



GUTH LABORATORIES, INC.

590 NORTH 67th STREET • HARRISBURG, PA 17111-4511 • TELEPHONE: 717-564-5470

CERTIFICATE OF ANALYSIS

Certified Alcohol Reference Solution for Simulator

Random Samples of Lot Number **20510** of Alcohol Reference Solution for Simulator were analyzed by gas chromatography on **December 7, 2020**, using a Perkin Elmer Gas Chromatograph Autosystem XL S/N: 610N9030209, and found to contain **0.2419%** (w/vol) ethyl alcohol. The expiration date for this lot number is **December 3, 2022** at 11:59 PM.

When used in a calibrated Simulator, operating at $34^{\circ}\text{C} \pm .2^{\circ}\text{C}$, this solution will give a breath alcohol analysis instrument reading of **0.200 g/210L \pm 3%**.

The alcohol and water used in this solution were free of test interfering substances.

Ted L. Pauley, President
GUTH LABORATORIES, INC.

NIST Traceability:

Testing was conducted using Cerilliant Reference Standard lot number FN06231703 whose values are traceable to NIST.

All balances are calibrated annually by an outside agency using NIST traceable weights. Calibration verification is done prior to each use utilizing NIST traceable weights.

SUPERVISOR TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100384

Date: 07/14/2021
 Time: 10:03:33

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

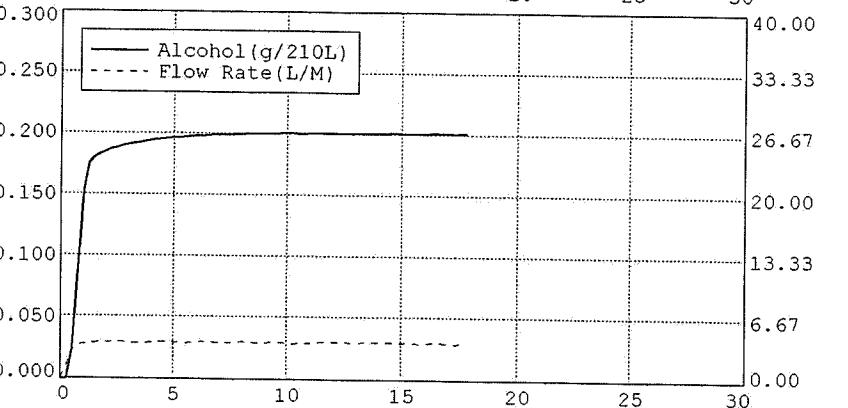
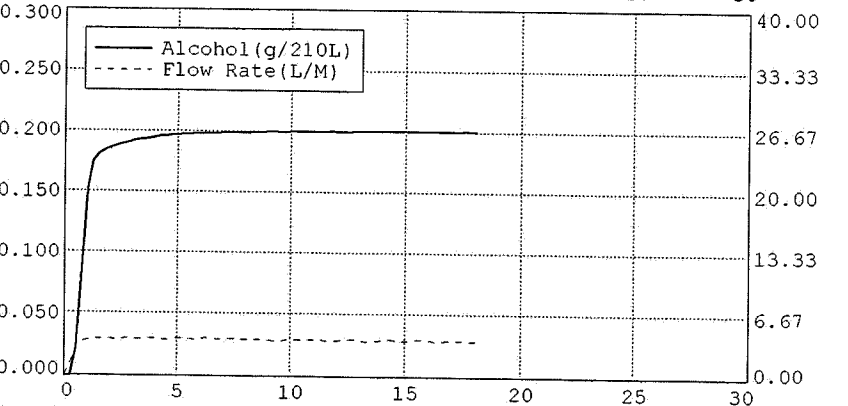
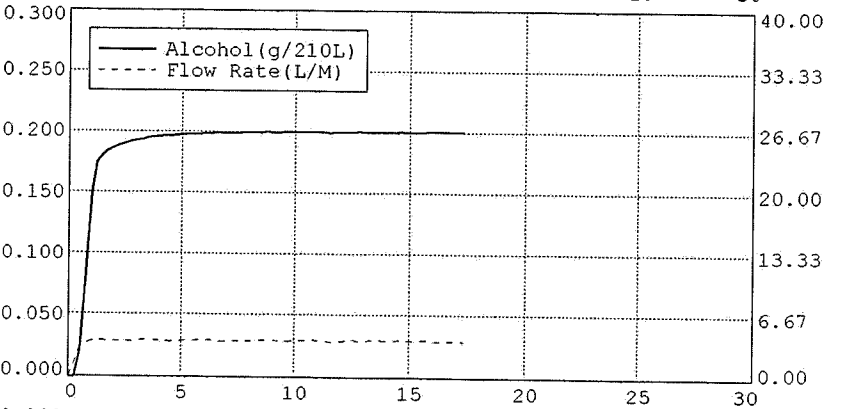
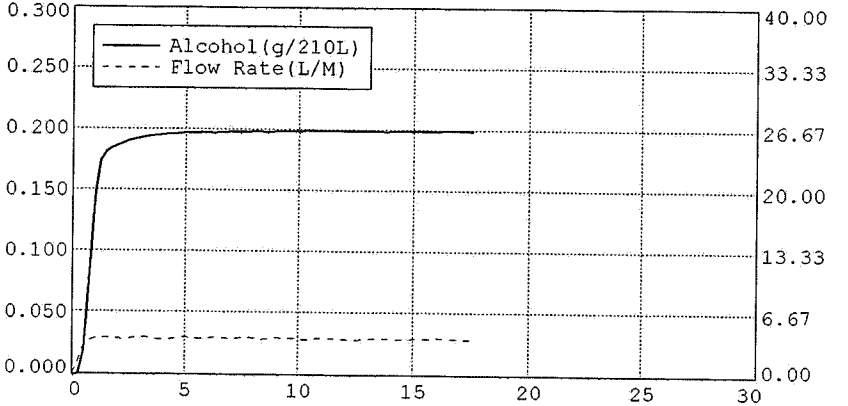
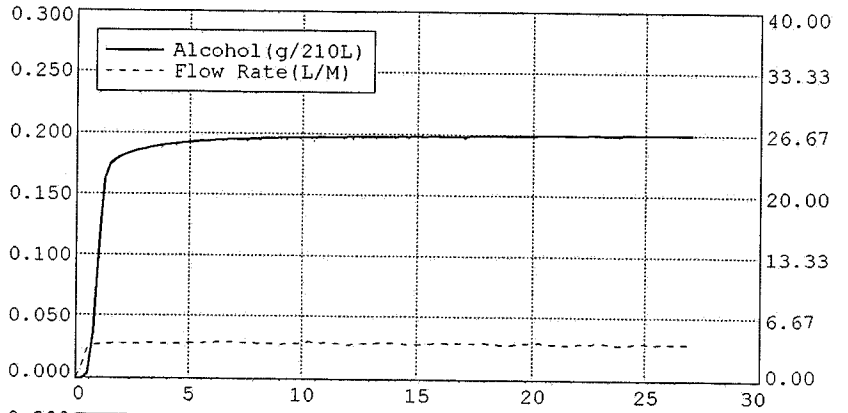
EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200

BLANK TEST	0.000	10:09
INTERNAL STANDARD	VERIFIED	10:09
EXTERNAL STANDARD	0.201	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.200	10:11
BLANK TEST	0.000	10:12
EXTERNAL STANDARD	0.202	10:12
BLANK TEST	0.000	10:13
EXTERNAL STANDARD	0.202	10:14
BLANK TEST	0.000	10:14
EXTERNAL STANDARD	0.202	10:15
BLANK TEST	0.000	10:16

Average = 0.2014
 Std Dev = 0.0009

Cwth 0.200
 Lot 20510
 Exp. 12/03/2022

Simulator SN: DR4161
 Calibrated: 06/16/21
 DW 07/14/21



SUPERVISOR TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 07/14/2021
Time: 09:57:14

SUPERVISOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.200

BLANK TEST	0.000	09:58
INTERNAL STANDARD	VERIFIED	09:58
EXTERNAL STANDARD	0.199	09:59
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.200	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.199	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.199	10:03
BLANK TEST	0.000	10:04
EXTERNAL STANDARD	0.199	10:04
BLANK TEST	0.000	10:05

