



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: Fair Haven PD / Rutland VSP DataMaster Serial #: 100156

Date: 1/06/2016 Requestor: VFL Alcohol Program Staff

Instrument Supervisor: Dale Kerber Phone #: (802) 265-7839

Taken By: Robert Driscoll

Problem: While checking DM Host, VFL Alcohol Program Staff observed the alcohol curve to be unusually noisy on some breath results.

Laboratory Response: Alcohol Program Staff will troubleshoot onsite.

Work Performed: Performed an Accuracy and Precision test to observe the alcohol curve. There was some increased noise in the detector response so opened the Technician screen to observe the detector voltage. The detector voltage was oscillating by +/- .003V which is on the higher end of the acceptable limit. R. Driscoll added a grounding strap from the controller PCB to the instruments' chassis to mitigate potential stray voltage with no change. While in the Technician screen, the instrument started activating different settings with no inputs from the technician. The DMT software was rebooted and the same conditions existed indicative of a failing PCB. The instrument was then brought to the VFL for further testing. While at the VFL the detector voltage and alcohol curve did not show any of the previous symptoms. It was decided to change the controller PCB and install a new detector. The instrument has been Calibrated, Certified, and requires installation at the agency.

☐ On Site ☒ In-house

Attachments: 16 pages

Performed By: Robert Driscoll *RD*

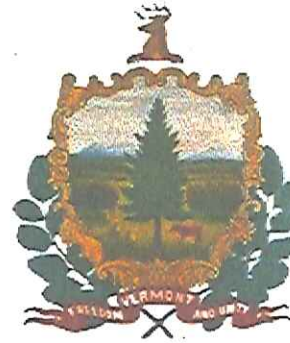
Date: 2/22/2016

Final Review: *AB*

Date: 2/22/16

CALIBRATION REPORT

DataMaster DMT: 100156
Calibration Date: 02/22/2016
Calibrated by: ROBERT DRISCOLL
Lot: 15-26-100



Ca	=	0.100		
CAL	=	0.977308	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	=	0.099	0.050	<= Xq < 0.200
a21	=	1.210625	1.050	<= a21 < 1.300
a31	=	0.440795	0.300	<= a31 < 0.800

Performed by

RD

Date

02/22/2016



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100156

Date: 02/22/2016

Time: 09:19:15

SUPERVISOR NAME:

RCD CAL CHECK

SOLUTION LOT #: GUTH 15050

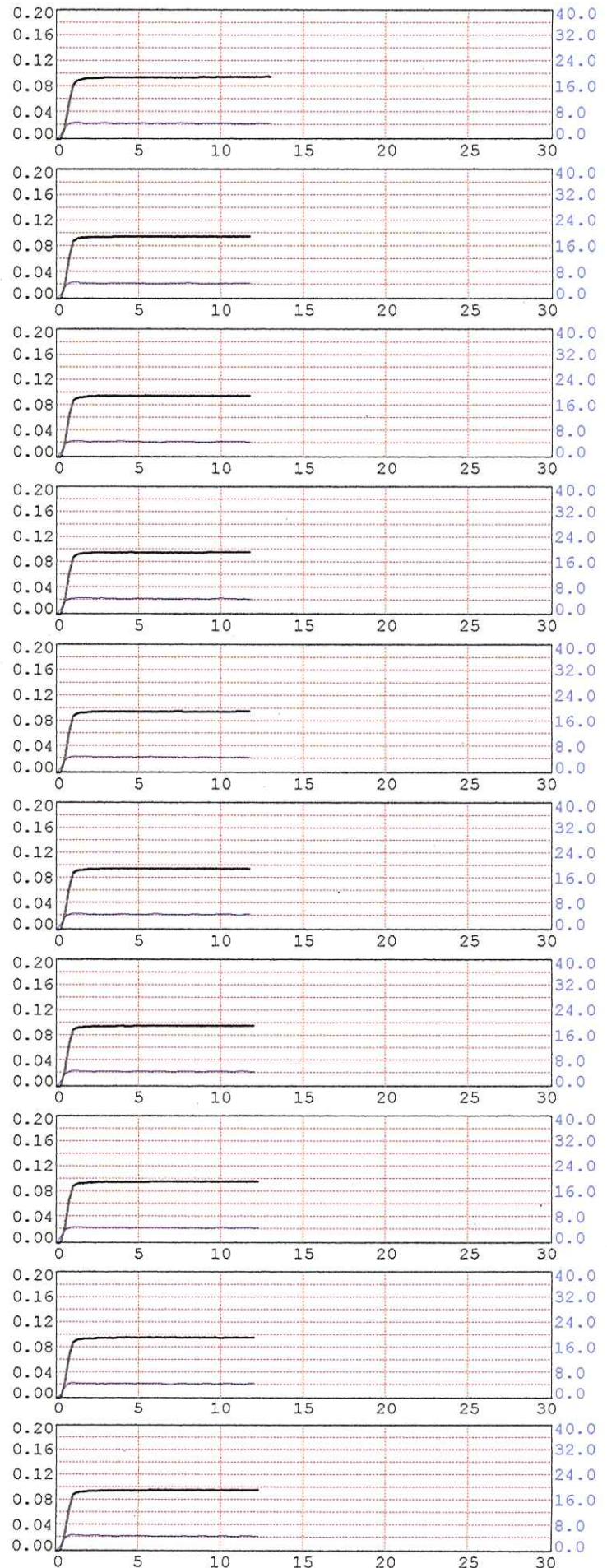
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	09:20
CALIBRATION CHECK	PASSED	09:20
SIMULATOR VAPOR 33.8°C	0.097	09:20
SIMULATOR VAPOR 33.8°C	0.096	09:21
SIMULATOR VAPOR 33.7°C	0.097	09:22
SIMULATOR VAPOR 33.7°C	0.097	09:23
SIMULATOR VAPOR 33.8°C	0.097	09:24
SIMULATOR VAPOR 33.7°C	0.097	09:25
SIMULATOR VAPOR 33.8°C	0.097	09:26
SIMULATOR VAPOR 33.8°C	0.097	09:27
SIMULATOR VAPOR 33.8°C	0.097	09:28
SIMULATOR VAPOR 33.8°C	0.097	09:29
BLANK TEST	0.000	09:30

Average = 0.096

Std Dev = 0.0003

*Replaced Guth solution with
Lot # 15120. Will re-run Cal.
check. RCD 2/22/16*





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100156

Date: 02/22/2016

Time: 10:01:35

SUPERVISOR NAME:

RCD CAL CHECK

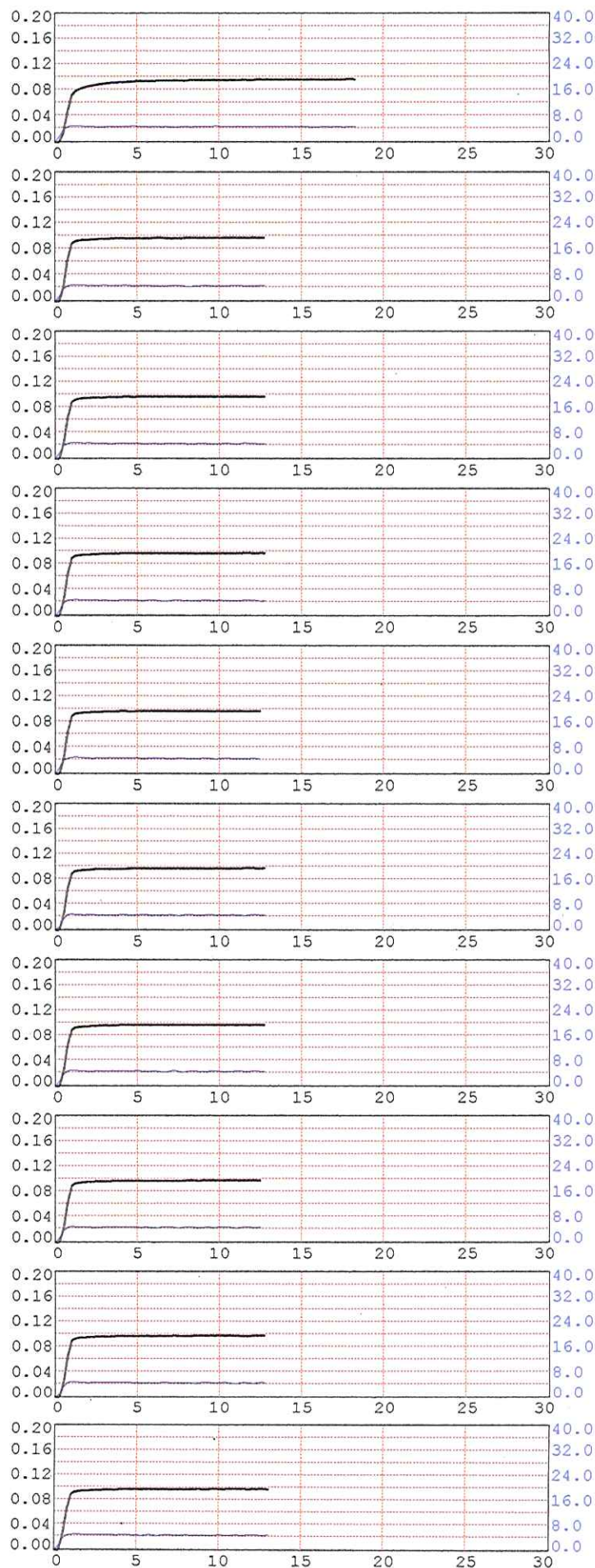
SOLUTION LOT #: GUTH 15120

SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	10:02
CALIBRATION CHECK	PASSED	10:02
SIMULATOR VAPOR 33.7°C	0.097	10:02
SIMULATOR VAPOR 33.8°C	0.098	10:04
SIMULATOR VAPOR 33.7°C	0.098	10:05
SIMULATOR VAPOR 33.7°C	0.098	10:06
SIMULATOR VAPOR 33.7°C	0.098	10:07
SIMULATOR VAPOR 33.8°C	0.098	10:08
SIMULATOR VAPOR 33.8°C	0.098	10:09
SIMULATOR VAPOR 33.8°C	0.098	10:10
SIMULATOR VAPOR 33.8°C	0.098	10:11
SIMULATOR VAPOR 33.8°C	0.098	10:12
BLANK TEST	0.000	10:13

Average = 0.097

Std Dev = 0.0003



CERTIFICATION REPORT

DataMaster DMT: 100156
Calibration Date: 02/22/2016
Certification Date: 02/22/2016
Certified by: ROBERT DRISCOLL



Diagnostic Results

VERSIONS

DMT: 2.00
PIC: 2.05
Modem: 2.6
Questions: 2.1

TEMPERATURES

Sample Chamber = 49.1°C
Breath Tube = 46.5°C
Digital Sim = 33.7°C

SETTINGS

Lamp Voltage = 1.64 V
Cooler Voltage = 1.68 V
Bias Voltage = 80 V
Chopper Freq = 542 Hz

PUMP INFO

Flow Rate = 6.081 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX (V)	0.0744	0.0780
MIN (V)	0.0726	0.0768

FILTER INFO

Filter 1	0.078	Zero = true
Filter 2	0.353	Zero = true
Filter 3	1.061	Zero = true

CALIBRATION CHECK

Xq = 0.099 0.35%

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

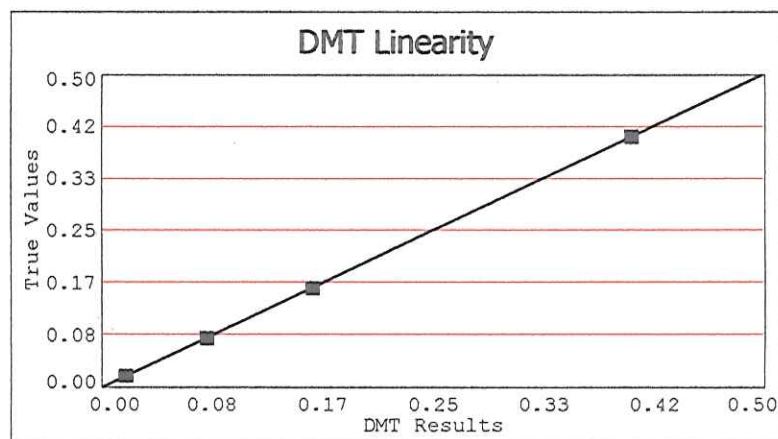
Software Configuration

Data Collection..... yes

Linearity Check Results

True Value	Reported Average	Std Dev
0.020 g/210L	0.018 g/210L	0.0003
Lot # 16-01-020		
0.080 g/210L	0.079 g/210L	0.0000
Lot # 15-15-080		
0.160 g/210L	0.159 g/210L	0.0006
Lot # 15-27-160		
0.402 g/210L	0.399 g/210L	0.0004
Lot # 15-10-400		

$R^2 = 1$



Acetone Interference Test

Lot # 16-02-080A1
Interference Detected

Mouth Alcohol Test

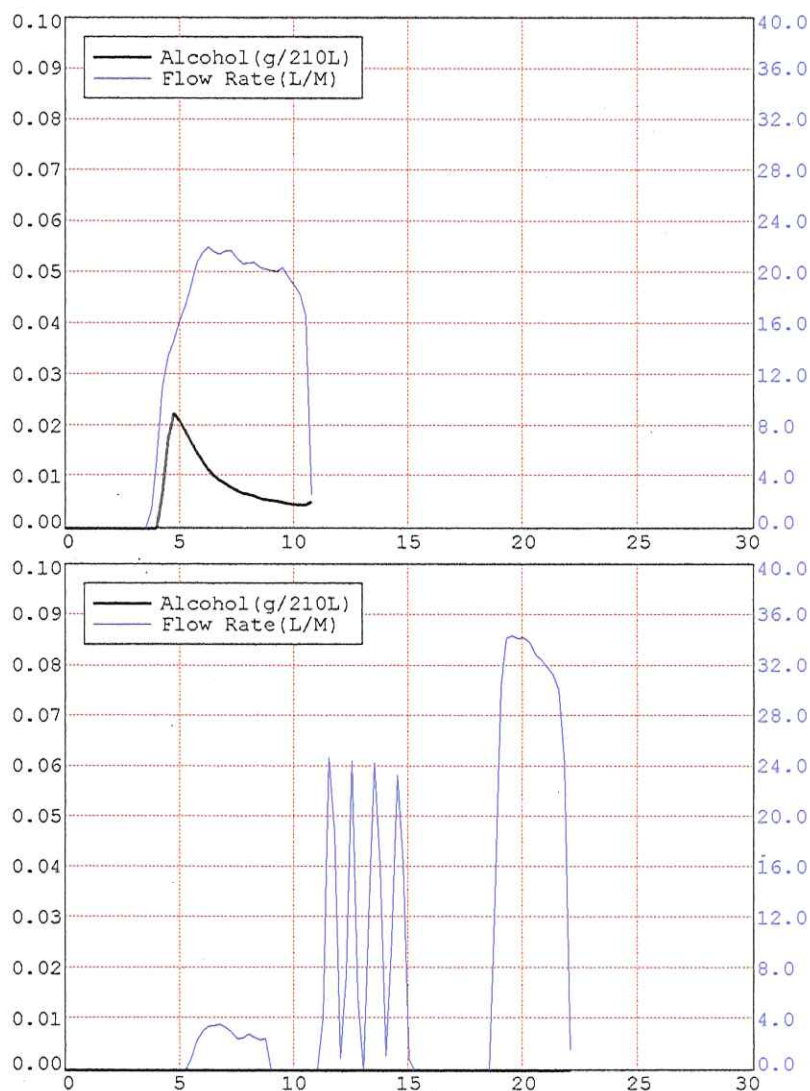
Mouth Alcohol Detected

RF Detection Test

Passed

Sample Acceptance Test

Passed



CERTIFICATION PASSED

Performed by

Handwritten signature RCD

Date

02/22/2016

Reviewed by

Handwritten signature

Date

2/22/16

DMT Serial Number #100156

Page 2 of 2

02/22/2016 11:35 AM

6 of 17-RCD



DUI SUBJECT TEST

STATE OF VERMONT

DataMaster DMT: 100156
Location: FAIR HAVEN PD / Rutland VSP
Certification Date: 07/16/2015
Installation Date: 07/17/2015

