

Alaska Scientific Crime Detection Laboratory

DataMaster Evaluation Form

Effective: 10/10/2022

Version: 3.0

Instrument #: 100668

Analyst(s): C. O. Bryant

Start Date: 2/22/23

Date Received: 2/22/2023 COB 2023.03.02

Reason for instrument evaluation

Filter Wheel Error

Visual Inspection

- Clean
- Replace missing screws
- Cermetex Box (modem) is secure
- Ensure modem cable present
- Double Check Valve secured to wall
- All tubing and connections secure
- O-ring inspection and ensure 2 replacement O-rings in bag

As Found Conditions:

Barometric Pressure (inHg): 30.23 Temperature (C): 22.2 Relative Humidity (%): 12%

Linearity Test (attached)

0.020g/210L Mnf: <u>Airgas</u>	Lot: <u>AG217902</u>	Exp: <u>6/28/24</u>
0.080g/210L Mnf: <u>Airgas</u>	Lot: <u>AG113402</u>	Exp: <u>5/14/23</u>
0.300g/210L Mnf: <u>Airgas</u>	Lot: <u>AG217903</u>	Exp: <u>6/28/24</u>

Notes

Completed a VOC + 5+ cycles of filter wheel tests without issue.

- VOC (attached)
- Verify software version
- VOC Internal Standard value $\leq 3.00\%$
- Non-Drinking Subject Test (attached)

Condition of item: Good Needs Repair

Ready for Adjustment

Ready for Calibration

End Date: 2/22/23

LINEARITY CHECK

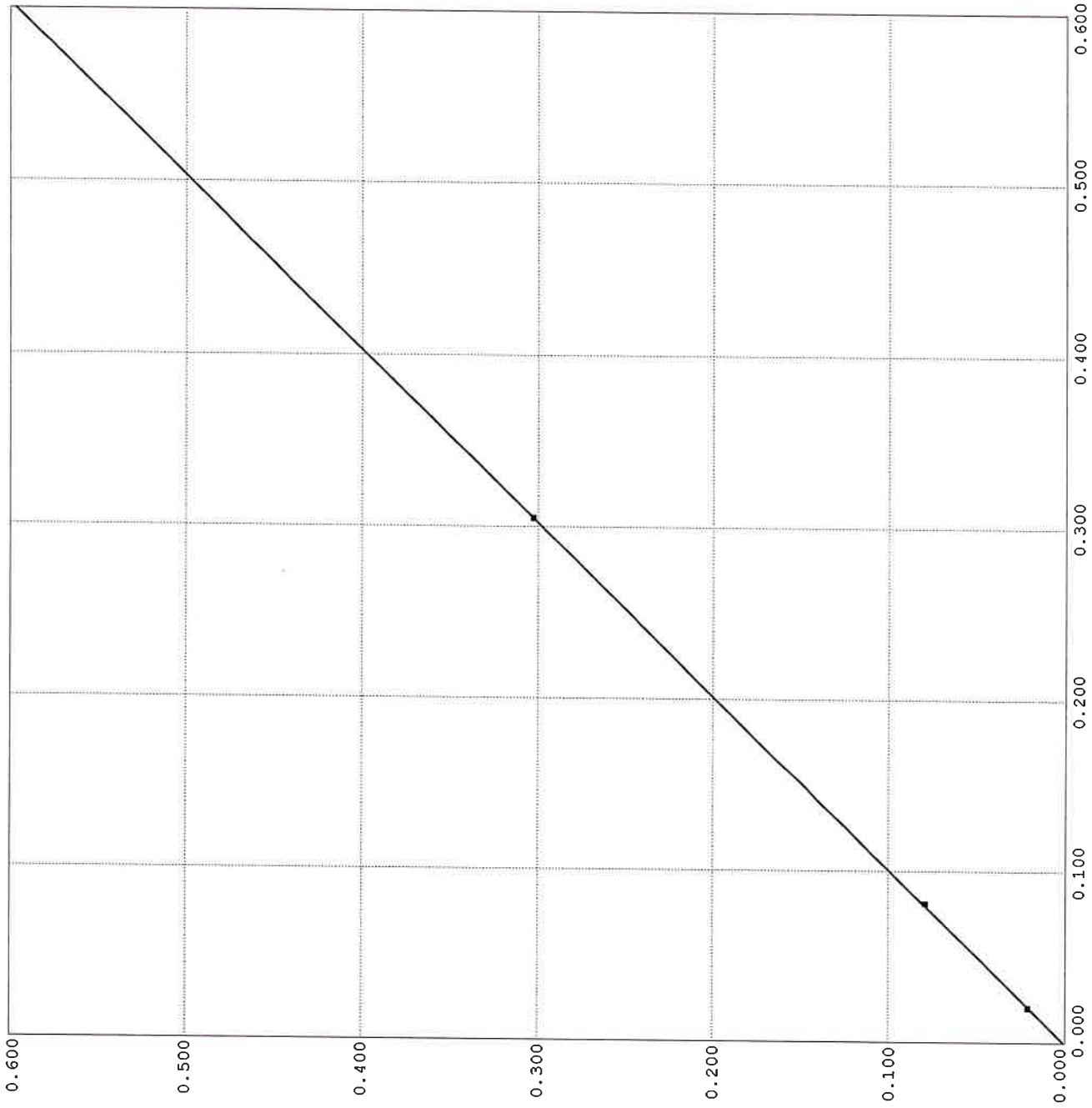
Alaska Department of Public Safety
 DATAMASTER dmt: 100668

