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:	)	
APPLICATION OF DEVON ENERGY PRODUCTION COMPANY, L.P., FOR AN EXCEPTION TO DIVISION ORDER NO. R-111-P, EDDY COUNTY, NEW MEXICO	)	CASE NO. 13,580

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: WILLIAM V. JONES, JR., Hearing Examiner

October 20th, 2005

Santa Fe, New Mexico

2005 NOV 3 PM 5 44

This matter came on for hearing before the New Mexico Oil Conservation Division, WILLIAM V. JONES, JR., Hearing Examiner, on Thursday, October 20th, 2005, 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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I N D E X

October 20th, 2005
Examiner Hearing
CASE NO. 13,580

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E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	5	11
Exhibit 2	9	11
Exhibit 3	10	11
Exhibit 4	18	21
Exhibit 5	19	21
Exhibit 6	10	11

* * *

A P P E A R A N C E S

FOR THE DIVISION:

GAIL MacQUESTEN
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FOR THE APPLICANT:

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* * *

WHEREUPON, the following proceedings were had at 8:36 a.m.:

EXAMINER JONES: At this time let's call Case Number 13,580, Application of Devon Energy Production Company, L.P., for an exception to Division Order Number R-111-P, Eddy County, New Mexico.

Call for appearances.

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

EXAMINER JONES: Any other appearances?

Will the witnesses please stand to be sworn?

(Thereupon, the witnesses were sworn.)

KENNETH H. GRAY,

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. My name is Ken Gray, and I'm employed as a landman by Devon Energy Production Company in Oklahoma City, Oklahoma.

Q. Have you previously testified before the Division?

A. Yes, I have.

Q. And were your credentials as an expert petroleum landman accepted as a matter of record?

A. Yes, they were.

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

A. Yes.

MR. BRUCE: Mr. Examiner, I tender Mr. Gray as an expert petroleum landman.

EXAMINER JONES: Mr. Gray is qualified as an expert petroleum landman.

Q. (By Mr. Bruce) Mr. Gray, could you identify Exhibit 1, and at first just identify the acreage we're concerned with here today?

A. Well, Exhibit 1 is basically a picture of Township 23 South, 31 East, with a little bit of extra around the edge. And the lease that's covered by our Application today is outlined in a real thin red line covering all of Section 27 and the north half, northwest quarter of Section 26.

Q. Okay, and this lease is in the -- this acreage is in the oil-potash area, correct?

A. Yes, it is.

Q. And in this case today Devon requests that -- an exception to Order Number R-111 as amended, so that it not be required to cement the production strings to the

surface; is that correct?

A. That's correct.

Q. Going over Exhibit 1, could you identify -- well, before we get to there, what is the basic reason for this request?

A. Well, the basic reason is that as you can see there's a fair number of Delaware oil wells on this map. I don't know how many there are. But with few exceptions it's our belief that none of those wells are in compliance with R-111-P, with the surface -- with the cementing requirements.

Q. And there are not just Devon wells on this map, are there?

A. No, Yates operates some wells, Pogo operates some wells. I don't know, Bass might, I can't remember. But Devon, Yates and Pogo are the main operators in the township.

Q. Okay. Well, why don't you go through this map and identify the various markings on it?

A. Well I guess, first of all, the yellow acreage would be acreage leases in which Devon owns an interest, and for the most part we operate all of those yellow leases.

The light gray sections are leases where there are existing potash leases, and the darker-shade gray are

three state leases that at one time were lease for potash. As far as we can tell from the federal abstract records, those leases may have expired in November of 2002, but I'm not familiar enough with how the potash people do their business and leasing to know that they really did expire. But those were the last leases to be taken in this area. And again, the light gray leases are still, as best we can tell, in effect, potash.

