2023 PA Super 149

COMMONWEALTH OF PENNSYLVANIA	:	IN THE SUPERIOR COURT OF PENNSYLVANIA
v.	:	
RANDY DALE MABUS	:	
Appellant	:	No. 1672 MDA 2021

Appeal from the Judgment of Sentence Entered November 19, 2021
In the Court of Common Pleas of Northumberland County Criminal Division at No(s): CP-49-CR-0000790-2019

BEFORE: BOWES, J., LAZARUS, J., and STEVENS, P.J.E.*

OPINION BY STEVENS, P.J.E.: **FILED: AUGUST 7, 2023**

Appellant, Randy Dale Mabus, appeals from the judgment of sentence entered in the Court of Common Pleas of Northumberland County following his conviction on one count of driving while under the influence of alcohol ("DUI")-general impairment, one count of DUI-high rate, and one count of registration and certificate of title required.[1] After a careful review, we affirm.

The relevant facts and procedural history are as follows: On February 28, 2019, Appellant was arrested and charged with several DUI offenses in connection with a traffic stop. On July 29, 2019, Appellant filed a counseled pre-trial motion *in limine* to exclude the results of a breath test conducted by Pennsylvania State Corporal Joshua Herman on February 28, 2019.

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* Former Justice specially assigned to the Superior Court.

[1] 75 Pa.C.S.A. §§ 3802(a)(1), 3802(b), and 1301(a), respectively.

Specifically, Appellant averred a breath test is a scientific test, and, thus, the results thereof must conform to general scientific principles. He further relevantly averred (verbatim):

> 6. Generally accepted science requires a test result to be reported with a corresponding uncertainty and confidence interval in order to assess the accuracy of the test.
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> 7. A test result without a corresponding uncertainty and confidence interval is an invalid test result.
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> 8. The study of uncertainty is called metrology.
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> 9. There are national and international standards as to the reporting of uncertainty and the computation of uncertainty.
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> 10. There are national and international standards for traceability of the inputs into testing to ensure the accuracy.
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> 11. The test results in this case to [*sic*] not have any uncertainty or confidence intervals reported thus scientifically they are unreliable.
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> 12. Lack of reporting uncertainty, confidence intervals, and the ability to document traceability do not conform with generally accepted scientific principles thus our ***Frye***[2] standard for the admissibility of scientific evidence have been violated thus the test results are inadmissible.

Appellant's Motion *In Limine*, filed 7/29/19, at 1-2 (footnote added).

On June 17, 2020, Appellant proceeded to an evidentiary hearing regarding the motion *in limine*. At the hearing, the defense presented the testimony of Heather L. Harris, MFS, JD, who testified as an expert in the field of forensic and analytical chemistry. The Commonwealth presented no witnesses.

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[2] ***Frye v. United States***, 293 F. 1013 (D.C.Cir. 1923).

Ms. Harris testified "the science of measurement is known as metrology[,]" and "analytical chemistry utilizes metrology in almost every aspect[.]" N.T., 6/17/20, motion hearing, at 18. She explained "metrology is inherently dependent upon comparisons. You cannot make a measurement without using [a] tool. But you have to compare your unknown to that tool." ***Id.*** at 20. She testified that "part of comparison is the utilization of reliable and validated tools, but then also having reference materials that act as the comparators, that in the current situation would need to be traceable[.]" ***Id.*** Ms. Harris explained "[i]t's a series of records that prove the reference material you're using is scientifically valid in its amount and can be traced back to ultimately would be an international scientific reference standard[.]" ***Id.*** at 20-21.

Ms. Harris testified there is an organization called the National Institute of Standards and Technology ("NIST"), which is part of the federal Department of Commerce. ***Id.*** at 21. She indicated the NIST is the ultimate reference source, so measurements all need to be traceable back to the NIST to be valid. ***Id.*** at 22. Ms. Harris testified the "true value" of something is "always an unknown," so, by measuring, a scientist is "trying to as best as possible estimate the true value." ***Id.*** She explained the quality and reliability of any measurement is going to be dependent upon the tool. ***Id.*** Thus, as an example, she testified there is a "true value [for] a length of [a] shoelace, and

we don't really know what that is. We just try to estimate it as best as we can with our measurement tools." ***Id.***

Ms. Harris testified "uncertainty is an inherent part of the estimation process." ***Id.*** at 23. Thus, since we do not know the true value of items, we measure to get an estimate of the true value. ***Id.*** Accordingly, she explained:

> I can measure the same thing four times in a row and get different measurements. It doesn't mean that one of those measurements is the correct one and the other three are wrong. It simply means that I have four different estimates. And depending on the quality of my measurement tool, the uncertainty can be large, or the uncertainty can be small. And the uncertainty is the way we express the quality and reliability of that measurement tool.