Date: 02/22/2023
 Time: 12:20:18

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0218	0.0004
0.081	0.0804	0.0009
0.304	0.3034	0.0005

SLOPE = 0.993826
 R² = 0.999952



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100668

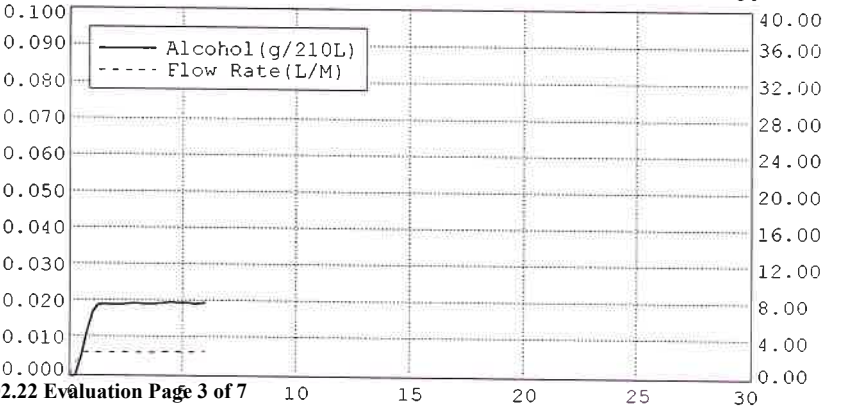
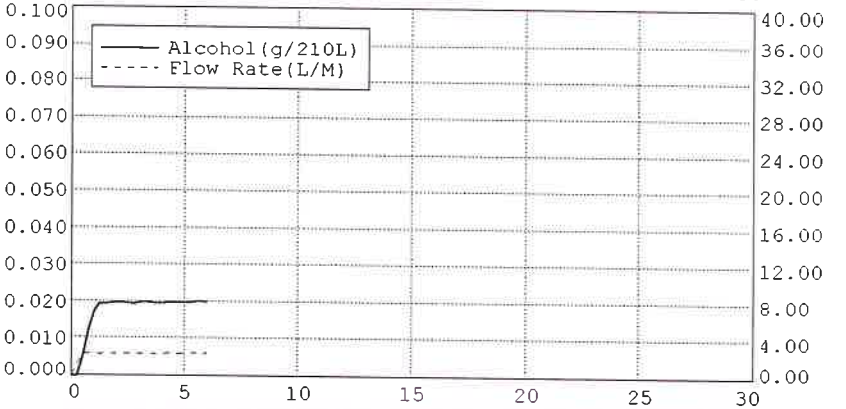
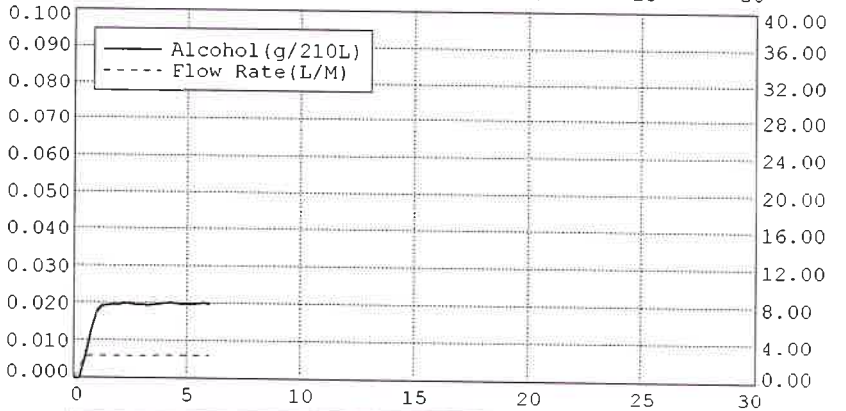
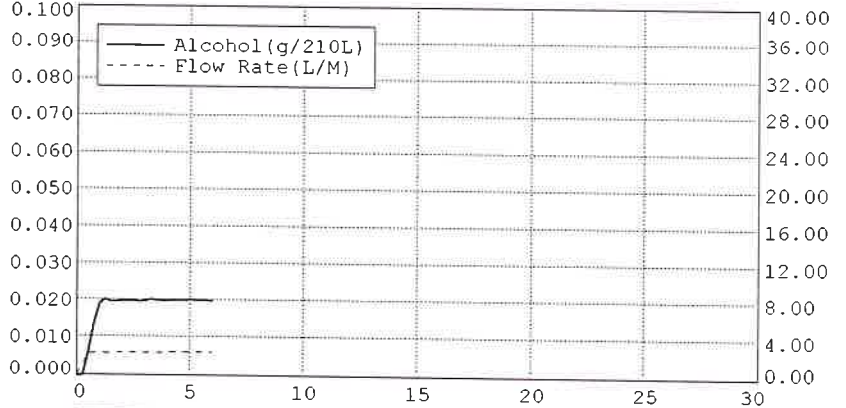
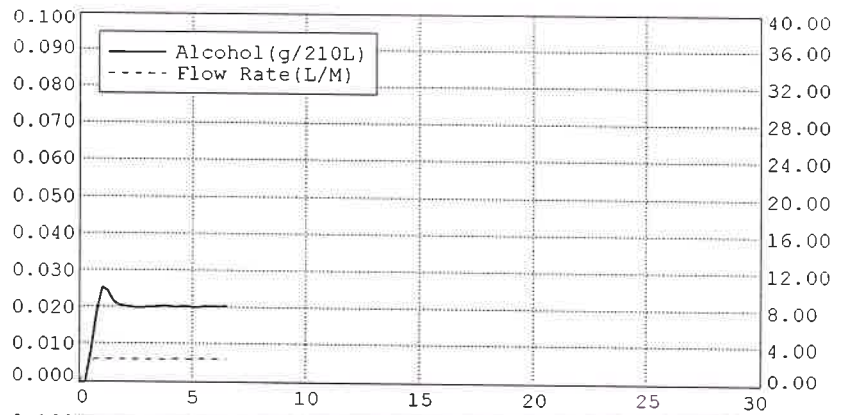
Date: 02/22/2023
Time: 12:20:21

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 30.27: 0.020
LOT #: AG217902
EXPIRATION: 06/28/2024
TANK PRESSURE: 877 psi

BLANK TEST	0.000	12:22
INTERNAL STANDARD	VERIFIED	12:22
EXTERNAL STANDARD	0.022	12:22
BLANK TEST	0.000	12:23
EXTERNAL STANDARD	0.022	12:23
BLANK TEST	0.000	12:24
EXTERNAL STANDARD	0.022	12:25
BLANK TEST	0.000	12:25
EXTERNAL STANDARD	0.022	12:26
BLANK TEST	0.000	12:27
EXTERNAL STANDARD	0.021	12:27
BLANK TEST	0.000	12:28