Q. There is no existing potash lease on Sections 26 and 27, is there?

A. No.

Q. What does the red line indicate?

A. The dark red line?

Q. Yes.

A. Is the R-111-P boundary. The light blue line, baby-blue, would be the outline of what the latest BLM potash map would indicate would be enclave. I think we've got a structure underneath -- lying underneath that.

I guess I would point out the WIPP site is -- It's not identified, but it would be those pink colors just on the north end of the map where it says potash enclave. Sections 31, 32, 33 and 34 would be the southern end of the WIPP site.

Q. Okay. So when you say the potash enclaves, it's everything to the west of this dark red line; is that

correct?

A. Yes.

Q. Okay. Now you mentioned that there are some state sections out here, but is the overwhelming majority of the acreage federal in this township?

A. Yes, it is.

Q. And you mentioned that a number of other wells in this area, in fact, the overwhelming majority, do not have the casing cemented to surface?

A. That's correct.

Q. And the BLM approved those wells without any special requirement; is that correct?

A. That's correct.

Q. And the OCD at the time those wells were drilled made no requirement that they comply with R-111-P either; is that correct?

A. That's correct.

Q. Were -- you have done -- Devon has done this exact same -- gone through this exact same process before in this township, has it not?

A. At least two other times, and there may have been a third time, I can't remember.

MR. BRUCE: Mr. Examiner, Order Numbers R-11,897 and R-11,897-A approved a similar Devon request in acreage.

Q. (By Mr. Bruce) I forget exactly, Mr. Gray, but

it's acreage to the north of Sections 26 and 27, is it not?

A. Yeah, for the most part we've had this same application and approval covering pretty much all of Sections 10, 11, 14, 15, 22 and 23.

MR. BRUCE: And there was a third case, Mr. Examiner. I don't have the order number, but it was Case 13,272, in which -- not in this township, but in an adjoining township.

Q. (By Mr. Bruce) Has the -- There are a few wells already in Section 27. Has the BLM indicated to Devon that it would approve additional APDs on this acreage?

A. They will approve some wells in the southern half of Section 27, and there's been some discussion about approving APDs in the northern half, which is inside their enclave. But we haven't seen them yet.

Q. Okay. Referring to Exhibit 2, where are the nearest potash mine workings?

A. Exhibit 2 -- and this is based on the latest version of the 1993 distribution of potash resources, and the closest mine workings would be approximately six miles to the northwest.

Q. Which -- Where is the acreage, Section 26 and 27, that we're looking at?

A. Well, it's kind of hard -- those townships are kind of hard to see, but basically where we are is right

here.

Q. In the southeast portion of the potash area?

A. Yeah, the very southern -- very southern part of the potash.

Q. And what is Exhibit 3, Mr. Gray?

A. Exhibit 3 is just a copy of the federal oil and gas lease that covers the lands under our Application today.

Q. And Devon is the operator of that lease?

A. Yes, we are.

Q. And was notice given to the federal government of this application?

A. Yes, it was.

Q. And is that reflected by Exhibit 6, the affidavit of notice?

A. Yes, it is.

Q. Did -- After they received notice of this, did they contact Devon with respect to this Application?

A. No, we have not received any contact from the BLM on this.

Q. Were Exhibits 1, 2, 3 and 6 prepared by you, under your supervision 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 tender the admission of Exhibits 1, 2, 3 and 6.

EXAMINER JONES: Exhibits 1, 2, 3 and 6 will be admitted to evidence.

EXAMINATION

BY EXAMINER JONES:

Q. The WIPP site boundary on this Exhibit Number 2, is that wholly contained within Township 22 South, Range 32 East? It says WIPP there, and I --

A. I can't read the township. It looks like 22 --

Q. And thirty- --

A. -- 31, I guess it would be, 22-31.

Q. Okay.

A. Yeah.

Q. But it's all in -- How far away are you from the WIPP site? I guess that's the question to ask.

A. Looks like four or five miles.

Q. Okay. Okay, and --

(Off the record)

EXAMINER JONES: Do you commonly, on federal-owned acreage within the potash, just notify the feds on this type of application, or do you --

MR. BRUCE: That's what we've been doing in the past, Mr. Examiner. The application that was filed a few years ago for the acreage to the north, I think it included some acreage in Sections 10 and 11. I believe we did notify the potash lessee, because there was a potash lease within a mile of the proposed wells, and we notified the potash lessee and the BLM, and neither party objected.

