STATE OF ILLINOIS)
) SS:
COUNTY OF COOK)

IN THE CIRCUIT COURT OF COOK COUNTY, ILLINOIS
COUNTY DEPARTMENT - CHANCERY DIVISION

MULTIUT CORPORATION,)
)
Plaintiff,)
)
vs.) No. 01 CH 9989
)
YEHUDA DRAIMAN, MIRIAM DRAIMAN,)
GERSHON DRAIMAN, M. DRAIMAN CORP.,)
S.G.G. DIAMOND CORP. d/b/a MULTIUT) 9 ELECTRIC, INC., U.S. GAS & ENERGY)
CORP., U.S. GAS & ELECTRIC CORP.,)
U.S. GAS ELECTRIC & TELECOM CORP.,)
and U.S. UTILITIES CORP.,)
)
Defendants.)

REPORT OF PROCEEDINGS had at the hearing in the above-entitled cause before the Honorable STEPHEN A. SCHILLER, a Judge of said Court, on the 29th day of August, A.D., 2002, at the hour of 2:28 p.m.

protocol that was actually subjected to repeated scientific testing.

THE COURT: Okay.

MR. MANDEL: That's all.

THE COURT: I have some impressions, and I need about five minutes to kind of sort between my impressions, and I'll have something for you in about five minutes.

Stand in recess.

(Recess taken from 4:17 p.m. to 4:24 p.m.)

THE COURT: The issue before the Court is whether the use of certain studies following the accelerated aging of inks is generally accepted within the relevant scientific community as a basis for determining whether a questioned ink sample is fully dry.

The studies in question involve the use of solvent to extract ink from two samples, which are

then subjected to analysis through the use of thin layer chromatography.

Two kinds of analyses are made. First, the rate at which ink extracts from a sample using a weak solvent is measured. Second, the percent of ink that can be extracted through the use of a solvent is

measured.

For each test, three test plugs are taken from each ink sample. Statistics for the plugs from each sample are computed independently. The statistical results of each of the tests are then compared. The two samples come from the same ink source. The difference being that one of the samples is subjected to heating over a period of time in order to simulate aging.

It is Mr. Speckin's thesis that the heated sample will unquestionably be fully dry; therefore, if the results of the analytical tests are comparable for both samples, it is safe to conclude that the unheated sample is fully dry. However, if there are significant differences in the outcome of the tests, it must be concluded that the questioned writing is not fully dry.

The significance of this determination is that it appears to be generally accepted that most inks will fully dry within three and a half years; although, Mr. Speckin did opine that some inks may take as long as six years to fully dry. Therefore, the consequence of finding that the unheated sample is not fully dry is a conclusion that is likely to be

less than three and a half years old or most certainly less than six years old.

The plaintiff introduced the testimony of three experts who take issue with Mr. Speckin's work. They were Dr. Aginsky, Dr. Lyter, and Robert Kuranz. Lyter and Aginsky are Ph.D.s in analytical chemistry, and Mr. Kuranz is an ink analyst who worked for Parker Pen for more than 35 years.

It appears generally agreed between all of the witnesses that the inks -- that inks and paper can be artificially aged through the use of heat; that age will affect both the rate at which an ink can be extracted through the use of a solvent; and that the amount of ink which can be extracted will change with age; that butanol is widely accepted as

16 an appropriate solvent for extracting inks for thin
17 layer chromatographical analysis; that differences in
18 the performance of inks on such tests are significant
19 in concluding whether an ink is fully dry.
20 There are, however, differences in opinion as
21 to whether the direction of differences is
22 significant. There are other points of departure
23 between plaintiff's and defendants' experts.
24 Defendants' experts claim that Mr. Speckin's

method of aging inks should be used at 100 degrees Celsius temperature for 30 minutes is appropriate.

They contend that it is too hot and can have effects beyond artificially aging. I'm sorry, I said "appropriate." The word should have been "inappropriate."

Defendants' experts -- I'm sorry, plaintiff's experts claim that the phenomenon of reverse extraction, which Mr. Speckin's tests produced in some samples, is indicative of that consequence; that is, that the 100 degree heating for 30 minutes produces a change other than the aging phenomenon.

Reverse extraction is where the result of testing is counterintuitive; that is, the aged sample extracts faster and more fully than the questioned or unheated sample.

Further, Dr. Aginsky testified that something

other than aging is evidenced by the phenomenon of flipping, which Mr. Speckin's method of analysis, in fact, produced in some instances in this case.

Flipping is where at one time interval the heated sample may extract slower, and at another time interval, for example, 30, as opposed to 90, as opposed to 160 seconds -- or 120 seconds, the results

would flip, for example, extract faster.

While plaintiff's experts stated that heating is often used, and, indeed, some of the plaintiff's experts have used 100 degrees for periods of 30 minutes, like Dr. -- like Mr. Speckin does, they also stated that they would not opine on the outcome of a test involving this approach to aging.

Dr. Lyter testified he would only use a heat-aged sample for comparison where he had a control sample of the same ink of a known age.

Plaintiff's experts also indicated that reverse extraction is a rare phenomenon, which has never been replicated in controlled studies.

Mr. Speckin responded that since his analysis is based on differences, and not the question of

which sample extracts faster or more fully, the phenomenon is irrelevant since he always knows that the heated sample is older.

