VERMONT FORENSIC LABORATORY

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DATAMASTER TECHNICAL SUPPORT INQUIRY

Agency/Site: Ludlow PD **DataMaster Serial #:** 104509

Date: 6/28 /2012 Requestor: A. Bolduc

Instrument Supervisor: R. King Phone #:

Taken By:

Problem: Detector voltage at 0.554 on June 2012 RPC

Laboratory Response: Remove for service, found processing room to be very dusty

Work Performed: Prior to any service, the unit was powered up and the VFL detector voltage/interference testing was completed. See separate documentation (Draft as of 6/29/12)

6/28/12 Software updated, lock changed. Detector voltage optimized. The unit was calibrated, but ALB forgot to purge the simulator tower prior to analysis. The system was purged and recalibrated.

6/29/12 ALB went to Certify the unit but found the detector voltage to be > +/- 0.1mV so the unit was reoptimized, recalibrated and then certified. 2nd source cal check solution was also depleted so it was replaced prior to Cal Check testing.

☐ On Site ☒ In-house Attachments: 11 pages

Performed By: A. Bolduc Date: 6/29/12

Final Review: Date: 6/29/2012

CALIBRATION REPORT

DataMaster DMT: 104509
Calibration Date: 06/28/2012
Calibrated by: AMANDA BOLDUC
Lot: 12-71-100

Ca = 0.100			
CAL = 1.007636	0.800	<= CAL <	1.200
b1 = 0.000	0.000	<= b1 <	0.004
b2 = 0.003	0.002	<= b2 <	0.010
b3 = 0.000	0.000	<= b3 <	0.004
Xq = 0.085	0.050	<= Xq <	0.200
a21 = 1.232231	1.050	<= a21 <	1.300
a31 = 0.535949	0.300	<= a31 <	0.800

Cal not kept
forgot to purge
Sim tower
prior to analysis
6/29/12

Performed by _____ Date 06/28/2012

CALIBRATION REPORT

DataMaster DMT: 104509
Calibration Date: 06/28/2012
Calibrated by: AMANDA BOLDUC
Lot: 12-71-100

Ca = 0.100			
CAL = 1.010492	0.800	<= CAL <	1.200
b1 = 0.000	0.000	<= b1 <	0.004
b2 = 0.003	0.002	<= b2 <	0.010
b3 = 0.000	0.000	<= b3 <	0.004
Xq = 0.085	0.050	<= Xq <	0.200
a21 = 1.231554	1.050	<= a21 <	1.300
a31 = 0.529154	0.300	<= a31 <	0.800