EXAMINER JONES: But that was because the potash had a lease -- active lease, or just a lease within --

MR. BRUCE: It is a currently existing lease --

EXAMINER JONES: Existing --

MR. BRUCE: -- federal lease, there in Section 3 and part of 4.

EXAMINER JONES: Okay. And in this case is that -- the same situation apply or not?

MR. BRUCE: I think if you look at the nearest federal lease, you know, it's not within a mile. I mean, it is a mile.

EXAMINER JONES: Okay, but it's over a mile away, basically?

MR. BRUCE: Yes.

Q. (By Examiner Jones) Okay. And so how many wells are we going for here? We're just going for the whole acreage, the section plus that 80 acres --

A. Right.

Q. -- in Section 26.

A. Right.

Q. Okay. And so you intend to rapidly drill some more wells out there?

A. Well, if we can get permits we will, yeah. That's always the problem.

EXAMINER JONES: The timing of Order R-111-P -- I'm kind of new around here. Going between zero and P, what changed on that?

MR. BRUCE: Oh, boy, could I get Mr. Carr in here to testify about that?

(Laughter)

EXAMINER JONES: Well --

MR. BRUCE: He's older than me.

Mr. Examiner, I know additional acreage was added, certain -- I think the requirements changed with respect to the depths of wells that could be drilled within, say, whether it's a quarter mile, a half mile, a mile. You know, there are differences, obviously, between -- I forget what the cutoffs are. Maybe Mr. Gray could say. The Delaware are 5000-foot wells, and then down below you have to be more than a mile away for, say, a Morrow well, whereas a Delaware well you can be closer to the potash lease.

And then how LMRs are formed and how -- the

approval process. The LMRs are confidential to the potash company, the BLM and the State Land Office. And Mr. Gray could fill you in on -- more on this, if you care to question him. But getting APDs in this area is kind of a hunt-and-peck process. You don't really know what it is, so you apply; they say, No you can't, maybe try over here. Et cetera, et cetera.

The latest order -- I was involved in the latest order, and I can't remember everything but I think that latest order was in the late 1980s, R-111-P, and set the final -- and you ask what else changed. I think there were also changes to the casing and cementing programs.

EXAMINER JONES: Yeah, sounds like you remember it pretty well.

Q. (By Examiner Jones) This potash enclave, turquoise --

A. Uh-huh.

Q. -- is that not representative of the LMR, right?

MR. BRUCE: That is correct.

EXAMINER JONES: Okay.

MR. BRUCE: That we do know. And Mr. Gray can verify that a lot of times when you're seeking to drill -- The potash enclave is the measure -- so-called economic potash. There are LMRs that extend well beyond that measure, even to barren areas.

EXAMINER JONES: Okay.

MR. BRUCE: So we do not know the process used by the potash company to designate an LMR, but oftentimes it does even include, you know, lesser reserves, uneconomic reserves of potash, or barren areas. So...

EXAMINER JONES: Do they work with the State Land Office or the BLM to establish these LMRs?

MR. BRUCE: Again, I think it's pretty much unilateral. They do file them with the BLM and the Land Office, and I suppose the BLM or the Land Office could challenge them. I don't know that that's ever been done.

Q. (By Examiner Jones) Okay. As far as the timing on that, you guys -- or Mr. Gray said earlier that there's many existing wells that are configured or cemented and cased in the same way you're proposing to do it this -- is that -- How far back is that, and was that before there was some order changes to the 111-P? That was my basic question.

