DATAMASTER DMT 100134

VERMONT DEPARTMENT OF HEALTH LABORATORY

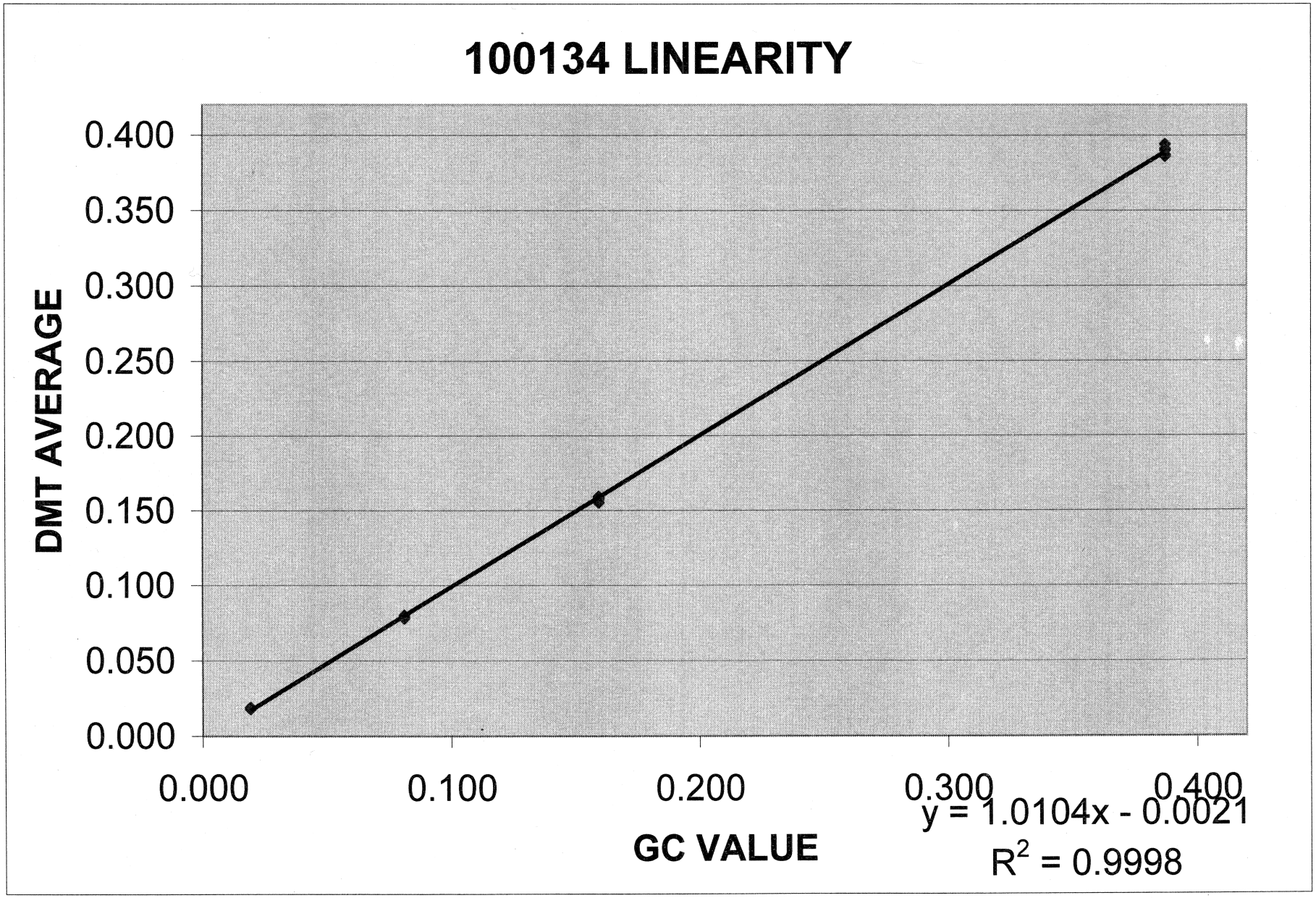
PERFORMANCE TESTING RESULTS

August 2010

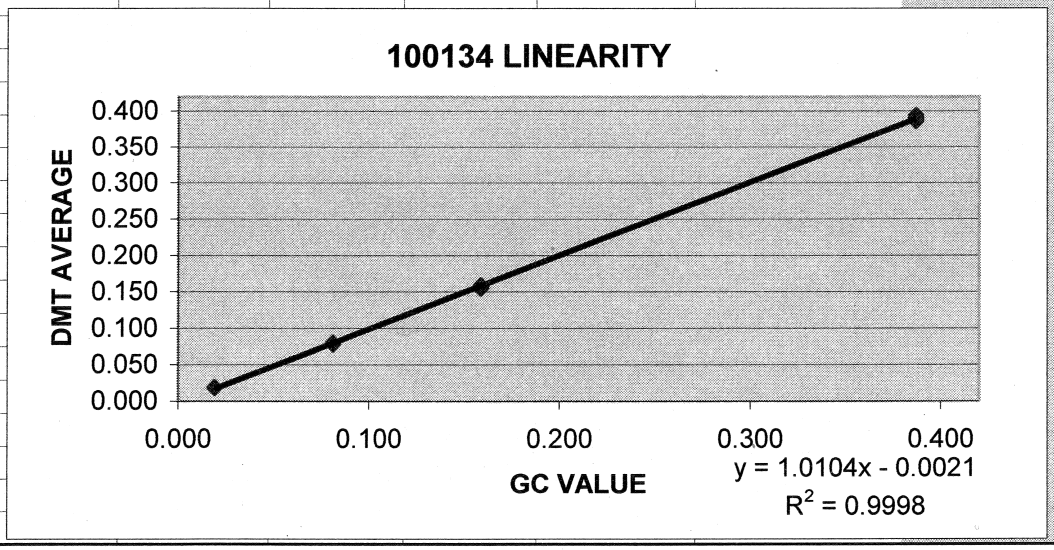
Table of Contents

Section 1: Results	1
Section 2: NPAS Tests	5
Section 3: Power-Up Test	21
Section 4: Linearity	27
Section 5: Interference	52
Section 6: Low Level Accuracy	60
Section 7: Breath Volume	61
Section 8: Software Testing	63
Section 9: Error Reports	65
Section 10: Live Subject Tests	83
Section 11: Communication Notes	84

Section 1: Results


100134 LINEARITY
DMT AVERAGE
0.400
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
0.000
0.100
0.200
0.300
0.400
GC VALUE
y = 1.0104x - 0.0021
R2 = 0.9998

Operator	Date	Lot #	GC Value	DMT Result	Std Dev	% Recovery	
ALB	4/21/2010	10-19-080	0.081	0.079	0.0004	97.5	Outside 5%
		10-20-160	0.159	0.159	0.0004	100.0	Outside 10%
		10-14-400	0.387	0.394	0.0006	101.8	
DMR	4/21/2010	10-21-020	0.019	0.019	0.0004	100.0	
DMR	4/21/2010	10-19-080	0.081	0.080	0.0004	98.8	
ALB	4/22/2010	10-14-400	0.387	0.391	0.0003	101.0	
		10-20-160	0.159	0.157	0.0005	98.7	
		10-19-080	0.081	0.078	0.0005	96.3	
		10-21-020	0.019	0.019	0.0004	100.0	
DMR	4/22/2010	10-21-020	0.019	0.019	0.0007	100.0	
		10-14-400	0.387	0.390	0.0009	100.8	
		10-20-160	0.159	0.157	0.0004	98.7	
		10-19-080	0.081	0.079	0.0005	97.5	
ALB	4/23/2010	10-19-080	0.081	0.079	0.0003	97.5	
		10-21-020	0.019	0.018	0.0006	94.7	
		10-14-400	0.387	0.386	0.0010	99.7	
		10-20-160	0.159	0.155	0.0007	97.5	
ALB	4/26/2010	10-19-080	0.081	0.078	0.0004	96.3	
		10-21-020	0.019	0.019	0.0003	100.0	
		10-14-400	0.387	0.387	0.0006	100.0	
		10-20-160	0.159	0.158	0.0004	99.4	
							LOW LEVEL
				Average	0.0005	98.9	
				Std Dev	0.0002	1.82	
				Range	0.0004 - 0.0010	94.7 - 101.8	



Operator	Date	Concentration	Lot Number	DMT Result	Apparent EtOH	N = 10
ALB	04/26/10	.01 Acetone in .08 EtOH	10-24-08A	INTERFERENCE	0.08	
SH	04/20/10	.01 Acetone in .04 EtOH	09-27-04A1	INTERFERENCE	0.04	
SH	04/20/10	.02 Acetone in .04 EtOH	09-31-04A2	INTERFERENCE	0.05	
DMR	04/26/10	.04 MeOH in water	10-25-04M	INTERFERENCE	0.02	
SH	04/20/10	.04 MeOH in .08 EtOH	10-10-08M4	INTERFERENCE	0.11	
DMR	04/26/10	.04 IPA in water	10-26-04I	INTERFERENCE	0.02	
SH	04/20/10	.04 IPA in .08 EtOH	09-30-08I	INTERFERENCE	0.1	

Section 2: NPAS Tests

National Patent Analytical Systems, Inc.

Certificate of Calibration

100134

Instrument Serial Number

09380

Standard Reference Number

The above instrument has been calibrated and is hereby certified for use in determining alcohol breath concentration when used in accordance with the operating guidelines by a properly trained operator.

3-19-10

Date

Technician

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

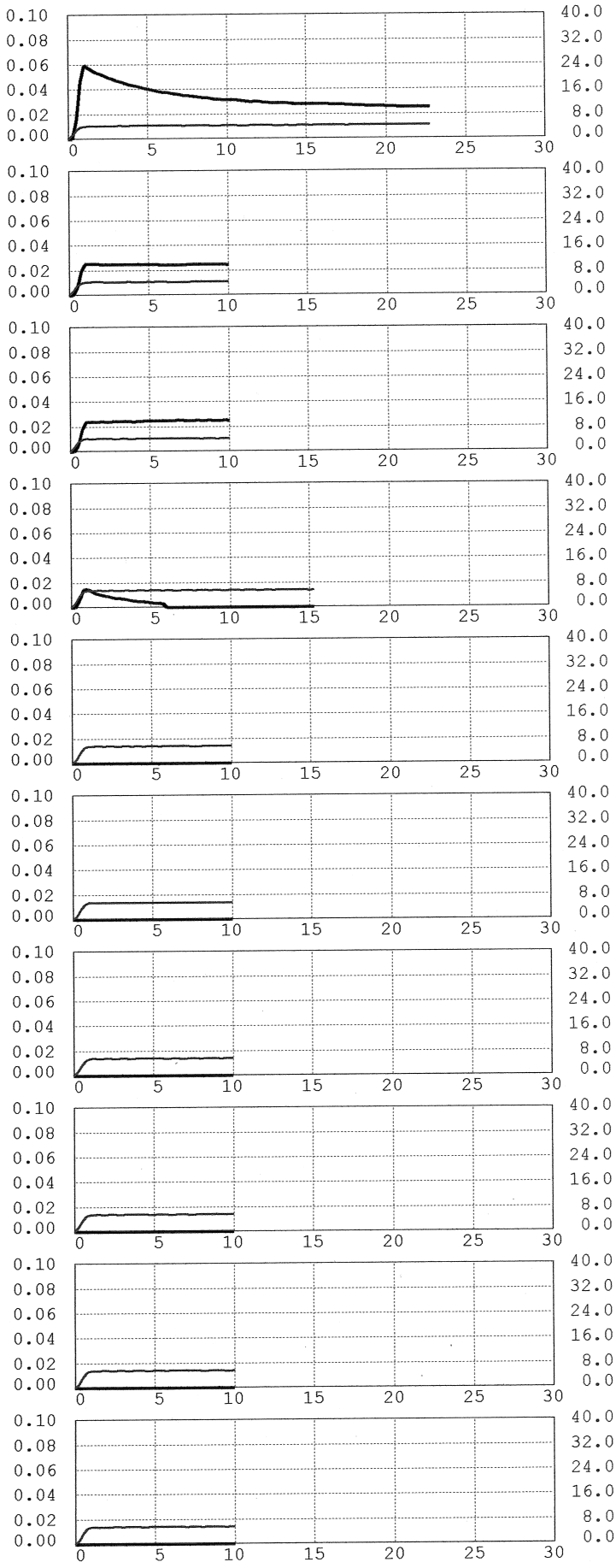
Date: 03/23/2010
Time: 10:42:55

SUPERVISOR NAME: T T T

SOLUTION LOT #: 876
SOLUTION CONCENTRATION: 0.025

BLANK TEST	0.000	10:43
CALIBRATION CHECK	PASSED	10:43
Xq = 0.0753 (0.69%)		
SIMULATOR VAPOR	0.026	10:44
X[1] = 0.0265 (-0.0023) (-0.0043)		
SIMULATOR VAPOR	INTERFERENCE	10:45
X[1] = 0.0254 (-0.0021) (-0.0052)		
SIMULATOR VAPOR	INTERFERENCE	10:46
X[1] = 0.0261 (-0.0022) (-0.0052)		
SIMULATOR VAPOR	0.000	10:47
X[1] = 0.0001 (0.0001) (-0.0002)		
SIMULATOR VAPOR	0.000	10:48
X[1] = 0.0000 (0.0000) (-0.0002)		
SIMULATOR VAPOR	0.000	10:49
X[1] = 0.0000 (0.0000) (-0.0003)		
SIMULATOR VAPOR	0.000	10:50
X[1] = 0.0000 (0.0000) (0.0000)		
SIMULATOR VAPOR	0.000	10:51
X[1] = 0.0000 (0.0000) (-0.0001)		
SIMULATOR VAPOR	0.000	10:52
X[1] = 0.0000 (0.0000) (-0.0002)		
SIMULATOR VAPOR	0.000	10:53
X[1] = 0.0000 (0.0000) (0.0000)		
BLANK TEST	0.000	10:54

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

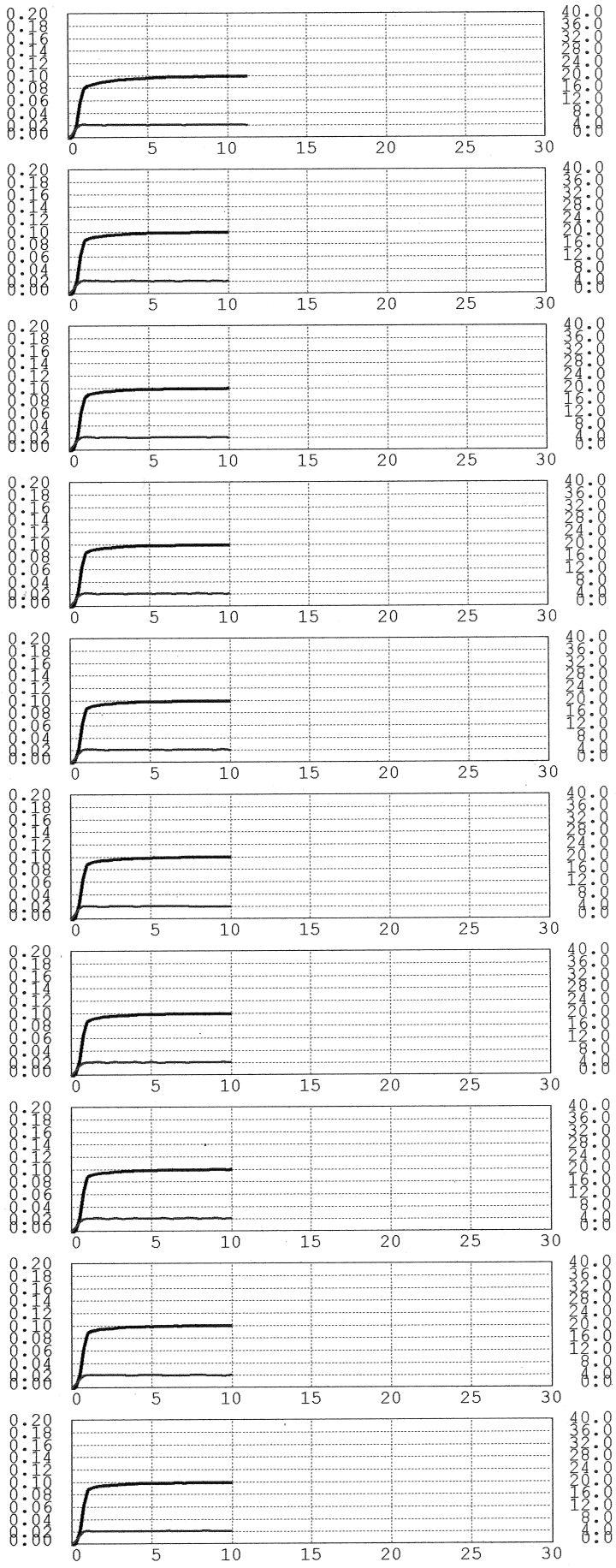
Date: 03/23/2010
Time: 10:27:51

SUPERVISOR NAME: T T T

SOLUTION LOT #: 87654
SOLUTION CONCENTRATION: 0.100

BLANK TEST		0.000	10:28
CALIBRATION CHECK		PASSED	10:28
Xq = 0.0754 (0.81%)			
SIMULATOR VAPOR		0.099	10:29
X[1] = 0.0997	(-0.0015)	(-0.0006)	
SIMULATOR VAPOR		0.099	10:30
X[1] = 0.0997	(-0.0008)	(-0.0002)	
SIMULATOR VAPOR		0.099	10:31
X[1] = 0.0997	(-0.0015)	(-0.0015)	
SIMULATOR VAPOR		0.100	10:32
X[1] = 0.1001	(-0.0013)	(-0.0008)	
SIMULATOR VAPOR		0.100	10:33
X[1] = 0.1000	(-0.0010)	(-0.0009)	
SIMULATOR VAPOR		0.100	10:34
X[1] = 0.1006	(-0.0010)	(-0.0006)	
SIMULATOR VAPOR		0.099	10:35
X[1] = 0.0996	(-0.0012)	(0.0001)	
SIMULATOR VAPOR		0.099	10:36
X[1] = 0.0997	(-0.0014)	(-0.0001)	
SIMULATOR VAPOR		0.100	10:37
X[1] = 0.1007	(-0.0009)	(-0.0002)	
SIMULATOR VAPOR		0.099	10:38
X[1] = 0.0996	(-0.0013)	(0.0000)	
BLANK TEST		0.000	10:38

Average = 0.099
Std Dev = 0.0005



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

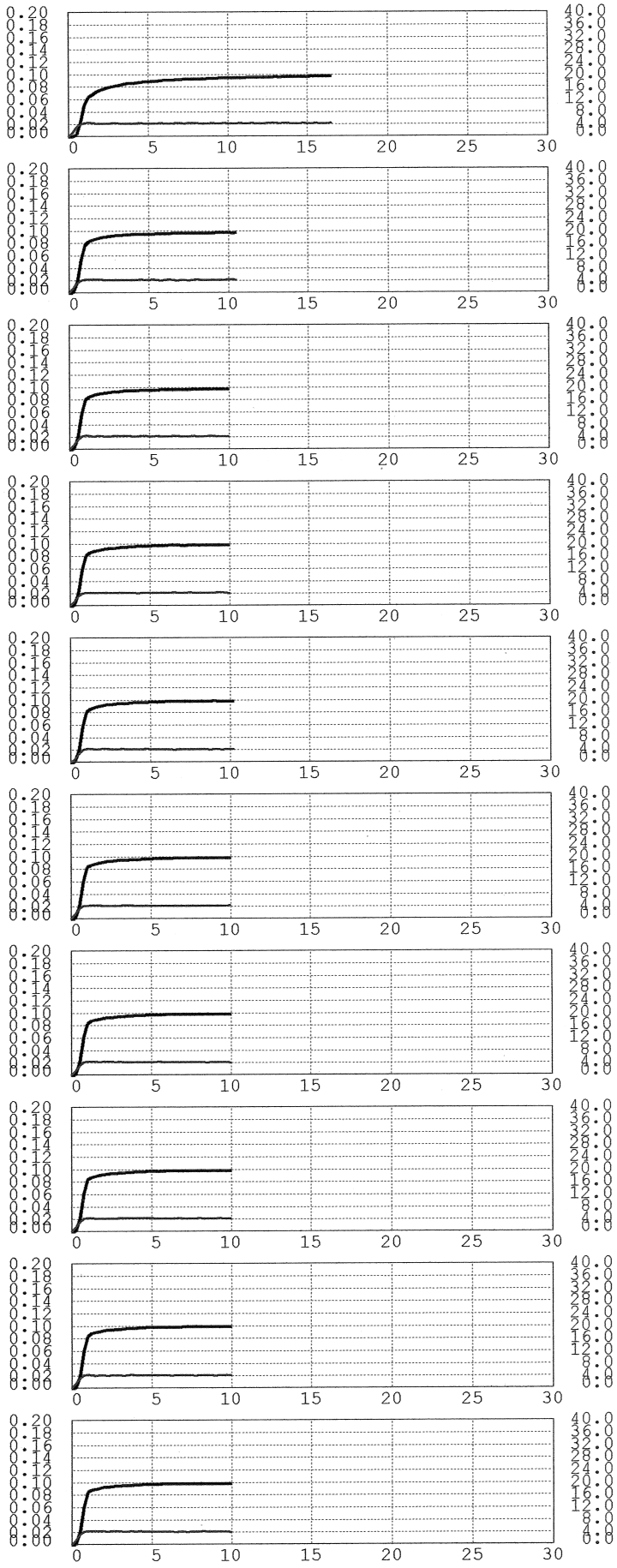
Date: 03/23/2010
Time: 10:15:11

SUPERVISOR NAME: T T T

SOLUTION LOT #: 98765
SOLUTION CONCENTRATION: 0.100

BLANK TEST		0.000	10:16
CALIBRATION CHECK		PASSED	10:16
Xq = 0.0752 (0.58%)			
SIMULATOR VAPOR		0.097	10:16
X[1] = 0.0978	(-0.0001)	(-0.0018)	
SIMULATOR VAPOR		0.097	10:17
X[1] = 0.0978	(-0.0006)	(-0.0013)	
SIMULATOR VAPOR		0.098	10:18
X[1] = 0.0980	(-0.0001)	(-0.0020)	
SIMULATOR VAPOR		0.098	10:19
X[1] = 0.0987	(-0.0012)	(-0.0024)	
SIMULATOR VAPOR		0.099	10:20
X[1] = 0.0994	(-0.0012)	(-0.0015)	
SIMULATOR VAPOR		0.098	10:21
X[1] = 0.0989	(-0.0010)	(-0.0017)	
SIMULATOR VAPOR		0.099	10:22
X[1] = 0.0992	(-0.0001)	(-0.0006)	
SIMULATOR VAPOR		0.099	10:23
X[1] = 0.0990	(-0.0017)	(-0.0018)	
SIMULATOR VAPOR		0.099	10:24
X[1] = 0.0998	(-0.0008)	(-0.0013)	
SIMULATOR VAPOR		0.099	10:25
X[1] = 0.0993	(-0.0014)	(-0.0011)	
BLANK TEST		0.000	10:26

Average = 0.098
Std Dev = 0.0008



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

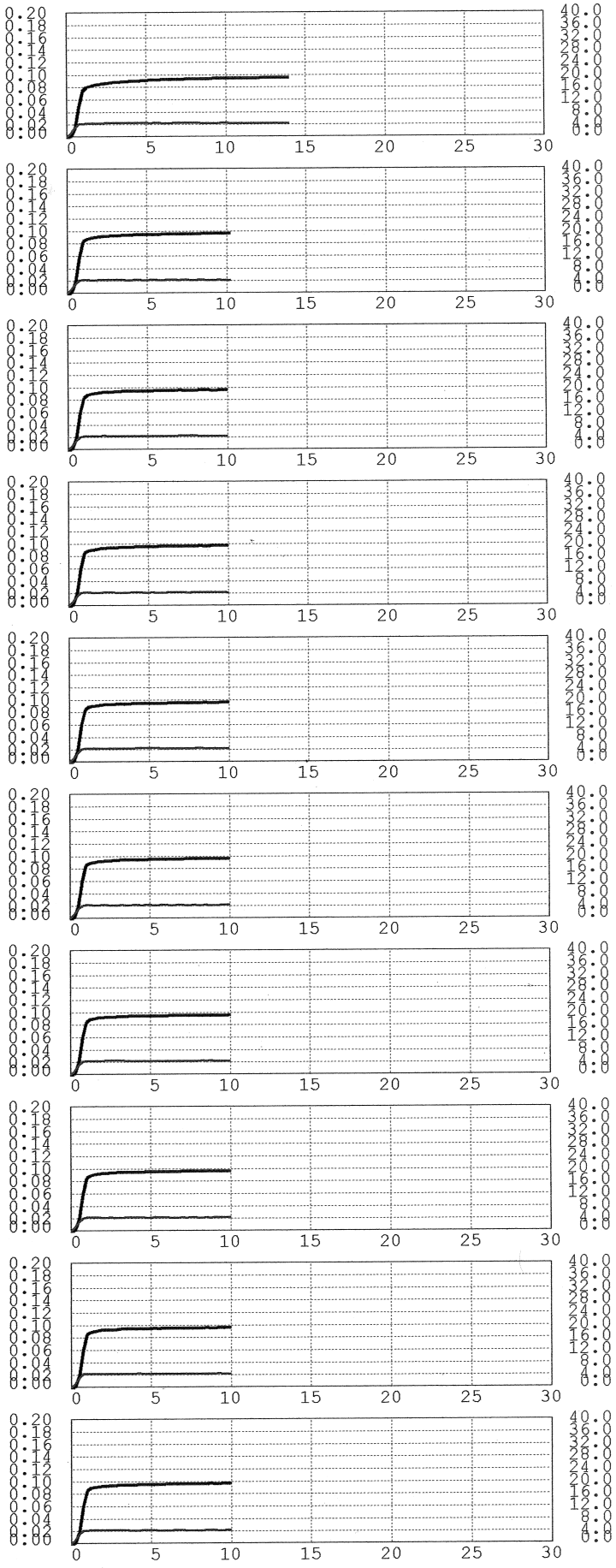
Date: 03/19/2010
Time: 12:11:53

SUPERVISOR NAME: T T T

SOLUTION LOT #: 98765
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	12:12
CALIBRATION CHECK	PASSED	12:12
Xq = 0.0752 (0.58%)		
SIMULATOR VAPOR	0.095	12:13
X[1] = 0.0959 (-0.0003) (0.0021)		
SIMULATOR VAPOR	0.097	12:14
X[1] = 0.0971 (-0.0008) (0.0008)		
SIMULATOR VAPOR	0.096	12:15
X[1] = 0.0967 (-0.0004) (0.0011)		
SIMULATOR VAPOR	0.097	12:16
X[1] = 0.0973 (-0.0011) (0.0011)		
SIMULATOR VAPOR	0.096	12:17
X[1] = 0.0962 (-0.0012) (0.0008)		
SIMULATOR VAPOR	0.097	12:18
X[1] = 0.0972 (-0.0012) (0.0001)		
SIMULATOR VAPOR	0.096	12:19
X[1] = 0.0964 (-0.0011) (0.0010)		
SIMULATOR VAPOR	0.097	12:20
X[1] = 0.0972 (-0.0007) (0.0006)		
SIMULATOR VAPOR	0.096	12:21
X[1] = 0.0964 (-0.0011) (0.0009)		
SIMULATOR VAPOR	0.097	12:22
X[1] = 0.0975 (-0.0005) (0.0004)		
BLANK TEST	0.000	12:22

Average = 0.096
Std Dev = 0.0006



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

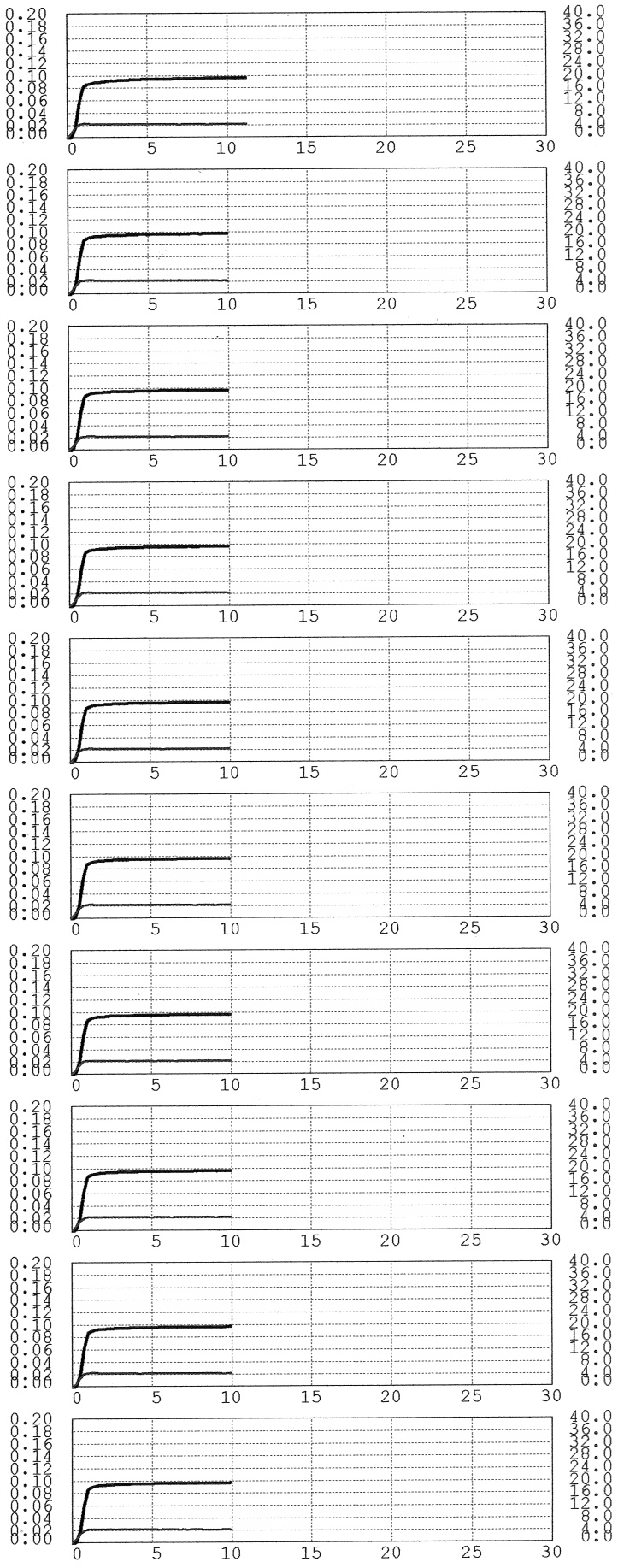
Date: 03/19/2010
Time: 11:18:41

SUPERVISOR NAME: T T T

SOLUTION LOT #: 876
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	11:19
CALIBRATION CHECK	PASSED	11:19
Xq = 0.0758 (1.27%)		
SIMULATOR VAPOR	0.096	11:20
X[1] = 0.0969 (0.0002) (0.0025)		
SIMULATOR VAPOR	0.097	11:21
X[1] = 0.0975 (-0.0005) (0.0011)		
SIMULATOR VAPOR	0.096	11:22
X[1] = 0.0969 (-0.0009) (0.0014)		
SIMULATOR VAPOR	0.096	11:22
X[1] = 0.0966 (-0.0010) (0.0010)		
SIMULATOR VAPOR	0.097	11:23
X[1] = 0.0972 (-0.0009) (0.0013)		
SIMULATOR VAPOR	0.096	11:24
X[1] = 0.0969 (-0.0011) (0.0011)		
SIMULATOR VAPOR	0.096	11:25
X[1] = 0.0968 (-0.0007) (0.0013)		
SIMULATOR VAPOR	0.096	11:26
X[1] = 0.0967 (-0.0012) (0.0009)		
SIMULATOR VAPOR	0.096	11:27
X[1] = 0.0969 (-0.0008) (0.0012)		
SIMULATOR VAPOR	0.097	11:28
X[1] = 0.0973 (-0.0012) (0.0009)		
BLANK TEST	0.000	11:29