Recalibrated. detector voltage at 7 ± .10 AES 6/29/12

Performed by _____ Date 06/28/2012

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 104509

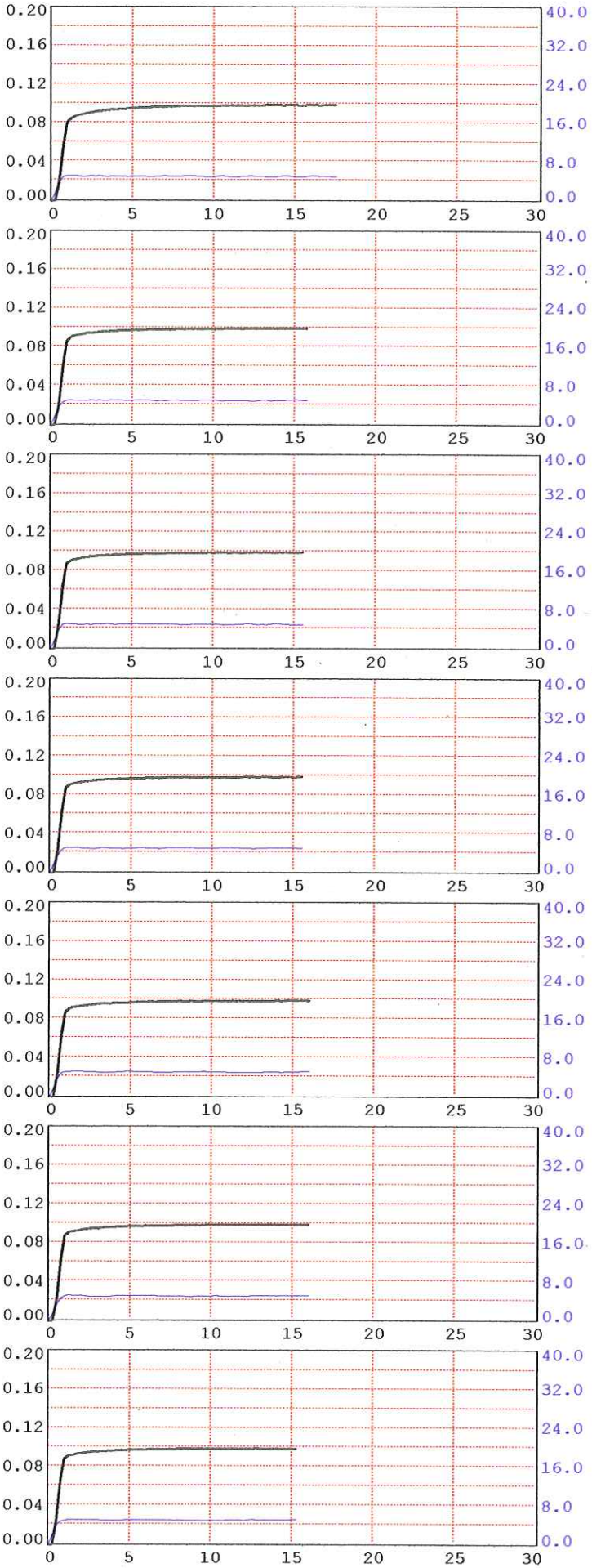
Date: 06/28/2012
Time: 15:18:58

SUPERVISOR NAME:
ALB CAL CHECK

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

BLANK TEST	0.000	15:19
CALIBRATION CHECK	PASSED	15:19
SIMULATOR VAPOR 33.6°C	0.099	15:20
SIMULATOR VAPOR 33.6°C	0.099	15:21
SIMULATOR VAPOR 33.6°C	0.099	15:22
SIMULATOR VAPOR 33.6°C	0.099	15:23
SIMULATOR VAPOR 33.6°C	0.099	15:24
SIMULATOR VAPOR 33.6°C	0.099	15:25
SIMULATOR VAPOR 33.6°C	0.099	15:27