Average = 0.1992
Std Dev = 0.0004

Auth 0.200

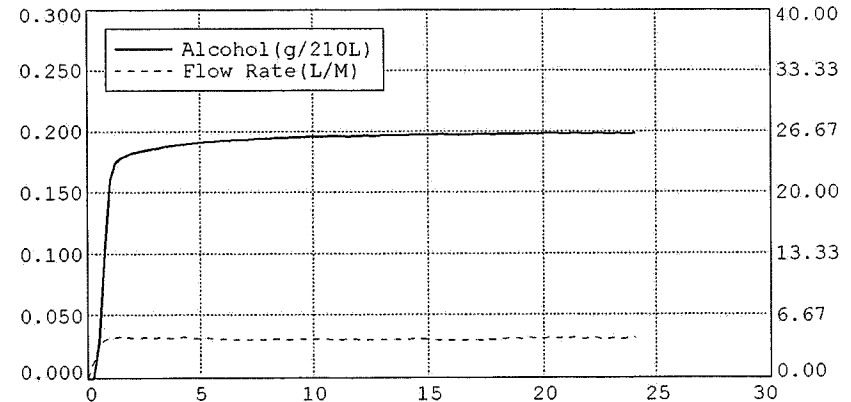
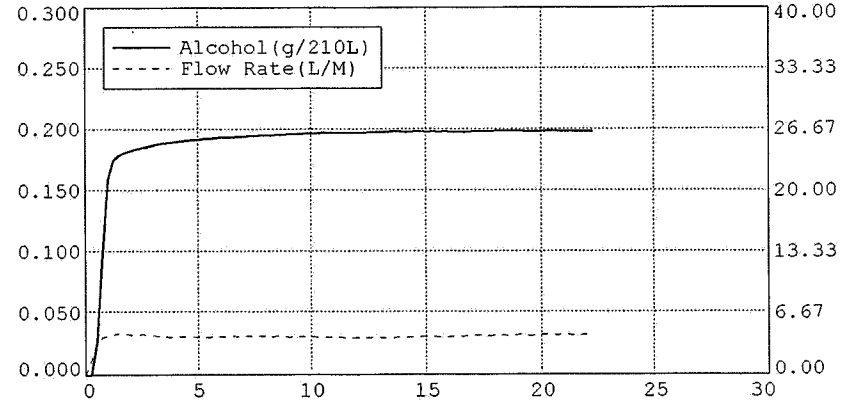
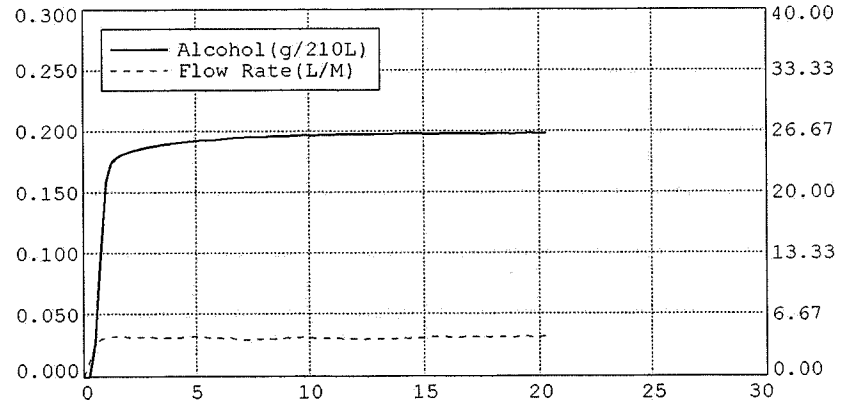
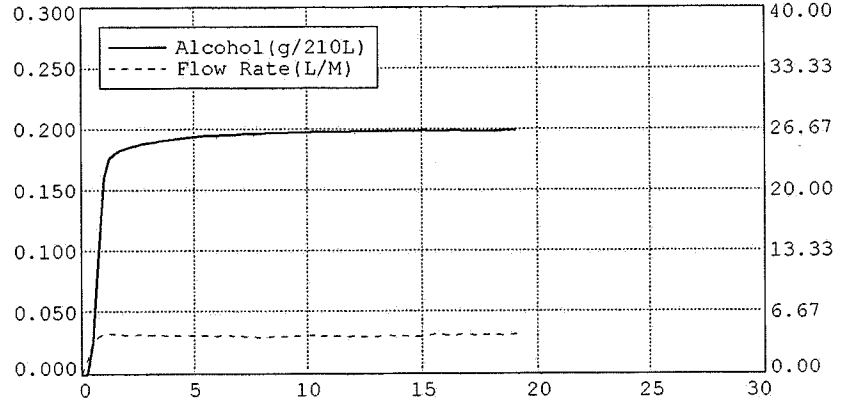
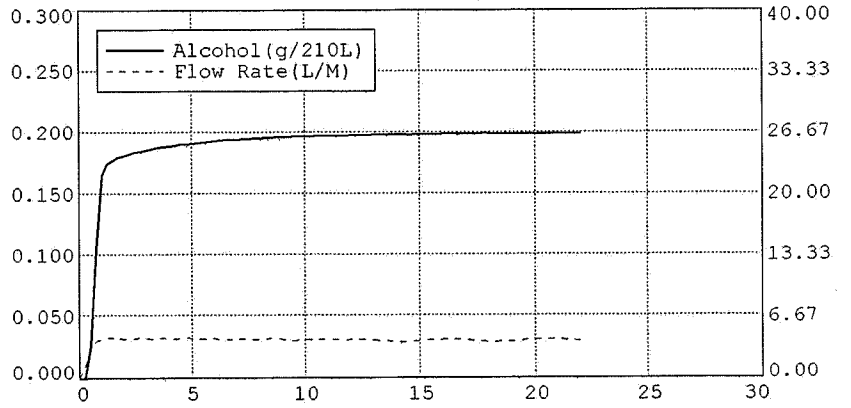
Lot 20510

Exp. 12/03/2022

Simulator SN: DR4161

Calibrated: 06/16/21

DW 07/14/21



SUPERVISOR TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100671

Date: 07/14/2021
 Time: 10:42:49

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200

BLANK TEST	0.000	10:43
INTERNAL STANDARD	VERIFIED	10:44
EXTERNAL STANDARD	0.202	10:44
BLANK TEST	0.000	10:45
EXTERNAL STANDARD	0.202	10:46
BLANK TEST	0.000	10:47
EXTERNAL STANDARD	0.202	10:47
BLANK TEST	0.000	10:48
EXTERNAL STANDARD	0.202	10:48
BLANK TEST	0.000	10:49
EXTERNAL STANDARD	0.202	10:50
BLANK TEST	0.000	10:51

Average = 0.2020
 Std Dev = 0.0000

Auth 0.200

Lot 20510

Exp. 12/03/2022

Simulator SN: DR4161

Calibrated: 06/16/21

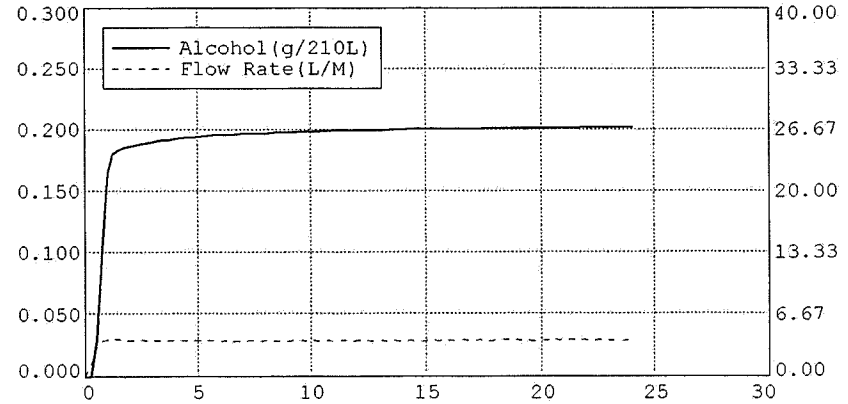
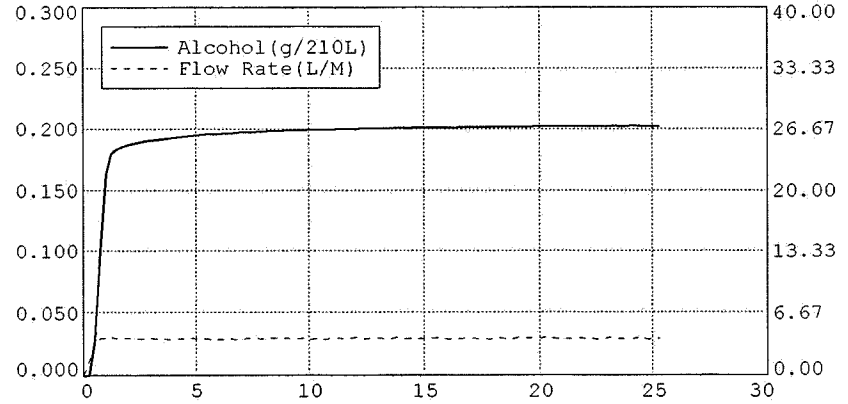
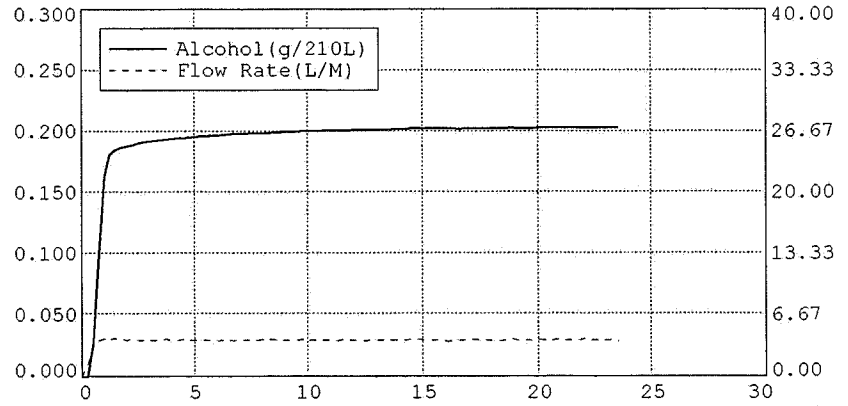
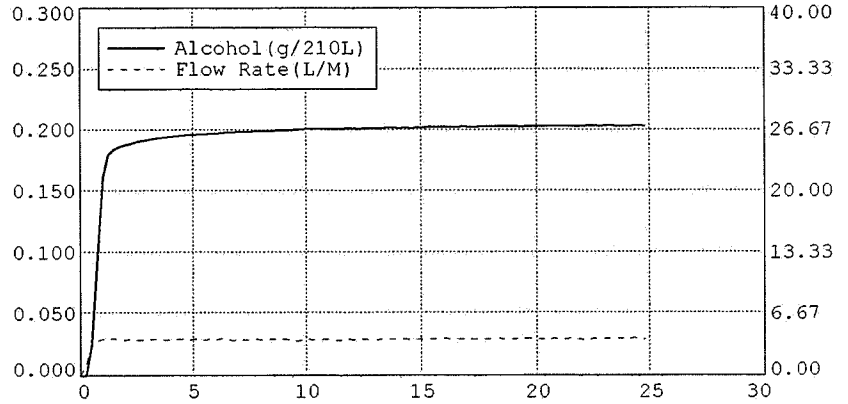
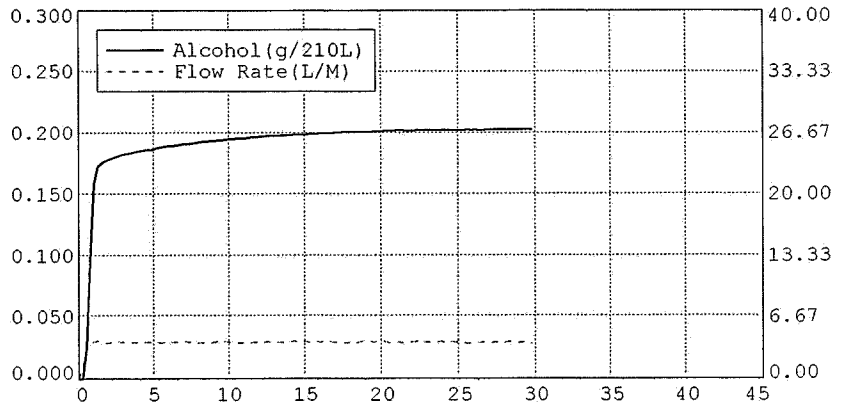
DW 07/14/21

0.2020

0.1992

0.2014

0.201 average



DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100384

Date: 07/14/2021
Time: 08:40:54

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

TEMPERATURES

Sample Chamber = 49.0°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 47.5°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.64 V PASSED
(1.02 V - 2.38 V)
Cooler Voltage = 1.78 V PASSED
(1.01 V - 2.35 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 539 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.8 in

PUMP INFO

Flow Rate = 4.824 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.002 V <= 0.010 V)
PUMP OFF PASSED
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.090 2.99% (0.00% - 4.00%) PASSED

Technician Screen

DATAMASTER dmt: 100384

Date: 07/14/2021

Time: 8:48 AM

Temperatures (°C)

Sample Cell: 48.7°C

Breath Tube: 47.5°C

Current Barometer 29.8 in

Volume (Ltr) 0.00

Settings

Lamp: 1.64 V

Bias: 80 V

Cooler: 1.78 V

Chopper: 527 Hz

Voltages (V)

