

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Effective: 11/10/2021

Version: 2.0

Instrument #: 100382 Analyst: C. Bryant Start Date: 11/23/21

- Diagnostic Test (attached)
- Adjust voltages, if needed
  - Lamp (2.6V Maximum)
  - Bias
  - Cooler (2.0V Maximum)
- Internal Standard value  $\leq$  3.00%
  - Chopper Frequency
  - Detector Voltage (-0.100V to 0.100V)

- Set RFI Sensitivity
- Adjust barometer reading to match NIST traceable barometer
- Adjust volume setting, if needed (1.5L +/- 0.1L)
- Print Technician Screen (attached)
- Print Calibration Factors (attached)
- Minimum Volume Test 1.6 L (1.3L to 1.7L)

### Linearity Test (attached)

0.020g/210L Mnf: Airgas Lot: AG100401 Exp: 1/4/23  
0.040g/210L Mnf: Airgas Lot: AG 111710 Exp: 4/27/23  
0.080g/210L Mnf: Airgas Lot: AG018102 Exp: 6/29/23  
0.100g/210L Mnf: Airgas Lot: AG108404 Exp: 3/25/23  
0.200g/210L Mnf: Guth Lot: 20510 Exp: 12/3/22  
Simulator S/N: DR4161 Date Calibrated: 6/16/21  
0.300g/210L Mnf: Guth Lot: 21030 Exp: 2/6/23  
Simulator S/N: SD1002 Date Calibrated: 6/15/21

### Functional Tests (attached)

- Incomplete
- Invalid
- Maximum Attempts Exceeded
- Radio Frequency Interference
- Interference (Volatiles)

Acetone Mnf: LifeLoc Lot: 21DP41158 Level: 0.100 Exp: 4/29/23  
Simulator S/N: SD1177 Date Calibrated: 6/15/21  
Isopropanol Mnf: LifeLoc Lot: 21DP41158 Level: 0.100 Exp: 4/29/23  
Simulator S/N: SD1198 Date Calibrated: 6/15/21  
Neg. Control Mnf: LifeLoc Lot: 21DP41158 Level: 0.100 Exp: 4/29/23  
Simulator S/N: SD1088 Date Calibrated: 6/15/21

- Verify stylus is calibrated
- Reset Options
- Clear Memory
- Verification of Calibration
- Non-Drinking Subject Test
- Upload
- Remove Tank Prior to Shutdown
- Add Linearity Data to Spreadsheet

End Date: 11/23/21

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100382  
-----

Date: 11/23/2021  
Time: 07:05:01

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 44.7°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.60 V PASSED  
(0.98 V - 2.28 V)  
Cooler Voltage = 1.65 V PASSED  
(1.03 V - 2.39 V)  
Bias Voltage = 79 V PASSED  
(48 V - 112 V)  
Chopper Freq = 550 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.3 in

PUMP INFO

Flow Rate = 4.987 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 = 0.094 1.10% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100382  
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Date: 11/23/2021

Time: 2:50 PM

Temperatures (°C)

Sample Cell: 49.0°C

Breath Tube: 45.9°C

Current Barometer 29.4 in

Volume (Ltr) 1.53

Settings

Lamp: 1.78 V

Bias: 80 V

Cooler: 1.65 V

Chopper: 545 Hz

Voltages (V)

Flow: 1.04 V

Detector: 0.036 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100382  
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Date: 03/08/2011  
Time: 12:50:56

Ca = 0.1000  
CAL = 0.980421    0.800 <= CAL < 1.200  
b1 = 0.0000    0.0000 <= b1 < 0.0040  
b2 = 0.0038    0.0010 <= b2 < 0.0100  
b3 = 0.0002    0.0000 <= b3 < 0.0040  
Xq = 0.0953    0.0500 <= Xq < 0.2000  
a21 = 1.172812    1.050 <= a21 < 1.300  
a31 = 0.453890    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100382

Date: 11/23/2021  
Time: 14:51:50

SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

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

DEPT/AGENCY:  
AAA1

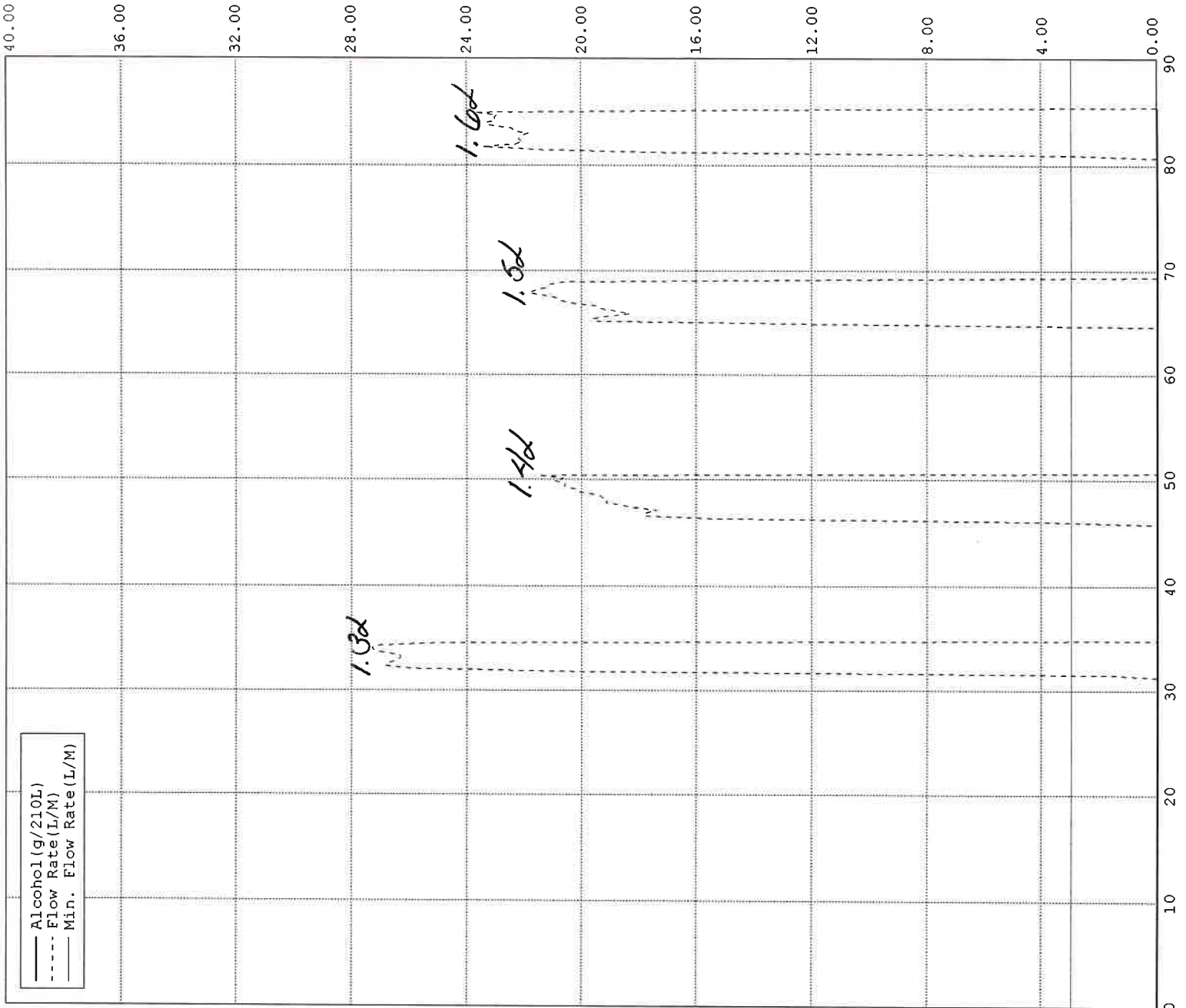
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.36: 0.078  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	14:52
BLANK TEST	0.000	14:53
INTERNAL STANDARD	VERIFIED	14:53
EXTERNAL STANDARD	0.077	14:53
BLANK TEST	0.000	14:54
SUBJECT SAMPLE (Vol=1.55L)	0.000	14:55
BLANK TEST	0.000	14:56
EXTERNAL STANDARD	0.077	14:56
BLANK TEST	0.000	14:57