Simulator Temperature Too Low



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 104509

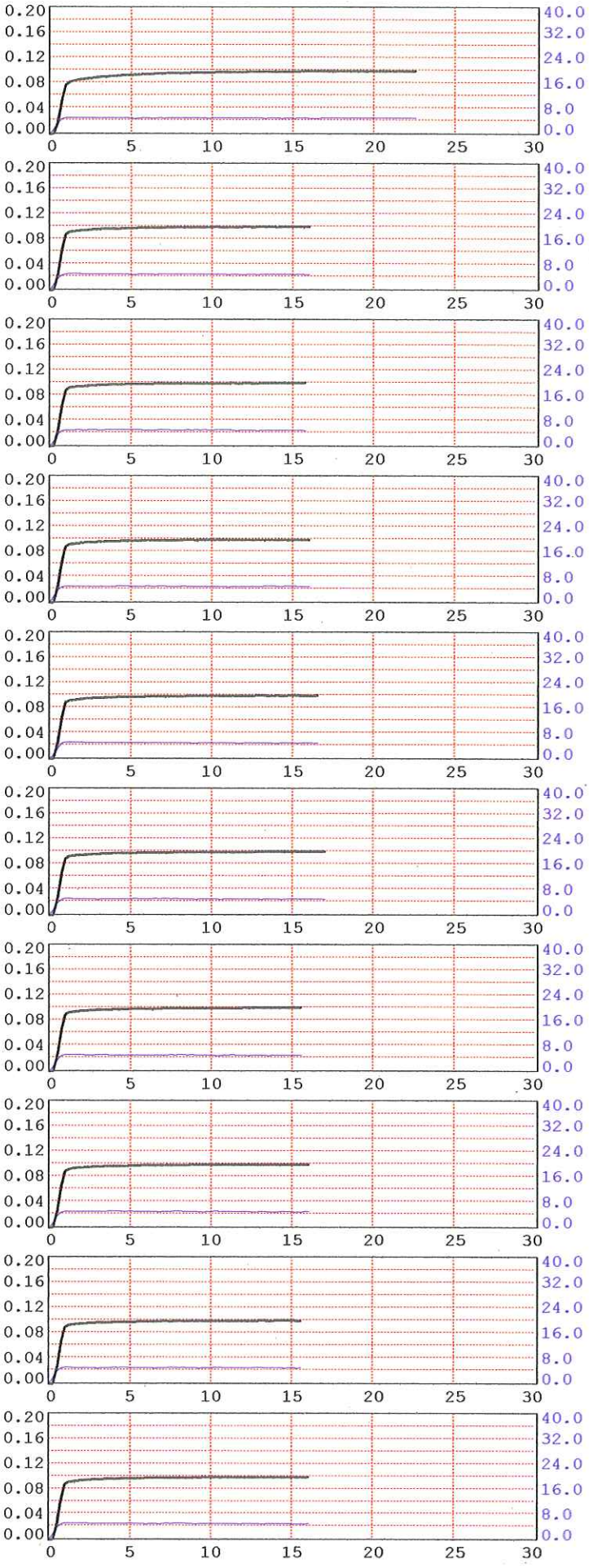
Date: 06/28/2012
Time: 15:41:21

SUPERVISOR NAME:
ALB CAL CHECK

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

BLANK TEST	0.000	15:42
CALIBRATION CHECK	PASSED	15:42
SIMULATOR VAPOR 34.0°C	0.099	15:42
SIMULATOR VAPOR 34.1°C	0.099	15:43
SIMULATOR VAPOR 34.1°C	0.100	15:45
SIMULATOR VAPOR 34.1°C	0.099	15:46
SIMULATOR VAPOR 34.0°C	0.099	15:47
SIMULATOR VAPOR 34.0°C	0.100	15:48
SIMULATOR VAPOR 34.1°C	0.100	15:49
SIMULATOR VAPOR 34.1°C	0.099	15:50
SIMULATOR VAPOR 34.1°C	0.099	15:51
SIMULATOR VAPOR 34.0°C	0.099	15:52
BLANK TEST	0.000	15:53

