**VERMONT FORENSIC LABORATORY**

PO BOX 47
WATERBURY, VERMONT 05676-0047
TEL: 802-244-8788
FAX: 802-241-5557
http://vfl.vermont.gov

# DATAMASTER TECHNICAL SUPPORT INQUIRY

**Agency/Site:** VPA/Training **DataMaster Serial #:** 103809

Date: 06/06 /2012 Requestor: Bolduc

Instrument Supervisor: _____ Phone #: _____

Taken By: _____

Problem: Instrument would not boot up

Laboratory Response: Returned to VFL for service

Work Performed: 6/19/2012- Replaced PCB, problem persisted. Replaced SI controller board and unit was able to boot up. TLC assigned the serial number to the SI board in the system software using her password. Voltages were set to begin detector optimization.- ALB

6/21/12 adjusted voltages to optimize the detector. Allowed the unit to stabilize then calibrated and certified. ALB

6/25/12 Installation and APM protocols performed for VFL staff training

☐ On Site ☒ In-house Attachments: 7 pages

Performed By: ALB Date: 6/28/12

Final Review: LLA Date: 6/28/2012

# CALIBRATION REPORT

**DataMaster DMT:** 103809
**Calibration Date:** 06/21/2012
**Calibrated by:** AMANDA BOLDUC
**Lot:** 12-71-100

| | | | |
|---|---|---|---|
| Ca = 0.100 | | | |
| CAL = 0.977056 | 0.800 | <= CAL < | 1.200 |
| b1 = 0.000 | 0.000 | <= b1 < | 0.004 |
| b2 = 0.004 | 0.002 | <= b2 < | 0.010 |
| b3 = 0.000 | 0.000 | <= b3 < | 0.004 |
| Xq = 0.078 | 0.050 | <= Xq < | 0.200 |
| a21 = 1.155620 | 1.050 | <= a21 < | 1.300 |
| a31 = 0.492479 | 0.300 | <= a31 < | 0.800 |