*COB*



LINEARITY CHECK

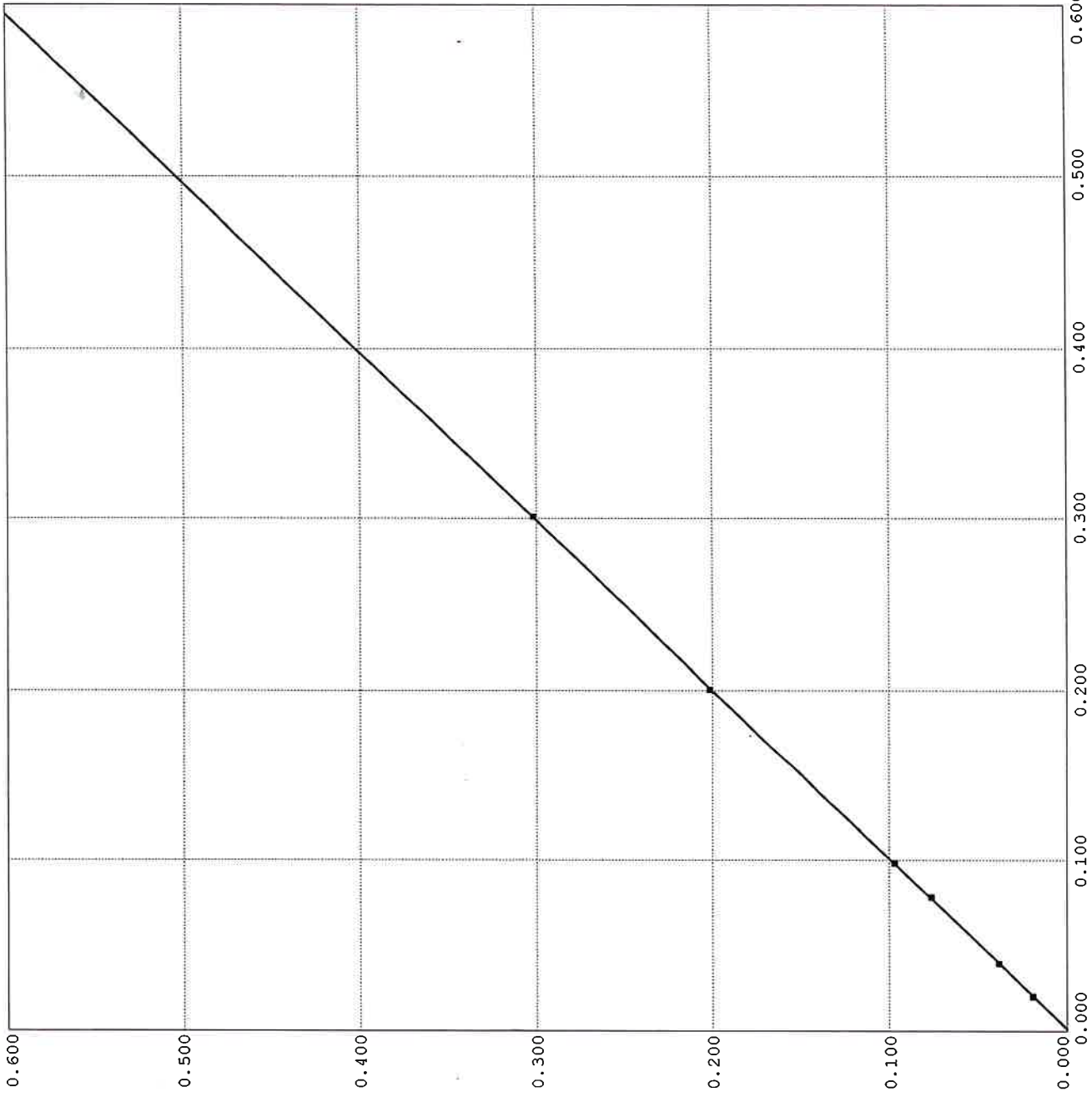
Alaska Department of Public Safety  
 DATAMASTER dmt: 100382

Date: 11/23/2021  
 Time: 15:16:47

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0198	0.0004
0.039	0.0390	0.0000
0.078	0.0772	0.0004
0.098	0.0978	0.0004
0.200	0.2022	0.0008
0.300	0.3024	0.0011

