

# Florida Department of Law Enforcement Alcohol Testing Program

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## CERTIFICATE OF ASSURANCE

Alcohol Reference Solution Lot #: 99220  
 Ethanol Concentration: 0.0968 g/100mL  
 Expected Breath Test Instrument Reading: 0.080 g/210L

Lot # 99220 Meets Department Standards  
 Lot Approved: October 19, 1999  
 Source: Guth Laboratories

The Florida Department of Law Enforcement Alcohol Testing Program (Department) assures that Florida citizens are provided with accurate, precise, and reliable breath alcohol tests for use in traffic court proceedings. Alcohol Reference Solution (ARS) used in Florida is prepared by the Department or by a source approved by the Department, and is an important part of the Department's assurance to Florida citizens and courts.

The Department tests newly manufactured ARS by gas chromatography to determine accuracy of preparation and uniformity within the lot. Lots meeting Department standards are approved for use in Florida. The gas chromatographic testing consists of the analysis of at least ten bottles of ARS in triplicate. Analysis of all ARS bottles must produce three valid test results. Individual test results are an estimate of the ARS ethanol concentration, and the average of the results is the best estimate of the ARS ethanol concentration.

Lots having 30 analytical determinations within the following acceptable ranges will be accurate and uniform within the lot and are approved for use in the State of Florida.

Vapor Alcohol Target Concentration (g/210L)	ARS Target (g/100mL)	ARS Acceptable Range (g/100mL)
0.050	0.0605	0.0586 to 0.0623
0.080	0.0968	0.0938 to 0.0997
0.200	0.2420	0.2347 to 0.2492

A lot meeting the above criteria has an alcohol concentration indistinguishable from an alcohol target concentration of 0.0968 g/100mL. It will provide a vapor alcohol reading at or between 0.075 g/210L to 0.085 g/210L when tested by a properly calibrated breath test instrument operated in compliance with Chapter 11D-8, F.A.C.

The ethanol concentrations (g/100mL) and descriptive statistics for lot 99220 are:

0.0975	0.0977	0.0973	0.0975	0.0973	0.0977
0.0976	0.0973	0.0974	0.0971	0.0977	0.0974
0.0976	0.0971	0.0973	0.0974	0.0978	0.0974
0.0975	0.0973	0.0974	0.0973	0.0978	0.0973
0.0976	0.0972	0.0976	0.0974	0.0976	0.0973

**0.0974 g/100mL Average**  
 0.0002 g/100mL standard deviation  
 0.0971 g/100mL minimum observation  
 0.0978 g/100mL maximum observation  
 30 observations

Tom Wood  
 Signature

Senior Crime Lab Analyst  
 Title