Flow: 1.06 V

Detector: 0.021 V

LINEARITY CHECK

Alaska Department of Public Safety
DATA MASTER dmt: 100384

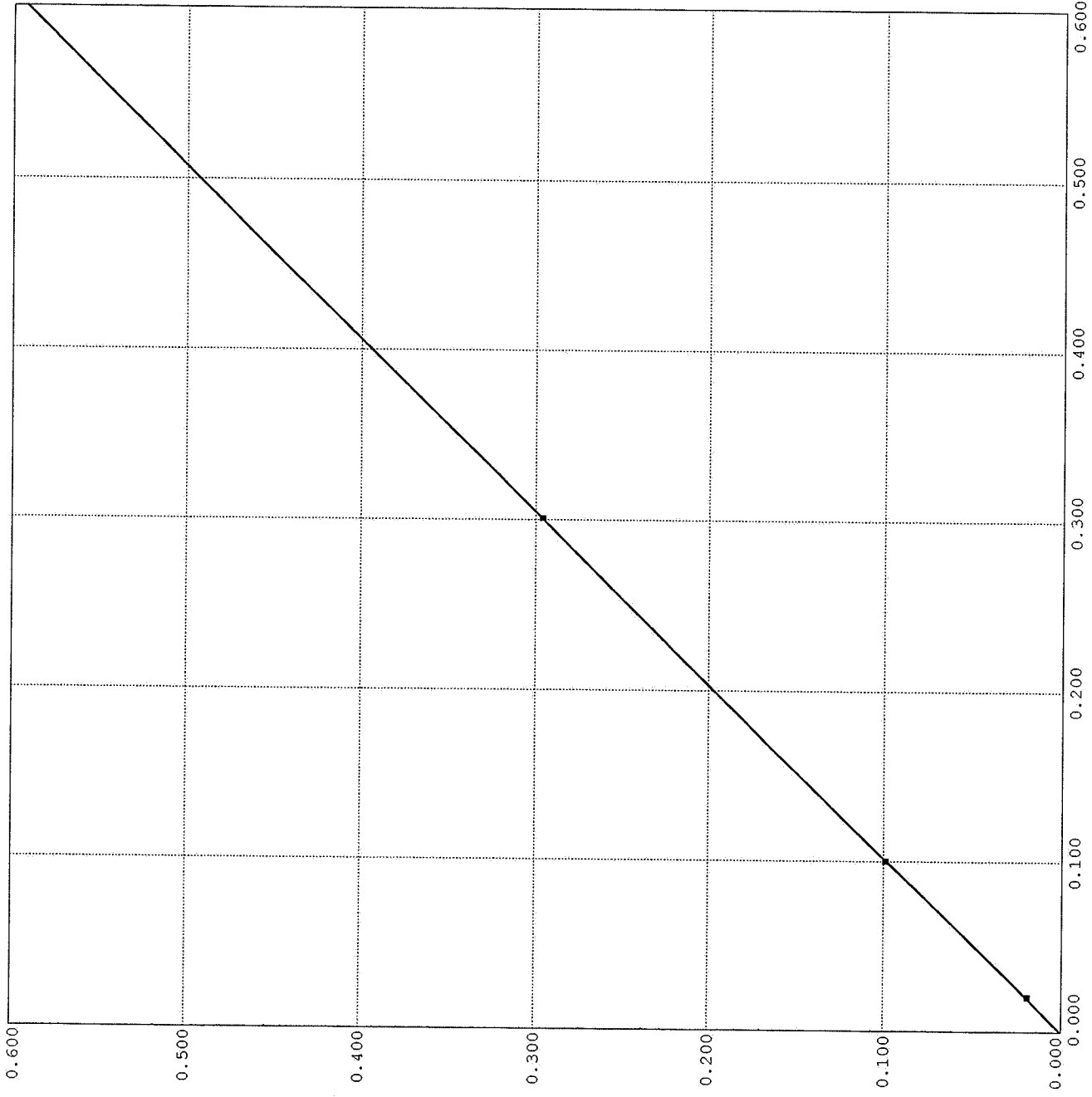
Date: 07/14/2021
Time: 08:50:25

SUPERVISOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.100	0.1000	0.0000
0.300	0.2966	0.0011

SLOPE = 0.986923
R² = 0.999985

DON



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100384

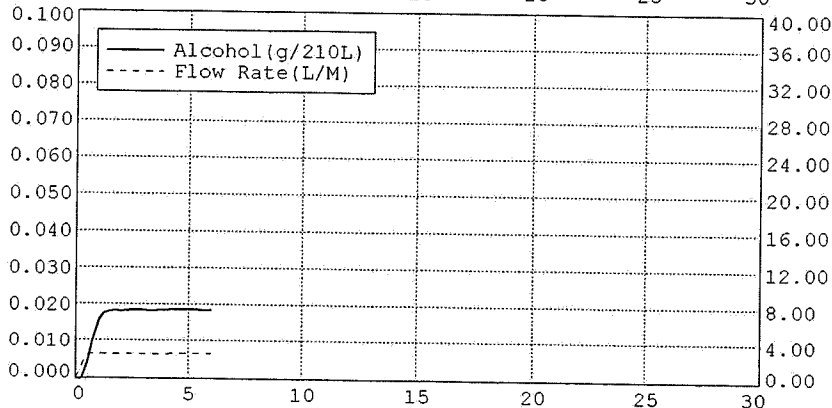
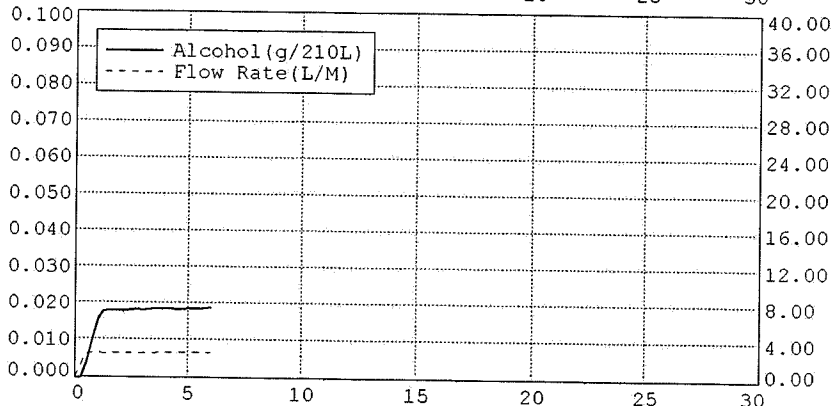
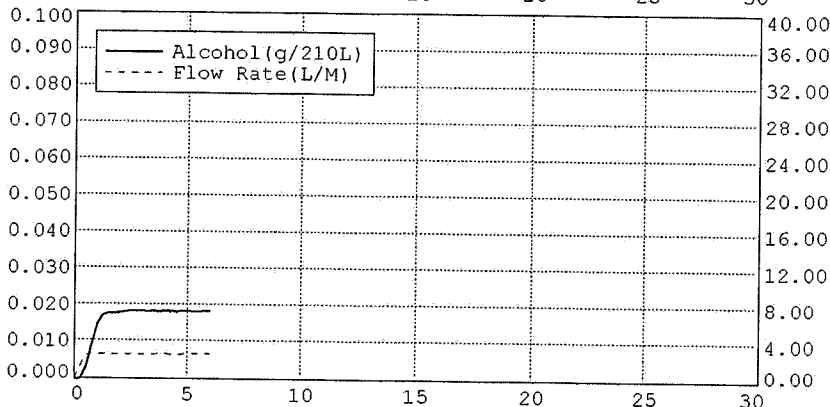
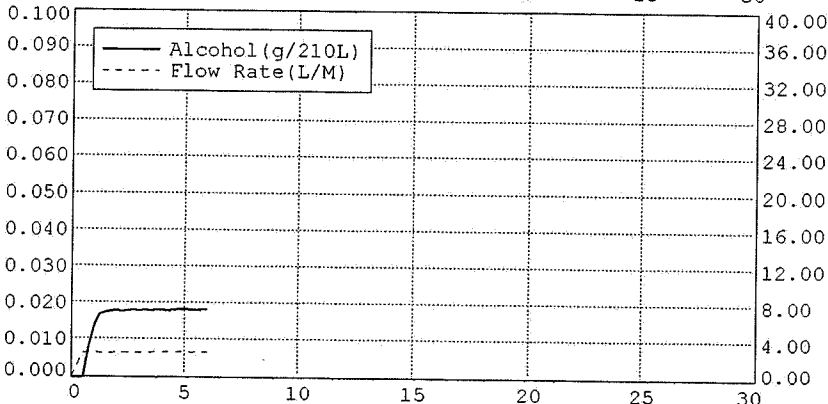
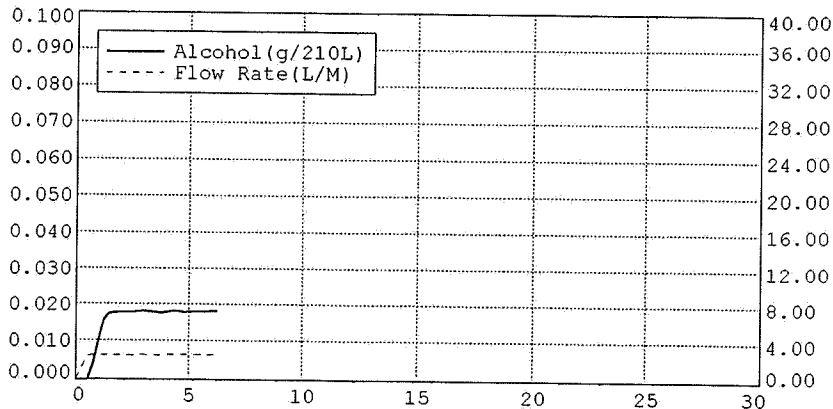
Date: 07/14/2021
 Time: 08:50:27

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.78: 0.020
 LOT #: AG928203
 EXPIRATION: 10/09/2021
 TANK PRESSURE: 465 psi

BLANK TEST	0.000	08:51
INTERNAL STANDARD	VERIFIED	08:51
EXTERNAL STANDARD	0.020	08:51
BLANK TEST	0.000	08:52
EXTERNAL STANDARD	0.020	08:53
BLANK TEST	0.000	08:53
EXTERNAL STANDARD	0.020	08:54
BLANK TEST	0.000	08:55
EXTERNAL STANDARD	0.020	08:55
BLANK TEST	0.000	08:56
EXTERNAL STANDARD	0.020	08:56
BLANK TEST	0.000	08:57