Average = 0.0218
Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100668

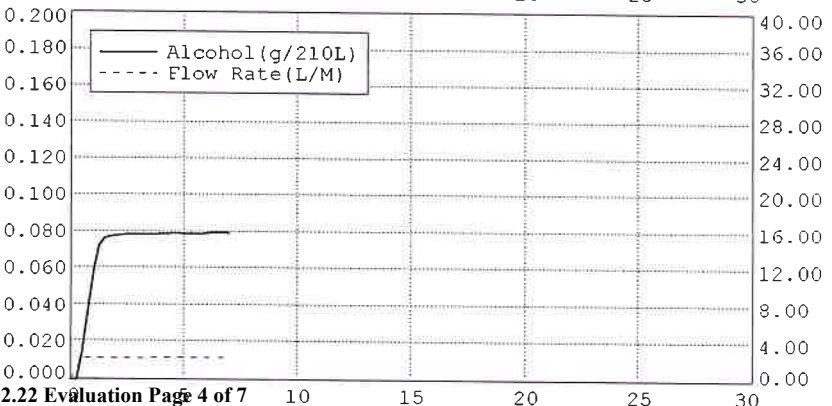
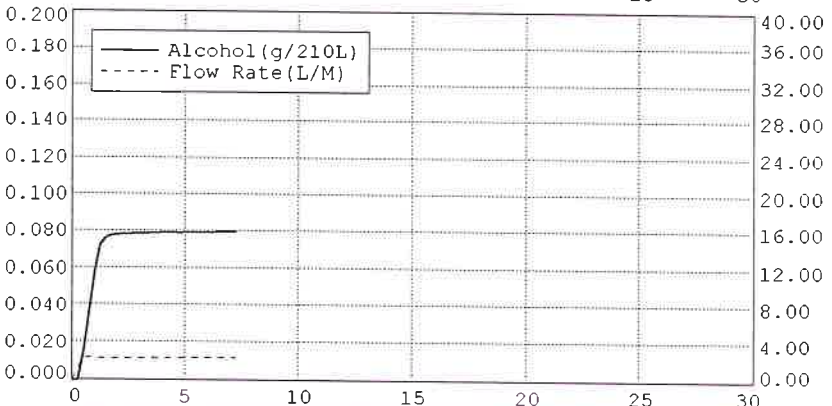
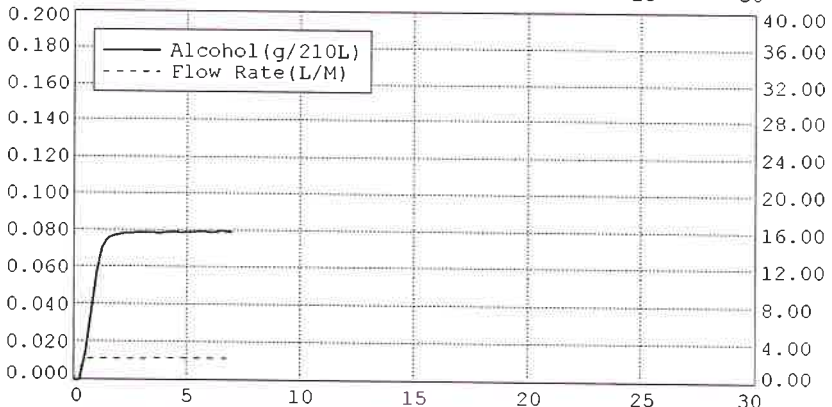
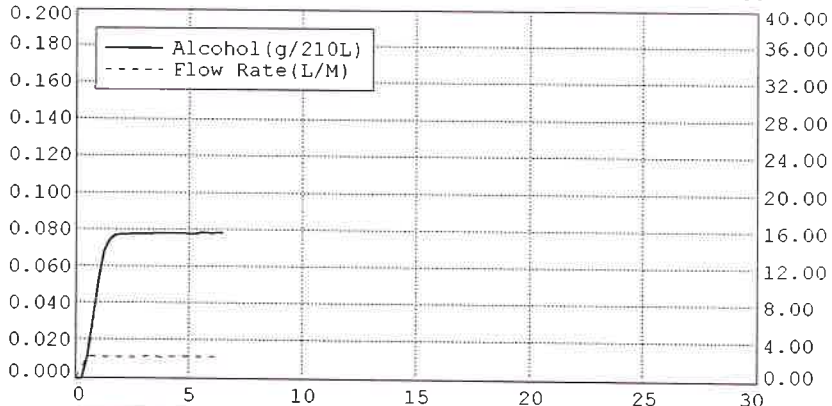
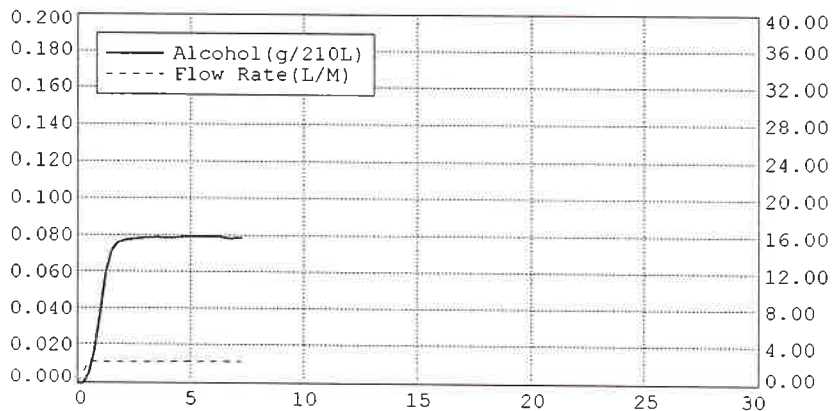
Date: 02/22/2023
 Time: 12:29:45

