

Rcd 10/16/19 BMB
Verified 11/7/19 CCB



Airgas USA LLC (LAB)
3500 Bernard Street
St. Louis, Mo. 63103
Ph: (314) 533-3100
Fax: (314) 533-7328

Certificate of Analysis

Customer Name
Exclusive Supplier
Intoximeters, Inc.
2081 Craig Road
St. Louis, Mo 63146

Test Date: 4-Sep-2019

Lot # AG924701 **Model** 108cacc

<u>Exp. Date</u>	<u>Cyl. Type</u>	<u>Component</u>	<u>Certified Concentration</u>
4-Sep-2021	108	Ethanol Nitrogen	0.100 ± 2% BrAC (260 ppm) Balance

Certification Traceable to N.I.S.T. RGM and to CRM Ethanol Standards:

<u>RGM Serial No.</u>	<u>Concentration</u>	<u>RGM Serial No.</u>	<u>Concentration</u>
EB0010581	392.1 ppm	EB0010603	393.0 ppm
EB0010570	259.8 ppm	EB0010559	258.2 ppm
EB0010285	208.0 ppm	EB0010595	208.3 ppm
EB0010561	103.6 ppm	EB0010562	104.2 ppm
EB0010681	52.12 ppm	EB0010579	52.81 ppm

<u>CRM Serial No.</u>	<u>Concentration</u>	<u>CRM Serial No.</u>	<u>Concentration</u>
CC434668	800.0 ppm	0056649	390.1 ppm
CC234503	253.0 ppm	0056662	150.2 ppm

Analytical Method: NDIR

Digitally signed by Quality Control
Date: 2019.09.05 10:26:43 -05:00
Reason: Dry gas standard certification of analysis
Location: Airgas USA LLC (Lab)

Approved for Release: _____

Rod Marsala

ISO 17025:2005 A2LA accredited. Certificate Number 3082.06
ISO 17034:2016 A2LA accredited. Certificate Number 3082.07

SUPERVISOR TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100405

Date: 11/07/2019
 Time: 13:47:00

SUPERVISOR NAME:
 COLLEEN S OBYANT
 OPERATOR'S #: 6237

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.52: 0.099
 TANK PRESSURE: 1175 psi

BLANK TEST	0.000	13:48
INTERNAL STANDARD	VERIFIED	13:48
EXTERNAL STANDARD	0.096	13:48
BLANK TEST	0.000	13:49
EXTERNAL STANDARD	0.096	13:49
BLANK TEST	0.000	13:50
EXTERNAL STANDARD	0.096	13:50
BLANK TEST	0.000	13:51
EXTERNAL STANDARD	0.096	13:51
BLANK TEST	0.000	13:52
EXTERNAL STANDARD	0.096	13:52
BLANK TEST	0.000	13:53

Average = 0.0960
 Std Dev = 0.0000

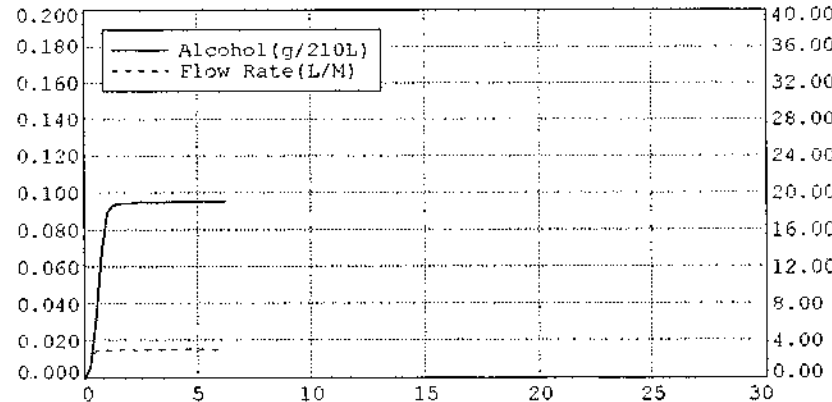
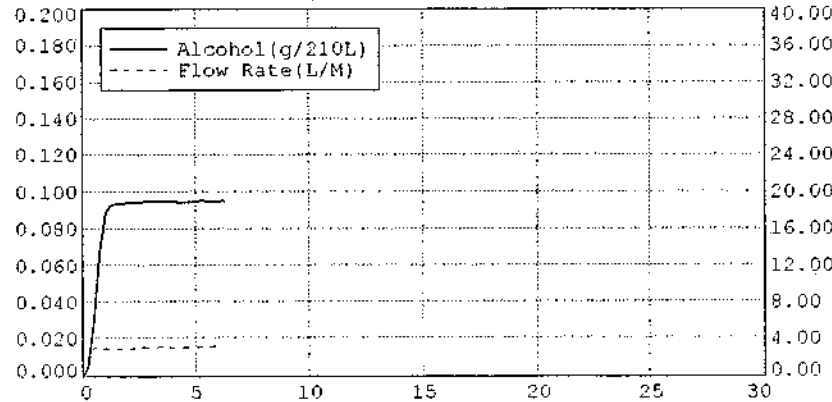
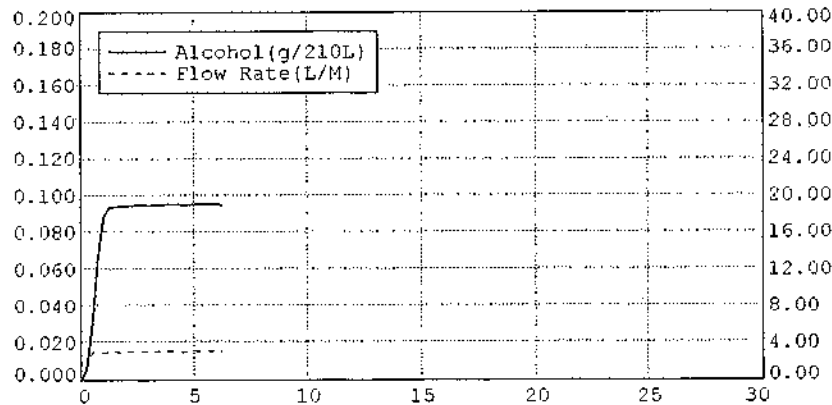
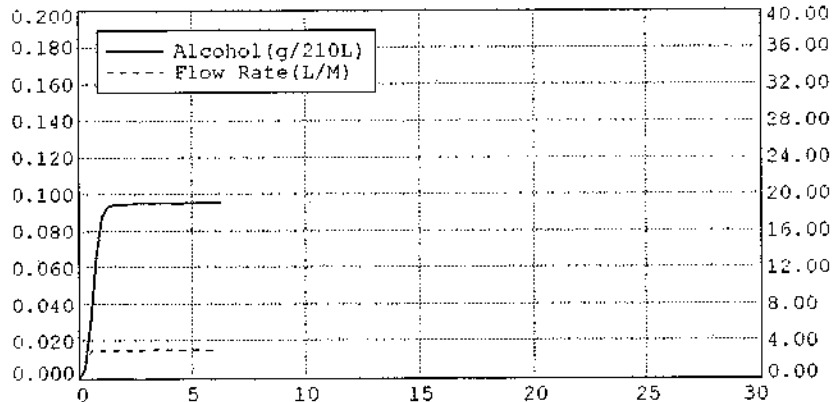
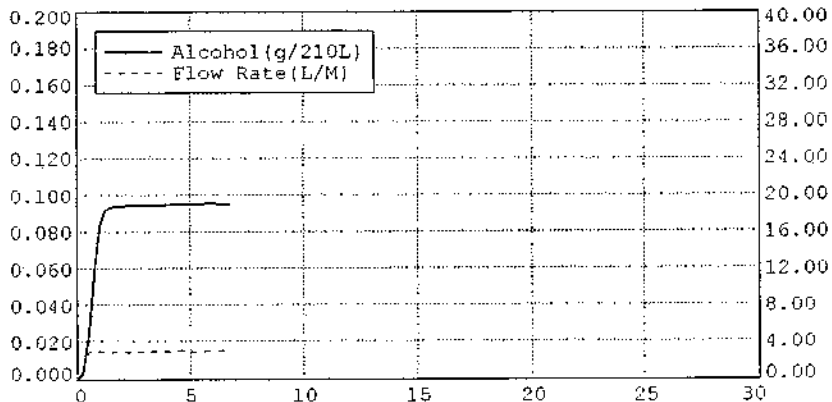
Lot AG 924701

Exp 9/4/21

Tank 042

COB 11/7/19

Average - 0.098



SUPERVISOR TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100671

Date: 11/07/2019
 Time: 14:05:54

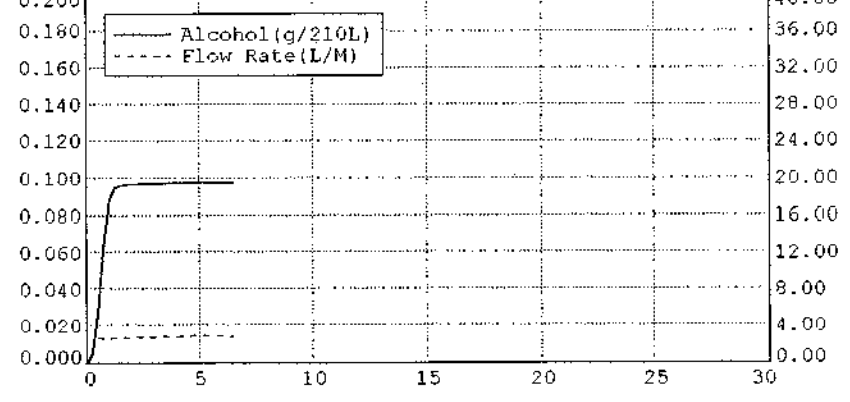
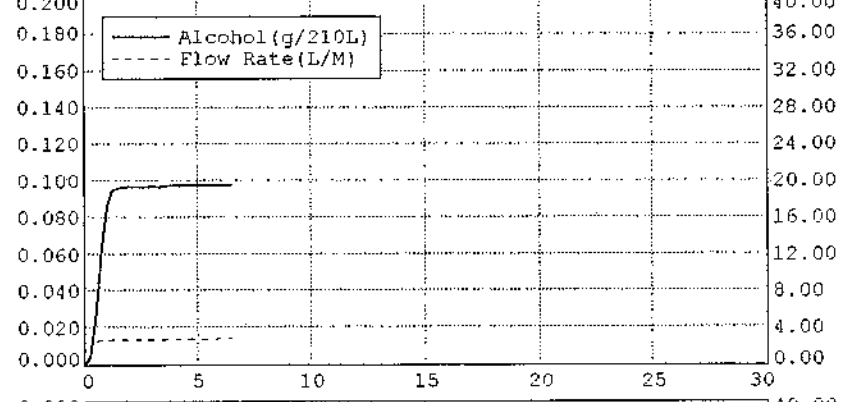
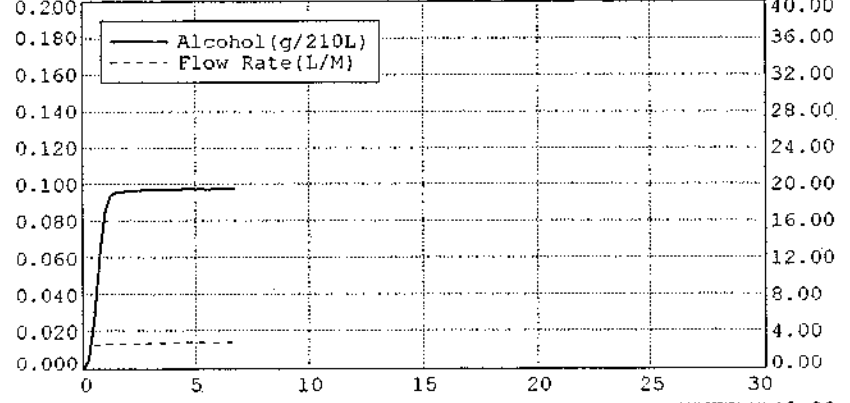
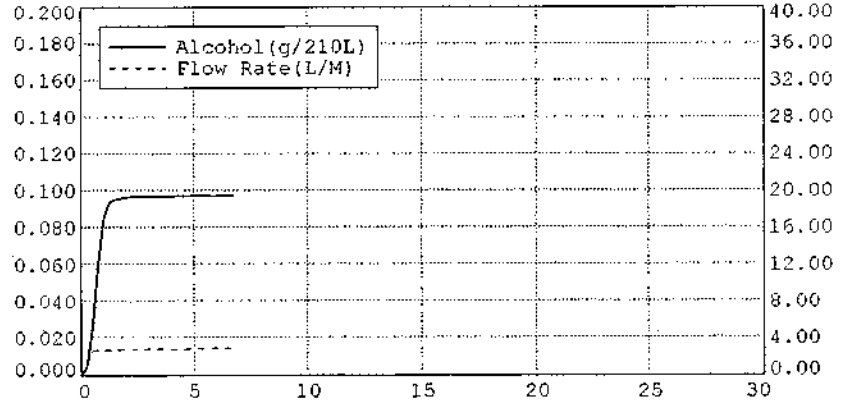
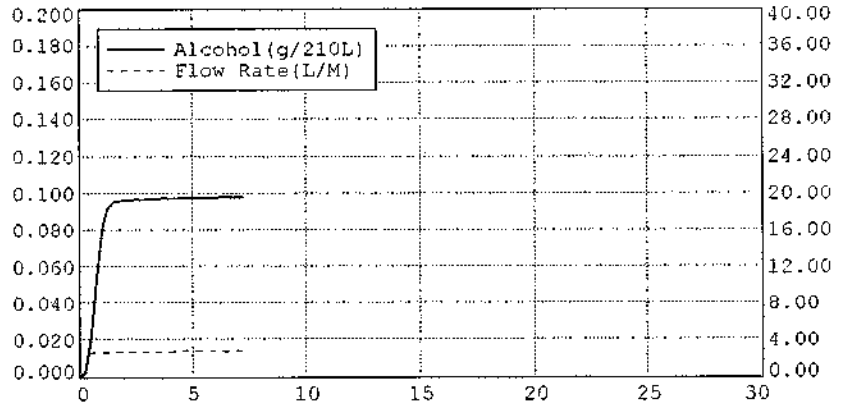
SUPERVISOR NAME:
 COLLEEN S OBRYANT
 OPERATOR'S #: 6237

