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(sp.ph.): spelled phonetically

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PROCEEDINGS

(Whereupon, the jury trial in the State of Georgia versus John Louis Griffin was taken down in its entirety. The testimony ONLY of Matthew Malhiot was requested transcribed and is contained herein:)

WHEREUPON,

MATTHEW MALHIOT,

having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

QUESTIONS BY MR. KESLER:

Q. State your name for the record, please.

A. Matthew E. Malhiot, M-A-L-H-I-O-T.

Q. How do you pronounce that, again?

A. It's pronounced Malhiot. Phonetically it's M-Y-I-T.

Q. Okay. I think I got that right. Mr. Malhiot, can you briefly explain to the jury what your background is or what you do for a living, I guess?

A. Certainly. I am the proprietor for Forensic Alcohol Consulting and Training, which is a limited liability corporation here in Canton, Georgia. The purpose of the business is to consult and provide expert services to the legal profession in anything that involves alcohol, whether it's criminal; civil; DUI cases, such as this; civil cases and lawsuits. Any case that involves alcohol or forensic alcohol issues, I provide expert services consulting to the legal

1 professional. I also provide training services in forensic
2 breath testing, forensic blood testing, forensic alcohol
3 issues. I've been doing that since August 2010, when I retired
4 from the Florida Department of Law Enforcement.

5 Q. So in your current line of work you provide
6 information more for defense practitioners or for the state of
7 Georgia?

8 A. More for defense practitioners. I've had a few
9 government clients. The state of Florida I still worked for,
10 up until recently when I finished my work with them.

11 Q. Let's get this out of the way because certainly I'm
12 sure it's an issue that people will ask. You are paid to
13 testify on behalf of Mr. Griffin, is that correct?

14 A. I'm being compensated for my time, yes, sir.

15 Q. You are hired as an expert witness on his behalf and
16 receive compensation?

17 A. That is correct.

18 Q. When you testify in a case and you testify based upon
19 your experience and expertise, are you giving testimony based
20 upon compensation or are you giving testimony based upon your
21 knowledge and understanding?

22 A. Based on my knowledge, education, training, and
23 experience and the facts that are given to me or my review of
24 the facts as presented.

25 Q. Now, you indicated that you started this business

1 August of last year, or August of 2010?

2 A. That is correct.

3 Q. And previously you'd been employed by whom?

4 A. The Florida Department of Law Enforcement Alcohol
5 Testing Program, which is the Florida equivalent of the Georgia
6 Bureau of Investigations Implied Consent Program.

7 Q. So how long have you been employed by the state of
8 Florida Department of Law Enforcement?

9 A. I was with them for eight years, 2002 through 2010.

10 Q. And your title there, again, was what?

11 A. I was a department inspector responsible for breath
12 test instrumentation, research, inspection, writing rules,
13 training police officers, training judges, training attorneys,
14 providing expert testimony for the State, providing expert
15 consulting services for the State, but doing it as a State
16 employee instead of private practice.

17 Q. In that job with the state of Florida, did you testify
18 primarily for State in those cases or did you testify for the
19 defense?

20 A. Primarily for the State, but not exclusively. We were
21 still subpoenaed by the defense on different issues.

22 Q. And I presume you were paid by the state of Florida
23 for your work?

24 A. I was a salary employee, yes.

25 Q. And where were you previously -- where were you

1 employed, prior to your experience with the state of Florida?

2 A. I started by law enforcement career back in 1979. I
3 spent 20 years active duty Air Force as a law enforcement
4 officer. And prior to my retirement, I started working with
5 the Cascade County Sheriff's Office in Montana as a deputy,
6 reserve deputy, with the sheriff's office up in Montana before
7 moving to Florida. I worked with the Division of Forensic
8 Science and Breath Testing where I was first exposed to
9 forensic breath testing back in Montana.

10 Q. So your first interaction with breath testing
11 procedure, equipment, etcetera, was in the state of Montana?

12 A. That is correct.

13 Q. And when was that?

14 A. When I returned back from Germany, late 80's early
15 90's, I started that process and was formally certified by the
16 state of Montana in early 90's.

17 Q. What training do you have as it relates generally to
18 breath testing devices?

19 A. First, I hold a Bachelor of Science in Criminal
20 Justice Administration with course work in anatomy, physiology,
21 criminalistics, forensics, chemistry. Also I held -- it's not
22 active anymore -- but I held a breath test operator's permit in
23 Montana and in Florida. I held an instrument inspector's
24 permit in Florida and Montana. I also held a permit in Montana
25 which was a technician's permit which was for repair of the

1 instrument. I continued on and went to the factory, CMI,
2 Incorporated, the manufacturer of the instrument in Owensboro,
3 Kentucky and completed their course on instrument repair,
4 maintenance, calibration, operation, and instructor. So I'm
5 factory certified for instrument operation, calibration,
6 repair, and to instruct others on the instrument, specifically
7 the Intoxilyzer 5000.

8 When I moved to Florida, they also used the Intoxilyzer
9 5000. My first year of employment with the state of Florida
10 was purely a training period. The first year, I was sent to
11 Indiana University. They have a course called the Borkenstein
12 course. Dr. Borkenstein, back in the 50's, was the original
13 inventor of the Breathalyzer. So the course thus being named
14 after him. That was a course on forensic breath testing,
15 highway traffic safety, litigation and research, specifically
16 in breath and blood testing for alcohol.

17 I returned to Indiana University and completed their
18 course, specifically on the state administration of programs,
19 quality control for forensic breath and blood testing,
20 administrative rules, national standards, those types of
21 things. I went to Louisiana with the Southern Association of
22 Forensic Scientists and completed a course on ethanol
23 measurement and its interpretation. Ethanol being the alcohol
24 we find in consumable drinks. That course was certified by the
25 Forensic Toxicology Certification Board. My on-the-job

1 training with the Forensic Toxicology Department at the Florida
2 Department of Law Enforcement included infrared spectroscopy.

3 That's a fancy word for infrared light absorption. And
4 that's the science that the Intoxilyzer uses to measure
5 alcohol. Completed course work on forensic alcohol toxicology,
6 pharmacokinetics and pharmacodynamics of alcohol. That's the
7 scientific terms that mean, how does alcohol get in and out of
8 the body and what does the body do with alcohol when it's
9 inside. Extensive research with the Intoxilyzer 5000 and 8000,
10 which is the next evolution after the 5000 that states have
11 moved to, including course work on research and development and
12 quality control of instrumentation, laboratory quality control
13 practices, quality control and forensic breath testing.

14 Also, I am presently a member of the International
15 Association of Chemical Testing and have been since 2002, which
16 helps me keep my training up and they publish periodical peer
17 review journals on breath testing, blood testing, drug testing.
18 So I continue to keep my education up. And that's a brief
19 summary of my Intoxilyzer training.

20 Q. So you've been training on the law enforcement side --
21 or excuse me, you have prior experience on the law enforcement
22 side of operating a permanent -- or operating an Intoxilyzer
23 5000, and also inspecting an Intoxilyzer 5000, is that right?

24 A. That is correct.

25 Q. And that was done both in the state of Montana and the

1 state of Florida.

2 A. That is correct.

3 Q. Have you been qualified, as an expert, to testify in
4 various courts of record, either nationally or within the state
5 of Georgia, states of Florida and Montana?

6 A. Yes. Montana, Florida, Georgia, federal courts, and
7 also military courts and court-martials.

8 Q. Have you previously been qualified as an expert to
9 testify regarding the Intoxilyzer 5000 in Cherokee County,
10 Georgia?

11 A. I have.

12 MR. KESLER: Judge, at this time I would tender Mr.
13 Malhiot as an expert in the Intoxilyzer 5000 and breath
14 testing devices generally. If Mr. Hixson asks to voir
15 dire, as to that, I'd let him do that.

16 THE COURT: Do you wish to voir dire?

17 MR. HIXSON: Very, very briefly. May I approach?

18 THE COURT: You may.

19 VOIR DIRE EXAMINATION

20 QUESTIONS BY MR. HIXSON:

21 Q. Mr. Malhiot, it's a pleasure.

22 A. Good afternoon, Counselor.

23 Q. That's a -- I just want to make sure I know who you
24 are because I don't think you and I have had the pleasure. Is
25 that a true and correct and, for the most part, up to date copy

1 of your CV, your curriculum vitae?

2 A. For the most part, yes, but I do publish a new one
3 every month adding whatever counties I may have. But that
4 education and training and experience is true and accurate.

5 Q. It's up to date?

6 A. Yes, sir. It is.

7 Q. Thank you, sir.

8 A. Thank you.

9 MR. HIXSON: Your Honor, I have absolutely no
10 objection to the witness.

11 THE COURT: All right. Then he'll be deemed an
12 expert. You can continue.

13 DIRECT EXAMINATION CONTINUES

14 QUESTIONS RESUME BY MR. KESLER:

15 Q. And, Mr. Malhiot, I think you said earlier that you
16 are -- in the state of Florida you held the equivalent -- well,
17 let me ask you this. Who is Chris Tilson?

18 A. Mr. Tilson is the program manager for the Georgia
19 Bureau of Investigation Implied Consent Program.

20 Q. And the job title that you held in Florida, in your
21 understanding of what Mr. Tilson does, was basically the same
22 thing.

23 A. Very close. I had a supervisor above me in Florida.
24 But the organizational structure was very different. But our
25 duties were very similar, yes.