SLOPE = 1.011421  
 R<sup>2</sup> = 0.999968



*CS*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

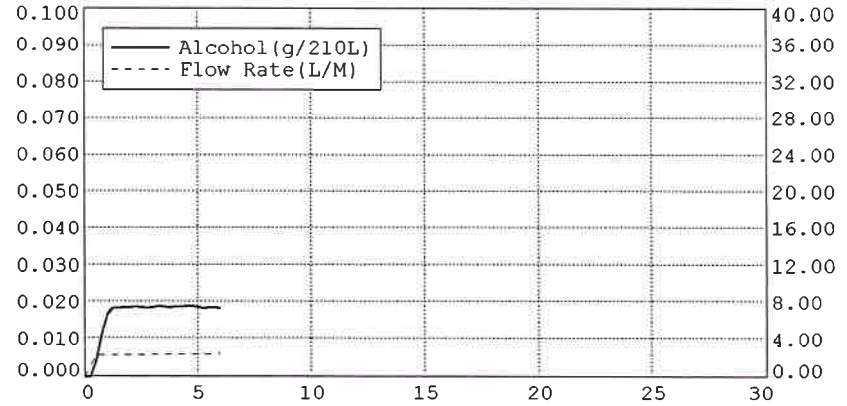
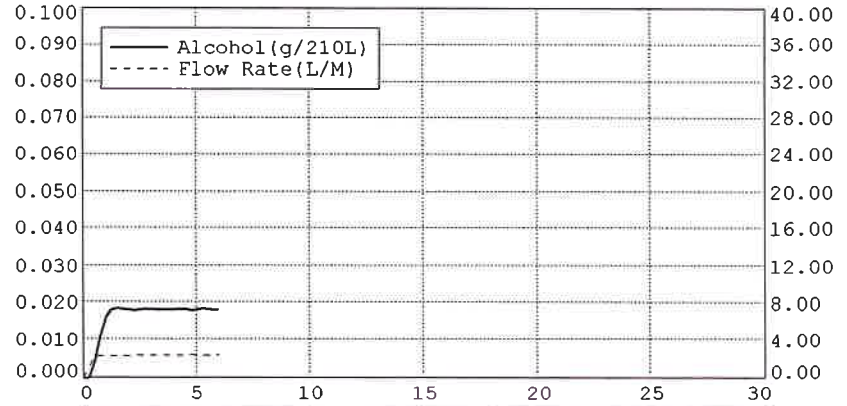
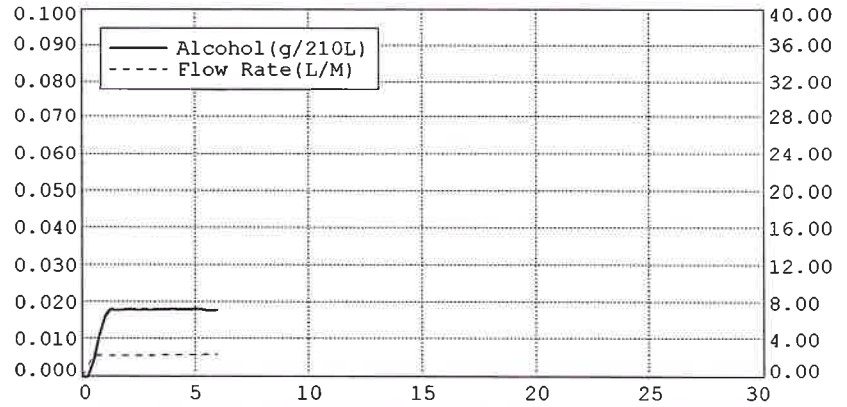
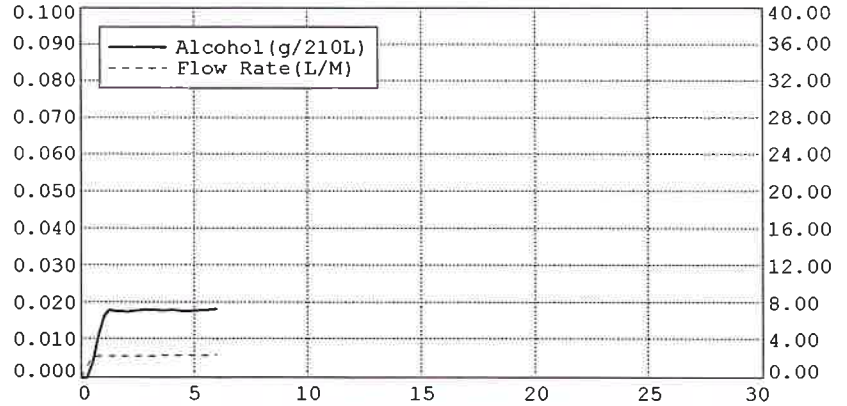
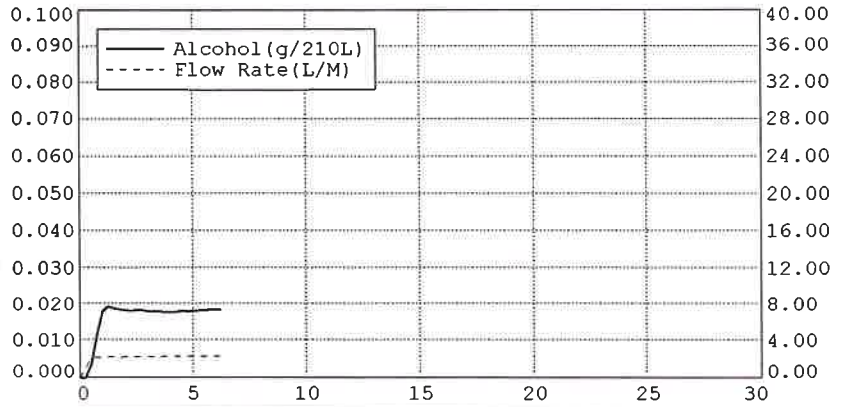
Date: 11/23/2021  
Time: 15:16:50

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
TARGET AT 29.34: 0.020  
LOT #: AG100401  
EXPIRATION: 01/04/2023  
TANK PRESSURE: 983 psi

BLANK TEST	0.000	15:18
INTERNAL STANDARD	VERIFIED	15:18
EXTERNAL STANDARD	0.020	15:18
BLANK TEST	0.000	15:19
EXTERNAL STANDARD	0.019	15:19
BLANK TEST	0.000	15:20
EXTERNAL STANDARD	0.020	15:20
BLANK TEST	0.000	15:21
EXTERNAL STANDARD	0.020	15:21
BLANK TEST	0.000	15:22
EXTERNAL STANDARD	0.020	15:22
BLANK TEST	0.000	15:23

Average = 0.0198  
Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

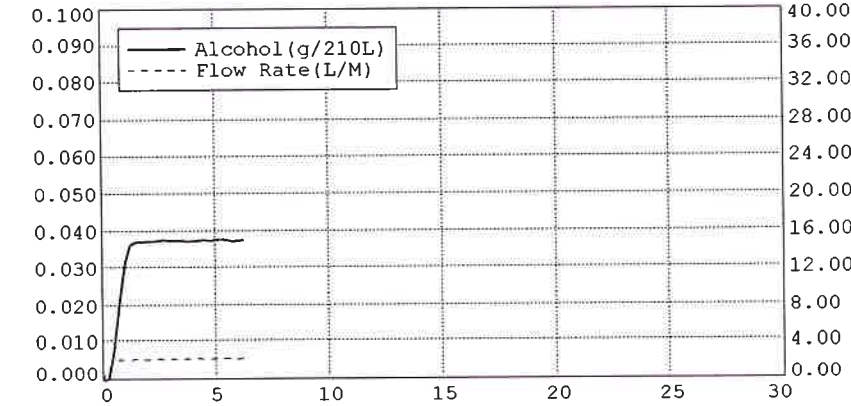
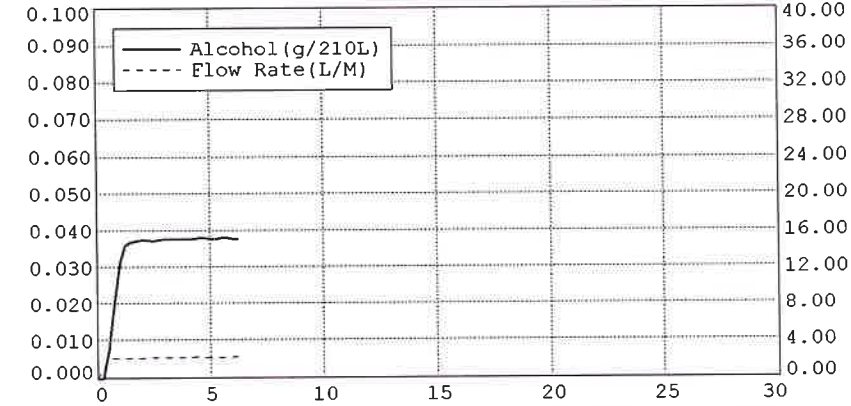
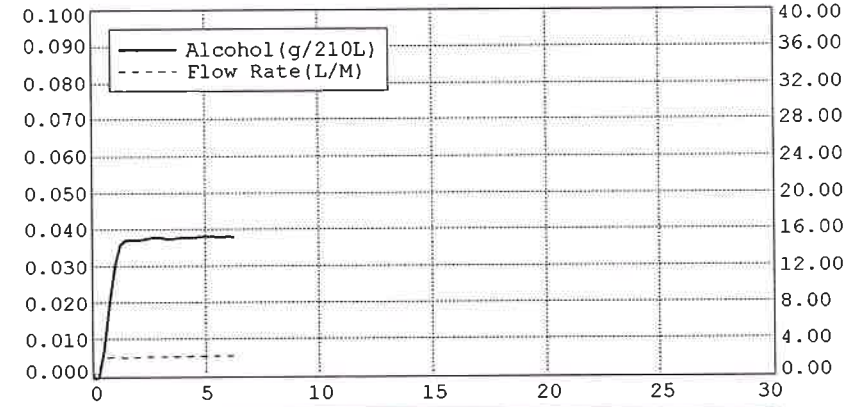
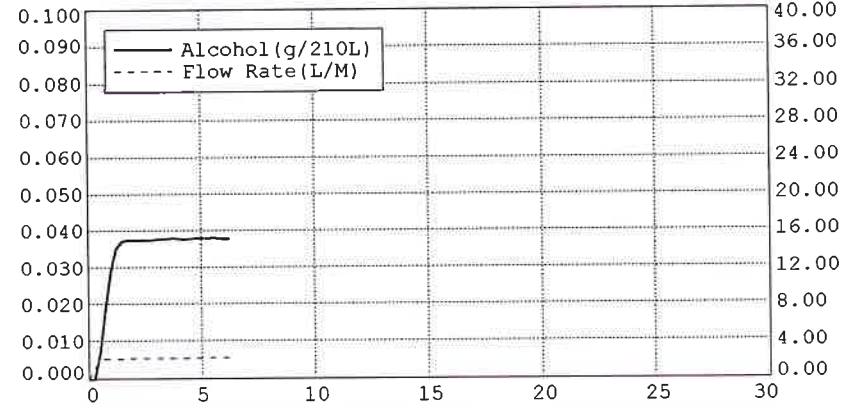
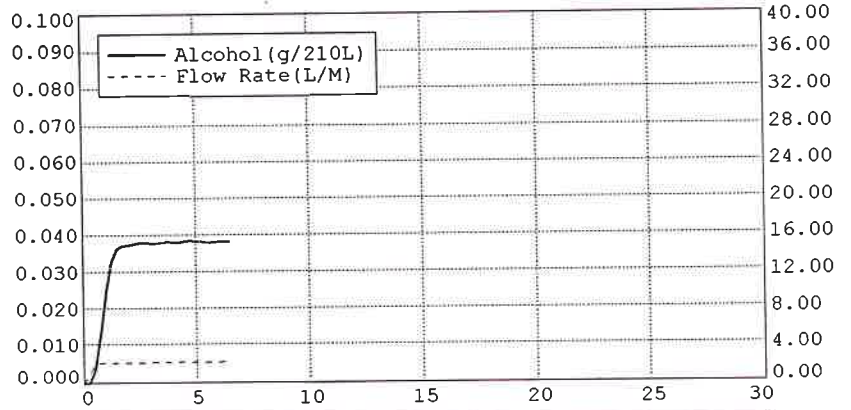
Alaska Department of Public Safety  
 DATAMASTER dmt: 100382