Average = 0.099
Std Dev = 0.000



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 104509

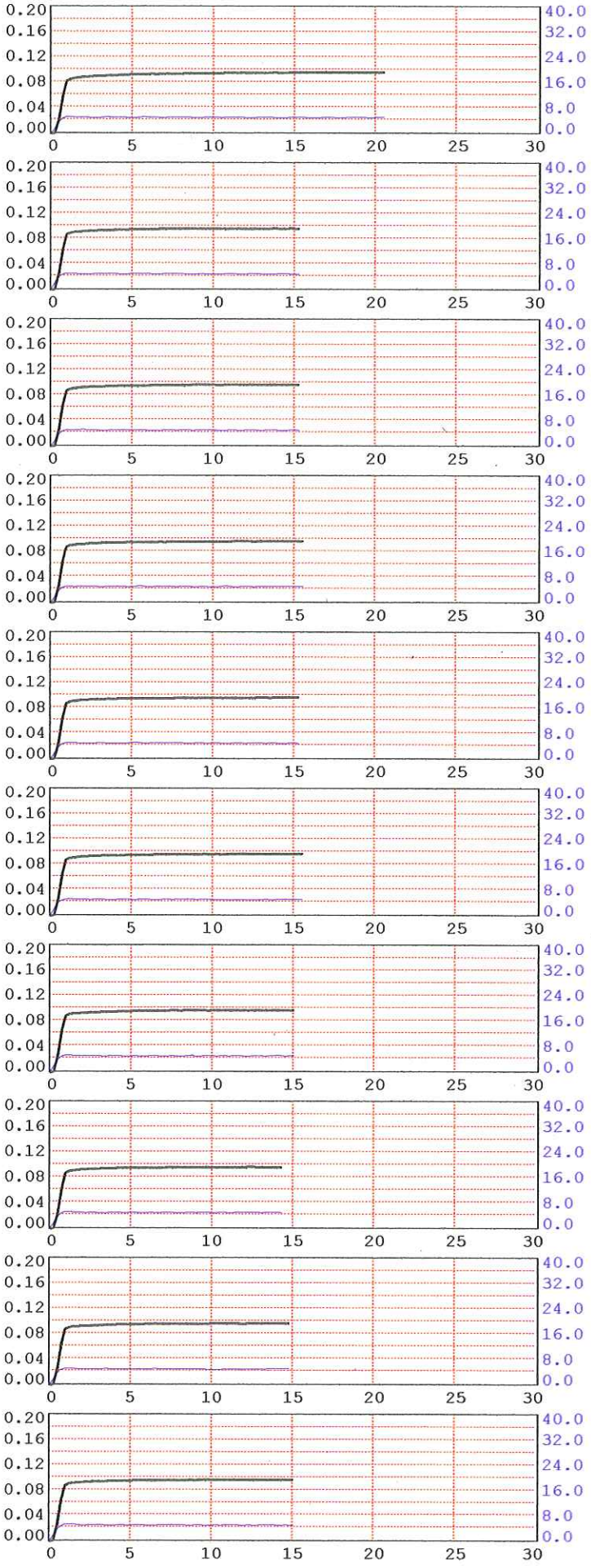
Date: 06/28/2012
Time: 15:56:25

SUPERVISOR NAME:
ALB SECOND SOURCE

SOLUTION LOT #: GUTH11250
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	15:57
CALIBRATION CHECK	PASSED	15:57
SIMULATOR VAPOR 34.1°C	0.096	15:57
SIMULATOR VAPOR 34.0°C	0.096	15:58
SIMULATOR VAPOR 34.1°C	0.096	16:00
SIMULATOR VAPOR 34.0°C	0.096	16:01
SIMULATOR VAPOR 34.0°C	0.096	16:02
SIMULATOR VAPOR 34.1°C	0.096	16:03
SIMULATOR VAPOR 34.1°C	0.097	16:04
SIMULATOR VAPOR 34.1°C	0.096	16:05
SIMULATOR VAPOR 34.0°C	0.096	16:06
SIMULATOR VAPOR 34.0°C	0.097	16:07
BLANK TEST	0.000	16:08

Average = 0.096
Std Dev = 0.000



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 104509

Date: 06/29/2012
Time: 07:09:36

SUPERVISOR NAME:
ALB CAL CHECK

SOLUTION LOT #: GUTH 11250
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	07:10
CALIBRATION CHECK	PASSED	07:10

Simulator Timed Out

CALIBRATION REPORT

DataMaster DMT: 104509
Calibration Date: 06/29/2012
Calibrated by: AMANDA BOLDUC
Lot: 12-71-100

Ca	= 0.100		
CAL	= 1.019158	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	= 0.085	0.050	<= Xq < 0.200
a21	= 1.222882	1.050	<= a21 < 1.300
a31	= 0.532294	0.300	<= a31 < 0.800