Dr. Aginsky criticized the statistical method that Mr. Speckin used to determine whether or not compared samples belonged to the same population; that is, the same age group.

Mr. Speckin's approach is to compute the arithmetic mean for each sample, and then calculate

their standard deviations from their respective arithmetic means. He then projects one standard deviation from the arithmetic mean of each sample in the direction of the other's arithmetic mean. If the standard deviations intersect, he concludes that the samples belong to the same population; that is, they are comparable aged.

If they do not intersect, he concludes that the samples belong to different populations, and that therefore, the questioned document is not fully dried, and likely to be less than three and a half years old.

Dr. Aginsky stated that this kind of use of standard deviations has never been reported in any journal. And further, in terms of reasonable

mathematical confidence, it cannot be defended.

He further states that where a sample consists of only three cases, the use of standard deviation as a method of measuring population parameters cannot be defended.

Mr. Speckin conceded, and Dr. Aginsky testified, that when small numbers of cases are involved, the t-test is a more appropriate measurement; however, it was conceded that Dr. Lyter

and Mr. Kuranz, as well as Mr. Speckin and Mr. Brunelle, who was conceded by all to be a recognized authority in the field of questioned writings and ink analyses, agreed at an association meeting that the single opposing standard deviations approach should be recognized as adequate to establish whether two samples belong to the same age population.

In making a Frye analysis, it is important to identify a relevant scientific community. All of the experts testifying, including Mr. Speckin, but excluding Mr. Kuranz, have competence in the field of analytical chemistry.

Plaintiff urges that the appropriate field is that of -- I'm sorry, the defendant urges that the appropriate field is that of ink examiners. Dr. Aginsky conceded that at least 13

people,
including Erich Speckin, can be identified as well-recognized ink examiners, and that the writings of some of them, including he and Mr. Speckin, appear from time to time in well-recognized refereed scientific journals; however, Aginsky urges that the appropriate scientific community is the community of analytical chemists.

The Illinois Supreme Court recently confirmed that the Frye test -- that's Frye vs. the United States, 293 Fed 1013, D.C. Circuit 1923, is still the appropriate means for deciding whether a given scientific principle is adequate as a basis for giving an expert opinion. That's Donaldson vs. Central Illinois Public Service reported at 199 Illinois 2nd 63, decided earlier this year.

Under the Frye standard, scientific evidence is only admissible at trial if the methodology or scientific principle upon which the opinion is based is sufficiently established to have gained general acceptance in the particular field in which it belongs.

The Donaldson court went on to quote -- to

note, I'm sorry -- to note that the proper focus of the general acceptance test is on the underlying methodology used to generate the conclusion.

It emphasizing that general acceptance does not concern the ultimate conclusion. The Donaldson court elaborated that general acceptance does not mean universal acceptance. It allowed that diverse opinions regarding causal relationship does not preclude the admission of testimony regarding such a

relationship.

Justice Fitzgerald noted that the focus of the appropriate analysis is to be on consensus versus controversy over a particular technique, but the mere existence of a dispute does not preclude a finding that the procedure is generally accepted. Bottom line, in Justice Fitzgerald's words, "General acceptance does not require that the methodology be accepted by unanimity, consensus or even a majority of experts. A technique, however, is not generally accepted if it is experimental or of dubious validity."

The appropriate field, in my opinion, for the purpose of frame of reference in this cause, is the field of ink aging. There was concurrence between all of the witnesses that such a field does

exist,

and substantial agreement as to the identities of its primary authorities.

The experts offered by the plaintiffs concur that there is a recognized field of expertise relating to ink aging. They further agree that extraction of inks, accelerated aging, thin layer chromatography, and statistical analysis of compared samples are appropriate to the task of ink dating.

The experts disagreed in some measure as to certain variables employed in these techniques. Example: The solvent used, the amount and duration of heat used, and the particular statistical tests employed given sample characteristics.

The plaintiff's witnesses were not in total accord amongst themselves. Where Dr. Aginsky criticized the single standard deviation approach taken by Dr. Speckin, Dr. Lyter and Mr. Kuranz had concurred in its use of a meeting of experts in the field.

Further, two plaintiffs experts agreed that extraction of dyes is appropriate to determining the age of an ink sample; whereas, Dr. Aginsky disagreed and felt that the extraction and analysis of

solvents
is a vastly superior approach to the task.
In brief, while some statisticians or analytical chemists may disagree with the content and mix of approaches taken by Mr. Speckin, there appears to be some significant recognition in his field, that's recognized in his field, that the elements of his approach taken to testing are appropriate.
Given that circumstance under Donaldson, given the acceptance of the elements of Mr. Speckin's

approach, his opinion is admitted subject to challenges that have been made to both his approach and his ultimate opinion. They are admitted subject to consideration by the trier of fact, me, as to what weight is to be given that opinion or that element of the opinion.

An opinion of the kind offered here is not gospel. It is evidence, which is subject to its being weighed along with other evidence and then accepted in any appropriate measure or being ultimately rejected by the trier of fact in determining the ultimate fact that the opinion goes to.

So bottom line, I'm going to admit it, but subject to my weighing the opinion, by whatever shortcomings have been brought out through the

testimony of the plaintiff's experts and the cross-examination that I've heard.

Now, we've got the exhibit matrix being worked on. How much time are you going to need in order to get that in shape so that we can get to the business of deciding what's coming in?

MR. FOX: Can I ask a question of the Court about that?