Average = 0.096
Std Dev = 0.0004



DIAGNOSTIC RESULT

DataMaster DMT: 100134
Location: ADDISON COUNTY SO
Calibration Date: 03/19/2010
Certification Date: 03/19/2010
Installation Date: 03/19/2010
Test Date: 03/23/2010
Time: 10:13

VERMONT
DEPARTMENT OF HEALTH

```
VERSIONS
DMT 1.04
PIC 2.05
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 49.03°C
Breath Tube    = 44.70°C

SETTINGS
Lamp Voltage   = 1.66 V
Cooler Voltage = 1.68 V
Bias Voltage   = 80.6 V
Chopper Freq   = 528.2 Hz

PUMP INFO
Flow Rate = 5.139 L/M

DETECTOR INFO
PUMP     ON        OFF
MAX(V)   0.0650    0.0717
MIN(V)   0.0632    0.0697

FILTER INFO
Filter 1  0.071  Zero = true
Filter 2  0.277  Zero = true
Filter 3  1.014  Zero = true

CALIBRATION CHECK
Xq = 0.0751  0.35%
```

DIAGNOSTIC RESULT

DataMaster DMT: 100134
Location: ADDISON COUNTY SO
Calibration Date: 03/19/2010
Certification Date: 03/19/2010
Installation Date: 03/19/2010
Test Date: 03/19/2010
Time: 12:05

VERMONT
DEPARTMENT OF HEALTH

```
VERSIONS
DMT 1.04
PIC 2.05
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 49.20°C
Breath Tube    = 45.67°C

SETTINGS
Lamp Voltage   = 1.66 V
Cooler Voltage = 1.68 V
Bias Voltage   = 80.6 V
Chopper Freq   = 533.3 Hz

PUMP INFO
Flow Rate = 5.337 L/M

DETECTOR INFO
PUMP     ON        OFF
MAX(V)   0.2163    0.2146
MIN(V)   0.2112    0.2134

FILTER INFO
Filter 1  0.214  Zero = true
Filter 2  0.412  Zero = true
Filter 3  1.188  Zero = true

CALIBRATION CHECK
Xq = 0.0751  0.35%
```

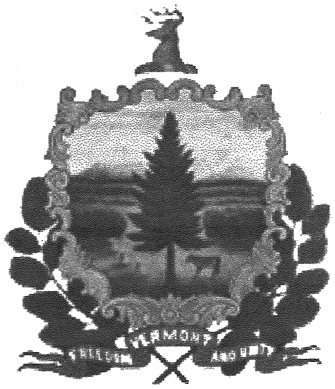
CALIBRATION REPORT

DataMaster DMT: 100134
Calibration Date: 03/19/2010
Calibrated by: T T T
Lot: 098765TR

VERMONT
DEPARTMENT OF HEALTH

Ca	= 0.100000		
CAL	= 0.983487	0.800 <= CAL <	1.200
b1	= 0.001547	0.000 <= b1 <	0.004
b2	= 0.007690	0.001 <= b2 <	0.012
b3	= 0.000721	0.000 <= b3 <	0.004
Xq	= 0.074864	0.050 <= Xq <	0.200
a21	= 1.183595	1.050 <= a21 <	1.300
a31	= 0.480724	0.300 <= a31 <	0.800

Performed by _____ **Date** 03/19/2010



Check-In Confirmation Test

STATE OF VERMONT

DataMaster DMT: 100134
ADDISON COUNTY SO
Certification Date: 03/19/2010
Installation Date: 03/19/2010

Date: 03/19/2010
Time: 11:03:18

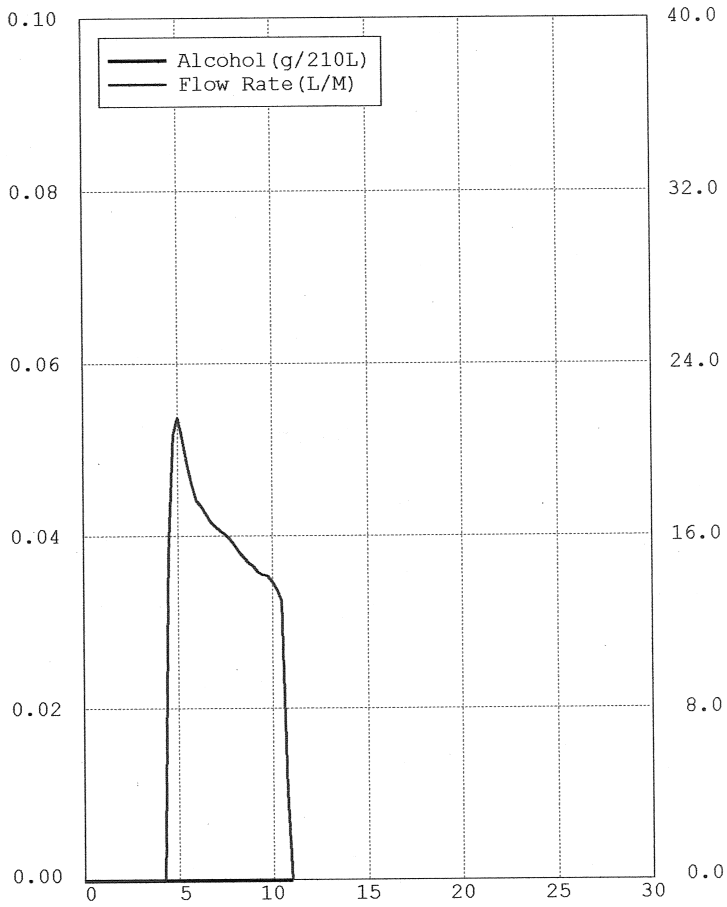
Subject Name: T T T
Date of Birth: 03/19/2000 Age: 10
Guardian Present: Y
Gender: M
License #:

Test Operator Name: T T T
Agency: ADDISON COUNTY SO

BLANK TEST	0.000	11:04
CALIBRATION CHECK	PASSED	11:04
Xq = 0.0754 (0.81%)		
SIMULATOR VAPOR	0.097	11:04
X[1] = 0.0978 (-0.0008) (0.0019)		
BLANK TEST	0.000	11:05
SUBJECT SAMPLE (Vol=1.7L)	0.000	11:05
X[1] = 0.0000 (0.0000) (0.0000)		

All alcohol values reported in g/210L

Sim. Vapor Concentration	0.099
Sim. Vapor Range	0.094 - 0.104



DUI Subject Test

STATE OF VERMONT

DataMaster DMT: 100134
ADDISON COUNTY SO
Certification Date: 03/19/2010
Installation Date: 03/19/2010

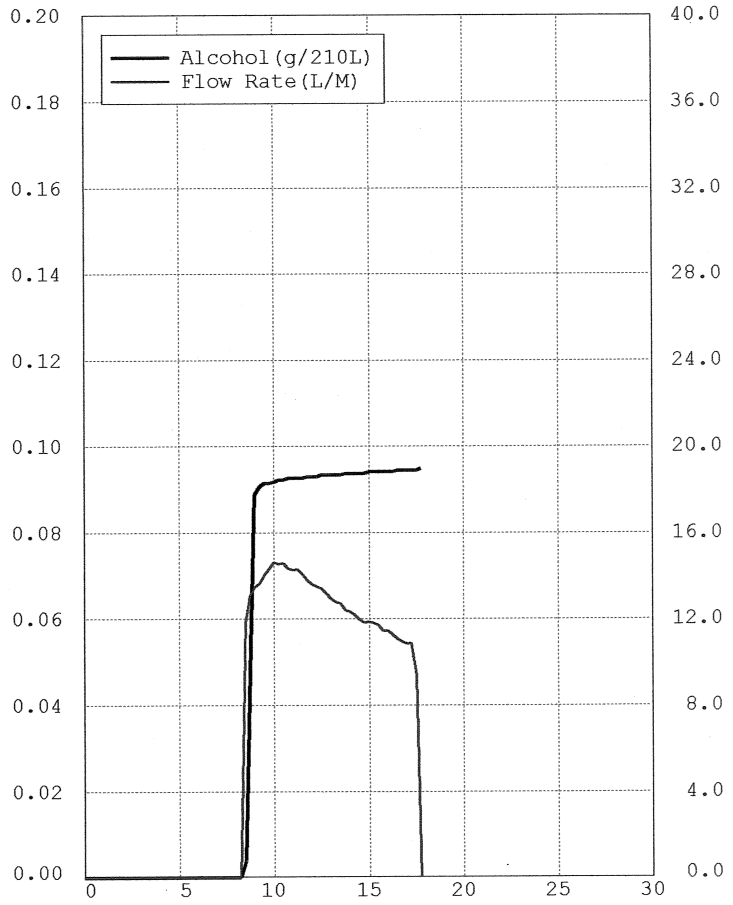
Date: 03/19/2010
Time: 12:01:43

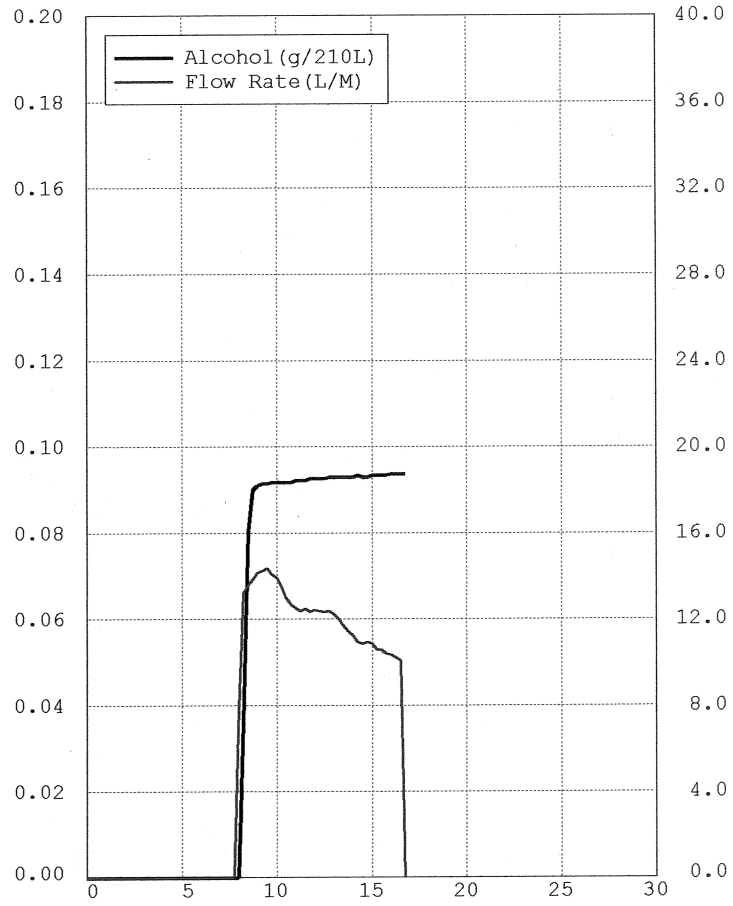
Subject Name: T T T
Date of Birth: 09/09/1969 Age: 40
Gender: M
License #:

Case #: TW23456
Time of Operation: 11:00
Location of Incident:
Town: ADDISON
County: ADDISON

Test Operator Name: T T T
Agency: ADDISON COUNTY SO

Obs. Period Start:		12:01
BLANK TEST	0.000	12:02
CALIBRATION CHECK	PASSED	12:02
Xq = 0.0753 (0.69%)		
SUBJECT SAMPLE (Vol=1.9L)	0.095	12:03
X[1] = 0.0954 (-0.0010) (0.0034)		
BLANK TEST	0.000	12:04
CALIBRATION CHECK	PASSED	12:04
Xq = 0.0757 (1.16%)		
SUBJECT SAMPLE (Vol=1.7L)	0.094	12:05
X[1] = 0.0947 (0.0005) (0.0019)		





ROUTINE PERFORMANCE CHECK REPORT

DataMaster DMT: 100134
Location: ADDISON COUNTY SO
Calibration Date: 03/19/2010
Certification Date: 03/19/2010
Installation Date: 03/19/2010
RPC Date: 03/19/2010
Supervisor Name: T T T

VERMONT
DEPARTMENT OF HEALTH

Diagnostic Results

VERSIONS
DMT 1.04
PIC 2.05
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 49.20°C
Breath Tube = 46.52°C

SETTINGS
Lamp Voltage = 1.66 V
Cooler Voltage = 1.68 V
Bias Voltage = 80.6 V
Chopper Freq = 532.8 Hz

PUMP INFO
Flow Rate = 5.396 L/M

DETECTOR INFO
PUMP ON OFF
MAX(V) 0.2187 0.2197
MIN(V) 0.2163 0.2185

FILTER INFO
Filter 1 0.218 Zero = true
Filter 2 0.417 Zero = true
Filter 3 1.195 Zero = true

CALIBRATION CHECK
Xq = 0.0754 0.81%

Routine Performance Check Passed

Accuracy and Precision Check

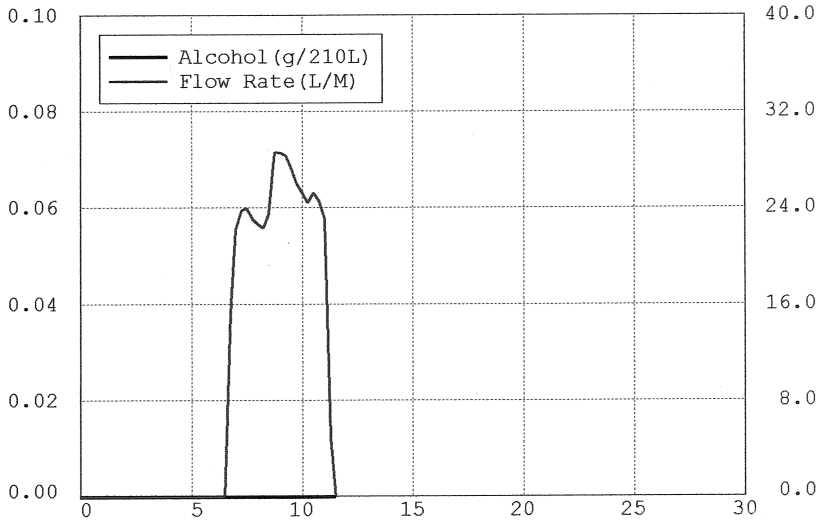
Concentration = 0.100 g/210L
Lot # = 8765
Average = 0.097 g/210L
Std Dev = 0.001

RFI Interference Test

RFI detected

Sample Acceptance Test

Passed



Performed by _____ **Date** 03/19/2010

Reviewed by _____ **Date** _____

INSTALLATION REPORT

DataMaster DMT: 100134
Location: ADDISON COUNTY SO
Calibration Date: 03/19/2010
Certification Date: 03/19/2010
Installation Date: 03/19/2010
Installed By: T T T

VERMONT
DEPARTMENT OF HEALTH

Site meets specification in doc P-ALC-210

Diagnostic Results

VERSIONS
DMT 1.04
PIC 2.05
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.68°C
Breath Tube = 45.62°C

SETTINGS
Lamp Voltage = 1.66 V
Cooler Voltage = 1.68 V
Bias Voltage = 80.7 V
Chopper Freq = 532.4 Hz

PUMP INFO
Flow Rate = 5.361 L/M

DETECTOR INFO
PUMP ON OFF
MAX(V) 0.2274 0.2278
MIN(V) 0.2244 0.2260

FILTER INFO
Filter 1 0.227 Zero = true
Filter 2 0.423 Zero = true
Filter 3 1.204 Zero = true

CALIBRATION CHECK
Xq = 0.0750 0.23%

INSTALLATION PASSED

Accuracy and Precision Check

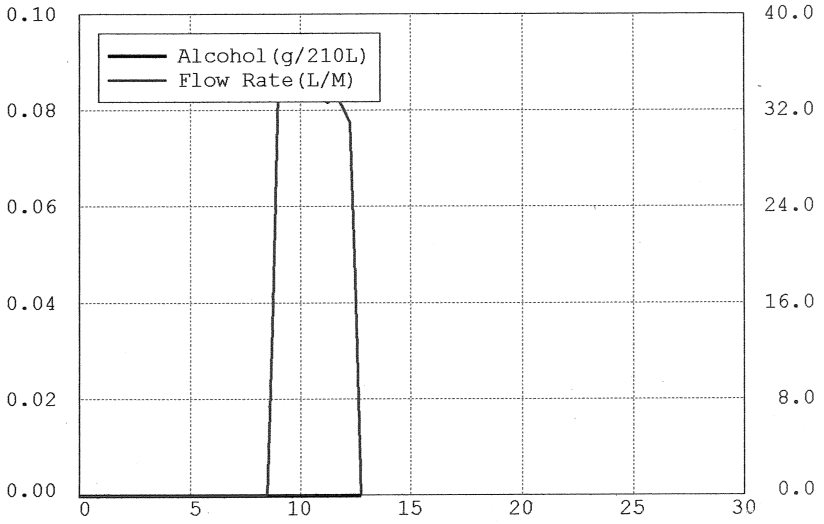
Concentration = 0.099 g/210L
Lot # = 987654
Average = 0.097 g/210L
Std Dev = 0.001

RFI Interference Test

RFI detected

Sample Acceptance Test

Passed



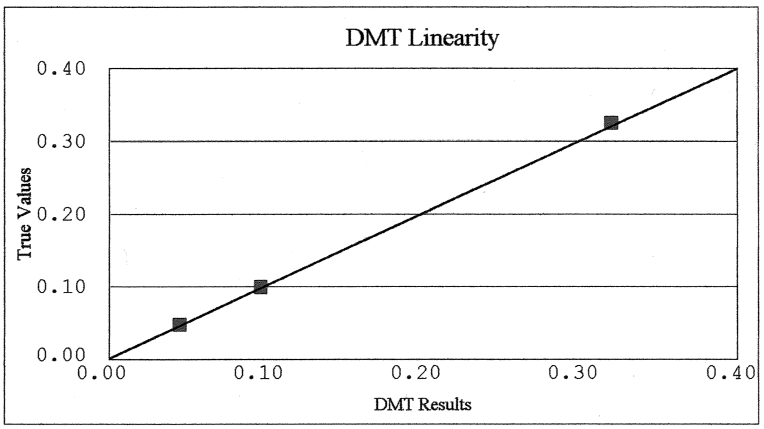
Performed by _____ **Date** 03/19/2010

Reviewed by _____ **Date** _____

Linearity Check Results

True Value	Reported Average	Std Dev
0.048 g/210L Lot # 987654	0.045 g/210L	0.001
0.099 g/210L Lot # 9876434	0.097 g/210L	0.001
0.100 g/210L Lot # 1234567	0.097 g/210L	0.000
0.325 g/210L Lot # 5676	0.320 g/210L	0.002

$R^2 = 1.0000$



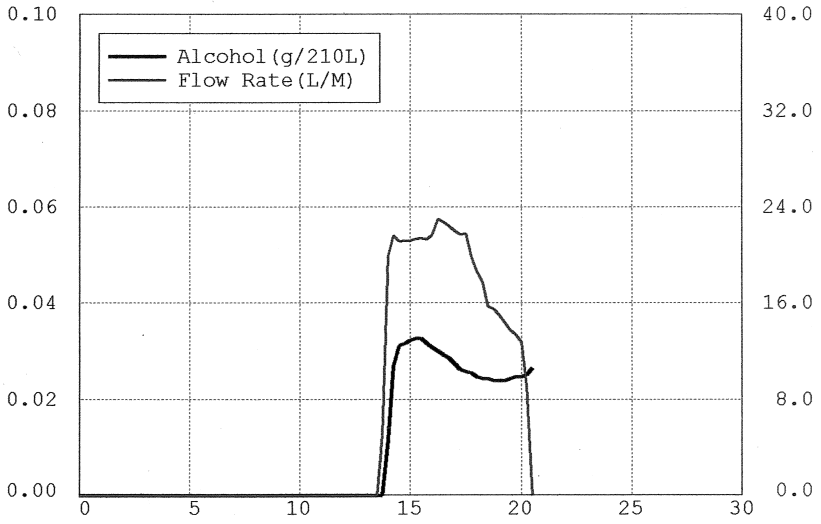
Acetone Interference Test

Lot # 567

Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

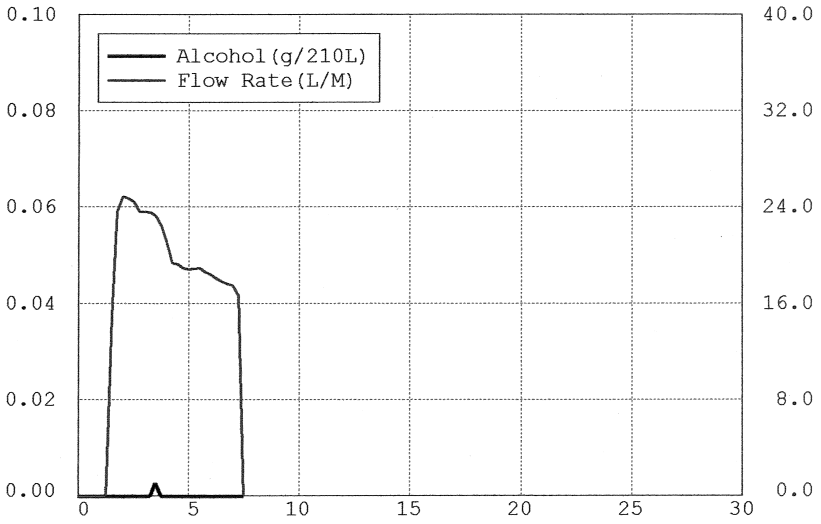


RF Interference Test

RFI detected

Sample Acceptance Test

Passed



CERTIFICATION PASSED

Performed by _____ **Date** 03/19/2010

Reviewed by _____ **Date** _____

CERTIFICATION REPORT

DataMaster DMT: 100134
Calibration Date: 03/19/2010
Certification Date: 03/19/2010
Certified by: T T T

VERMONT
DEPARTMENT OF HEALTH

Diagnostic Results

VERSIONS
DMT 1.04
PIC 2.05
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.86°C
Breath Tube = 47.25°C

SETTINGS
Lamp Voltage = 1.66 V
Cooler Voltage = 1.68 V
Bias Voltage = 80.6 V
Chopper Freq = 533.7 Hz

PUMP INFO
Flow Rate = 5.433 L/M

DETECTOR INFO
PUMP ON OFF
MAX(V) 0.2010 0.2043
MIN(V) 0.1986 0.2022

FILTER INFO
Filter 1 0.203 Zero = true
Filter 2 0.400 Zero = true
Filter 3 1.170 Zero = true

CALIBRATION CHECK
Xq = 0.0749 0.11%

Options

Printer: yes
Number of Copies: 1
Number of Supervisor Tests: 10
Tolerance Check: no
Data Collection: yes
Units: g/210L
Simulator Check: no
Uses Wet Bath Simulator: yes
Simulator Nominal: 0.100
Digital Simulator: none
Simulator Before: no
Simulator Between: no
Simulator After: no
Number of Subject Tests: 2
AskQuestions: yes
Query Refusal: yes
Alcohol Display: yes
Show Two Digits: no
Volume Display: yes
Number of Calibration Tests: 2
Calibrate with Wet Bath: yes
Calibration Nominal: 0.100

Section 3: Power-Up Tests

DIAGNOSTIC RESULT

DataMaster DMT: 100134
Location:
Calibration Date: 04/09/2010
Certification Date:
Installation Date:
Test Date: 04/20/2010
Time: 07:40

VERMONT
DEPARTMENT OF HEALTH

```
VERSIONS
DMT 1.04
PIC 2.05
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.68°C
Breath Tube    = 48.00°C

SETTINGS
Lamp Voltage   = 1.66 V
Cooler Voltage = 1.68 V
Bias Voltage   = 80.2 V
Chopper Freq   = 537.9 Hz

PUMP INFO
Flow Rate = 5.605 L/M

DETECTOR INFO
PUMP     ON        OFF
MAX(V)   0.0571    0.0606
MIN(V)   0.0551    0.0589

FILTER INFO
Filter 1   0.059   Zero = true
Filter 2   0.564   Zero = true
Filter 3   0.754   Zero = true

CALIBRATION CHECK
Xq = 0.0827   9.29%
```

CALIBRATION REPORT

DataMaster DMT: 100134
Calibration Date: 04/20/2010
Calibrated by: STEVEN E HARNOIS
Lot: 10-22-100

VERMONT
DEPARTMENT OF HEALTH

```
Ca  =  0.101000
CAL =  1.040553     0.800 <= CAL < 1.200
b1  =  0.000000     0.000 <=  b1 < 0.004
b2  =  0.005259     0.001 <=  b2 < 0.012
b3  =  0.000000     0.000 <=  b3 < 0.004
Xq  =  0.083543     0.050 <=  Xq < 0.200
a21 =  1.222477     1.050 <= a21 < 1.300
a31 =  0.446522     0.300 <= a31 < 0.800
```

Performed by _____ **Date** 04/20/2010

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

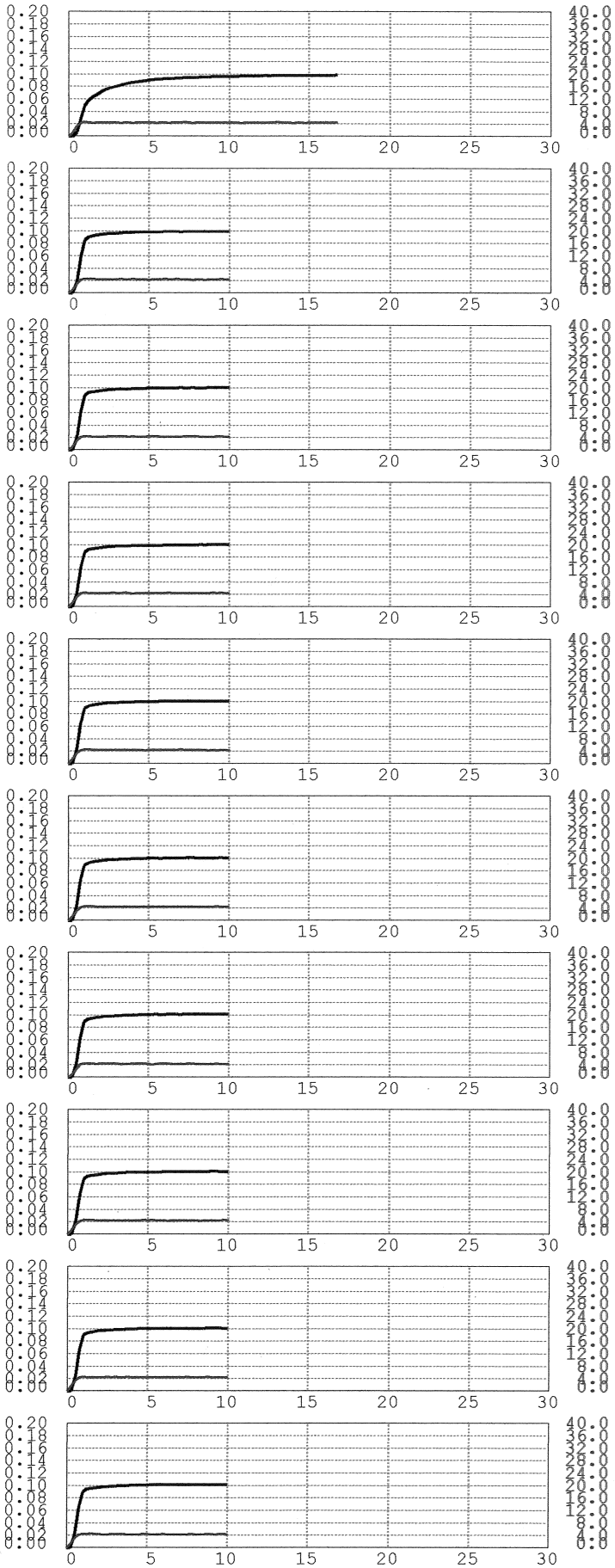
Date: 04/20/2010
Time: 08:12:19

SUPERVISOR NAME: SEH CAL CHECK

SOLUTION LOT #: 10-23-100
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	08:13
CALIBRATION CHECK	PASSED	08:13
SIMULATOR VAPOR	0.098	08:13
SIMULATOR VAPOR	0.099	08:14
SIMULATOR VAPOR	0.100	08:15
SIMULATOR VAPOR	0.100	08:16
SIMULATOR VAPOR	0.100	08:17
SIMULATOR VAPOR	0.101	08:18
SIMULATOR VAPOR	0.101	08:19
SIMULATOR VAPOR	0.101	08:20
SIMULATOR VAPOR	0.101	08:21
SIMULATOR VAPOR	0.101	08:22
BLANK TEST	0.000	08:23

Average = 0.100
Std Dev = 0.0010



CERTIFICATION REPORT

DataMaster DMT: 100134
Calibration Date: 04/20/2010
Certification Date: 04/20/2010
Certified by: STEVEN E HARNOIS