A. I think pretty much all the wells on this map were drilled since about 1990, 1992 maybe.

Q. Okay.

A. I think that the change -- the cementing requirements probably started about that same time, and for whatever reason they just haven't been enforced.

EXAMINER JONES: Okay, you're going to have

another witness anyway.

MR. BRUCE: We're bringing up an engineer.

EXAMINER JONES: An engineer, okay.

MR. BRUCE: And in the -- we did present it, not this engineer, but a different engineer in the other cases, and he also testified about some of these matters.

EXAMINER JONES: Okay. Well, thanks for the analogy case too.

Thanks very much, Mr. Gray.

GERALD BROCKMAN,

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. Gerald Brockman.

Q. Where do you reside?

A. I reside in Edmond, Oklahoma.

Q. Who do you work for and in what capacity?

A. I'm a senior well engineering advisor for Devon Energy.

Q. Have you previously testified before the Division?

A. No, sir.

Q. Could you tell the Examiner a little bit about

your educational and employment background?

A. Graduated from Texas Tech as a petroleum engineer in 1972, and I've worked in industry ever since in various capacities.

Q. What companies have you worked for, especially looking toward New Mexico, west Texas experience?

A. I worked for Conoco in my early years, and I had my own company for 21 years, and consulted for a multitude of companies.

Q. And you do have experience in southeast New Mexico --

A. Yes, sir.

Q. -- and west Texas?

A. Yes, sir.

Q. How long have you been employed by Devon?

A. About four months.

Q. Okay. And does part of your responsibility at Devon include this area of southeast New Mexico?

A. Yes, sir.

Q. And are you familiar with drilling matters related to these proposed wells?

A. Yes, sir.

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

EXAMINER JONES: Mr. Brockman, can you spell your

name, last name?

THE WITNESS: B-r-o-c-k-m-a-n.

EXAMINER JONES: Mr. Brockman is qualified as an expert petroleum engineer.

Q. (By Mr. Bruce) Mr. Brockman, could you identify Exhibit 4 and discuss how wells are allowed to be completed under Rule R-111-P?

A. Well, Exhibit 4 is primarily four wellbore sketches that they allowed this method to be used, depending upon the depths, the depth of the well drilled. The last two wellbore sketches apply to our case.

Wellbore sketch number 3, as you can see, they required you to circulate cement on all three strings with the intermediate string being set below the salt section.

On wellbore sketch number 4, the far right sketch, if you did not want to circulate cement on the long string, then you were required to run what I consider a redundant string through the salt, in essence cementing two strings back to the surface for that portion of the hole.

Now, what we found in previous studies is that most of the operators use the method that applied to sketch 3, but from the amount of cement that they normally pumped, the cement never actually got within the intermediate casing. Okay? Most of those wells were cemented with an average of about 800 sacks, which again on the average

would have come back within 300 or 400 feet of that string. Okay?

Now, our proposal, of course, is to cement the first two strings to the surface and then the third string, being the production string, to cement that back within the intermediate string. So in essence, you would have all of your open hole covered.

Q. Okay. And is Devon's proposal marked as Exhibit 5?

A. Yeah, Exhibit 5 basically is, again, a wellbore schematic that shows exactly what I've just said. This would be a typical completion for us, that we would circulate both the surface as well as intermediate string. They'd have set through the salt, and then when we were on the 5-1/2 production string we would pump enough cement to get back at least 500 feet up inside the 8-5/8 intermediate string.

Q. This Exhibit 5 shows a TD on this particular well which is just a little bit to the south of 8700 feet. Are most of these wells 8000, 8500 feet, that depth range?

A. Yes, sir.

Q. Okay. And Devon has drilled, is it fair to say, dozens of wells with this configuration out in this area?

A. Yes, sir.

Q. And so have -- dozens of other wells drilled by

other operators reflect the same schematic, would they not?