1 MR. HIXSON: Your Honor, I'm not going to move to
2 strike the witness' answer to that question. But I am
3 going to ask the Court, I'm going to interpose a leading
4 objection. This is the defendant's witness.

5 MR. KESLER: You're right. I'll try to do better
6 about that, Judge.

7 THE COURT: All right.

8 DIRECT EXAMINATION CONTINUES

9 QUESTIONS RESUME BY MR. KESLER:

10 Q. In your experience with the -- are you familiar with
11 the way the state of Georgia has policies and procedures, with
12 respect to the Intoxilyzer 5000?

13 A. Yes, both their breath testing operator programs,
14 their quarterly inspection programs, and I've had interaction
15 with members of the Georgia's breath testing program through
16 training with them and training among peer groups when I worked
17 with the state. So, yes, I am very familiar with Georgia's
18 protocol and procedures.

19 Q. Can you describe how those procedures in the state of
20 Georgia are different than the procedures that you had in the
21 state of Florida?

22 A. As far as inspecting instruments?

23 Q. As far as the testing -- the operation of testing an
24 individual or a suspect on the Intoxilyzer 5000.

25 A. The procedures are very similar. Prior to testing,

1 both states had a 20 minute observation period. Both states
2 had two sample requirement. Both states had a two minute wait
3 between samples. So the testing protocol is very similar, as
4 far as the forensic breath analysis itself.

5 Q. We have written on the board --

6 MR. KESLER: Judge, if I may approach.

7 THE COURT: You may.

8 DIRECT EXAMINATION CONTINUES

9 QUESTIONS RESUME BY MR. KESLER:

10 Q. I wrote on the board, with another witness, a
11 hypothetical. If somebody gave a breath test with two samples
12 and these were the two samples, would that be a valid test in
13 the state of Georgia?

14 A. Yes. Because most states, all states, will truncate
15 after that. But the third decimal is usually displayed. But
16 as it is written, it is an acceptable.

17 Q. Well, let me change it. Let me just add the third
18 decimal. Would that, likewise, be an admissible test within
19 the state of Georgia?

20 A. Providing all the air blanks and all the other
21 parameters of the breath test are met, those two results are
22 acceptable within the oh-two agreement requirement in the state
23 of Georgia, yes.

24 Q. And that test has a 20 percent differential, is that
25 right?

1 A. Correct. Twenty percent of the one-oh, yes.

2 Q. Would lead you to the .08?

3 A. Correct.

4 Q. If you were to take that same test but with the .080
5 being a .078, would that be a valid test?

6 A. No. It would not, not with the second sample being a
7 one-oh.

8 Q. Would there be reasons why you could have a sample
9 that was an oh-seven-eight and a .100 that were perfectly
10 valid, yet not make the test admissible?

11 A. Yes. First, we have to understand that a sample is a
12 single breath delivered to the instrument. As represented up
13 here, we have three numbers. That would be three samples. The
14 sample may be valid. But combined with the two samples would
15 be outside the rule requirement of the oh-two agreement. It
16 doesn't mean the samples are bad. It just means that the
17 totality of the two samples don't equal a valid test. So, yes,
18 it's very common to see that.

19 Q. That would be because in the state of Georgia that
20 would exceed the .02 difference?

21 A. That is correct.

22 Q. I'm going to erase that, just so that it doesn't make
23 things any more confusing. Are you aware of how the state of
24 Georgia adopted this number, the .02?

25 A. Many states had used it years ago. It was adopted

1 through the scientific community in an attempt to show a
2 validity between the two samples. The oh-two-oh agreement is
3 something that has been around since two samples were around.
4 Many states are moving away from it now. But it's based on
5 1980's and 70's research into forensic breath testing and
6 publications.

7 Q. Are there other states that use a different
8 differential than the .020?

9 A. Yes.

10 Q. And what do they -- do you know what they use?

11 A. Yes. Many states are moving away from that because it
12 is a fixed number, .02 is 20 percent at this level but at a .04
13 or .4 level, it's only five percent. So instead of saying,
14 we're going to accept a 20 percent variance here and a 5
15 percent variance at another level, they went away from that and
16 they used a formula called 10 percent of the mean. What that
17 is, if you have a eight-oh and a one-oh or an oh-eight and a
18 one-oh, the mean would be the average of those two, which is an
19 oh-nine. And as long as both samples are within 10 percent of
20 that mean, it would be acceptable. So that 10 percent would
21 still be applicable at the lower alcohol concentrations and the
22 same mathematical formula at higher alcohol concentrations. So
23 instead of a fixed number of oh-two, they use a percentage of
24 the results.

25 Q. So in those jurisdictions where the differential is

1 measured by the average of the mean, percentage of the mean.

2 A. Average -- 10 percent of the mean.

3 Q. How ever you described it -- science gets above my
4 head sometimes. Would those numbers be admissible?

5 MR. HIXSON: Your Honor, I'm going to object about
6 whether what's been admitted in this case would be
7 admissible in another jurisdiction with different laws; or
8 I would at least like to ask for a proffer as to the
9 relevance of the laws or testing procedures or parameters
10 in other states.

11 THE COURT: You want to make a proffer, let me know
12 where you're going with this?

13 MR. KESLER: Judge, I'm clearly trying to identify
14 two things. One, other states that use the Intoxilyzer
15 5000 have different methods, different procedures of what
16 makes an admissible test. The state of Georgia has
17 adopted this policy. Other states have different
18 policies. I think it's relevant for the jury to know that
19 those two numbers, while admissible in the state of
20 Georgia, might not be admissible in a different state.
21 It's certainly subject to cross examination if Mr. Hixson
22 wants to clarify that. But I think it's perfectly
23 relevant as to how this machine works.

24 MR. HIXSON: I hear the answer, Your Honor. But I
25 don't see how it's relevant to the question in this case.

1 Maybe I'm just missing something. But this is Georgia,
2 it's not Minnesota. I mean, we have -- different states
3 have different policies, maybe different inferences could
4 be drawn. If it has something to do with this test in
5 this case, I don't have a problem with it. Your Honor,
6 with all due respect, I don't think the rest of the
7 country's laws here or the minutia of the testing
8 protocols are relevant. They're speculative. They're out
9 there.

10 THE COURT: So your argument is basically in an
11 attempt to attack the validity and reliability of the
12 machine here?

13 MR. KESLER: Yes, sir. I mean, I'm going to -- I
14 don't know if the Court wants to take this outside the
15 presence of the jury, but I'm certainly going to ask
16 questions about quality control standards, about other
17 procedures that other states follow in order to make their
18 tests more quote, unquote reliable. I think that's
19 perfectly relevant.

20 THE COURT: Well, the reliability and the validity of
21 the machine is going to be relevant to this case. I've
22 just got to make sure that we don't get bogged down in
23 trying to show this particular machine is unreliable
24 because other states do something different. There's not
25 necessarily going to be a corollary there. So that's what

1 I think we need -- you need to be careful about, if you
2 can present evidence that -- first, I think that you need
3 to present evidence to show that this machine is
4 unreliable or defective in some way. And then if this
5 other information lends credence to that, then it can come
6 in.

7 I guess, I don't want you to put the -- what I'm
8 trying to say is don't put the cart before the horse.
9 Just because other people do things differently doesn't
10 mean anything. You know, other states could have .06's,
11 .02's or .10's or whatever. That's a whole different set
12 of laws. The issue is the reliability of this machine.
13 And just because other people might treat the machine
14 differently doesn't have any bearing on whether it's
15 reliable here. So that's what you've got to do. So I am
16 taking his objection under advisement. If you can tie it
17 all together, I'll let you do it. But I can't give you
18 too much leeway to get there.

19 MR. KESLER: Well, let me move from asking questions
20 about those specific numbers and let me ask this question.

21 DIRECT EXAMINATION CONTINUES

22 QUESTIONS RESUME BY MR. KESLER:

23 Q. What is your understanding of what the state of
24 Georgia does to test the -- to inspect the Intoxilyzer 5000s
25 that are in-service in this state?

1 A. The state of Georgia has a quarterly inspection
2 protocol. Once per calendar quarter, and that's not every 90
3 days, it's once per calendar quarter, they have an inspection
4 protocol that they do on the instrument, each of the evidential
5 instruments in the state.

6 Q. And does that mean it's just tested four times a year?

7 A. Yes.

8 Q. Is there any set period of time that those tests are
9 done or are they random?

10 A. Well, depending on the schedule of the trooper who
11 does them. The first quarter, January, February, March, it
12 must be inspected some time during that quarter.

13 MR. KESLER: If I may approach, Judge.

14 THE COURT: Sure.

15 DIRECT EXAMINATION CONTINUES

16 QUESTIONS RESUME BY MR. KESLER:

17 Q. We have what's previously been marked as State's
18 Exhibits 8 and 9. I'll show you State's Exhibit 8 first. Do
19 you know what that appears to be?

20 A. Yes.

21 Q. And what is that?

22 A. This is the Georgia Bureau of Investigation Division
23 of Forensic Science Certificate of Inspection for Intoxilyzer,
24 the last three digits 655, which is here in Cherokee County,
25 for the August 17th, 2010, inspection. And it has copies of

1 print cards attached. There's two documents that are normally
2 attached to the quarterly inspection that are not here. But
3 the print cards and the certificate are present.