Date: 11/23/2021  
 Time: 15:24:28

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.040  
 TARGET AT 29.34: 0.039  
 LOT #: AG111710  
 EXPIRATION: 04/27/2023  
 TANK PRESSURE: 661 psi

BLANK TEST	0.000	15:25
INTERNAL STANDARD	VERIFIED	15:25
EXTERNAL STANDARD	0.039	15:25
BLANK TEST	0.000	15:26
EXTERNAL STANDARD	0.039	15:27
BLANK TEST	0.000	15:27
EXTERNAL STANDARD	0.039	15:28
BLANK TEST	0.000	15:29
EXTERNAL STANDARD	0.039	15:29
BLANK TEST	0.000	15:30
EXTERNAL STANDARD	0.039	15:30
BLANK TEST	0.000	15:31

Average = 0.0390  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

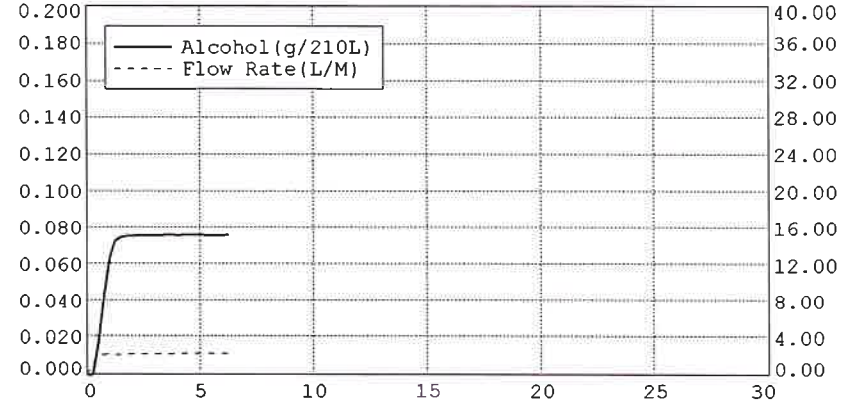
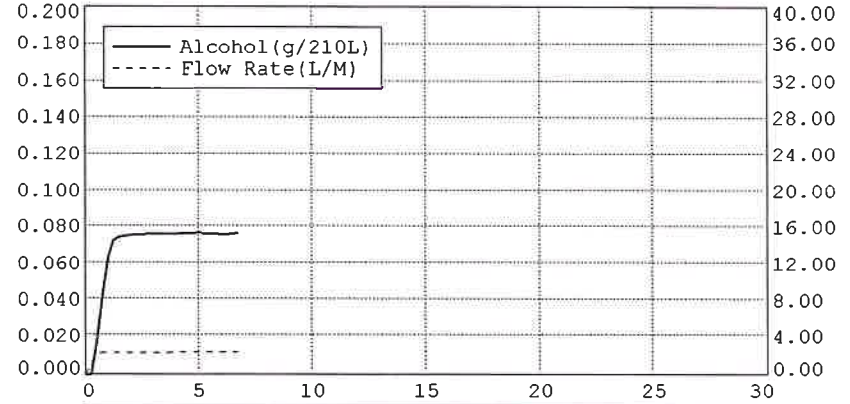
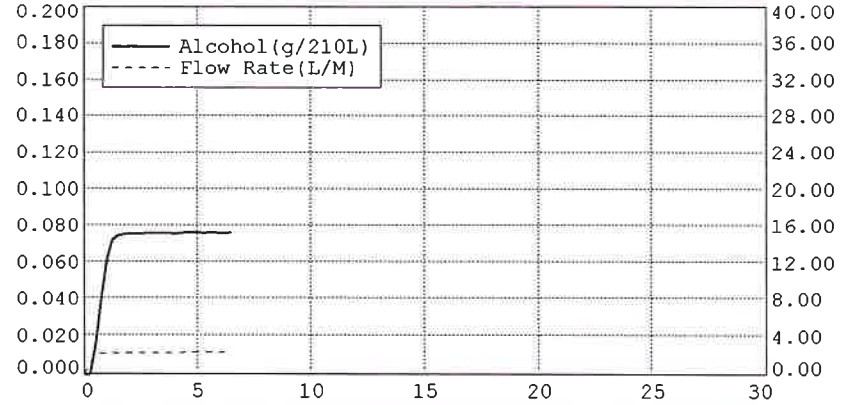
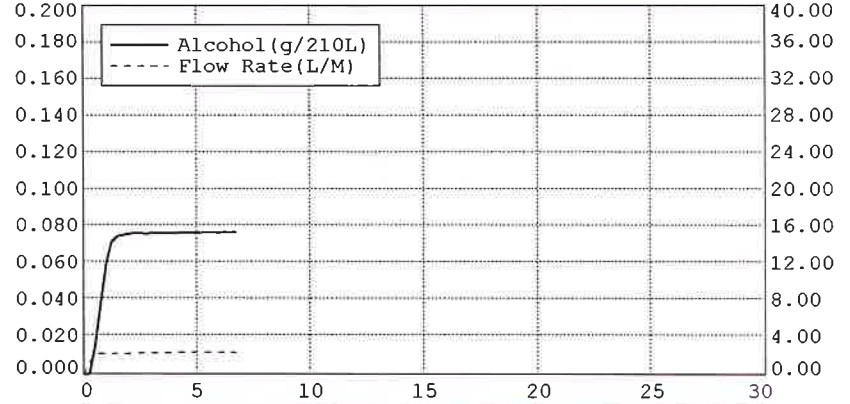
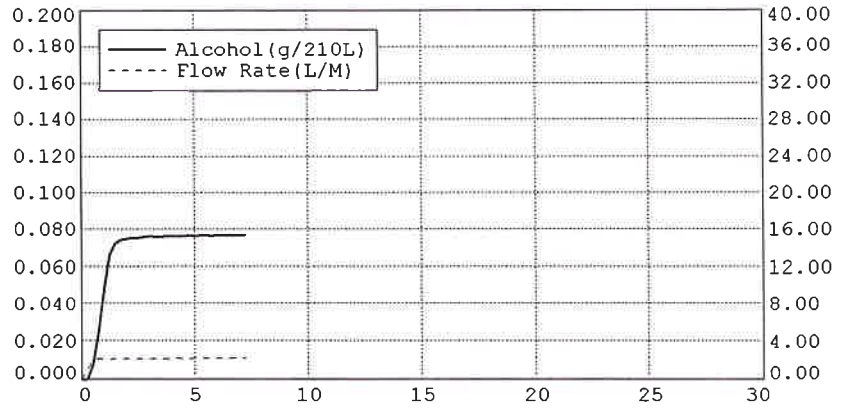
Date: 11/23/2021  
Time: 15:32:06