Date: 01/06/2016
Time: 04:24:32

SUBJECT NAME:

DOB:

GENDER:

LICENSE:

CASE #:

TIME OF OPERATION: 01:31

LOCATION OF INCIDENT:

PL OF BURGER KING

TOWN: RUTLAND CITY

COUNTY: RUTLAND

TEST OPERATOR NAME:

JEFFREY M WARFLE

AGENCY: RUTLAND CITY PD

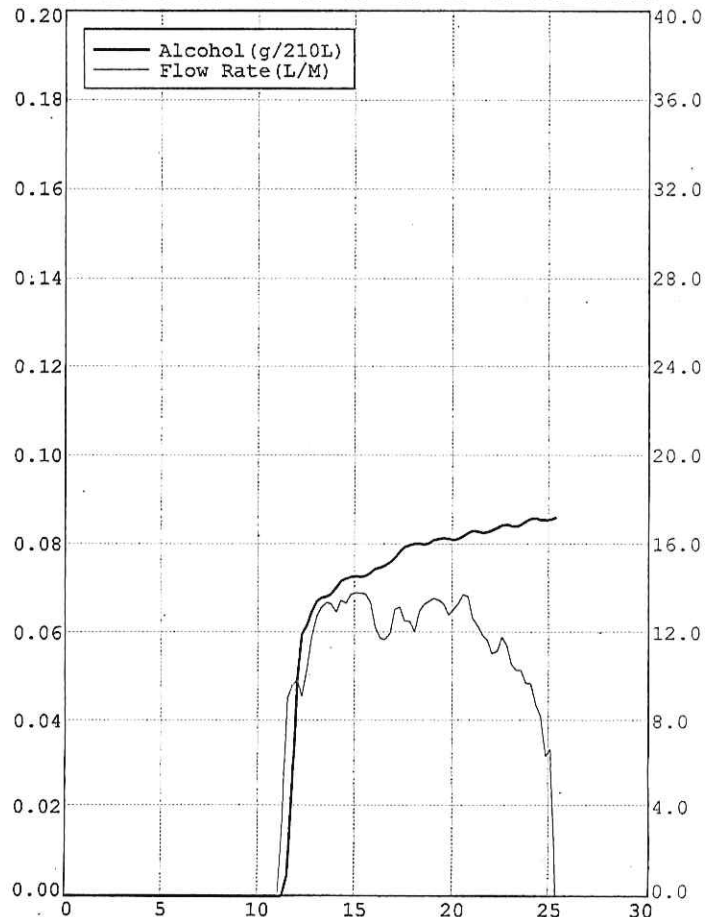
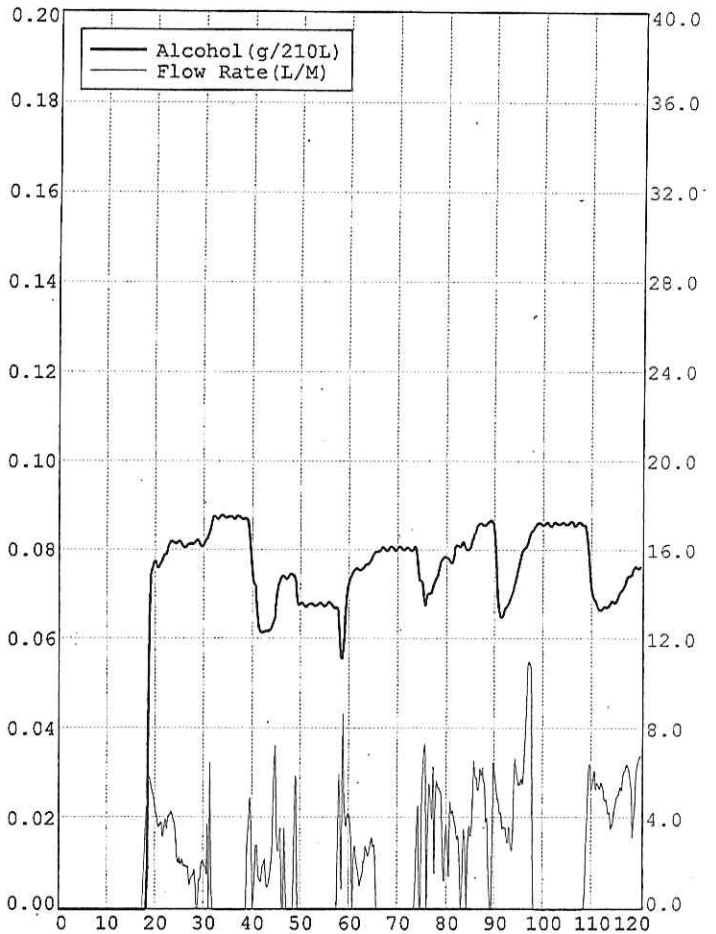
Obs. Period Start: 04:09

BLANK TEST	0.000	04:25
CALIBRATION CHECK	PASSED	04:25
SIMULATOR VAPOR 33.9°C	0.095	04:26
BLANK TEST	0.000	04:26
SUBJECT SAMPLE	INCOMPLETE	04:29
BLANK TEST	0.000	04:29
SUBJECT SAMPLE (Vol=2.7L)	0.087	04:30

BLANK TEST	0.000	04:31
CALIBRATION CHECK	PASSED	04:31
SIMULATOR VAPOR 34.0°C	0.093	04:32

Simulator Out of Range

All alcohol values reported in g/210L
Sim. Vapor Concentration 0.099
Sim. Vapor Range 0.094 - 0.104
Lot #: 15-09-100





DUI SUBJECT TEST

STATE OF VERMONT

DataMaster DMT: 100156
Location: FAIR HAVEN PD / Rutland VSP
Certification Date: 07/16/2015
Installation Date: 07/17/2015

Date: 01/06/2016
Time: 04:34:08

SUBJECT NAME:

DOB: [REDACTED] AGE: [REDACTED]
GENDER: [REDACTED]
LICENSE #: [REDACTED]

