IN THE SUPREME COURT OF CALIFORNIA

THE PEOPLE OF THE STATE OF CALIFORNIA, Plaintiff and Respondent, v. TERRY VANGELDER, Defendant and Appellant.	Case No. S195423 Court of Appeal No. D059012 San Diego Sup. Ct. App. Div. No CA221258 Superior Court No. M039138

REPLY TO ANSWER TO PETITION FOR REVIEW

Appeal From the Superior Court of California,
San Diego County, Case No. M039138
The Honorable Gregory W. Pollack, Judge

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INTRODUCTION

Vehicle Code section 23152(b) makes it unlawful for any person who has 0.08 percent or more, by weight, of alcohol in his or her blood to drive a vehicle. It defines percent, by weight, of alcohol in a person's blood as grams of alcohol per 210 liters (2100 milliliters) of breath. In *People v. Bransford*, 8 Cal. 4th 885 (1995), this Court held that, because the statute defines the offense in terms of breath, evidence that, because of physiological factors, the 2100:1 ratio used to convert breath-alcohol concentration to a blood-level may not reflect the true blood alcohol level was not relevant in a prosecution of Vehicle Code section 23152.

In the instant case, Respondent sought to introduce evidence that, because of physiological factors, the 2100:1 ratio used to convert breath-alcohol concentration to a blood-level may not reflect the true blood alcohol level. In contravention of the rule of *Bransford* that such evidence is irrelevant, the Fourth District Court of Appeal held that Respondent should have been allowed to present such evidence. Because this opinion would essentially overrule *Bransford*, review should be granted.

ARGUMENT

I

UNDER *PEOPLE V. BRANSFORD* APPELLANT WAS PROPERLY PROHIBITED FROM INTRODUCING TESTIMONY THAT PHYSIOLOGICAL FACTORS RESULT IN A BREATH TEST RESULT THAT DIFFERS FROM THE ACTUAL BLOOD-ALCOHOL LEVEL

Respondent contends that Appellant attempted to introduce testimony that physiological factors affect the relationship between breath alcohol and blood alcohol, which is prohibited by *Bransford.* Appellant basically argues that *Bransford* only applies to factors affecting the blood-breath exchange at the alveolar level, that Appellant's expert explicitly denied discussing this alveolar-level exchange, and that therefore *Bransford* should not prohibit this testimony. Appellant's argument is nothing less than a direct attack on *Bransford*, which he necessarily implies was based on outdated science.

Appellant's attack on *Bransford*, and breath testing in general, is flawed in three ways. First, Appellant misstates the expert's testimony. In discussing the operation of the breath test device, Appellant correctly points out that California Code of Regulations, Title 17 requires that breath samples be "essentially alveolar."[1] Then, in response to Appellant's identification of the Court of Appeal's assumption that the breath test device must measure only alveolar air, Respondent represents that the expert testified that "*no* alveolar air was sampled by the machine." (Answer to Petition 2, 14.) This misstates the expert's testimony.

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[1] Title 17 CCR section 1219.3 provides in part: "A breath sample shall be expired breath which is essentially alveolar in composition."

Beyond question, when one inhales, air is drawn into the body through the mouth and trachea and down into the lungs. When one exhales, the air that was brought deep into the lungs is pushed out of the lungs, up the trachea and out of the mouth. If one fully exhales, the last air, or breath, to be exhaled is air from the alveolar region. The defense expert never testified that in measuring this last-exhaled breath the breath test device was not sampling air that came from the alveoli—that is, alveolar air. Rather, he testified that the air that was inhaled and brought down to the alveoli and then exhaled into the breath test device collected alcohol from other parts of the airway. In other words, the breath test device measured *alcohol* that came from non-alveolar regions, even while sampling air that came *from* the alveoli.[2]

Second, notwithstanding this mischaracterization of the expert's testimony, Appellant also misconstrues the expert's point. Appellant takes the expert's testimony to mean that no alcohol from the alveolar region is sampled. This is based on one of the expert's statement that by the time the air gets to the alveolus it is "already filled up and saturated." (2 RT 328.) In other words, the air has absorbed as much alcohol from the non-alveolar areas (trachea, upper lung, etc.) that it can, and it will accept no alcohol that comes into the alveoli from the blood. However, while the expert expressed the possibility of such a scenario, he did not testify that it applied here.

Here, Appellant's breath and blood were both found to be .08%. If Appellant's breath were fully saturated with alcohol before reaching the alveolar region, a common sense comparison to humidity tells us that the

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[2] This distinction is significant because the foundation for admission of requires that the device test alveolar (deep lung) breath. Title 17, CCR section 1219.3.

breath test result would be much higher than .08%. Water in air, or humidity, can range in value from 0.0% to 100%. If air is fully saturated with water such that it can hold no more, the humidity is 100%. If breath were fully saturated with alcohol, such that it could hold no more (similar to 100% humidity), the test result would presumably be a similarly high number. Humans have had blood alcohol levels as high as .40%, so presumably full saturation would equate to a similarly high number.

In addition, the expert testified that although he believed Appellant's breath test result did not accurately reflect the blood alcohol level, he could not say if Appellant's actual blood alcohol level would have been more or *less* than the .08 test result. If Appellant's breath were fully saturated with alcohol, it does not seem possible that his test result would be less than .08%.

Finally, Respondent conflates the legal concept of partition ratio as applied to breath test devices with the physiological partition ratio at the alveolar level. As the Fourth District opinion points out, the basic science of breath testing involves the exchange of alcohol, a volatile substance, between blood and breath. (Vangelder Opinion at 19.) There is thus a relationship, a physiological partition ratio, between the alcohol in the alveolar air and the alcohol in the blood, which is a result of Henry's Law. *See People v. McNeal*, 46 Cal. 4th 1183, 1191 (2009).