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.34: 0.078  
LOT #: AG018102  
EXPIRATION: 06/29/2022  
TANK PRESSURE: 731 psi

BLANK TEST	0.000	15:33
INTERNAL STANDARD	VERIFIED	15:33
EXTERNAL STANDARD	0.078	15:33
BLANK TEST	0.000	15:34
EXTERNAL STANDARD	0.077	15:34
BLANK TEST	0.000	15:35
EXTERNAL STANDARD	0.077	15:35
BLANK TEST	0.000	15:36
EXTERNAL STANDARD	0.077	15:36
BLANK TEST	0.000	15:37
EXTERNAL STANDARD	0.077	15:38
BLANK TEST	0.000	15:38

Average = 0.0772  
Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

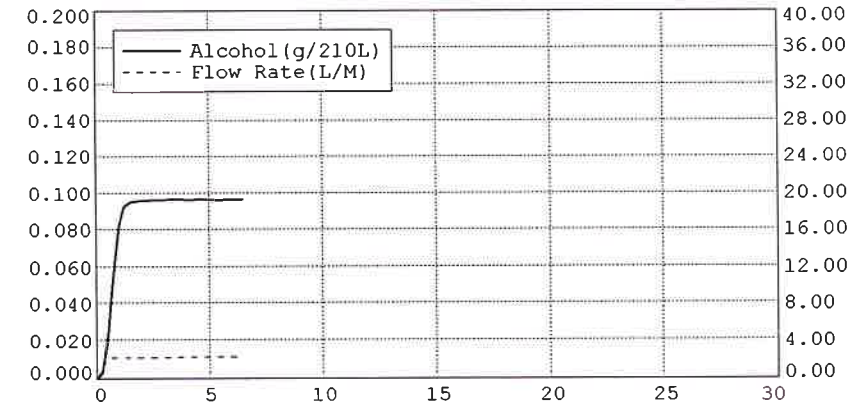
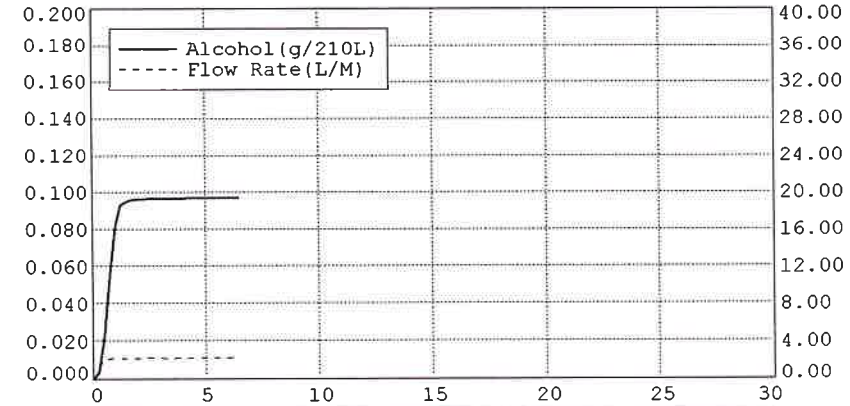
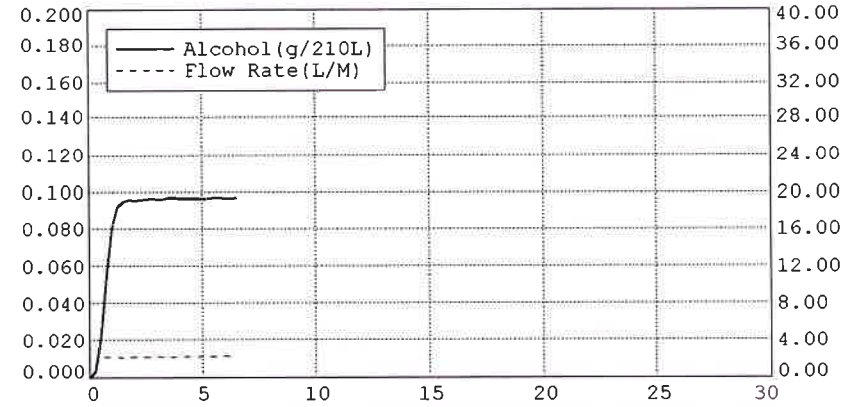
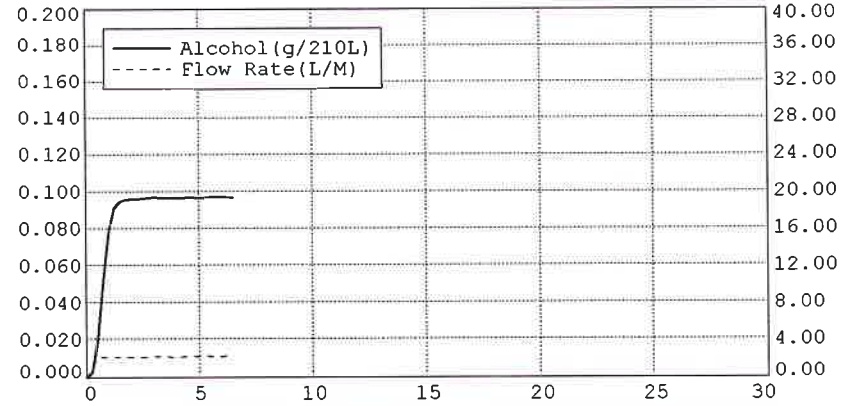
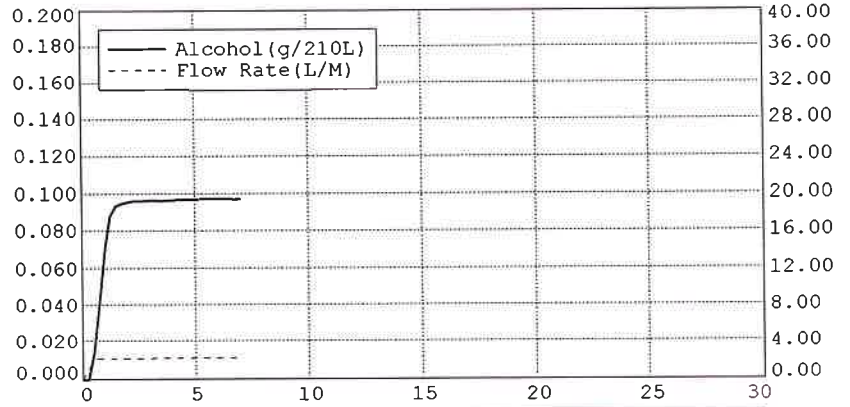
Date: 11/23/2021  
Time: 15:39:54