VERMONT
DEPARTMENT OF HEALTH

Diagnostic Results

VERSIONS
DMT 1.04
PIC 2.05
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 49.20°C
Breath Tube = 48.09°C

SETTINGS
Lamp Voltage = 1.66 V
Cooler Voltage = 1.69 V
Bias Voltage = 80.2 V
Chopper Freq = 538.0 Hz

PUMP INFO
Flow Rate = 5.587 L/M

DETECTOR INFO
PUMP ON OFF
MAX(V) 0.0585 0.0606
MIN(V) 0.0559 0.0587

FILTER INFO
Filter 1 0.059 Zero = true
Filter 2 0.564 Zero = true
Filter 3 0.757 Zero = true

CALIBRATION CHECK
Xq = 0.0835 0.00%

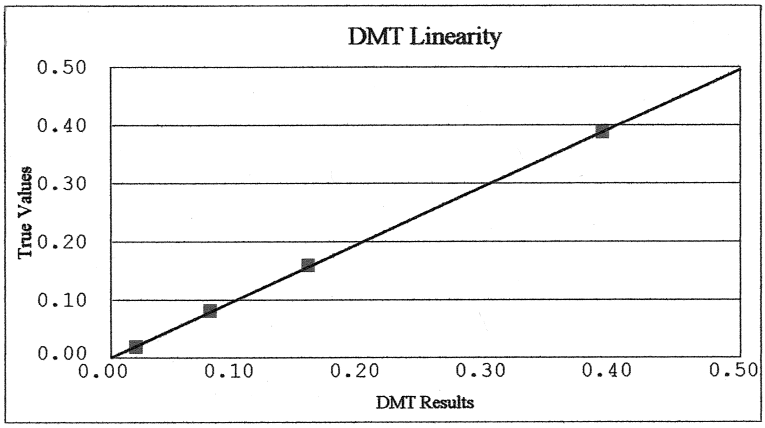
Options

Printer: yes
Number of Copies: 3
Number of Supervisor Tests: 10
Tolerance Check: yes
Data Collection: yes
Units: g/210L
Simulator Check: yes
Uses Wet Bath Simulator: yes
Simulator Nominal: 0.101
Digital Simulator: none
Simulator Before: yes
Simulator Between: yes
Simulator After: no
Number of Subject Tests: 2
AskQuestions: yes
Query Refusal: yes
Alcohol Display: yes
Show Two Digits: no
Volume Display: yes
Number of Calibration Tests: 1
Calibrate with Wet Bath: yes
Calibration Nominal: 0.100

Linearity Check Results

True Value	Reported Average	Std Dev
0.019 g/210L	0.020 g/210L	0.001
Lot # 10-21-020		
0.081 g/210L	0.079 g/210L	0.001
Lot # 10-19-080		
0.159 g/210L	0.157 g/210L	0.001
Lot # 10-20-160		
0.387 g/210L	0.391 g/210L	0.002
Lot # 10-14-400		

$R^2 = 0.9998$



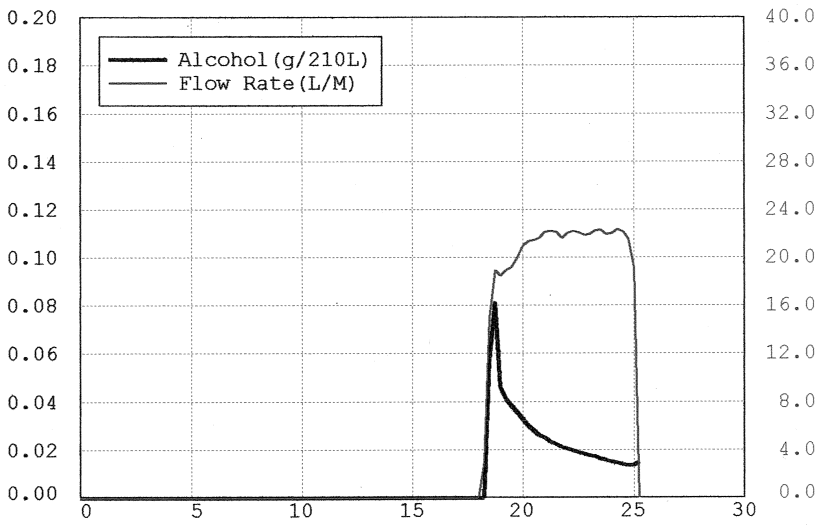
Acetone Interference Test

Lot # 10-24-08A

Interference Detected

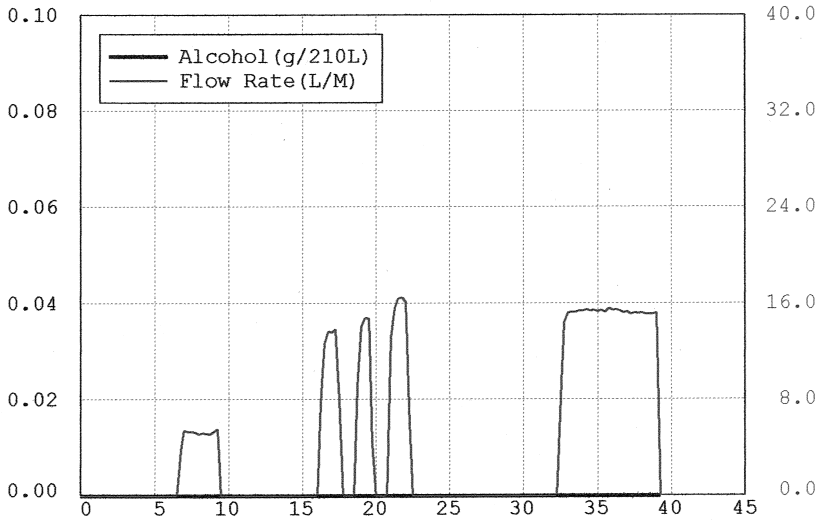
Mouth Alcohol Test

Mouth Alcohol Detected



RF Interference Test

RFI detected



Sample Acceptance Test

Passed

CERTIFICATION PASSED

Performed by _____ **Date** 04/20/2010

Reviewed by _____ **Date** 4/21/10

Section 4: Linearity

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

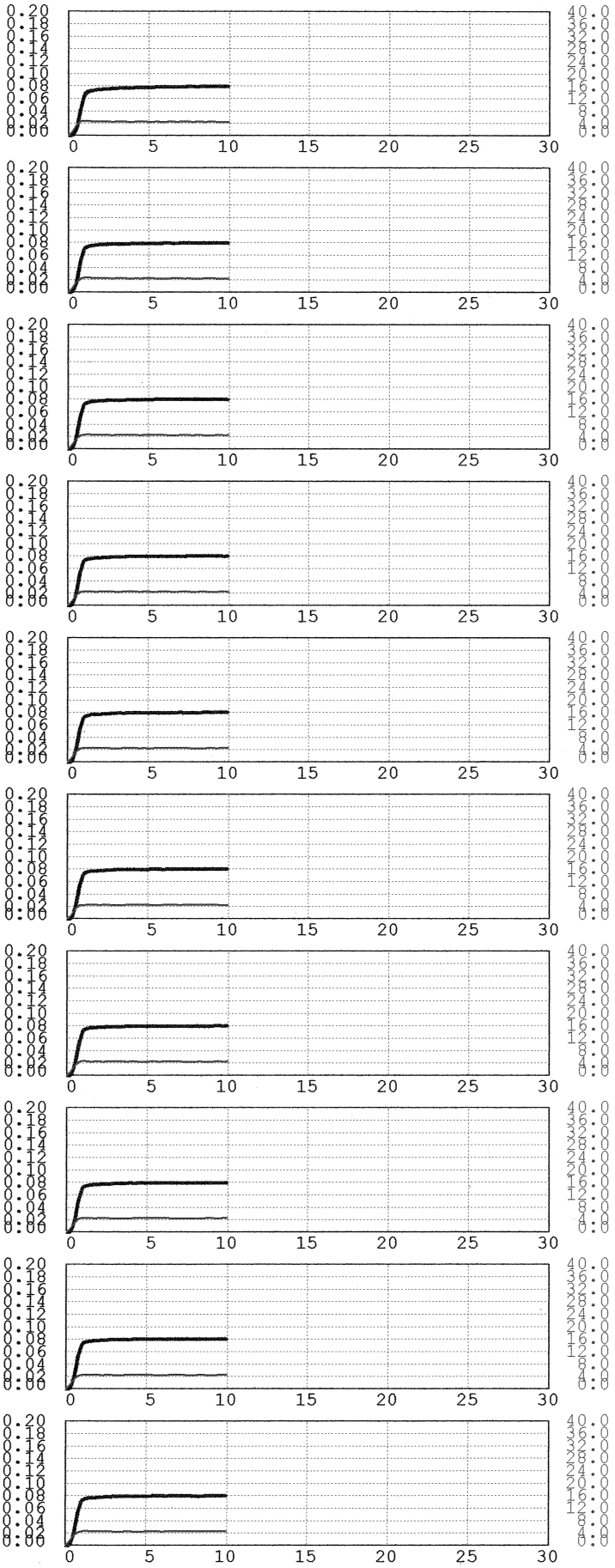
Date: 04/21/2010
Time: 14:44:14

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-19-080
SOLUTION CONCENTRATION: 0.081

BLANK TEST	0.000	14:45
CALIBRATION CHECK	PASSED	14:45
SIMULATOR VAPOR	0.079	14:45
SIMULATOR VAPOR	0.079	14:46
SIMULATOR VAPOR	0.080	14:47
SIMULATOR VAPOR	0.080	14:48
SIMULATOR VAPOR	0.080	14:49
SIMULATOR VAPOR	0.080	14:50
SIMULATOR VAPOR	0.080	14:51
SIMULATOR VAPOR	0.080	14:52
SIMULATOR VAPOR	0.080	14:53
SIMULATOR VAPOR	0.080	14:54
BLANK TEST	0.000	14:55

Average = 0.079
Std Dev = 0.0004



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

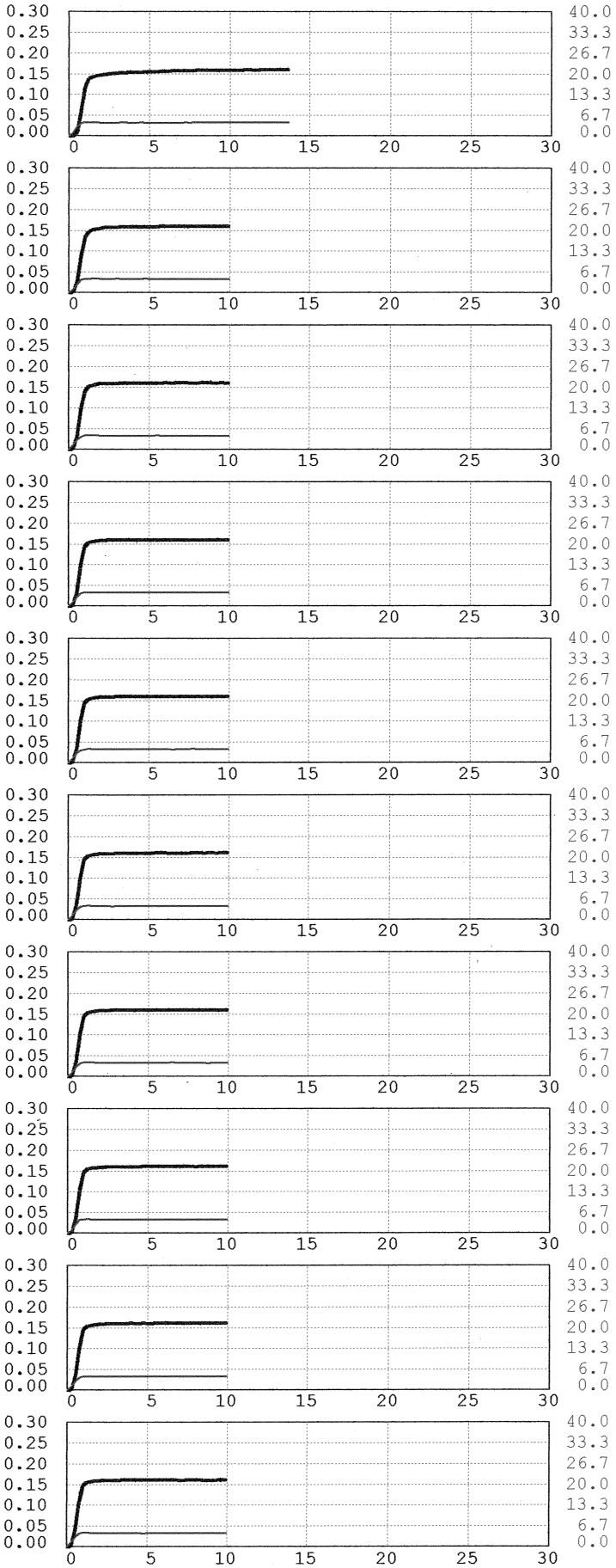
Date: 04/21/2010
Time: 14:59:38

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-20-160
SOLUTION CONCENTRATION: 0.159

BLANK TEST	0.000	15:00
CALIBRATION CHECK	PASSED	15:00
SIMULATOR VAPOR	0.159	15:01
SIMULATOR VAPOR	0.160	15:02
SIMULATOR VAPOR	0.160	15:03
SIMULATOR VAPOR	0.160	15:04
SIMULATOR VAPOR	0.159	15:05
SIMULATOR VAPOR	0.160	15:06
SIMULATOR VAPOR	0.160	15:07
SIMULATOR VAPOR	0.160	15:08
SIMULATOR VAPOR	0.160	15:09
SIMULATOR VAPOR	0.160	15:10
BLANK TEST	0.000	15:11

Average = 0.159
Std Dev = 0.0004



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

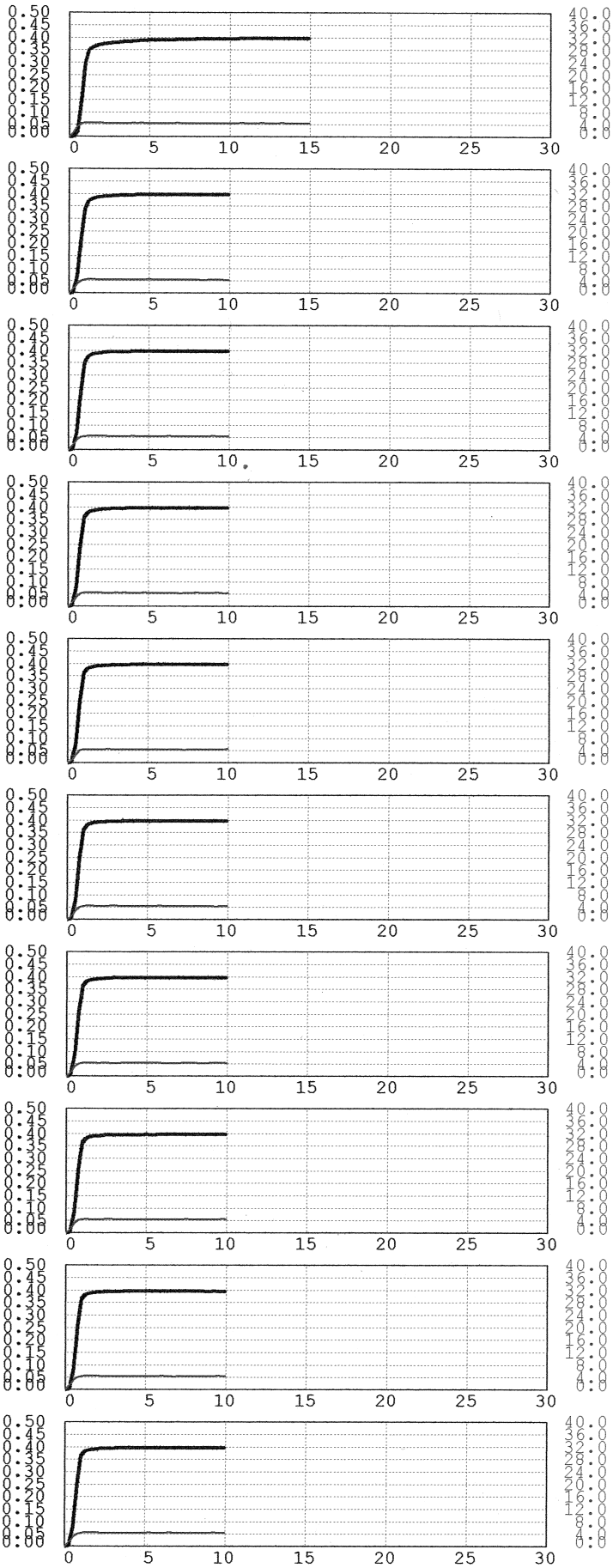
Date: 04/21/2010
Time: 15:22:30

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-14-400
SOLUTION CONCENTRATION: 0.387

BLANK TEST	0.000	15:23
CALIBRATION CHECK	PASSED	15:23
SIMULATOR VAPOR	0.394	15:23
SIMULATOR VAPOR	0.396	15:25
SIMULATOR VAPOR	0.395	15:26
SIMULATOR VAPOR	0.395	15:27
SIMULATOR VAPOR	0.394	15:28
SIMULATOR VAPOR	0.395	15:29
SIMULATOR VAPOR	0.395	15:30
SIMULATOR VAPOR	0.394	15:31
SIMULATOR VAPOR	0.394	15:32
SIMULATOR VAPOR	0.395	15:33
BLANK TEST	0.000	15:34

Average = 0.394
Std Dev = 0.0006



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

Date: 04/21/2010
Time: 16:16:13

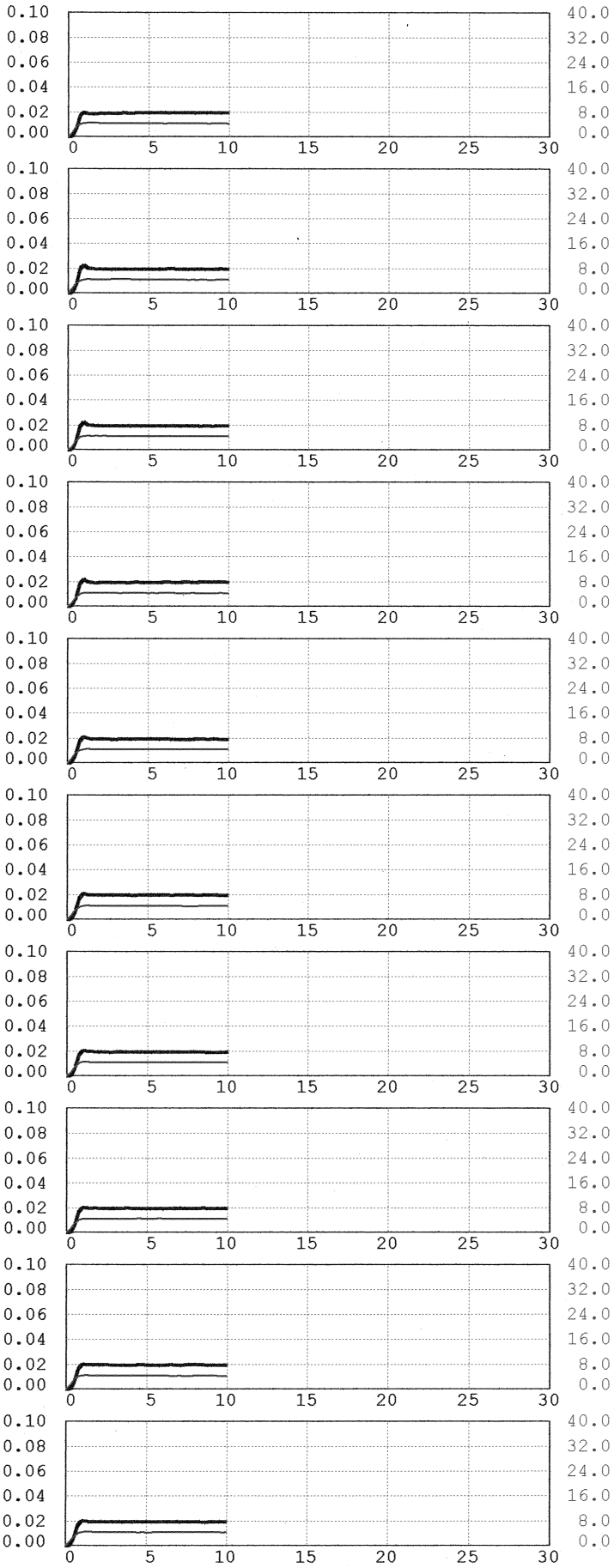
SUPERVISOR NAME: DARCY M RICHARDSON

SOLUTION LOT #: 10-21-020
SOLUTION CONCENTRATION: 0.019

BLANK TEST	0.000	16:17
CALIBRATION CHECK	PASSED	16:17
SIMULATOR VAPOR	0.020	16:17
SIMULATOR VAPOR	0.020	16:18
SIMULATOR VAPOR	0.020	16:19
SIMULATOR VAPOR	0.020	16:20
SIMULATOR VAPOR	0.019	16:21
SIMULATOR VAPOR	0.020	16:22
SIMULATOR VAPOR	0.019	16:23
SIMULATOR VAPOR	0.020	16:24
SIMULATOR VAPOR	0.020	16:25
SIMULATOR VAPOR	0.019	16:26
BLANK TEST	0.000	16:27

Average out of range!

Average = 0.019
Std Dev = 0.0004



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

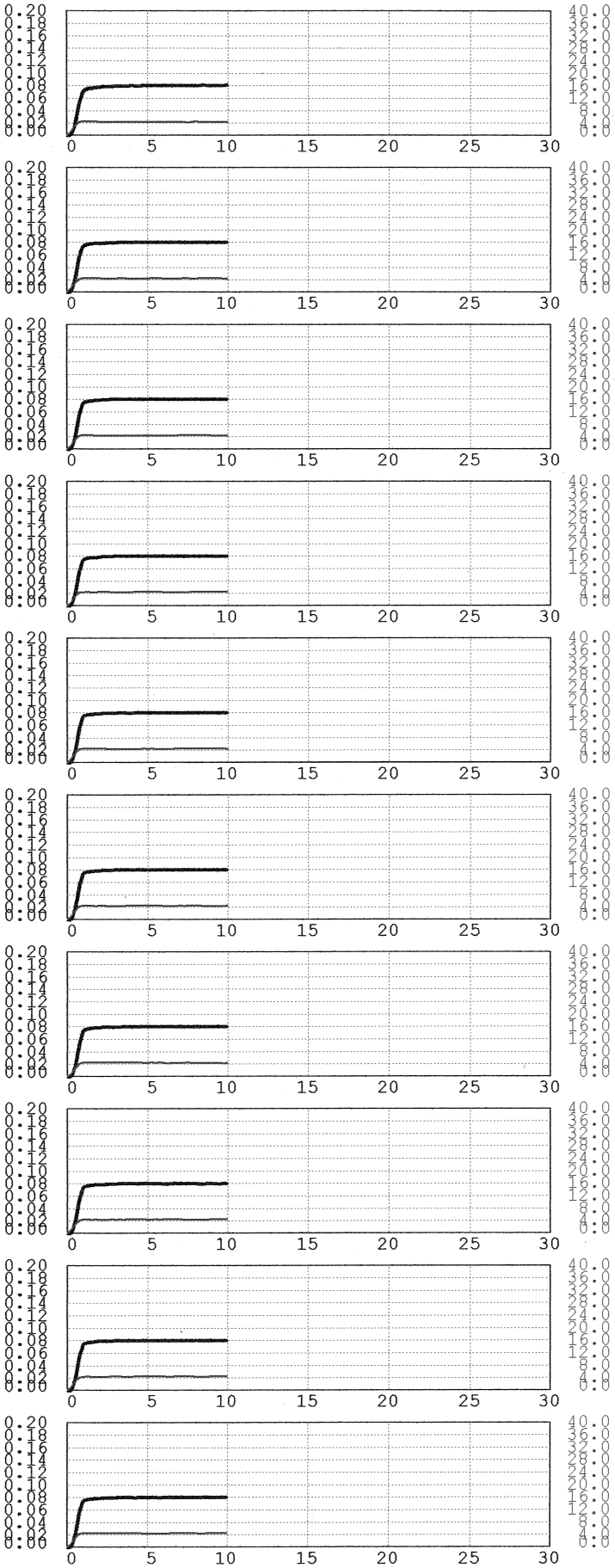
Date: 04/21/2010
Time: 16:53:44

SUPERVISOR NAME: DARCY M RICHARDSON

SOLUTION LOT #: 10-19-080
SOLUTION CONCENTRATION: 0.081

BLANK TEST	0.000	16:54
CALIBRATION CHECK	PASSED	16:54
SIMULATOR VAPOR	0.081	16:55
SIMULATOR VAPOR	0.080	16:56
SIMULATOR VAPOR	0.080	16:57
SIMULATOR VAPOR	0.080	16:58
SIMULATOR VAPOR	0.080	16:59
SIMULATOR VAPOR	0.080	17:00
SIMULATOR VAPOR	0.081	17:00
SIMULATOR VAPOR	0.080	17:01
SIMULATOR VAPOR	0.080	17:02
SIMULATOR VAPOR	0.080	17:03
BLANK TEST	0.000	17:04

Average = 0.080
Std Dev = 0.0004



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

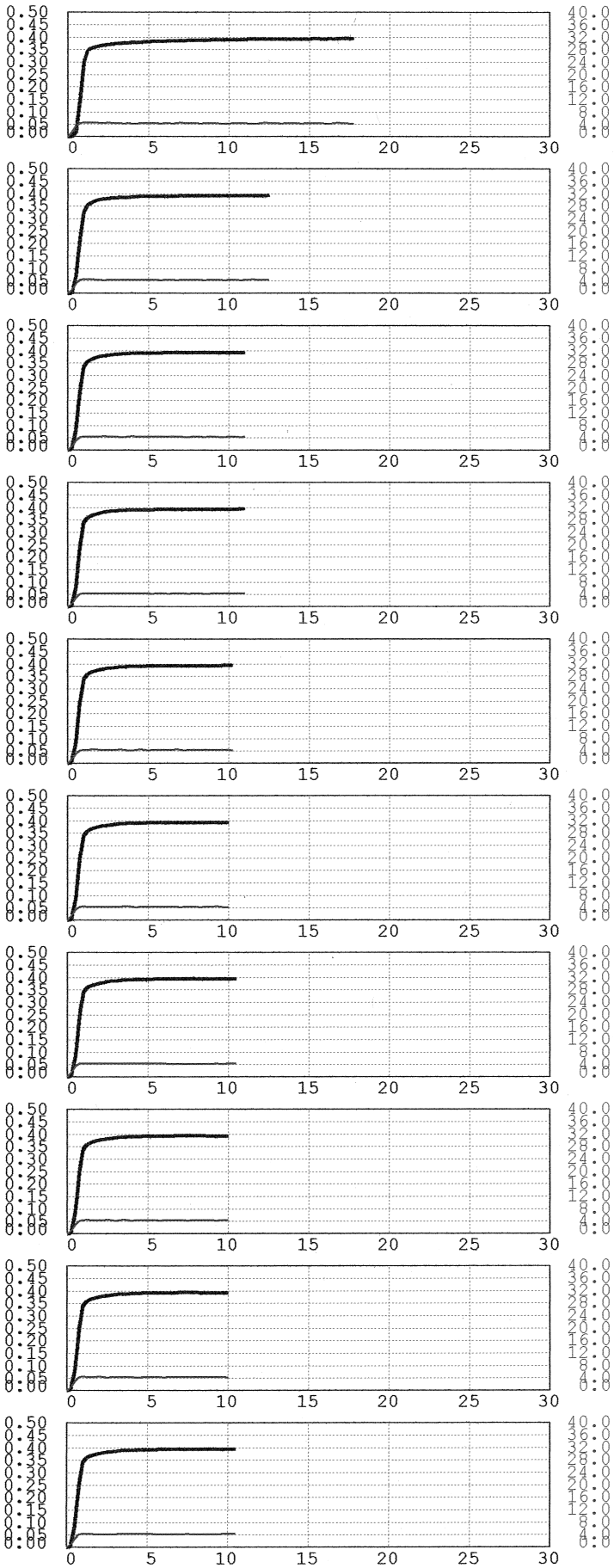
Date: 04/22/2010
Time: 08:26:07

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-14-400
SOLUTION CONCENTRATION: 0.387

BLANK TEST	0.000	08:27
CALIBRATION CHECK	PASSED	08:27
SIMULATOR VAPOR	0.391	08:27
SIMULATOR VAPOR	0.391	08:28
SIMULATOR VAPOR	0.391	08:29
SIMULATOR VAPOR	0.391	08:30
SIMULATOR VAPOR	0.391	08:31
SIMULATOR VAPOR	0.391	08:32
SIMULATOR VAPOR	0.391	08:33
SIMULATOR VAPOR	0.391	08:34
SIMULATOR VAPOR	0.391	08:35
SIMULATOR VAPOR	0.392	08:36
BLANK TEST	0.000	08:37

