[illegible]
Randy Greenway	Chesapeake	OKC, OK
Mark Nearburg	Ameristate	Austin, TX
John Herbel	Self	Midland, TX
Thomas M. Beall	Self	Midland, TX

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. 12,322
APPLICATION OF HOME-STAKE OIL AND GAS COMPANY FOR AN INCREASE IN THE DEPTH BRACKET ALLOWABLE FOR THE SOUTH McCORMACK-SILURIAN POOL, LEA COUNTY, NEW MEXICO	ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MARK ASHLEY, Hearing Examiner

January 20th, 2000

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MARK ASHLEY, Hearing Examiner, on Thursday, January 20th, 2000, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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I N D E X

January 20th, 2000
Examiner Hearing
CASE NO. 12,322

* * *

E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	6	8
Exhibit 2	7	8
Exhibit 3	11	16
Exhibit 4	12	16

* * *

A P P E A R A N C E S

FOR THE DIVISION:

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FOR THE APPLICANT:

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* * *

WHEREUPON, the following proceedings were had at 8:23 a.m.:

EXAMINER ASHLEY: This hearing will come to order for Docket Number 02-00. Please note today's date, January 20th, 2000.

I'm Mark Ashley, appointed Hearing Examiner for today's cases. And Mr. Rand Carroll is the Division-appointed attorney for today's cases.

And by the way, I just want to let everybody know that this is Rand's last hearing as counsel. He'll be leaving effective next Thursday to go to work as a Hearing Examiner for the State Engineer. We wish him the best.

At this time the Division calls Case 12,322.

MR. CARROLL: Application of Home-Stake Oil and Gas Company for an increase in the depth bracket allowable for the South McCormack-Silurian Pool, Lea County, New Mexico.

EXAMINER ASHLEY: Call for appearances.

MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe, representing the Applicant. I have two witnesses to be sworn.

EXAMINER ASHLEY: Additional appearances?

Will the witnesses please stand to be sworn in?

(Thereupon, the witnesses were sworn.)

BARBARA COURTNEY LONG,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Would you please state your name and city of residence for the record?

A. Barbara Courtney Long. I'm from Tulsa, Oklahoma.

Q. And who do you work for and in what capacity?

A. Home-Stake Oil and Gas Company. I'm vice president of the land department.

Q. Have you previously testified before the Division?

A. No, I have not.

Q. Would you please summarize your educational and employment background?

A. Well, I have 23 years' experience in the oil and gas business. I started in the Industry in 1975. 1976 I worked for a chemical company in El Dorado, Arkansas, set up their land department, maintained all their records, made all their payments. 1980 I moved to Fort Smith, Arkansas, and went to work as a broker checking oil and gas records, buying leases. And in two years I moved in-house and worked as a crew chief for the other land offices, landmen.

In 1984 I moved to Home-Stake as the land department administrator and have handled all functions of the land department since then, including Division orders, lease records, revenue distribution, preparing all contracts. My degree is not in oil and gas.

Q. And does your area of responsibility at Home-Stake include southeast New Mexico?

A. Yes, it does.

Q. And are you familiar with the land matters involved in this case?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I'd tender Ms. Long as an expert petroleum landman.

EXAMINER ASHLEY: Ms. Long is so qualified.

Q. (By Mr. Bruce) Briefly, what does Home-Stake Oil and Gas Company seek in this case?

A. We seek an increase in the depth bracket allowable for the South McCormack-Silurian field from 187 barrels a day to 320 barrels a day, and our engineer will explain or discuss the reasons why we'd like that.

Q. Now, referring to Exhibit 1, could you identify that and discuss its contents for the Examiner?

A. Exhibit 1 is a land plat of a portion of Township 22, Range 37 East. Home-Stake's acreage is highlighted in yellow. It's within the boundaries of the South McCormack-

Silurian Oil Pool, created in 1967 by Order Number R-3295, and it's developed on statewide rules. It currently covers 1000 acres, but there are only two wells currently producing in this pool.

Q. Who are the operators in this pool?

A. Home-Stake Oil and Gas Company and John Hendrix Corporation.

Q. And was Hendrix notified of this Application?

A. Yes, they are, and they're our partner in this well. They support our Application.

Q. Now looking at Exhibit 2, is that my affidavit of notice, by the way?

A. Yes, it is.

Q. Now, there were several other parties notified, other than Hendrix. Who are those parties?

A. Yarborough Oil and Gas was notified, Collins and Ware, John H. Hendrix Corporation and Conoco.

Q. And those are other operators within a mile of the pool who operate Fusselman or Silurian wells?

A. That's correct.

Q. Okay. That's not exactly required by the rules, but you went a little above and beyond what was required?

A. Yes.

Q. Have you received any objections to this Application?

A. No, we have not.

Q. What is Hendrix's position with respect to the Application?

A. Hendrix owns 47 percent of our prospect, so they support our Application.

Q. And you've spoken with them about the Application?

A. Yes, and they would have been willing to sign a letter if that's necessary, saying they support it.

Q. Okay. Were Exhibits 1 and 2 prepared by you or under your direction, or compiled from company business records?

A. Yes, they were.

Q. And in your opinion, is the granting of this Application in the interests of conservation and the prevention of waste?