CASE #: [REDACTED]
TIME OF OPERATION: 01:31
LOCATION OF INCIDENT:
PL OF BURGER KING
TOWN: RUTLAND CITY
COUNTY: RUTLAND

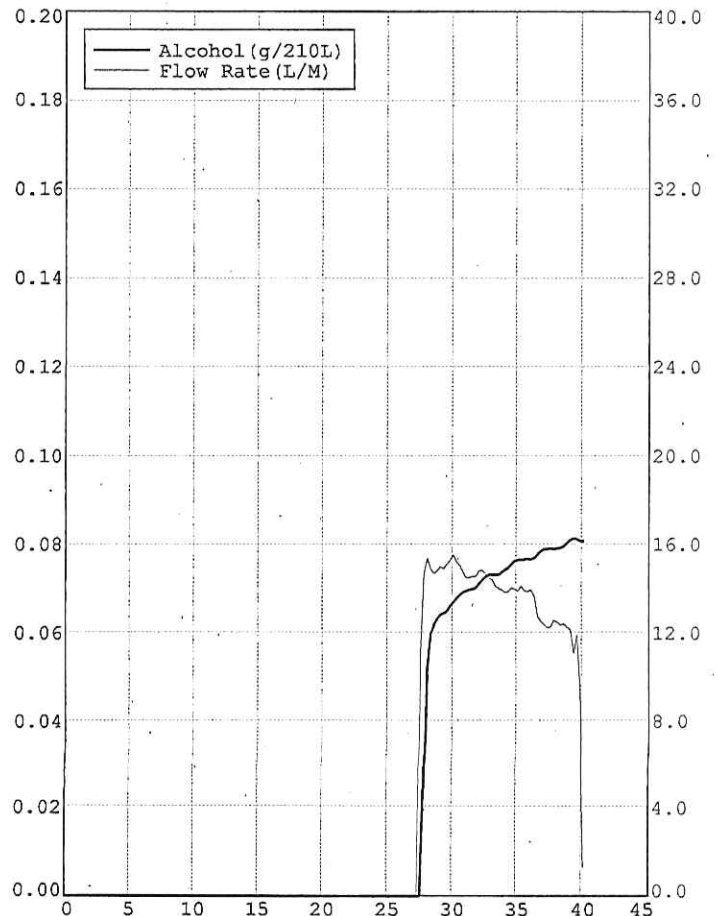
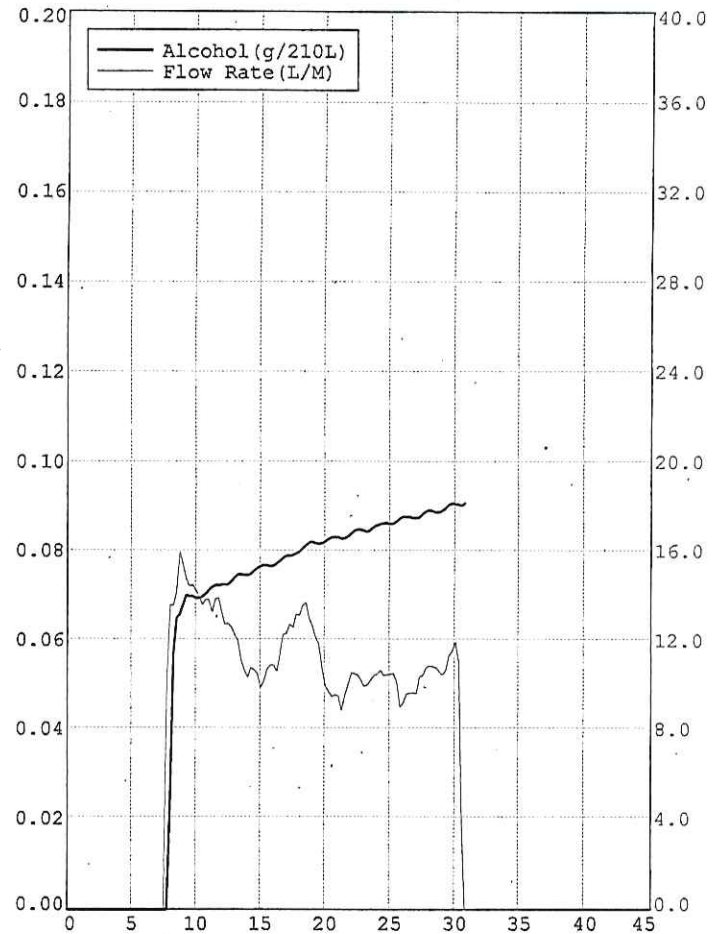
TEST OPERATOR NAME:
JEFFREY M WARFLE
AGENCY: RUTLAND CITY PD

Obs. Period Start: 04:09

BLANK TEST	0.000	04:35
CALIBRATION CHECK	PASSED	04:35
SIMULATOR VAPOR 33.9°C	0.095	04:35
BLANK TEST	0.000	04:36
SUBJECT SAMPLE	INTERFERENCE	04:37

BLANK TEST	0.000	04:38
CALIBRATION CHECK	PASSED	04:38
SIMULATOR VAPOR 34.0°C	0.095	04:39
BLANK TEST	0.000	04:39
SUBJECT SAMPLE (Vol=2.9L)	0.082	04:40

All alcohol values reported in g/210L
Sim. Vapor Concentration 0.099
Sim. Vapor Range 0.094 - 0.104
Lot #: 15-09-100





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100156

Location: FAIR HAVEN PD / Rutland VSP

Date: 01/06/2016

Time: 13:20:39

SUPERVISOR NAME:

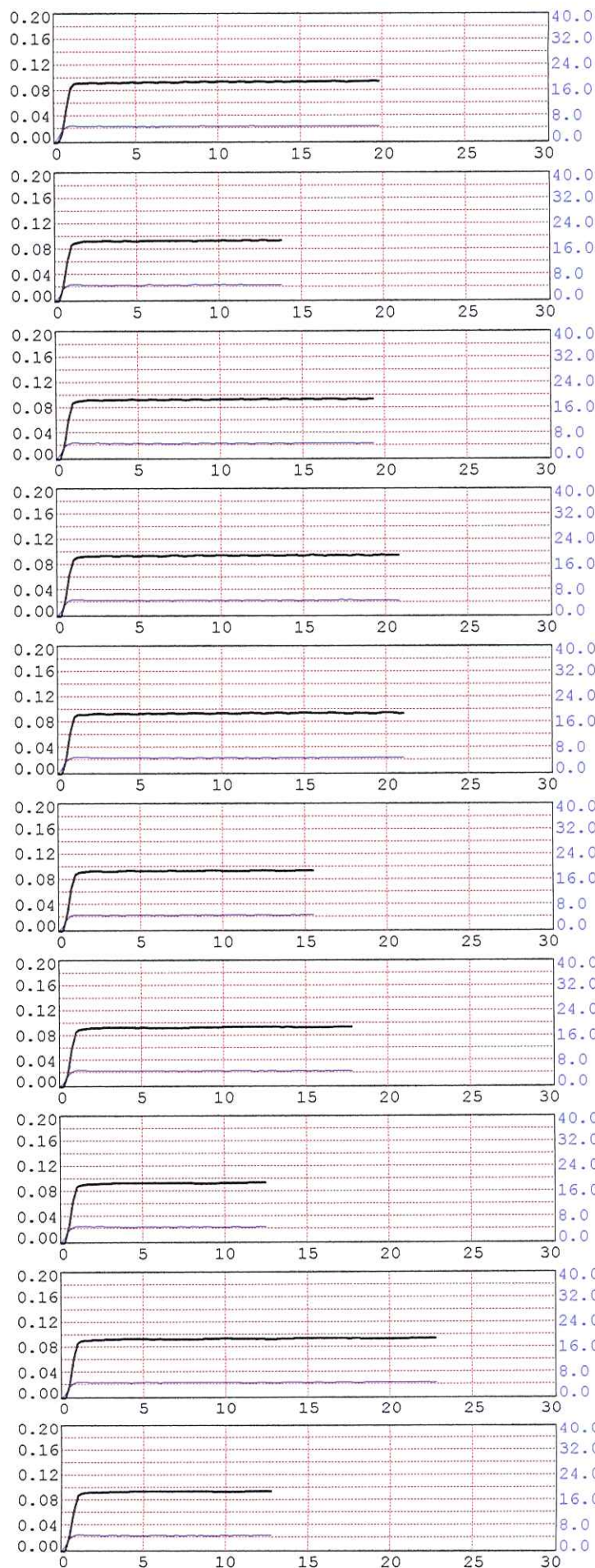
ROBERT DRISCOLL

SOLUTION LOT #: 15-09-100

SOLUTION CONCENTRATION: 0.099

BLANK TEST	0.000	13:21
CALIBRATION CHECK	PASSED	13:21
SIMULATOR VAPOR 34.0°C	0.095	13:22
SIMULATOR VAPOR 33.9°C	0.095	13:23
SIMULATOR VAPOR 34.0°C	0.095	13:24
SIMULATOR VAPOR 34.0°C	0.096	13:25
SIMULATOR VAPOR 33.9°C	0.095	13:26
SIMULATOR VAPOR 34.0°C	0.095	13:27
SIMULATOR VAPOR 34.0°C	0.096	13:28
SIMULATOR VAPOR 34.0°C	0.095	13:30
SIMULATOR VAPOR 34.0°C	0.095	13:31
SIMULATOR VAPOR 33.9°C	0.095	13:32
BLANK TEST	0.000	13:33