Average = 0.391
Std Dev = 0.0003



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

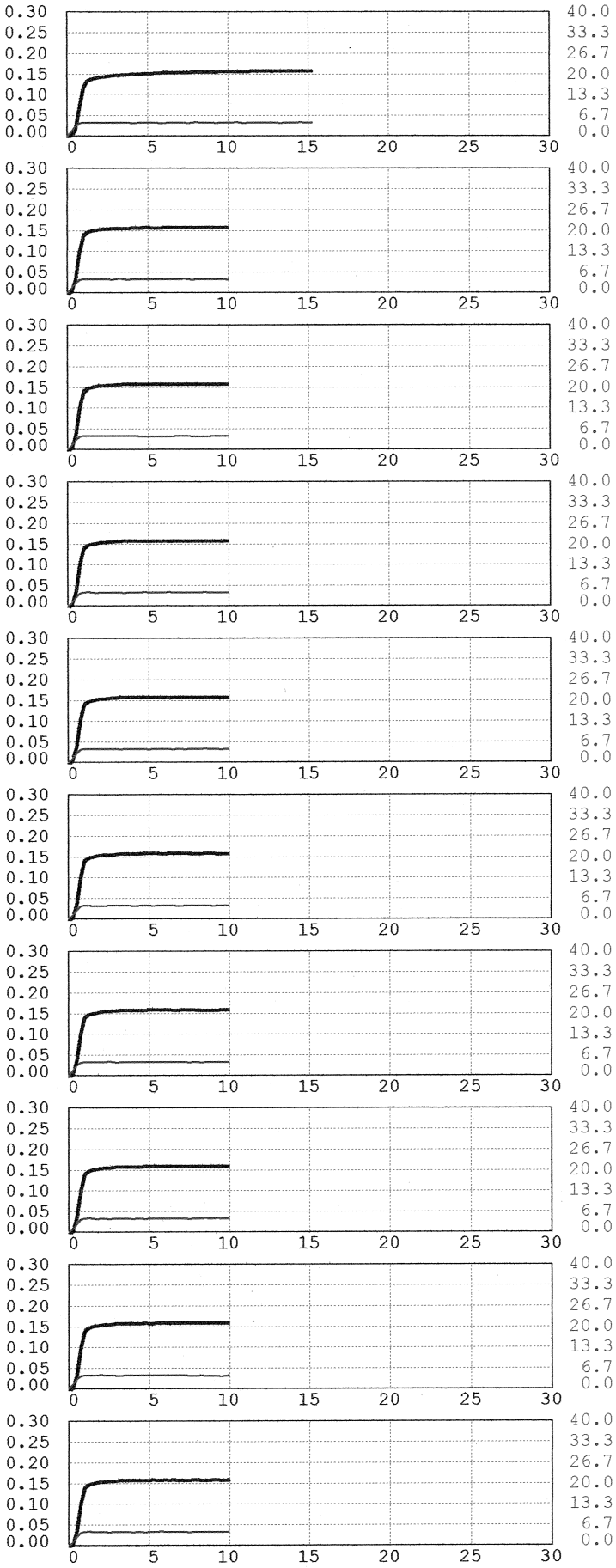
Date: 04/22/2010
Time: 08:57:56

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-20-160
SOLUTION CONCENTRATION: 0.159

BLANK TEST	0.000	08:58
CALIBRATION CHECK	PASSED	08:58
SIMULATOR VAPOR	0.157	08:59
SIMULATOR VAPOR	0.157	09:00
SIMULATOR VAPOR	0.157	09:01
SIMULATOR VAPOR	0.157	09:02
SIMULATOR VAPOR	0.157	09:03
SIMULATOR VAPOR	0.158	09:04
SIMULATOR VAPOR	0.158	09:05
SIMULATOR VAPOR	0.158	09:06
SIMULATOR VAPOR	0.158	09:07
SIMULATOR VAPOR	0.158	09:08
BLANK TEST	0.000	09:09

Average = 0.157
Std Dev = 0.0005



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

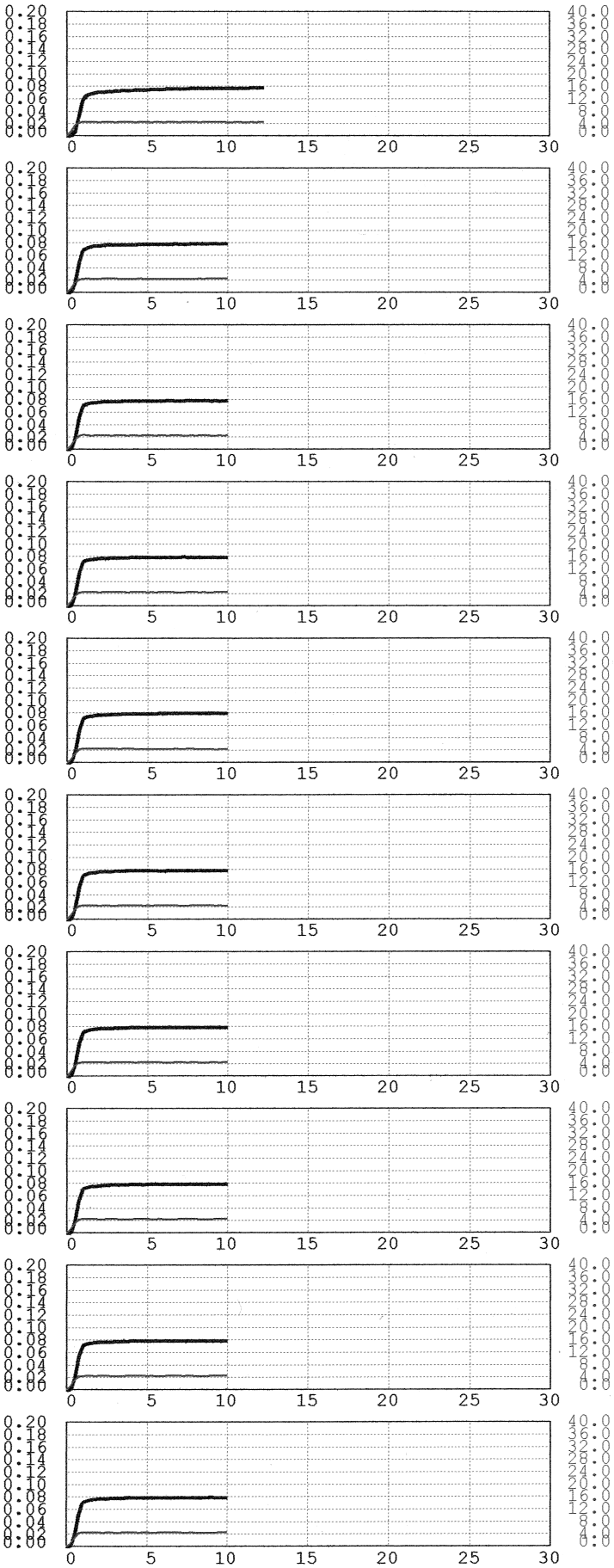
Date: 04/22/2010
Time: 10:20:39

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-19-080
SOLUTION CONCENTRATION: 0.081

BLANK TEST	0.000	10:21
CALIBRATION CHECK	PASSED	10:21
SIMULATOR VAPOR	0.078	10:22
SIMULATOR VAPOR	0.079	10:23
SIMULATOR VAPOR	0.078	10:23
SIMULATOR VAPOR	0.079	10:24
SIMULATOR VAPOR	0.080	10:25
SIMULATOR VAPOR	0.079	10:26
SIMULATOR VAPOR	0.079	10:27
SIMULATOR VAPOR	0.079	10:28
SIMULATOR VAPOR	0.079	10:29
SIMULATOR VAPOR	0.079	10:30
BLANK TEST	0.000	10:31

Average = 0.078
Std Dev = 0.0005



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

Date: 04/22/2010
Time: 10:37:46

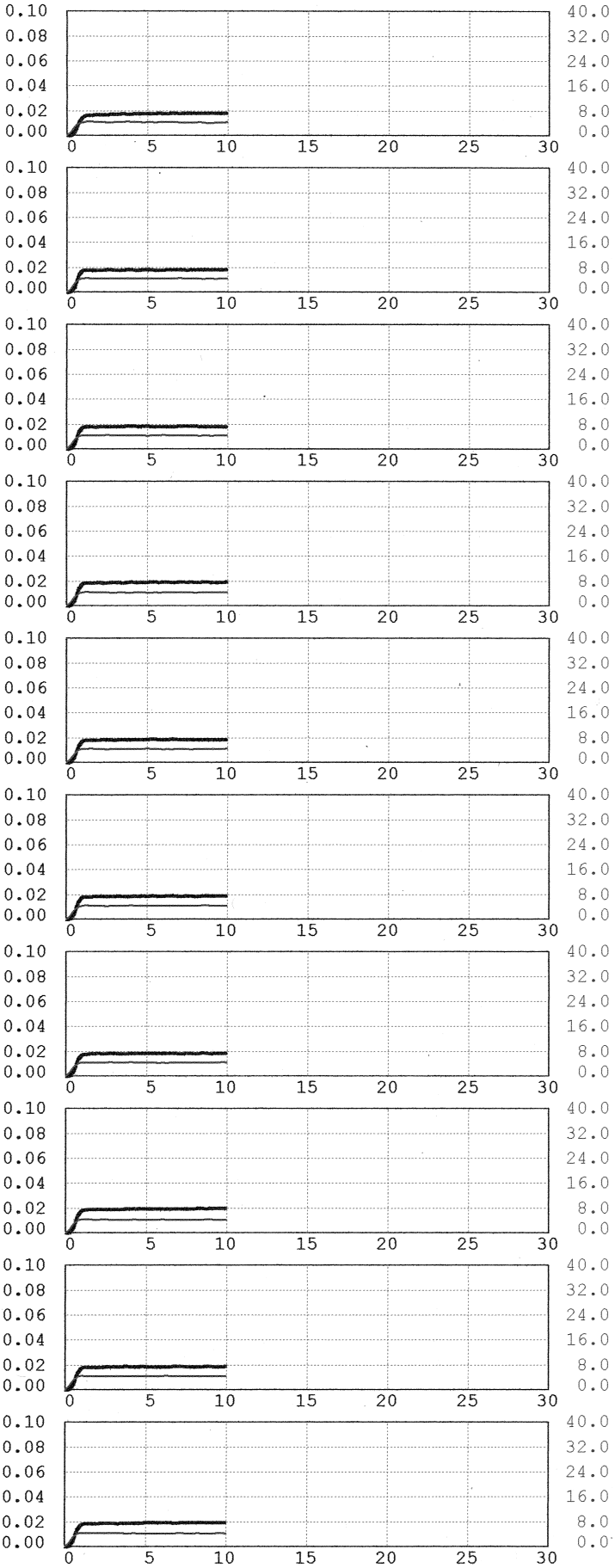
SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-21-020
SOLUTION CONCENTRATION: 0.019

BLANK TEST	0.000	10:38
CALIBRATION CHECK	PASSED	10:38
SIMULATOR VAPOR	0.019	10:39
SIMULATOR VAPOR	0.019	10:40
SIMULATOR VAPOR	0.019	10:41
SIMULATOR VAPOR	0.020	10:42
SIMULATOR VAPOR	0.019	10:43
SIMULATOR VAPOR	0.019	10:43
SIMULATOR VAPOR	0.019	10:44
SIMULATOR VAPOR	0.020	10:45
SIMULATOR VAPOR	0.019	10:46
SIMULATOR VAPOR	0.020	10:47
BLANK TEST	0.000	10:48

Average out of range!

Average = 0.019
Std Dev = 0.0004



DIAGNOSTIC RESULT

DataMaster DMT: 100134
Location:
Calibration Date: 04/20/2010
Certification Date: 04/20/2010
Installation Date: 04/20/2010
Test Date: 04/22/2010
Time: 15:19

VERMONT
DEPARTMENT OF HEALTH

```
VERSIONS
DMT 1.04
PIC 2.05
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.74°C
Breath Tube    = 48.10°C

SETTINGS
Lamp Voltage   = 1.66 V
Cooler Voltage = 1.68 V
Bias Voltage   = 80.3 V
Chopper Freq   = 539.0 Hz

PUMP INFO
Flow Rate = 5.399 L/M

DETECTOR INFO
PUMP     ON        OFF
MAX(V)   0.0807    0.0835
MIN(V)   0.0789    0.0815

FILTER INFO
Filter 1   0.082   Zero = true
Filter 2   0.581   Zero = true
Filter 3   0.788   Zero = true

CALIBRATION CHECK
Xq = 0.0830   0.62%
```

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

Date: 04/22/2010
Time: 15:20:34

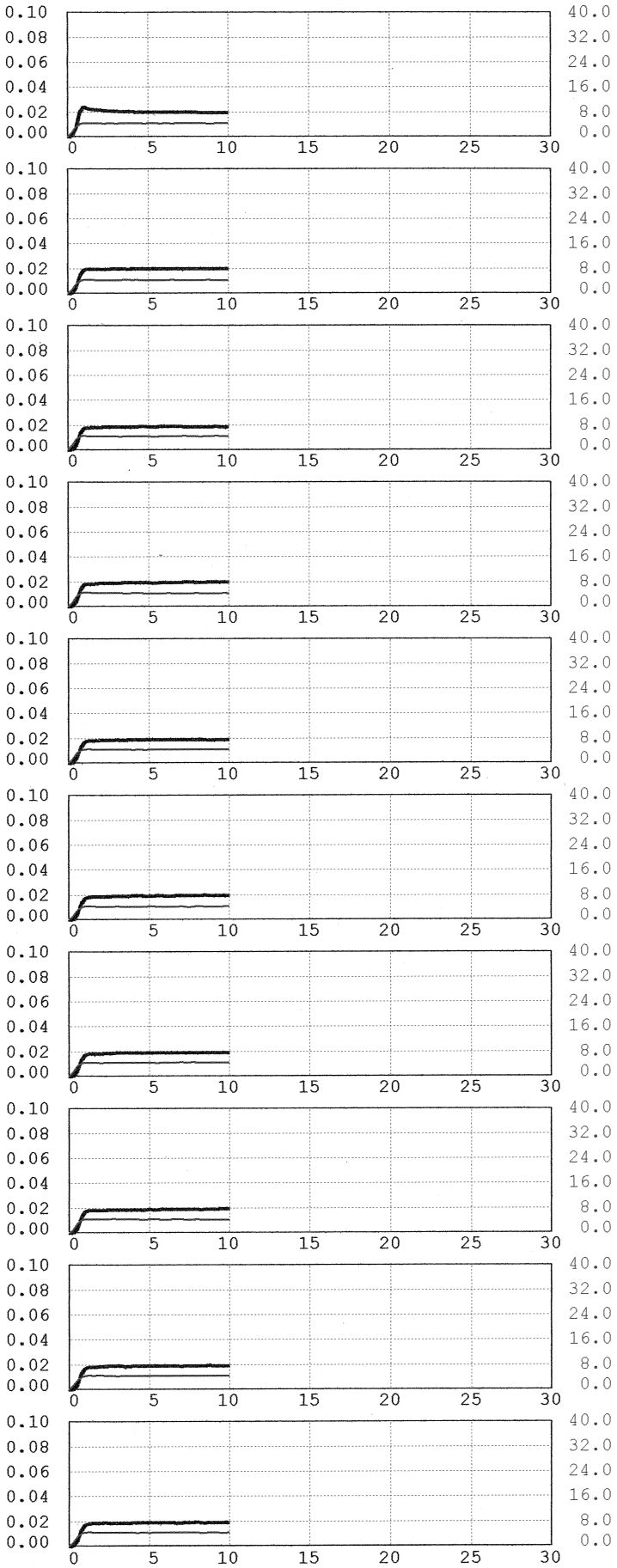
SUPERVISOR NAME: DARCY M RICHARDSON

SOLUTION LOT #: 10-21-020
SOLUTION CONCENTRATION: 0.019

BLANK TEST	0.000	15:21
CALIBRATION CHECK	PASSED	15:21
SIMULATOR VAPOR	0.020	15:21
SIMULATOR VAPOR	0.021	15:22
SIMULATOR VAPOR	0.019	15:23
SIMULATOR VAPOR	0.021	15:24
SIMULATOR VAPOR	0.019	15:25
SIMULATOR VAPOR	0.020	15:26
SIMULATOR VAPOR	0.019	15:27
SIMULATOR VAPOR	0.020	15:28
SIMULATOR VAPOR	0.019	15:29
SIMULATOR VAPOR	0.020	15:30
BLANK TEST	0.000	15:31

Average out of range!

Average = 0.019
Std Dev = 0.0007



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

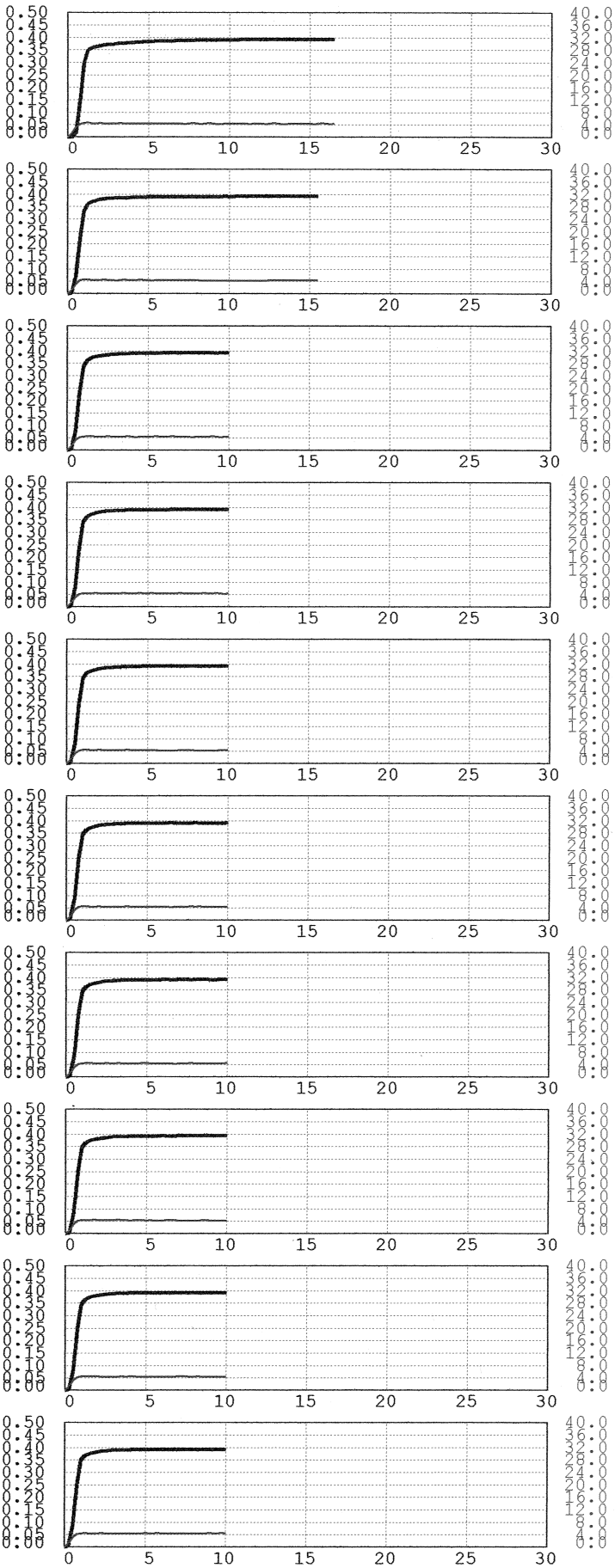
Date: 04/23/2010
Time: 07:30:46

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-14-400
SOLUTION CONCENTRATION: 0.387

BLANK TEST	0.000	07:31
CALIBRATION CHECK	PASSED	07:31
SIMULATOR VAPOR	0.391	07:32
SIMULATOR VAPOR	0.391	07:33
SIMULATOR VAPOR	0.390	07:34
SIMULATOR VAPOR	0.389	07:35
SIMULATOR VAPOR	0.391	07:36
SIMULATOR VAPOR	0.389	07:37
SIMULATOR VAPOR	0.390	07:38
SIMULATOR VAPOR	0.392	07:39
SIMULATOR VAPOR	0.390	07:40
SIMULATOR VAPOR	0.391	07:41
BLANK TEST	0.000	07:42

Average = 0.390
Std Dev = 0.0009



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

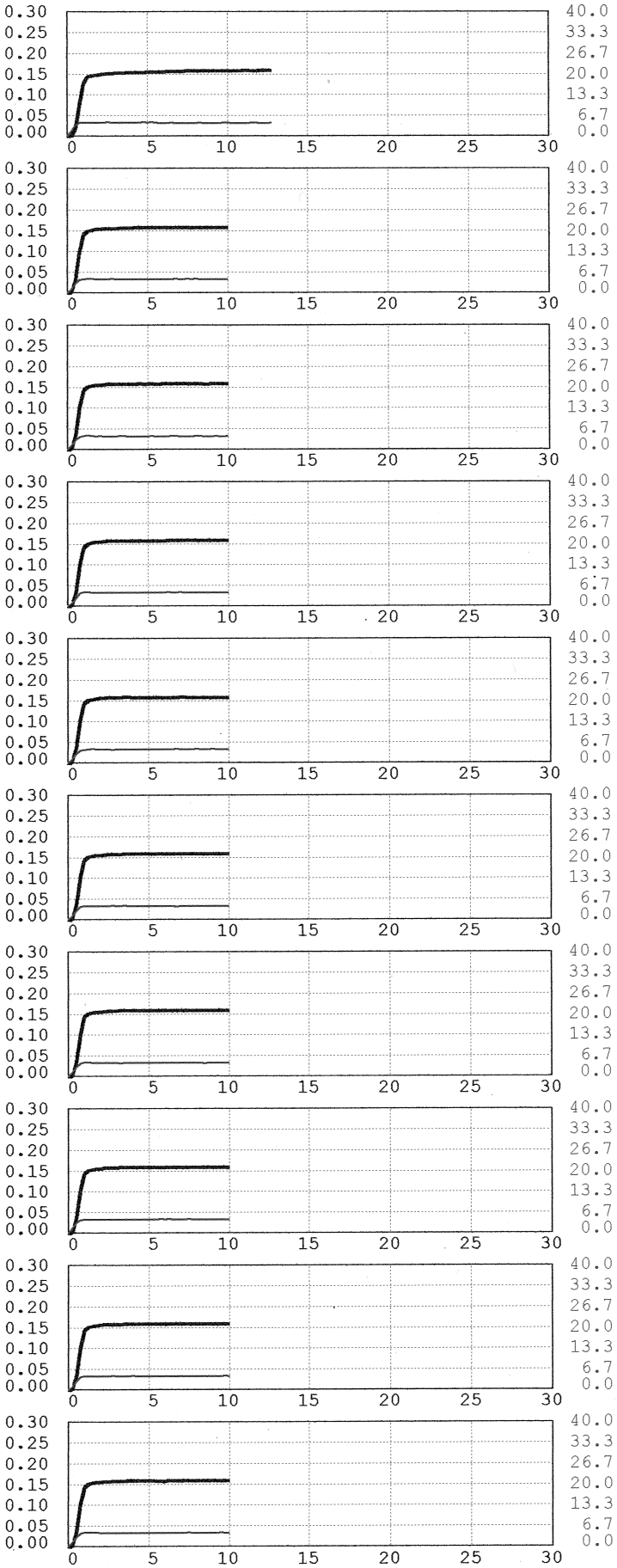
Date: 04/23/2010
Time: 07:50:03

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-20-160
SOLUTION CONCENTRATION: 0.159

BLANK TEST	0.000	07:50
CALIBRATION CHECK	PASSED	07:51
SIMULATOR VAPOR	0.158	07:51
SIMULATOR VAPOR	0.157	07:52
SIMULATOR VAPOR	0.157	07:53
SIMULATOR VAPOR	0.158	07:54
SIMULATOR VAPOR	0.158	07:55
SIMULATOR VAPOR	0.158	07:56
SIMULATOR VAPOR	0.158	07:57
SIMULATOR VAPOR	0.158	07:58
SIMULATOR VAPOR	0.158	07:59
SIMULATOR VAPOR	0.158	08:00
BLANK TEST	0.000	08:01

Average = 0.157
Std Dev = 0.0004



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

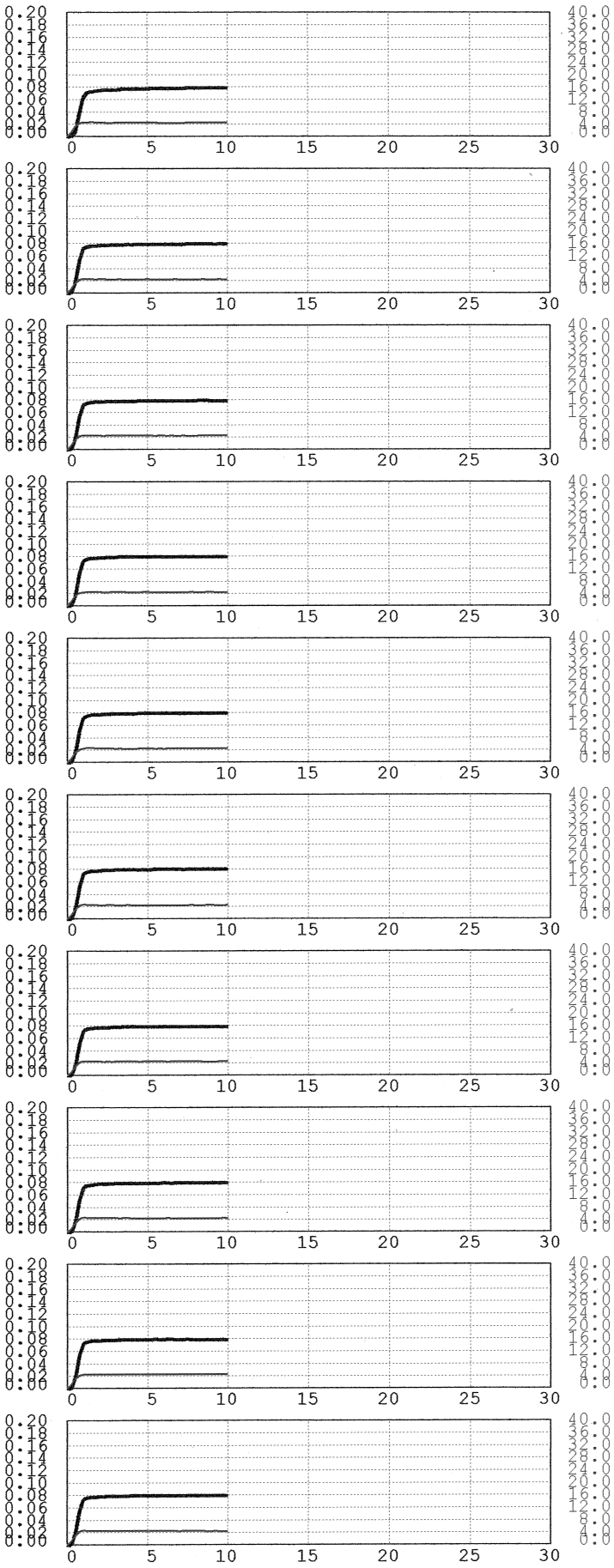
Date: 04/23/2010
Time: 08:58:52

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-19-080
SOLUTION CONCENTRATION: 0.081

BLANK TEST	0.000	08:59
CALIBRATION CHECK	PASSED	08:59
SIMULATOR VAPOR	0.079	09:00
SIMULATOR VAPOR	0.079	09:01
SIMULATOR VAPOR	0.079	09:02
SIMULATOR VAPOR	0.080	09:03
SIMULATOR VAPOR	0.079	09:04
SIMULATOR VAPOR	0.080	09:05
SIMULATOR VAPOR	0.079	09:06
SIMULATOR VAPOR	0.080	09:07
SIMULATOR VAPOR	0.079	09:08
SIMULATOR VAPOR	0.080	09:09
BLANK TEST	0.000	09:09

Average = 0.079
Std Dev = 0.0005



DIAGNOSTIC RESULT

DataMaster DMT: 100134
Location:
Calibration Date: 04/20/2010
Certification Date: 04/20/2010
Installation Date: 04/20/2010
Test Date: 04/23/2010
Time: 09:19

VERMONT
DEPARTMENT OF HEALTH

```
VERSIONS
DMT 1.04
PIC 2.05
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.97°C
Breath Tube    = 48.10°C

SETTINGS
Lamp Voltage   = 1.66 V
Cooler Voltage = 1.68 V
Bias Voltage   = 80.3 V
Chopper Freq   = 539.2 Hz

PUMP INFO
Flow Rate = 5.538 L/M

DETECTOR INFO
PUMP     ON        OFF
MAX(V)   0.0976    0.0984
MIN(V)   0.0953    0.0969

FILTER INFO
Filter 1   0.098   Zero = true
Filter 2   0.592   Zero = true
Filter 3   0.810   Zero = true

CALIBRATION CHECK
Xq = 0.0835   0.00%
```

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

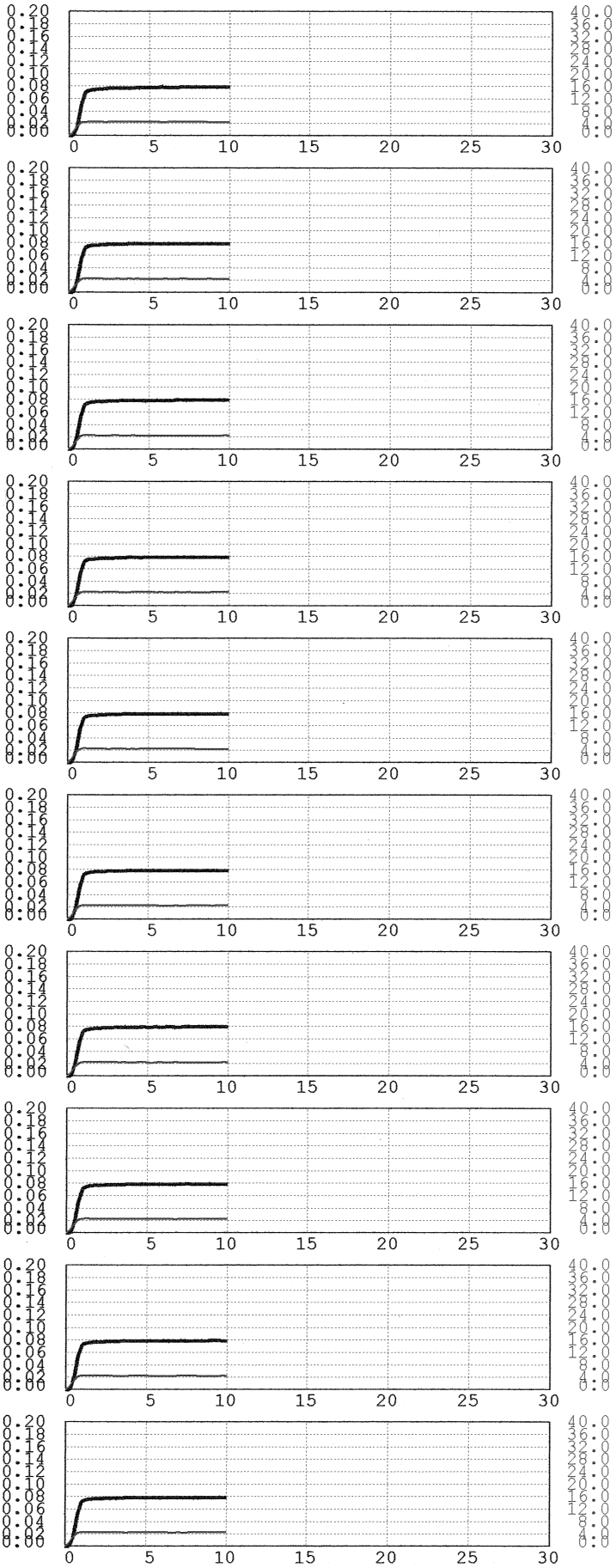
Date: 04/23/2010
Time: 09:24:09

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-19-080
SOLUTION CONCENTRATION: 0.081