Performed by _____ Date 06/29/2012

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 104509

Date: 06/29/2012
Time: 08:58:54

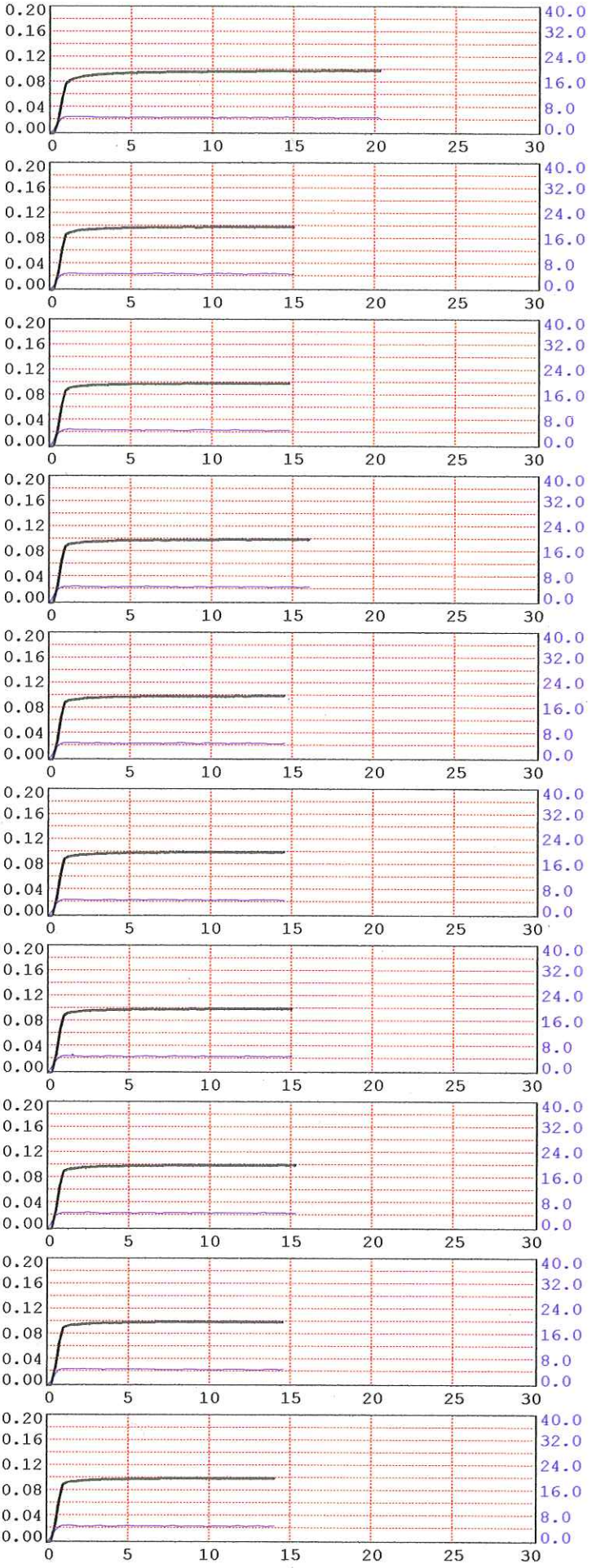
2nd Source cal check 6/29/12

SUPERVISOR NAME:
ALB CAL CHECK

SOLUTION LOT #: GUTH 11250
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	08:59
CALIBRATION CHECK	PASSED	08:59
SIMULATOR VAPOR 34.0°C	0.099	09:00
SIMULATOR VAPOR 34.0°C	0.099	09:01
SIMULATOR VAPOR 34.0°C	0.099	09:02
SIMULATOR VAPOR 34.0°C	0.100	09:03
SIMULATOR VAPOR 34.0°C	0.100	09:04
SIMULATOR VAPOR 34.0°C	0.100	09:05
SIMULATOR VAPOR 34.0°C	0.100	09:07
SIMULATOR VAPOR 34.0°C	0.100	09:08
SIMULATOR VAPOR 34.0°C	0.100	09:09
SIMULATOR VAPOR 34.0°C	0.100	09:10
BLANK TEST	0.000	09:11