Performed by A B Bolduc Date 06/21/2012

## ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 103809

---

Date: 06/21/2012
Time: 10:44:24

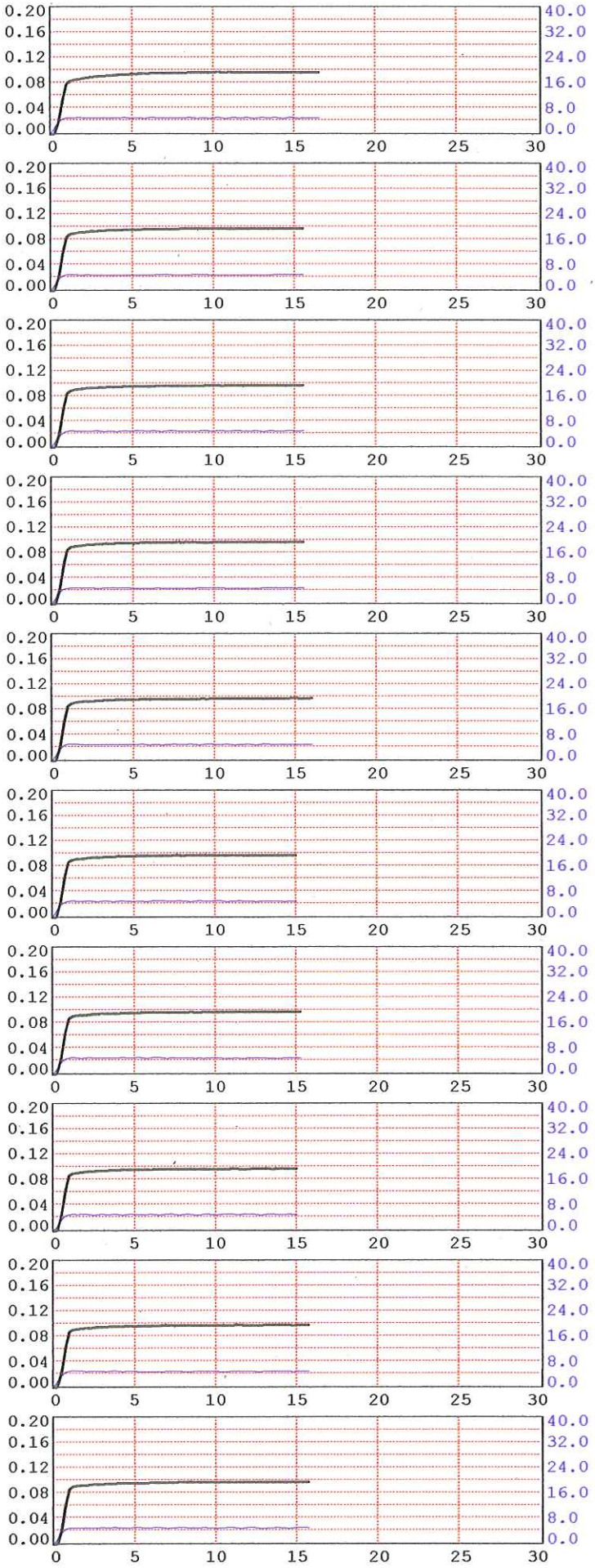
SUPERVISOR NAME:
ALB CAL CHECK

SOLUTION LOT #: GUTH 11250
SOLUTION CONCENTRATION: 0.100

---

| | | |
|---|---|---|
| BLANK TEST | 0.000 | 10:45 |
| CALIBRATION CHECK | PASSED | 10:45 |
| SIMULATOR VAPOR 33.7°C | 0.097 | 10:45 |
| SIMULATOR VAPOR 33.7°C | 0.098 | 10:46 |
| SIMULATOR VAPOR 33.7°C | 0.097 | 10:48 |
| SIMULATOR VAPOR 33.6°C | 0.097 | 10:49 |
| SIMULATOR VAPOR 33.7°C | 0.098 | 10:50 |
| SIMULATOR VAPOR 33.7°C | 0.098 | 10:51 |
| SIMULATOR VAPOR 33.7°C | 0.098 | 10:52 |
| SIMULATOR VAPOR 33.7°C | 0.097 | 10:53 |
| SIMULATOR VAPOR 33.6°C | 0.098 | 10:54 |
| SIMULATOR VAPOR 33.7°C | 0.098 | 10:55 |
| BLANK TEST | 0.000 | 10:56 |