Average = 0.0200
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100384

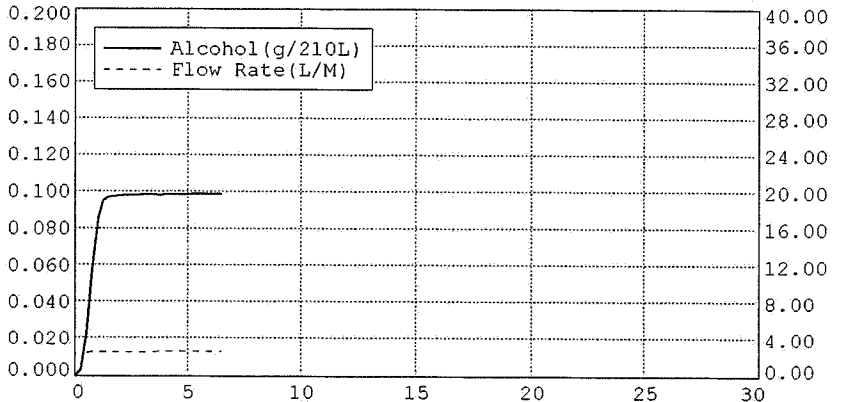
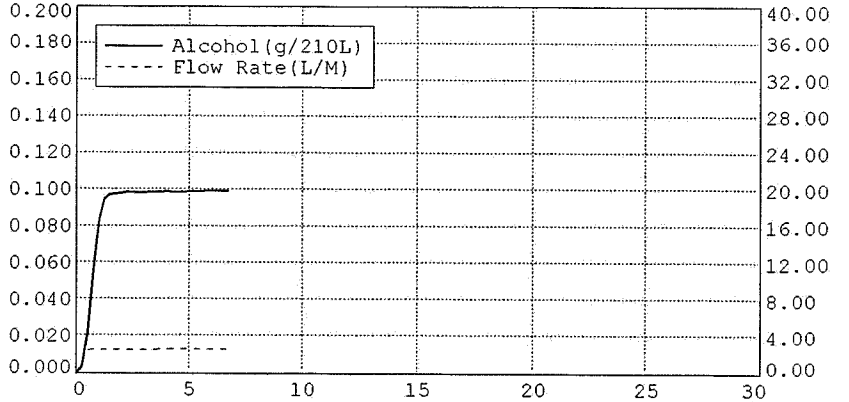
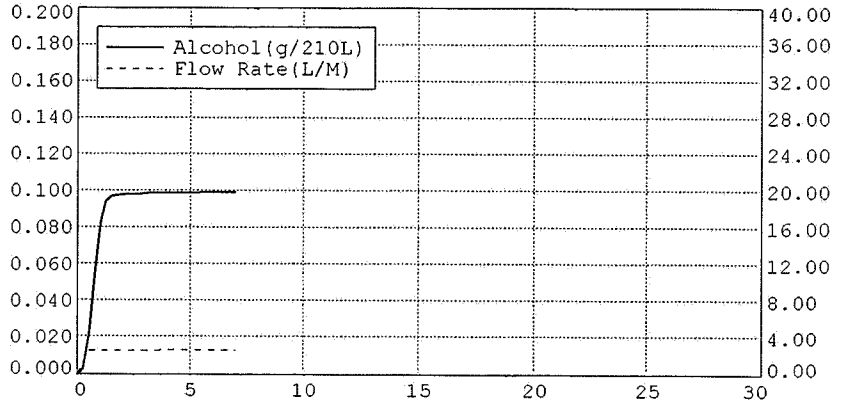
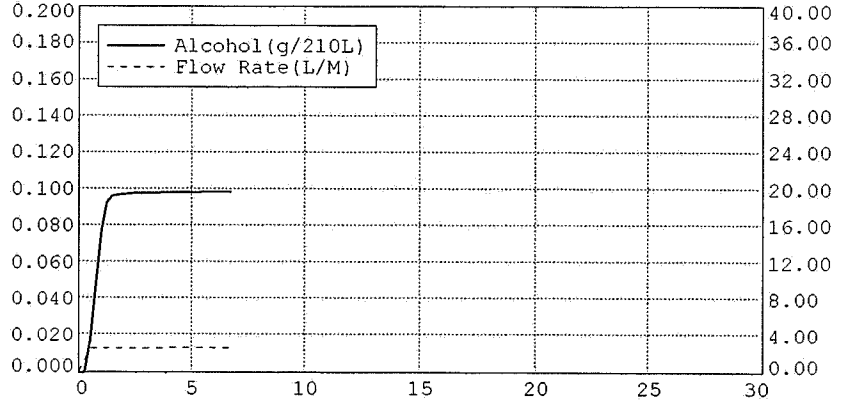
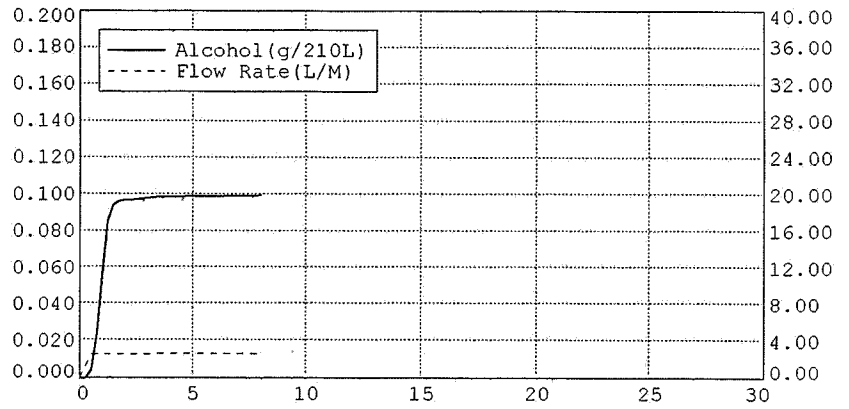
Date: 07/14/2021
 Time: 09:00:04

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.79: 0.100
 LOT #: AG924701
 EXPIRATION: 09/04/2021
 TANK PRESSURE: 318 psi

BLANK TEST	0.000	09:01
INTERNAL STANDARD	VERIFIED	09:01
EXTERNAL STANDARD	0.100	09:01
BLANK TEST	0.000	09:02
EXTERNAL STANDARD	0.100	09:02
BLANK TEST	0.000	09:03
EXTERNAL STANDARD	0.100	09:03
BLANK TEST	0.000	09:04
EXTERNAL STANDARD	0.100	09:04
BLANK TEST	0.000	09:05
EXTERNAL STANDARD	0.100	09:06
BLANK TEST	0.000	09:06

Average = 0.1000
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100384

Date: 07/14/2021
 Time: 09:11:54

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.300
 LOT #: 19330
 EXPIRATION: 11/13/2021

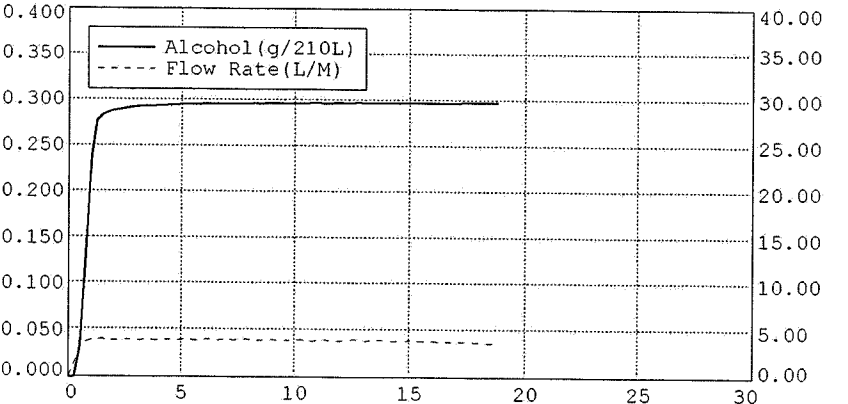
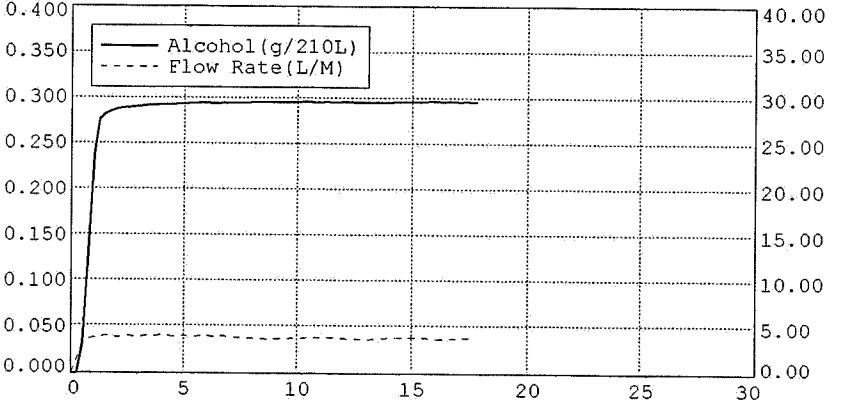
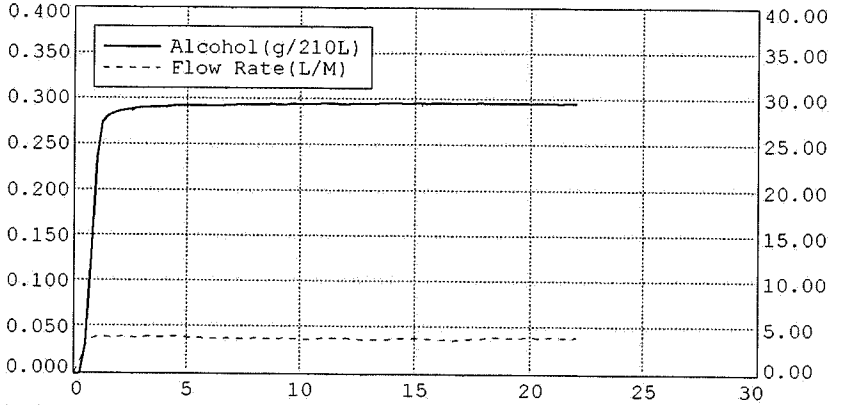
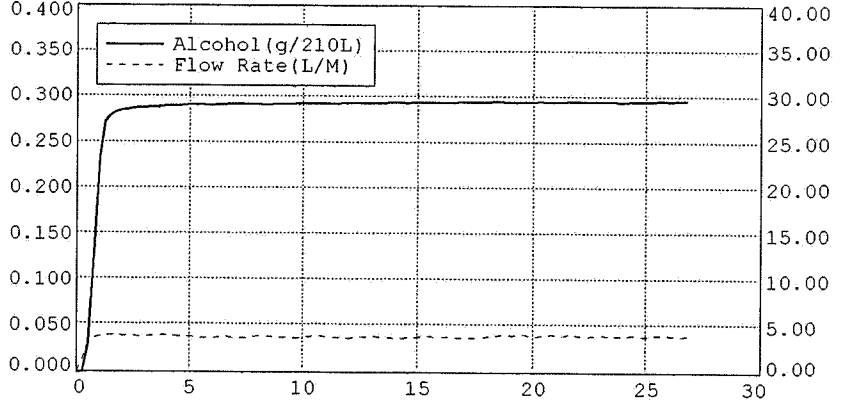
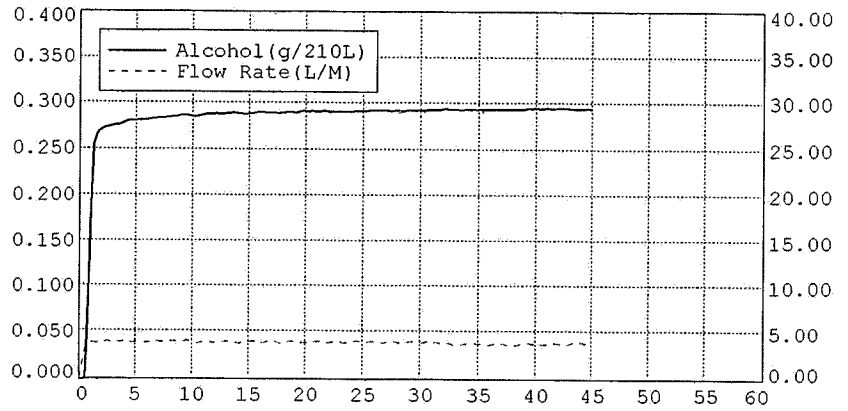
BLANK TEST	0.000	09:13
INTERNAL STANDARD	VERIFIED	09:13
EXTERNAL STANDARD	0.295	09:14
BLANK TEST	0.000	09:15
EXTERNAL STANDARD	0.296	09:15
BLANK TEST	0.000	09:16
EXTERNAL STANDARD	0.297	09:17
BLANK TEST	0.000	09:18
EXTERNAL STANDARD	0.297	09:18
BLANK TEST	0.000	09:19
EXTERNAL STANDARD	0.298	09:19
BLANK TEST	0.000	09:20