BLANK TEST	0.000	09:25
CALIBRATION CHECK	PASSED	09:25
SIMULATOR VAPOR	0.079	09:25
SIMULATOR VAPOR	0.079	09:26
SIMULATOR VAPOR	0.079	09:27
SIMULATOR VAPOR	0.079	09:28
SIMULATOR VAPOR	0.079	09:29
SIMULATOR VAPOR	0.079	09:30
SIMULATOR VAPOR	0.080	09:31
SIMULATOR VAPOR	0.079	09:32
SIMULATOR VAPOR	0.079	09:33
SIMULATOR VAPOR	0.079	09:34
BLANK TEST	0.000	09:35

Average = 0.079
Std Dev = 0.0003



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

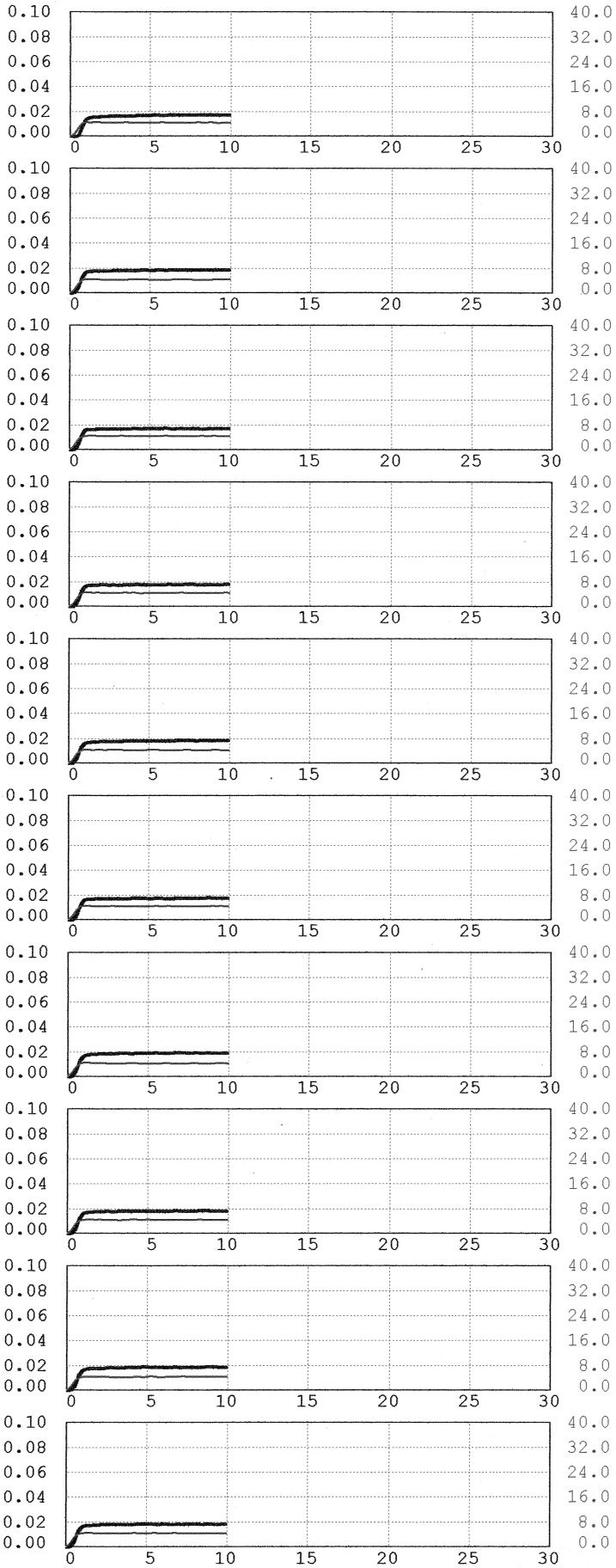
Date: 04/23/2010
Time: 10:29:56

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-21-020
SOLUTION CONCENTRATION: 0.019

BLANK TEST	0.000	10:30
CALIBRATION CHECK	PASSED	10:30
SIMULATOR VAPOR	0.018	10:31
SIMULATOR VAPOR	0.019	10:32
SIMULATOR VAPOR	0.018	10:33
SIMULATOR VAPOR	0.019	10:34
SIMULATOR VAPOR	0.019	10:35
SIMULATOR VAPOR	0.018	10:36
SIMULATOR VAPOR	0.020	10:37
SIMULATOR VAPOR	0.019	10:38
SIMULATOR VAPOR	0.019	10:39
SIMULATOR VAPOR	0.019	10:40
BLANK TEST	0.000	10:40

Average = 0.018
Std Dev = 0.0006



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

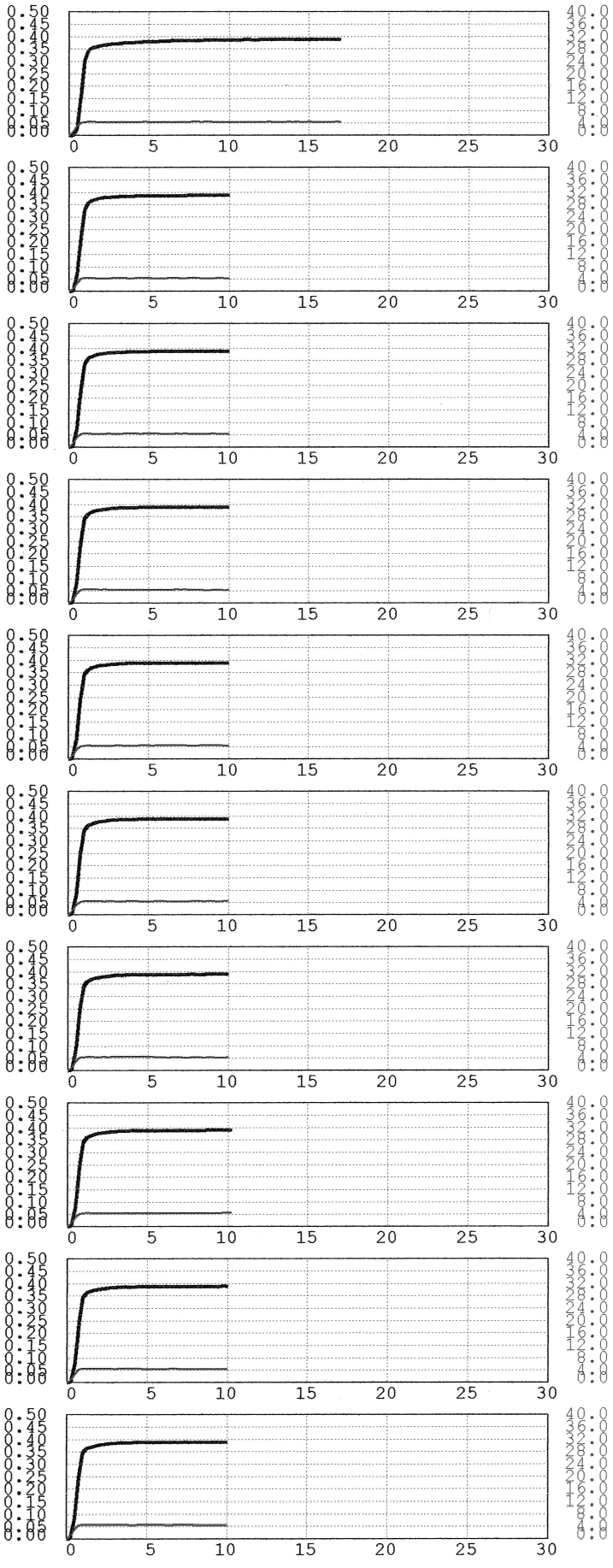
Date: 04/23/2010
Time: 11:07:35

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-14-400
SOLUTION CONCENTRATION: 0.387

BLANK TEST	0.000	11:08
CALIBRATION CHECK	PASSED	11:08
SIMULATOR VAPOR	0.385	11:09
SIMULATOR VAPOR	0.385	11:10
SIMULATOR VAPOR	0.385	11:11
SIMULATOR VAPOR	0.387	11:12
SIMULATOR VAPOR	0.387	11:13
SIMULATOR VAPOR	0.386	11:14
SIMULATOR VAPOR	0.387	11:15
SIMULATOR VAPOR	0.388	11:16
SIMULATOR VAPOR	0.387	11:17
SIMULATOR VAPOR	0.386	11:18
BLANK TEST	0.000	11:18

Average = 0.386
Std Dev = 0.0010



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

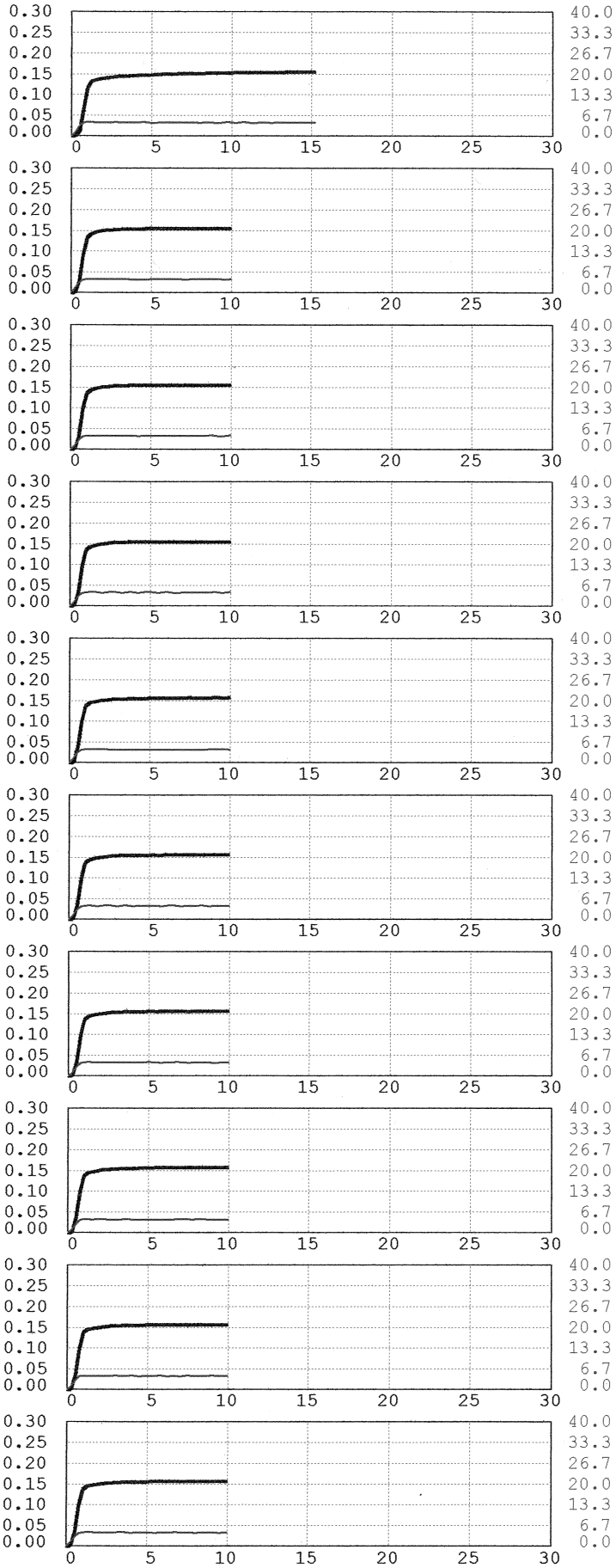
Date: 04/23/2010
Time: 13:25:45

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-20-160
SOLUTION CONCENTRATION: 0.159

BLANK TEST	0.000	13:26
CALIBRATION CHECK	PASSED	13:26
SIMULATOR VAPOR	0.154	13:27
SIMULATOR VAPOR	0.155	13:28
SIMULATOR VAPOR	0.155	13:29
SIMULATOR VAPOR	0.155	13:30
SIMULATOR VAPOR	0.156	13:31
SIMULATOR VAPOR	0.156	13:32
SIMULATOR VAPOR	0.156	13:33
SIMULATOR VAPOR	0.156	13:34
SIMULATOR VAPOR	0.156	13:35
SIMULATOR VAPOR	0.156	13:36
BLANK TEST	0.000	13:36

Average = 0.155
Std Dev = 0.0007



DIAGNOSTIC RESULT

DataMaster DMT: 100134
Location:
Calibration Date: 04/20/2010
Certification Date: 04/20/2010
Installation Date: 04/20/2010
Test Date: 04/26/2010
Time: 10:02

VERMONT
DEPARTMENT OF HEALTH

```
VERSIONS
DMT 1.04
PIC 2.05
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.97°C
Breath Tube    = 48.09°C

SETTINGS
Lamp Voltage   = 1.66 V
Cooler Voltage = 1.68 V
Bias Voltage   = 80.3 V
Chopper Freq   = 541.1 Hz

PUMP INFO
Flow Rate = 5.428 L/M

DETECTOR INFO
PUMP     ON        OFF
MAX(V)   0.0705    0.0732
MIN(V)   0.0683    0.0711

FILTER INFO
Filter 1   0.072   Zero = true
Filter 2   0.573   Zero = true
Filter 3   0.776   Zero = true

CALIBRATION CHECK
Xq = 0.0831   0.52%
```

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

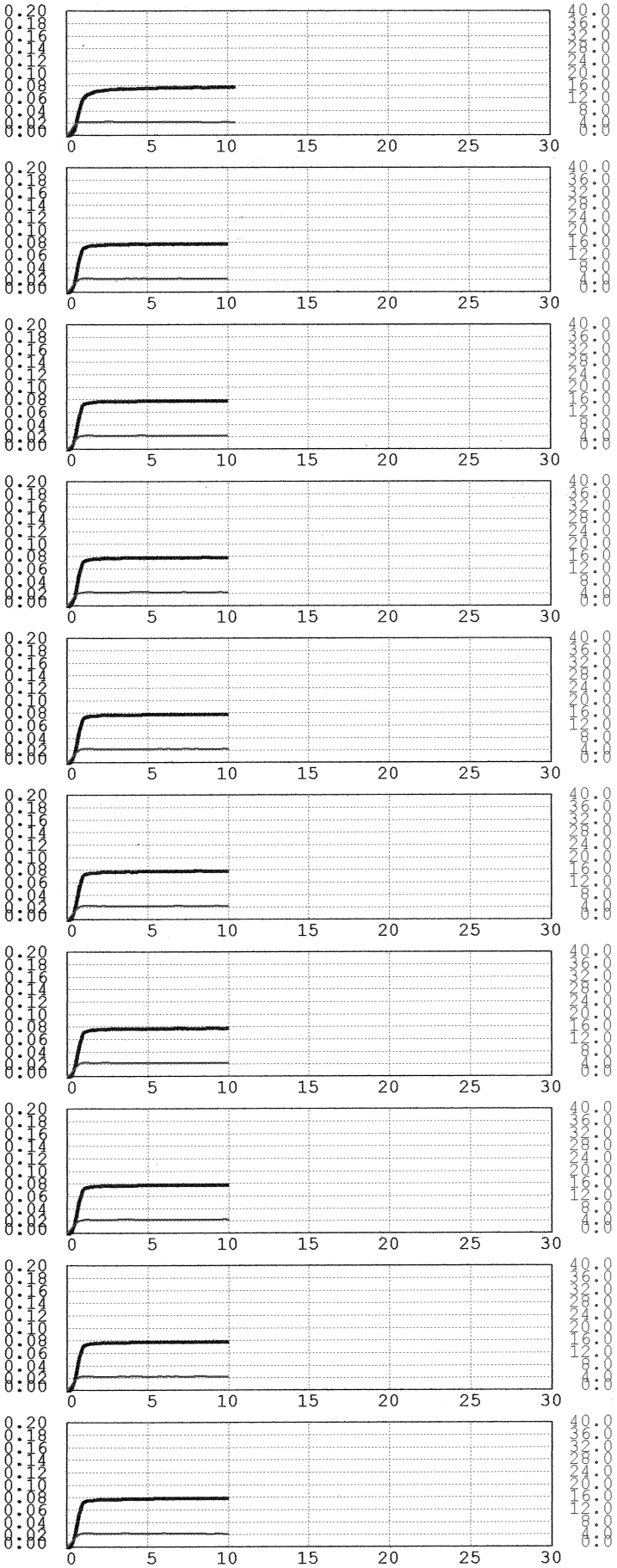
Date: 04/26/2010
Time: 11:03:49

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-19-080
SOLUTION CONCENTRATION: 0.081

BLANK TEST	0.000	11:04
CALIBRATION CHECK	PASSED	11:04
SIMULATOR VAPOR	0.078	11:05
SIMULATOR VAPOR	0.078	11:06
SIMULATOR VAPOR	0.078	11:07
SIMULATOR VAPOR	0.078	11:08
SIMULATOR VAPOR	0.078	11:09
SIMULATOR VAPOR	0.078	11:10
SIMULATOR VAPOR	0.077	11:11
SIMULATOR VAPOR	0.078	11:12
SIMULATOR VAPOR	0.078	11:13
SIMULATOR VAPOR	0.079	11:13
BLANK TEST	0.000	11:14

Average = 0.078
Std Dev = 0.0004



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

Date: 04/26/2010
Time: 10:38:48

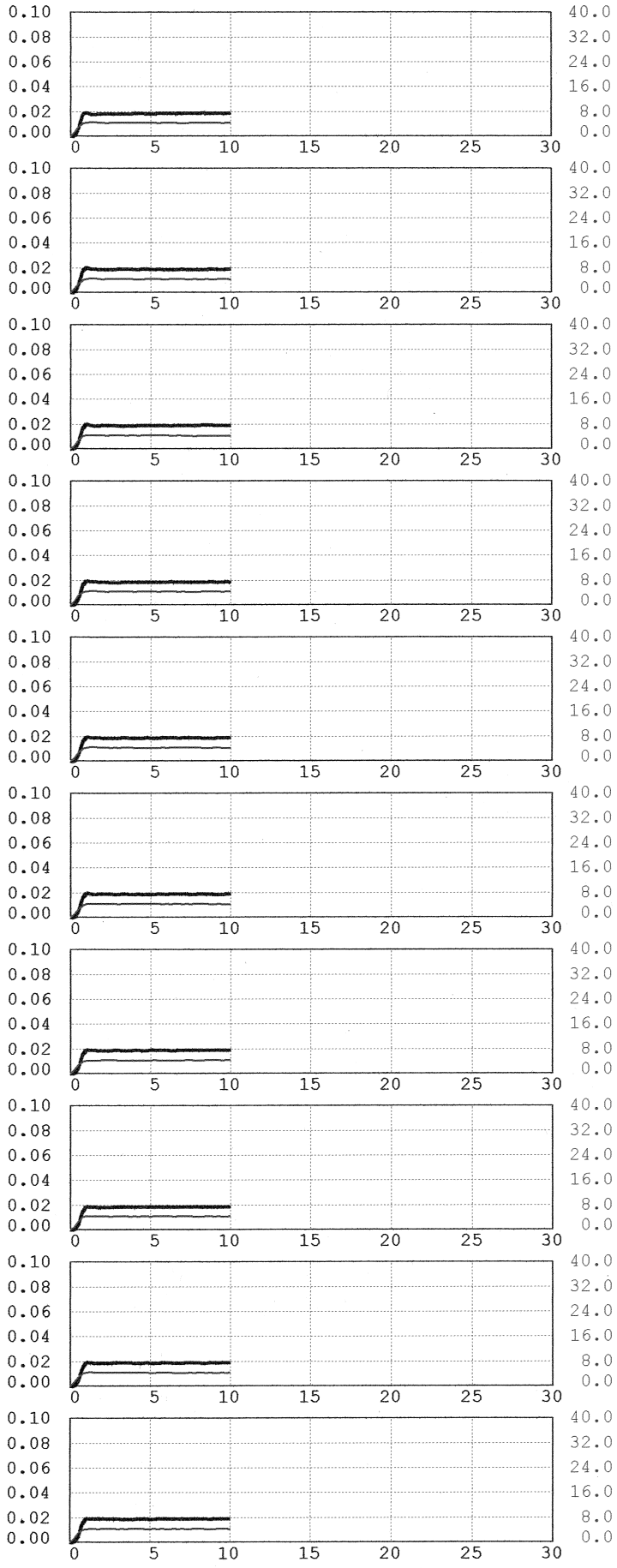
SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-21-020
SOLUTION CONCENTRATION: 0.019

BLANK TEST	0.000	10:39
CALIBRATION CHECK	PASSED	10:39
SIMULATOR VAPOR	0.019	10:40
SIMULATOR VAPOR	0.019	10:41
SIMULATOR VAPOR	0.020	10:42
SIMULATOR VAPOR	0.019	10:43
SIMULATOR VAPOR	0.019	10:44
SIMULATOR VAPOR	0.019	10:45
SIMULATOR VAPOR	0.019	10:46
SIMULATOR VAPOR	0.019	10:46
SIMULATOR VAPOR	0.019	10:47
SIMULATOR VAPOR	0.019	10:48
BLANK TEST	0.000	10:49

Average out of range!

Average = 0.019
Std Dev = 0.0003



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

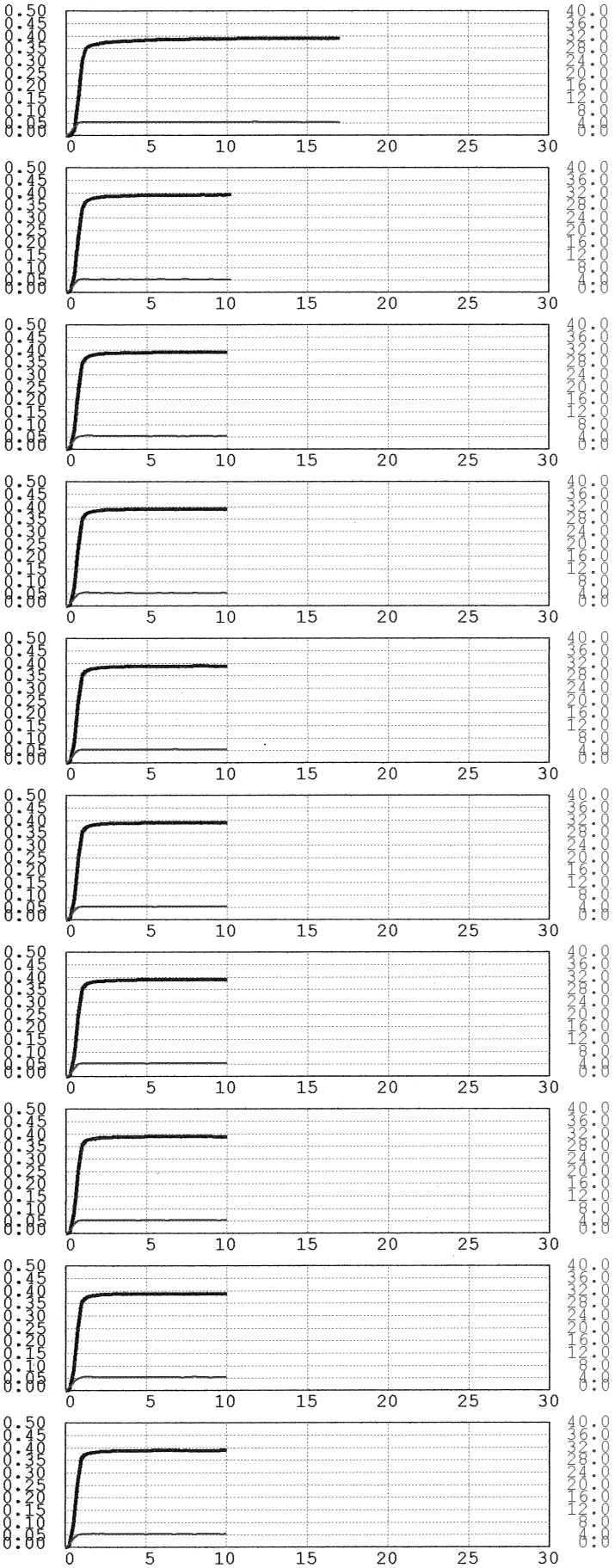
Date: 04/26/2010
Time: 10:18:41

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-14-400
SOLUTION CONCENTRATION: 0.387

BLANK TEST	0.000	10:19
CALIBRATION CHECK	PASSED	10:19
SIMULATOR VAPOR	0.388	10:20
SIMULATOR VAPOR	0.389	10:21
SIMULATOR VAPOR	0.388	10:22
SIMULATOR VAPOR	0.388	10:23
SIMULATOR VAPOR	0.387	10:24
SIMULATOR VAPOR	0.388	10:25
SIMULATOR VAPOR	0.388	10:26
SIMULATOR VAPOR	0.387	10:27
SIMULATOR VAPOR	0.387	10:28
SIMULATOR VAPOR	0.388	10:29
BLANK TEST	0.000	10:30

Average = 0.387
Std Dev = 0.0006



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

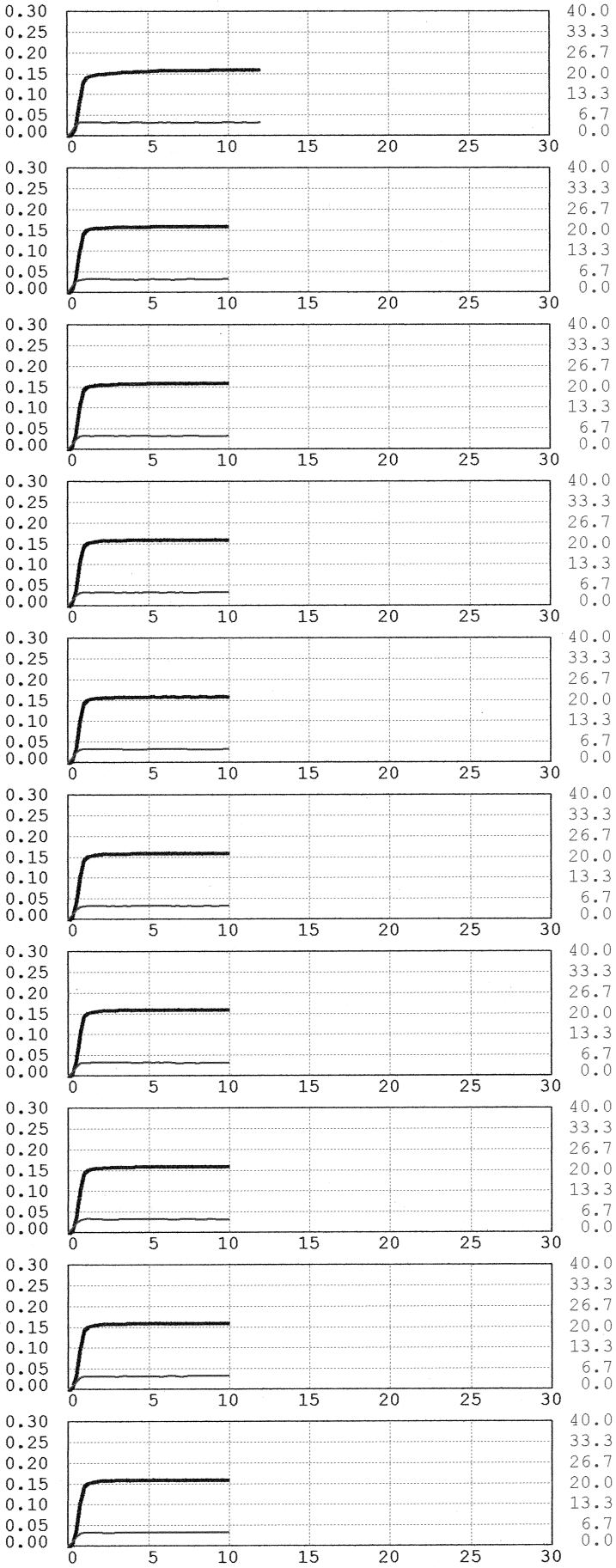
Date: 04/26/2010
Time: 10:04:04

SUPERVISOR NAME: A L B

SOLUTION LOT #: 10-20-160
SOLUTION CONCENTRATION: 0.159

BLANK TEST	0.000	10:04
CALIBRATION CHECK	PASSED	10:05
SIMULATOR VAPOR	0.158	10:05
SIMULATOR VAPOR	0.158	10:06
SIMULATOR VAPOR	0.158	10:07
SIMULATOR VAPOR	0.158	10:08
SIMULATOR VAPOR	0.157	10:09
SIMULATOR VAPOR	0.158	10:10
SIMULATOR VAPOR	0.159	10:11
SIMULATOR VAPOR	0.158	10:12
SIMULATOR VAPOR	0.158	10:13
SIMULATOR VAPOR	0.158	10:14
BLANK TEST	0.000	10:15

