# Missouri State Highway Patrol

## Calibration Certification for the

### Guth Laboratories 34C Simulator

**The individual wet-bath simulator listed herein has been verified operating within specified parameters, in accordance with the MoDHSS State Public Health Laboratory Breath Alcohol Program's "Testing Requirements for the Recalibration of Simulators".**

**Simulator Inventory Number:** F26170 **Simulator Serial Number:** G11044

| | | |
|---|---|---|
| **Initial Low Temperature Reading:** | N/A | *Data marked N/A at left indicates the simulator required no heater temperature adjustments. Refer to final readings.* |
| **Initial High Temperature Reading:** | N/A | |
| **Final Low Temperature Reading:** | +33.974℃ | |
| **Final High Temperature Reading:** | +33.990℃ | **Simulator Thermometer Reading:** +34.015℃ |
| **Temperature Variance:** | 0.016℃ | **Correction (Bias):** -0.036℃ |

*Note: A combined measurment uncertainty of ±0.04℃ applies to final readings.*

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**Thermal validation was performed using 500mL of aqueous solution and allowed to stabilize to a target operating temperature of +34.00 degrees Celsius, ±0.2 degree Celsius. The instrument used to confirm thermal performance has been calibrated against standards traceable to the National Institute of Standards and Technology (NIST), as indicated below.**

**NIST Traceable Thermometer:** Ertco-Eutechnics 4400 Digital Thermometer

- **Serial Number:** 306168
- **Calibrated By:** Alpha Technics, 17151 Gillette Avenue, Irvine, CA 92614-5602
  - **Certification Number:** 306168011113
  - **Certification Date:** 01/11/2013
  - **Expires:** 12/11/2013

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**Other Control Data**

- **AC Line Voltage:** 120.5 VAC
- **Ambient Room Temp:** +23.3℃

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**Certification Performed at:** GHQ Radio Shop

**Certification Date:** 07/30/2013

- **Certification Number:** 414857099
- **Expires:** 07/30/2014

**Type II/Technician:** Chief Tech. D. D. Carver, C41