Appellant proclaims that he is not arguing that his physiological partition ratio is other than the statutory 2100:1; for Appellant's argument "one could assume *arguendo* that every human being has the identical partition coefficient." (Answer to Petition at 2.) The expert similarly denied that his testimony addressed physiological exchange at the alveolar level. (2 RT 357.)

But the physiological partition ratio is not the same thing as the legal partition ratio. The physiological exchange that takes place deep within the body at the microscopic level cannot be quantified at the site (the alveolus); the breath test device does not and cannot test that air *in vivo*, but rather tests it after it is exhaled. The statutory "partition" ratio of 2100:1 is not based on a measurement taken in the alveoli, but rather based on a comparison of alcohol in *exhaled* breath to alcohol in blood. The legal partition ratio, as used in forensic breath testing, has always been based on testing exhaled breath and correlating the result with known blood alcohol levels. Legal partition ratio is generally based on the physiological exchange or partition between blood and breath, but is empirically derived.

Understanding Appellant's three obfuscations allows a clearer view of each party's argument. Respondent's argument is that Vehicle Code section 23152(b) prohibits driving with a specified breath-alcohol level, and binding precedent prohibits evidence that a breath alcohol level, as shown by a breath test result, does not reflect the true blood alcohol level. Appellant's argument is that in spite of the fact that on its face the statutory definition refers only to breath, the scientific basis of the breath test that underpins the statute requires that a valid test measure only alcohol from the alveolar region, and if alcohol is collected from other areas of the lung the test is invalid or flawed.

Resolution of this argument must be guided by this Court's decision in *Bransford*. *Bransford* holds that evidence that physiological factors can result in a breath test that does not reflect the actual blood test result is not relevant to a prosecution under Section 23152(b). The Fourth District Court of Appeal's opinion holds that in the case of an otherwise valid test, i.e.,

one that complies with Title 17 or *People v. Adams*, 59 Cal. App. 3d 559 (1976), testimony that physiological factors result in a breath test different from a blood test is relevant, if the testimony undermines the "basic science" of breath testing.

Bransford leaves no room for such an exception. This Court held there was only one reasonable manner in which to interpret Section 23152(b): "[T]he Legislature intended to criminalize the act of driving either with the specified blood-alcohol level or with the specified breath-alcohol level." *Bransford*, 8 Cal. 4th at 890. The exception *Bransford* did recognize was for such things as the reliability of the machine and the manner in which the test was administered. *Id.* at 893. For example, evidence that the machine had not recently been tested for accuracy, or that a contaminated mouthpiece had been used, would be relevant. Here, Appellant did not contest the accuracy of the machine, or suggest that the test was administered improperly in any way which might be relevant. Instead, Appellant argued that his breath alcohol result, obtained by sampling alveolar air in accordance with Title 17, did not reflect his true blood alcohol level. This is precisely what *Bransford* precludes.

The Court of Appeal opinion would allow defendants to introduce evidence that physiological factors produce breath alcohol results that do not reflect true blood alcohol levels. *Bransford* precludes such evidence as irrelevant. The Court of Appeal opinion thus eviscerates *Bransford* and re-opens the Pandora's Box that the Legislature closed in 1990.

CONCLUSION

Accordingly, for the reasons stated above, Respondent respectfully requests that this Court grant review in the present case.

Dated: September 6, 2011

JAN I. GOLDSMITH, City Attorney

By _____
Jonathan I. Lapin
Deputy City Attorney

Attorneys for Plaintiff/Respondent

CERTIFICATE OF COMPLIANCE
[CRC 8.928]

Pursuant to California Rules of Court, Rule 8.928, I, Jonathan I. Lapin, certify that based on the word processing program used to prepare this brief, that the word count for this document is 1,560 words.

Dated: September 6, 2011

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IN THE SUPREME COURT OF CALIFORNIA

DECLARATION OF
SERVICE BY MAIL

Court of Appeal No. D059012
San Diego Sup. Ct. App. No. CA221258
Case No. M039138
People v. Terry Vangelder

I, Cheryl Willis, declare that I am, and was at the time of service of the papers herein referred to, over the age of eighteen years and not a party to the action; and I am employed in the County of San Diego, California, in which county the within-mentioned mailing occurred. My business address is 1200 Third Avenue, Suite 700, San Diego, California, 92101-4103. I served the following document(s): **REPLY TO ANSWER TO PETITION FOR REVIEW,** by placing a copy thereof in a separate envelope for each addressee named hereafter, addressed to each such addressee respectively as follows:

Charles M. Sevilla
1010 Second Avenue, Suite 1825
San Diego, CA 92101

The Honorable Gregory W. Pollack
Judge of the Superior Court
220 West Broadway
San Diego, CA 92101

San Diego Superior Court
Clerk of the Appellate Division
220 West Broadway
San Diego, CA 92101

Court of Appeal State of California
Fourth Appellate District, Division One
750 B Street, Suite 300
San Diego, CA 92101-8196

Office of the Attorney General
110 West "A" Street, Suite 1100
San Diego, CA 92101

I then sealed each envelope and with the postage thereon fully prepaid, deposited each in the United States mail at San Diego, California on Sept. 6, 2011.

I declare under penalty of perjury that the foregoing is true and correct. Executed on Sept. 6, 2011, at San Diego, California.

Cheryl Willis

PROOF OF SERVICE BY MAIL
C.C.P. §§ 1013(a); 2015.5