Average = 0.158
Std Dev = 0.0004



Section 5: Interference

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

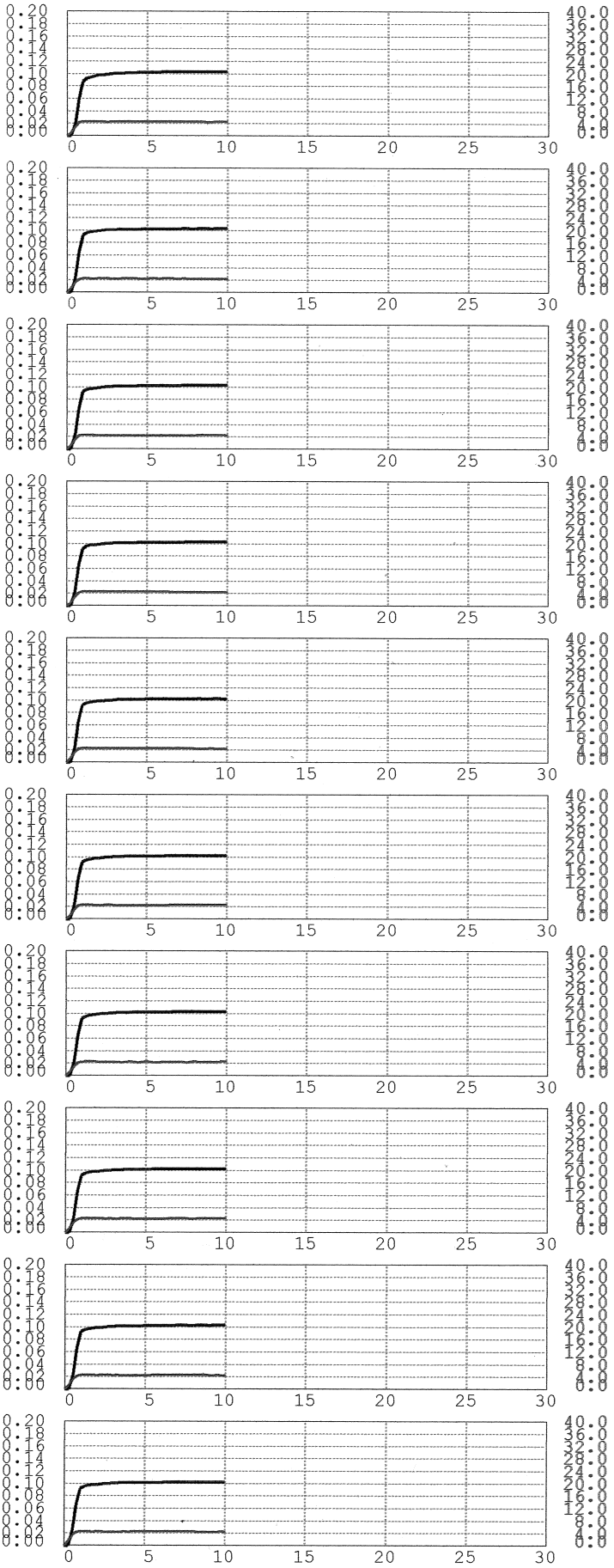
Date: 04/20/2010
Time: 09:05:01

SUPERVISOR NAME: SEH TEST .04IPA .08 ETOH

SOLUTION LOT #: 09-30-08I
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	09:05
CALIBRATION CHECK	PASSED	09:06
SIMULATOR VAPOR	INTERFERENCE	09:06
SIMULATOR VAPOR	INTERFERENCE	09:07
SIMULATOR VAPOR	INTERFERENCE	09:08
SIMULATOR VAPOR	INTERFERENCE	09:09
SIMULATOR VAPOR	INTERFERENCE	09:10
SIMULATOR VAPOR	INTERFERENCE	09:11
SIMULATOR VAPOR	INTERFERENCE	09:12
SIMULATOR VAPOR	INTERFERENCE	09:13
SIMULATOR VAPOR	INTERFERENCE	09:14
SIMULATOR VAPOR	INTERFERENCE	09:15
BLANK TEST	0.000	09:15

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

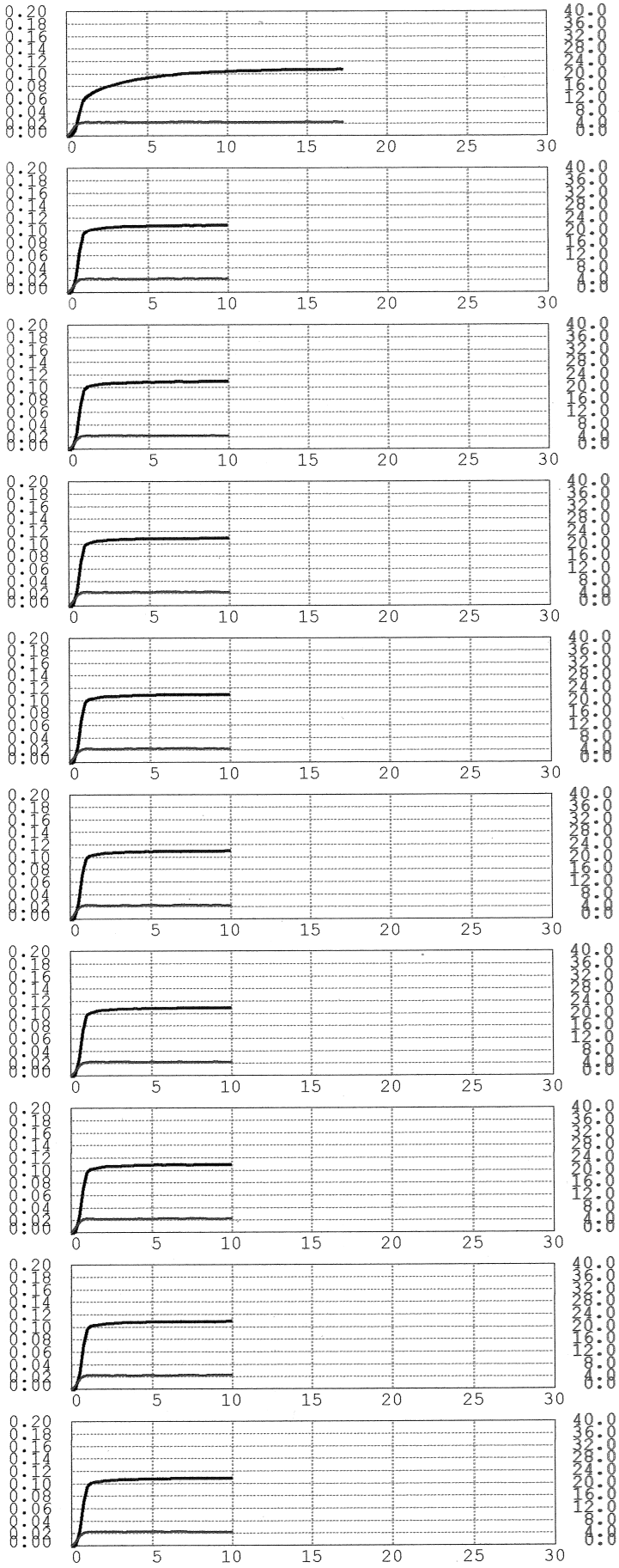
Date: 04/20/2010
Time: 08:45:27

SUPERVISOR NAME: SEH TEST .08ETOH .04MEOH

SOLUTION LOT #: 10-10-08M4
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	08:46
CALIBRATION CHECK	PASSED	08:46
SIMULATOR VAPOR	INTERFERENCE	08:46
SIMULATOR VAPOR	INTERFERENCE	08:47
SIMULATOR VAPOR	INTERFERENCE	08:48
SIMULATOR VAPOR	INTERFERENCE	08:49
SIMULATOR VAPOR	INTERFERENCE	08:50
SIMULATOR VAPOR	INTERFERENCE	08:51
SIMULATOR VAPOR	INTERFERENCE	08:52
SIMULATOR VAPOR	INTERFERENCE	08:53
SIMULATOR VAPOR	INTERFERENCE	08:54
SIMULATOR VAPOR	INTERFERENCE	08:55
BLANK TEST	0.000	08:56

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

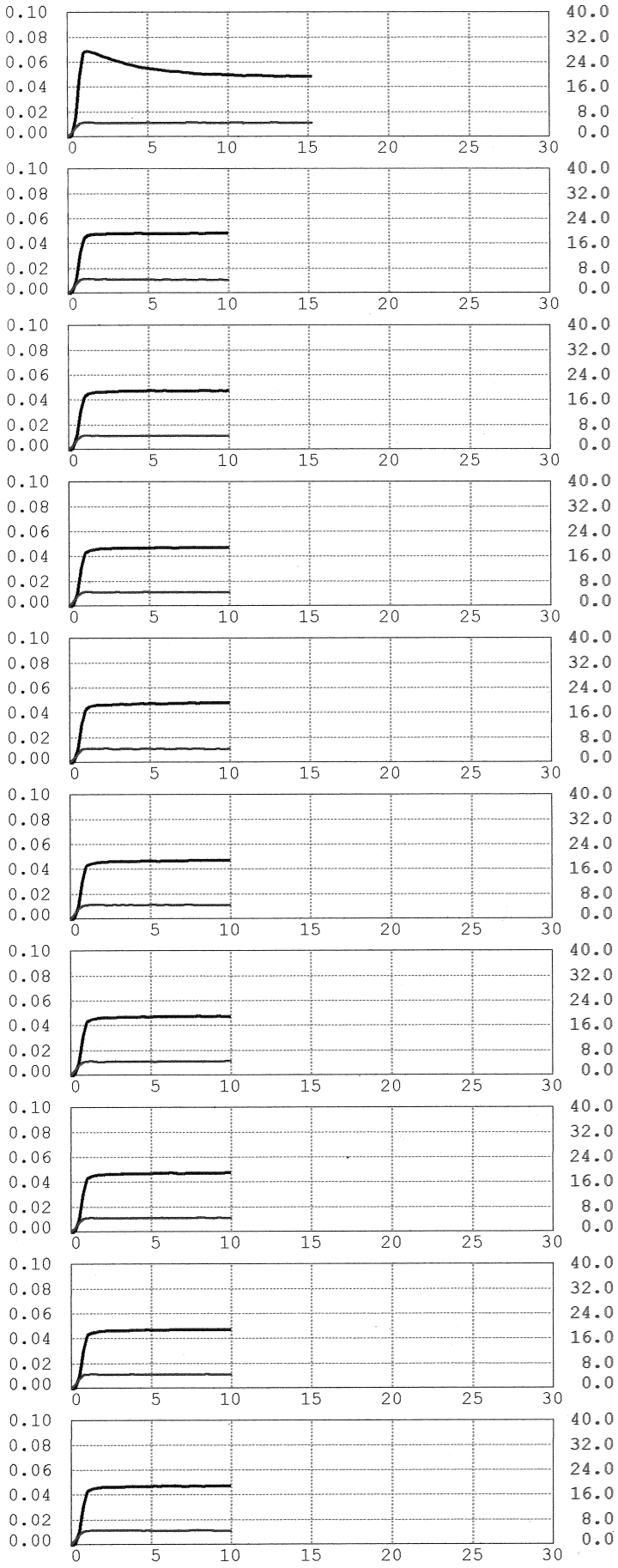
Date: 04/20/2010
Time: 08:26:51

SUPERVISOR NAME: SEH TEST .02ACETONE IN .04

SOLUTION LOT #: 09-31-04A2
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	08:27
CALIBRATION CHECK	PASSED	08:27
SIMULATOR VAPOR	INTERFERENCE	08:28
SIMULATOR VAPOR	INTERFERENCE	08:29
SIMULATOR VAPOR	INTERFERENCE	08:30
SIMULATOR VAPOR	INTERFERENCE	08:31
SIMULATOR VAPOR	INTERFERENCE	08:32
SIMULATOR VAPOR	INTERFERENCE	08:33
SIMULATOR VAPOR	INTERFERENCE	08:34
SIMULATOR VAPOR	INTERFERENCE	08:35
SIMULATOR VAPOR	INTERFERENCE	08:36
SIMULATOR VAPOR	INTERFERENCE	08:37
BLANK TEST	0.000	08:37

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

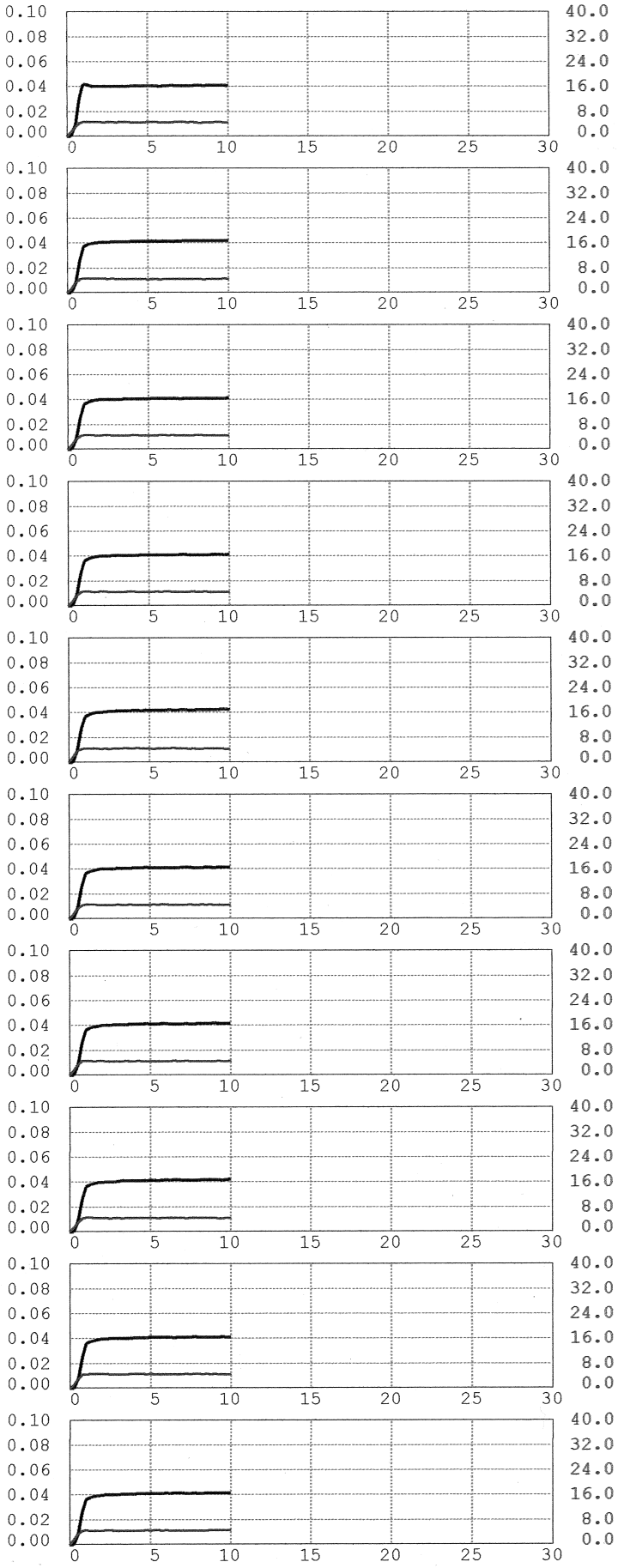
Date: 04/20/2010
Time: 07:48:17

SUPERVISOR NAME: SEH TEST .01ACETONE IN .04

SOLUTION LOT #: 09-27-04A1
SOLUTION CONCENTRATION: ~~.080~~ 0.04 08T6110

BLANK TEST	0.000	07:49
CALIBRATION CHECK	PASSED	07:49
SIMULATOR VAPOR	INTERFERENCE	07:49
SIMULATOR VAPOR	INTERFERENCE	07:50
SIMULATOR VAPOR	INTERFERENCE	07:51
SIMULATOR VAPOR	INTERFERENCE	07:52
SIMULATOR VAPOR	INTERFERENCE	07:53
SIMULATOR VAPOR	INTERFERENCE	07:54
SIMULATOR VAPOR	INTERFERENCE	07:55
SIMULATOR VAPOR	INTERFERENCE	07:56
SIMULATOR VAPOR	INTERFERENCE	07:57
SIMULATOR VAPOR	INTERFERENCE	07:58
BLANK TEST	0.000	07:59

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

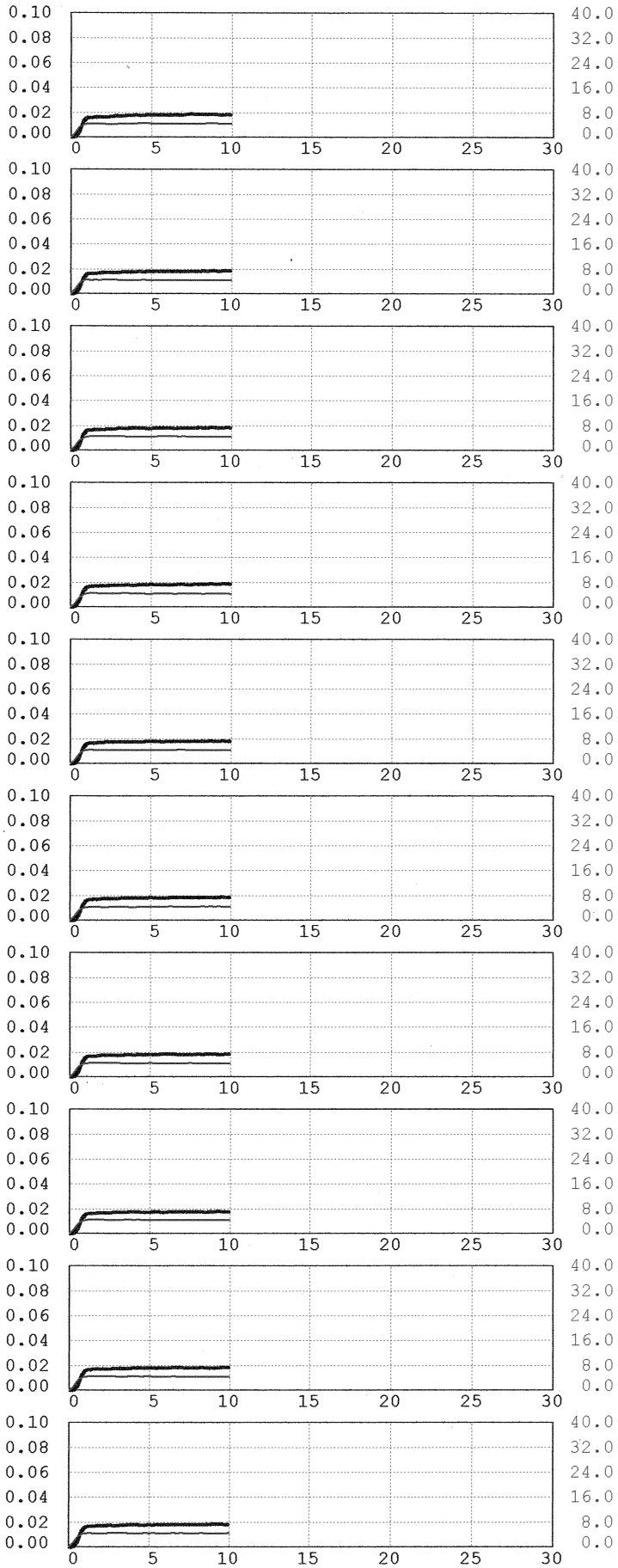
Date: 04/26/2010
Time: 16:53:11

SUPERVISOR NAME: DMR 04 MEOH IN H20

SOLUTION LOT #: 10-25-04M
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	16:54
CALIBRATION CHECK	PASSED	16:54
SIMULATOR VAPOR	INTERFERENCE	16:54
SIMULATOR VAPOR	INTERFERENCE	16:55
SIMULATOR VAPOR	INTERFERENCE	16:56
SIMULATOR VAPOR	INTERFERENCE	16:57
SIMULATOR VAPOR	INTERFERENCE	16:58
SIMULATOR VAPOR	INTERFERENCE	16:59
SIMULATOR VAPOR	INTERFERENCE	17:00
SIMULATOR VAPOR	INTERFERENCE	17:01
SIMULATOR VAPOR	INTERFERENCE	17:02
SIMULATOR VAPOR	INTERFERENCE	17:03
BLANK TEST	0.000	17:04

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

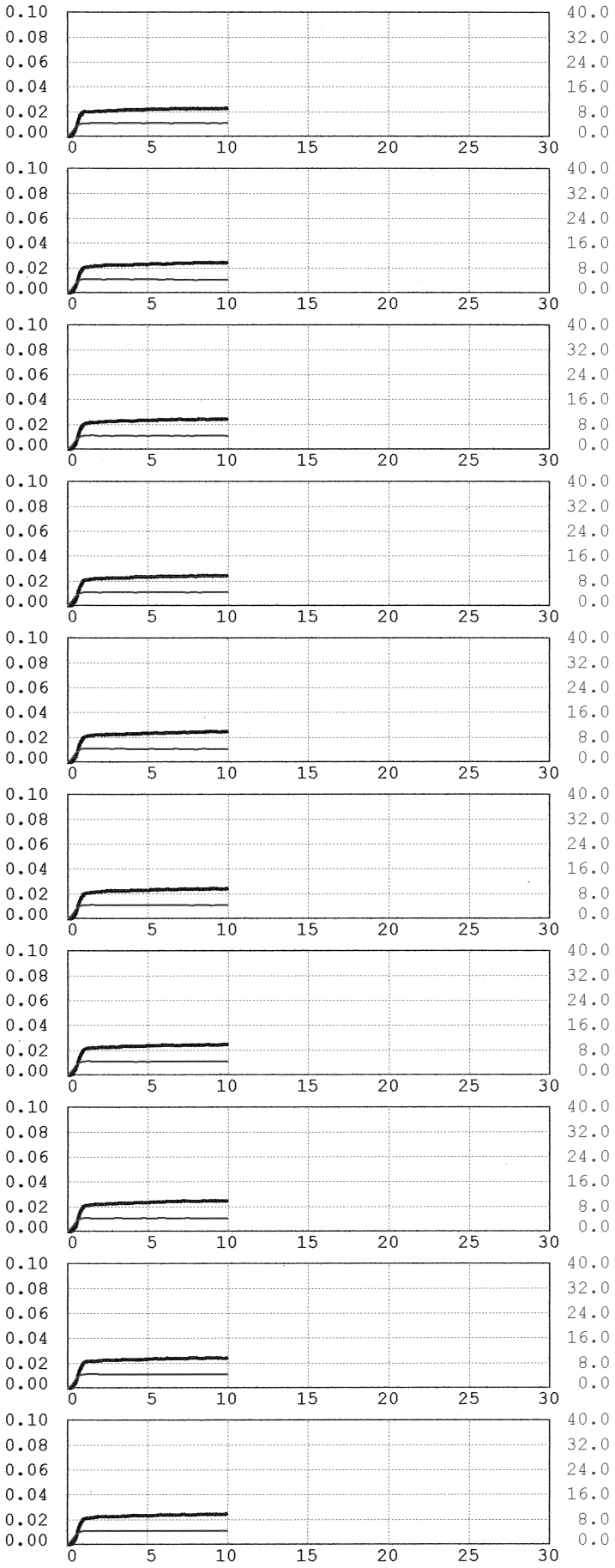
Date: 04/26/2010
Time: 16:39:17

SUPERVISOR NAME: DMR 04 IPA IN H2O

SOLUTION LOT #: 10-26-04I
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	16:40
CALIBRATION CHECK	PASSED	16:40
SIMULATOR VAPOR	INTERFERENCE	16:40
SIMULATOR VAPOR	INTERFERENCE	16:41
SIMULATOR VAPOR	INTERFERENCE	16:42
SIMULATOR VAPOR	INTERFERENCE	16:43
SIMULATOR VAPOR	INTERFERENCE	16:44
SIMULATOR VAPOR	INTERFERENCE	16:45
SIMULATOR VAPOR	INTERFERENCE	16:46
SIMULATOR VAPOR	INTERFERENCE	16:47
SIMULATOR VAPOR	INTERFERENCE	16:48
SIMULATOR VAPOR	INTERFERENCE	16:49
BLANK TEST	0.000	16:50

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

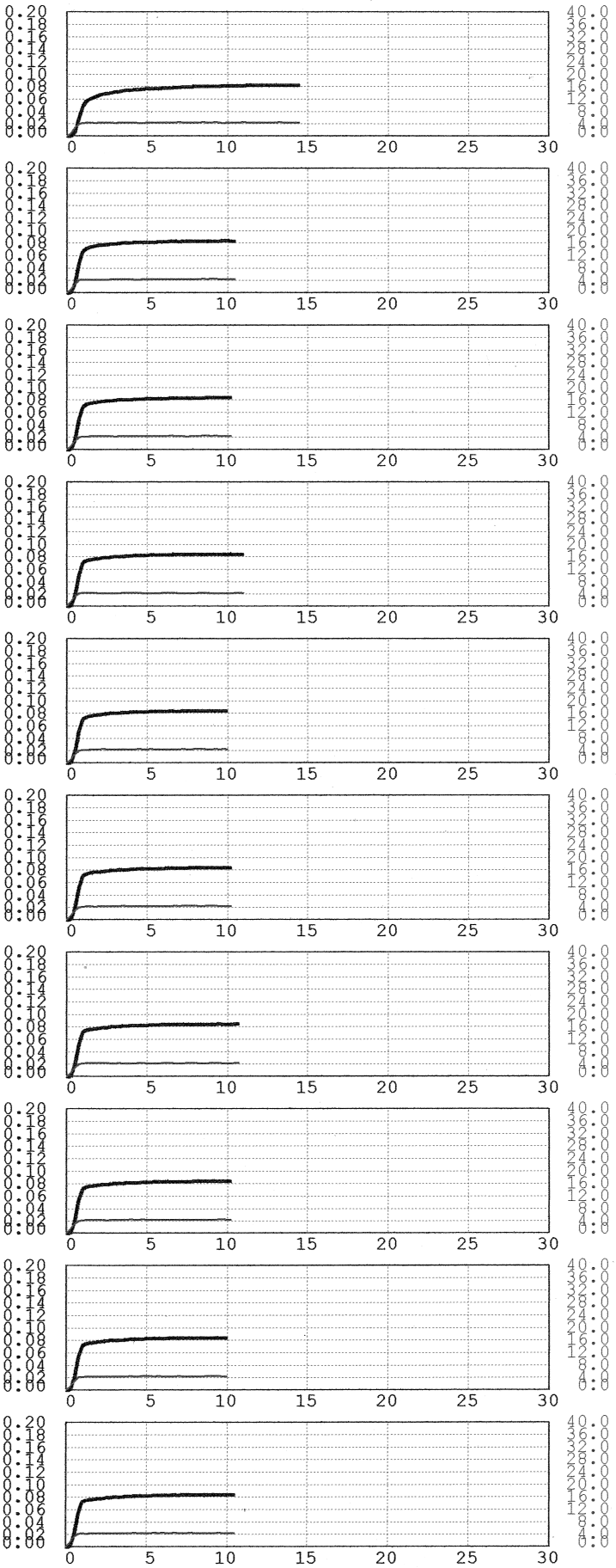
DataMaster DMT: 100134

Date: 04/26/2010
Time: 14:18:28

SUPERVISOR NAME: ALB .01ACETONE IN .08ETOH

SOLUTION LOT #: 10-24-08A
SOLUTION CONCENTRATION: 0.081

BLANK TEST	0.000	14:19
CALIBRATION CHECK	PASSED	14:19
SIMULATOR VAPOR	INTERFERENCE	14:19
SIMULATOR VAPOR	INTERFERENCE	14:20
SIMULATOR VAPOR	INTERFERENCE	14:21
SIMULATOR VAPOR	INTERFERENCE	14:22
SIMULATOR VAPOR	INTERFERENCE	14:23
SIMULATOR VAPOR	INTERFERENCE	14:24
SIMULATOR VAPOR	INTERFERENCE	14:25
SIMULATOR VAPOR	INTERFERENCE	14:26
SIMULATOR VAPOR	INTERFERENCE	14:27
SIMULATOR VAPOR	INTERFERENCE	14:28
BLANK TEST	0.000	14:29



Section 6: Low Level Accuracy

Section 7: Breath Volume

This Instrument not tested for this specification

Section 8: Software Testing

This Instrument not tested for this specification

Section 9: Error Reports

CALIBRATION REPORT

DataMaster DMT: 100134
Calibration Date: 04/09/2010
Calibrated by: ALB TEST
Lot: 10-22-100

VERMONT
DEPARTMENT OF HEALTH

```
Ca  =  0.101000
CAL =  0.980669     0.800 <= CAL < 1.200
b1  =  0.000136     0.000 <=  b1 < 0.004
b2  =  0.005982     0.001 <=  b2 < 0.012
b3  =  0.000000     0.000 <=  b3 < 0.004
Xq  =  0.075727     0.050 <=  Xq < 0.200
a21 =  1.186506     1.050 <= a21 < 1.300
a31 =  0.481287     0.300 <= a31 < 0.800
```

Performed by _____ Date 04/09/2010

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

Date: 04/06/2010
Time: 15:19:21

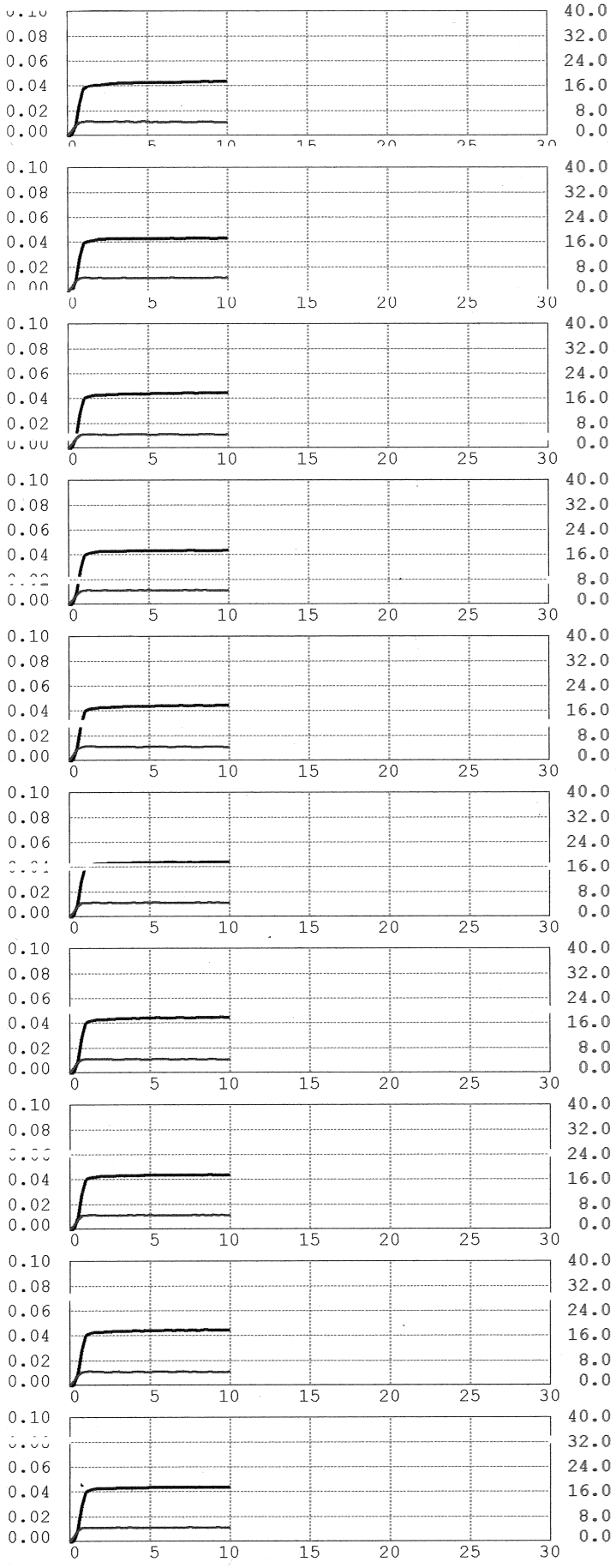
SUPERVISOR NAME: ALB .01ACETONE IN .04ETOH

SOLUTION LOT #: 09-27-04A1
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	15:20
CALIBRATION CHECK	PASSED	15:20
SIMULATOR VAPOR	0.044	15:20
SIMULATOR VAPOR	0.044	15:21
SIMULATOR VAPOR	0.045	15:22
SIMULATOR VAPOR	0.044	15:23
SIMULATOR VAPOR	0.045	15:24
SIMULATOR VAPOR	0.044	15:25
SIMULATOR VAPOR	0.045	15:26
SIMULATOR VAPOR	0.044	15:27
SIMULATOR VAPOR	0.045	15:28
SIMULATOR VAPOR	0.044	15:29
BLANK TEST	0.000	15:30

Average out of range!