A. That's correct.

Q. What's the difference in cost between completing a well, as is required on Exhibit 4, and completing it as we proposed on Exhibit 5, cost per well?

A. Oh, cost per well? The difference -- it is probably in the neighborhood of $40,000 to $50,000 difference.

Q. And so looking -- depending on how many wells Devon can drill on this particular acreage, it looks like it could be 10 or 12 wells on this particular acreage, potentially drilled to the Delaware; is that correct?

A. Yes, sir, Delaware-Bone Springs.

Q. So you're looking at half-a-million-dollars-plus in cost savings?

A. Easily?

Q. Were Exhibits 4 and 5 prepared by you or under your supervision?

A. Yes, sir.

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

A. Yes, sir.

MR. BRUCE: Mr. Examiner, I'd move the admission of Exhibits 4 and 5.

EXAMINER JONES: Exhibits 4 and 5 will be admitted to evidence.

EXAMINATION

BY EXAMINER JONES:

Q. I guess the reason for these stringent requirements in the orders across the salt or the potash is that -- Can you elaborate on why they wanted redundant casing and redundant cementing?

A. I truthfully don't know the answer to that question. In visiting with the engineer that has been over this area for a long time, he felt like basically they kind of reinterpreted what they had originally set out to do.

I mean, if you'll notice, when this first started, in the shallow case -- Look at Exhibit 2. If you ran your intermediate below the salt, they'd just let you tap the bottom. But then when we drilled a deeper well, all of a sudden in sketch 4, they want you to run two.

Q. So, Mr. Brockman, are these progression of rules as time went on in the potash area, or are these just for certain situations in the potash area?

A. As far as a progression, I honestly couldn't say.

MR. BRUCE: This is the current --

EXAMINER JONES: This is the whole --

MR. BRUCE: -- you know depending on depth, depending on depth.

EXAMINER JONES: Okay, depending on depth.

MR. BRUCE: But there are two alternatives --

EXAMINER JONES: I've got you, two alternatives.

MR. BRUCE: -- in each depth.

EXAMINER JONES: -- for each depth, okay.

Q. (By Examiner Jones) Okay, when you drill -- Can you go over real quickly the fluid that you drill with as you're starting the hole? In other words --

A. Okay, we -- surface is fresh water, and the intermediate section is brine.

Q. Okay.

A. And then, of course, we circulate that section of the hole to surface, and then we drill out again with fresh water.

Q. Okay.

A. Your production always drilled with fresh water.

Q. Okay. And do you have trouble on the -- In other words, between your surface casing string and the salt, is there some tertiary -- before you get to the Rustler anhydrite, there's tertiary redbeds, right?

A. Uh-huh.

Q. You have to drill those pretty -- You're drilling those with salt anyway, so it's pretty reasonably stable, I guess?

A. Yes, sir.

Q. Okay. So your salt doesn't wash out too bad, or your potash doesn't wash out too bad, when you drill with brine? Is that correct?

A. That's right.

Q. Does it matter how long you take drilling it? If you twist off or something, you end up with a big cavern down there; is that right?

A. You certainly could if you were there for an extended period of time. It would be naturally worse if you were drilling with fresh water than it would be with brine.

Q. Yeah, I remember instances when, you know, we'd lose a bottomhole assembly in the salt and it would be gone forever, you wouldn't ever find it again.

But you -- How much trouble have you had drilling through this --

A. Very little.

Q. -- salt?

A. Very little.

Q. Okay. Your rate of penetration through the salt, what would that be?

A. Well, your rate of penetration through the salt is, how much do you want?

Q. Okay.

A. It's about as fast as you can make connections.

Q. And what formation do you actually look for to set that intermediate pipe?

A. What we do is, we look for the last break in the salt section, and we drill below that and try to set right above the Delaware, right at or above the Delaware.