Average = 0.095
Std Dev = 0.0004





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100156

Location: FAIR HAVEN PD / Rutland VSP

Date: 01/06/2016

Time: 13:42:21

SUPERVISOR NAME:

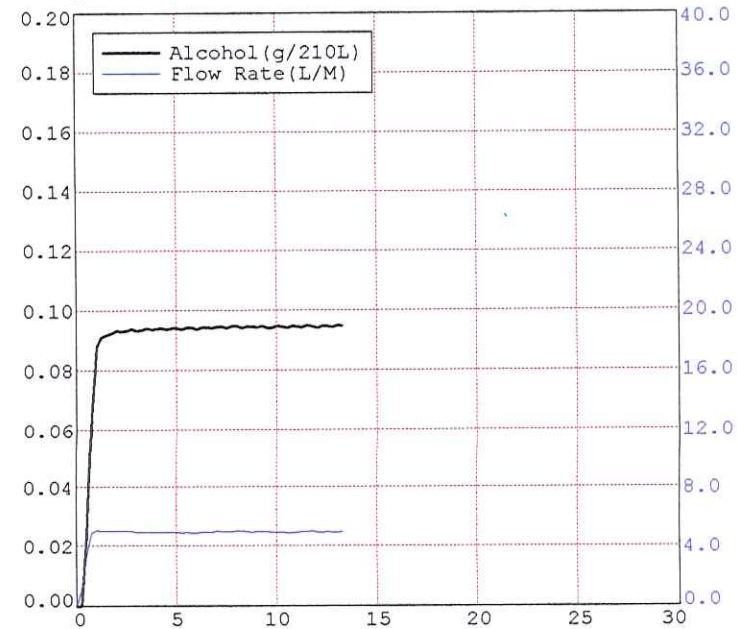
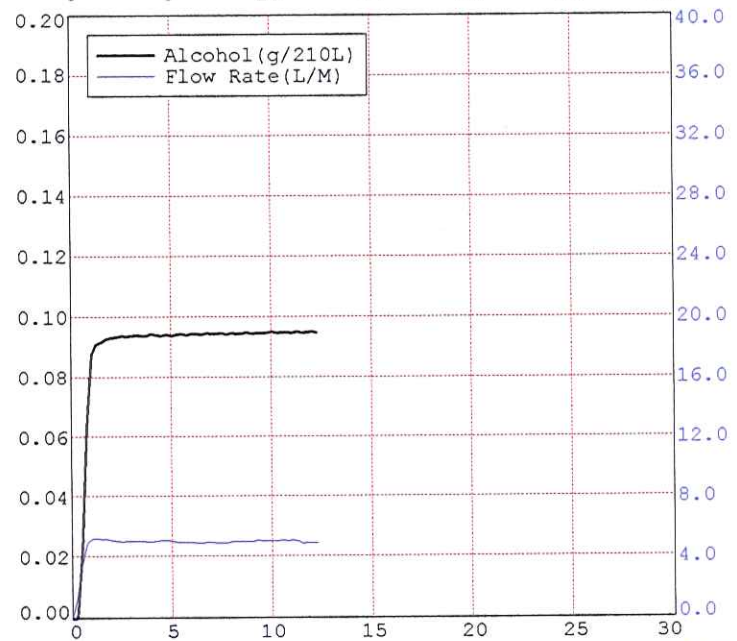
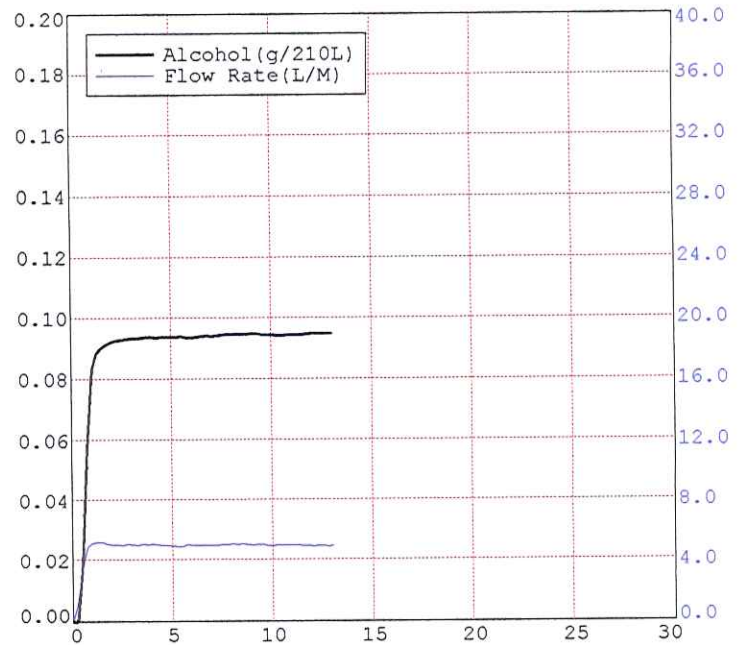
ROBERT DRISCOLL

SOLUTION LOT #: 15-09-100

SOLUTION CONCENTRATION: 0.099

BLANK TEST	0.000	13:43
CALIBRATION CHECK	PASSED	13:43
SIMULATOR VAPOR 34.0°C	0.095	13:43
SIMULATOR VAPOR 33.9°C	0.095	13:44
SIMULATOR VAPOR 34.0°C	0.095	13:45

Simulator Timed Out





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100156

Location: FAIR HAVEN PD / Rutland VSP

Date: 01/06/2016

Time: 13:55:55

SUPERVISOR NAME:

ROBERT DRISCOLL

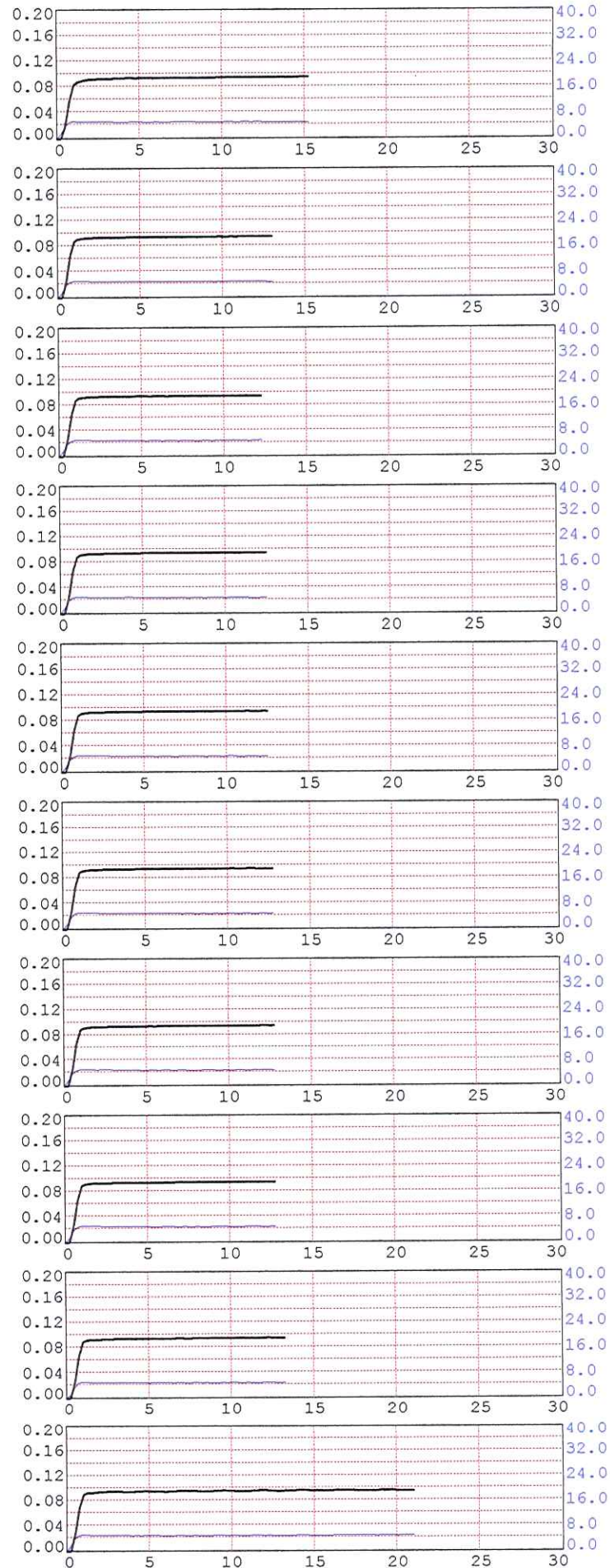
SOLUTION LOT #: 15-09-100

SOLUTION CONCENTRATION: 0.099

BLANK TEST	0.000	13:56
CALIBRATION CHECK	PASSED	13:56
SIMULATOR VAPOR 34.0°C	0.096	13:57
SIMULATOR VAPOR 34.0°C	0.095	13:58
SIMULATOR VAPOR 34.0°C	0.096	13:59
SIMULATOR VAPOR 34.0°C	0.096	14:00
SIMULATOR VAPOR 34.0°C	0.096	14:01
SIMULATOR VAPOR 33.9°C	0.096	14:02
SIMULATOR VAPOR 33.9°C	0.096	14:03
SIMULATOR VAPOR 33.9°C	0.095	14:04
SIMULATOR VAPOR 34.0°C	0.095	14:05
SIMULATOR VAPOR 33.9°C	0.096	14:06
BLANK TEST	0.000	14:07

Average = 0.095

Std Dev = 0.0004





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100156

Location: FAIR HAVEN PD / Rutland VSP

Date: 01/11/2016

Time: 09:52:31

SUPERVISOR NAME:

TEST TEST

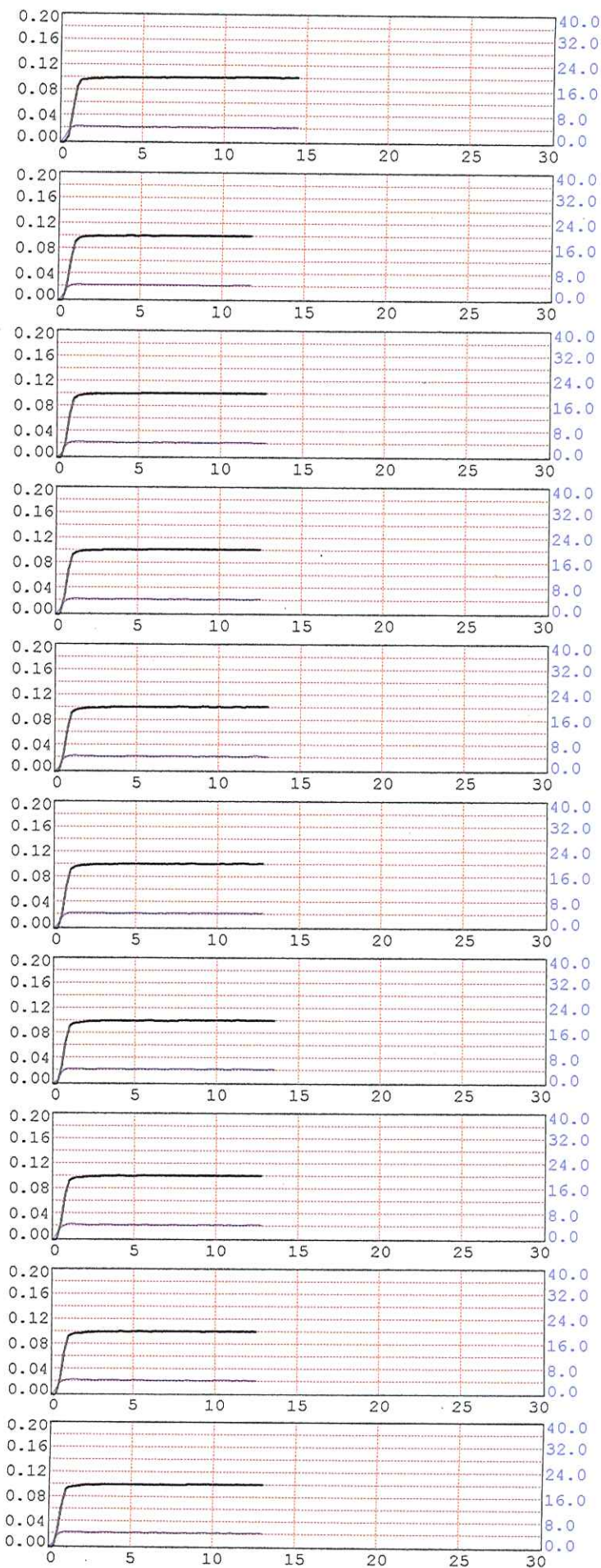
SOLUTION LOT #: 15-24-100

SOLUTION CONCENTRATION: 0.099

BLANK TEST	0.000	09:53
CALIBRATION CHECK	PASSED	09:53
SIMULATOR VAPOR 34.0°C	0.102	09:53
SIMULATOR VAPOR 34.0°C	0.102	09:54
SIMULATOR VAPOR 34.0°C	0.102	09:55
SIMULATOR VAPOR 34.0°C	0.102	09:57
SIMULATOR VAPOR 34.0°C	0.102	09:58
SIMULATOR VAPOR 34.0°C	0.102	09:59
SIMULATOR VAPOR 33.9°C	0.102	10:00
SIMULATOR VAPOR 34.0°C	0.102	10:01
SIMULATOR VAPOR 34.0°C	0.102	10:02
SIMULATOR VAPOR 34.0°C	0.102	10:03
BLANK TEST	0.000	10:04

Average = 0.102

Std Dev = 0.0000





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100156

Location: FAIR HAVEN PD / Rutland VSP

Date: 01/11/2016

Time: 10:09:03

SUPERVISOR NAME:

TEST TEST

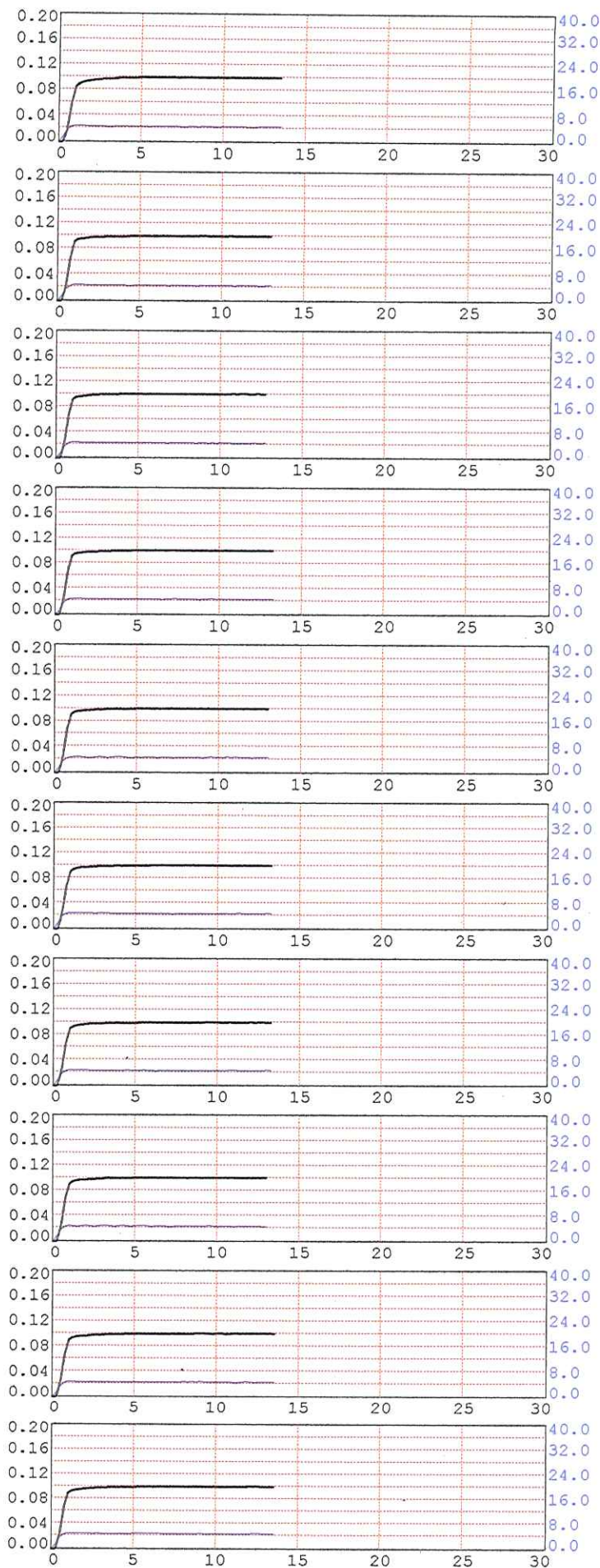
SOLUTION LOT #: 15-24-100

SOLUTION CONCENTRATION: 0.099

BLANK TEST	0.000	10:09
CALIBRATION CHECK	PASSED	10:10
SIMULATOR VAPOR 34.0°C	0.100	10:10
SIMULATOR VAPOR 34.0°C	0.101	10:11
SIMULATOR VAPOR 34.0°C	0.101	10:12
SIMULATOR VAPOR 34.0°C	0.101	10:13
SIMULATOR VAPOR 34.0°C	0.101	10:14
SIMULATOR VAPOR 34.0°C	0.101	10:15
SIMULATOR VAPOR 34.0°C	0.101	10:16
SIMULATOR VAPOR 34.0°C	0.101	10:17
SIMULATOR VAPOR 34.0°C	0.101	10:18
SIMULATOR VAPOR 34.0°C	0.101	10:19
BLANK TEST	0.000	10:20

Average = 0.100

Std Dev = 0.0003





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100156

Location: FAIR HAVEN PD / Rutland VSP

Date: 01/28/2016

Time: 10:40:28

SUPERVISOR NAME:

RCD TEST

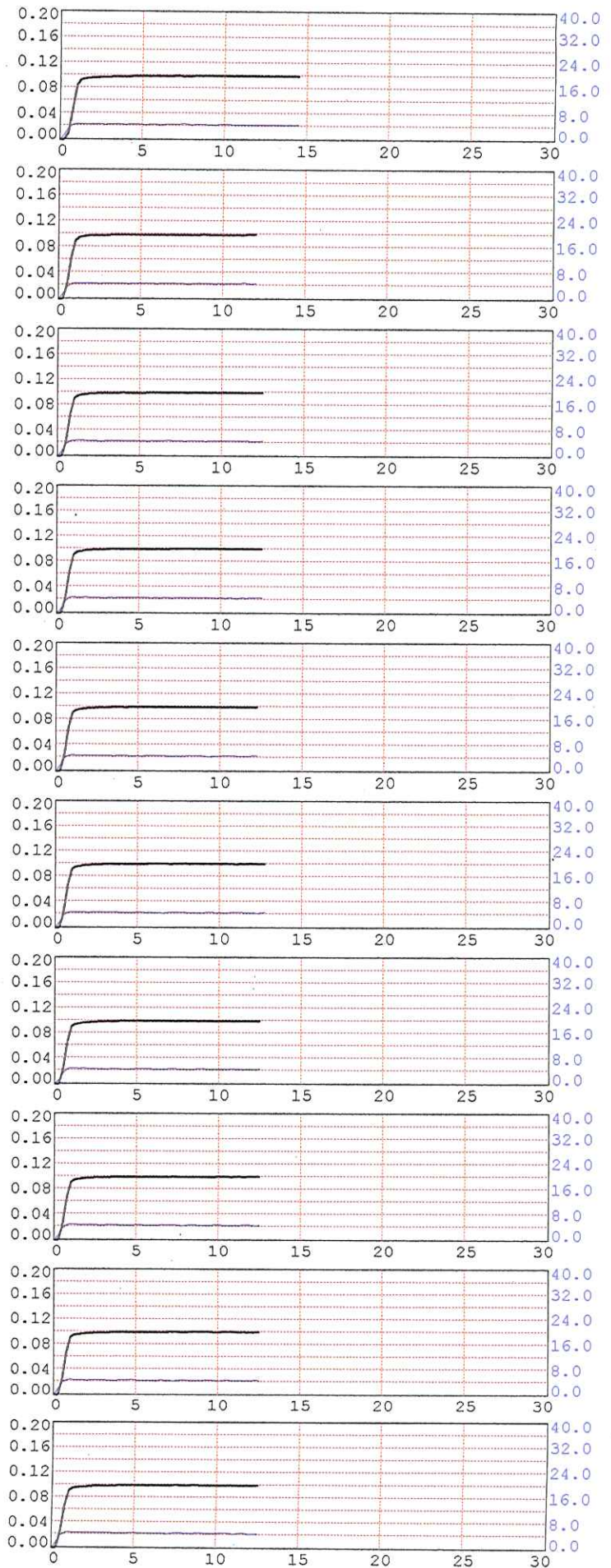
SOLUTION LOT #: 15-24-100

SOLUTION CONCENTRATION: 0.099

BLANK TEST	0.000	10:41
CALIBRATION CHECK	PASSED	10:41
SIMULATOR VAPOR 34.0°C	0.100	10:41
SIMULATOR VAPOR 34.0°C	0.100	10:42
SIMULATOR VAPOR 34.0°C	0.100	10:43
SIMULATOR VAPOR 34.1°C	0.100	10:44
SIMULATOR VAPOR 34.0°C	0.100	10:46
SIMULATOR VAPOR 34.0°C	0.101	10:47
SIMULATOR VAPOR 34.0°C	0.100	10:48
SIMULATOR VAPOR 33.9°C	0.100	10:49
SIMULATOR VAPOR 34.0°C	0.101	10:50
SIMULATOR VAPOR 34.0°C	0.100	10:51
BLANK TEST	0.000	10:52

Average = 0.100

Std Dev = 0.0004





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100156

Location: FAIR HAVEN PD / Rutland VSP

Date: 01/11/2016

Time: 11:25:25

SUPERVISOR NAME:

TEST TEST

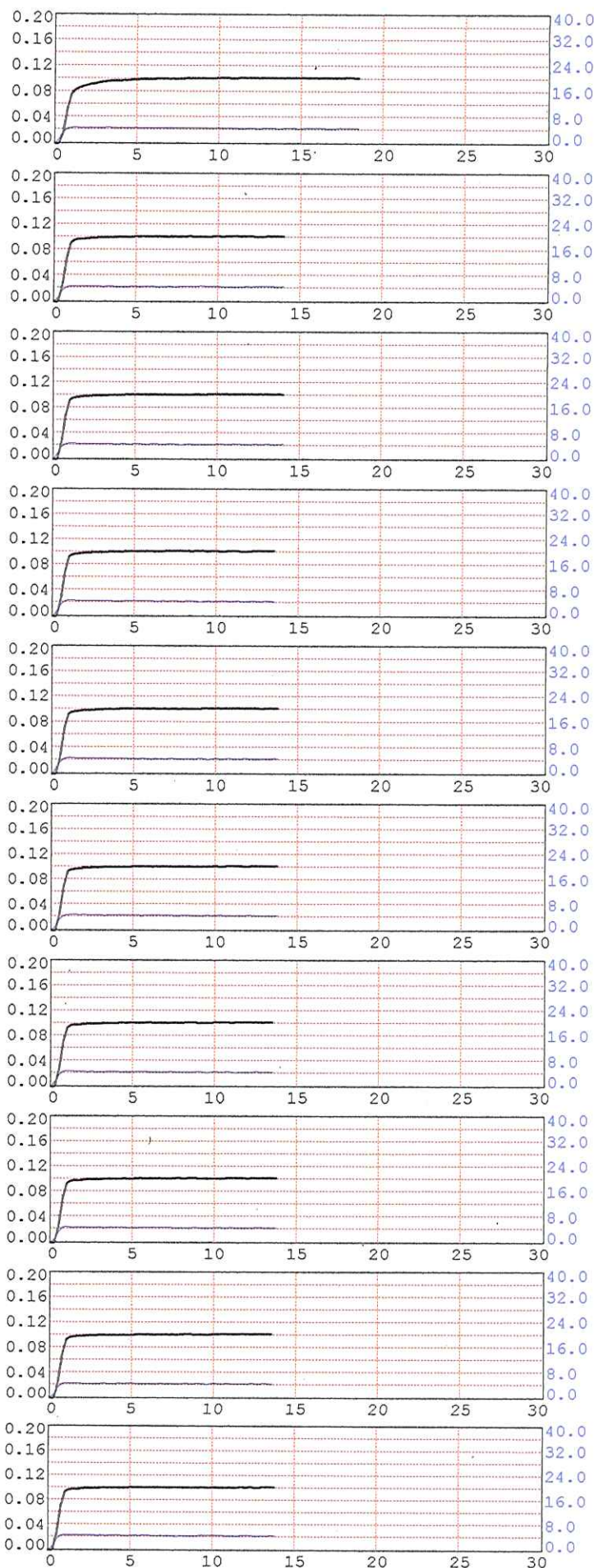
SOLUTION LOT #: 15-24-100

SOLUTION CONCENTRATION: 0.099

BLANK TEST	0.000	11:26
CALIBRATION CHECK	PASSED	11:26
SIMULATOR VAPOR 34.0°C	0.103	11:26
SIMULATOR VAPOR 34.0°C	0.102	11:27
SIMULATOR VAPOR 34.0°C	0.102	11:28
SIMULATOR VAPOR 33.9°C	0.103	11:30
SIMULATOR VAPOR 34.1°C	0.103	11:31
SIMULATOR VAPOR 34.0°C	0.102	11:32
SIMULATOR VAPOR 33.9°C	0.102	11:33
SIMULATOR VAPOR 34.0°C	0.102	11:34
SIMULATOR VAPOR 34.0°C	0.102	11:35
SIMULATOR VAPOR 34.0°C	0.102	11:36
BLANK TEST	0.000	11:37

Average = 0.102

Std Dev = 0.0004





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100156

Location: FAIR HAVEN PD / Rutland VSP

Date: 01/11/2016

Time: 13:51:50

SUPERVISOR NAME:

TEST TEST

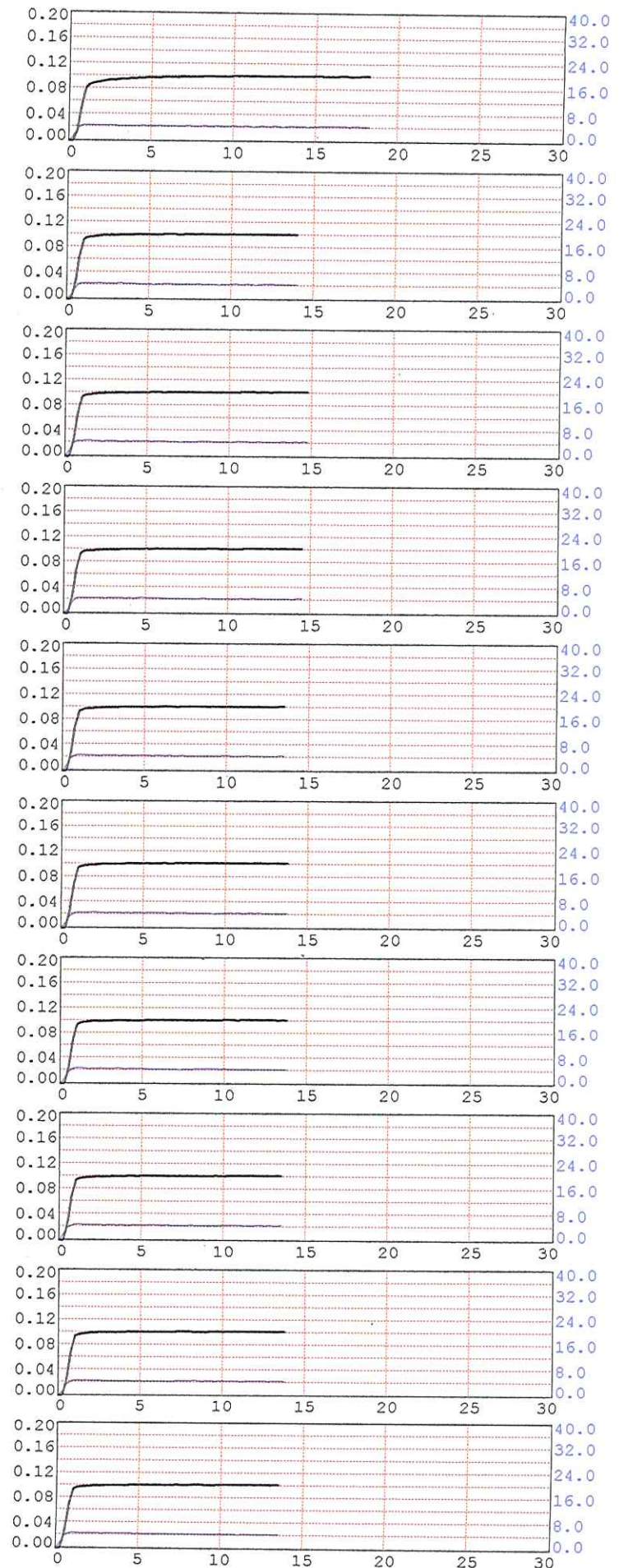
SOLUTION LOT #: 15-24-100

SOLUTION CONCENTRATION: 0.099

BLANK TEST	0.000	13:52
CALIBRATION CHECK	PASSED	13:52
SIMULATOR VAPOR 33.9°C	0.102	13:53
SIMULATOR VAPOR 34.0°C	0.102	13:54
SIMULATOR VAPOR 33.9°C	0.102	13:55
SIMULATOR VAPOR 34.0°C	0.102	13:56
SIMULATOR VAPOR 33.9°C	0.102	13:57
SIMULATOR VAPOR 34.0°C	0.103	13:58
SIMULATOR VAPOR 33.9°C	0.102	13:59
SIMULATOR VAPOR 34.0°C	0.102	14:00
SIMULATOR VAPOR 33.9°C	0.102	14:01
SIMULATOR VAPOR 33.9°C	0.102	14:02
BLANK TEST	0.000	14:03

Average = 0.102

Std Dev = 0.0003





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100156

Location: FAIR HAVEN PD / Rutland VSP

Date: 01/12/2016

Time: 08:21:24

SUPERVISOR NAME:

TEST TEST

SOLUTION LOT #: 15-24-100

SOLUTION CONCENTRATION: 0.099

BLANK TEST	0.000	08:22
CALIBRATION CHECK	PASSED	08:22
SIMULATOR VAPOR 33.9°C	0.101	08:22
SIMULATOR VAPOR 34.0°C	0.102	08:24
SIMULATOR VAPOR 34.0°C	0.101	08:25
SIMULATOR VAPOR 34.0°C	0.102	08:26
SIMULATOR VAPOR 33.9°C	0.102	08:27
SIMULATOR VAPOR 34.0°C	0.102	08:28
SIMULATOR VAPOR 33.9°C	0.102	08:29
SIMULATOR VAPOR 33.9°C	0.102	08:30
SIMULATOR VAPOR 33.9°C	0.102	08:31
SIMULATOR VAPOR 33.9°C	0.102	08:32
BLANK TEST	0.000	08:33

Average = 0.101

Std Dev = 0.0004