Average = 0.044
Std Dev = 0.0005



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

Date: 04/06/2010
Time: 13:00:23

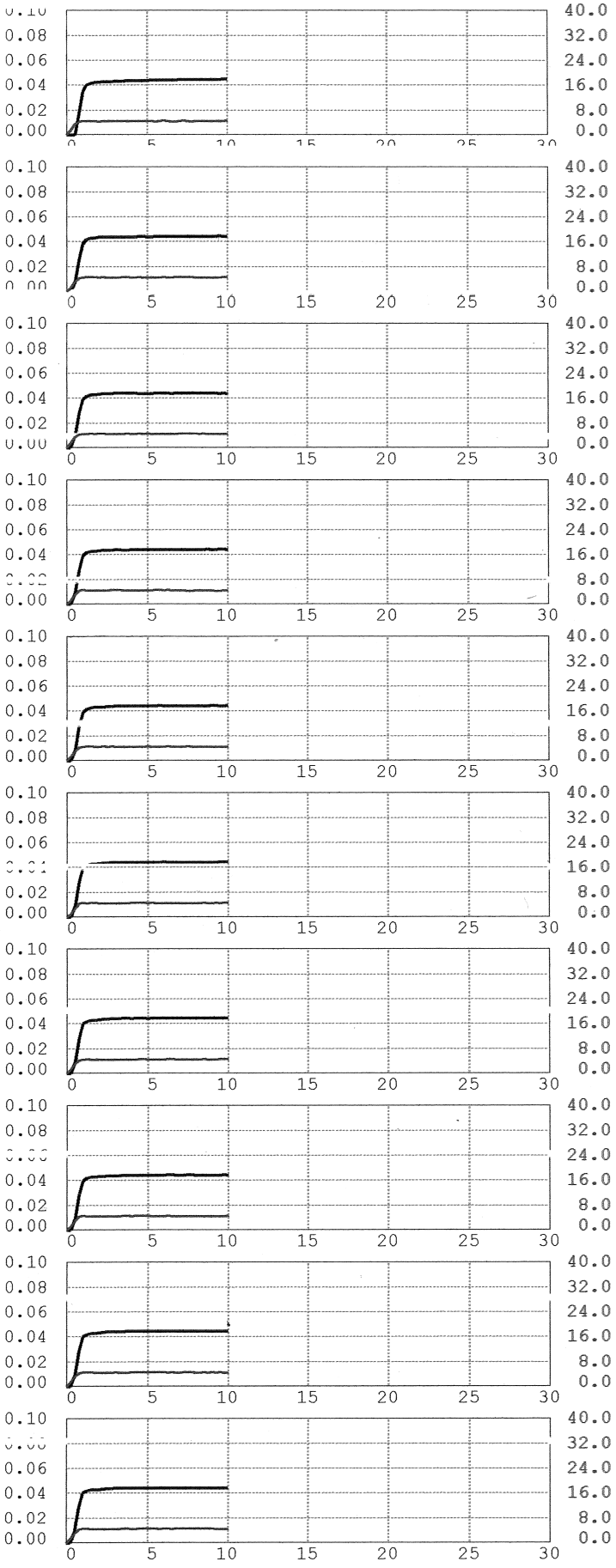
SUPERVISOR NAME: ALB .01ACETONE IN .04ETOH

SOLUTION LOT #: 09-27-04A1
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	13:01
CALIBRATION CHECK	PASSED	13:01
SIMULATOR VAPOR	0.045	13:01
SIMULATOR VAPOR	0.045	13:02
SIMULATOR VAPOR	0.045	13:03
SIMULATOR VAPOR	0.045	13:04
SIMULATOR VAPOR	0.045	13:05
SIMULATOR VAPOR	0.045	13:06
SIMULATOR VAPOR	0.045	13:07
SIMULATOR VAPOR	0.045	13:08
SIMULATOR VAPOR	0.045	13:09
SIMULATOR VAPOR	0.045	13:10
BLANK TEST	0.000	13:11

Average out of range!

Average = 0.044
Std Dev = 0.0000



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

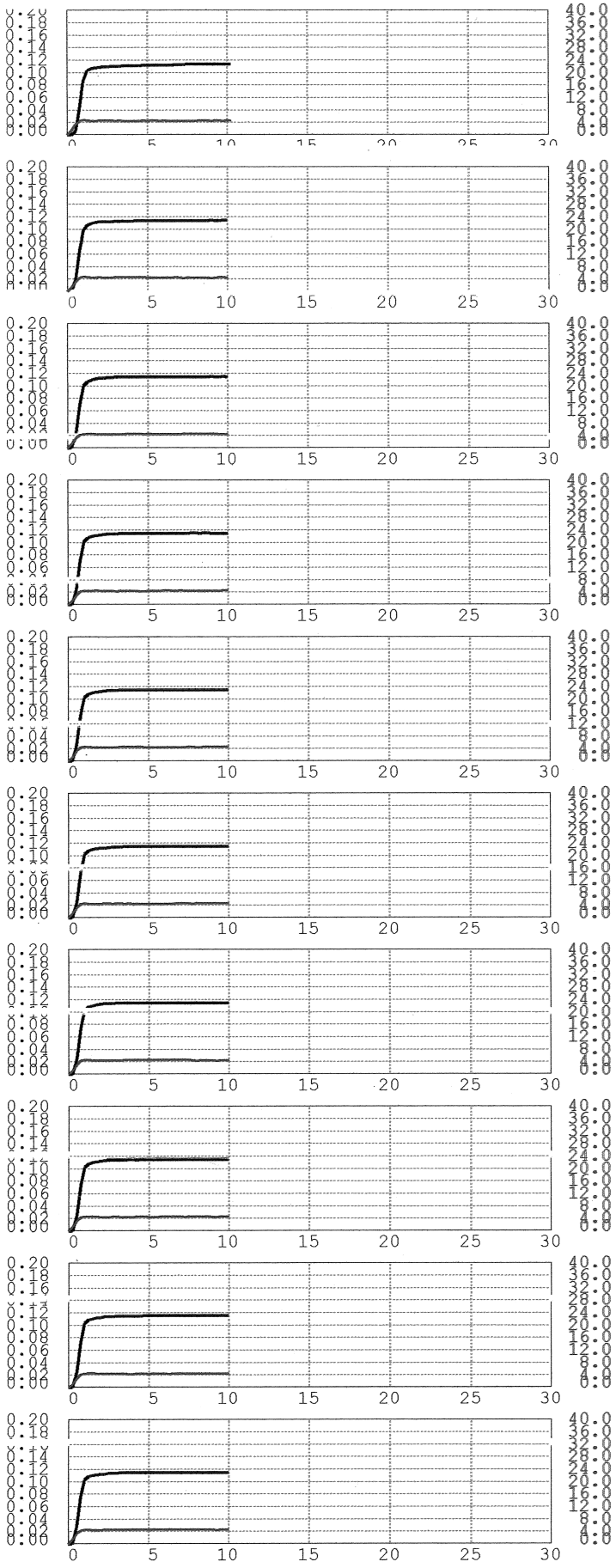
Date: 04/06/2010
Time: 13:51:07

SUPERVISOR NAME: ALB .04MEOH IN .08ETOH

SOLUTION LOT #: 10-10-08M4
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	13:52
CALIBRATION CHECK	PASSED	13:52
SIMULATOR VAPOR	INTERFERENCE	13:52
SIMULATOR VAPOR	INTERFERENCE	13:53
SIMULATOR VAPOR	INTERFERENCE	13:54
SIMULATOR VAPOR	INTERFERENCE	13:55
SIMULATOR VAPOR	INTERFERENCE	13:56
SIMULATOR VAPOR	INTERFERENCE	13:57
SIMULATOR VAPOR	INTERFERENCE	13:58
SIMULATOR VAPOR	INTERFERENCE	13:59
SIMULATOR VAPOR	INTERFERENCE	14:00
SIMULATOR VAPOR	INTERFERENCE	14:01
BLANK TEST	0.000	14:02

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

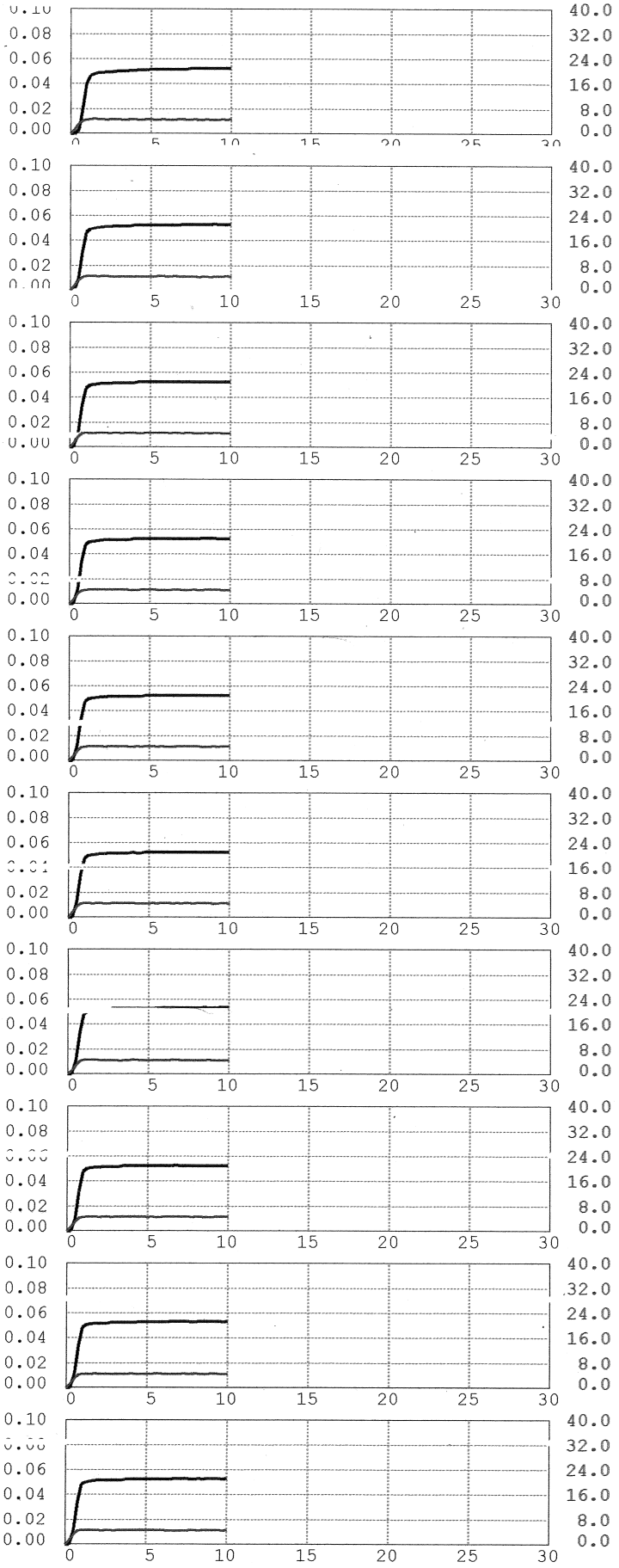
Date: 04/06/2010
Time: 09:49:20

SUPERVISOR NAME: ALB .04IPA IN .08ETOH

SOLUTION LOT #: 09-30-08I
SOLUTION CONCENTRATION: 0.079

BLANK TEST	0.000	09:50
CALIBRATION CHECK	PASSED	09:50
SIMULATOR VAPOR	INTERFERENCE	09:50
SIMULATOR VAPOR	INTERFERENCE	09:51
SIMULATOR VAPOR	INTERFERENCE	09:52
SIMULATOR VAPOR	INTERFERENCE	09:53
SIMULATOR VAPOR	INTERFERENCE	09:54
SIMULATOR VAPOR	INTERFERENCE	09:55
SIMULATOR VAPOR	INTERFERENCE	09:56
SIMULATOR VAPOR	INTERFERENCE	09:57
SIMULATOR VAPOR	INTERFERENCE	09:58
SIMULATOR VAPOR	INTERFERENCE	09:59
BLANK TEST	0.000	10:00

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

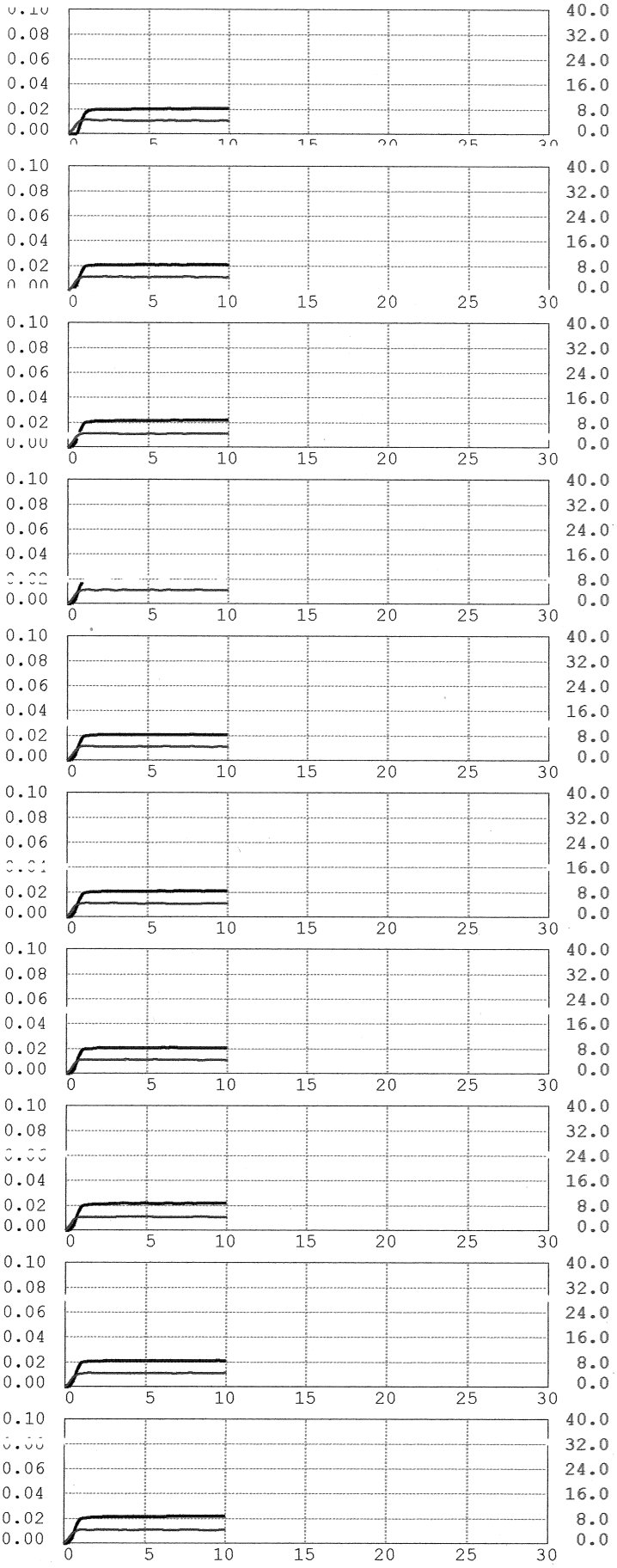
Date: 04/06/2010
Time: 07:43:01

SUPERVISOR NAME: ALB .04MEOH IN H2O

SOLUTION LOT #: 10-25-04M
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	07:43
CALIBRATION CHECK	PASSED	07:44
Xq = 0.0752 (0.46%)		
SIMULATOR VAPOR	INTERFERENCE	07:44
X[1] = 0.0221 (-0.0035) (-0.0040)		
SIMULATOR VAPOR	0.021	07:45
X[1] = 0.0219 (-0.0032) (-0.0035)		
SIMULATOR VAPOR	INTERFERENCE	07:46
X[1] = 0.0229 (-0.0032) (-0.0045)		
SIMULATOR VAPOR	INTERFERENCE	07:47
X[1] = 0.0221 (-0.0036) (-0.0044)		
SIMULATOR VAPOR	INTERFERENCE	07:48
X[1] = 0.0220 (-0.0040) (-0.0049)		
SIMULATOR VAPOR	INTERFERENCE	07:49
X[1] = 0.0226 (-0.0040) (-0.0051)		
SIMULATOR VAPOR	INTERFERENCE	07:50
X[1] = 0.0218 (-0.0040) (-0.0046)		
SIMULATOR VAPOR	INTERFERENCE	07:51
X[1] = 0.0229 (-0.0036) (-0.0046)		
SIMULATOR VAPOR	INTERFERENCE	07:52
X[1] = 0.0221 (-0.0036) (-0.0044)		
SIMULATOR VAPOR	INTERFERENCE	07:53
X[1] = 0.0230 (-0.0034) (-0.0048)		
BLANK TEST	0.000	07:53

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

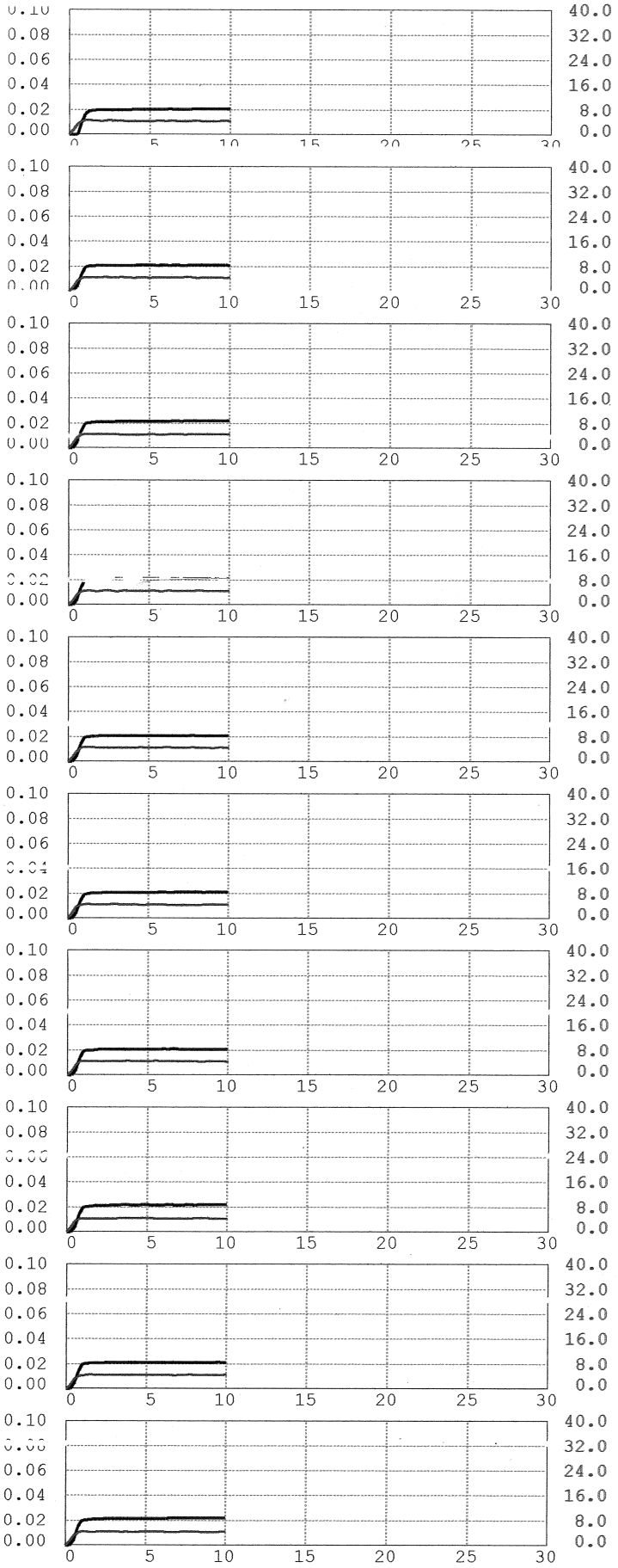
Date: 04/06/2010
Time: 07:43:01

SUPERVISOR NAME: ALB .04MEOH IN H2O

SOLUTION LOT #: 10-25-04M
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	07:43
CALIBRATION CHECK	PASSED	07:44
SIMULATOR VAPOR	INTERFERENCE	07:44
SIMULATOR VAPOR	0.021	07:45
SIMULATOR VAPOR	INTERFERENCE	07:46
SIMULATOR VAPOR	INTERFERENCE	07:47
SIMULATOR VAPOR	INTERFERENCE	07:48
SIMULATOR VAPOR	INTERFERENCE	07:49
SIMULATOR VAPOR	INTERFERENCE	07:50
SIMULATOR VAPOR	INTERFERENCE	07:51
SIMULATOR VAPOR	INTERFERENCE	07:52
SIMULATOR VAPOR	INTERFERENCE	07:53
BLANK TEST	0.000	07:53

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

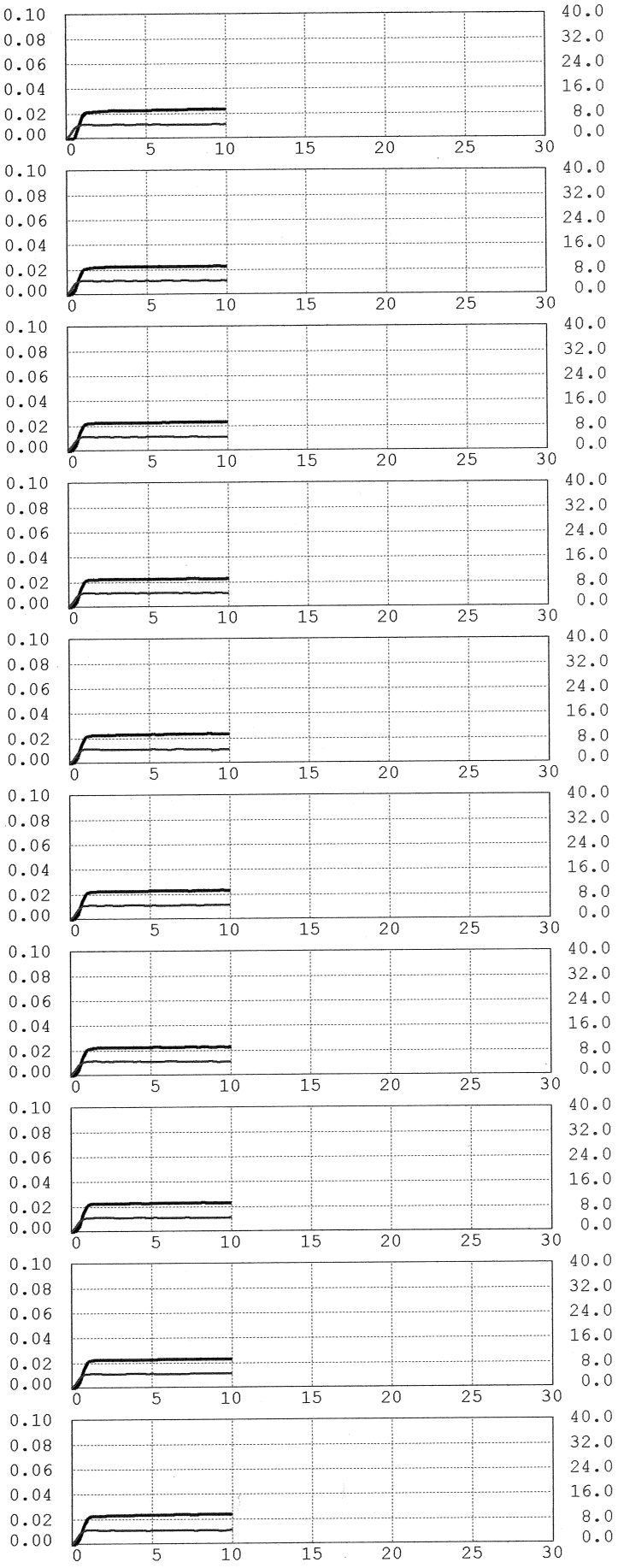
Date: 04/02/2010
Time: 13:36:38

SUPERVISOR NAME: ALB .04IPS IN H2O

SOLUTION LOT #: 10-26-04I
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	13:37
CALIBRATION CHECK	PASSED	13:37
SIMULATOR VAPOR	INTERFERENCE	13:37
SIMULATOR VAPOR	INTERFERENCE	13:38
SIMULATOR VAPOR	INTERFERENCE	13:39
SIMULATOR VAPOR	INTERFERENCE	13:40
SIMULATOR VAPOR	INTERFERENCE	13:41
SIMULATOR VAPOR	INTERFERENCE	13:42
SIMULATOR VAPOR	INTERFERENCE	13:43
SIMULATOR VAPOR	INTERFERENCE	13:44
SIMULATOR VAPOR	INTERFERENCE	13:45
SIMULATOR VAPOR	INTERFERENCE	13:46
BLANK TEST	0.000	13:47

Average out of range!



CALIBRATION REPORT

DataMaster DMT: 100134
Calibration Date: 03/31/2010
Calibrated by: AMANDA BOLDUC
Lot: 10-22-100

VERMONT
DEPARTMENT OF HEALTH

Ca	= 0.101000		
CAL	= 0.983987	0.800 <= CAL <	1.200
b1	= 0.000000	0.000 <= b1 <	0.004
b2	= 0.004830	0.001 <= b2 <	0.012
b3	= 0.000000	0.000 <= b3 <	0.004
Xq	= 0.075643	0.050 <= Xq <	0.200
a21	= 1.202607	1.050 <= a21 <	1.300
a31	= 0.468747	0.300 <= a31 <	0.800

Performed by Amanda Bolduc Date 03/31/2010

CALIBRATION REPORT

DataMaster DMT: 100134
Calibration Date: 03/31/2010
Calibrated by: AMANDA BOLDUC
Lot: 10-22-100

VERMONT
DEPARTMENT OF HEALTH

Ca	= 0.101000		
CAL	= 0.983987	0.800 <= CAL <	1.200
b1	= 0.000000	0.000 <= b1 <	0.004
b2	= 0.004830	0.001 <= b2 <	0.012
b3	= 0.000000	0.000 <= b3 <	0.004
Xq	= 0.075643	0.050 <= Xq <	0.200
a21	= 1.202607	1.050 <= a21 <	1.300
a31	= 0.468747	0.300 <= a31 <	0.800

Performed by Amanda Bolduc **Date** 03/31/2010

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

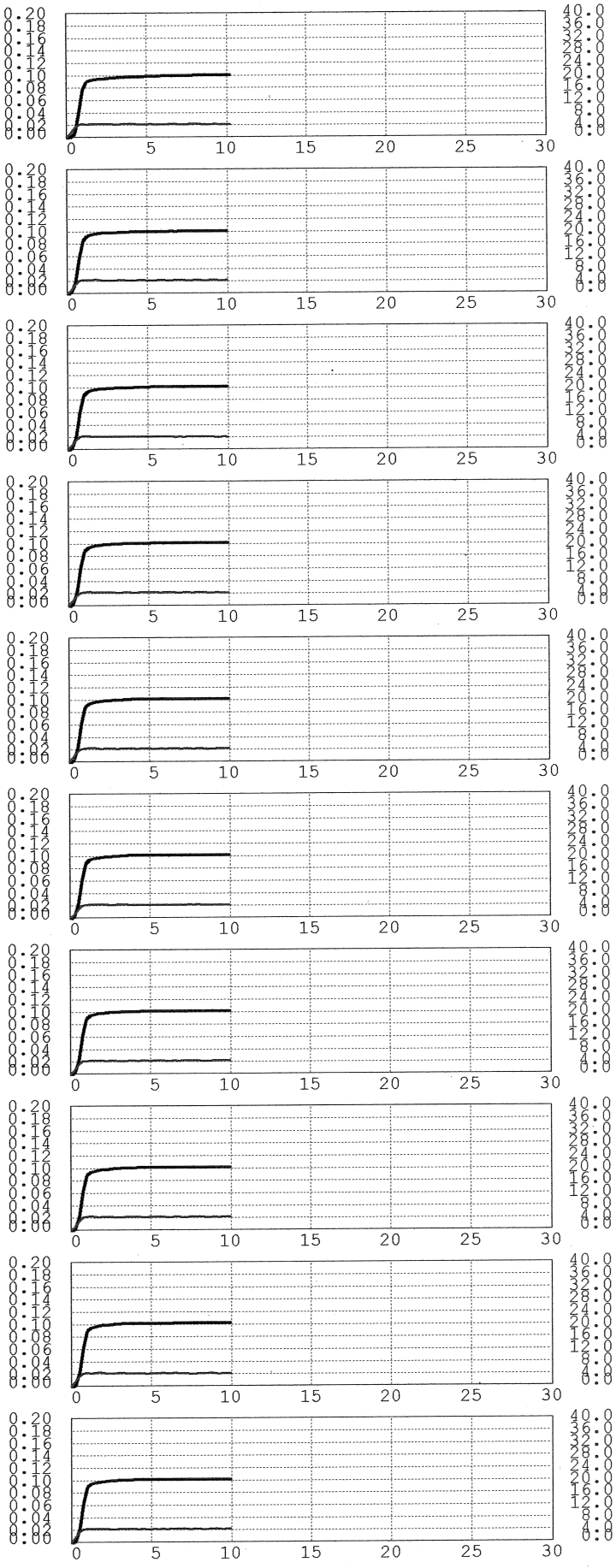
Date: 03/31/2010
Time: 11:57:16

SUPERVISOR NAME: ALB CAL CHECK

SOLUTION LOT #: 10-23-100
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	11:58
CALIBRATION CHECK	PASSED	11:58
SIMULATOR VAPOR	0.101	11:58
SIMULATOR VAPOR	0.101	11:59
SIMULATOR VAPOR	0.102	12:00
SIMULATOR VAPOR	0.101	12:01
SIMULATOR VAPOR	0.102	12:02
SIMULATOR VAPOR	0.102	12:03
SIMULATOR VAPOR	0.102	12:04
SIMULATOR VAPOR	0.101	12:05
SIMULATOR VAPOR	0.103	12:06
SIMULATOR VAPOR	0.102	12:07
BLANK TEST	0.000	12:08