4 Q. And would that indicate that the test was done in a
5 given quarter?

6 A. Yes, I would say the third quarter of calendar year
7 2010.

8 Q. Let me approach, again, and show you what's been
9 marked as State's Exhibit 9.

10 A. Thank you.

11 Q. Can you identify that?

12 A. It's also a quarterly inspection certificate with
13 attached print cards, again, missing two of the documents that
14 are normally attached. And this one is dated October 26th,
15 2010, for the same serial number instrument, appears to be for
16 the fourth quarter of 2010.

17 Q. So is it your testimony, based on your understanding
18 of how the state of Georgia inspects the machines, that once
19 that October test is done, the next test would not be done
20 until the next quarter of 2011?

21 MR. HIXSON: Your Honor, again, I've got to object to
22 the leading. The counsel is cross-examining his own
23 witness, Your Honor.

24 THE COURT: I'll sustain that.

25 MR. KESLER: I'm not trying to.

1 THE COURT: I know you're not.

2 DIRECT EXAMINATION CONTINUES

3 QUESTIONS RESUME BY MR. KESLER:

4 Q. When would that machine be tested again, if the state
5 of Georgia follows its inspection protocol?

6 A. The August inspection is the third quarter. So some
7 time in the final three months would require the fourth quarter
8 inspection. And then, again, some time January, February,
9 March of 2011, it would require another inspection.

10 Q. And we have an October inspection. Is that right?

11 A. That is correct.

12 Q. Okay. Do you know -- do the operators of an
13 Intoxilyzer keep logs of tests?

14 A. There is a breath test log with the instrument. It's
15 manual fill out line-by-line of every breath test that is done
16 on an Intoxilyzer, yes.

17 Q. Does the state of Georgia require those to be kept
18 with the inspection reports?

19 A. I don't think they are required to be kept with the
20 inspection reports. They are kept with the instrument. It's
21 an ongoing log of the breath testing. They do it manually
22 versus electronically.

23 Q. Do the inspection reports -- do the inspections that
24 are done, do they reference in any way the number of tests that
25 have been performed on that machine between the two inspection

1 times?

2 A. No. The inspection has no reference to number of
3 tests or anything like that.

4 Q. When -- are you familiar with what's called the source
5 code?

6 A. Yes.

7 Q. What is your understanding of the source code, as it
8 relates to the Intoxilyzer 5000?

9 A. Source code is human readable computer programming.
10 It's the first step in writing a computer software. The
11 programmer writes source code. It is put into a compiler and
12 then it is changed into machine code and loaded into an
13 instrument to run the functions of a computer, whether it's a
14 laptop computer or the Intoxilyzer.

15 Q. Have you ever inspected the source code of an
16 Intoxilyzer 5000?

17 A. I have not.

18 Q. In no capacity?

19 A. I've seen it laying on a desk when I was at the
20 engineering division. I have not physically gone page through
21 page or inspected it or anything to that effect, no.

22 Q. Do you know whether or not CMI has made that available
23 to the public to evaluate how the computer system works within
24 this?

25 A. Not available to the public, no.

1 Q. What is the science behind how the Intoxilyzer or how
2 any breath testing device like this works?

3 A. Well, this instrument works on what's known as
4 infrared spectroscopy or infrared light absorption. That's the
5 science that it uses. There's a couple different sciences used
6 in breath testing. But the Intoxilyzer models use infrared
7 light absorption.

8 Q. So, I guess, just without getting overly technical,
9 what happens within this machine when you blow into this tube
10 on the Intoxilyzer? If you can explain.

11 A. Inside the instrument there is what's known as a
12 sample chamber. And to give a reference point, if you were to
13 take the cardboard end roll from a paper towel roll, it's about
14 that size, about that length in diameter. And the breath
15 enters one end and exits the other end. On one end is a
16 projector lamp, an actual light that shines down through. On
17 the other end is a light detector, very much like a photo
18 studio when the photographer holds the light and measures the
19 amount of energy the light is putting out or brightness of the
20 light.

21 Then there's a filter wheel that contains filters that
22 eliminates all the other light except for specific wave lengths
23 that's used to measure ethanol and a couple of other
24 substances. As a person blows into the instrument, the light
25 passes through and molecules will absorb light energy at

1 different wavelengths for different substances. So as ethanol
2 passes, it absorbs light. Less light hits the detector and
3 there's a change in voltage and that change in voltage is
4 converted into an alcohol concentration.

5 A good analogy is, driving to work in the morning. You
6 drive to work in the morning and your headlights shine for five
7 blocks. The next morning you drive to work, the same route,
8 but your headlights are only shining one block. Well, it's
9 foggy out. So what's happening is the moisture in the air is
10 absorbing that light energy and your lights don't shine as far.
11 The same principle works with the Intoxilyzer.

12 Another example is the microwave oven. The meal may get
13 hot, because it's going to absorb energy waves at the specific
14 wavelength the microwave is putting energy out, but the plate
15 may stay cool because it doesn't absorb at that wavelength. So
16 that's the science of infrared light absorption or infrared
17 spectroscopy.

18 Q. Is that science that's based on -- the Intox is based
19 on, is that standard throughout other breath testing devices?

20 A. Infrared instruments, yes. There's other technology
21 used in breath testing besides infrared. But all infrared
22 instruments use that technology, yes.

23 Q. And is CMI -- does CMI produce the only breath testing
24 machine used in the United States?

25 A. No. There's five major manufacturers in the United

1 States that are used.

2 Q. Do you know how many states currently use an
3 Intoxilyzer 5000?

4 A. It's changing all the time. About 15 to 20 still use
5 the 5000, the last count I saw.

6 Q. When was the Intoxilyzer 5000 first placed into
7 service, generally speaking?

8 A. I think before I was in breath testing in the early
9 90's. So probably late 80's was the first models of the
10 Intoxilyzer 5000. Georgia adopted it in '95.

11 Q. Does CMI currently produce newer models of an
12 Intoxilyzer?

13 A. Yes, they do.

14 Q. Do you know what those models are?

15 A. The Intoxilyzer 8000 is used in numerous states. And
16 the Intoxilyzer 9000 is in development, being tested by Georgia
17 as a matter of fact.

18 Q. Do you know what separates the -- what technological
19 difference is involved between the 5000, the 8000, and the
20 9000?

21 A. Yes.

22 Q. Can you explain that?

23 A. Well, the 8000 is a portable instrument. You can put
24 it in a patrol car and run it off 12 volts. The 5000 is not
25 designed as a portable instrument. It also, the 5000 looks at

1 the ethanol molecule at the three micron level. What that
2 means is when you have an ethanol infrared fingerprint it looks
3 like a very jagged, and the 5000 is looking at that infrared
4 fingerprint at a single point, at the three micron level. So
5 it's a very narrow look at the ethanol molecule.

6 The Intoxilyzer 8000 and 9000 and many other manufacturers
7 are looking at the infrared not only at the three micron but
8 also the nine micron. So it's looking at the fingerprint of
9 ethanol at two different locations instead of a single point.
10 So the newer instrumentation is much more specific for ethanol.
11 So the interference potential is reduced drastically with the
12 newer instrumentation.

13 Q. Is the Intoxilyzer 5000, can you say that it's 100
14 percent accurate in its results?

15 A. No. No mechanical instrument is 100 percent accurate
16 in the results of anything.

17 Q. Can you say that the results of a test done on an
18 Intoxilyzer 5000 are -- can be influenced by the operation of
19 the machine and the inspections or testing of the machine?

20 A. It could be influenced by the way a person delivers a
21 sample, by the quality control measures put in place, by the
22 maintenance, periodic maintenance, calibration. A lot of
23 things can influence the scientific reliability of results on
24 an Intoxilyzer 5000, 8000, or any breath test instrument.

25 Q. If I ask you what the 20 minute waiting rule is, what

1 does that mean to you?

2 A. Prior to a breath test, there is a pretest deprivation
3 waiting period observation period. Georgia has it in their
4 breath testing program, Florida has it, Montana, every state
5 and jurisdiction I've ever worked has a pretest deprivation
6 period. And it's designed to ensure that mouth alcohol, that
7 alcohol which is in the digestive tract does not affect the
8 results of a breath test. The breath test is attempting to
9 measure alcohol in the respiratory system and blood through the
10 lungs and not alcohol in the digestive tract or oral cavity.
11 So the 20 minute observation is put in place to prevent those
12 digestive alcohols from affecting a breath test.

13 Q. Would you say, in your experience and knowledge of the
14 instrument, would you say that that is a critical point of the
15 testing procedure?

16 A. Yes. The state of Georgia, even the manufacturer of
17 the instrument have a pretest deprivation period to ensure the
18 reliability of the results.

19 Q. Is that pretest period supposed to be conducted, prior
20 to the first sample that is given?

21 A. Yes.

22 Q. If an officer does not properly observe that 20 minute
23 period, how could that affect the results?

24 A. Well, the intent of the 20 minute observation is to
25 ensure that any mouth alcohol or regurgitated alcohol or

1 residual alcohol does not affect the breath test. So if that
2 20 minute observation is not done, if there's mouth alcohol,
3 regurgitated alcohol, or anything in the digestive tract, that
4 could affect the results and artificially raise the results of
5 the breath test. There are other safeguards in place, but by
6 combination of the safeguards, you help ensure the reliability.
7 It's an interwoven quality control measure. Taking that away,
8 reduces the reliability of the result.