A. Yes, it is.

MR. BRUCE: Mr. Examiner, I'd move the admission of Home-Stake Exhibits 1 and 2.

EXAMINER ASHLEY: Exhibits 1 and 2 will be admitted at this time.

EXAMINATION

BY EXAMINER ASHLEY:

Q. Miss Long, in Exhibit 1, what is the blue outlined area, area of mutual interest? What is that?

A. That is our area of mutual interest with our partners. Anything that's acquired within that area will be shared by us. That was just on our computer.

Q. And where are the wells that you operate?

A. The southeast quarter of Section 22.

Q. Which well is that? Do you have a well name for that?

A. The Sarah Johnston Number 1 and the Sarah Johnston Number 2.

Q. And you said Hendrix has a well out here too?

A. They operate wells out here. I'm not sure if any of them are in the Fusselman, but some of them are around us in the -- maybe -- I don't remember the formation.

MR. BRUCE: I think Mr. Tarwater, our next witness, can discuss that more fully. They operate a well in this pool, which is currently not producing.

EXAMINER ASHLEY: Okay. I have nothing further. Thank you.

LARRY TARWATER,

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

DIRECT EXAMINATION

BY MR. BRUCE:

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

A. Yes, Larry Tarwater.

Q. And where do you reside?

A. Tulsa, Oklahoma.

Q. Who do you work for and what is your job there?

A. I work for Home-Stake Oil and Gas Company, and I'm a production engineer there.

Q. Have you previously testified before the Division?

A. No, I haven't.

Q. Would you please summarize your educational and employment background?

A. Yes, I went to school, graduated from the University of Tulsa with a bachelor of science in chemical engineering, worked for -- that was in 1973 -- worked for Phillips Petroleum and then a number of independents since then and have worked for Home-Stake Oil and Gas as production engineer since January of 1997.

Q. Does your area of responsibility include southeast New Mexico?

A. Yes, it does.

Q. And are you familiar with the engineering matters related to this Application?

A. Yes.

EXAMINER ASHLEY: Mr. Examiner, I'd tender Mr. Tarwater as an expert petroleum engineer.

EXAMINER ASHLEY: Mr. Tarwater is so qualified.

Q. (By Mr. Bruce) Mr. Tarwater, could you identify Exhibit 3 and discuss its contents for the Examiner?

A. Exhibit 3 is a map of the area. The heavy gray outline is the border of the South McCormack-Silurian Pool, encompassing all of 16 and parts of 21 and 22, Township 22 South, Range 37 East, Lea County.

What we try to depict here is, the Silurian wells are colored in purple. As you look from the upper left or the northwest, trending down to the southeast, you can see -- I don't know how many, six or eight Silurian wells, all of which are inactive. The only active wells in the pool at this time are the Home-Stake wells Sarah Johnston Number 1 and the HSOG Number 2, which is the subject of this hearing.

As you can see, the border of the pool pretty well outlines or defines the field according to this structure map that we've had prepared.

Q. What is on page 2 of Exhibit 3?

A. Page 2 is just a table that lists the wells in the pool, the cumulative production from those wells, oil, gas and water, according to published records. The first production date, the last production date, and the current production. As you can see from there, everything is inactive except the two Home-Stake wells. The last activity, last production shown by the records, was in

1982, so that's 16 years ago.

Q. So there was really no drilling activity in this pool until Home-Stake came along a couple years ago or a year and a half ago and drilled a couple of wells?

A. Right, we drilled our first well, the Sarah Johnston Number 1, in the fall of 1998.

Q. Okay. Let's discuss the currently producing wells in the pool. Could you move on to your Exhibit 4 and identify that for the Examiner?

A. Yes. Exhibit 4 is a graph depicting both daily production and flowing tubing pressures on the two Home-Stake Silurian wells in this field.

The top two curves are production curves over the first 60 days of the life of each of these two wells. The red depicts the Sarah Johnston Number 1 that was drilled first in 1998. The green is the HSOG Number 2 production curve that is the subject of this hearing. And what's very obvious here is, the first well, colored red, produced steadily for about the first approximately 30 days and then was up and down productionwise, as was the pressure depicted by the red-dashed curve below.