Average = 0.097
Std Dev = 0.000






Page 3 of 8

## ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 103809

---

Date: 06/21/2012
Time: 10:29:47

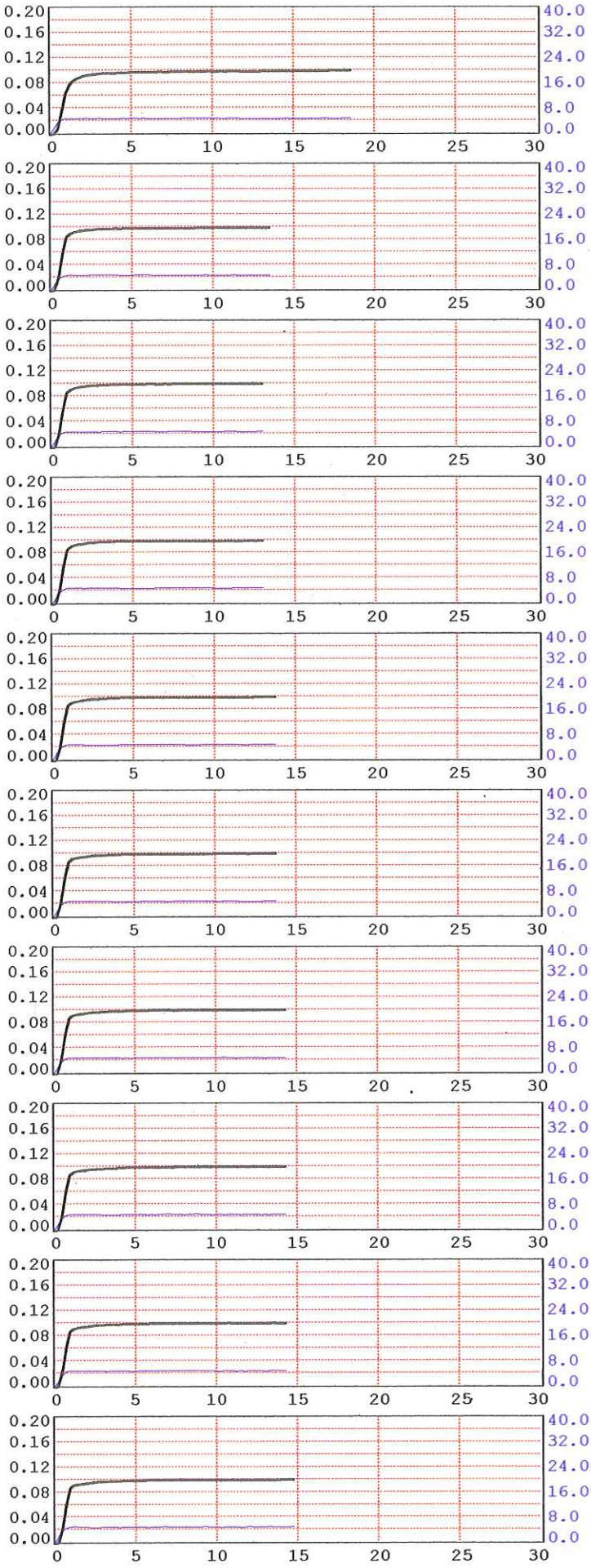
SUPERVISOR NAME:
ALB CAL CHECK

SOLUTION LOT #: 12-39-100
SOLUTION CONCENTRATION: 0.100

---

| | | |
|---|---|---|
| BLANK TEST | 0.000 | 10:30 |
| CALIBRATION CHECK | PASSED | 10:30 |
| SIMULATOR VAPOR 33.7°C | 0.100 | 10:31 |
| SIMULATOR VAPOR 33.6°C | 0.099 | 10:32 |
| SIMULATOR VAPOR 33.7°C | 0.100 | 10:33 |
| SIMULATOR VAPOR 33.7°C | 0.100 | 10:34 |
| SIMULATOR VAPOR 33.7°C | 0.100 | 10:35 |
| SIMULATOR VAPOR 33.6°C | 0.100 | 10:36 |
| SIMULATOR VAPOR 33.7°C | 0.100 | 10:37 |
| SIMULATOR VAPOR 33.7°C | 0.100 | 10:38 |
| SIMULATOR VAPOR 33.6°C | 0.100 | 10:39 |
| SIMULATOR VAPOR 33.7°C | 0.101 | 10:40 |
| BLANK TEST | 0.000 | 10:41 |

Average = 0.100
Std Dev = 0.000



# CERTIFICATION REPORT

**DataMaster DMT:** 103809
**Calibration Date:** 06/21/2012
**Certification Date:** 06/21/2012
**Certified by:** AMANDA BOLDUC

## Diagnostic Results

```
VERSIONS
DMT: 1.01
PIC: 2.06
Modem: 2.4
Questions: 2.1

TEMPERATURES

Sample Chamber = 48.9°C
Breath Tube    = 46.0°C
Digital Sim    = 33.7°C

SETTINGS
Lamp Voltage   = 1.72 V
Cooler Voltage = 1.60 V
Bias Voltage   = 80 V
Chopper Freq   = 534 Hz

PUMP INFO
Flow Rate = 6.004 L/M

DETECTOR INFO
PUMP     ON         OFF
MAX(V)    0.0018     0.0067
MIN(V)    0.0006     0.0047

FILTER INFO
Filter 1   0.005  Zero = true
Filter 2   0.207  Zero = true
Filter 3  -0.092  Zero = true

CALIBRATION CHECK
Xq  = 0.078  0.22%
```