Average = 0.099
Std Dev = 0.000



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 104509

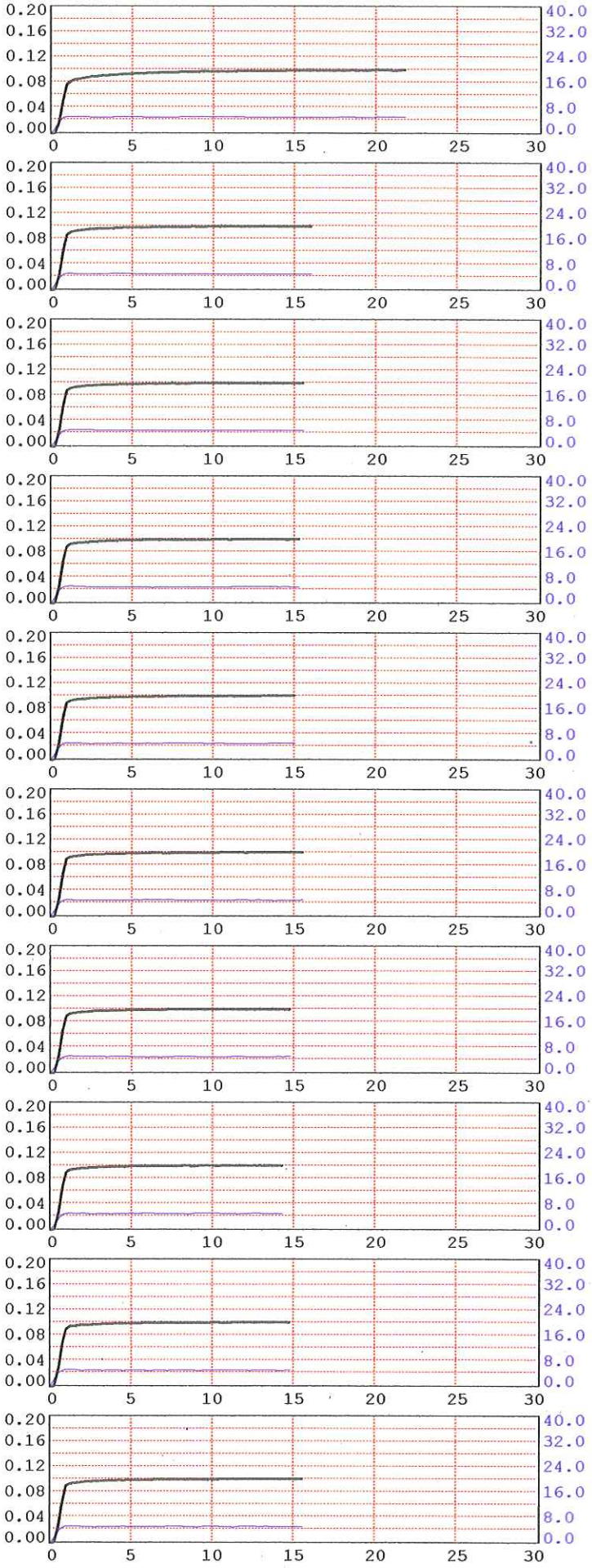
Date: 06/29/2012
Time: 10:19:35

SUPERVISOR NAME:
ALB CAL CHECK

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

BLANK TEST	0.000	10:20
CALIBRATION CHECK	PASSED	10:20
SIMULATOR VAPOR 33.9°C	0.100	10:21
SIMULATOR VAPOR 34.0°C	0.100	10:22
SIMULATOR VAPOR 34.0°C	0.100	10:23
SIMULATOR VAPOR 34.0°C	0.101	10:24
SIMULATOR VAPOR 34.0°C	0.100	10:25
SIMULATOR VAPOR 34.0°C	0.101	10:26
SIMULATOR VAPOR 34.0°C	0.100	10:27
SIMULATOR VAPOR 34.0°C	0.100	10:28
SIMULATOR VAPOR 34.0°C	0.100	10:29
SIMULATOR VAPOR 33.9°C	0.100	10:31
BLANK TEST	0.000	10:31

Average = 0.100
Std Dev = 0.000



CERTIFICATION REPORT

DataMaster DMT: 104509
Calibration Date: 06/29/2012
Certification Date: 06/29/2012
Certified by: AMANDA BOLDUC

Diagnostic Results

```
VERSIONS
DMT: 1.01
PIC: 2.05
Modem: 2.4
Questions: 2.1

TEMPERATURES

Sample Chamber = 49.2°C
Breath Tube    = 47.5°C
Digital Sim    = 34.0°C

SETTINGS
Lamp Voltage   = 1.71 V
Cooler Voltage = 1.73 V
Bias Voltage   = 80 V
Chopper Freq   = 536 Hz

PUMP INFO
Flow Rate = 6.009 L/M

DETECTOR INFO
PUMP     ON         OFF
MAX(V)   -0.0329    -0.0301
MIN(V)   -0.0346    -0.0317

FILTER INFO
Filter 1  -0.030  Zero = true
Filter 2   0.570  Zero = true
Filter 3   0.148  Zero = true

CALIBRATION CHECK
Xq  = 0.086  0.51%
```