Average = 0.2966
 Std Dev = 0.0011

Simulator SN: DK4177

Calibrated : 11/17/2020

DM 07/14/21



DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 07/14/2021
Time: 08:18:07

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

TEMPERATURES

Sample Chamber = 48.8°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 46.3°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.72 V PASSED
(1.01 V - 2.37 V)
Cooler Voltage = 1.76 V PASSED
(1.01 V - 2.37 V)
Bias Voltage = 81 V PASSED
(49 V - 113 V)
Chopper Freq = 528 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.8 in

PUMP INFO

Flow Rate = 5.036 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.002 V <= 0.010 V)
PUMP OFF PASSED
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD PASSED

Xq = 0.088 0.40% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100405

Date: 07/14/2021
Time: 8:26 AM

Temperatures (°C)
Sample Cell: 48.7°C
Breath Tube: 46.8°C

Current Barometer 29.8 in
Volume (Ltr) 0.00

Settings
Lamp: 1.72 V
Bias: 81 V
Cooler: 1.76 V
Chopper: 526 Hz

Voltages (V)
Flow: 1.05 V
Detector: 0.084 V

LINEARITY CHECK

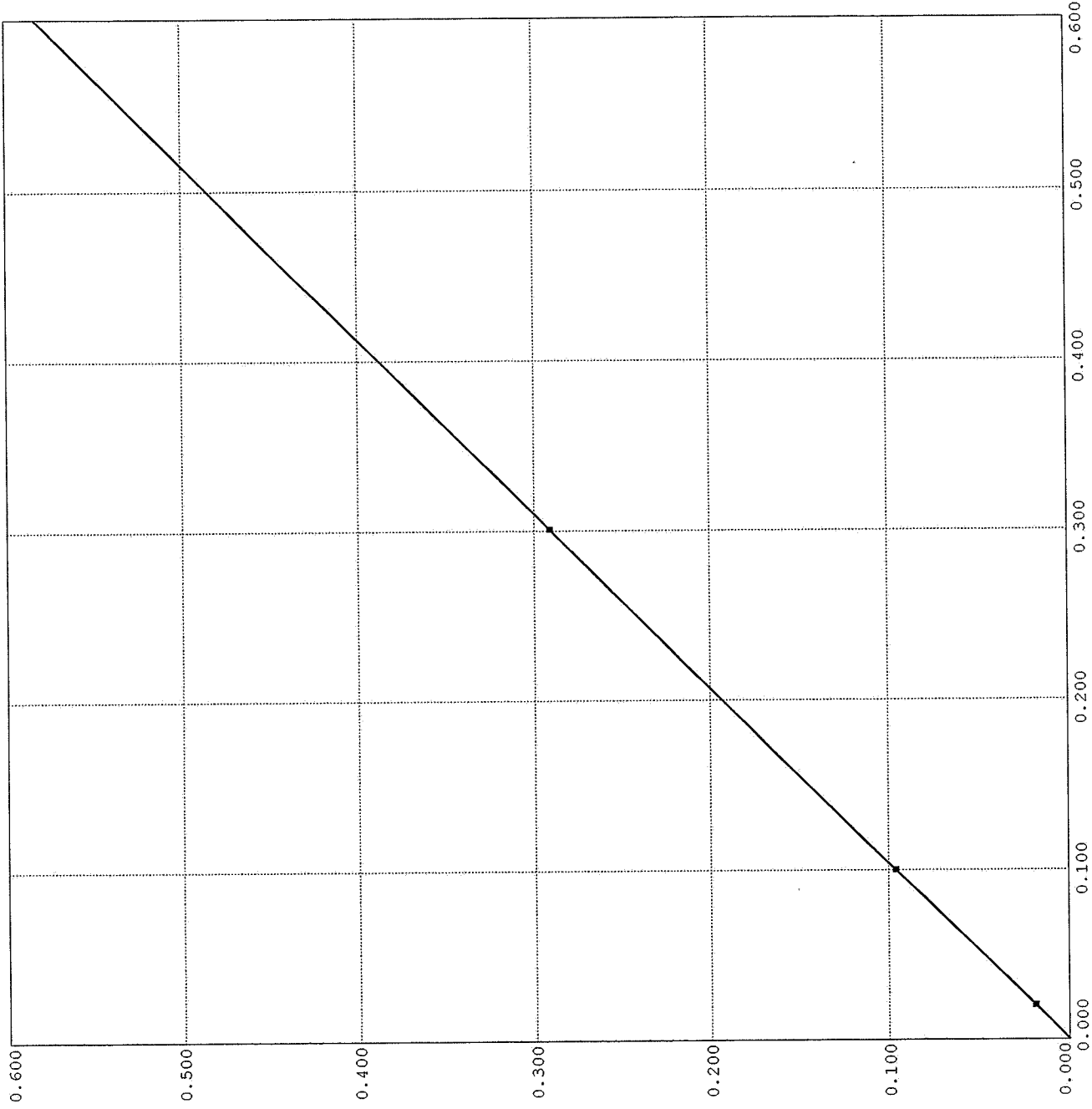
Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 07/14/2021
Time: 08:28:40

SUPERVISOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0196	0.0005
0.100	0.0970	0.0000
0.300	0.2918	0.0004

SLOPE = 0.972500
R² = 0.999998



DM

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100405

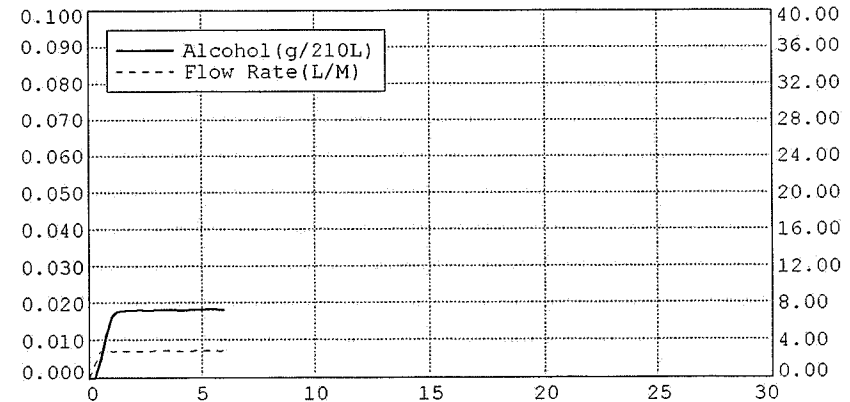
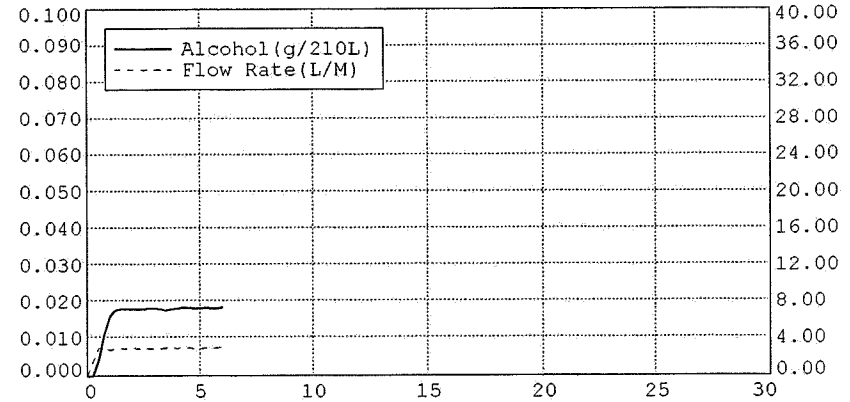
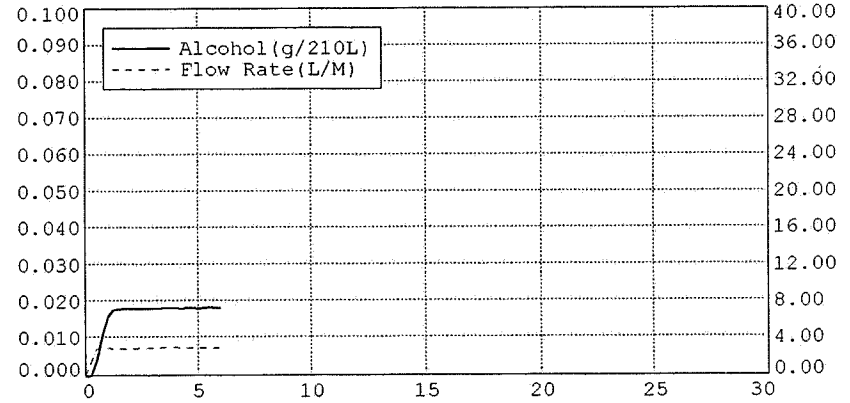
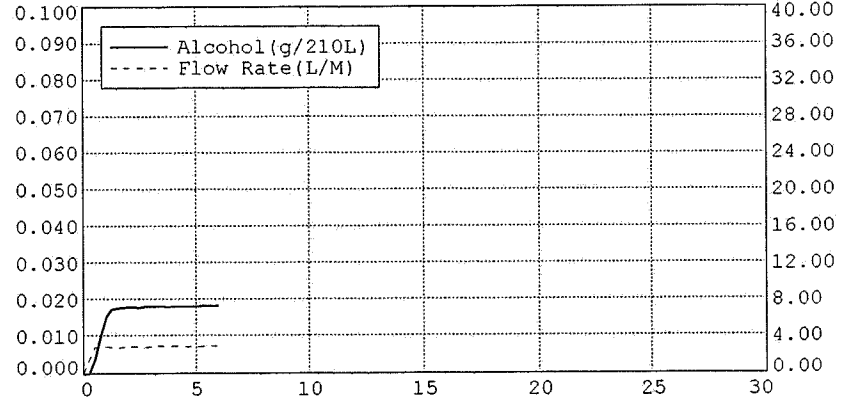
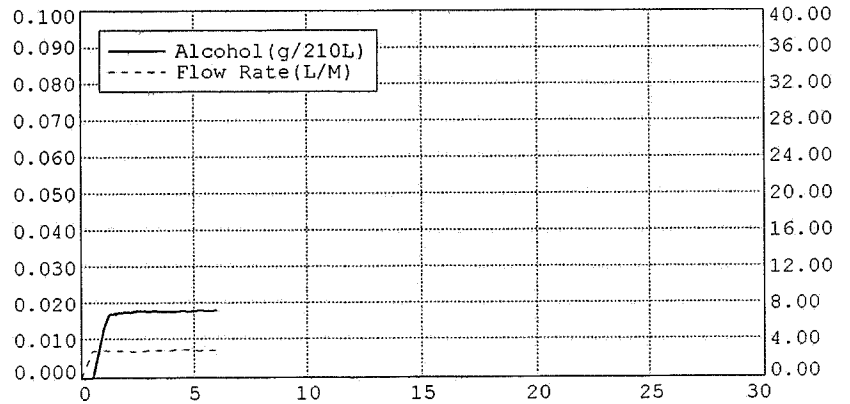
Date: 07/14/2021
Time: 08:28:41