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
TARGET AT 29.35: 0.098  
LOT #: AG108404  
EXPIRATION: 03/25/2023  
TANK PRESSURE: 753 psi

BLANK TEST	0.000	15:41
INTERNAL STANDARD	VERIFIED	15:41
EXTERNAL STANDARD	0.098	15:41
BLANK TEST	0.000	15:42
EXTERNAL STANDARD	0.097	15:42
BLANK TEST	0.000	15:43
EXTERNAL STANDARD	0.098	15:43
BLANK TEST	0.000	15:44
EXTERNAL STANDARD	0.098	15:44
BLANK TEST	0.000	15:45
EXTERNAL STANDARD	0.098	15:45
BLANK TEST	0.000	15:46

Average = 0.0978  
Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

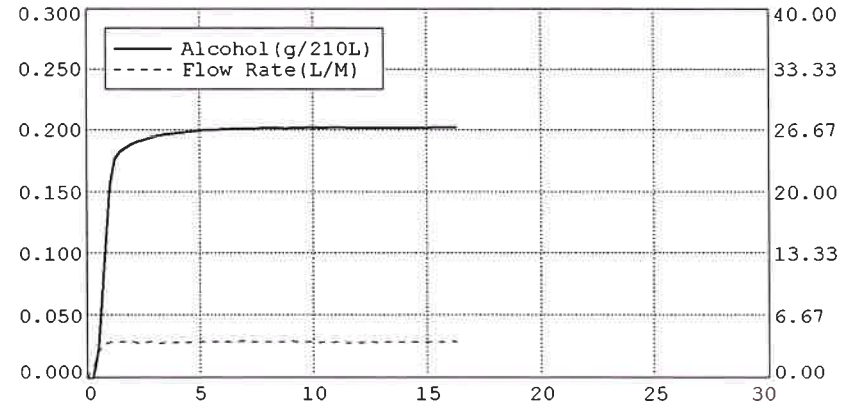
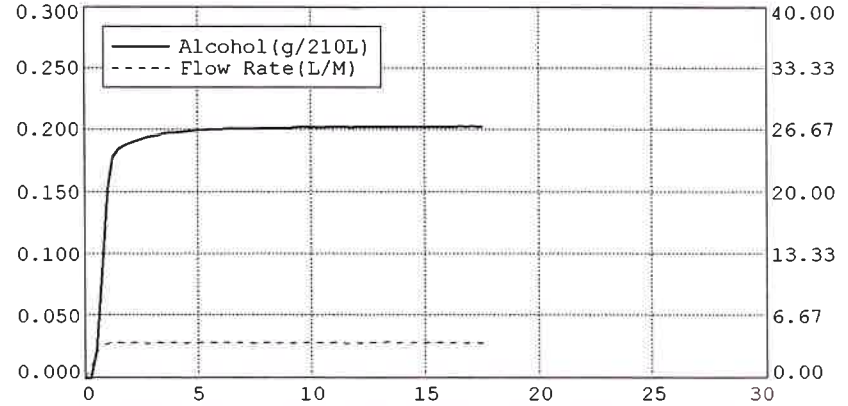
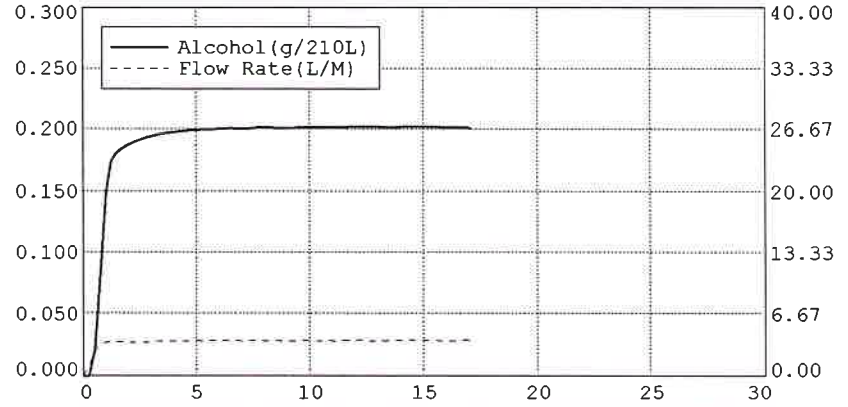
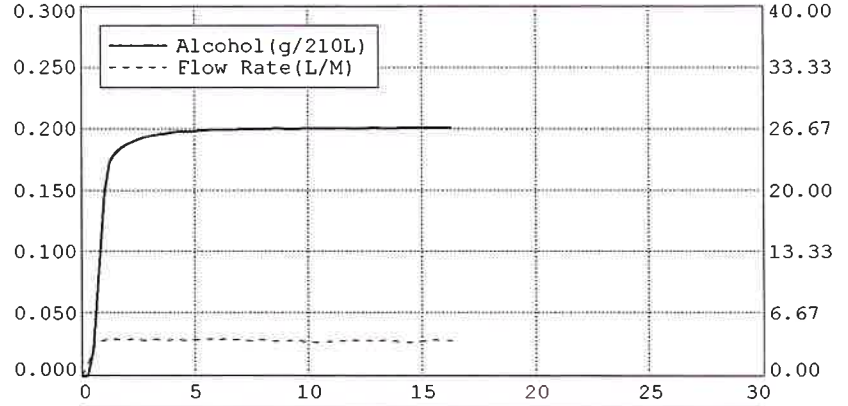
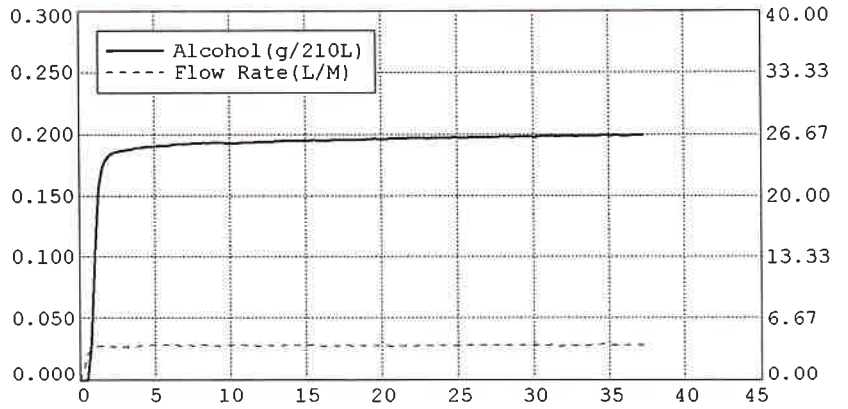
Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 11/23/2021  
Time: 15:48:38

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.200  
LOT #: 20510  
EXPIRATION: 12/03/2022

BLANK TEST	0.000	15:50
INTERNAL STANDARD	VERIFIED	15:50
EXTERNAL STANDARD	0.201	15:50
BLANK TEST	0.000	15:51
EXTERNAL STANDARD	0.202	15:52
BLANK TEST	0.000	15:53
EXTERNAL STANDARD	0.202	15:53
BLANK TEST	0.000	15:54
EXTERNAL STANDARD	0.203	15:54
BLANK TEST	0.000	15:55
EXTERNAL STANDARD	0.203	15:56
BLANK TEST	0.000	15:56