Q. Okay, so it goes straight from the salt into the Delaware?

A. Close to the Delaware.

Q. You don't have the Yates-Seven Rivers below the salt and above the Delaware?

A. Yeah, what we look for is that last -- We want to make sure that we're through all that salt.

Q. Do you base that on drill times or do you have a mudlogging outfit out there while you're drilling the intermediate?

A. We've -- To be truthful, we've drilled so many wells that we have the -- basically the same rig, the same consultant, they know what to look for, and we normally do not have a mudlogger on this section of the hole, yeah.

Q. What about your cementing of that intermediate? Do you use a DV tool?

A. No.

Q. You don't need one?

A. Don't need one.

Q. So how much over --

A. Excess?
Q. -- excess do you need?
A. A hundred percent.
Q. A hundred percent over?
A. Uh-huh.
Q. So basically the whole volume --
A. Twice.
Q. -- or the annulus volume times two --
A. Yeah.
Q. -- and that pretty much gets it to the surface?
A. Yes, sir.
Q. What kind of weight do you use on the cement? What kind of -- type of cement?
A. It's normally about a 13/8 cement, uh-huh.
Q. For the tail?
A. Yeah.
Q. And you lead it with something lighter than that?
A. Yeah.
Q. And how long do you wait to drill out after --
A. Well, normally we're not -- on the - the rules say -- what we normally do, we have to let everything set with pressure for at least eight hours.
Q. Okay, and that's long enough?
A. Yeah.
Q. Okay.

A. But then you know, by the time you nipple up and everything, you're looking at 12, 18 hours.

Q. Okay. And you have to switch over to the smaller size hole assembly and everything?

A. Yeah.

Q. On your production casing -- and you drilled that hole with fresh water, with some clay fix or something in it, some kind of -- Okay, so you don't have any trouble drilling that hole.

And when you cement it, what kind of cement job do you use on that? And how are you going to assure that it gets 500 feet up in the intermediate?

A. Well, from what we've seen, you can normally get at least 6000 foot of lift from a single stage, okay?

Q. Okay.

A. Now, there have been instances where, you know, we've had lost circulation. If that's the case, then we'll two-stage that --

Q. Okay.

A. All right? -- to ensure that we get that cement up inside the intermediate casing.

Q. And where does that lost circulation typically occur if it does occur?

A. Normally somewhere between 5000 and 5300 feet.

Q. Okay. And at that point you set a DV -- you re-

design your string to stick a DV tool in at 5000 feet or so?

A. Yes, sir, uh-huh.

Q. And so -- Do you always run a bond log after this? Are you proposing to run a bond log after --

A. Yeah, production requirements, normally run the bond logs, uh-huh.

Q. And your top -- your cement job above your DV tool is what? That would be about the same as you're talking about across the salt, the 13-pound-a-gallon?

A. Yeah, approaching 14-pound-per-gallon.

Q. Okay. Are you using class H now or what? Because I heard there's assorted --

A. Well, you know, we have had to do that, yeah, as you say, because of shortages.

EXAMINER JONES: Okay, that's -- this all sounds real reasonable to me, and I think $500,000 pays for Mr. Gray and Mr. -- this guy to come to Santa Fe, and so -- I appreciate it, Mr. Brockman.

THE WITNESS: Yes, sir.

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

EXAMINER JONES: Okay, Gail, do you have any questions?

MS. MacQUESTEN: No questions, thank you.

EXAMINER JONES: Okay, thanks very much.

With that, we'll take Case 13,580 under advisement.

(Thereupon, these proceedings were concluded at 9:10 a.m.)

* * *

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

Oil Conservation Division, Examiner

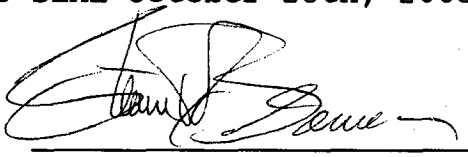
CERTIFICATE OF REPORTER

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 October 28th, 2005.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 16th, 2006