9 Q. What are the other parts of an Intoxilyzer 5000 that
10 are there as quality control measures?

11 A. Well, there is no physical part. There is no hardware
12 you could put your hand on and say this is there. You have the
13 20 minute observation, that's a procedural. You have what's
14 known as a slope detector. A slope detector in the instrument
15 is software. It looks at the sample as the sample is being
16 delivered and looks for a rising and a leveling off of the
17 sample. If it doesn't see a sharp drop off, it allows the
18 sample. It's a software algorithm. It is not perfect. It's
19 just looking at the sample, as it's being delivered. The other
20 safeguard is the two samples with the oh-two agreement. A
21 combination of all three of those in place is very much like a
22 tripod. When all three are in place, it supports the result.
23 You take one of the three out, the tripod falls over. Thus the
24 reliability of the results are not scientifically reliable.
25 That's why there's triple redundancy and safeguard.

1 Q. In your time both in your current status and your
2 previous employment with the state of Florida, were you aware
3 of reports and research into the slope detector mechanism?

4 A. Yes. I've evaluated slope detection myself and have
5 seen many times mouth alcohol would give an actual reading on
6 an Intoxilyzer 5000 and 8000. It's not a foolproof system.
7 It's just one of the safeguards. That's why there's three
8 safeguards in place, because it's not foolproof.

9 Q. Your understanding of the state of Georgia, whose
10 responsibility is it to observe the 20 minute waiting period?

11 A. The Georgia Bureau of Investigation breath test
12 operator manual specifically gives that responsibility to the
13 breath test operator.

14 Q. So the person that performs the job of having the
15 subject give the sample, that person is responsible for
16 watching him for 20 minutes prior to that test?

17 A. He's responsible for ensuring the 20 minute
18 observation or 20 minute waiting period is completed, yes.

19 Q. And if that, if during the time that he is observing
20 the subject, he sees the subject burp or belch what should that
21 operator do?

22 A. Well, if he suspects regurgitation, that something
23 from the digestive tract has been brought up, he's supposed to
24 wait another 20 minutes, allow them to rinse their mouth out
25 and start a new 20 minute observation period.

1 Q. Are you familiar with how the state of Georgia
2 performs its inspections on the machines?

3 A. Yes. I'm very familiar with the quarterly inspection
4 process and have done very similar inspections on instruments
5 in both my job and research of instrumentation.

6 Q. And, I believe, you testified earlier that you had a
7 permit, not just an operator of an Intoxilyzer, but as an
8 inspector.

9 A. Correct.

10 Q. Do those require different measures of training?

11 A. Yes.

12 Q. Do you still have 8 and 8 available?

13 A. I do.

14 Q. I believe it's Exhibit 8, the August inspection
15 report.

16 A. That is correct.

17 Q. The last page of that document is identified as a
18 calibration check. Do you see that page?

19 A. I do.

20 Q. Can you identify, for the jury, what that calibration
21 check consists of?

22 A. The instrument is hooked up to a simulator which is a
23 glass jar containing an alcohol reference solution. Air is
24 pumped through that alcohol reference solution to create a
25 vapor. And that vapor is pumped into the instrument and

1 measured. So what happens is, looking at the print card, the
2 first thing the instrument does is a diagnostic. Then it does
3 an air blank, to establish a zero reference. Then it pumps
4 this vapor in that is certified to be .08, measures that vapor,
5 does another air blank, actually does two air blanks, back-to-
6 back. Then it pumps more vapor in and does another air blank.
7 So it measures that oh-eight vapor twice.

8 Q. And the vapor that's used in that test, is it
9 manufactured to be a specific quantitative basis of alcohol in
10 that substance?

11 A. Yes. It's manufactured by Guth Laboratories to be a
12 .08 plus or minus two percent at 34 degrees with other
13 parameters. But, yes, it is manufactured and certified to be a
14 specific concentration.

15 Q. So if it were -- if I may lead slightly, in this
16 question. If hypothetically you --

17 MR. HIXSON: Your Honor, I'm going to ask -- I'm
18 going to have to ask Mr. Kesler not to defer to me for
19 permission to lead his witness.

20 THE COURT: You might want to ask me to do that.

21 MR. HIXSON: I am not the Judge in this case, Your
22 Honor --

23 MR. KESLER: (Interposing) Well, let me just ask --

24 MR. HIXSON: -- and I'll object in advance.

25 THE COURT: There you go. Take your best shot.

1 We'll see how you do.

2 DIRECT EXAMINATION CONTINUES

3 QUESTIONS RESUME BY MR. KESLER:

4 Q. Let me just ask you, hypothetically. If you put a
5 quantitated solution of point zero -- of a substance, in this
6 case, alcohol that had test of .08, that was created to be that
7 and introduced in the machine, it worked 100 percent accurately
8 it should test it at .08.

9 A. One hundred percent accurate, yes. But as we
10 questioned earlier, they're not 100 percent accurate.

11 Q. Right.

12 A. So there is an acceptable tolerance. But, yes, to
13 answer your question.

14 Q. Both built into the sample.

15 A. Built into the sample, built into the solution, built
16 into the instrument, built into the process, yes.

17 Q. Okay. The test that was done on the inspection in
18 August of 2010, can you read what the calibration check results
19 were in that particular test?

20 A. Yes. The two calibration sample results were a .077
21 and a .078 respectively.

22 Q. Okay. And the inspector signed off on that as the
23 machine was working appropriately, is that right?

24 A. Yes. The results were within their allowable
25 tolerances.

1 Q. You said there were two documents that were missing in
2 this group. What documents were those?

3 A. There's a checklist produced that the inspector puts
4 checkmarks. And there's also a log, a maintenance log, that's
5 normally attached when I see these quarterly inspections.
6 Those two are not attached to these.

7 Q. Let me ask you too, what is an F10 reprint card?

8 A. Georgia does not electronically save the data. The
9 data is not uploaded and quality controlled checked and looked
10 at. So in an effort to do a quality control step, the
11 quarterly inspector, his first step is to reprint the last
12 breath test. So, hypothetically, if he goes in Monday morning
13 to do his quarterly inspection he hits F10, it should reprint
14 the print card from the last breath test, Friday night,
15 whenever it was. And he will look at that to ensure that:
16 One, it matches the breath test log; and, two, no malfunctions
17 with the instrument. So it's a quality control step that the
18 GBI tries to look at breath testing done on the instrument
19 because they do not have an electronic means to look at.

20 Q. And do you see an F10 card that was attached with a
21 copy of the inspection documents that were labeled as Exhibit
22 9, for October?

23 A. No. There is no F10 reprint for the October
24 inspection.

25 Q. As someone who's previously held a permit to inspect

1 these devices, what does that tell you?

2 A. Well, a potential of a lot of different things: One,
3 they didn't do the test; two, it just came back from the
4 factory from repair and there was nothing in the memory to
5 reprint. Without the maintenance log, which may have an
6 explanation as to why there isn't, it would be speculative.

7 Q. Okay. In your prior experience with the state of
8 Florida, can you identify how often the state of Florida checks
9 -- did an inspection on the machines?

10 A. Every month with five different simulators versus one
11 at numerous different alcohol concentrations. The protocol for
12 inspection between the state of Georgia and the state of
13 Florida is apples and oranges, very drastically different.

14 MR. KESLER: If I may approach, Judge.

15 THE COURT: Go ahead.

16 DIRECT EXAMINATION CONTINUES

17 QUESTIONS RESUME BY MR. KESLER:

18 Q. When you say five different simulators, what are you
19 talking about?

20 A. Well, Georgia we've seen the .08 simulator and we've
21 talked about that. In Florida, they use five different
22 concentrations.

23 Q. Which five do they use?

24 A. .000, and they run three tests at that concentration;
25 .050, three tests; .080, three tests; .20, three tests; and INT

1 is the interferrent test. So the INT is run three times.

2 Q. What is the purpose of running the INT test?

3 A. Well, it's similar to Georgia's one time INT test.
4 They do it once a quarter. And that's Florida's protocol that
5 is done every month. That's on the 5000 not the 8000.

6 Q. How many times does Georgia run the .08 test
7 quarterly?

8 A. Twice. And, to be fair, I think we should add the INT
9 test is also done in Georgia, once.

10 Q. Are you familiar with other states that -- well, let
11 me ask you this, are you familiar with what the scientific
12 community says should be the preferred method of inspection of
13 a machine such as the 5000?

14 A. Well, the scientific community published by the
15 National Safety Council which is a nonprofit organization that
16 reports to the U.S. Department of Transportation and ultimately
17 reports to congress is that a control test should be run with
18 every single breath test. An external control test should be
19 run with every single breath test, as a quality control and
20 accuracy calibration check with every single breath test.
21 That's the -- Dr. Dubowski who's a well-written scientist in
22 the field of forensic breath testing and the National Safety
23 Council have both published that that should be the recommended
24 calibration check with every breath test.

25 Q. And what would that do that running a test every

1 quarter wouldn't do?

2 A. Well, in this example, the instrument was inspected on
3 August 17th and October 24th. And the day of the inspection it
4 appeared to be working properly. But if we did a calibration
5 check with every single breath test you could say it was
6 working at the time of 'X' breath test and not rely on
7 quarterly inspections to conclude that it was working properly.

8 Q. In your opinion, is the quarterly inspections that the
9 state of Georgia does, sufficient for maintaining these
10 machines to be reliable and accurate?