The green curve that is the production on the HSOG Number 2 shows a very flat, stable production rate over its first 60 days, which by the way, its first 60 days ended this past Monday, the 17th.

Q. What happened to the Number 1 well to cause it to fluctuate in production?

A. Well, on our Number 1 well, it too started off flowing. And we, in an attempt to keep it flowing, of course, adjusted the choke size, and in an attempt to keep things flowing at an optimal rate, it was not possible to keep it constant. And in fact, about two months down the road, off -- that would not be depicted here, but about two months later it ceased flowing entirely and we had to put it on the pump.

Q. Okay. What happened to the water production in this well?

A. Well, the water -- On the first well, the Sarah Johnston 1, it started off water-free, and then water -- we began producing water. It seems fairly stable now, about a year after going on pump. It is producing a little more water than the HSOG 2, which is just producing about 16 or 18 barrels a day, very consistently.

Q. Is it your fear that if you have to reduce production, adjust the choke size on the Number 2 well, the same thing will happen as happened to the Number 1 well?

A. Well, as you can tell, we don't have a lot of history here, either in number of wells or in production time. It is, however, our fear based on our experience here in this first well that if we begin adjusting the

choke and trying to really fine-tune everything, that it could lead to completely ceasing flowing and having to put it on pump, certainly decreased production.

Q. What type of reservoir is this, as far as the drive mechanism?

A. This is a water-drive reservoir.

Q. Is it your opinion that if you adjust the choke sizes and the same thing happens to the Number 2 well as happened to the Number 1 well that it could increase the water production also?

A. Yes, it could, uh-huh, as well as decrease oil.

Q. Will leaving the well producing at its current rate harm the reservoir?

A. We really don't think so, and the reason we don't think so is that we have seen, as evidenced by this curve, a very consistent flow rate. The oil and gas both are very constant, so hence the GOR is not fluctuating, the water is not fluctuating. And I think that this choke setting is not harming anything. We are at a very consistent rate right now, and have been, really, since the beginning.

Q. What about the flowing tubing pressure?

A. It has fluctuated about 10 pounds or 10 p.s.i. from inception and has been constant for about the last 45 days at 340 pounds.

Q. And what would this indicate to you?

A. Well, this would indicate this withdrawal rate is not even enough to be evidenced by any decrease in flowing tubing pressure or anything, that -- To our knowledge, certainly no damage is being done to the reservoir. It's not even indicating anything by falling pressure.

Q. So in your opinion, leaving the well at this rate at approximately 230 barrels a day, number one, would not harm the reservoir and, number two, could prevent what happened to the Number 1 well?

A. Yes, it is.

Q. Now, when the OCD grants special pool rules, they usually do it on a temporary basis. Is that acceptable to Home-Stake?

A. Certainly, yes.

Q. Would that allow you, even if it's a relatively short period, to gain more production information on this pool?

A. Oh, certainly. Even with six or twelve months, we would have vastly more knowledge than we have at this time, which, on the subject well we only have 60 days of production information on that. So yes.

Q. And it would allow you to gain time to gain additional information on this well and -- Are there plans to drill other wells?

A. Well, yes, certainly with success like this, we

certainly plan to drill more wells this year.

Q. Into the Fusselman?

A. Yes, uh-huh.

Q. And again, these are the first Fusselman wells that have been drilled out here in about 18 years?

A. That's correct.

Q. In your opinion, is the granting of this Application in the interests of conservation and the prevention of waste?

A. I think it is, yes.

Q. And were Exhibits 3 and 4 prepared by you or under your supervision?

A. Yes, they were.

MR. BRUCE: Mr. Examiner, I'd move the admission of Home-Stake Exhibits 3 and 4.

EXAMINER ASHLEY: Exhibits 3 and 4 will be admitted as evidence at this time.

EXAMINATION

BY EXAMINER ASHLEY:

Q. Mr. Tarwater, can you explain to me again in Exhibit 4 what's going on with the Number 1 well?

A. Okay, yeah, in the Number 1 well, when production started to fall we simply tried to keep it up by adjusting the choke size. And quite frankly, we adjusted the choke -- we opened it, we closed it, we did a number of things to

try to sustain production at that original rate of just slightly under 200 barrels a day. And it fell, and it would come back briefly and fall again, and continued to do that until it ceased to flow.

Q. And did the water production increase on that one?

A. The water production has increased, yes.

Q. So what's it currently producing?

A. The Sarah Johnston Number 1 is currently producing, as I show here, about -- Well, let's see. Current production, about 60 barrels a day of oil and 105 barrels of water a day. And it's on pump.