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.100
 TARGET AT 29.52: 0.099
 TANK PRESSURE: 1166 psi

BLANK TEST	0.000	14:06
INTERNAL STANDARD	VERIFIED	14:07
EXTERNAL STANDARD	0.099	14:07
BLANK TEST	0.000	14:08
EXTERNAL STANDARD	0.098	14:08
BLANK TEST	0.000	14:09
EXTERNAL STANDARD	0.098	14:09
BLANK TEST	0.000	14:10
EXTERNAL STANDARD	0.098	14:10
BLANK TEST	0.000	14:11
EXTERNAL STANDARD	0.099	14:11
BLANK TEST	0.000	14:12

Average = 0.0984
 Std Dev = 0.0005

Lot AG924701
Exp 9/4/21
Tank 042
COB 11/7/19



SUPERVISOR TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 11/07/2019
Time: 15:23:21

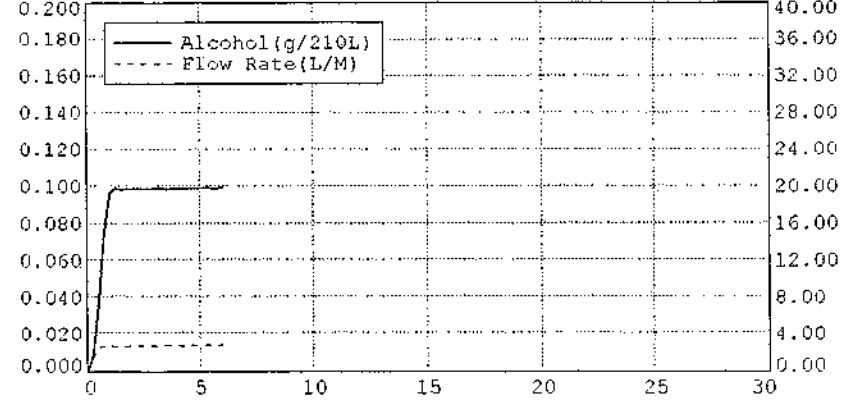
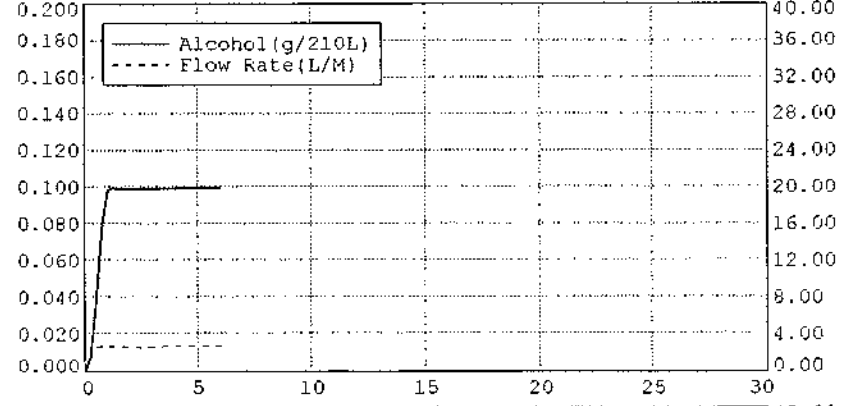
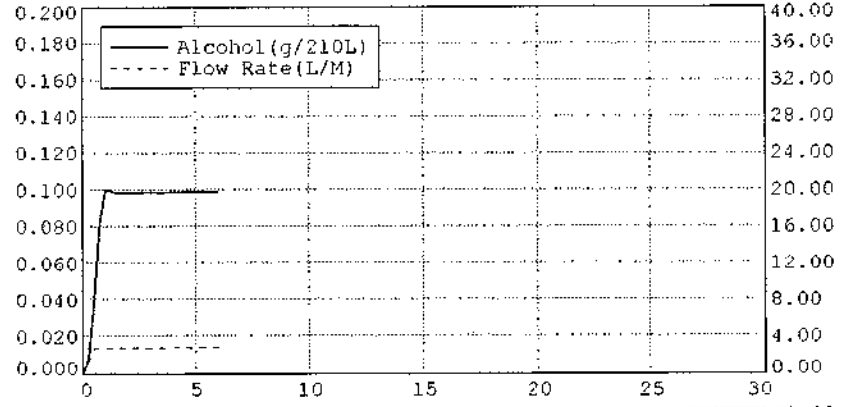
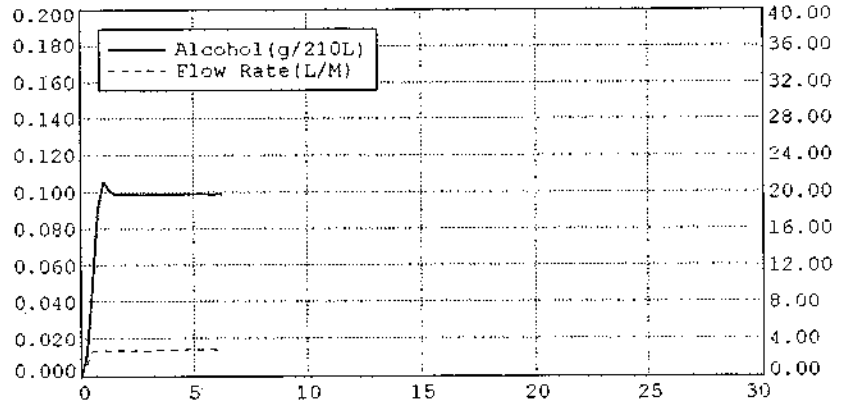
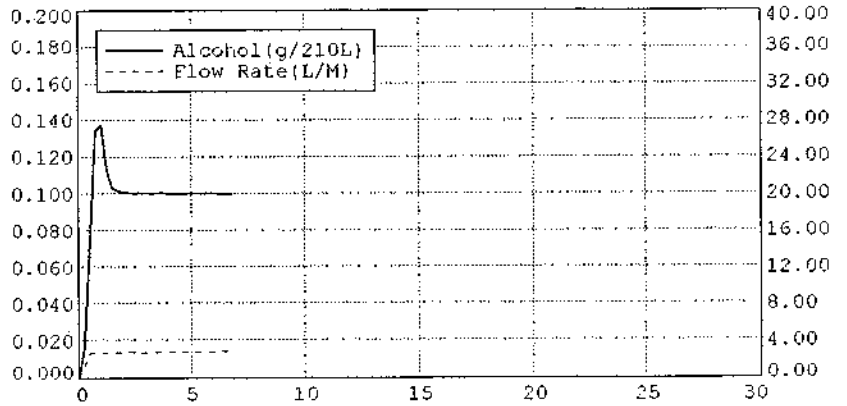
SUPERVISOR NAME:
COLLEEN S OBRYANT
OPERATOR'S #: 6237

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.100
TARGET AT 29.51: 0.099
TANK PRESSURE: 1104 psi

BLANK TEST	0.000	15:24
INTERNAL STANDARD	VERIFIED	15:24
EXTERNAL STANDARD	0.100	15:24
BLANK TEST	0.000	15:25
EXTERNAL STANDARD	0.100	15:25
BLANK TEST	0.000	15:26
EXTERNAL STANDARD	0.099	15:26
BLANK TEST	0.000	15:27
EXTERNAL STANDARD	0.100	15:28
BLANK TEST	0.000	15:28
EXTERNAL STANDARD	0.099	15:29
BLANK TEST	0.000	15:30

Average = 0.0996
Std Dev = 0.0005

Lot AG 924701
Exp 9/4/21
Tank 042
COB # 11/7/19
CYS
11/7/19



SUPERVISOR TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100405

Date: 11/07/2019
 Time: 13:37:40

SUPERVISOR NAME:
 COLLEEN S OBRYANT
 OPERATOR'S #: 6237

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.53: 0.099
 TANK PRESSURE: 1203 psi

BLANK TEST	0.000	13:39
INTERNAL STANDARD	VERIFIED	13:39
EXTERNAL STANDARD	0.096	13:39
BLANK TEST	0.000	13:40
EXTERNAL STANDARD	0.096	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.096	13:41
BLANK TEST	0.000	13:42
EXTERNAL STANDARD	0.096	13:42
BLANK TEST	0.000	13:43
EXTERNAL STANDARD	0.096	13:44
BLANK TEST	0.000	13:44

Average = 0.0960
 Std Dev = 0.0000

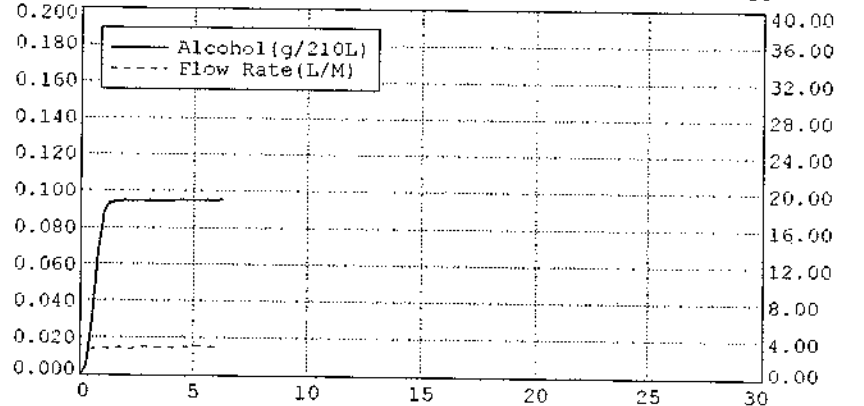
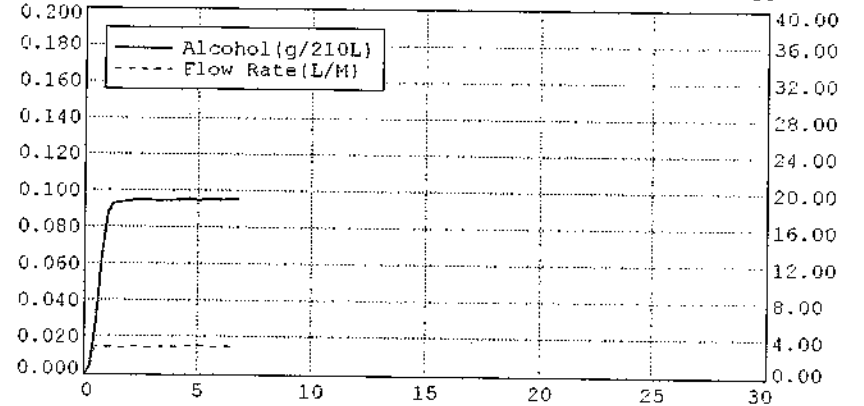
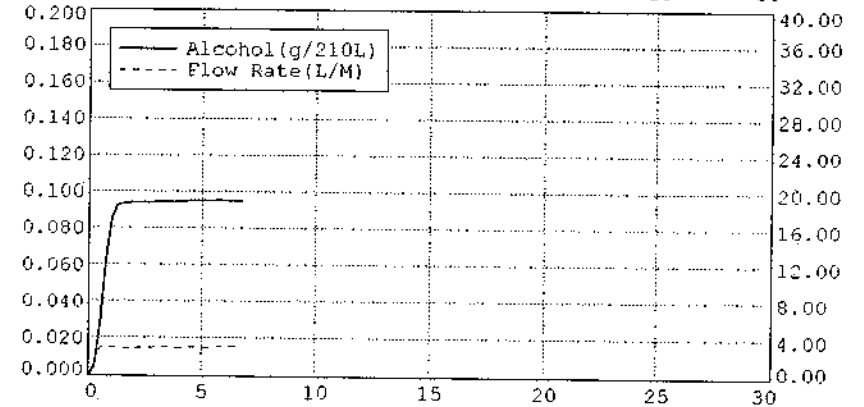
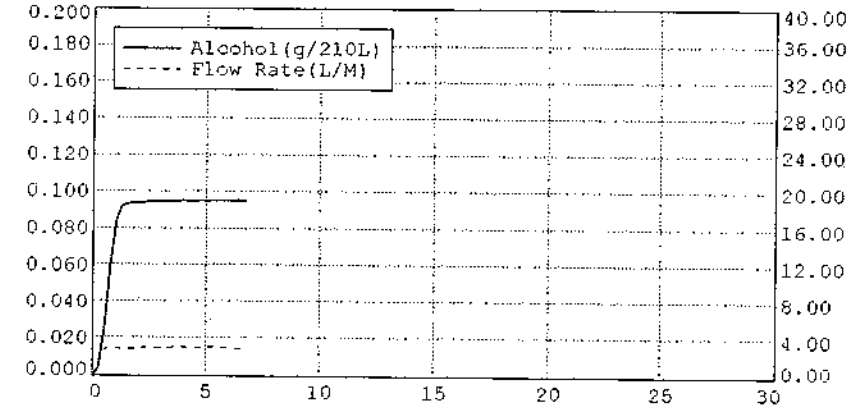
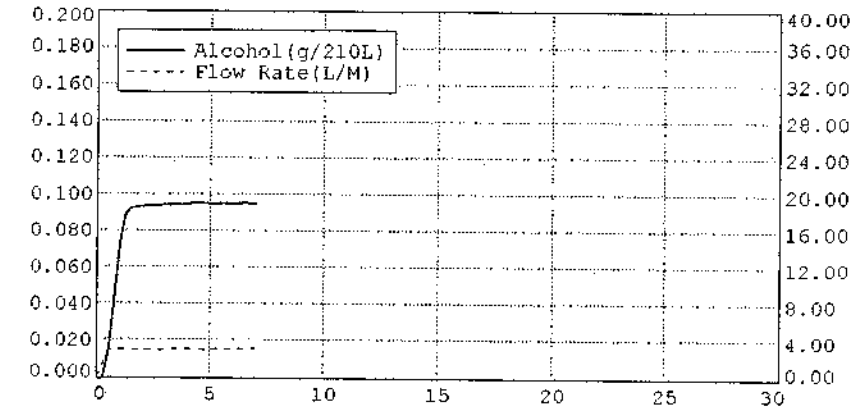
Lot AG 924701