11 A. No, in my opinion, they don't check nearly enough, not
12 checked often enough and don't check all the functions of the
13 instrumentation and do that single point calibration check at a
14 .08. I think it falls far short of what's needed, to ensure
15 reliability of results.

16 Q. Do you understand that these machines are -- are you
17 aware that these machines individually are ever -- ever have an
18 inspection done on the actual source code itself within the
19 unit?

20 A. No. Source code is computer language. It's pages and
21 pages of computer code. It's never been evaluated, the
22 Georgia software source code, independently. I'm sure the
23 manufacturer has looked at it. But I don't think independently
24 the state of Georgia has not.

25 Q. Is it your understanding that the source code for the

1 machines in the state of Georgia is different than the source
2 codes in the 5000s used in Kentucky, for example?

3 A. Yes. Each state has its own software version to meet
4 the statutory requirements and rule requirements and basically
5 customer requirements of the individual states, so, yes.

6 Q. So the Intoxilyzer has an ability of being modified,
7 based upon what each state is looking for?

8 A. Yes. The states can tell the manufacturer what they
9 want in their source code or what they want their instruments
10 to do and if it's within physical capabilities of the
11 instrumentation, they write it into the software and it does
12 it.

13 Q. Is it your testimony that breath testing, as a
14 science, is completely unbelievable?

15 MR. HIXSON: Your Honor, again, I'll object to
16 leading. He's leading the witness.

17 MR. KESLER: I don't think that was leading.

18 THE COURT: Well, rephrase it a little bit. Try
19 again.

20 DIRECT EXAMINATION CONTINUES

21 QUESTIONS RESUME BY MR. KESLER:

22 Q. Is it your testimony -- well, what is your testimony
23 about the science of breath testing?

24 A. Forensic breath testing can be a reliable measurement
25 of breath alcohol concentration providing quality control

1 measures are in place, instrumentation measures are in place,
2 auditing measures are in place that meet the requirements of
3 the scientific community. It can be a reliable method to
4 measure breath alcohol.

5 Q. In your expert opinion, based upon how you understand
6 it is done in the state of Georgia with the Intoxilyzer 5000,
7 do you think the state of Georgia meets the requirements of
8 testing here being scientifically reliable?

9 A. I think the Georgia protocol of forensic breath
10 testing and specifically the quality control procedures, the
11 calibration -- lack of calibration procedures, I think it falls
12 short of what the scientific community expects for reliable
13 results.

14 Q. Which is better to be tested for blood alcohol, breath
15 or blood?

16 A. If you're trying to determine a blood alcohol content
17 the best biological specimen would be blood.

18 Q. Are you familiar with Georgia's implied consent
19 statute?

20 A. I'm familiar with it. I don't have it memorized. I'm
21 familiar with the Georgia implied consent warning cards. But I
22 don't have the statute memorized, if that's what you're asking.

23 Q. Well, are you familiar with the fact that it is up to
24 the individual officer to request any human sample he chooses?

25 A. Yes.

1 Q. And are you aware that the Georgia implied consent
2 statute allows an officer to test for blood?

3 A. Yes.

4 Q. What is the ultimate reason or the primary reason why
5 a state would do a breath test versus a blood test?

6 A. Well, it's numerous reasons. The biggest reason is
7 convenience and cost. It's a lot less expensive to do a breath
8 test ultimately than it is to do a blood test. And it's a lot
9 easier to do a breath test than it is a blood test.

10 Q. You testified that it's your understanding that the
11 state of Georgia is currently testing new machines?

12 A. Yes.

13 Q. Are you aware what those machines are?

14 A. There's a Swedish instrument. There's the CMI
15 Intoxilyzer 9000 and there's two other U.S. manufacturers. I'm
16 not sure exactly which model instrument. But there's four
17 instruments being tested presently.

18 Q. Have you been privy to any of the testing procedures
19 being done on those four machines?

20 A. I have not.

21 Q. Are you aware of whether or not the state of Georgia
22 is currently evaluating changing its policies regarding quality
23 control of the breath testing device?

24 A. I don't have firsthand knowledge of what their
25 proposed new program will look like.

1 Q. You've talked to Chris Tilson?

2 A. Yes, many times.

3 Q. Have you ever told him -- have you ever had
4 conversations with him about your concerns about the quality
5 control issues here?

6 A. Yes. And he and I respectfully disagree.

7 MR. KESLER: I believe that may be all the questions
8 I have, at this time, Judge. I'll let Mr. Hixson ask and
9 then follow up if I need to.

10 THE COURT: All right. Mr. Hixson, he's with you.

11 MR. HIXSON: All right. Thank you very much, Your
12 Honor.

13 CROSS EXAMINATION

14 QUESTIONS BY MR. HIXSON:

15 Q. Mr. Malhiot, you're familiar with the definition of
16 alcohol concentration in Georgia, aren't you?

17 A. Yes.

18 Q. What is it?

19 A. Percentage of alcohol. I believe, it's written as
20 percentage.

21 Q. All right. Well, let me read you this and you tell me
22 if it sounds familiar --

23 A. (Interposing) Yes, sir.

24 Q. Alcohol concentration means grams of alcohol per 100
25 milliliters of blood or grams of alcohol per 210 liters of

1 breath. Does that sound right to you?

2 A. Yes, that's statutory language and very common.

3 Q. And, of course, nobody in the world could possibly

4 blow out 210 liters of air, right?

5 A. That would be a physical impossibility.

6 Q. It would be like a room full of air.

7 A. It's about 55 gallons, is the equivalent.

8 Q. So, when the statute says that and when the Intox 5000

9 breath testing device measures that, there's a conversion

10 process going on, based on the software, the source code and

11 the way the machine is programmed to work. Is that right?

12 A. There's what's known as a blood to breath ratio that

13 it's based on, yes.

14 Q. Now, your degree or initial degree is actually in

15 criminal justice administration, correct?

16 A. That is correct.

17 Q. You've done lots of work in criminal justice, haven't

18 you?

19 A. Yes, sir.

20 Q. You've been a police officer.

21 A. I have.

22 Q. You've arrested people for DUI.

23 A. I have.

24 Q. You've conducted breath test results.

25 A. I've conducted breath tests, yes.

1 Q. You've conducted them on the Intox 5000, correct?

2 A. I have.

3 Q. And you're very very familiar with how it works,
4 right?

5 A. I am.

6 Q. And you have testified in support of breath test
7 results where the Intox 5000 device was used, haven't you?

8 A. I have.

9 Q. And you've trained other people to use it.

10 A. The 5000, yes, sir.

11 Q. I mean, aside from Christ Tilson, can you think of
12 anybody in this state that knows more about the 5000 than you?

13 A. Well, I hope that's a compliment, but --

14 Q. (Interposing) It is. I'm asking you to be honest. Do
15 you know of anybody besides you and Tilson who could say more
16 about the 5000?

17 A. To be honest with you, probably not. His troopers
18 that he has assigned to do quarterly inspections are very
19 knowledgeable. But I don't think they have the knowledge that
20 Chris or I have. So I think it would be a fair -- without
21 being modest, but, yes, I think it is a fair assessment.

22 Q. Okay. All right. Thank you. Now, you're also
23 familiar with the pretesting aspects of a DUI case as a police
24 officer, correct?

25 A. When you say pretesting, like field sobriety, traffic

1 stops?

2 Q. Yes.

3 A. Yes.

4 Q. You're familiar with those parts of a DUI
5 investigation that have to do with a vehicle in motion.

6 A. Yes.

7 Q. And those parts of a DUI investigation that have to do
8 with giving field tests to the subject along the side of the
9 road.

10 A. Yes.

11 Q. You're familiar with the signs of impairment, right?

12 A. Yes.

13 Q. The potential signs of impairment.

14 A. Oh, you said, signs or science of impairment? I'm
15 sorry.

16 Q. Signs.

17 A. Signs. Okay. Yes, I'm familiar, yes.

18 Q. How many people would you estimate that you have
19 investigated for driving under the influence?

20 A. I never kept tract. But I would say hundreds and I've
21 estimated in about 500, ballpark figure.

22 Q. Is it true, based on your experience, that when
23 roadside subjects are asked how much they had to drink, more of
24 them say two than any other number?

25 A. That's the most common number heard, yes.

1 Q. It's also true that in many of the cases you worked
2 that number of alcoholic beverages was not borne out one way or
3 another when they took either a breath or a blood test,
4 correct?

5 A. (Laughing).

6 Q. Sometimes they don't tell the truth.

7 A. That is a true statement.

8 Q. You would agree with me, based on your training and
9 your experience, that alcohol affects different people in
10 different ways, correct?

11 A. Yes. There's a tolerance effect of alcohol. So there
12 can be manifestations different in different persons, yes.

13 Q. Sure. Some people can handle two beers. Some people
14 can't. Right?

15 A. Yes.

16 Q. Some people, depending on their habit or tolerance,
17 can seem to handle a lot more alcohol and others can't. Right?

18 A. That is correct.

19 Q. But, at some point -- well, let's back it up. Alcohol
20 is a central nervous system depressant, isn't it?

21 A. That is correct.

22 Q. It slows the central nervous system of a human being,
23 doesn't it?

24 A. It interferes with the signals. But, ultimately, yes,
25 it can result in the slowing of central nervous system

1 functions, yes.