Average = 0.101
Std Dev = 0.0006



CERTIFICATION REPORT

DataMaster DMT: 100134
Calibration Date: 03/31/2010
Certification Date: 03/31/2010
Certified by: AMANDA BOLDUC

VERMONT
DEPARTMENT OF HEALTH

Diagnostic Results

VERSIONS
DMT 1.04
PIC 2.05
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.68°C
Breath Tube = 48.09°C

SETTINGS
Lamp Voltage = 1.68 V
Cooler Voltage = 1.68 V
Bias Voltage = 80.3 V
Chopper Freq = 536.5 Hz

PUMP INFO
Flow Rate = 5.560 L/M

DETECTOR INFO
PUMP ON OFF
MAX(V) -0.0427 -0.0406
MIN(V) -0.0441 -0.0423

FILTER INFO
Filter 1 -0.043 Zero = true
Filter 2 0.166 Zero = true
Filter 3 0.998 Zero = true

CALIBRATION CHECK
Xq = 0.0751 0.69%

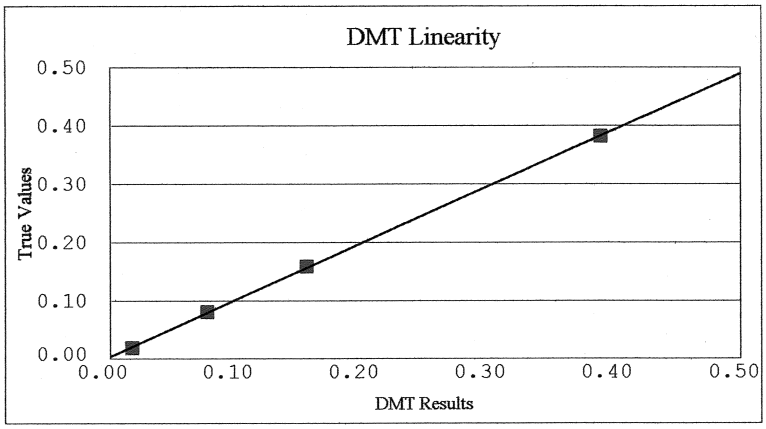
Options

Printer: yes
Number of Copies: 3
Number of Supervisor Tests: 10
Tolerance Check: yes
Data Collection: yes
Units: g/210L
Simulator Check: yes
Uses Wet Bath Simulator: yes
Simulator Nominal: 0.101
Digital Simulator: none
Simulator Before: yes
Simulator Between: yes
Simulator After: no
Number of Subject Tests: 2
AskQuestions: yes
Query Refusal: yes
Alcohol Display: yes
Show Two Digits: no
Volume Display: yes
Number of Calibration Tests: 1
Calibrate with Wet Bath: yes
Calibration Nominal: 0.100

Linearity Check Results

True Value	Reported Average	Std Dev
0.019 g/210L Lot # 10-21-020	0.018 g/210L	0.000
0.081 g/210L Lot # 10-19-080	0.078 g/210L	0.000
0.159 g/210L Lot # 10-20-160	0.157 g/210L	0.000
0.382 g/210L Lot # 09-36-400	0.390 g/210L	0.001

$R^2 = 0.9998$



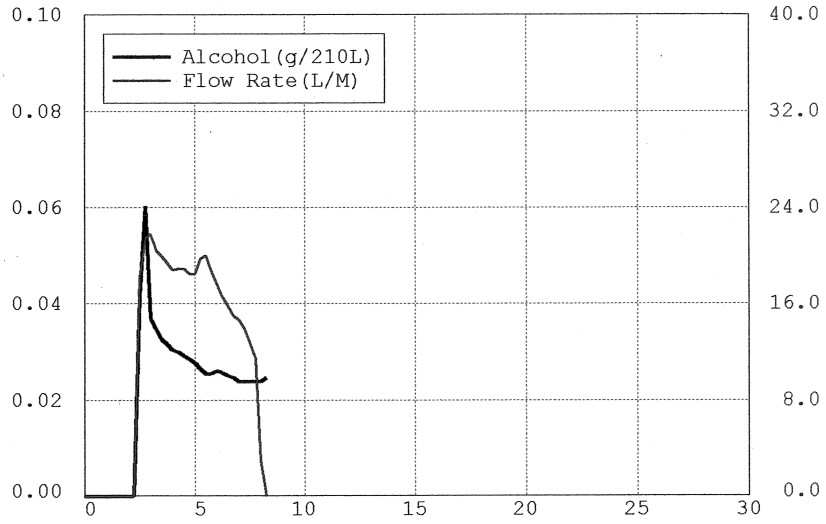
Acetone Interference Test

Lot # 10-24-08A

Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

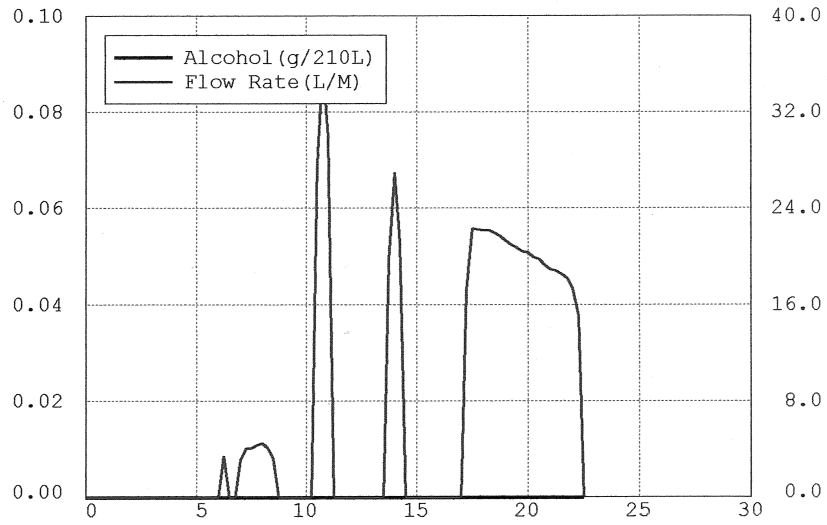


RF Interference Test

RFI detected

Sample Acceptance Test

Passed



RFI and Spl Acc tests done 4/2, all others completed 3/31/10

CERTIFICATION PASSED

Performed by ABA **Date** 04/02/2010

Reviewed by [signature] **Date** 4/2/10

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

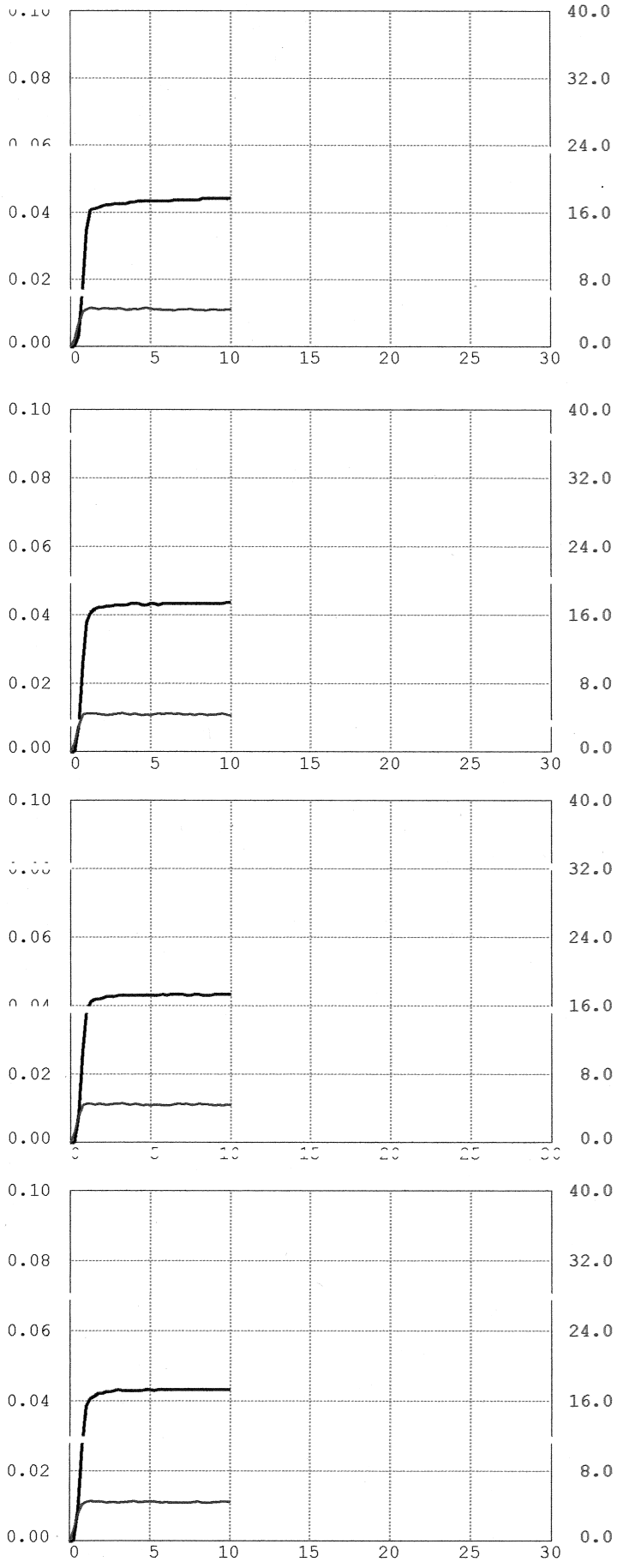
Date: 04/09/2010
Time: 11:10:26

SUPERVISOR NAME: ALB .01ACETONE IN .04ETOH

SOLUTION LOT #: 09-27-04A1
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	11:11
CALIBRATION CHECK	PASSED	11:11
Xq = 0.0760 (0.46%)		
SIMULATOR VAPOR	0.045	11:11
X[1] = 0.0450 (-0.0035) (0.0007)		
SIMULATOR VAPOR	0.044	11:12
X[1] = 0.0448 (-0.0038) (0.0006)		
SIMULATOR VAPOR	0.044	11:13
X[1] = 0.0442 (-0.0041) (0.0009)		

USER ABORT



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

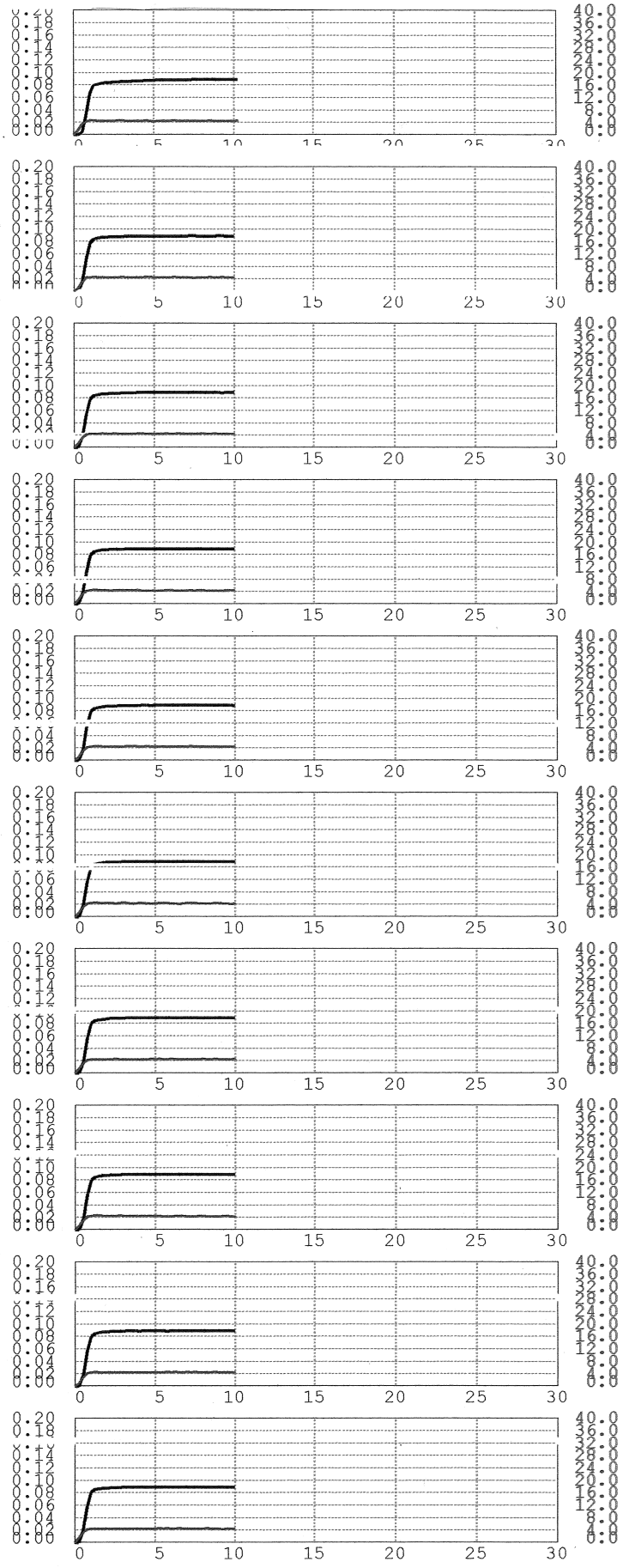
Date: 04/05/2010
Time: 08:20:32

SUPERVISOR NAME: ALB .01ACETONE IN .08ETOH

SOLUTION LOT #: 10-24-08A
SOLUTION CONCENTRATION: 0.081

BLANK TEST	0.000	08:21
CALIBRATION CHECK	PASSED	08:21
Xq = 0.0759 (0.34%)		
SIMULATOR VAPOR	INTERFERENCE	08:21
X[1] = 0.0897 (-0.0065) (-0.0004)		
SIMULATOR VAPOR	INTERFERENCE	08:22
X[1] = 0.0890 (-0.0069) (-0.0007)		
SIMULATOR VAPOR	INTERFERENCE	08:23
X[1] = 0.0889 (-0.0072) (-0.0008)		
SIMULATOR VAPOR	INTERFERENCE	08:24
X[1] = 0.0901 (-0.0067) (-0.0011)		
SIMULATOR VAPOR	INTERFERENCE	08:25
X[1] = 0.0890 (-0.0075) (-0.0005)		
SIMULATOR VAPOR	INTERFERENCE	08:26
X[1] = 0.0904 (-0.0066) (-0.0006)		
SIMULATOR VAPOR	INTERFERENCE	08:27
X[1] = 0.0891 (-0.0072) (-0.0008)		
SIMULATOR VAPOR	INTERFERENCE	08:28
X[1] = 0.0900 (-0.0069) (-0.0011)		
SIMULATOR VAPOR	INTERFERENCE	08:29
X[1] = 0.0893 (-0.0070) (-0.0006)		
SIMULATOR VAPOR	INTERFERENCE	08:30
X[1] = 0.0896 (-0.0071) (-0.0007)		
BLANK TEST	0.000	08:31

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

Date: 04/06/2010
Time: 15:19:21

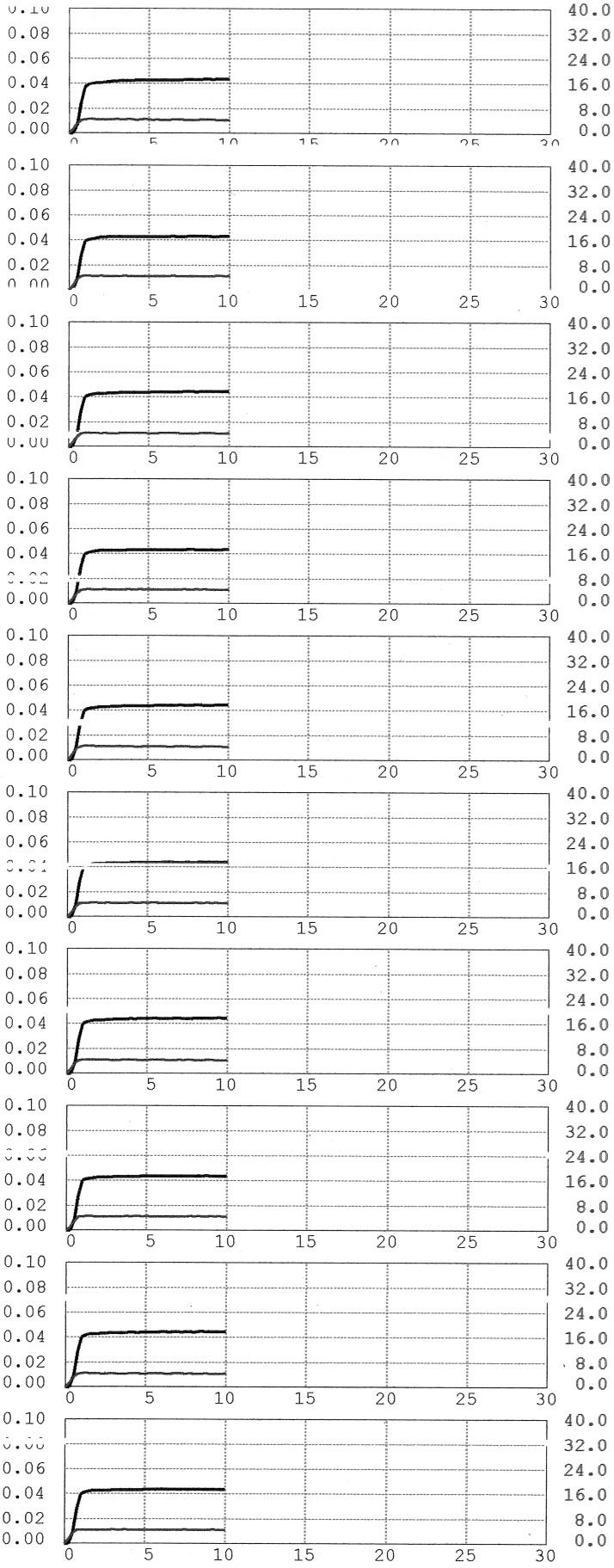
SUPERVISOR NAME: ALB .01ACETONE IN .04ETOH

SOLUTION LOT #: 09-27-04A1
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	15:20
CALIBRATION CHECK	PASSED	15:20
Xq = 0.0753 (0.34%)		
SIMULATOR VAPOR	0.044	15:20
X[1] = 0.0447 (-0.0040) (0.0019)		
SIMULATOR VAPOR	0.044	15:21
X[1] = 0.0441 (-0.0039) (0.0012)		
SIMULATOR VAPOR	0.045	15:22
X[1] = 0.0454 (-0.0038) (0.0004)		
SIMULATOR VAPOR	0.044	15:23
X[1] = 0.0444 (-0.0041) (0.0007)		
SIMULATOR VAPOR	0.045	15:24
X[1] = 0.0454 (-0.0042) (0.0001)		
SIMULATOR VAPOR	0.044	15:25
X[1] = 0.0448 (-0.0043) (0.0004)		
SIMULATOR VAPOR	0.045	15:26
X[1] = 0.0455 (-0.0042) (-0.0001)		
SIMULATOR VAPOR	0.044	15:27
X[1] = 0.0447 (-0.0045) (0.0004)		
SIMULATOR VAPOR	0.045	15:28
X[1] = 0.0457 (-0.0044) (0.0001)		
SIMULATOR VAPOR	0.044	15:29
X[1] = 0.0447 (-0.0045) (0.0008)		
BLANK TEST	0.000	15:30

Average out of range!

Average = 0.044
Std Dev = 0.0005



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100134

Date: 04/06/2010
Time: 13:00:23

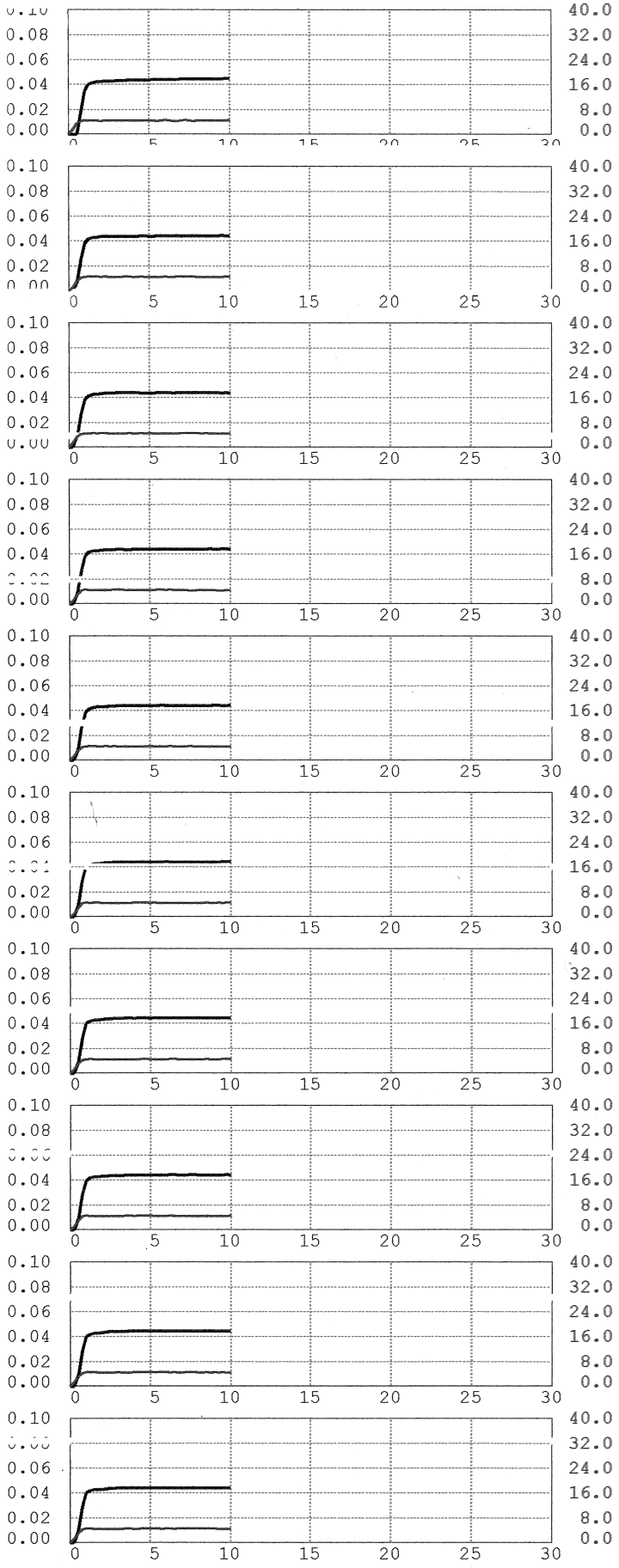
SUPERVISOR NAME: ALB .01ACETONE IN .04ETOH

SOLUTION LOT #: 09-27-04A1
SOLUTION CONCENTRATION: 0.040

BLANK TEST		0.000	13:01
CALIBRATION CHECK		PASSED	13:01
Xq = 0.0756 (0.00%)			
SIMULATOR VAPOR		0.045	13:01
X[1] = 0.0457	(-0.0034)	(0.0004)	
SIMULATOR VAPOR		0.045	13:02
X[1] = 0.0450	(-0.0039)	(0.0008)	
SIMULATOR VAPOR		0.045	13:03
X[1] = 0.0451	(-0.0041)	(0.0005)	
SIMULATOR VAPOR		0.045	13:04
X[1] = 0.0457	(-0.0039)	(-0.0002)	
SIMULATOR VAPOR		0.045	13:05
X[1] = 0.0452	(-0.0042)	(0.0003)	
SIMULATOR VAPOR		0.045	13:06
X[1] = 0.0452	(-0.0045)	(0.0004)	
SIMULATOR VAPOR		0.045	13:07
X[1] = 0.0454	(-0.0046)	(-0.0004)	
SIMULATOR VAPOR		0.045	13:08
X[1] = 0.0454	(-0.0047)	(-0.0002)	
SIMULATOR VAPOR		0.045	13:09
X[1] = 0.0452	(-0.0043)	(0.0007)	
SIMULATOR VAPOR		0.045	13:10
X[1] = 0.0451	(-0.0044)	(0.0004)	
BLANK TEST		0.000	13:11

Average out of range!

Average = 0.044
Std Dev = 0.0000



Section 10: Live Subject Tests

Section 11: Communication Notes

March/April 2010

100134

~~October 2009~~

~~Third~~ 4th Round Testing Protocol for DMT Instruments

Power Up Procedure:

3/29 JeB

a) Open unit and inspect connections. Ensure all tubing is secure. Check that all cables are properly seated and tied down or strapped together as necessary. Check that all screws are in place and snug; this will require the removal of the side pieces to allow the technician access. Correct as needed.

b) Manually turn the filter wheel. The filter wheel should turn smoothly and should not rub or wobble. Correct as needed.

c) Power on the instrument. Allow approximately one hour for it to come to temperature.

d) Access the SETUP menu. On the MISC tab, type "State of Vermont" in the NAME field. In the EXPLORE box, highlight STYLUS and press the OK button to activate the stylus settings. Recalibrate the stylus. Once complete, exit the SETUP menu by pressing the OK button to save the settings. If you exit the SETUP menu using the CANCEL button, none of the changes will be saved.

e) Enter the TECH screen. Scroll through all of the filter settings to ensure the filter wheel is activating properly.

3/30 let Vdl = 0.061 @ 10:55

f) Optimize the detector voltage
-Adjust the cooler voltage setting to 1.70Vdc +/-0.10.
-Manually manipulate the detector position to get the detector voltage as low as possible.
-Adjust the Lamp voltage setting so that the detector voltage displayed is approximately +0.000 +/- 0.100.
-Note the initial noise of the detector voltage once unit has had a minute to equilibrate. Noise tolerance at NPAS is +/-0.003 on a detector.
-Save the voltage settings
-Per VDHL protocol (P-Alc-116 Power-Up SOP), the detector voltage must read 0.000V with a tolerance of +/- 0.100V. Correct as needed.

g) While still in the TECH screen, press SET in the RF Sensitivity box to automatically set the RF sensitivity level. Press SAVE to save the settings. Confirm the setting by keying a radio near the instrument. Correct as needed.

h) Using the large syringe, push 1.5L of air into the breath tube. Monitor the volume of air displayed on the TECH screen. The instrument should read 1.5L +/- 0.2L. If the instrument is out of range, adjust the distance between the "T" fittings on the breath exhaust tubing. Retest until the volume reads appropriately.

i) Once all the TECH settings are correct, re-save every setting. Exit the TECH screen.

j) Close up the instrument using locking screws on the top four holes. Attach the stylus to the DMT using a locking screw in the center right screw hole nearest the simulator tower. Attach the keyboard to the top of the instrument using sticky-back velcro. Wrap a small piece of velcro around the top of the stylus and affix the other side to the front of the instrument so the stylus can rest on the front of the unit.

k) Calibrate the instrument following the Calibration Protocol using Calibration Solution (0.100 EtOH). During Calibration and Certification, it may be necessary to turn off the simulator temperature monitoring if using Guth 2100 Simulators as these do not have BNC connectors for temperature monitoring. To do this, open the SETUP menu. In the Simulator box, select NONE as the type of

ART

100134

simulator. Press OK to exit. Document the room temperature and humidity level at the time of calibration in the communication notebook.

l) Certify the instrument following the Certification Protocol.

m) Preliminary interference testing. Run the following concentrations as an Accuracy and Precision Test with n=10. The instrument must report Interference at least 80% of the ~~time~~

4/5/10 0.01% Acetone in 0.08% EtOH 4/26

4/6 0.04% MeOH in Water 4/26/10 DM

4/21/10 0.04% Isopropanol in Water 4/26/10 DM

Retest needed 4/21

The instrument is now ready for performance testing. If any of the above steps fail or there is **any** problem with the instrument, the DataMaster Team should be consulted as to the action required. It may be necessary to return an instrument to the manufacture for refurbishment prior to use by VDHL. All adjustments and repairs to an instrument should be documented in the instrument's testing notebook located in the testing binder. All reports generated during the Power Up Procedure should be filed in the power up section of that instrument's testing binder. If the instrument has passed, it should now be Installed to VDHL.

~~failed to recognize~~

DRAFT

100134

Performance Testing

a) Linearity Test: Four concentrations of EtOH solutions will be used, 0.020, 0.080, 0.160, and 0.400. Each solution will be run using the Accuracy and Precision test (n=10). All four concentrations will be run consecutively and will count as one linearity test. Five linearity tests will be run on each instrument. Linearity tests should not be completed back to back. Testing should allow for inter- and intra- day performance. 4/21

b) Low Level Performance: A solution of 0.040EtOH will be tested using the Accuracy and Precision test (n=10) once

c) Interference Test: The following concentrations will be tested using the Accuracy and Precision test (n=10). The instrument should report Interference at least 80% of the time.

0.01% Acetone in 0.04% EtOH ✓
0.02% Acetone in 0.04% EtOH ✓
0.04% MeOH in 0.08% EtOH ✓
0.04% Isopropanol in 0.08% EtOH ✓

d) Limited Volume Testing:

Retest ↑ 4/21/10 done SH

Target Volume	Flow (lpm)	Time (sec.)	1	2	3	4	5	6	7	Ave.	% s.d.
1.5 L	8.2	11									
	15	6									
	22.5	4									
2.0 L	10	12									
	15	8									
	24	5									

Pressure: _____ Flow rate +/- _____ time +/- _____

Failed to recognize .01 Acetone in .04 EtOH
The detector block was replaced 4/16/10 to allow for new filters. Recalibrated and tested for low level interference: Passed 4/20/10 dcs

RH

Vermont Department of Health Laboratory
195 Colchester Avenue, P.O. Box 1125, Burlington VT 05402-1125
DataMaster Technical Services (ph) 802-863-7641; (fax) 802-863-7632

DATAMASTER TECHNICAL SUPPORT INQUIRY

Agency/Site: VDHL **DataMaster Serial #:** 100134

Date: 04 /16 /2010 Requestor: Drawbaugh

Instrument Supervisor: _____ Phone #: _____

Taken By: Harnois

Problem: Did not pick up acetone in testing

Laboratory Response: filters need replacement to increase sensitivity for interferences.

Work Performed:

SH replaced detector block with one from stock, Calibrated instrument, and ran calibration check on 0.1EtOH. Successfully retested 0.01 Acetone in 0.04 EtOH. Instrument retested all other solutions that had been run prior.

☐ On Site ☒ In-house

Performed By: Steven Harnois Date: 4/20 /2010

Corrected 7/16/10 to say "detector block" rather than "detector" AES

ALC 626 Rev 1 06/07