Exp 9/4/21

Tank 044

CSB 11/7/19

Average - 0.098



SUPERVISOR TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100353

Date: 11/07/2019
 Time: 14:37:05

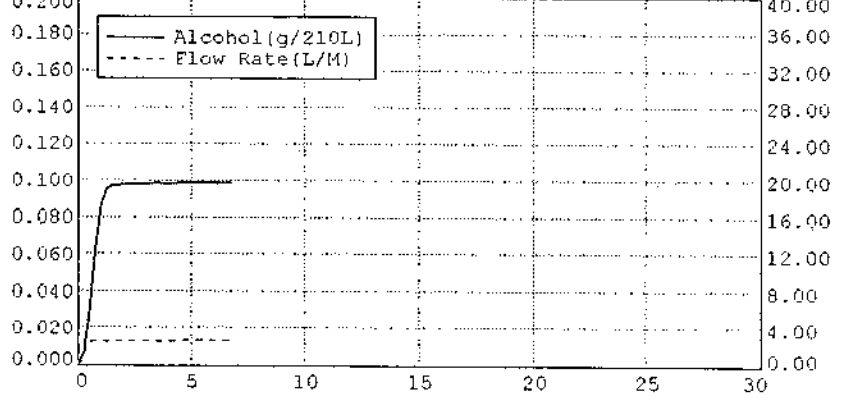
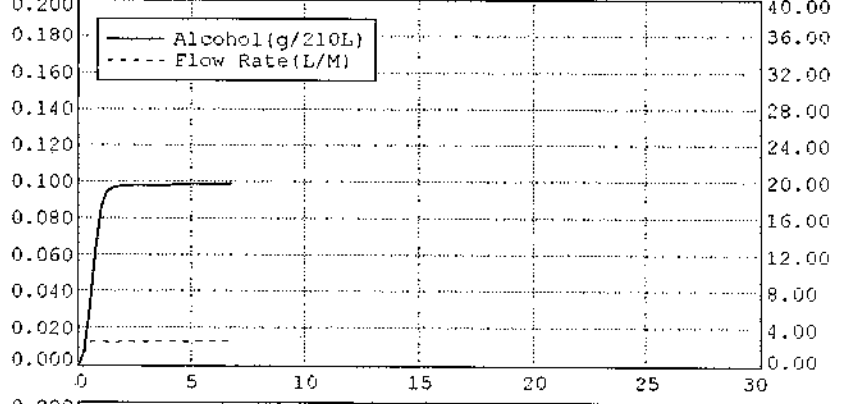
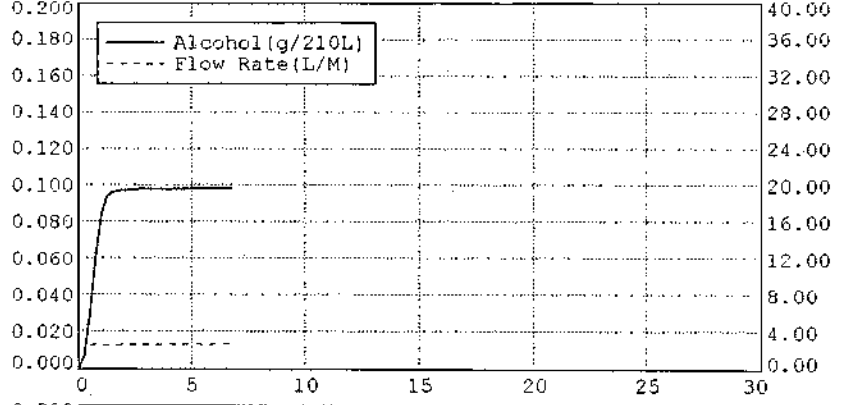
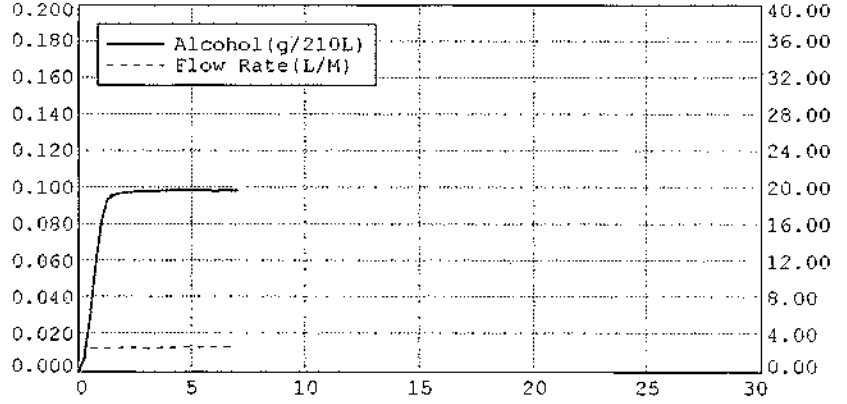
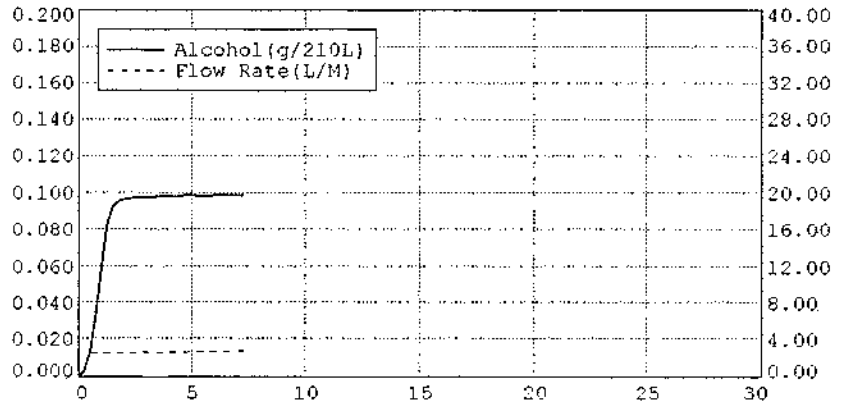
SUPERVISOR NAME:
 COLLEEN S OBYRANT
 OPERATOR'S #: 6237

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.100
 TARGET AT 29.51: 0.099
 TANK PRESSURE: 1219 psi

BLANK TEST	0.000	14:38
INTERNAL STANDARD	VERIFIED	14:38
EXTERNAL STANDARD	0.100	14:38
BLANK TEST	0.000	14:39
EXTERNAL STANDARD	0.099	14:39
BLANK TEST	0.000	14:40
EXTERNAL STANDARD	0.099	14:40
BLANK TEST	0.000	14:41
EXTERNAL STANDARD	0.099	14:41
BLANK TEST	0.000	14:42
EXTERNAL STANDARD	0.099	14:42
BLANK TEST	0.000	14:43

Average = 0.0992
 Std Dev = 0.0004

*Lot AG924701
 Exp 9/4/21
 Tank 044
 COB 11/7/19*



SUPERVISOR TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100671

Date: 11/07/2019
Time: 13:57:19

SUPERVISOR NAME:
COLLEEN S OBRYANT
OPERATOR'S #: 6237

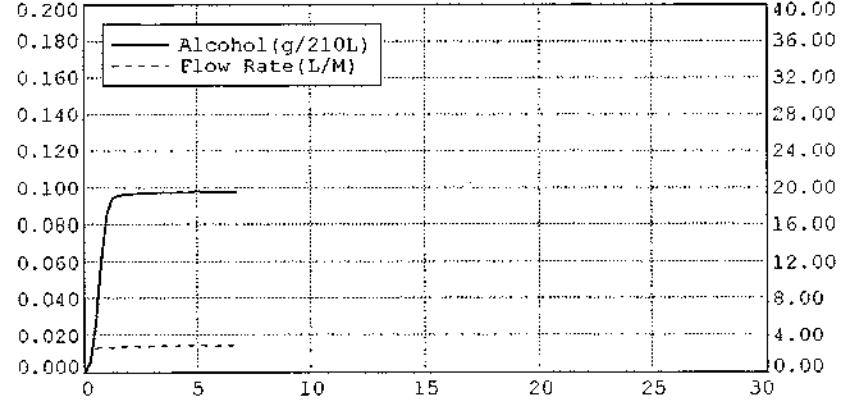
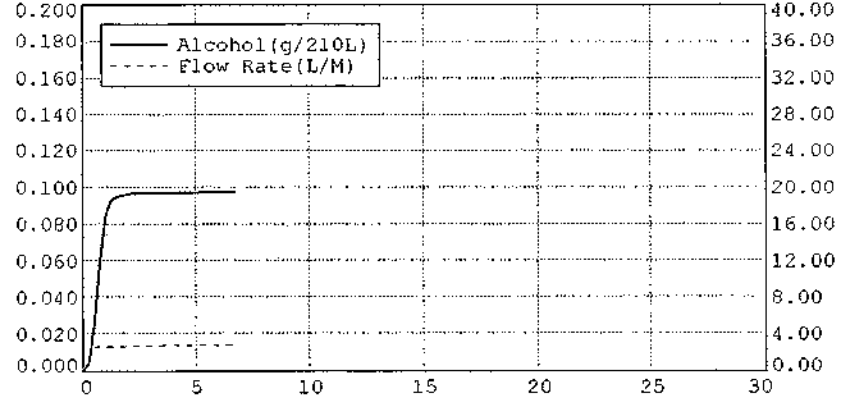
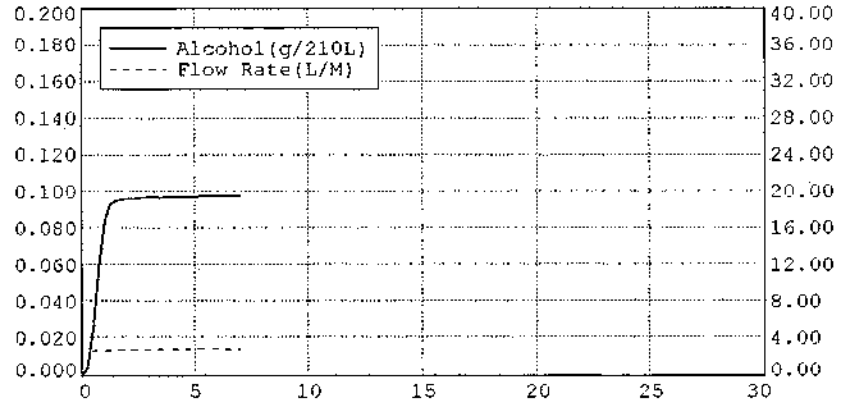
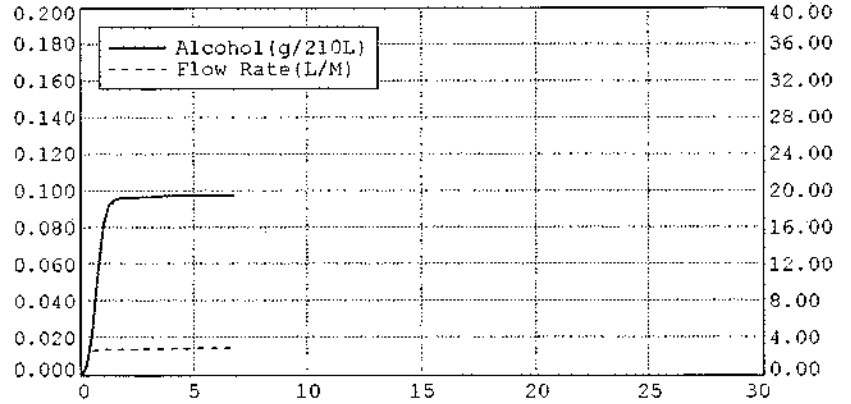
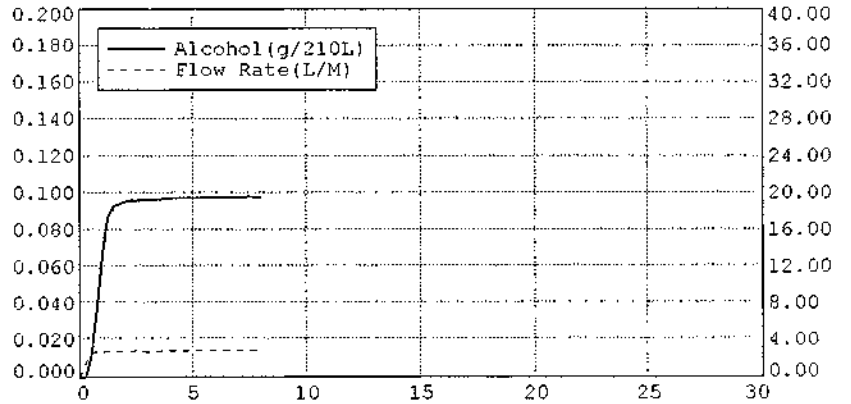
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
TARGET AT 29.52: 0.099
TANK PRESSURE: 1189 psi