## Options

```
OPTIONS
Units
   Alcohol.................. g/210L
Simulator
   Tolerance Check.......... yes
   Standard Type............ wet
   Nominal.................. 0.100
   Digital Simulator........ Guth34CNP
Subject
   Ask Questions............ yes
   Number of Tests.......... 2
   Alcohol Display.......... yes
   Volume Display........... yes
   Query Refusal............ yes
   Copies................... 3
   Simulator Before......... yes
   Simulator Between........ yes
   Simulator After.......... no
   Observation Time......... 0
Supervisor
   Number of Tests.......... 10
Calibration
   Standard Type............ wet
   Nominal.................. 0.100
   Nominal(Dry Gas)......... 0.100
   Number of Tests.......... 1
Printer
   Printer On............... yes
Software Configuration
   Data Collection.......... yes
```

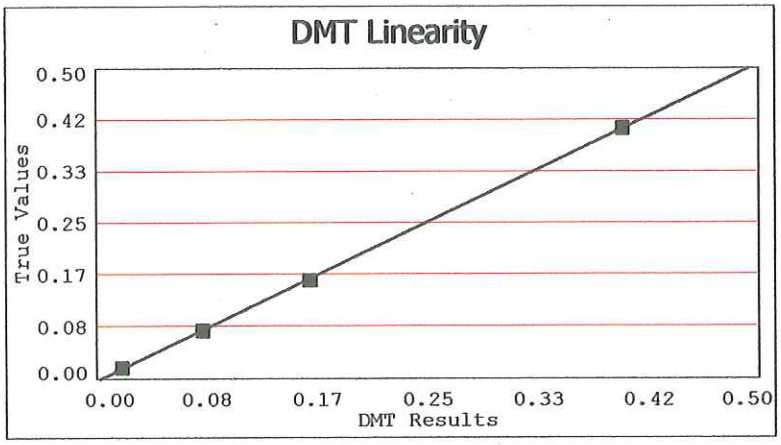


Pg 5 of 8

## Linearity Check Results

| True Value | Reported Average | Std Dev |
|---|---|---|
| 0.019 g/210L<br>Lot # 12-78-020 | 0.019 g/210L | 0.0000 |
| 0.079 g/210L<br>Lot # 12-74-080 | 0.080 g/210L | 0.0000 |
| 0.160 g/210L<br>Lot # 12-53-100 | 0.161 g/210L | 0.0000 |
| 0.404 g/210L<br>Lot # 12-62-400 | 0.397 g/210L | 0.0000 |

