



Florida Department of  
Law Enforcement

Gerald M. Bailey  
Commissioner

**Criminal Justice  
Professionalism Program  
Alcohol Testing Program**

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**MEMORANDUM**

TO: Alcohol Testing Program Department Inspectors

FROM: Laura D. Barfield, Alcohol Testing Program Manager *LDB*

DATE: November 25, 2006

SUBJECT: CMI, Inc. Intoxilyzer 8000 Instrumentation Evaluation – August 2006

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Attached you will find the CMI, Inc. Intoxilyzer 8000 Instrumentation Evaluation Report prepared November 25, 2006. The report was generated using data obtained during the evaluation conducted July 31 through August 1, 2006, in accordance with applicable rules and forms in effect at that time.

Based on the Department's review of this evaluation, the CMI, Inc. Intoxilyzer 8000 using software version 8100.26 remains approved for evidentiary use in Florida. The feature/update evaluated does not affect the accuracy and reliability of the breath test results obtained using the Intoxilyzer 8000.

If you have any questions, please feel free to contact me.

LDB

Attachments

# **Florida Department of Law Enforcement Alcohol Testing Program**

## **CMI, Inc. Intoxilyzer 8000 Instrumentation Evaluation Report**

**Conducted in Accordance with Chapter 11D-8, FAC March 2006 and corresponding  
FDLE/ATP Form 34 Instrument Evaluation Procedures**

**July 31 and August 1, 2006  
Ponte Vedra, Florida**

**CMI, Inc. Intoxilyzer 8000**  
**Instrumentation Evaluation Report**  
**Conducted in Accordance with Chapter 11D-8, FAC March 2006 and corresponding**  
**FDLE/ATP Form 34 Instrument Evaluation Procedures**

**Introduction**

In order to be considered valid under Florida law, the analysis of a person's breath must have been administered substantially in accordance with methods and procedures approved by the Florida Department of Law Enforcement (FDLE), using instrumentation approved by FDLE. The FDLE Alcohol Testing Program has been granted specific and exclusive statutory authority to ensure the accuracy and reliability of breath alcohol test results and to approve breath test instrumentation and methods of breath analysis. The process for evaluation of breath test instrumentation for evidentiary use in Florida is prescribed by Chapter 11D-8, Florida Administrative Code.

**Purpose**

The purpose of this evaluation is to assess the CMI, Inc. Intoxilyzer Model 8000 breath test instrumentation for evidentiary use in the State of Florida, using infrared light absorption as the method of analysis with software version 8100.26, and with the following feature/update:

- System Board Part Number 310338G

The evaluation process ensures that the methodology utilized by the breath test instrumentation provides accurate and scientifically reliable analytical results. Evaluations are not intended to approve individual parts or components of the breath test instrumentation.

**Testing Location and Operating Conditions**

Testing Location:           Sawgrass Marriott Resort  
                                  1000 PGA Tour Boulevard  
                                  Ponte Vedra, FL 32082

Operating Conditions:   Indoors, 73 to 74<sup>0</sup> F

**FDLE Personnel Present During the Evaluation**

Laura D. Barfield, Program Manager  
Matthew E. Malhiot, Department Inspector  
Dwite N. Hackney, Department Inspector  
George L. Venturi, Department Inspector  
Roger G. Skipper, Department Inspector  
Donald P. Suereth, Department Inspector  
Margaret M. Geddings, Department Inspector-In-Training (Observer)  
Sandra G. Veiga, Department Inspector-In-Training (Observer)

**Instrumentation Used**

The following Intoxilyzer 8000 breath test instruments were provided on loan by the manufacturer, CMI, Inc.

- **CMI, Inc. Intoxilyzer 8000, Serial Number 80-001173** - No shrink wrap cover on the ends of the breath hose, no room temperature vulcanization (RTV) applied to the power supply coils, case part number(s) cover (top) 440980 and chassis (bottom) 440988, ring

detect capacitor – 0.047 Microfarad, 2MB memory storage capacity, system board part number 310338E.