Id.

Ms. Harris testified that, consequently, if knowing the measurement of something is critical, a scientist will use a precise measurement device that will have a lower uncertainty.[3] ***Id.*** She clarified that, even with a precise measurement device there is no guarantee any measurement will be "the true value, [but] it simply means that measurements are less disperse" in trying to estimate the true value. ***Id.*** She testified "every device will have its own uncertainty of measurement, [s]o it's important that each measuring device goes through the process of being evaluated for uncertainty." ***Id.*** at 24.

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[3] With regard to her shoelace example, Ms. Harris testified that in estimating the true value of the shoelace it is better to use a "precise linear measurement device" rather than a "79 cent ruler" from a department store. ***Id.*** at 23.

She noted "[u]ncertainty is somewhat dependent on what it is [a person] is trying to measure." ***Id.*** Thus, for example, she opined a shoelace won't change much over the course of an hour; however, "a gas could change quite a bit over the course of an hour. So, there is uncertainty that derives from your sample." ***Id.*** She also noted there is uncertainty that arises from the measuring tool as well as uncertainty regarding how one applies that tool to the sample. ***Id.*** She opined that, in sum, "uncertainty arises from really all the human inputs into the measurement process[.]" ***Id.***

Ms. Harris testified that when an item is being measured it is referred to as "measure and." ***Id.*** at 25. For example, she explained that if a person blows into a machine to see what his alcohol content is, the "measure and" is "a breath alcohol." ***Id.*** She noted there are formulas used by scientists to determine the uncertainty of different measurement devices, and there is an ultimate guide called the Guide to the Expression of Uncertainty in Management a/k/a the "GUM Guide."[4] ***Id.*** Ms. Harris testified the GUM Guide is an "international standard for how to evaluate a measuring process and then to apply these mathematical formulas, so you can calculate at the end of it all a single numerical value for certainty." ***Id.***

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[4] Ms. Harris testified the first GUM Guide was published in 1993. ***Id.*** at 51.

Ms. Harris testified that a confidence interval is an expression of how likely a measurement estimate is to capture the true value of an item. ***Id.*** at 26. She explained:

> So going back to this idea that no one knows what the true value is, we are measuring it to estimate it. We have to put some sort of confidence interval on that, because there is—it is impossible for us to say we are one hundred percent accurate in this measurement, we don't know what the true value is, we will never know if we got it correct or not. So, when we establish a confidence interval, we are basically making a choice as to how frequently we are willing to accept an answer that is not capturing true value.
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> So, if someone says, you know, a particular result with a 95 percent confidence interval, what they're saying is that five times out of one hundred our measurement estimate is not capturing the true value.
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> ***
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> So, the confidence interval gives you some likelihood as to—well as how likely it is that your estimate plus or minus uncertainty contains the true value.

Id. 26-27. Ms. Harris testified the confidence interval expresses the likelihood you captured the true value. ***Id.*** at 31. She noted "you can never have a confidence interval of one hundred because we'll never know if we ever captured the true value." ***Id.*** at 32.

Ms. Harris testified the formulas in the GUM Guide regarding how to determine uncertainty and to get confidence intervals are accepted in the scientific community. ***Id.*** at 26. She explained the GUM Guide provides determinations of how to "get to the end result, which is that plus or minus value with the confidence interval." ***Id.*** at 27.

Ms. Harris testified about the theories underlying and provided for in the GUM Guide. Specifically, she indicated the GUM Guide provides that "when reporting the result of a measurement of physical quantity, it is obligatory that some quantitative indication of the quality of the result be given so that those who use it can assess its reliability…[T]his is for evaluating and expressing its uncertainty." ***Id.*** at 35. She further explained the GUM Guide provides "[t]he concept of uncertainty as a quantifiable attribute is relatively new in the history of measurement, although error and error analysis have long been a part of the practice of measurement science for metrology." ***Id.*** However, she explained the GUM Guide provides that "[i]t is now widely recognized that when all of the known or suspected components of error have been evaluated and the appropriate corrections have been applied, there still remains an uncertainty about the correctness of the stated result…from the measurement [process]." ***Id.*** at 36. She concluded that the GUM Guide indicates:

> [I]n many industrial and commercial applications, as well as in the areas of health and safety, it is often necessary to provide an interval about the measurement result that may be expected to encompass a large fraction of the distribution of values that could reasonably be attributed to the quantity subject to measurement.

Id.