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 30.26: 0.081
 LOT #: AG113402
 EXPIRATION: 05/14/2023
 TANK PRESSURE: 443 psi

BLANK TEST	0.000	12:30
INTERNAL STANDARD	VERIFIED	12:31
EXTERNAL STANDARD	0.080	12:31
BLANK TEST	0.000	12:32
EXTERNAL STANDARD	0.079	12:32
BLANK TEST	0.000	12:33
EXTERNAL STANDARD	0.081	12:33
BLANK TEST	0.000	12:34
EXTERNAL STANDARD	0.081	12:34
BLANK TEST	0.000	12:35
EXTERNAL STANDARD	0.081	12:35
BLANK TEST	0.000	12:36

Average = 0.0804
 Std Dev = 0.0009



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100668

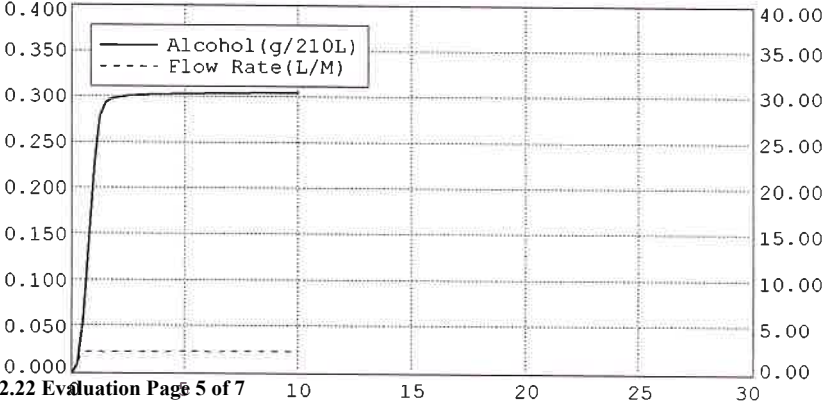
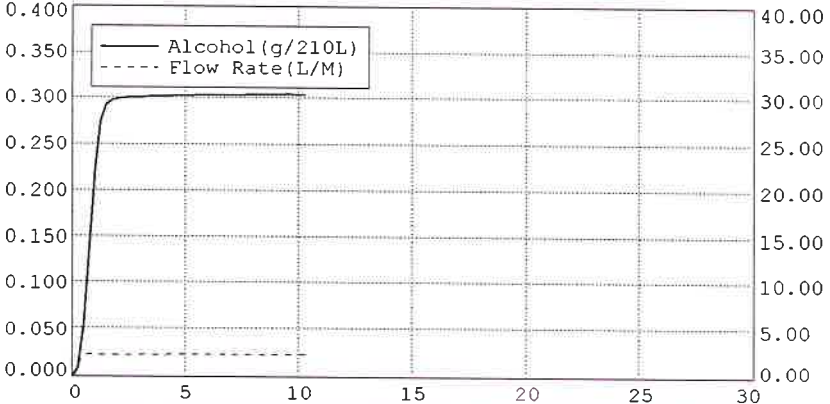
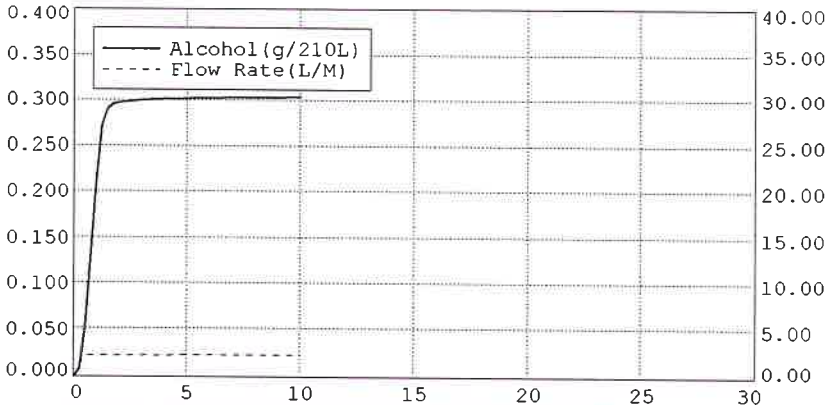
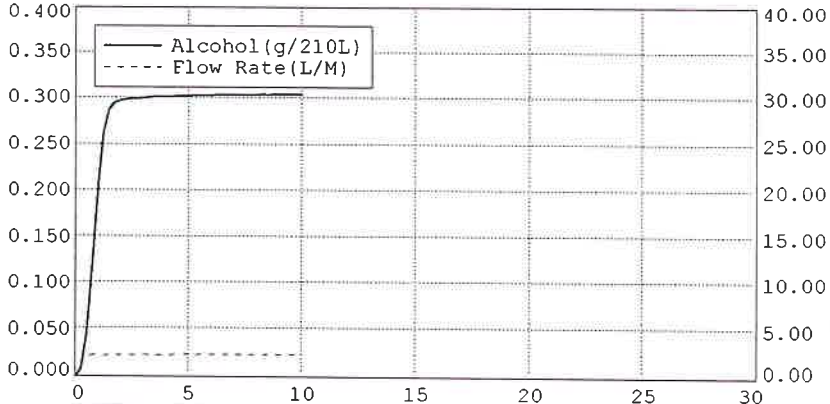
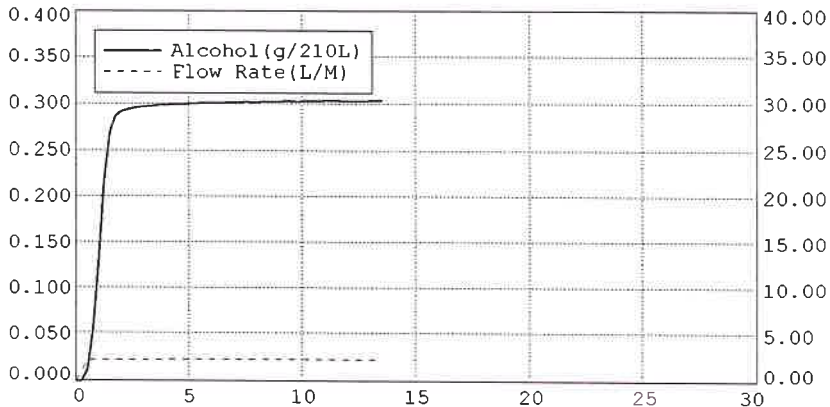
Date: 02/22/2023
 Time: 12:37:01