- **CMI, Inc. Intoxilyzer 8000, Serial Number 80-001175** – Shrink wrap cover on both ends of the breath hose, room temperature vulcanization (RTV) applied to the power supply coils, case part number(s) cover (top) 440980 Rev B and chassis (bottom) 440988 Rev A, ring detect capacitor – 0.47 Microfarad, 2MB memory storage capacity, system board part number 310338G.

### **Instrumentation Description**

- Make and Model Designation: CMI, Inc. Intoxilyzer 8000, listed on the US Department of Transportation Conforming Products List of Evidential Breath Measurement Devices.
- Method of Analysis: Non-dispersive infrared light absorption.
- Software Version: 8100.26
- Description of Instrumentation: An infrared-based instrument designed for both mobile and stationary evidential breath alcohol testing.
- Specification for Precision: Average Standard deviation of 0.003 g/210L or better.
- Response Prescribed to Denote an Interferent: Display INTERFERENT DETECT and a high/low tone will sound.
- Response Prescribed to Denote Mouth Alcohol: Display SLOPE NOT MET and a high/low tone will sound.

### **Equipment and Supplies**

#### Reference Sample Devices (Simulators)

All simulators were operated within  $34 \pm 0.2^{\circ}\text{C}$  and had air leak resistant seals. The make, model and serial number of each simulator is outlined in Appendix A.

#### Digital Thermometer

The make, model and serial number of the digital thermometer is outlined in Appendix A.

#### External Printers

The make, model and serial number of each external printer is outlined in Appendix A.

#### Standards, Solutions, and Deionized Water

All alcohol reference solutions were analyzed by the Florida Department of Law Enforcement in accordance with Rule 11D-8.0035(2)(a), FAC. The dry gas standard was prepared and certified by Scott Specialty Gases, Inc. The results of the alcohol reference solution analyses and the certified concentration of the dry gas standard are outlined in Appendix B. Acetone Stock Solution, Lot Numbers 2005-D and 2006-D, and Mouth Alcohol Solution, Lot Numbers 2006-A and 2006-B, prepared and analyzed by the Florida Department of Law Enforcement were used for the acetone interference tests and the mouth alcohol tests, respectively. Deionized water obtained from the FDLE Tallahassee Regional Operations Center Laboratory was analyzed by gas chromatography prior to the evaluation.

#### Other Supplies

All other supplies and equipment used were commercially available and compatible with this type of instrumentation (printer tape, mouthpieces, tubing, office supplies, etc.).

## **Procedures**

### **0.00 g/210L Test, Acetone Interference Test and Mouth Alcohol Test**

The Intoxilyzer 8000 instrumentation was subjected to twenty-five (25) repetitions of a 0.00 g/210L test, twenty-five (25) repetitions of an acetone interference test, and twenty-five repetitions of a mouth alcohol test. The results are outlined in Appendix C-1 and Appendix C-2.

### **Alcohol Reference Solution Analyses**

The Intoxilyzer 8000 instrumentation was subjected to twenty-five (25) repetitions of alcohol reference solution analyses at each of the following concentrations: 0.05, 0.08, 0.20 g/210L. The results are outlined in Appendix C-1 and Appendix C-2.

### **Dry Gas Standard Analyses**

The Intoxilyzer 8000 instrumentation was subjected to twenty-five (25) repetitions of dry gas standard analyses at the following concentration: 0.08 g/210L. The results are outlined in Appendix C-1 and Appendix C-2.

## **Analytical Results**

All results met the requirements of FDLE/ATP Form 34 Instrument Evaluation Procedures for accuracy, precision, and correct instrument responses as prescribed by the manufacturer.

## **Conclusion**

The results of this evaluation establish that the CMI, Inc. Intoxilyzer 8000 evidentiary breath test instrument, using software version 8100.26 and the feature/update identified above, produces accurate and reliable breath alcohol test results. Based on the results of this evaluation, the CMI, Inc. Intoxilyzer 8000 remains approved for use as an evidentiary breath test instrument in the State of Florida.