Ms. Harris next testified the "ISO is the International Organization for Standardization." ***Id.*** at 37. She indicated the ISO, which is French, provides standards for forensic science and forensic laboratories, including ISO 17025, which provides "standards for laboratories to follow to ensure that they are

engaging in reliable testing, and producing valid and reliable results." ***Id.*** She noted the ISO "is not a standard." ***Id.*** at 41. However, reading from the ISO, she indicated the following:

> Testing laboratories[5] shall have and shall apply procedures for estimating the uncertainty of measurement. In certain cases, the nature of the test method may preclude rigorous metrologically and statistically valid calculation of uncertainty of measurement. In these cases, the laboratory shall at least attempt to identify all the components of uncertainty, and make a reasonable estimation, and shall ensure that the form of reporting of the result does not give a wrong impression of the uncertainty. Reasonable estimation shall be based on knowledge of the performance of the method and on the measurement scope and shall make use of, for example, previous experience and validation data.
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> ***
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> In addition to the requirements listed [above], test reports shall, where necessary for the interpretation of the test results, include the following: A. Deviations from, additions to, or exclusion from the test method and information on specific test conditions such as environmental conditions.
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> ***
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> Where applicable a statement on the estimated uncertainty of measurement: information on uncertainty is needed in test reports when it is relevant to the validity or application of the test results, when a customer's instruction so requires, or when the uncertainty affects compliance to a specification limit.

Id. at 38-39, 41-42 (footnote added).[6]

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[5] There is no dispute Appellant's instant breath alcohol test was not performed in a laboratory; but rather, it was a test given at the police barracks.

[6] Defense counsel argued the values provided by laboratories used by the Pennsylvania State Police don't take into account the levels of uncertainty of measurement and the resulting confidence levels, and thus, he averred they violate national/international standards of measurement. ***Id.***

Ms. Harris testified the ISO indicates "you cannot apply the measurement to the legal specification without knowing the reliability of the measurement[,]" and she opined this concept is applicable to DUI breath testing. ***Id.*** at 42.

Ms. Harris testified about a 2005 NAS report, which was promulgated by the United States Congress. ***Id.*** at 44-45. She noted the NAS report provides:

> As a general matter, laboratory reports generated as the result of a scientific analysis should be complete and through. They should contain, at a minimum, methods and materials, procedures, results, conclusions, and as appropriate, sources and magnitudes of uncertainty in the procedures and conclusions, for example levels of confidence.
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> ***
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> Many clinical and testing disciplines outside the forensic science disciplines have standards, templates, and protocols for data reporting. A good example is ISO/IEC 17025 standards. ISO 17025 is an international standard published by the International Organization for Standardization.
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> ***
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> In other words, although appropriate standards exist, they are not always followed. Forensic reports, and any courtroom testimony stemming from them, just include clear characteristics of the limitations of the analyses, including measures of uncertainty in reported results and associated estimated probabilities where possible.

Id. at 46-47.

She opined that breath testing is the scientific analysis of the quantity of alcohol in one's breath, and, thus, if one is going to report a test result in court for a breath sample, one must report the uncertainty. ***Id.*** at 47. She

noted the NAS indicates that all laboratory analysis is subject to error, so a sample must be analyzed within a confidence interval of possible values. ***Id.*** However, she admitted that not all measurements are done in a laboratory. ***Id.*** For example, a breath test is usually done in the police barracks; however, she opined the breath test is a scientific test, and the results are a forensic test result, so breath tests should be subject to the same testing requirements as those done in a laboratory. ***Id.*** at 50.

Ms. Harris noted there are many variables that affect the input in alcohol breath testing. For example, there are human biological components and instrument variables. ***Id.*** at 59. She concluded there are errors built into the scientific process of breath testing. ***Id.*** at 60. She noted the ASCLD/LAB[7] is the organization that accredits laboratories and ensures the ISO 17025 requirements, which measure uncertainty, are met. ***Id.*** She admitted the "ASCLD/LAB does not prescribe a specific method or formula to assessing measurement certainty." ***Id.*** at 61. However, the ASCLD/LAB "expects uncertainty estimations to conform to the principles set forth in the GUM Guide and in applicable GUM supplements." ***Id.***

Accordingly, Ms. Harris opined there are different methods to determine uncertainty in testing; however, one should follow the GUM Guide. ***Id.*** She

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[7]ASCLD/LAB is short for the "American Society of Crime Laboratory Directors/Laboratory Accreditation Board." ***Id.*** at 60.

indicated breath testing is an analytical test since it involves measuring gas that is exhaled from human beings. ***Id.*** at 62. She indicated that with this type of testing there are two types of error: systemic error and random error. ***Id.*** She testified systemic error involves bias such as where a measurement tends to veer one way or another. ***Id.*** at 63. Random error is what the uncertainty of measurement value is reflecting, and one can never eliminate random error. ***Id.*** Accordingly, she opined systemic error needs to be identified and corrected in the method of measurement while random error is dealt with through the concept of uncertainty of measurement. ***Id.*** She opined that "the absence of uncertainty and confidence means" the quality of the measurement is in doubt without any indication of reliability. ***Id.*** at 64. Accordingly, she opined that when a breath alcohol test is conducted the result generated by the machine is not reliable absent taking into account the uncertainty in confidence intervals. ***Id.*** at 68, 73.