BLANK TEST	0.000	13:58
INTERNAL STANDARD	VERIFIED	13:58
EXTERNAL STANDARD	0.098	13:58
BLANK TEST	0.000	13:59
EXTERNAL STANDARD	0.098	14:00
BLANK TEST	0.000	14:00
EXTERNAL STANDARD	0.098	14:01
BLANK TEST	0.000	14:02
EXTERNAL STANDARD	0.098	14:02
BLANK TEST	0.000	14:03
EXTERNAL STANDARD	0.099	14:03
BLANK TEST	0.000	14:04

Average = 0.0982
Std Dev = 0.0004

*Lot AG 924701
Exp 9/4/21
Tank 044
CSB 11/7/19*



DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 11/07/2019
Time: 11:57:43

VERSIONS
DMT: 3.02
PIC: 3.02
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 49.1°C PASSED
Breath Tube = 48.1°C PASSED

PUMP INFO
Flow Rate = 5.018 L/M PASSED

DETECTOR INFO
PUMP ON PASSED
PUMP OFF PASSED

FILTER INFO
Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD PASSED

In-house QA

• 100353

• 100405

• 100671

003 11/7/19

Technician Screen

DATAMASTER dmt: 100353

Date: 11/07/2019

Time: 12:01 PM

Temperatures (°C)

Sample Cell: 48.7°C

Breath Tube: 48.1°C

Current Barometer 29.5 in

Volume (Ltr) 0.00

Settings

Lamp: 2.31 V

Bias: 79 V

Cooler: 1.90 V

Chopper: 536 Hz

Voltages (V)

Flow: 1.06 V

Detector: 0.079 V

LINEARITY CHECK

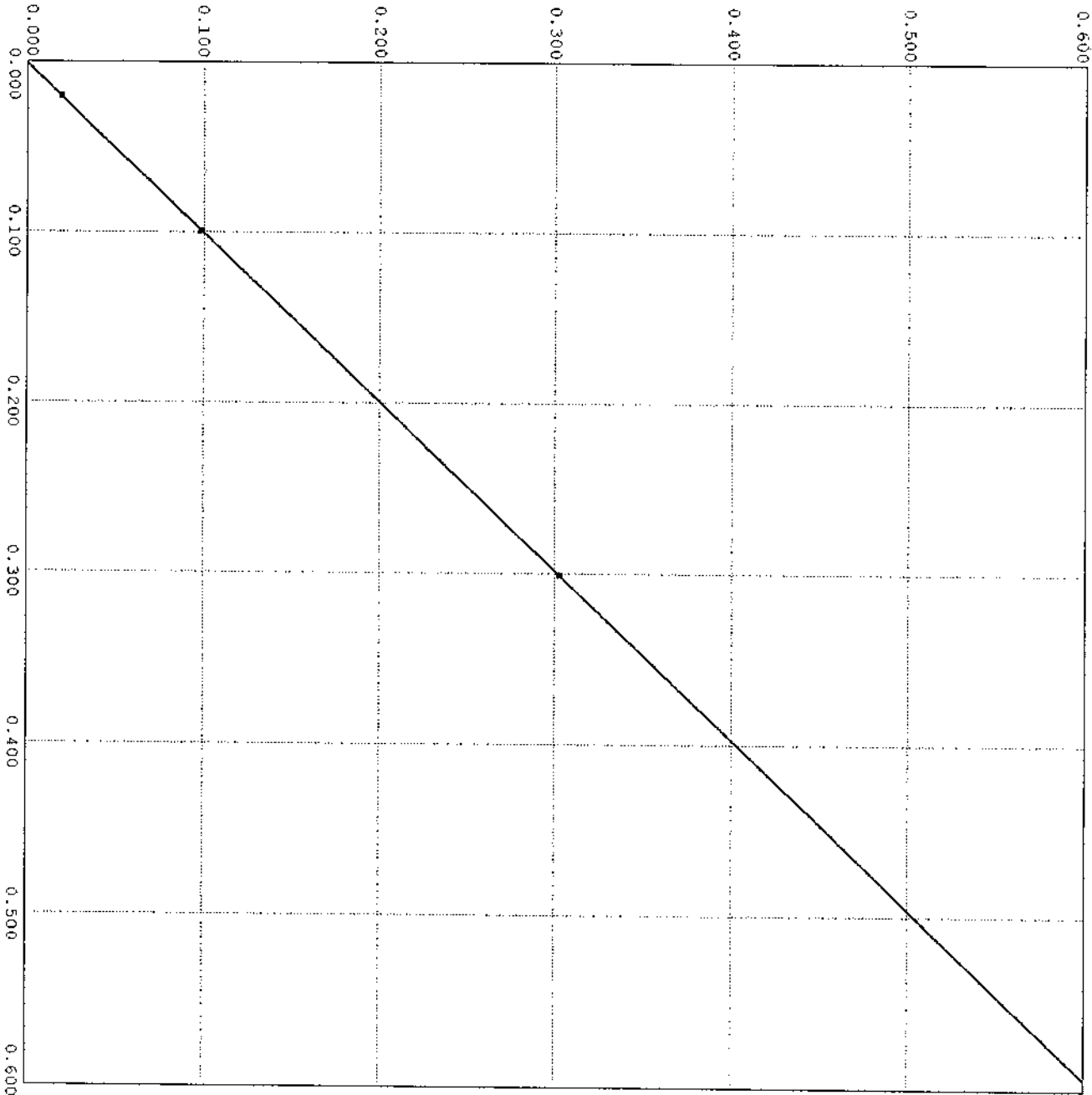
Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 11/07/2019
Time: 13:26:42

SUPERVISOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.099	0.0992	0.0004
0.300	0.3032	0.0008

SLOPE = 1.012114
R² = 0.999993



CM

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100353

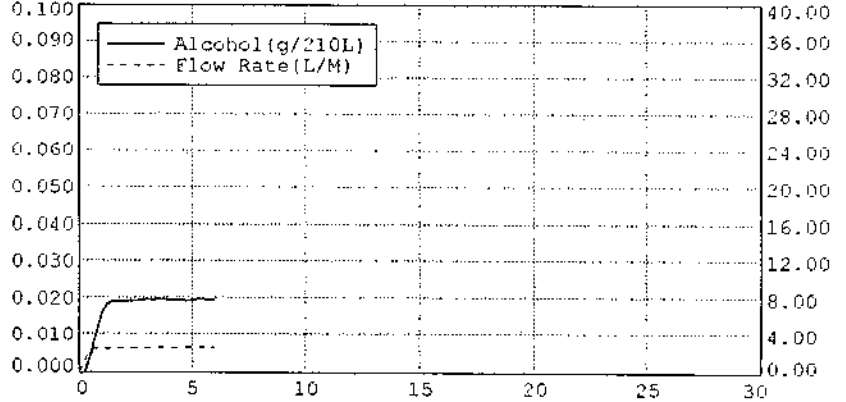
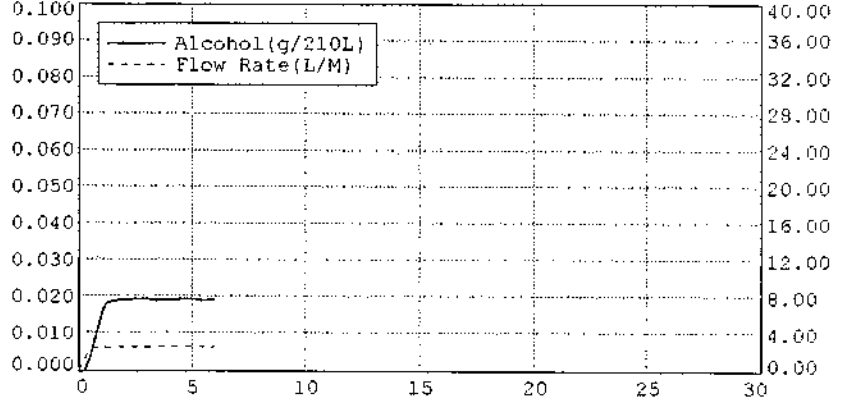
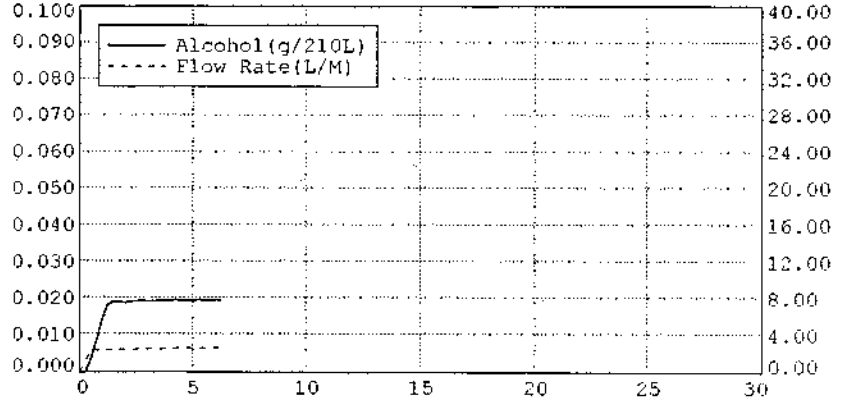
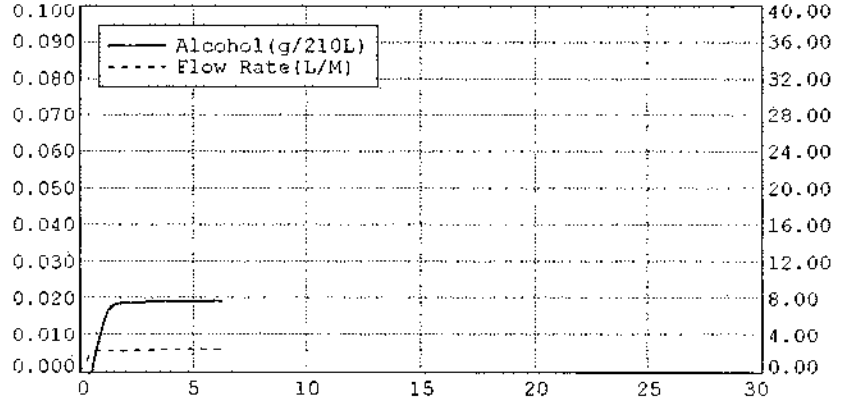
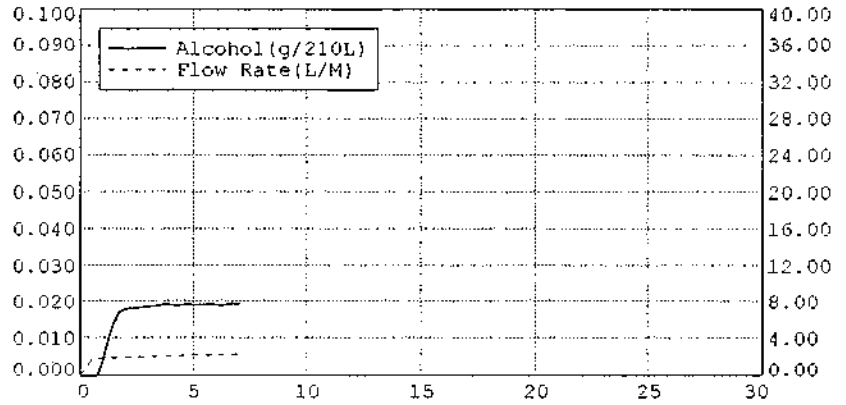
Date: 11/07/2019
Time: 13:26:44

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 29.52: 0.020
LOT #: AG805804
EXPIRATION: 02/27/2020
TANK PRESSURE: 423 psi

BLANK TEST	0.000	13:28
INTERNAL STANDARD	VERIFIED	13:28
EXTERNAL STANDARD	0.020	13:28
BLANK TEST	0.000	13:29
EXTERNAL STANDARD	0.020	13:29
BLANK TEST	0.000	13:30
EXTERNAL STANDARD	0.020	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.020	13:31
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.020	13:32
BLANK TEST	0.000	13:33