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 29.78: 0.020
LOT #: AG928203
EXPIRATION: 10/09/2021
TANK PRESSURE: 272 psi

BLANK TEST	0.000	08:29
INTERNAL STANDARD	VERIFIED	08:29
EXTERNAL STANDARD	0.019	08:30
BLANK TEST	0.000	08:31
EXTERNAL STANDARD	0.020	08:31
BLANK TEST	0.000	08:32
EXTERNAL STANDARD	0.020	08:32
BLANK TEST	0.000	08:33
EXTERNAL STANDARD	0.019	08:33
BLANK TEST	0.000	08:34
EXTERNAL STANDARD	0.020	08:34
BLANK TEST	0.000	08:35

Average = 0.0196
Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
DATAMASTER dmt: 100405

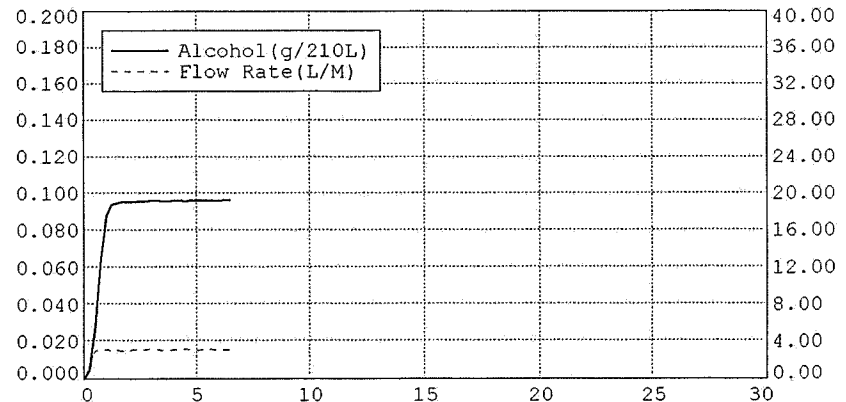
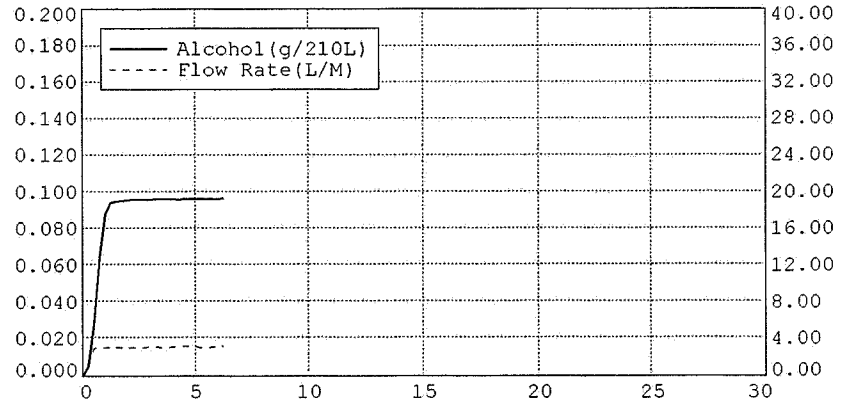
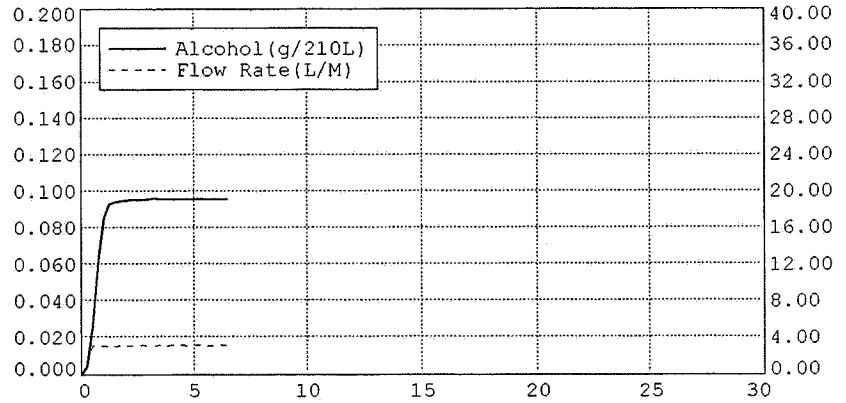
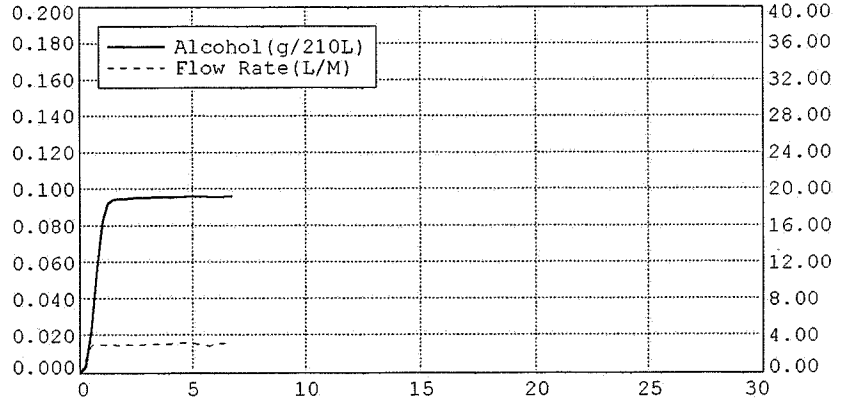
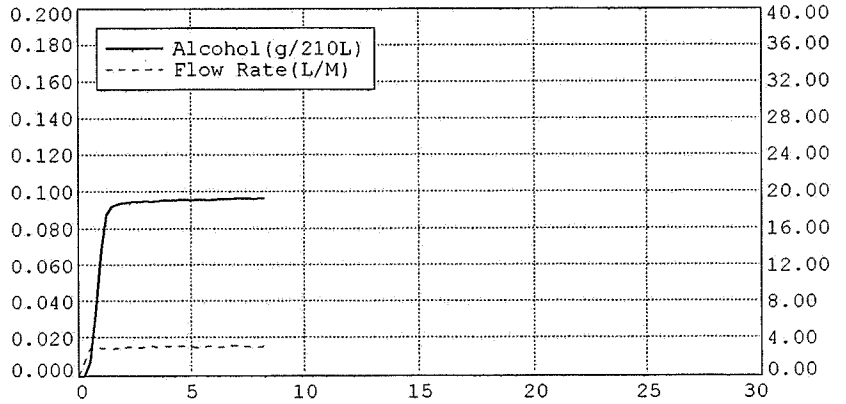
Date: 07/14/2021
Time: 08:37:50

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
TARGET AT 29.79: 0.100
LOT #: AG108404
EXPIRATION: 03/25/2023
TANK PRESSURE: 1033 psi

BLANK TEST	0.000	08:39
INTERNAL STANDARD	VERIFIED	08:39
EXTERNAL STANDARD	0.097	08:39
BLANK TEST	0.000	08:40
EXTERNAL STANDARD	0.097	08:40
BLANK TEST	0.000	08:41
EXTERNAL STANDARD	0.097	08:41
BLANK TEST	0.000	08:42
EXTERNAL STANDARD	0.097	08:42
BLANK TEST	0.000	08:43
EXTERNAL STANDARD	0.097	08:43
BLANK TEST	0.000	08:44

Average = 0.0970
Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 07/14/2021
Time: 08:49:59

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.300
LOT #: 19330
EXPIRATION: 11/13/2021