Ms. Harris noted that, in a particular unrelated case, a Pennsylvania State Police report indicated the suspect had a blood alcohol content of 0.171%, plus or minus 0.021 as the uncertainty, with a confidence interval of 99.73.[8] However, in that same case, the suspect's breath alcohol content was 0.172%. ***Id.*** at 70-71. The breath test was performed by the Mansfield

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[8] Ms. Harris noted the blood alcohol test was performed by the Pennsylvania State Police Crime Lab in Greensburg, PA, which is an accredited ASCLD/LAB, which follows the GUM Guide and ISO. ***Id.*** at 71.

University Police Department, and there was no report of uncertainty values. ***Id.*** at 72. Accordingly, Ms. Harris opined the breath alcohol content of 0.172% actually tells "us nothing about that test result other than [it gives] a number." ***Id.*** at 74.

On cross-examination, Ms. Harris acknowledged that neither the International Organization of Legal Metrology nor the NAS report from Congress are the law. ***Id.*** at 75. Further, Ms. Harris acknowledged that, in Pennsylvania, there is a bulletin that is released with respect to approved alcohol breath testing, and the Intoxilyzer 9000 is an approved device. ***Id.*** She also acknowledged there are regulations promulgated by the Commonwealth of Pennsylvania that provide procedural information with respect to how breath tests are to be performed. ***Id.*** at 76. She admitted these were "step by step procedures," which give a "framework" for conducting the testing. ***Id.***

Ms. Harris admitted the Pennsylvania Department of Transportation ("PennDOT") has promulgated regulations for breath testing with respect to the Vehicle Code in 67 Pa.C.S.A. § 77.24. ***Id.*** at 76-77. In fact, the regulations "give a step-by-step procedure of how the breath tests are supposed to be administered." ***Id.*** at 77. She acknowledged there are accuracy and calibration tests set forth in the PennDOT regulations that must be performed every 30 days and two tests must be within a certain range. ***Id.***

When the Commonwealth asked Ms. Harris if she was familiar with Pennsylvania case law holding that breath analyzer test machines are scientifically reliable, Ms. Harris indicated in the negative. The Commonwealth asked Ms. Harris if the uncertainty in calculating the "true value," in her opinion, is partially related to the operation of the machine. ***Id.*** at 81. Ms. Harris responded in the affirmative and admitted that the Pennsylvania State Police trains operators of the breath machines. ***Id.*** She also admitted there are police officers who maintain the machines, and they have monthly and yearly protocols. ***Id.*** She admitted there are regulations pertaining to taking a breathalyzer instrument out of service if "results start to vary too much[.]" ***Id.*** at 82. Ms. Harris admitted she is unaware of any cases in Pennsylvania where a court "ruled on with respect to the uncertainty levels in breath alcohol tests[.]" ***Id.*** at 83.

On redirect-examination, Ms. Harris testified the fact the GUM Guide, NAS, and ISO 17025 are not codified in law does not change her opinion that it is necessary to have a report for breath alcohol testing with uncertainty and confidence intervals. ***Id.*** at 86. She testified from a scientific perspective "the law is somewhat irrelevant." ***Id.***

At the conclusion of the hearing on the motion *in limine*, defense counsel stipulated that Corporal Herman tested Appellant's breath on the Intoxilyzer 9000 and reported it as "0.141 percentage BAC." ***Id.*** at 87-89. However, he noted this was without accompanying uncertainty or competency intervals.

Id. at 88. He also stipulated that Corporal Herman completed the DataMaster DMT operator course, as well as the maintenance course, conducted by the Pennsylvania State Police, as well as the operator and maintenance training specifically on the Intoxilyzer 9000. ***Id.*** at 88-89.

By opinion and order entered on July 27, 2020, the trial court denied Appellant's motion *in limine*. On July 14, 2021, Appellant proceeded to a non-jury bench trial at which Corporal Herman, a twelve-year veteran with the Pennsylvania State Police, testified he stopped Appellant's vehicle for a registration violation on February 28, 2019. N.T., 7/14/21, trial, at 5. When he approached Appellant, who was sitting in the driver's seat of the vehicle, he "noticed a…moderate odor of alcohol coming from his breath…[H]is eyes were bloodshot and glassy and dilated." ***Id.*** at 6. Appellant admitted he had just left a bar, and he had consumed two beers. ***Id.*** at 7.