2 Q. It can make us dumber than we are, can't it?

3 A. I don't know if it makes us dumber, but --

4 Q. (Interposing) It can, can't it?

5 A. We may do dumb things, when we're under the influence.

6 I don't know if that makes us dumber, but --

7 Q. (Interposing) Okay. Maybe temporarily dumb, but let's
8 leave it. Would you agree with me that alcohol can affect a
9 person's coordination?

10 A. Yes. In sufficient quantities it can affect
11 coordination, yes.

12 Q. And in sufficient quantities, it can affect a person's
13 ability to use more than one faculty at the same time, can't
14 it?

15 A. It can, yes.

16 Q. And you have to be able to do more than one thing at a
17 time to drive a car, don't you?

18 A. Yes.

19 Q. You've got to look. You've got to listen, hands,
20 feet, got to do all that.

21 A. Yes.

22 Q. Right. I guess a lot of the -- would it be fair to
23 say that at least some or a significant number of the people
24 you arrested for -- investigated for DUI refused to take your
25 field tests?

1 A. There was a percentage, a very low percentage, but,
2 yes.

3 Q. You don't know how alcohol affects this defendant, do
4 you?

5 A. Well, other than general alcohol toxicology, I don't
6 know what this particular individual's tolerance levels are,
7 but I do know alcohol toxicology and pharmacokinetics of
8 alcohol but not this particular.

9 Q. Right. Not him.

10 A. But, in general, the effects of the central nervous
11 system depressant alcohol, yes.

12 Q. Well, since you brought up generalities, let me just
13 ask you more generalities. What sorts of things would you
14 expect to see in a person, generally, at about .08?

15 A. Well, it depends on their tolerance and the
16 manifestations of impairment. A person with a higher tolerance
17 will show less outward signs of impairment. But, generally,
18 alcohol, as it's consumed, the lower concentrations affect
19 small muscle groups. And we refer to it as reverse learning.
20 What we've learned later in life, speech versus walking, are
21 affected sooner than the large muscle groups. So finger
22 dexterity would be affected before walking. Speech would be
23 affected before walking. But as the alcohol increases, the
24 larger muscle groups would be affected. So depending on
25 tolerance depends on where that person of an oh-eight

1 concentration would display manifestations.

2 Q. But in the state of Georgia, and in many other states
3 people, by their elected representatives, have determined that
4 driving at or within a certain amount of time of being a .08 is
5 per se under the influence, correct?

6 A. They made a per se violation of statute at .08. All
7 50 states have now passed that .08 threshold. That is correct.

8 Q. And that's based on studies of what happens to people
9 when they get to .08 and they are driving a car, right?

10 A. Well, it's based on studies. It's also based on the
11 political environment and our social standings as we move
12 forward in a society and what the populous will accept and
13 won't accept. Many years ago that threshold was a .15. So as
14 we evolve and look at alcohol and not only from a forensics and
15 a scientific standpoint but from a social standpoint with
16 organizations like MADD and other things that have political
17 power to change laws. So it's not purely a scientific change.

18 Q. Right and part of the idea -- part of the idea behind
19 this is to reduce traffic fatalities and injuries.

20 A. Well, I would sincerely hope the ultimate goal is to
21 reduce injuries and fatalities.

22 Q. But it's true, in any event, that in Georgia it is
23 unlawful to drive or be in physical control of a moving vehicle
24 at or within three hours of being a .08, is it not?

25 A. Correct. At the time of measurement.

1 Q. Now, based on your training and experience, it is fair
2 to say, isn't it, that people who are at .08 --

3 MR. HIXSON: Your Honor, could I have this?

4 (Indicating)

5 THE COURT: The ELMO?

6 MR. HIXSON: Yes, please.

7 THE COURT: All right.

8 (Whereupon, the evidence display system is activated.)

9 CROSS EXAMINATION CONTINUES

10 QUESTIONS RESUME BY MR. HIXSON:

11 Q. People who are at a .08 or a .102 or a .120, people
12 who are over the per se limit, don't always show gross
13 manifestations of impairments, stumbling, falling down,
14 vomiting and things like that, correct?

15 A. Well, it's like I said, the manifestations that are
16 visible to laypersons may be different, based on tolerance and
17 concentrations, so, yes.

18 Q. So the answer to my question is yes?

19 A. Yes, based on tolerance, manifestations can be
20 different.

21 Q. So a person who blows a .108 might look fine even
22 though he is a .108, depending on his tolerance?

23 A. Well, correct, and depending on the scientific
24 reliability of the test.

25 Q. And a person that's a .120 might look fine, depending

1 on his tolerance and based on the reliability of the test,
2 right?

3 A. He might. The higher the concentration, the less
4 likelihood of no manifestations visible.

5 Q. You've seen -- well, before I start waving this thing
6 around --

7 MR. HIXSON: May I approach, Your Honor?

8 THE COURT: You may.

9 CROSS EXAMINATION CONTINUES

10 QUESTIONS RESUME BY MR. HIXSON:

11 Q. You've seen this, haven't you?

12 A. I have.

13 Q. You've looked at it in preparation?

14 A. I have.

15 Q. All right. Let me go through some questions real
16 quick about the testing protocol. You're familiar with the
17 testing sequence in Georgia, right?

18 A. I am, yes, sir.

19 Q. There's some operator questions. The operator puts
20 his last name in, the operator's first name, his middle
21 initial. He puts in all the operator stuff, right?

22 A. It's what we call data entry.

23 Q. Right.

24 A. Yes.

25 Q. And then he puts in the defendant's information, the

1 defendant's name and date of birth, and driver's license.

2 That's part of the data?

3 A. Data entry, yes.

4 Q. Same thing with the officer's name, the arresting
5 agency, violation date, violation time, all of that is put in
6 by the operator, right?

7 A. Yes.

8 Q. And when you look at State's Exhibit 6, in this case,
9 as far as the data entry part of the thing is concerned -- oh,
10 my goodness, there's nothing overtly wrong or erroneous in
11 appearance for that is there?

12 A. No, as far as instrument operation, I haven't
13 validated the spelling of the officer's name or his badge
14 number or permit number but nothing overtly jumps out as -- I
15 do not.

16 Q. And then the test sequence involves having already
17 inserted a blank card into the machine. We can presume that
18 card was blank before the defendant blew, right?

19 A. Yes.

20 Q. And then the device is supposed to go through a self-
21 diagnostic check. Let me get down to that part of the sequence
22 here. The device is designed and intended and meant to go
23 through a series of self-diagnostics. And if it diagnoses
24 itself as working right, it says what this one says, right,
25 "okay"?

1 A. Was that a question? I'm sorry, Counselor.

2 Q. Yes. The device is designed and intended, before it
3 takes the sample, to go through a self-diagnostic check. And
4 if it checks out with itself it is designed to say, "okay".

5 A. Yes. There are certain specific functions of the
6 instrument that are tested during the diagnostic. And if those
7 specific function areas test within the parameters of the
8 software it will display "okay" and allow the continuation of
9 the forensic analysis.

10 Q. And if one of those self-diagnoses does not work, the
11 machine has a means of saying so, right?

12 A. Correct. If one of the diagnostics is outside the
13 parameters of the software, it should alert the operator to
14 that outside tolerance or error or message or whatever the
15 situation may occur during the diagnostic.

16 Q. There are machines in our lives that have a way of
17 telling us when they are not working, right?

18 A. Well, one way or the other. For instance, our car may
19 tell us it's not working when you can't start it in the
20 morning. This instrument, some of the parameters are checked by
21 the diagnostics, so, yes.

22 Q. I mean, if you put a piece of toast in the toaster and
23 it pops up without a crust on it, then you know it didn't toast
24 your toast, right?

25 A. Just as if it popped up and it was all burnt up, I

1 would imagine it didn't work the way we intended or wanted it
2 to.

3 Q. In this case, the device that was used 655, indicated
4 that it diagnosed itself as okay at 7:05, right?

5 A. It diagnosed -- the diagnostic parameters that were
6 checked came in "okay" at 1905, which is 7:05 p.m., yes.

7 Q. And according to the test slip it did a proper air
8 blank, right?

9 A. It did.

10 Q. And then it took Mr. Griffin's first breath sample,
11 the one that's circled there, at six minutes after seven, is
12 that correct?

13 A. That is correct.

14 Q. That's a one-oh-eight, right?

15 A. .108.

16 Q. That's what it says?

17 A. Yes, it does.

18 Q. And if accepted by the jury, they could conclude that
19 he was over the limit, correct?

20 A. Well, you're asking me a legal question. If --

21 Q. I'm asking you a hypothetical question, because you're
22 an expert. If accepted as accurate you could find that the
23 defendant was over the limit, correct?

24 A. Of .08?

25 Q. Yes.

1 A. Yes.

2 Q. And then, once again, the device is designed and
3 intended to purge itself of any lingering gas in the test
4 chamber and do another set of self-diagnostics, correct?

5 A. Well, within parameters. For instance, the air blanks
6 can artificially adjust to a new zero reference. But, yes,
7 it's designed to pump the sample chamber clear, do another
8 diagnostic, do another air blank and prepare for another
9 samplization, yes.

10 Q. And based on this test slip, this device appears to
11 have done that correctly, does it not?

12 A. Within its parameters it appears to have done that,
13 yes.

14 Q. And then the defendant was asked, within the proper
15 amount of time, to give a second sample of his breath right
16 here at ten minutes after seven, correct?