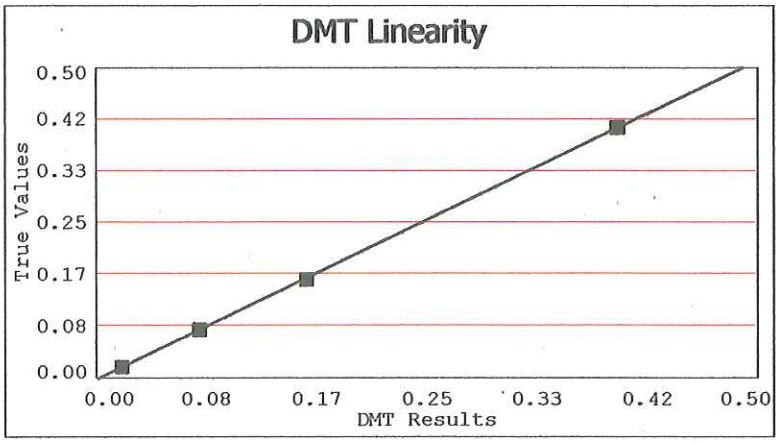
Options

```
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
```

Linearity Check Results

True Value	Reported Average	Std Dev
0.019 g/210L Lot # 12-78-020	0.019 g/210L	0.0000
0.079 g/210L Lot # 12-74-080	0.078 g/210L	0.0000
0.160 g/210L Lot # 12-53-160	0.159 g/210L	0.0000
0.404 g/210L Lot # 12-62-400	0.394 g/210L	0.0010

$R^2 = 0.9999$

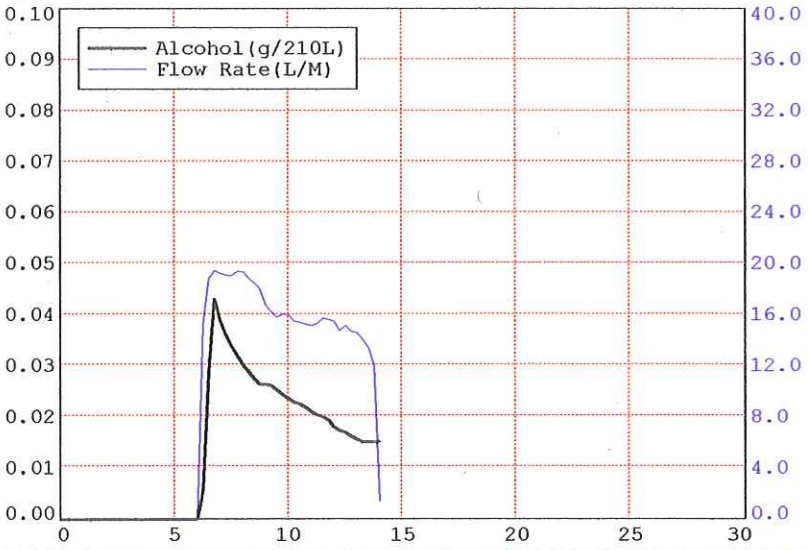


Acetone Interference Test

Lot # 12-79-08A1
Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

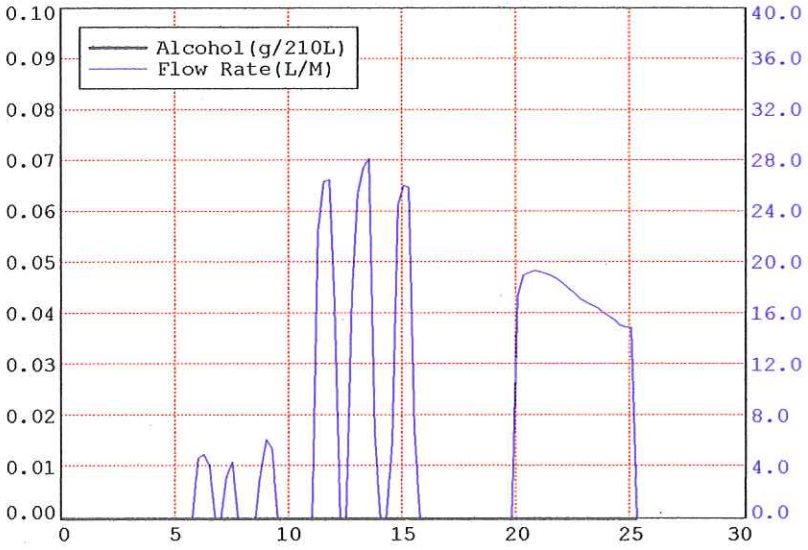


RF Detection Test

Passed

Sample Acceptance Test

Passed



CERTIFICATION PASSED

Performed by [signature] Date 06/29/2012

Reviewed by [signature] Date 6/29/2012