$R^2 = 0.9999$



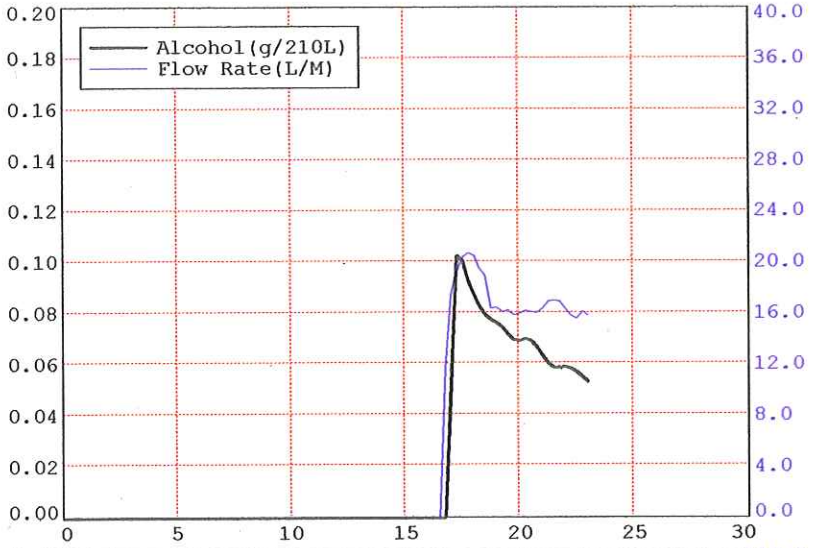

## Acetone Interference Test

Lot # 12-79-08A1

Interference Detected

## Mouth Alcohol Test

Mouth Alcohol Detected

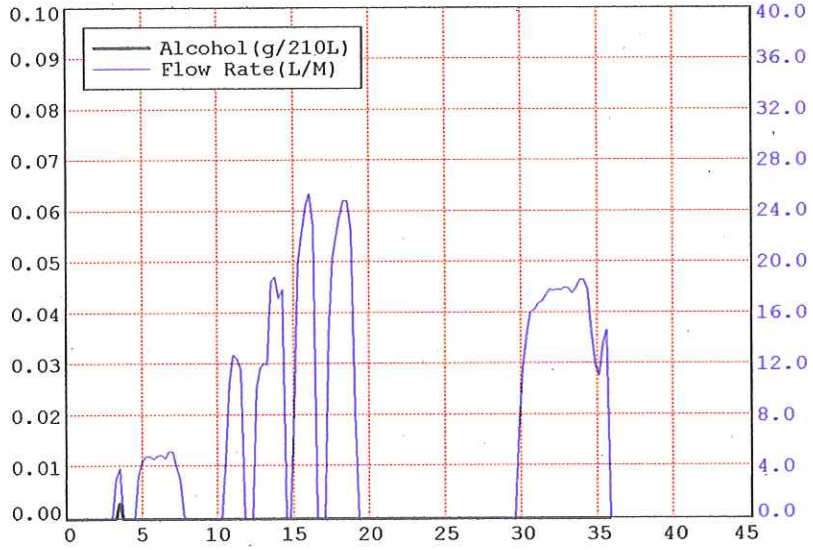



## RF Detection Test

Passed

## Sample Acceptance Test

Passed




**CERTIFICATION PASSED**

Performed by Amanda B Elder Date 06/21/2012

Reviewed by TLCA Date 6/28/2012

# INSTALLATION REPORT

**DataMaster DMT:** 103809
**Location:** VFL
**Calibration Date:** 06/21/2012
**Certification Date:** 06/21/2012
**Installation Date:** 06/25/2012
**Installed by:** TRISHA L CONTI

Trainee 6/28/12

## Default Options Loaded

## Diagnostic Results

```
VERSIONS
DMT: 1.01
PIC: 2.06
Modem: 2.4
Questions: 2.1

TEMPERATURES

Sample Chamber = 48.6°C
Breath Tube    = 46.1°C
Digital Sim    = 34.0°C

SETTINGS
Lamp Voltage   = 1.72 V
Cooler Voltage = 1.60 V
Bias Voltage   = 80 V
Chopper Freq   = 531 Hz

PUMP INFO
Flow Rate = 5.870 L/M

DETECTOR INFO
PUMP     ON         OFF
MAX(V)   -0.0317    -0.0270
MIN(V)   -0.0333    -0.0287

FILTER INFO
Filter 1  -0.028  Zero = true
Filter 2   0.176  Zero = true
Filter 3  -0.145  Zero = true

CALIBRATION CHECK
Xq  = 0.077  1.22%
```

## Accuracy and Precision Check

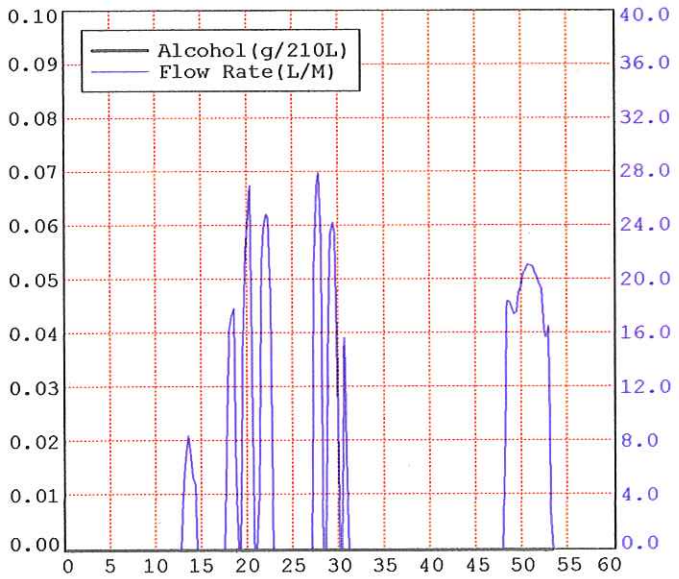
| | |
|---|---|
| Concentration | = 0.100 g/210L |
| Lot # | = 12-39-100 |
| Range | = 0.095 - 0.105 |
| Average | = 0.099 g/210L |
| Std Dev | = 0.0000 |