17 A. That is correct.

18 Q. And according to State's Exhibit 6, he blew a .120,
19 correct?

20 A. Yes, but that's --

21 Q. (Interposing) According to that?

22 A. Well, assuming that that is State's Exhibit 6, I'm not
23 sure what it is marked, but, yes.

24 Q. Well, let me see.

25 A. I don't doubt you. I just didn't know what it was

1 marked, but, yes.

2 Q. I don't want you to be in doubt. And if accepted as
3 reliable and within all the proper parameters, that would also
4 be over the legal limit, would it not?

5 A. It's above .08, yes.

6 Q. Okay. Now, you've talked in response to some of Mr.
7 Kesler's questions about an agreed parameter, right?

8 A. Yes.

9 Q. In order to protect defendants from fault or error or
10 to give them the benefit of the doubt or for whatever
11 scientific reason, any two -- one of the things that actually
12 we do is we make them give two samples, right? We don't just
13 rely on one.

14 A. Correct. Two samplization.

15 Q. We give two samples and those two samples must be
16 within 0.020 of one another for that test to be considered
17 admissible, correct?

18 A. Acceptable, yes.

19 Q. Yeah.

20 A. Admissibility, I'm sure is the same thing but
21 acceptable sample is the oh-two agreement.

22 Q. Yeah. They have to be within that parameter.

23 A. Correct.

24 Q. And these two are, aren't they?

25 A. On the face of the document, yes, they are.

1 Q. And you were asked a little bit about the efficacy of
2 the blood testing. You're aware that in Georgia, a criminal
3 defendant who is asked to take any kind of test whether it's
4 blood, breath, urine or any other bodily substance has an
5 opportunity to have a blood test of his own, if he chooses,
6 correct?

7 A. Yes, I'm aware.

8 Q. And you're aware that in this case the defendant,
9 after his breath test, was given the chance to have a blood
10 test, correct?

11 A. When you say "given a chance", I'm sure he was
12 afforded that opportunity. I don't know if he was physically
13 taken to a clinic or if he was asked. But, yes, I -- he was
14 afforded or given the advice or given the implied consent
15 warning that he was entitled to an independent test, yes.

16 Q. But besides the implied consent warning, you've seen
17 the video of the defendant in this case after the breath test,
18 the audio of him saying, declining his own blood test. Have
19 you not heard that?

20 A. I don't believe I've heard the audio of the breath
21 test room. I have read the police report where he declined the
22 independent test.

23 Q. You've read the police report?

24 A. I did.

25 Q. Have you looked at the video?

1 A. I've looked at the street video. I don't know if I've
2 looked at the police station video. And if I have, I don't
3 recall it right off.

4 Q. But you've looked at the video of the investigation?

5 A. Roadside, yes.

6 Q. Yeah, the roadside. So you have to have two samples.
7 They have to be within oh-two-oh of one another, right? You
8 have to have the right -- I'll just abbreviate. No, I won't.
9 That looks too occultish(sp.ph.). You have to be told you have
10 a right to your own test and you can have a blood test, right?

11 A. Correct.

12 Q. And the device is designed and intended to pick up
13 certain things that can interfere with a breath test result,
14 such as radiofrequency interference?

15 A. There's a specific circuit on the instrument that is
16 designed to identify radiofrequency that may penetrate and
17 interfere with a breath test. There is --

18 Q. (Interposing) It could mess somebody's breath test up,
19 couldn't it?

20 A. If the circuit is not working or if it doesn't detect
21 it, yes, it could.

22 Q. But there's no evidence of that in this case, is
23 there?

24 A. No. That's part of the problem is there is no
25 evidence of a negative. Meaning, if it doesn't pick it up, you

1 won't see it. But there is --

2 Q. But if it did pick it up, it would alert the operator
3 to RFI, radiofrequency interference, wouldn't it?

4 A. If the circuit identified it, it would identify it,
5 yes.

6 Q. Okay. And it didn't identify it in this case?

7 A. It did not.

8 Q. There's also another signal that comes up -- that can
9 come up, called an invalid sample, right?

10 A. That's one of the error messages, yes.

11 Q. And that error message can arise from what?

12 A. Improper slope. I describe slope as a continuing rise
13 and level off, if the slope is not within the parameters of the
14 algorithm of the software, it will produce that message.

15 Q. And that could come from mouth alcohol, couldn't it?

16 A. It could, yes.

17 Q. But there's no invalid sample indication according to
18 this?

19 A. That is correct.

20 Q. If a person doesn't blow enough air into the Intox
21 5000 breath testing device, the machine will say "insufficient
22 sample", meaning that it didn't get enough deep lung air to
23 test. Isn't that correct?

24 A. Correct. If it doesn't get the minimum sampling
25 volume requirement, it will produce that message.

1 Q. So, in this particular case, at least according to the
2 face of State's Exhibit 6, the defendant gave two sufficient
3 samples, correct?

4 A. That met the minimum requirement of the samplization,
5 yes.

6 MR. HIXSON: Excuse me, Your Honor.

7 (Brief pause in proceedings)

8 CROSS EXAMINATION CONTINUES

9 QUESTIONS RESUME BY MR. HIXSON:

10 Q. All right. Now, I've asked you some questions about
11 the breath test in this case. I want to ask you some
12 questions, Mr. Malhiot -- did I say it right?

13 A. Yes, sir.

14 Q. About not the parameter that we've already talked
15 about, but the margin of error. You've testified, probably we
16 all agree, that no machine or protocol or procedure is perfect,
17 right?

18 A. Correct.

19 Q. Even blood testing isn't perfect, is it?

20 A. That is correct.

21 Q. There's always some sort of margin of error because
22 we're human, right?

23 A. Well, we're human and the machine is designed and
24 developed by humans. Any scientific measurement device has a
25 margin of error or measurement uncertainty. That is correct.

1 Q. And you've testified or heard testimony before that
2 the margin of error for the Intox 5000 is about five percent,
3 right?

4 A. No. The margin of error, as published in Georgia, is
5 seven percent. The accuracy standard for the quarterly
6 inspection is five percent. So those are different terms. But
7 the accuracy standard used on the quarterly inspection for the
8 5000 in Georgia is five percent, the measurement uncertainty
9 for measurement is seven percent as published in Georgia's
10 material.

11 Q. Well, what's five percent of .108?

12 A. Five percent of a one-oh is an oh-oh-five. One-oh-
13 eight is probably an oh-oh-five-something.

14 Q. Would you like a calculator?

15 A. If you would like an exact number, yes.

16 Q. The defendant in this case blew a point .108, right?

17 A. One of the samples was a .108, that is correct.

18 Q. The first sample, right?

19 A. Correct.

20 Q. What's five percent of that?

21 A. Well, it appears your calculator is a solar calculator
22 and there's not enough light in here.

23 Q. It is a solar calculator. And I have loathed it,
24 since the day I got it.

25 THE COURT: There you go.

1 MR. HIXSON: Thank, Your Honor.

2 CROSS EXAMINATION CONTINUES

3 QUESTIONS RESUME BY MR. HIXSON:

4 Q. I'm sorry.

5 A. That's quite all right.

6 Q. I can't give it away or throw it out because it was a
7 gift.

8 A. Five percent of a one-oh-eight is a .0054.

9 Q. All right. And if you subtract that margin of error,
10 of .0054 from .108, you get what?

11 A. That's not a margin of error. It's an accuracy
12 standard. And I want to make sure I'm not confusing the two
13 terms.

14 Q. Okay.

15 A. But if we subtract the accuracy standard of the
16 quarterly inspection requirements --

17 Q. You get a one-oh-two, don't you?

18 A. One-oh-two-six.

19 Q. Okay. So if we round it off to three numbers, like
20 the Intox 5000, it would be one-oh-two or one-oh-three.

21 A. It doesn't round. It truncates. So you just drop the
22 point at six. So a one-oh-two is a more accurate number.
23 That's what the 5000 does.

24 Q. Okay. That's what I got. It's still over an oh-
25 eight, isn't it?

1 A. Well, yes. But that's the accuracy standard of the
2 quarterly inspection applied to a breath test.

3 Q. Well, let's go out there a little bit and assume,
4 hypothetically, that the device has a 10 percent -- this device
5 on this occasion has a 10 percent margin of error. And let's
6 apply, in the defendant's favor, a 10 percent margin of error
7 for each of these two breath samples. What would they have
8 been?

9 A. Well, with that assumption, the one-oh-eight would be
10 now a oh-nine-nine.

11 Q. Still over oh-eight, right?

12 A. With a 10 percent assumption, yes.

13 Q. Yes, sir. And the one-two-oh?

14 A. One-oh-eight.

15 Q. Also over a .08, correct?

16 A. Applying the 10 percent number --

17 Q. Yes. The hypothetical, yes.

18 A. Yes.

19 Q. Now, all kinds of things work on source codes, don't
20 they?

21 A. I think all computers, their software originates as
22 source code, yes.

23 Q. laddb?

24 A. Yes.

25 Q. MACs?

1 A. I'm sorry?

2 Q. Macs, Macintosh computers?

3 A. Yes.

4 Q. iPhone?

5 A. Yes. Perhaps this calculator.

6 Q. Not mine, is that what you're saying?

7 A. Maybe yours, as well, Counselor.

8 Q. And one test of the thing's reliability is whether or

9 not it actually works, right? For example, if I turn on my

10 Mac, it boots up quick and it will boot up the software and all

11 that, I can infer reasonably that it's working right, can't I?