Average = 0.0200
Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100353

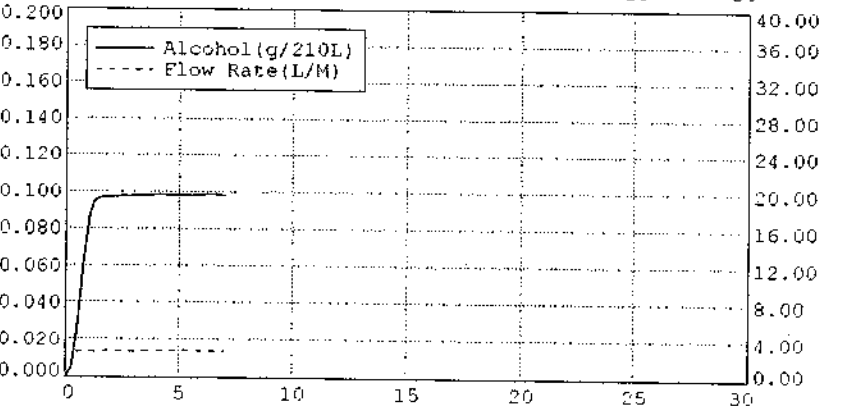
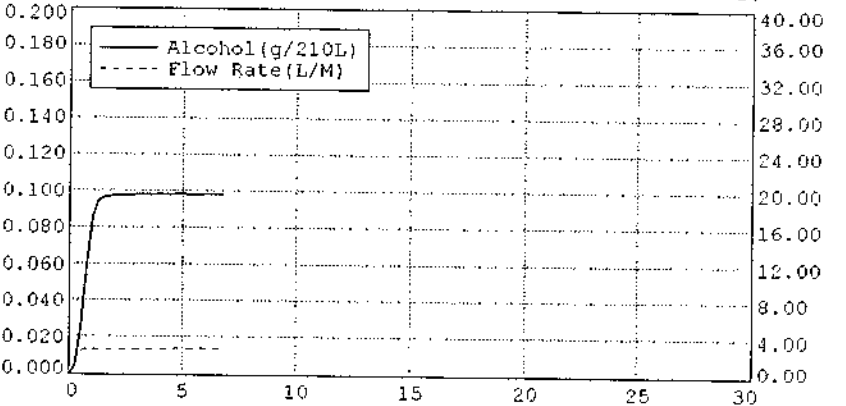
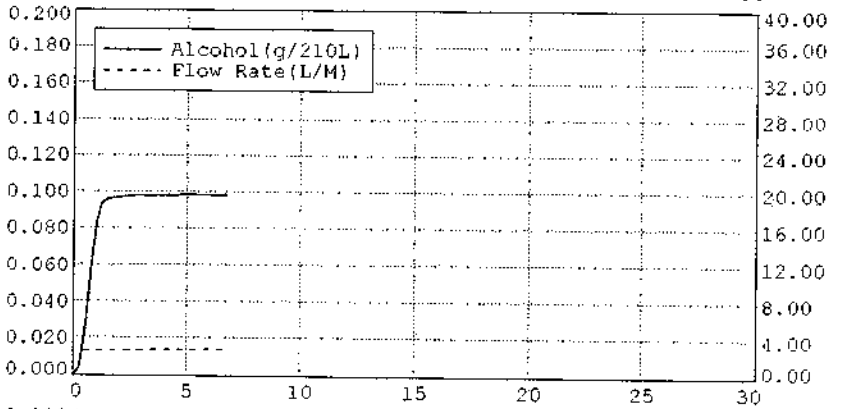
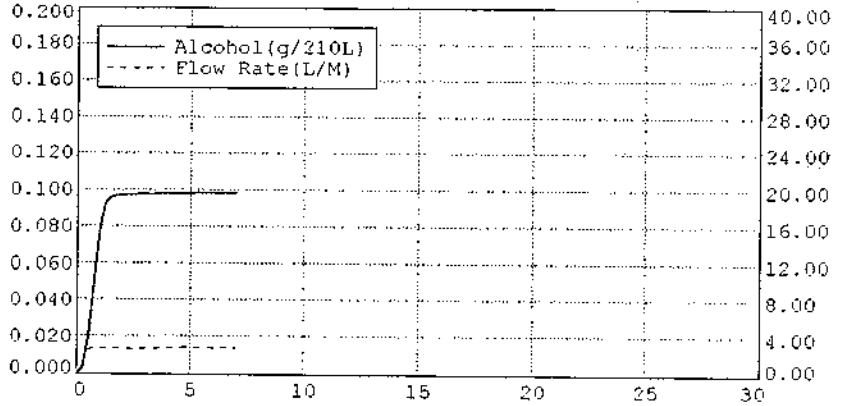
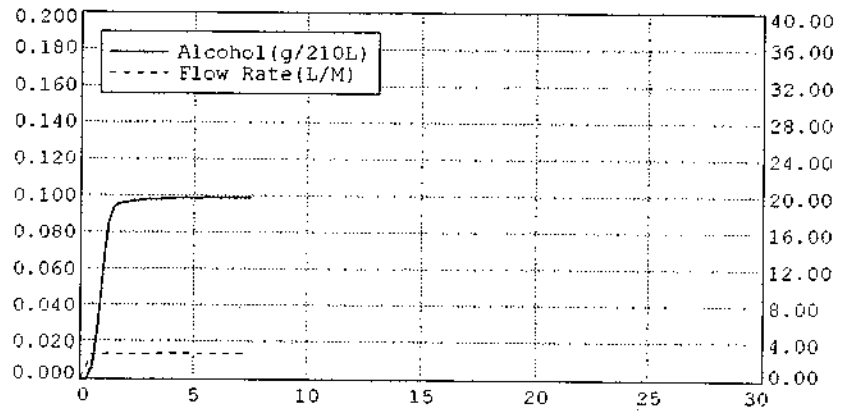
Date: 11/07/2019
 Time: 13:35:03

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.51: 0.099
 LOT #: ACC805903 ~~11/03/19~~ AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 857 psi

BLANK TEST	0.000	13:36
INTERNAL STANDARD	VERIFIED	13:36
EXTERNAL STANDARD	0.100	13:36
BLANK TEST	0.000	13:37
EXTERNAL STANDARD	0.099	13:38
BLANK TEST	0.000	13:39
EXTERNAL STANDARD	0.099	13:39
BLANK TEST	0.000	13:40
EXTERNAL STANDARD	0.099	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.099	13:41
BLANK TEST	0.000	13:42

Average = 0.0992
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100353

Date: 11/07/2019
 Time: 13:47:05

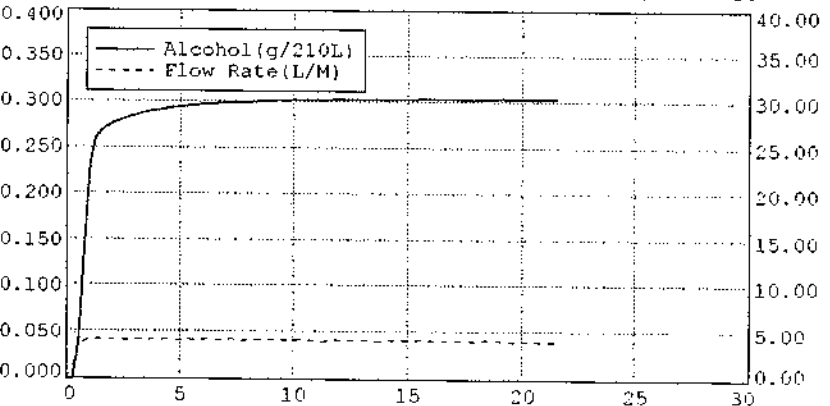
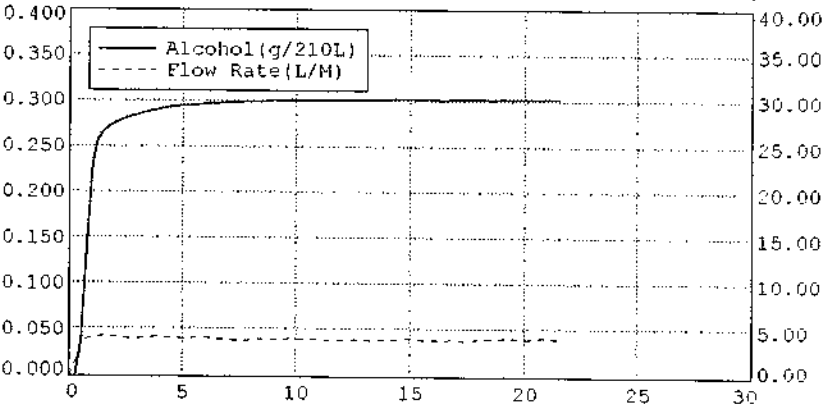
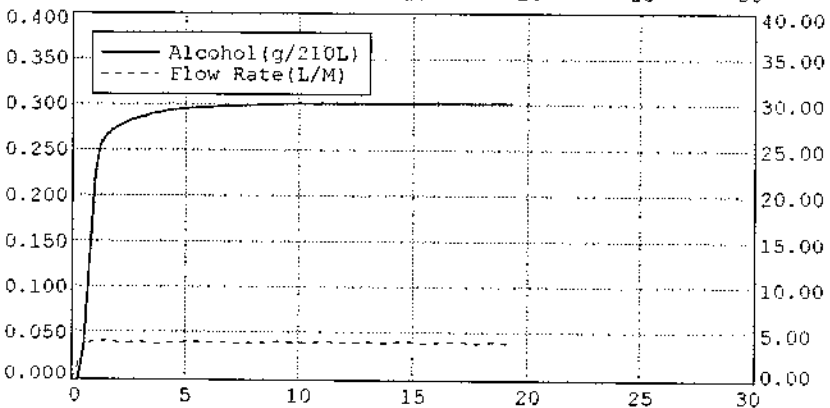
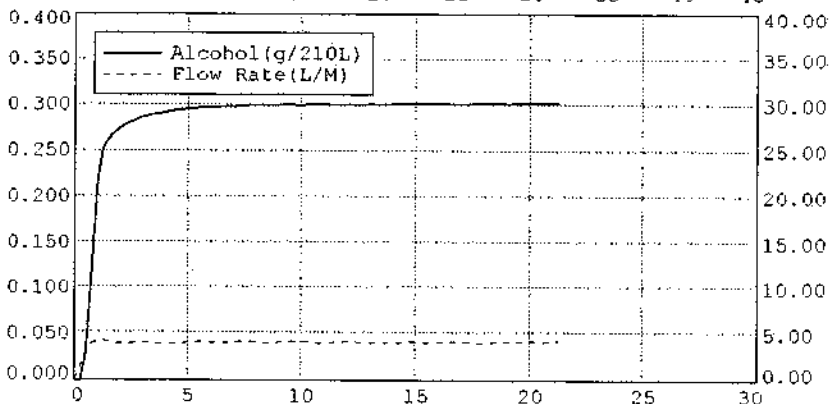
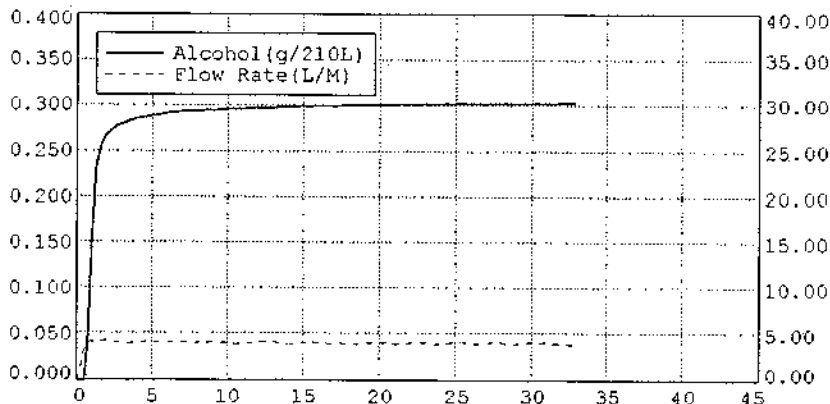
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 19010
 EXPIRATION: 01/03/2021

BLANK TEST	0.000	13:48
INTERNAL STANDARD	VERIFIED	13:48
EXTERNAL STANDARD	0.304	13:48
BLANK TEST	0.000	13:49
EXTERNAL STANDARD	0.302	13:50
BLANK TEST	0.000	13:51
EXTERNAL STANDARD	0.303	13:51
BLANK TEST	0.000	13:52
EXTERNAL STANDARD	0.303	13:53
BLANK TEST	0.000	13:54
EXTERNAL STANDARD	0.304	13:54
BLANK TEST	0.000	13:55

Average = 0.3032
 Std Dev = 0.0008

*Simulator SD1088
 calibrated 3/5/19
 COB 11/7/19*



DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 11/07/2019
Time: 10:48:11

VERSIONS

DMT: 3.02
PIC: 3.02
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C PASSED
Breath Tube = 45.9°C PASSED