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 TARGET AT 30.28: 0.304
 LOT #: AG217903
 EXPIRATION: 06/28/2024
 TANK PRESSURE: 447 psi

BLANK TEST	0.000	12:38
INTERNAL STANDARD	VERIFIED	12:38
EXTERNAL STANDARD	0.303	12:38
BLANK TEST	0.000	12:39
EXTERNAL STANDARD	0.303	12:39
BLANK TEST	0.000	12:40
EXTERNAL STANDARD	0.303	12:41
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.304	12:42
BLANK TEST	0.000	12:43
EXTERNAL STANDARD	0.304	12:43
BLANK TEST	0.000	12:44

Average = 0.3034
 Std Dev = 0.0005



VERIFICATION OF CALIBRATION REPORT

of DataMaster dmt Breath Test Instrument

State of Alaska

Serial #: 100668

Scientific Crime Detection Laboratory - Statewide Breath Alcohol Program

Date: 02/22/2023

External Standard Test Values

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 30.27: 0.081
LOT #: AG113402
EXPIRATION: 05/14/2023
TANK PRESSURE: 427 psi

BLANK TEST	0.000	12:51
INTERNAL STANDARD	VERIFIED	12:51
Xq = 0.091	(0.68%)	
EXTERNAL STANDARD	0.081	12:51
X[1] = 0.0814	(-0.0019) (0.0001)	
BLANK TEST	0.000	12:52
EXTERNAL STANDARD	0.081	12:52
X[1] = 0.0806	(-0.0017) (0.0005)	
BLANK TEST	0.000	12:53
EXTERNAL STANDARD	0.081	12:53
X[1] = 0.0806	(-0.0008) (0.0004)	
BLANK TEST	0.000	12:54
EXTERNAL STANDARD	0.080	12:54
X[1] = 0.0804	(-0.0017) (0.0004)	
BLANK TEST	0.000	12:55
EXTERNAL STANDARD	0.080	12:55
X[1] = 0.0802	(-0.0015) (0.0000)	
BLANK TEST	0.000	12:56

Average = 0.0806
Std Dev = 0.0005

Diagnostic Check

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.8°C	PASSED
(44.0°C - 52.0°C)	
Breath Tube = 46.5°C	PASSED
(38.0°C - 50.0°C)	

SETTINGS

Lamp Voltage = 1.82 V	PASSED
(0.97 V - 2.25 V)	
Cooler Voltage = 1.79 V	PASSED
(1.04 V - 2.44 V)	
Bias Voltage = 79 V	PASSED
(48 V - 112 V)	
Chopper Freq = 528 Hz	PASSED
(475 Hz - 575 Hz)	
Barometer = 30.3 in	

PUMP INFO

Flow Rate = 4.937 L/M	PASSED
(3.500 L/M - 6.500 L/M)	

DETECTOR INFO

PUMP ON	PASSED
(0.003 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	0.19%	(0.00% - 4.00%)	PASSED
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SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100668

Date: 02/22/2023
Time: 12:57:44

SUBJECT NAME:
TEST TEST
LICENSE #: NON-DRINKING

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

DEPT/AGENCY:
AAA1
CASE/REPORT: 23-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 30.27: 0.081
LOT #: AG113402
EXPIRATION: 05/14/2023

DIAGNOSTIC CHECK	PASSED	12:58
BLANK TEST	0.000	12:58
INTERNAL STANDARD	VERIFIED	12:59
EXTERNAL STANDARD	0.081	12:59
BLANK TEST	0.000	13:00
SUBJECT SAMPLE (Vol=2.34L)	0.000	13:02
BLANK TEST	0.000	13:03
EXTERNAL STANDARD	0.081	13:03
BLANK TEST	0.000	13:04

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