12 A. Well, the home computer analogy is a very poor analogy

13 because we've all turned on our computer and had a blue screen

14 come up and it's not working properly.

15 Q. Right. But you knew, didn't you, you knew?

16 A. Well, in that particular instance you would know.

17 Q. You'd know too if you were operating a Windows machine

18 because it takes six times longer for everything to come up,

19 right?

20 A. That could be a sign of many different issues.

21 Q. Like a huge source code.

22 A. Like a what?

23 Q. Like a bigger source code, or source code issues?

24 A. Or viruses or any other number of things, not

25 necessarily a source code issue.

1 Q. Right. You could speculate forever about why a thing
2 might not work, right?

3 A. Or you can test it within quality control measures to
4 ensure that it does work. So, yes, to answer your question,
5 yes.

6 Q. And I believe you did testify that the deprivation
7 period is designed and is meant to ensure that there's no mouth
8 or stomach alcohol that's being put into the tube or the
9 machine because the machine wants lung air, right?

10 A. The goal is to get deep lung air.

11 Q. Deep lung air.

12 A. So, yes, the point of the 20 minute observation is to
13 ensure that residual mouth alcohol or regurgitated alcohol is
14 dissipated prior to the breath test.

15 Q. And then once the device, the chamber gets the deep
16 lung air, the gadgetry or whatever you call it inside the
17 machine is supposed to, among other things, apply the principle
18 of Henry's law, is it not?

19 A. Well, Henry's law is used in simulators and the way we
20 calibrate instrumentation, the absorptivity of infrared
21 spectroscopy is used for the actual measurement. But, yes,
22 Henry's law is part of it when the vapor expands to the full
23 capacity of the sample chamber at specific temperatures at
24 specific air pressures, but Henry's law is more applicable to
25 simulators.

1 Q. And I think I asked you this. But no testing protocol
2 or device is 100 percent perfect, correct?

3 A. Correct.

4 Q. Not, even Florida's?

5 A. That is correct.

6 Q. Have you ever had a case where a person had driven
7 into the rear of another vehicle, had an odor of alcohol,
8 bloodshot eyes, claimed to have had two beers, refused to take
9 field sobriety tests, and then took a state administered
10 chemical test of either their blood or breath or urine, and
11 showed a result like the one in this case?

12 MR. KESLER: Judge, I'm going to object. I don't
13 think he's been qualified as an expert in that capacity.
14 And I also don't think that that completely examines the
15 parameters of the test that we're talking about here.

16 MR. HIXSON: Well, I believe that he's been eminently
17 qualified, Your Honor.

18 THE COURT: Well, he's also got personal experience
19 in law enforcement and whatnot. So I'll overrule that.
20 I'll let him answer, if he can. If he can't answer it,
21 then that's fine too.

22 CROSS EXAMINATION CONTINUES

23 QUESTIONS RESUME BY MR. HIXSON:

24 A. I don't remember if I have had an arrest with the
25 exact same fact pattern. There's very very specific facts that

1 you gave me in that. So to say, definitively, yes, I've had
2 the exact same investigation, I couldn't answer that question,
3 Counselor.

4 Q. But you've had similar cases?

5 A. I've had similar fact patterns, but not specifically
6 the same fact pattern. And I don't know if I could recall a
7 specific.

8 Q. I understand.

9 A. But there was a lot of parameters in that question.

10 Q. I understand. But these facts, if I put them to you
11 hypothetically, taken together, are not necessarily
12 inconsistent with one another, are they?

13 A. Not necessarily inconsistent, no.

14 Q. Thank you.

15 MR. HIXSON: That's all I have, Your Honor.

16 A. Thank you.

17 THE COURT: Redirect.

18 MR. KESLER: Briefly, Judge. May I approach the
19 witness?

20 THE COURT: You may.

21 REDIRECT EXAMINATION

22 QUESTIONS BY MR. KESLER:

23 Q. Mr. Malhiot, let me show you State's Exhibit 6, which
24 is the Intox slip in this case.

25 A. Yes, sir.

1 Q. Is there a place on that receipt for the operator to
2 note the times that he first observed the suspect?

3 A. Yes, on the -- under the results, the printed portion,
4 there's a space for subject's name. Well, that's not used
5 because data entry. The line below that, to the left, there's
6 a space that's documented "time first observed". That's
7 designed for the time, the 20 minute observation begins when
8 they're in a controlled environment and when they can be
9 observed for the 20 minutes prior to the breath test and that
10 is blank.

11 Q. Hypothetically, if an operator did not observe an
12 individual for 20 minutes, an individual took a test that began
13 as this one did at 7:05 p.m., but that individual burped,
14 belched, had some reflux issue at 7:01 p.m., would the results
15 of mouth alcohol in that person's -- would the results of
16 alcohol in the person's mouth still be present in both of those
17 samples?

18 A. Yes.

19 Q. And that's why it is drastically important in -- for
20 an Intox operator to observe a 20 minute period where that
21 person does not have those types of issues, isn't that
22 accurate?

23 A. Yes. It's part of the breath testing protocol. And
24 it's mandated.

25 Q. And is it also true that, not only is it mandated by

1 the accepted science within the community of breath testing,
2 but also mandated by training that GBI does with its Intox
3 operators?

4 A. Yes. It's printed in the GBI training manual. As a
5 matter of fact, it's bolded "must wait 20 minutes prior to the
6 initial test". It's in bold print in their manual.

7 Q. And if you don't properly observe the suspect for the
8 20 minute period, prior to the test, does that in and of itself
9 cause you to question the validity of the results of the test?

10 A. Absolutely. If you're not following the proper
11 testing protocol or the proper samplization protocol, the
12 results can't be considered reliable.

13 Q. And, likewise, in combination with that, the issues
14 that you have with the way the state of Georgia does quality
15 control or outside inspections of the machines, does that cause
16 you to give pause to the results in this case?

17 A. Yes. Based on the totality of the lack of
18 calibration, the single point checks once a quarter, the no
19 external calibration checks at time of test, the no 20 minute
20 observation; I have question with the reliability of the
21 results of this particular breath test, yes.

22 Q. Mr. Hixson asked a few questions about the fact that
23 the state of Georgia has a .08 per se limit. You referenced
24 earlier that there used to be a .15 limit?

25 A. Yes.

1 Q. Isn't it true that over the years, states have
2 adjusted their limits from as high as one-five and even higher,
3 previously, down to different margins over the last 15 years?

4 A. That's true.

5 Q. Isn't it also true that -- well, are you familiar with
6 the fact that in 2001 federal government through the Department
7 of Transportation enacted federal law that require states to
8 have a .08 per se limit, in order to obtain federal
9 transportation loans?

10 A. As a matter of fact, there were five -- there were
11 seven items and the states must comply with five of the seven
12 to get highway traffic safety funding through DOT grants. I'm
13 very familiar with it. I was working with the governor's DUI
14 task force and many other issues that the states had to come up
15 with. And I worked on legislature in the state of Montana to
16 meet that requirement. So, yes, I'm very familiar with it.

17 Q. Mr. Hixson asked some questions about the fact that
18 people have different reactions to alcohol and that somebody
19 that has a high tolerance level at specific testing points on a
20 breath test machine might not be able to observe certain clues,
21 is that right?

22 A. Something to that effect, that line of questioning,
23 yes.

24 Q. Isn't it, likewise, true that somebody that only had
25 two beers and you couldn't observe any clues because of the

1 faultiness in the way the machine was, one, operated and the
2 procedures used to inspect the machine could test higher on the
3 machine than what they had consumed in alcohol?

4 A. You could have an artificially elevated result
5 especially with a mouth alcohol issue and a lack of a 20 minute
6 observation. I think those are two different issues, lack of
7 observable clues, and the breath test reliability. But they do
8 mutually support each other. Meaning the lack of
9 manifestations observed could also go to support an
10 artificially elevated result.

11 MR. KESLER: I believe that's all the questions,
12 Judge, thank you.

13 THE COURT: Any additional cross?

14 MR. HIXSON: No, Your Honor, no additional cross.
15 Thank you.

16 THE COURT: All right. Can this witness be excused?

17 MR. KESLER: Yes, sir.

18 MR. HIXSON: Yes, Your Honor.

19 THE COURT: You're free to go about your business.
20 Thank you for being here today.

21 MR. MALHIOT: Thank you, Your Honor.

22 (Witness excused)

23 (Whereupon, the testimony of Matthew Malhiot concluded.)

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C E R T I F I C A T I O N

STATE OF GEORGIA)
COUNTY OF CHEROKEE)

I, SUSAN BURGESS, Certified Court Reporter and Notary Public in and for the State of Georgia, do hereby certify that the foregoing testimony was taken down by me, as stated in the caption; and the questions and answers were reduced to print by me; that the foregoing pages 1 through 67 represent a true and correct transcript, MORE SPECIFICALLY THE EXCERPT TESTIMONY ONLY OF MATTHEW MALHIOT, given on the 9th day of November, 2011, that I am not a relative, employee, attorney, or counsel of any of the parties; am not a relative or employee of attorney or counsel for any of said parties; nor am I financially interested in the action.

This certification is expressly withdrawn and denied upon the disassembly or photocopying of the foregoing transcript of the proceedings or any part thereof, including exhibits, unless said disassembly or photocopying is done by the undersigned Certified Court Reporter and the original signature and seal is attached thereto.

This the 21st day of December, 2011.



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