PUMP INFO

Flow Rate = 5.045 L/M PASSED

DETECTOR INFO

PUMP ON PASSED
PUMP OFF PASSED

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD PASSED

Technician Screen

DATAMASTER dmt: 100405

Date: 11/07/2019
Time: 10:52 AM

Temperatures (°C)
Sample Cell: 48.7°C
Breath Tube: 45.6°C

Current Barometer 29.5 in
Volume (Ltr) 0.00

Settings
Lamp: 1.75 V
Bias: 81 V
Cooler: 1.71 V
Chopper: 527 Hz

Voltages (V)
Flow: 1.05 V
Detector: 0.035 V

LINEARITY CHECK

Alaska Department of Public Safety
DATAMASTER dmt: 100405

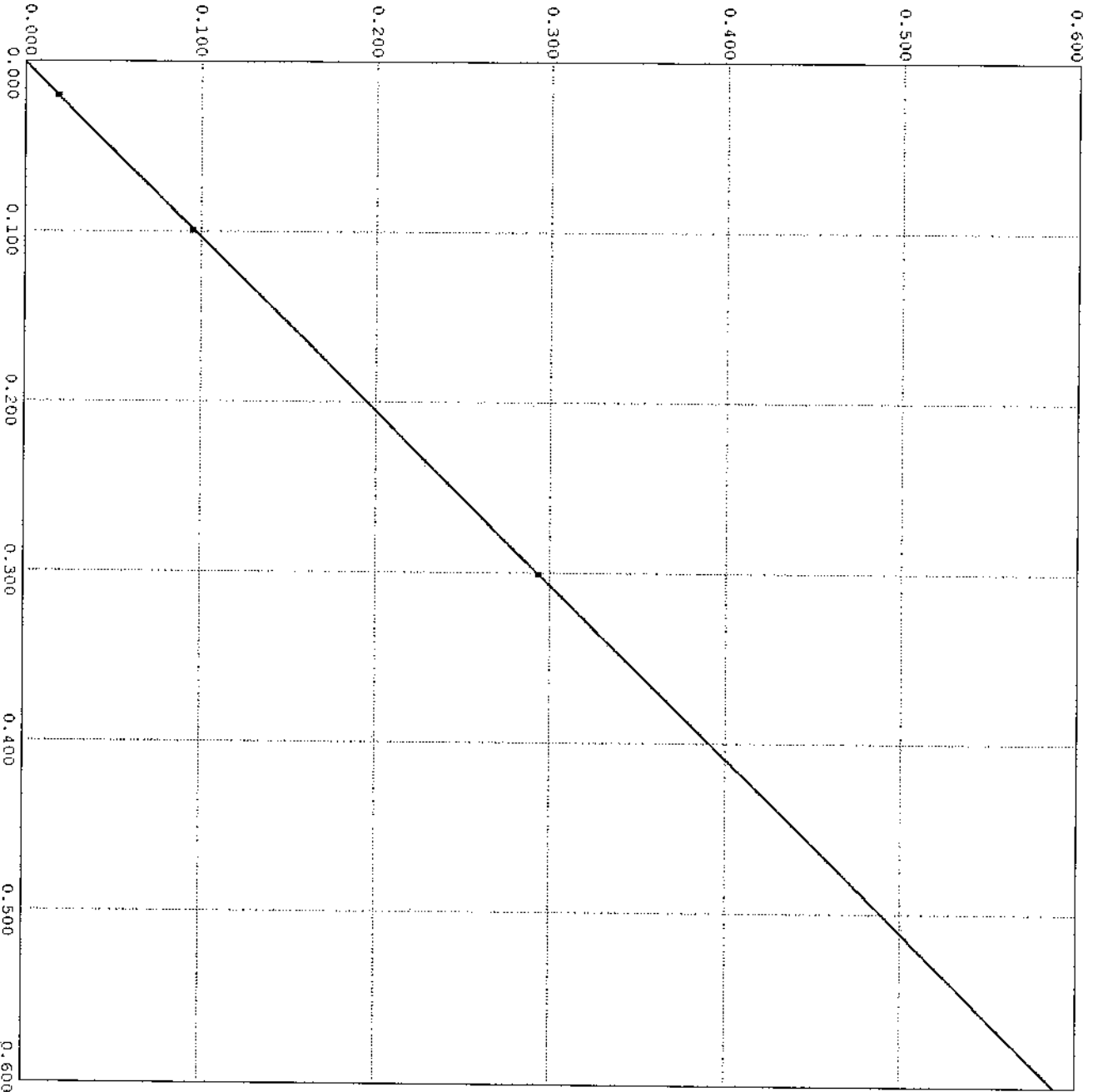
Date: 11/07/2019
Time: 12:18:27

SUPERVISOR NAME:
COLLEEN S O'BRYEN
OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.020	0.0196	0.0005
0.099	0.0962	0.0004
0.300	0.2942	0.0004

SLOPE = 0.981569
R² = 0.999388

C103



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100405

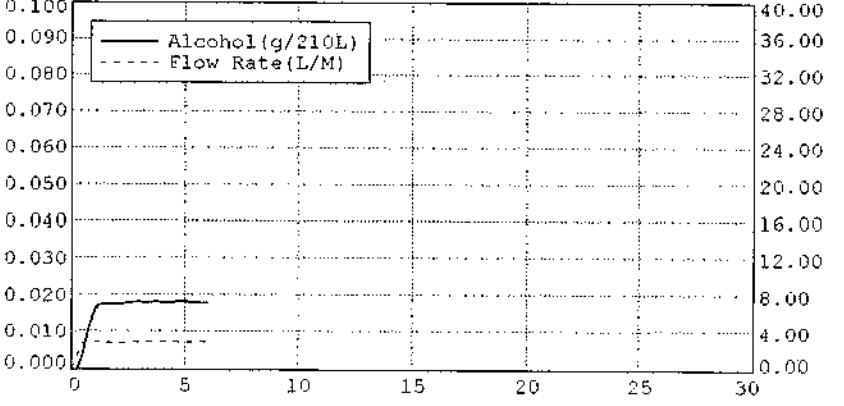
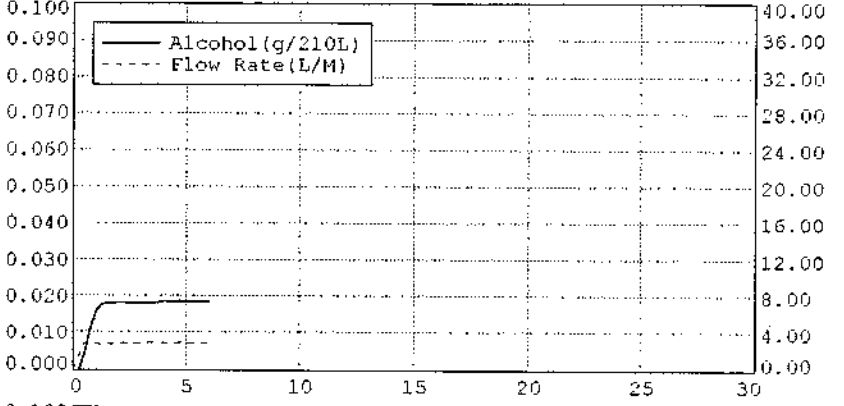
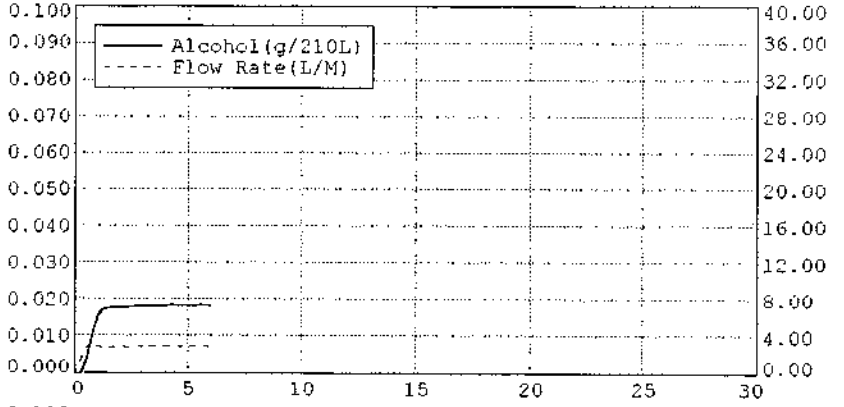
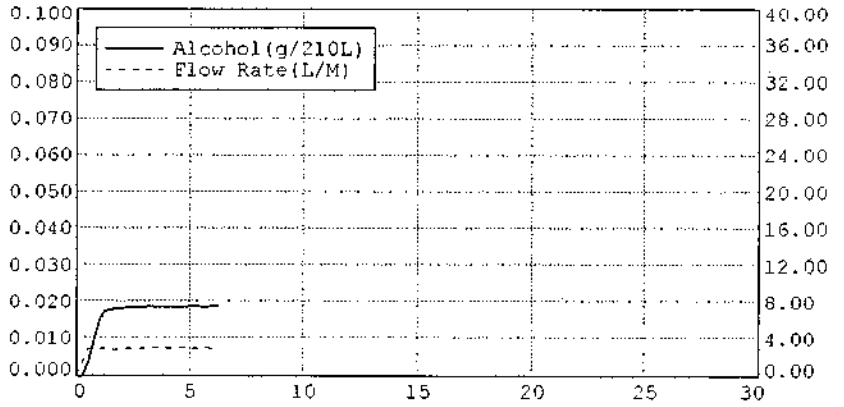
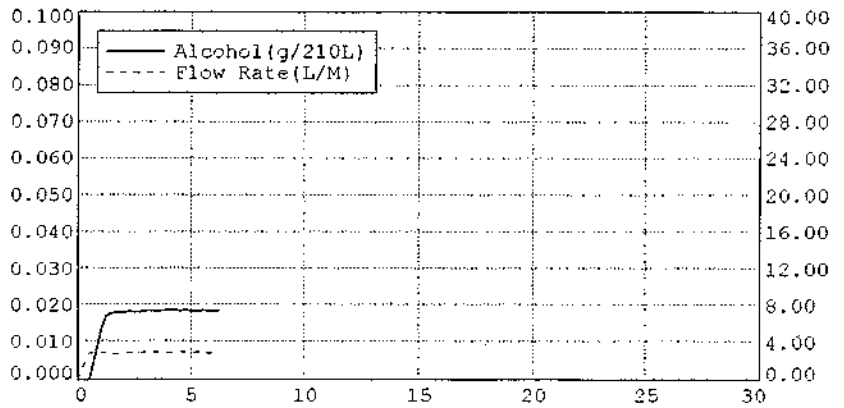
Date: 11/07/2019
 Time: 12:18:28

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.52: 0.020
 LOT #: AG805804
 EXPIRATION: 02/27/2020
 TANK PRESSURE: 402 psi

BLANK TEST	0.000	12:26
INTERNAL STANDARD	VERIFIED	12:26
EXTERNAL STANDARD	0.020	12:27
BLANK TEST	0.000	12:27
EXTERNAL STANDARD	0.020	12:28
BLANK TEST	0.000	12:29
EXTERNAL STANDARD	0.019	12:29
BLANK TEST	0.000	12:30
EXTERNAL STANDARD	0.020	12:30
BLANK TEST	0.000	12:31
EXTERNAL STANDARD	0.019	12:31
BLANK TEST	0.000	12:32

Average = 0.0196
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100405

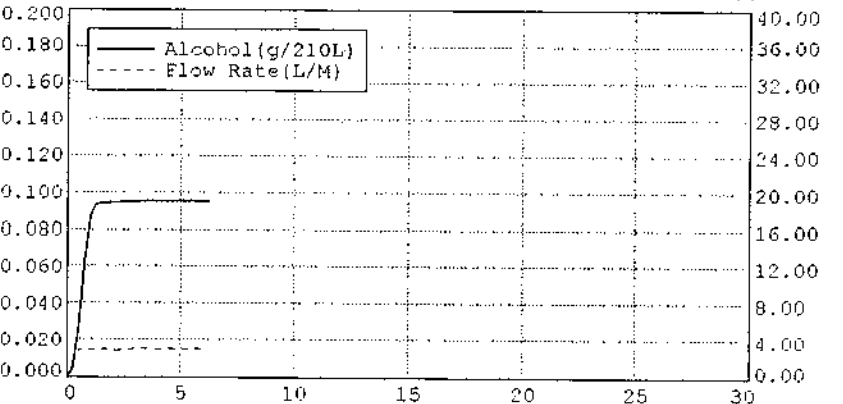
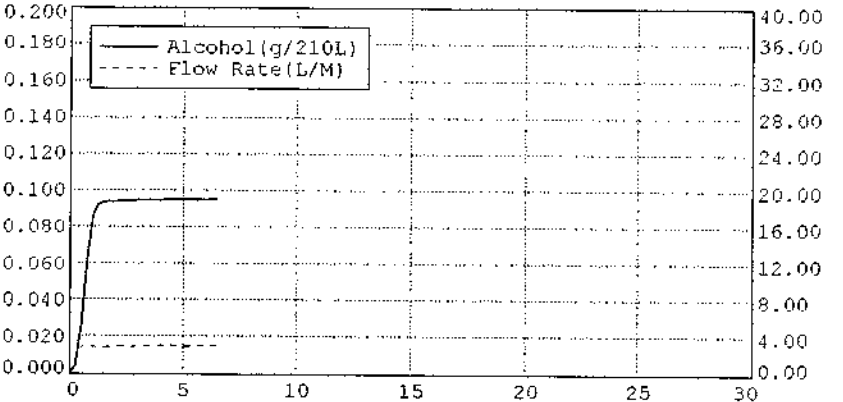
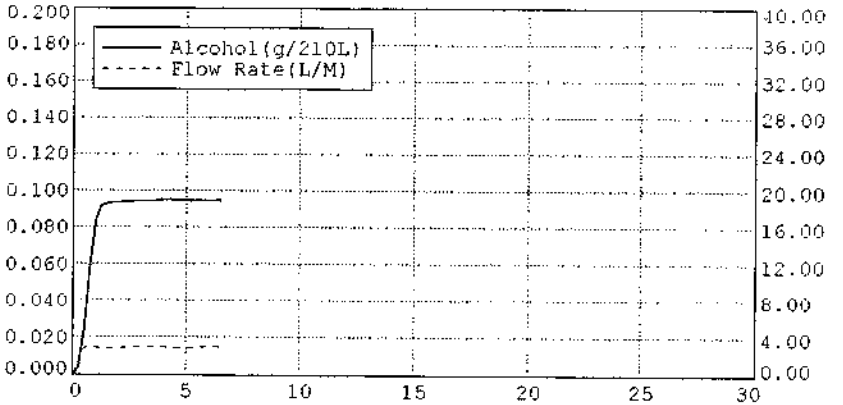
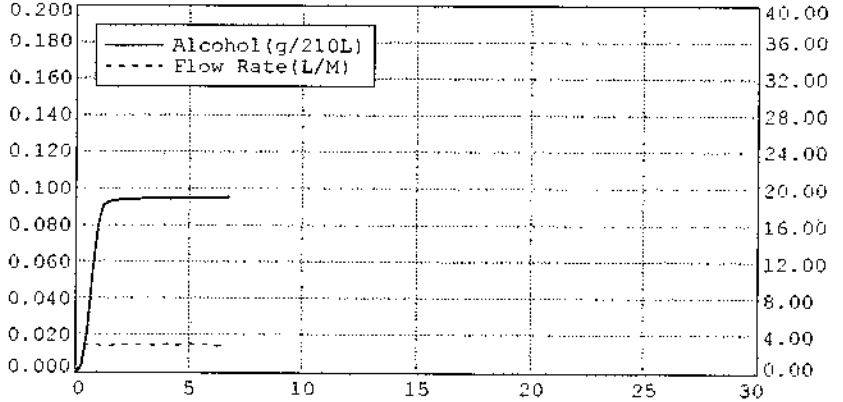
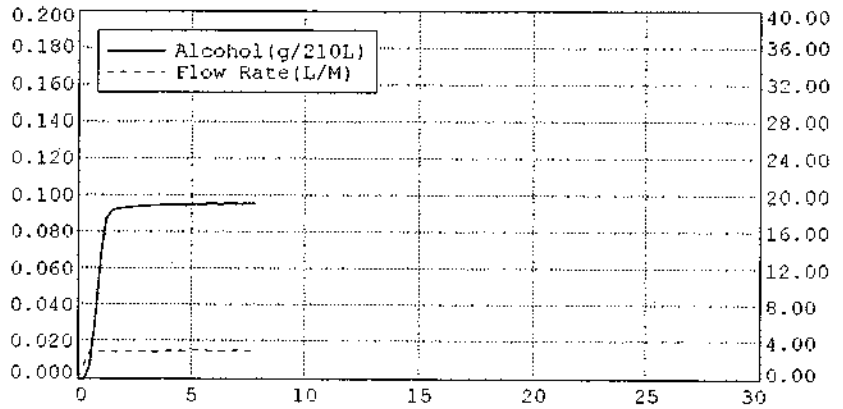
Date: 11/07/2019
 Time: 12:36:43