Q. So how is that different than what's going on in the Number 2?

A. Well, the Number 2 well, since the day we put it on line -- Well, prior to putting it on line we, of course, flowed it temporarily, as a test. And when we put it on line, we put it on a choke setting -- it happens to be 16/64 -- but we thought from our brief tests it might be optimal, as far as a reasonable amount production and constant flow rate. And as we monitored that it seemed to be very consistent, and we left it at that.

Now, you know, what's different is, obviously, partly Mother Nature comes to play here. But it lined out, and we didn't adjust the choke, we stayed with one choke

setting. And it has been, as you can see, very constant since we put it on line.

I mean, what is different reservoirwise? Both of them had relatively the same shut-in pressure. The Number 1 well, when we put it on line, had an 800-pound shut-in pressure. The HSOG well had a 750-pound shut-in pressure. Relatively close. We haven't done any bottomhole buildups or anything like that to really try to analyze the extent of the reservoir or anything like that.

Q. Okay. And do you have any idea what the drainage area would be for this?

A. I really don't. If these wells prove out to be as good as some of the better wells in this pool, I certainly would think and expect them to drain up to 40 acres. But at this point in time it's so early it would be hard to tell.

Q. Can you tell from the Number 1?

A. After about a little over a year's production and at its current rate and decline -- I haven't done any calculations. I doubt if it would really truly drain 40 acres. But I have not done any real calculations on the Number 1.

Q. You said the GOR has been pretty stable on both of these wells?

A. Well, yes, and particularly -- Everything has

been stable on this HSOG 2. The gas is right about 300 to 320 MCF a day, and the oil is about 220 to 230 a day.

Q. The oil, you said, was 220?

A. Yes.

Q. Do you think that increasing the allowable will affect the GOR in any way?

A. Well, just based on this first 60 days of production at this very consistent rate, the GOR has not fluctuated. So no, I don't think increasing the allowable is going to affect the GOR, based on our evidence in this subject well.

Q. Now, the reason you think that this -- that the allowable should be increased is just because of how well the HSOG Number 2 has produced and how consistent it is in the amount that it's producing right now?

A. Yes.

Q. And because of that, you think it's capable of more, of a higher GOR?

A. Well, we feel sure it's capable of more production just based on, you know, brief tests before it actually went on line. Based on those tests and a larger choke setting, it's capable of 400 barrels a day and greater, but we never flowed it at that for any length of time. And we're talking test rates of near hours, not days. So we feel certain it's capable of much more.

And also, based on our experience with the Sarah Johnston Number 1, we weren't sure that we wouldn't see the same thing, that it would fall off, get erratic and have to go on pump. We're surprised but pleasantly surprised that it's this consistent at this flow rate, with no evidence of declining pressure really at all in the past 40 days.

Q. Did the other wells in the pool that have since been plugged or abandoned, the other Fusselman producers, did they have production or declines similar to the Number 1 or Number 2?

A. Oh, boy... Well, I'm really not sure. I've got all that data, but I -- really, all that I tabulated was the cumulative production. Some of those wells, two of them, produced in the range of a quarter million barrels. You know, excellent wells. But I can't say -- They started off at a high rate and would have come down fairly fast, but they had a long life too. I think several of those produced, well, in the neighborhood of ten years or more.

Q. Okay. Now, there's not a Sarah Johnston Number 2; that's the HSOG Number 2; is that correct? Or is --

A. Well, technically there is a Sarah Johnston Number 2. It is a Drinkard well. It's not really the subject of our discussion here today. It is north and slightly west of the Sarah Johnston 1. It's not even -- Well, it's not really labeled on this Exhibit 3.

Q. Okay. But that's one that you operate?

A. We do also operate the Sarah Johnston 2, yes.

Q. Are the other locations on Exhibit 3 -- are those Drinkard wells?

A. Yes, uh-huh, they're part of a -- oh, the Chevron unit. I mean, excuse me, excuse me, Anadarko's unit.

EXAMINER ASHLEY: Okay, I have nothing further. Thank you.

MR. BRUCE: I have nothing further in this matter, Mr. Examiner.

EXAMINER ASHLEY: There being nothing further in Case 12,322, the case will be taken under advisement.

(Thereupon, these proceedings were concluded at 8:50 a.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 12322 heard by me on 4-20 2000

Mark Ashley, Examiner
Oil Conservation Division

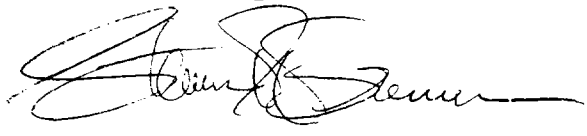
CERTIFICATE OF REPORTER

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 January 23rd, 2000.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002