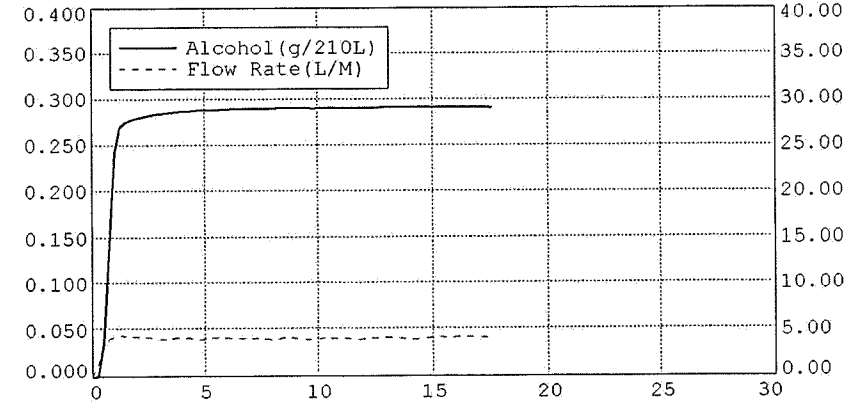
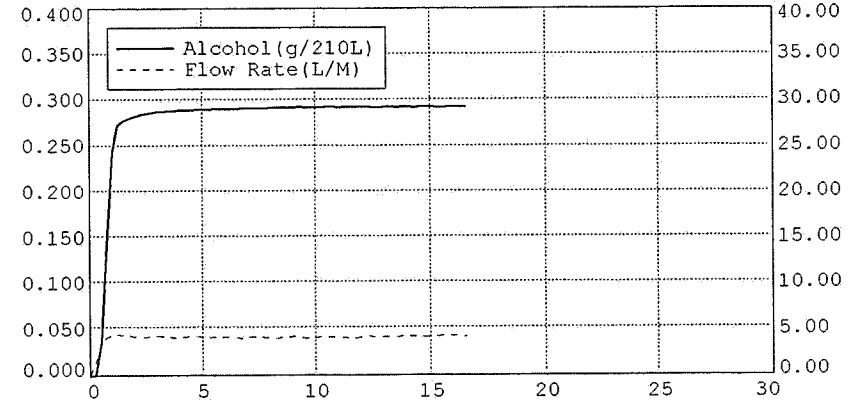
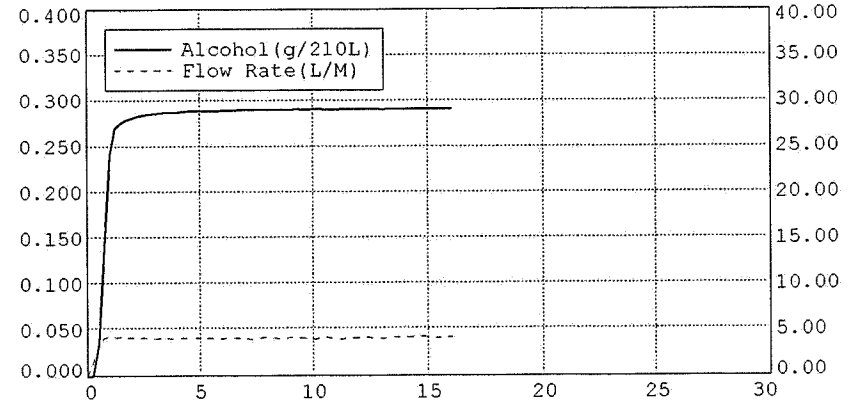
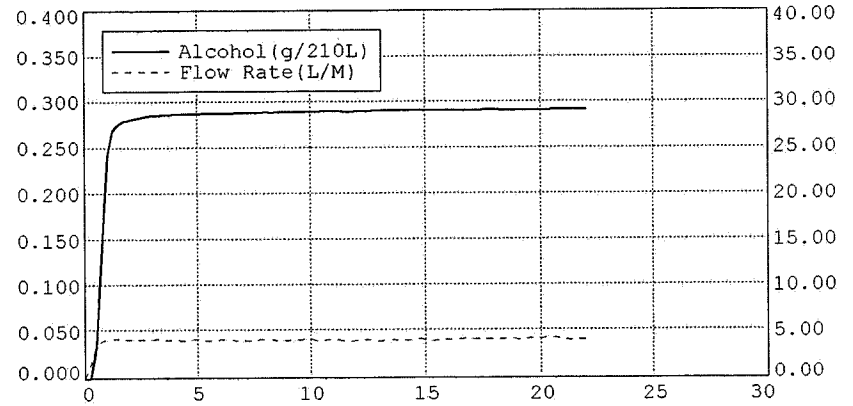
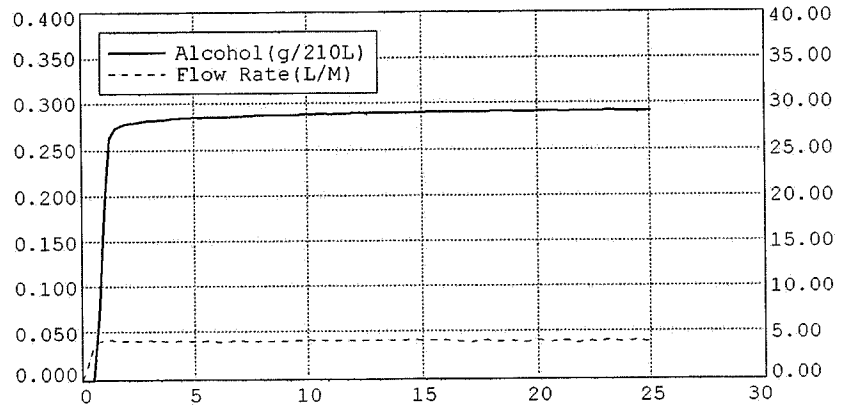
BLANK TEST	0.000	09:09
INTERNAL STANDARD	VERIFIED	09:09
EXTERNAL STANDARD	0.292	09:09
BLANK TEST	0.000	09:10
EXTERNAL STANDARD	0.292	09:11
BLANK TEST	0.000	09:12
EXTERNAL STANDARD	0.291	09:12
BLANK TEST	0.000	09:13
EXTERNAL STANDARD	0.292	09:14
BLANK TEST	0.000	09:14
EXTERNAL STANDARD	0.292	09:15
BLANK TEST	0.000	09:16

Average = 0.2918
Std Dev = 0.0004

Simulator SN: DRM177

Calibrated: 11/17/2020

DM 07/14/21



DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100671

Date: 07/14/2021
Time: 08:49:44

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 46.9°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.69 V PASSED
(1.01 V - 2.37 V)
Cooler Voltage = 1.81 V PASSED
(1.00 V - 2.32 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 544 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.8 in

PUMP INFO

Flow Rate = 4.684 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.002 V <= 0.010 V)
PUMP OFF PASSED
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.100 1.78% (0.00% - 4.00%) PASSED

Technician Screen

DATAMASTER dmt: 100671

Date: 07/14/2021
Time: 8:57 AM

Temperatures (°C)
Sample Cell: 48.8°C
Breath Tube: 47.3°C

Current Barometer 29.8 in
Volume (Ltr) 0.00

Settings
Lamp: 1.69 V
Bias: 78 V
Cooler: 1.81 V
Chopper: 528 Hz

Voltages (V)
Flow: 1.07 V
Detector: 0.013 V

LINEARITY CHECK

Alaska Department of Public Safety
DATAMASTER dmt: 100671

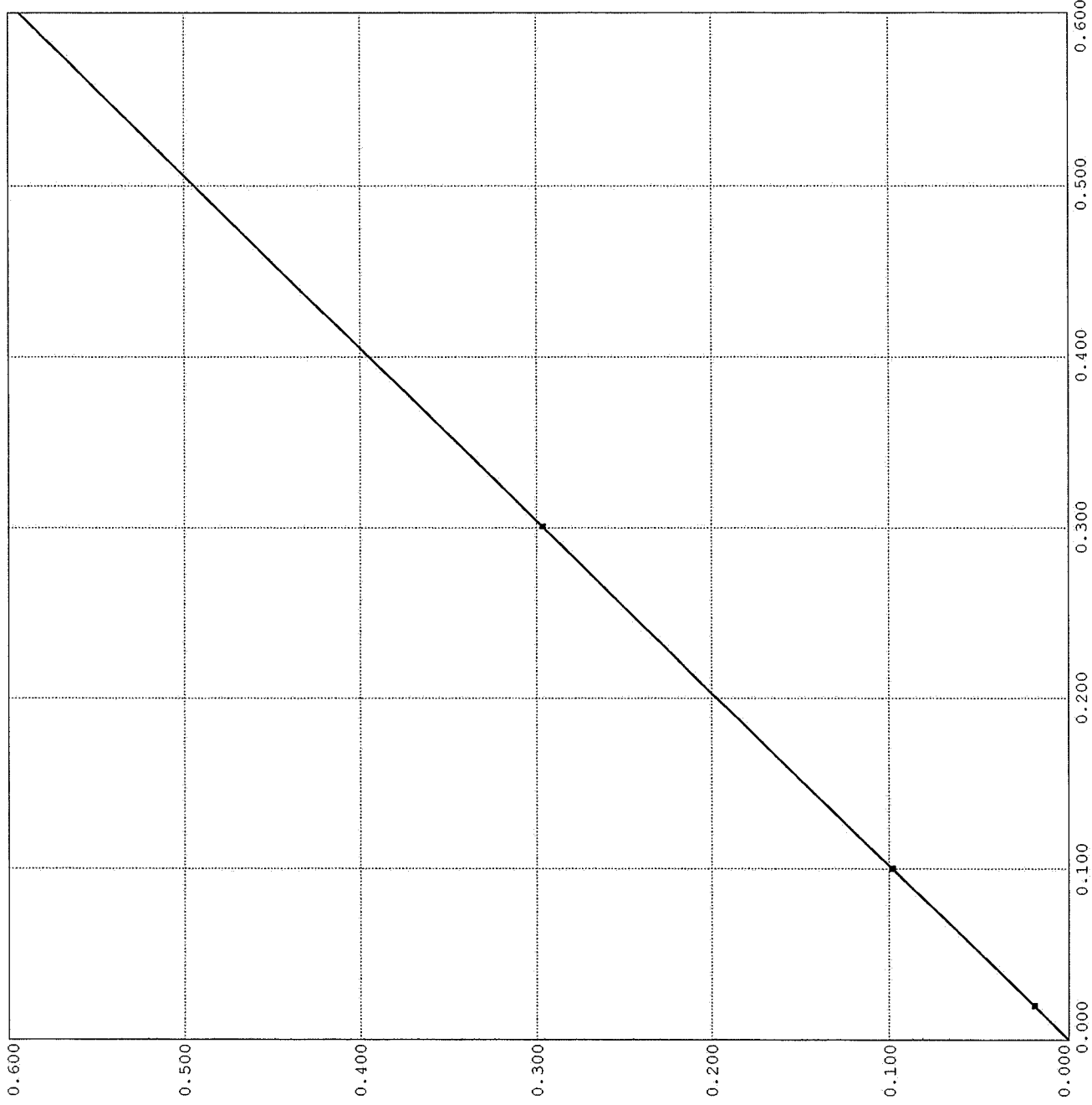
Date: 07/14/2021
Time: 09:00:48

SUPERVISOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.100	0.0990	0.0000
0.300	0.2972	0.0004