## RF Detection Test

Passed

## Sample Acceptance Test

Passed




## INSTALLATION PASSED

**Performed by** TLCA **Date** 06/25/2012

**Reviewed by** _____ **Date** _____



Page 7 of 8

# ANNUAL PREVENTATIVE MAINTENANCE

**DataMaster DMT:** 103809
**Location:** VFL
**Calibration Date:** 06/21/2012
**Certification Date:** 06/21/2012
**Installation Date:** 06/25/2012
**APM Date:** 06/25/2012
**Performed by:** TRISHA L CONTI

Training AeB 6/28/12

## Diagnostic Results

```
VERSIONS
DMT: 1.01
PIC: 2.06
Modem: 2.4
Questions: 2.1

TEMPERATURES

Sample Chamber = 49.1°C
Breath Tube    = 45.3°C
Digital Sim    = 34.0°C

SETTINGS
Lamp Voltage   = 1.72 V
Cooler Voltage = 1.60 V
Bias Voltage   = 80 V
Chopper Freq   = 538 Hz

PUMP INFO
Flow Rate = 5.933 L/M

DETECTOR INFO
PUMP     ON         OFF
MAX(V)   -0.0091    -0.0047
MIN(V)   -0.0110    -0.0061

FILTER INFO
Filter 1  -0.005  Zero = true
Filter 2   0.197  Zero = true
Filter 3  -0.108  Zero = true

CALIBRATION CHECK
Xq  = 0.077  1.00%
```

**APM PASSED**

## Simulator Vapor Test

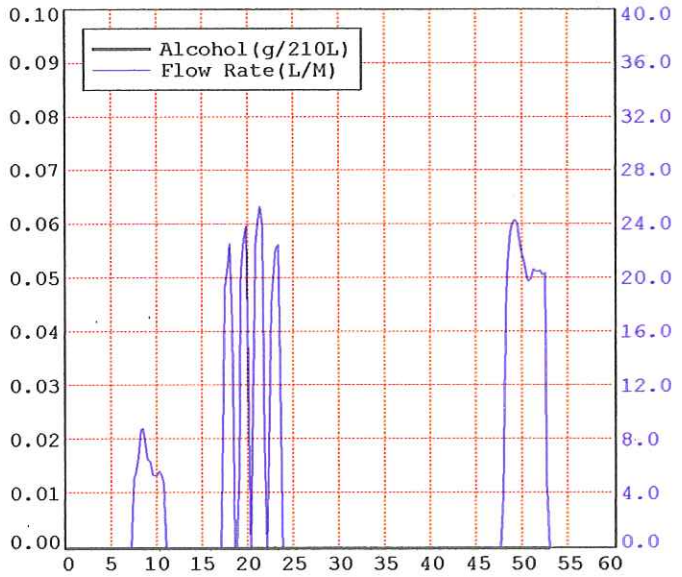
| | |
|---|---|
| Concentration | = 0.100 g/210L |
| Lot # | = 12-39-100 |
| Range | = 0.095 - 0.105 |
| Simulator Vapor | = 0.100 g/210L |

## RF Detection Test

Passed

## Sample Acceptance Test

Passed




**Performed by** TLCA **Date** 06/25/2012

**Reviewed by** _____ **Date** _____