Corporal Herman testified he administered field sobriety tests upon Appellant, who was unable to successfully complete the tests. ***Id.*** at 9-11. Accordingly, Appellant was arrested and transported to the police barracks. ***Id.*** at 11. "Upon arrival back at the barracks, the 20-minute observation period began at 2118 hours." ***Id.*** at 11-12. Corporal Herman explained the 20-minute observation period is given to ensure "the defendant doesn't vomit, belch, eat, take in any type of fluids. That way, when samples are given,…there is nothing in there that could basically interfere with what the sample is about to be." ***Id.*** at 13.

Corporal Herman testified Appellant successfully completed the 20-minute observation period, and thus, "his implied consent and O'Connell warnings were given [to him] at 2126 hours." ***Id.*** Corporal Herman then conducted a breath test on Appellant with the Intoxilyzer 9000.[9] ***Id.*** at 13-14. The Intoxilyzer 9000 revealed Appellant's breath alcohol content was 0.141%. ***Id.*** at 13.

At the conclusion of the bench trial, the court convicted Appellant of the offenses indicated *supra*, and on November 19, 2021, the trial court sentenced Appellant to an aggregate of six months' probation with the first thirty days consisting of in-home confinement with electronic monitoring. This timely counseled appeal followed, and all Pa.R.A.P. 1925 requirements have been met.

On appeal, Appellant sets forth the following issues in his "Statement of Questions Presented" (verbatim):

> 1. The Trial Court erred in admitting the breath test results at trial because the breath test results failed to include uncertainty values and a corresponding confidence interval. When a measurement of a critical value lacks the reporting of its uncertainty and confidence interval, the test results do not comply with national and international standards of reporting of measurements. Therefore, the breath test results in this case do not conform with generally accepted scientific principles of measurement and are thus inadmissible.

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[9] The Commonwealth requested, and the trial court agreed, to take "[judicial] notice that the Intoxilyzer 9000 is an approved testing device in the Pennsylvania Bulletin at the time of the incident. That would be Volume 48, Issue 20, with an issue date of 5/19/18." ***Id.*** at 14.

> 2. The admission of the breath test results that did not conform with general scientific principles of the reporting of measurement in this case prejudiced the Defendant in relation to the charge of general impairment.

Appellant's Brief at 2.

On appeal, Appellant contends the trial court erred in failing to exclude Appellant's breath alcohol test result of 0.141%., which was measured by the Intoxilyer 9000 on February 28, 2019. Appellant acknowledges the Intoxilyer 9000 is a measuring device, which is approved by the Pennsylvania Department of Health, and the PennDOT regulations do not require the reporting of uncertainty and confidence intervals with breath alcohol testing. However, he reasons that, under generally accepted scientific principles, the measurement of alcohol in Appellant's breath from the Intoxilyer 9000 is a "mere guess" since the result is not put into context with scientifically required uncertainty and confidence intervals. ***Id.*** at 16. Appellant argues "[t]here is no precedent that says just because the Commonwealth uses an approved testing machine and that the regulations don't require uncertainty and confidence intervals, that means they are not required." ***Id.*** at 30.

In this regard, Appellant argues his expert, Ms. Harris, offered unrebutted testimony indicating breath alcohol testing is a forensic scientific test that measures the amount of alcohol in one's breath, and as such, it is subject to the generally accepted scientific principles of measurement, which requires that a result from a scientific test include the reporting of uncertainty values and corresponding confidence intervals. Since the test result in the

instant case was "a single number without the corresponding uncertainty and confidence intervals," Appellant contends the ***Frye*** standard for the admissibility of scientific evidence has been violated. He suggests Pa.R.E. 403 provides the instant breath test result should be excluded since "the reported result is misleading and prejudicial[.]" Appellant's Brief at 17. Thus, he contends the trial court erred in denying his motion *in limine* to exclude the breath alcohol test result of 0.141%.

Initially, we note the following well-established legal precepts:

> When reviewing the denial of a motion *in limine*, we apply an evidentiary abuse of discretion standard of review. ***See Commonwealth v. Zugay***, 745 A.2d 639 (Pa.Super. 2000) (explaining that because a motion *in limine* is a procedure for obtaining a ruling on the admissibility of evidence prior to trial, which is similar to a ruling on a motion to suppress evidence, our standard of review of a motion *in limine* is the same as that of a motion to suppress). The admission of evidence is committed to the sound discretion of the trial court and our review is for an abuse of discretion.
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> The admissibility of evidence is a matter directed to the sound discretion of the trial court, and an appellate court may reverse only upon a showing that the trial court abused that discretion. ***Commonwealth v. Wallace***, 522 Pa. 297, 561 A.2d 719 (1989).