SLOPE = 0.990192
R² = 0.999999

DW



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100671

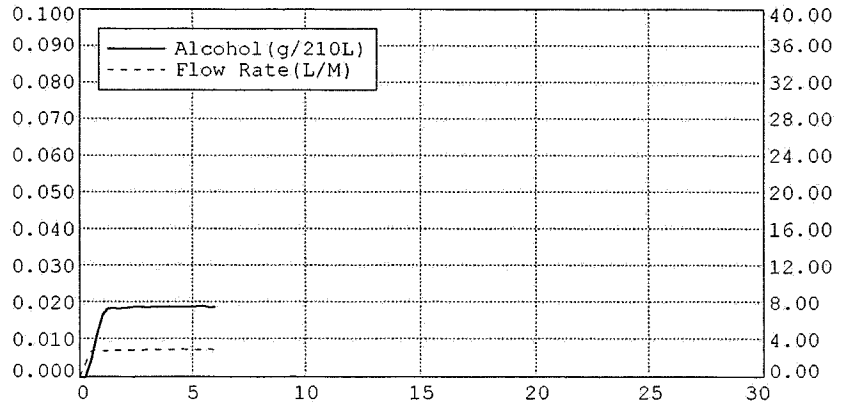
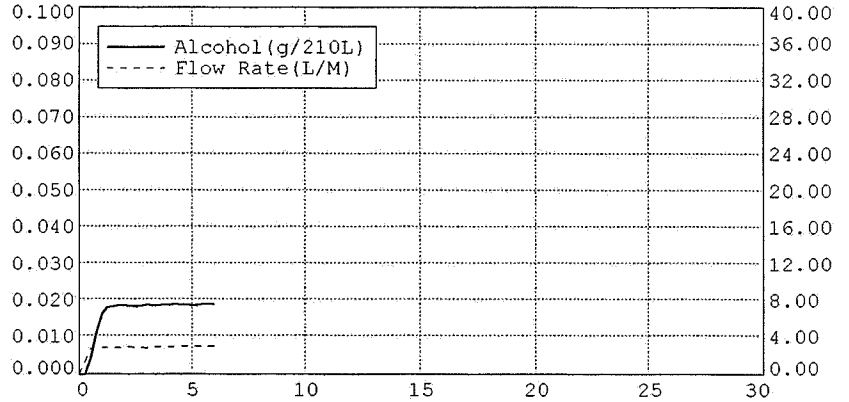
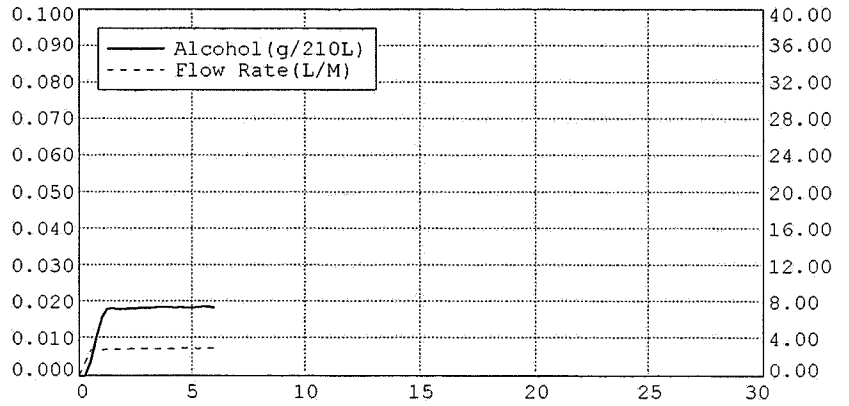
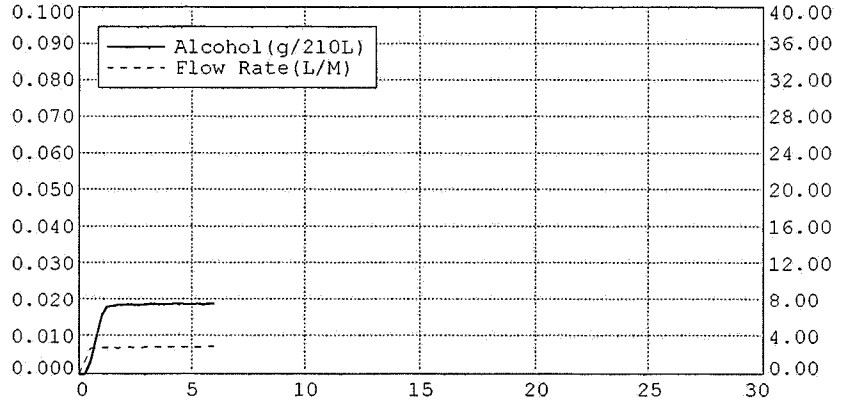
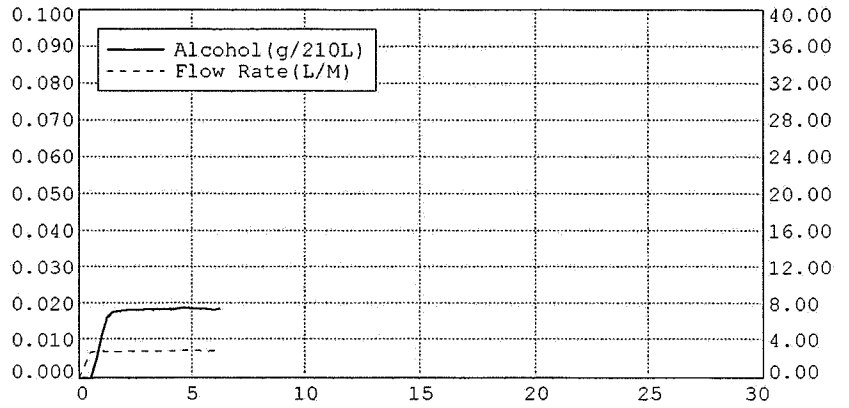
Date: 07/14/2021
 Time: 09:00:51

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.79: 0.020
 LOT #: AG100401
 EXPIRATION: 01/04/2023
 TANK PRESSURE: 1148 psi

BLANK TEST	0.000	09:02
INTERNAL STANDARD	VERIFIED	09:02
EXTERNAL STANDARD	0.020	09:02
BLANK TEST	0.000	09:03
EXTERNAL STANDARD	0.020	09:03
BLANK TEST	0.000	09:04
EXTERNAL STANDARD	0.020	09:04
BLANK TEST	0.000	09:05
EXTERNAL STANDARD	0.020	09:05
BLANK TEST	0.000	09:06
EXTERNAL STANDARD	0.020	09:06
BLANK TEST	0.000	09:07

Average = 0.0200
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

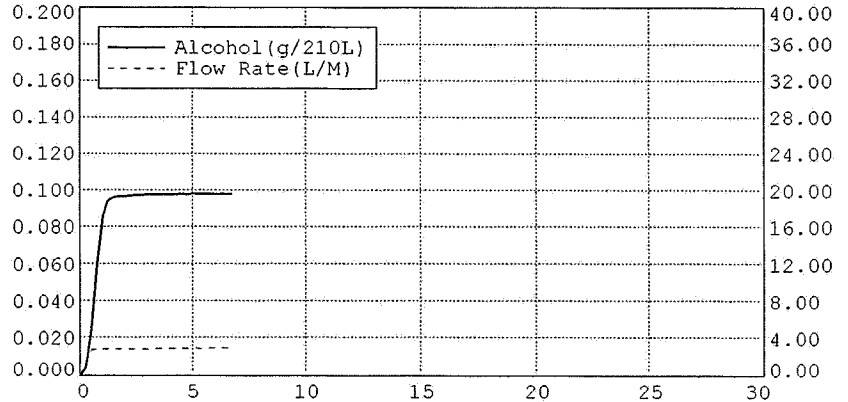
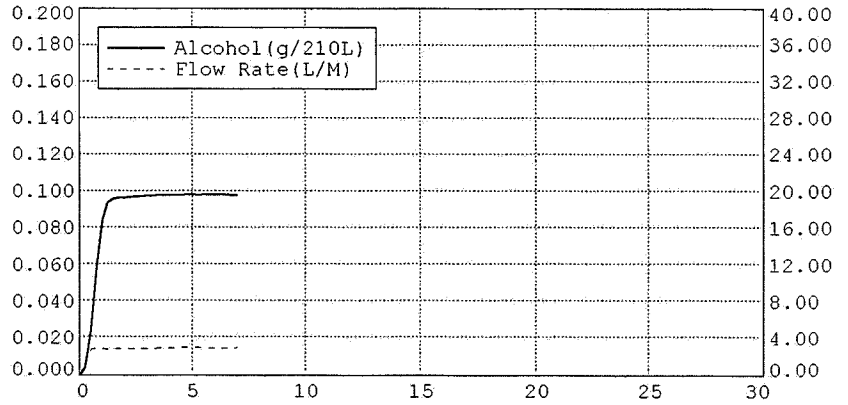
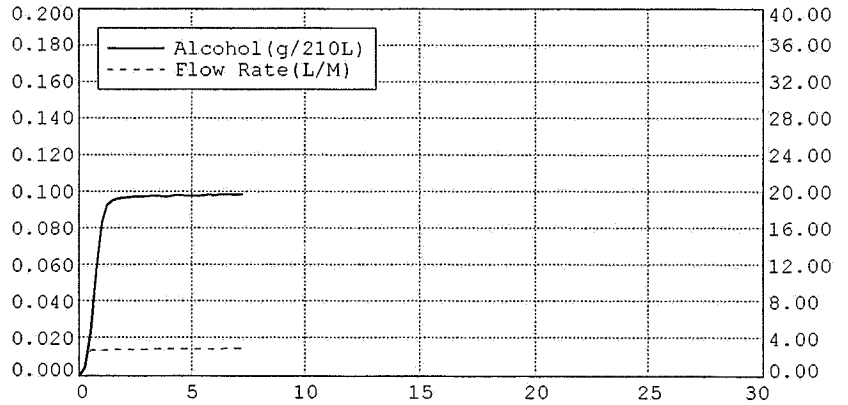
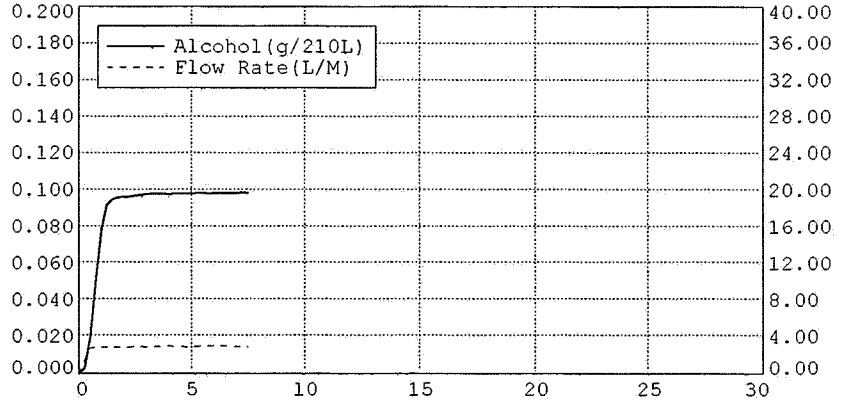
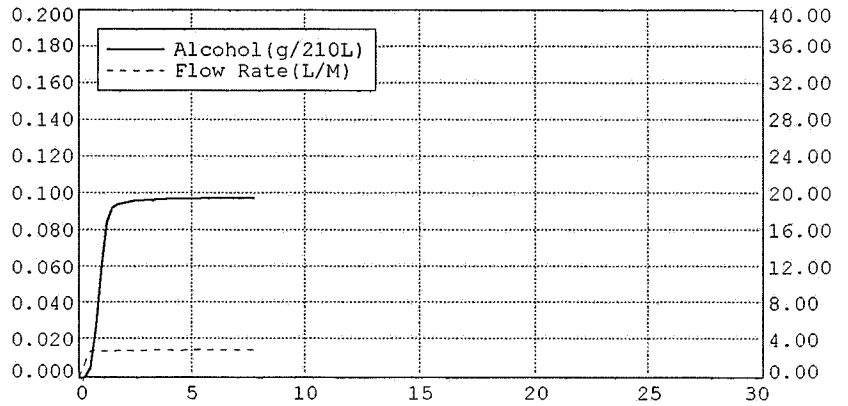
Alaska Department of Public Safety
 DATAMASTER dmt: 100671

Date: 07/14/2021
 Time: 09:10:05

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.100
 TARGET AT 29.79: 0.100
 LOT #: AG108404
 EXPIRATION: 03/25/2023
 TANK PRESSURE: 1073 psi

BLANK TEST	0.000	09:11
INTERNAL STANDARD	VERIFIED	09:11
EXTERNAL STANDARD	0.099	09:11
BLANK TEST	0.000	09:12
EXTERNAL STANDARD	0.099	09:12
BLANK TEST	0.000	09:13
EXTERNAL STANDARD	0.099	09:13
BLANK TEST	0.000	09:14
EXTERNAL STANDARD	0.099	09:14
BLANK TEST	0.000	09:15
EXTERNAL STANDARD	0.099	09:16
BLANK TEST	0.000	09:17

Average = 0.0990
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
DATAMASTER dmt: 100671

Date: 07/14/2021
Time: 09:22:09

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
LOT #: 19330
EXPIRATION: 11/13/2021

BLANK TEST	0.000	09:51
INTERNAL STANDARD	VERIFIED	09:51
EXTERNAL STANDARD	0.298	09:52
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.297	09:53
BLANK TEST	0.000	09:54
EXTERNAL STANDARD	0.297	09:54
BLANK TEST	0.000	09:55
EXTERNAL STANDARD	0.297	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.297	09:57
BLANK TEST	0.000	09:58

Average = 0.2972
Std Dev = 0.0004

Simulator SN: DR4177

Calibrated: 11/17/2020

Jhw 07/14/21