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.52: 0.099
 LOT #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 832 psi

BLANK TEST	0.000	12:37
INTERNAL STANDARD	VERIFIED	12:37
EXTERNAL STANDARD	0.097	12:38
BLANK TEST	0.000	12:39
EXTERNAL STANDARD	0.096	12:39
BLANK TEST	0.000	12:40
EXTERNAL STANDARD	0.096	12:40
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.096	12:41
BLANK TEST	0.000	12:42
EXTERNAL STANDARD	0.096	12:42
BLANK TEST	0.000	12:43

Average = 0.0962
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100405

Date: 11/07/2019
 Time: 12:45:38

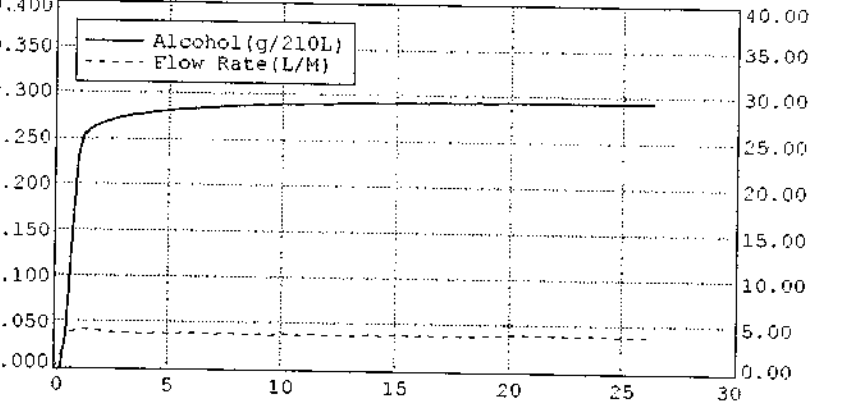
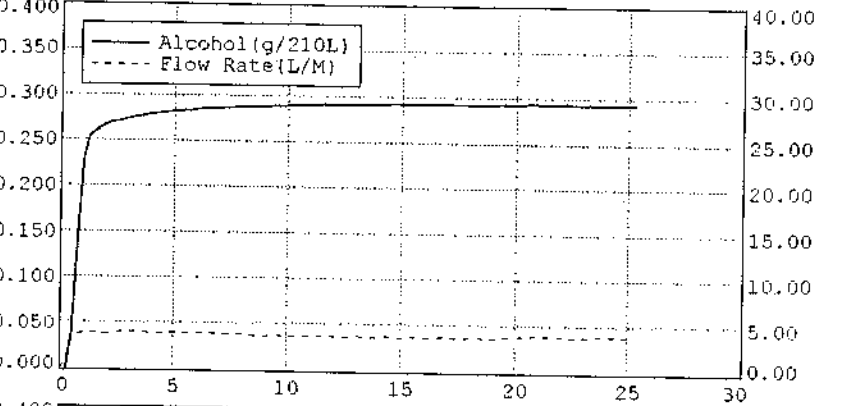
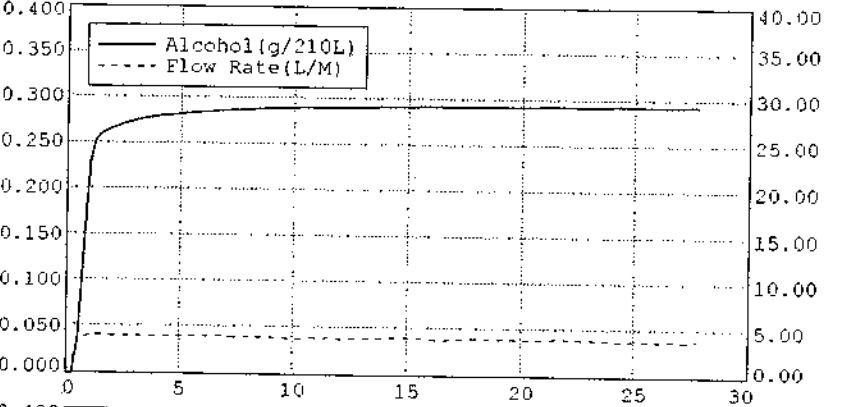
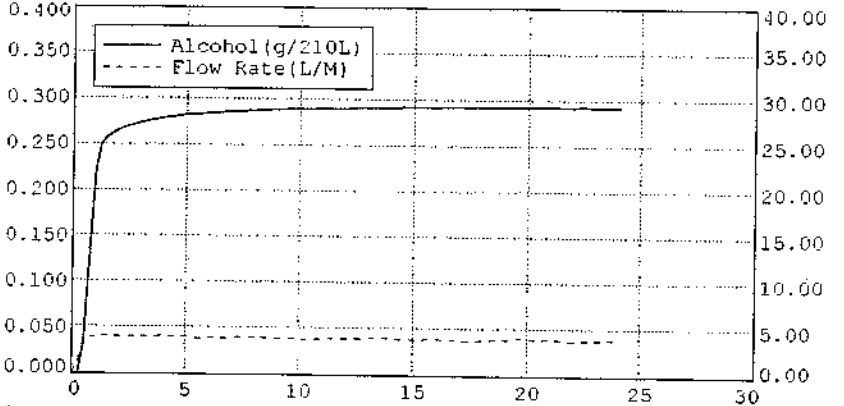
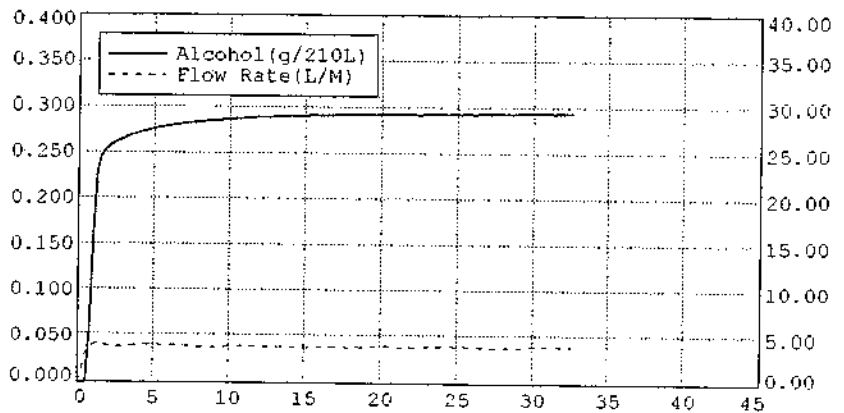
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 19010
 EXPIRATION: 01/03/2021

BLANK TEST	0.000	12:47
INTERNAL STANDARD	VERIFIED	12:47
EXTERNAL STANDARD	0.295	12:48
BLANK TEST	0.000	12:49
EXTERNAL STANDARD	0.294	12:49
BLANK TEST	0.000	12:50
EXTERNAL STANDARD	0.294	12:51
BLANK TEST	0.000	12:51
EXTERNAL STANDARD	0.294	12:52
BLANK TEST	0.000	12:53
EXTERNAL STANDARD	0.294	12:53
BLANK TEST	0.000	12:54

Average = 0.2942
 Std Dev = 0.0004

*Simulator SD1088
 calibrated 3/5/19
 COB 11/7/19*



DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100671

Date: 11/07/2019
Time: 10:57:12

VERSIONS

DMT: 3.02
PIC: 3.03
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C PASSED
Breath Tube = 46.9°C PASSED

PUMP INFO

Flow Rate = 4.719 L/M PASSED

DETECTOR INFO

PUMP ON PASSED
PUMP OFF PASSED

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD PASSED

Technician Screen

DATAMASTER dmt: 100671

Date: 11/07/2019
Time: 11:01 AM

Temperatures (°C)

Sample Cell: 48.9°C
Breath Tube: 47.1°C

Current Barometer 29.5 in
Volume (Ltr) 0.00

Settings

Lamp: 1.69 V
Bias: 79 V
Cooler: 1.78 V
Chopper: 543 Hz

Voltages (V)

Flow: 1.06 V
Detector: 0.040 V

LINEARITY CHECK

Alaska Department of Public Safety
DATAMASTER dmt: 100671

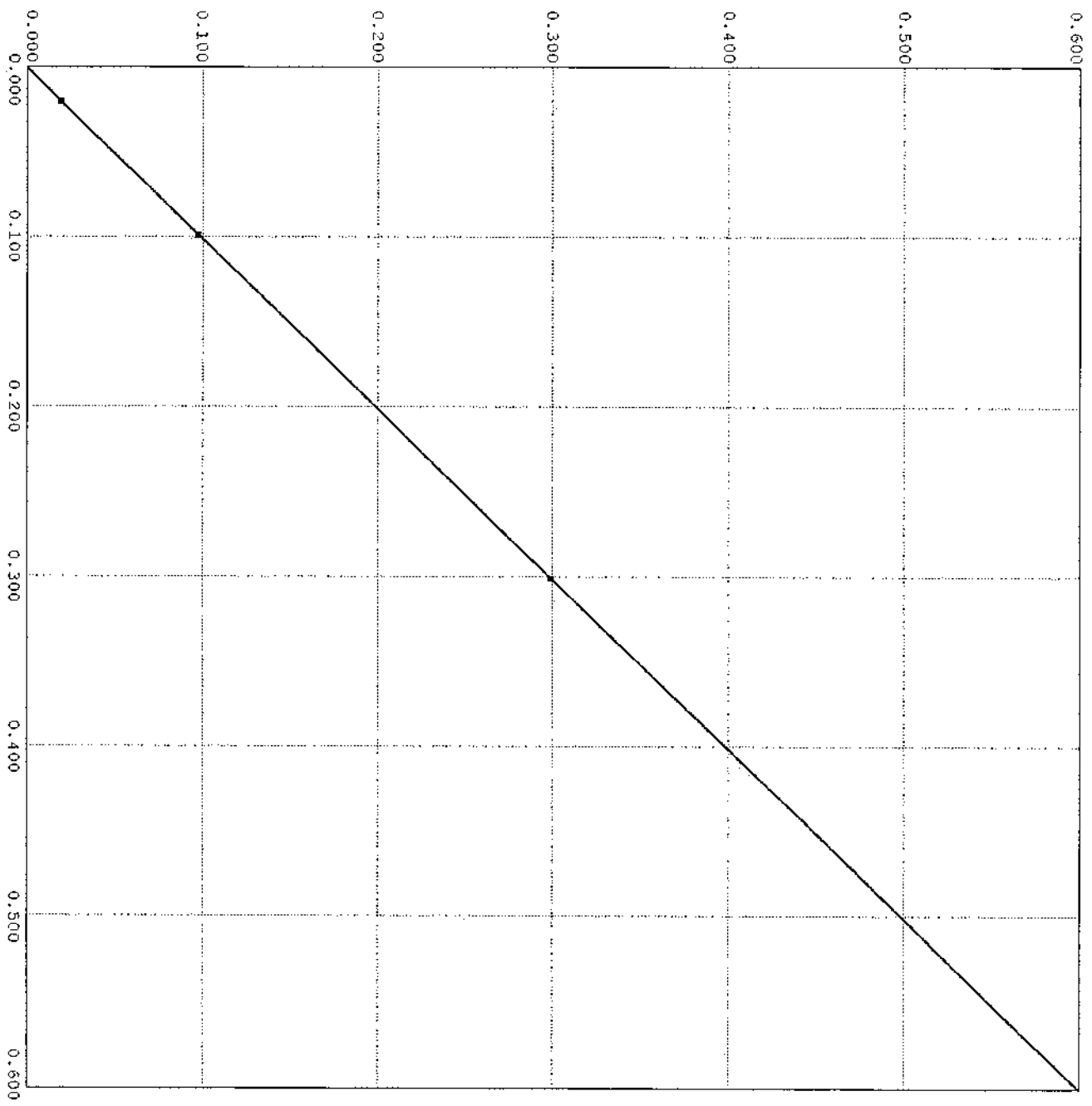
Date: 11/07/2019
Time: 12:35:49

SUPERVISOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.099	0.0982	0.0004
0.300	0.2998	0.0008