# APPENDIX A

## External Equipment

### Reference Sample Devices (Simulators)

<b>Make</b>	<b>Model</b>	<b>Serial Number</b>
RepcO Marketing	3402-2K	2235
RepcO Marketing	3402-2K	2236
RepcO Marketing	3402-2K	2237
RepcO Marketing	3402-2K	2238
RepcO Marketing	3402-2K	2239
Guth	10-4D	SD1011
Guth	10-4D	SD1018
Guth	10-4D	SD1022
Guth	34C	G2840
Guth	34C	G2883

### Digital Thermometers

<b>Make</b>	<b>Model</b>	<b>Serial Number</b>
Ertco-Eutechnics	4400	300504

### External Printers

<b>Make</b>	<b>Model</b>	<b>Serial Number</b>
Samsung	ML1750	BAAX303716R
Brother	HL5240	5J239707

# APPENDIX B

## Alcohol Reference Solution

	0.05 g/210L (g/100mL)	0.08 g/210L (g/100mL)	0.20 g/210L (g/100mL)
<b>Source</b>	Alcohol Countermeasure Systems, Inc.	Alcohol Countermeasure Systems, Inc.	Alcohol Countermeasure Systems, Inc.
<b>Lot Number</b>	200509A	200509B	200509C
<b>Manufacture Date</b>	9/22/2005	9/22/2005	9/22/2005
<b>Expiration Date</b>	9/22/2007	9/22/2007	9/22/2007
<b>Approval Date</b>	11/17/2005	11/17/2005	11/17/2005
<b>Target Concentration (g/100mL)</b>	0.0605	0.0968	0.2420
<b>Acceptable Range (g/100mL)</b>	0.0586 to 0.0623	0.0938 to 0.0997	0.2347 to 0.2492
1	0.0604	0.0973	0.2457
2	0.0598	0.0976	0.2459
3	0.0604	0.0978	0.2473
4	0.0603	0.0987	0.2444
5	0.0600	0.0982	0.2456
6	0.0601	0.0972	0.2446
7	0.0603	0.0972	0.2456
8	0.0604	0.0980	0.2459
9	0.0599	0.0981	0.2462
10	0.0595	0.0976	0.2456
11	0.0600	0.0971	0.2464
12	0.0601	0.0973	0.2458
13	0.0594	0.0972	0.2451
14	0.0595	0.0968	0.2448
15	0.0596	0.0977	0.2455
16	0.0609	0.0972	0.2453
17	0.0593	0.0979	0.2467
18	0.0600	0.0970	0.2461
19	0.0596	0.0972	0.2460
20	0.0598	0.0973	0.2474
<b>Mean</b>	0.0600	0.0975	0.2458
<b>Std Dev</b>	0.0004	0.0005	0.0008
<b>Minimum</b>	0.0593	0.0968	0.2444
<b>Maximum</b>	0.0609	0.0987	0.2474

## Dry Gas Standard

<b>Manufacturer</b>	<b>Lot Number</b>	<b>Expiration Date</b>	<b>Certified Concentration</b>
Scott Specialty Gases, Inc.	618801I	July 10, 2008	0.080 g/210L