Commonwealth v. Stokes, 78 A.3d 644, 654 (Pa.Super. 2013).

Pennsylvania Rule of Evidence 403, to which Appellant cites, provides the following:

> **Rule 403. Excluding Relevant Evidence for Prejudice, Confusion, Waste of Time, or Other Reasons**
>
> The court may exclude relevant evidence if its probative value is outweighed by a danger of one or more of the following: unfair

> prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.

Pa.R.E. 403 (bold in original).

In the case *sub judice*, Appellant does not dispute his breath alcohol test result is "relevant evidence" in determining whether he was DUI; however, he contends the probative value of the breath alcohol test result of 0.141%, without scientifically required uncertainty and confidence intervals, is outweighed by the danger of unfair prejudice and misleading the fact-finder.

This argument is intertwined with his assertion that the breath alcohol test result does not meet the requirements for the admissibility of scientific evidence as set forth in ***Frye*** and its progeny. As indicated, Appellant contends the general acceptance in the relevant scientific community is that, for determining scientific measurements (including breath alcohol results), uncertainty and confidence intervals must be included, and since such were not included in this case, the breath alcohol test result of 0.141% from the Intoxilyer 9000 does not meet the requirements of ***Frye***.

Relevantly, our Supreme Court has held as follows:

> Rule 702 of the Pennsylvania Rules of Evidence addresses the general admissibility of expert testimony where scientific evidence is at issue:
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> > Rule 702. Testimony by experts
> >
> > If scientific, technical or other specialized knowledge beyond that possessed by a layperson will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or

> education may testify thereto in the form of an opinion or otherwise.

Pa.R.E. 702.[10] This Court has noted that the ***Frye*** test, which was adopted in Pennsylvania in ***Commonwealth v. Topa***, 471 Pa. 223, 369 A.2d 1277 (1977), "is part of Rule 702." ***Grady v. Frito–Lay, Inc.***, 576 Pa. 546, 839 A.2d 1038, 1042 (2003). In ***Frye***, the Court of Appeals of the District of Columbia considered whether expert evidence concerning a blood pressure "deception test," which supposedly determined whether a test subject was being truthful based on changes in blood pressure, was admissible against a criminal defendant. In rejecting the evidence, the court opined that, to be admissible, the evidence must be sufficiently established and accepted in the relevant scientific community:

> Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.

Frye, 293 F. at 1014. This passage sets forth the core of what has come to be known as the "***Frye*** test."

In ***Topa***, where this Court considered spectrographic voice print identification evidence, we described the ***Frye*** standard as follows: "Admissibility of the [scientific] evidence depends upon the general acceptance of its validity by those scientists active in the field to which the evidence belongs." ***Id.*** at 1281. In finding that the proffered scientific evidence was inadmissible in ***Topa***, the Court quoted the rationale set forth by the Court of Appeals of the District of Columbia in ***United States v. Addison***, 498 F.2d 741, 744 (D.C.Cir. 1974):

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[10] We recognize the basis of Appellant's motion *in limine*, as well as the issue raised on appeal, regards the exclusion of evidence of Appellant's breath alcohol test result as opposed to a pre-trial motion seeking to allow Ms. Harris to offer an expert opinion at trial regarding the reliability of the test results. However, we cite to and discuss Pa.R.E. 702 for the purposes of understanding the development of ***Frye*** and its application in Pennsylvania.

> "The requirement of general acceptance in the scientific community assures that those most qualified to assess the general validity of a scientific method will have the determinative voice. Additionally, the ***Frye*** test protects prosecution and defense alike by assuring that a minimal reserve of experts exists who can critically examine the validity of a scientific determination in a particular case. Since scientific proof may in some instances assume a posture of mystic infallibility in the eyes of a jury of laymen, the ability to produce rebuttal experts, equally conversant with the mechanics and methods of a particular technique, may prove to be essential."

Topa, 369 A.2d at 1282.

The [Supreme] Court has consistently followed this manner of approach when confronted with novel scientific evidence in the three decades since [the Court's] adoption of ***Frye***. ***Grady***, ***supra*** (expert witness's conclusion concerning safety of food product inadmissible because expert's methodology lacked general acceptance in relevant scientific community for purposes of reaching such conclusion). In addition, in ***Grady***, th[e] [Supreme] Court recently made clear that ***Frye*** would remain the governing Pennsylvania standard, and not the newer federal standard represented by ***Daubert v. Merrell Dow Pharmaceuticals, Inc.***, 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993). ***Grady***, 839 A.2d at 1044–45.