SLOPE = 1.000011
R² = 0.999992

MS



LINEARITY CHECK: Control Test 1

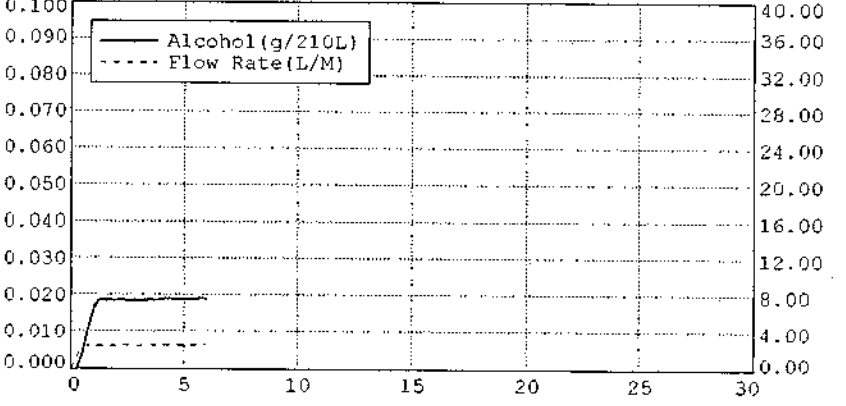
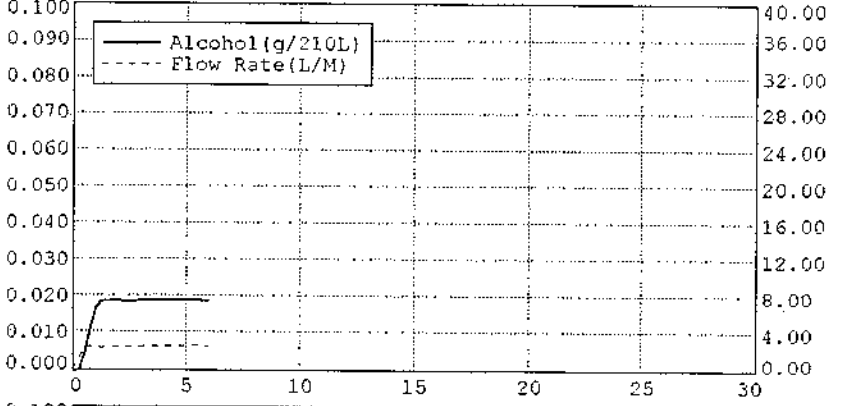
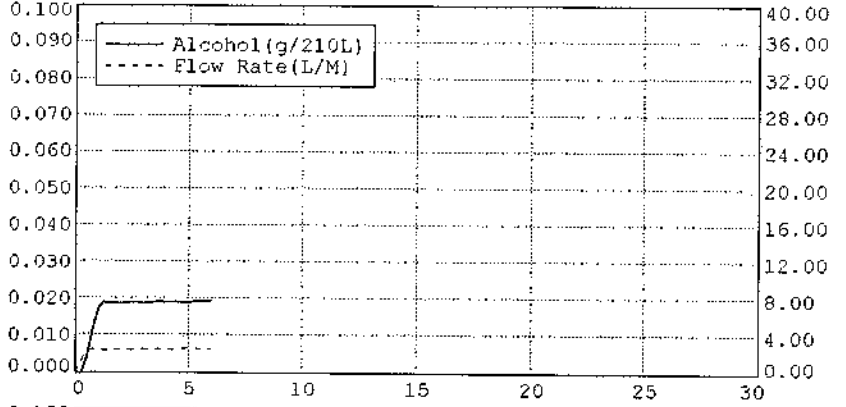
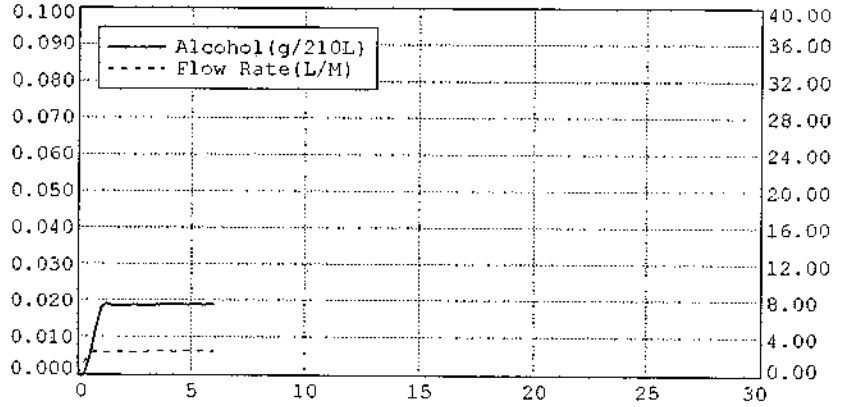
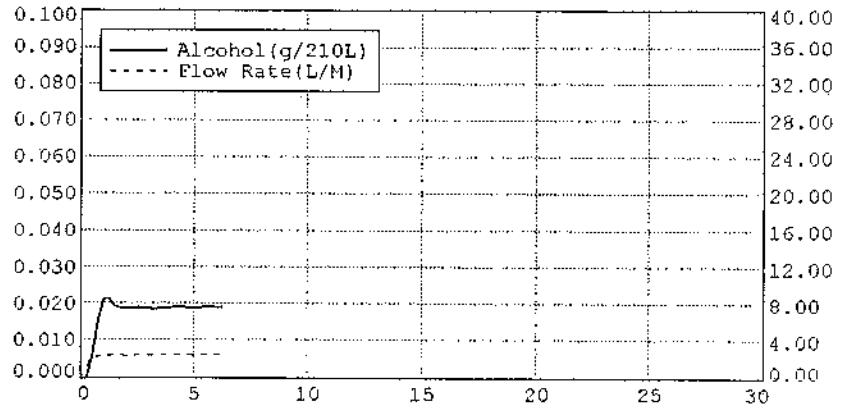
Alaska Department of Public Safety
 DATAMASTER dmt: 100671

Date: 11/07/2019
 Time: 12:45:06

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.020
 TARGET AT 29.52: 0.020
 LOT #: AG805804
 EXPIRATION: 02/27/2020
 TANK PRESSURE: 395 psi

BLANK TEST	0.000	12:46
INTERNAL STANDARD	VERIFIED	12:46
EXTERNAL STANDARD	0.020	12:46
BLANK TEST	0.000	12:47
EXTERNAL STANDARD	0.020	12:47
BLANK TEST	0.000	12:48
EXTERNAL STANDARD	0.020	12:48
BLANK TEST	0.000	12:49
EXTERNAL STANDARD	0.020	12:49
BLANK TEST	0.000	12:50
EXTERNAL STANDARD	0.020	12:50
BLANK TEST	0.000	12:51

Average = 0.0200
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

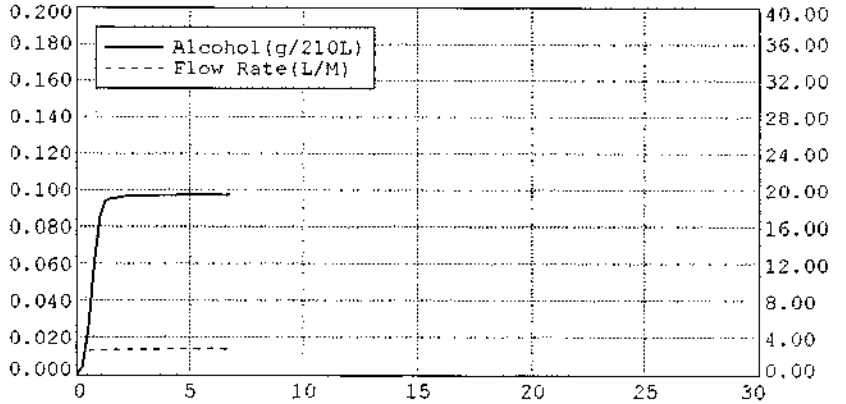
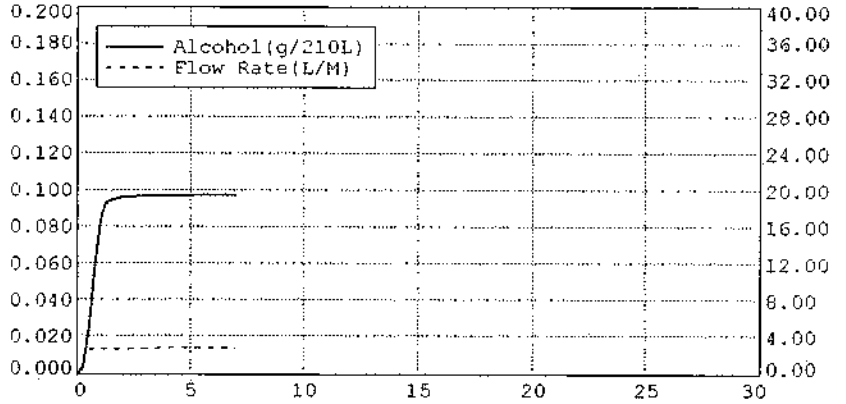
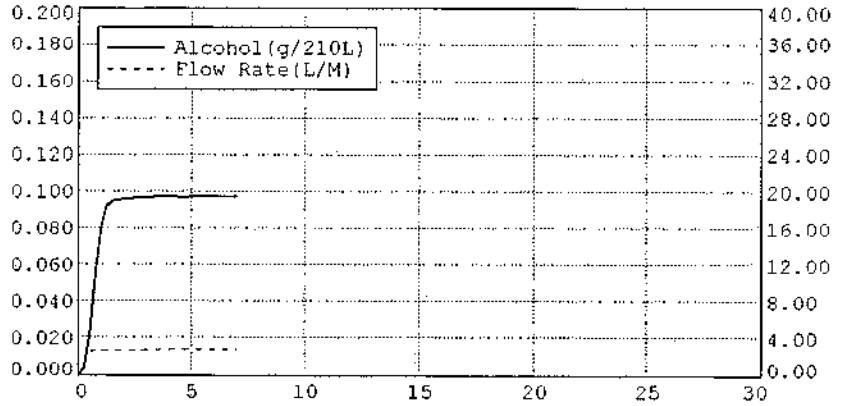
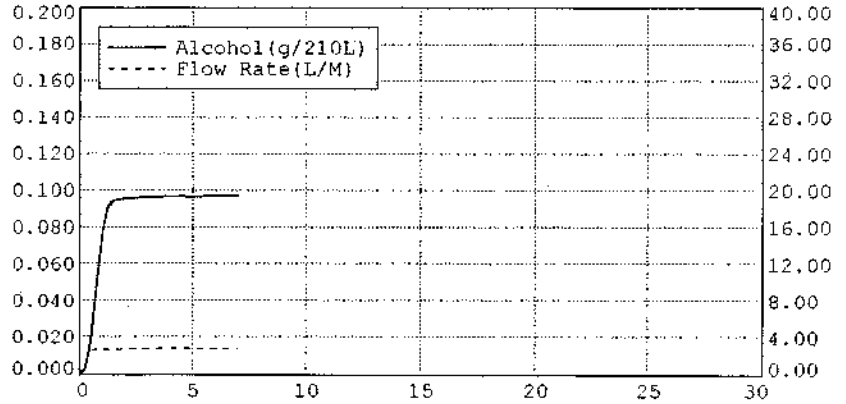
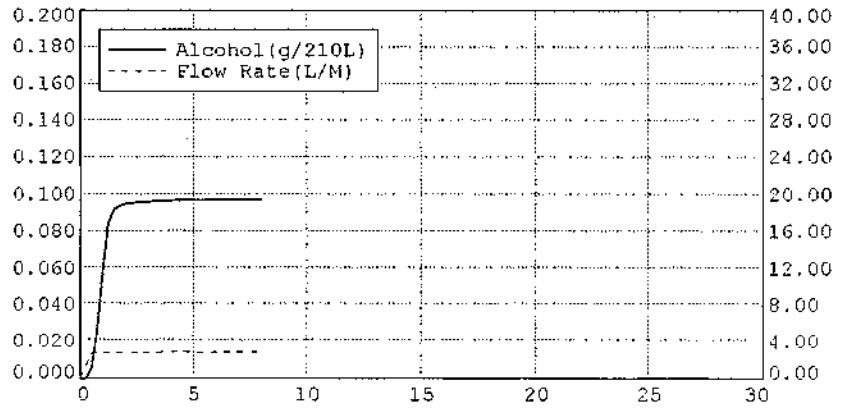
Alaska Department of Public Safety
 DATAMASTER dmt: 100671

Date: 11/07/2019
 Time: 12:56:13

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.100
 TARGET AT 29.52: 0.099
 LOT #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 821 psi

BLANK TEST	0.000	12:57
INTERNAL STANDARD	VERIFIED	12:57
EXTERNAL STANDARD	0.098	12:57
BLANK TEST	0.000	12:58
EXTERNAL STANDARD	0.098	12:58
BLANK TEST	0.000	12:59
EXTERNAL STANDARD	0.098	12:59
BLANK TEST	0.000	13:00
EXTERNAL STANDARD	0.098	13:00
BLANK TEST	0.000	13:01
EXTERNAL STANDARD	0.099	13:02
BLANK TEST	0.000	13:03

Average = 0.0982
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100671

Date: 11/07/2019
 Time: 13:07:46

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 19010
 EXPIRATION: 01/03/2021

BLANK TEST	0.000	13:09
INTERNAL STANDARD	VERIFIED	13:09
EXTERNAL STANDARD	0.299	13:10
BLANK TEST	0.000	13:11
EXTERNAL STANDARD	0.300	13:11
BLANK TEST	0.000	13:12
EXTERNAL STANDARD	0.299	13:13
BLANK TEST	0.000	13:14
EXTERNAL STANDARD	0.300	13:14
BLANK TEST	0.000	13:15
EXTERNAL STANDARD	0.301	13:16
BLANK TEST	0.000	13:17

Average = 0.2998
 Std Dev = 0.0008

*Simulator SD1088
 Calibrated 3/5/19
 COB 11/7/19*