# APPENDIX C-1

## Analytical Results

### Intoxilyzer 8000 S.N. 80-001173

	0.00 g/210L Test (g/210L)	0.05 g/210L Test (g/210L)	0.08 g/210L Test (g/210L)	0.20 g/210L Test (g/210L)	0.08 g/210L (g/210L) Dry Gas Std Test	Acetone Interference Test * = Interferent Detect	Mouth Alcohol Test * = Slope Not Met
1	0.000	0.048	0.079	0.200	0.079	INT*	SNM*
2	0.000	0.049	0.078	0.200	0.078	INT*	SNM*
3	0.000	0.049	0.078	0.198	0.079	INT*	SNM*
4	0.000	0.048	0.079	0.199	0.079	INT*	SNM*
5	0.000	0.048	0.078	0.197	0.079	INT*	SNM*
6	0.000	0.048	0.078	0.197	0.079	INT*	SNM*
7	0.000	0.048	0.078	0.197	0.079	INT*	SNM*
8	0.000	0.048	0.078	0.196	0.079	INT*	SNM*
9	0.000	0.048	0.078	0.196	0.079	INT*	SNM*
10	0.000	0.048	0.079	0.196	0.080	INT*	SNM*
11	0.000	0.048	0.078	0.196	0.079	INT*	SNM*
12	0.000	0.048	0.078	0.195	0.079	INT*	SNM*
13	0.000	0.048	0.078	0.196	0.079	INT*	SNM*
14	0.000	0.049	0.078	0.196	0.080	INT*	SNM*
15	0.000	0.048	0.078	0.196	0.079	INT*	SNM*
16	0.000	0.048	0.077	0.195	0.079	INT*	SNM*
17	0.000	0.048	0.079	0.195	0.079	INT*	SNM*
18	0.000	0.048	0.079	0.195	0.079	INT*/PUR <sup>1</sup>	SNM*
19	0.000	0.048	0.078	0.196	0.079	INT*	SNM*
20	0.000	0.049	0.078	0.195	0.079	INT*	SNM*
21	0.000	0.048	0.078	0.196	0.079	INT*	SNM*
22	0.000	0.048	0.078	0.196	0.079	INT*	SNM*
23	0.000	0.048	0.078	0.196	0.080	INT*	SNM*
24	0.000	0.048	0.079	0.195	0.080	INT*	SNM*
25	0.000	0.048	0.079	0.196	0.080	INT*	SNM*
26						INT*	
27						INT*	
28						INT*	
<b>Mean</b>		0.048	0.078	0.196	0.079		
<b>Std Dev</b>		0.0004	0.0005	0.0014	0.0005		
<b>Minimum</b>		0.048	0.077	0.195	0.078		
<b>Maximum</b>		0.049	0.079	0.200	0.080		

**Average Standard Deviation:**

0.0007

<sup>1</sup>Failed to purge due to ambient saturation. Area cleared and testing continued.

# APPENDIX C-2

## Analytical Results

### Intoxilyzer 8000 S.N. 80-001175

	0.00 g/210L Test (g/210L)	0.05 g/210L Test (g/210L)	0.08 g/210L Test (g/210L)	0.20 g/210L Test (g/210L)	0.08 g/210L (g/210L) Dry Gas Std Test	Acetone Interference Test * = Interferent Detect	Mouth Alcohol Test * = Slope Not Met
1	0.000	0.049	0.084	0.198	0.079	INT*	SNM*
2	0.000	0.050	0.083	0.198	0.079	INT*	SNM*
3	0.000	0.050	0.082	0.198	0.079	INT*	SNM*
4	0.000	0.050	0.082	0.199	0.079	INT*	SNM*
5	0.000	0.050	0.083	0.199	0.079	INT*	SNM*
6	0.000	0.050	0.083	0.199	0.079	INT*	SNM*
7	0.000	0.050	0.083	0.199	0.079	INT*	SNM*
8	0.000	0.051	0.082	0.199	0.079	INT*	SNM*
9	0.000	0.050	0.083	0.197	0.080	INT*	SNM*
10	0.000	0.050	0.082	0.197	0.079	INT*	SNM*
11	0.000	0.050	0.082	0.196	0.080	INT*	SNM*
12	0.000	0.050	0.082	0.197	0.080	INT*	SNM*
13	0.000	0.050	0.082	0.197	0.080	INT*	SNM*
14	0.000	0.050	0.082	0.197	0.079	INT*	SNM*
15	0.000	0.050	0.082	0.197	0.080	INT*	SNM*
16	0.000	0.051	0.082	0.199	0.079	INT*	SNM*
17	0.000	0.050	0.082	0.198	0.079	INT*	SNM*
18	0.000	0.050	0.082	0.199	0.080	INT*	SNM*
19	0.000	0.050	0.082	0.199	0.080	INT*	SNM*
20	0.000	0.050	0.082	0.198	0.080	INT*	SNM*
21	0.000	0.050	0.082	0.199	0.079	INT*	SNM*
22	0.000	0.050	0.082	0.198	0.080	INT*	SNM*
23	0.000	0.050	0.082	0.199	0.080	INT*	SNM*
24	0.000	0.050	0.082	0.199	0.080	INT*	SNM*
25	0.000	0.051	0.082	0.199	0.080	INT*	SNM*
<b>Mean</b>		0.050	0.082	0.198	0.079		
<b>Std Dev</b>		0.0004	0.0005	0.0009	0.0005		
<b>Minimum</b>		0.049	0.082	0.196	0.079		
<b>Maximum</b>		0.051	0.084	0.199	0.080		

Average Standard Deviation: 0.0006