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[However, our Supreme] Court has made it clear that ***Frye*** is not implicated every time science comes into the courtroom; rather, it applies only to proffered expert testimony involving novel science. ***Commonwealth v. Delbridge***, 580 Pa. 68, 859 A.2d 1254, 1260 (2004) (plurality opinion) (citing Pa.R.E. 702 and ***Grady***, 839 A.2d at 1044). What constitutes novel scientific evidence has historically been decided on a case-by-case basis, and there is some fluidity in the analysis; indeed, science deemed novel at the outset may lose its novelty and become generally accepted in the scientific community at a later date, or the strength of the proponent's proffer may affect the ***Frye*** determination.

In ***Grady***, [for example,] the plaintiff sought to introduce expert testimony concerning the downward force required to break "Doritos" chips as well as the expert's conclusion that

> Doritos remain too hard and too sharp after being chewed to be swallowed safely. This Court held that, while the methodology used by the expert to calculate the downward force may have been generally accepted in the scientific community, his methodology was not generally accepted as a means to reach the conclusion that an item remains too hard and sharp to swallow safely after being chewed. Accordingly, this Court found that the trial court did not abuse its discretion in ruling the scientific conclusion inadmissible. ***Grady***, 839 A.2d at 1047.

Commonwealth v. Dengler, 586 Pa. 54, 890 A.2d 372, 380-82 (2005) (some citations and footnote omitted) (footnote added).

In the case *sub judice*, in explaining the reasons it denied Appellant's motion *in limine* and permitted the Commonwealth to introduce evidence during trial that Appellant's breath alcohol content was 0.141%, as measured by Corporal Herman using the Intoxilyzer 9000, the trial court indicated the following:

> [Appellant] asserts that the lack of reporting uncertainty, confidence intervals, and the ability to document traceability do not conform with generally accepted scientific principles. [Appellant] contends the ***Frye*** standard of admissibility of scientific evidence has been violated, [thus] making the breath test result inadmissible.
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> [Appellant's] argument lacks merit. Under ***Frye***, novel scientific evidence is admissible if the methodology that underlies the evidence has general acceptance in the relevant scientific community. ***See Commonwealth v. Blasioli***, 552 Pa. 149, 713 A.2d 1117, 1119 (1998). Breathalyzer tests to determine alcohol concentration are not novel science and are generally accepted within the relevant scientific community. Furthermore, the use of breathalyzer tests to determine alcohol concentration in the blood are admissible as codified by the Pennsylvania legislature.
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> 75 Pa.C.S.A. § 1547(c). Chemical Testing to Determine Amount of Alcohol or Controlled Substance describes the test results admissible in evidence:

> "In any summary proceeding or criminal proceeding in which the defendant is charged with a violation of Section 3802 (*i.e.*, driving under the influence)…, the amount of alcohol…in the defendant's blood, as when by chemical testing of the person's breath, blood or urine, which tests are conducted by qualified persons using approved equipment, shall be admissible in evidence." 75 Pa.C.S.A. § 1547(c).
>
> "Chemical tests of breath shall be performed on devices approved by the Department of Health using procedures prescribed jointly by regulations of the Departments of Health and Transportation. Devices shall have been calibrated and tested for accuracy within a period of time and in a manner specified by regulations of the Departments of Health and Transportation. For purposes of breath testing, a qualified person means a person who has fulfilled the training requirement in the use of the equipment in a training program approved by the Departments of Health and Transportation. A certificate or log showing that a device was calibrated and tested for accuracy and that the device was accurate shall be presumptive evidence of those facts in every proceeding in which a violation of this title is charged."[11] 75 Pa.C.S.A. § 1547(c)(1).

Here, it is undisputed the Intoxilyer 9000 was used to administer the breathalyzer test. "Only equipment and methods approved by the Department [of Health] may be used for the laboratory analysis of breath samples." 28 Pa. Code § 5.102.

According to the Department of Health and the National Highway Traffic Safety Administration guidelines, the Intoxilyer 9000 is an approved breathalyzer testing device. 48 Pa.Bull. 3011.

"The National Highway Traffic Safety Administration ("NHTSA") of the United States Department of Transportation published model specifications for Screening Devices to Measure Alcohol in Bodily Fluids at 59 FR 39382 (August 2, 1994). These

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[11] In the case *sub judice*, there is no dispute Corporal Herman was a "qualified person" or that the Intoxilyer 9000 was "approved equipment." 75 Pa.C.S.A. § 1547. There is also no dispute the Intoxilyer 9000 had been properly calibrated and tested for accuracy.

specifications established performance criteria and methods for testing alcohol screening devices to measure alcohol content. The NHTSA established these specifications to support state laws and the United States Department of Transportation's workplace alcohol testing program. The Department has elected to use the NHTSA criteria for approving devices for the prearrest testing of a person's breath to determine the alcohol content of the person's blood."

"The NHTSA published its first Conforming Products List ("CPL") for screening devices at 59 FR 61923 (December 2, 1994), with corrections at 59 FR 65128 (December 16, 1994), identifying the devices that meet the NHTSA's Model Specifications for Screening Devices to Measure Alcohol in Bodily Fluids. Thereafter, the NHTSA updated the CPL at 60 FR 42214 (August 15, 1995), 66 FR 22639 (May 4, 2001), 70 FR 54972 (September 19, 2005), with corrections at 70 FR 72502 (December 5, 2005) and 72 FR 4559 (January 31, 2007)."

"The NHTSA published revised Model Specifications for Screening Devices to Measure Alcohol in Bodily Fluids at 73 FR 16956 (March 31, 2008). These specifications removed from use interpretive screen devices ("ISD") because ISDs did not provide an unambiguous test result. These specifications also removed from use the Breath Alcohol Sample Simulator as it is not necessary for testing breath alcohol screening devices. All other performance criteria and test methods were maintained. The NHTSA published an additional update to the CPL at 74 FR 66398 (December 15, 2009). The current list was published at 77 FR 35745 (June 14, 2012)." 49 Pa.Bull. 7505.

At the time of Appellant's arrest, the Pennsylvania Department of Health approved the Intoxilyer 9000 as a device to determine the alcohol content of the blood by analysis of a person's breath. 48 Pa.Bull. 3011 published May 19, 2018. Furthermore, the Intoxilyzer 9000 remains approved in the most recent Bulletin 49 Pa.Bull. 7505 published on December 21, 2019. Therefore, the Intoxilyer 9000 is an approved device.

[Appellant] disputes the reliability of the Intoxilyzer 9000 because of the lack of reporting uncertainty, confidence intervals, and the ability to document the traceability. [Appellant] supports [his] contention with testimony of [his] expert witness who merely disagreed with the test's methodology. However, [Appellant] fails to acknowledge Commonwealth's Exhibit 1, which is the certificate of Breath Testing Device Accuracy which specifically certifies the

> testing, accuracy, and the degree of accuracy within the specified range of the Department of Health and Department of Transportation regulations promulgated under Section 1547(c) of the Vehicle Code, the Act of June 17, 1976, 75 Pa.C.S.A. § 1547(c).
>
> Therefore, in accordance with 75 Pa.C.S.A. § 1547(c)(1), the accuracy of the test is presumed, and [Appellant] fails to provide [credible] evidence to the contrary. The issues raised by [Appellant] regard the weight to be given to the evidence, which is an issue to be determined by the finder of fact. Therefore, [the trial court properly denied Appellant's] motion *in limine* to [exclude] the admission of the breath test results[.]

Trial Court Opinion, filed 2/7/22, at 2-5 (footnote added).

We agree with the trial court's sound analysis. With the authorities set forth by the trial court in mind, we find no abuse of discretion on the part of the trial court in admitting the breath alcohol test result of 0.141%, as measured by Corporal Herman using the Intoxilyzer 9000.

We are satisfied, and agree with the trial court, that Ms. Harris' testimony did not involve science that could be deemed novel under ***Frye***. This case did not pose the classic ***Frye*** situation where the Commonwealth sought to introduce Appellant's breath alcohol test results under a novel scientific test or as a common law matter. ***See Dengler***, ***supra***. Rather, the "science" here (the corporal's measuring of Appellant's breath alcohol content with the Intoxilyer 9000 for purposes of determining whether he was DUI) is responsive to a specific legislatively adopted scheme, which sets forth the requirements for gathering the challenged evidence, as well as the relevance of the challenged evidence. ***See id.*** Simply put, the General Assembly has

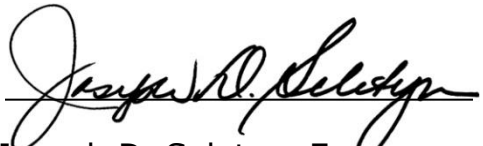
set forth how chemical tests of breath shall be performed, how they shall be recorded, and when they are admissible into evidence. There is no dispute the Commonwealth followed these legislative protocols.

We further agree with the trial court that the Commonwealth's failure to provide uncertainty and confidence intervals goes to the weight of the evidence. Simply put, we conclude the trial court did not abuse its discretion in holding the lack of uncertainty and confidence intervals did not create unfair prejudice or mislead the fact finder so as to require exclusion under Pa.R.E. 403. Accordingly, we find Appellant is not entitled to relief.

For all of the foregoing reasons, we affirm.

Affirmed.

Judgment Entered.



Joseph D. Seletyn, Esq.
Prothonotary

Date: 8/7/2023