Average = 0.2022  
Std Dev = 0.0008



LINEARITY CHECK: Control Test 6

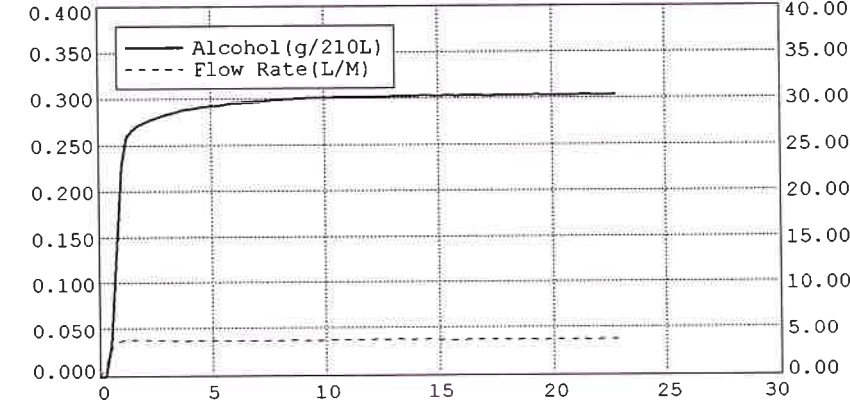
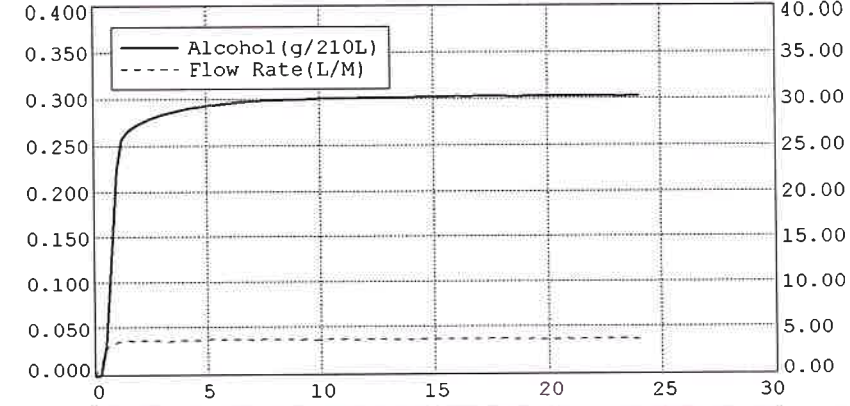
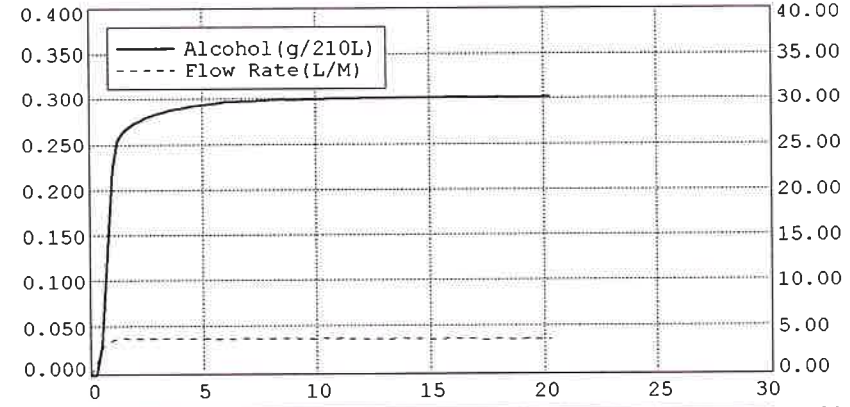
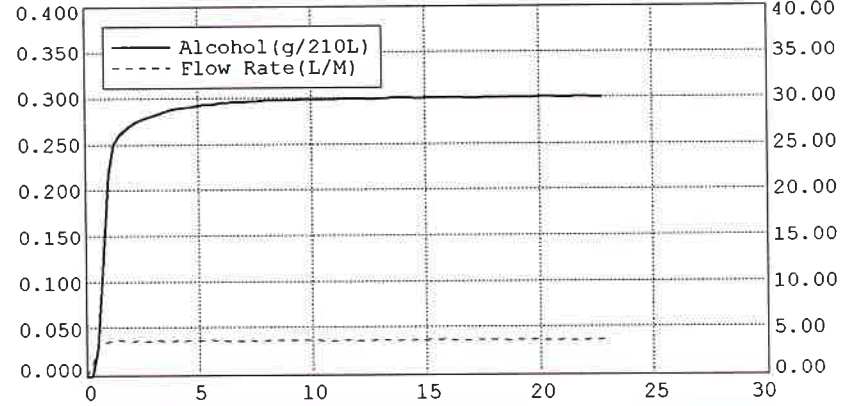
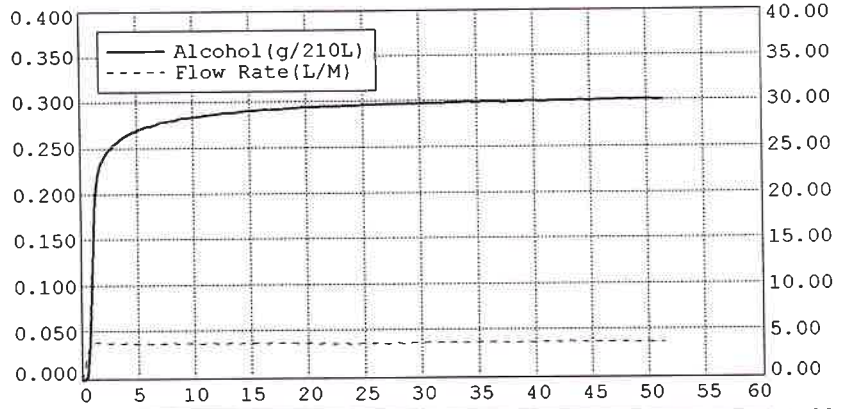
Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 11/23/2021  
Time: 15:58:49

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.300  
LOT #: 21030  
EXPIRATION: 02/02/2023

BLANK TEST	0.000	15:59
INTERNAL STANDARD	VERIFIED	15:59
EXTERNAL STANDARD	0.302	16:00
BLANK TEST	0.000	16:01
EXTERNAL STANDARD	0.301	16:02
BLANK TEST	0.000	16:03
EXTERNAL STANDARD	0.302	16:03
BLANK TEST	0.000	16:04
EXTERNAL STANDARD	0.303	16:05
BLANK TEST	0.000	16:06
EXTERNAL STANDARD	0.304	16:06
BLANK TEST	0.000	16:07

Average = 0.3024  
Std Dev = 0.0011



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 11/24/2021  
Time: 11:05:17

SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

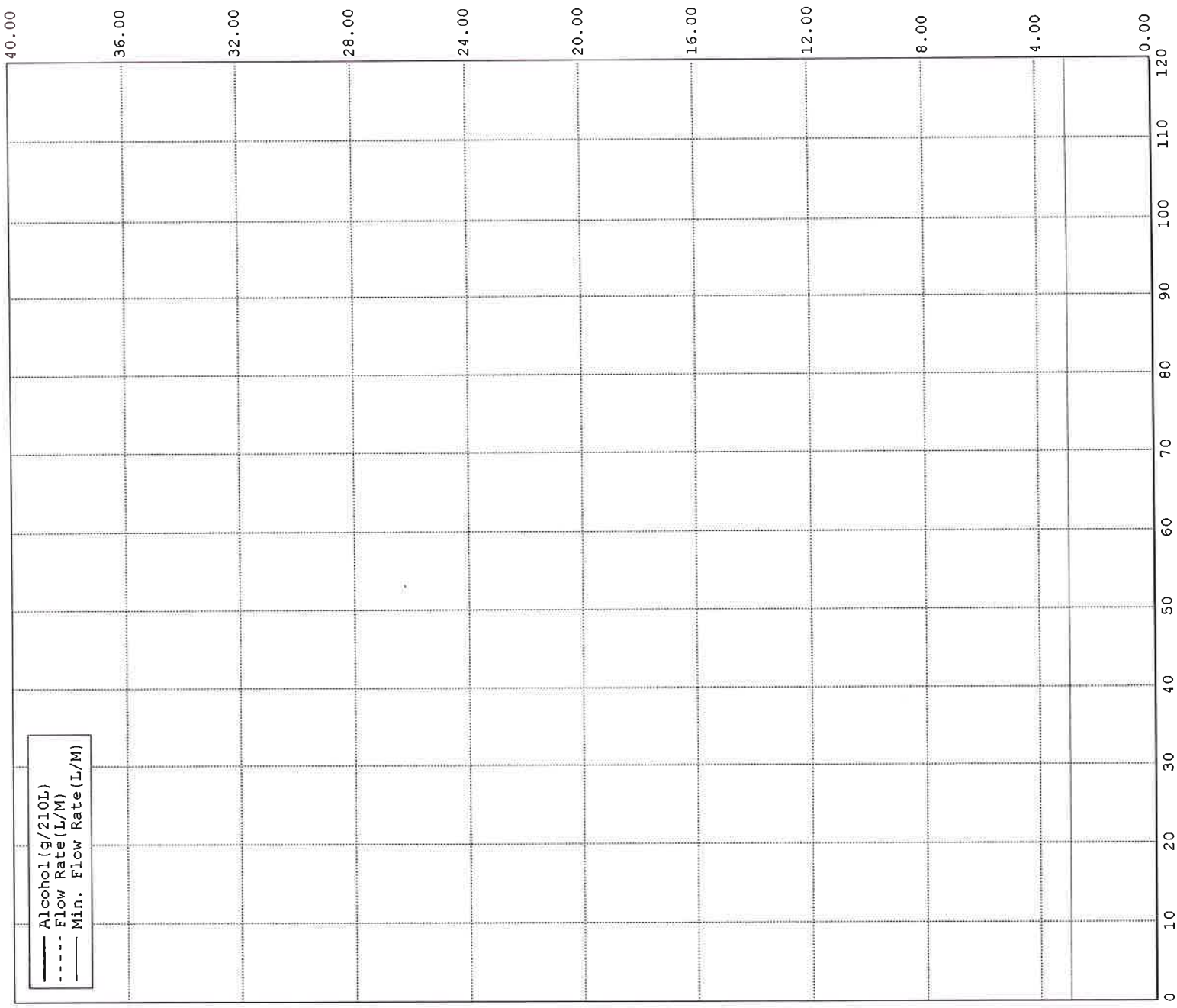
OPERATOR NAME:  
COLLEEN S OBRYANT  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 28.95: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 11:06  
BLANK TEST 0.000 11:06  
INTERNAL STANDARD VERIFIED 11:06  
EXTERNAL STANDARD 0.076 11:07  
BLANK TEST 0.000 11:08  
SUBJECT SAMPLE INCOMPLETE 11:10

*cab*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 11/24/2021  
Time: 11:23:51

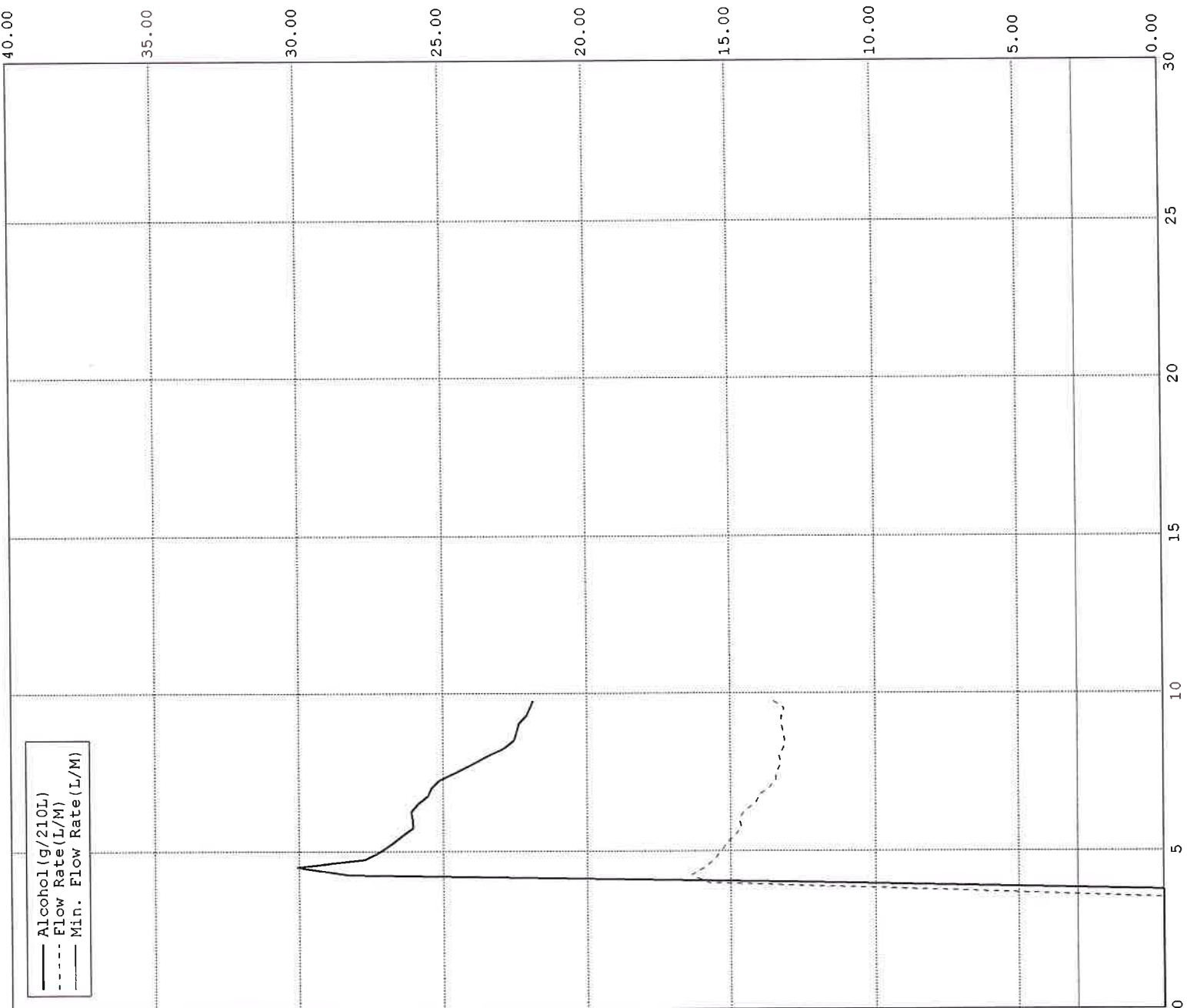
SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

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

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 28.94: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:25
BLANK TEST	0.000	11:25
INTERNAL STANDARD	VERIFIED	11:25
EXTERNAL STANDARD	0.076	11:25
BLANK TEST	0.000	11:26
SUBJECT SAMPLE	INVALID	11:26



SUBJECT TEST

Alaska Department of Public Safety  
DAPAMASTER dmt: 100382

Date: 11/24/2021  
Time: 11:40:38

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

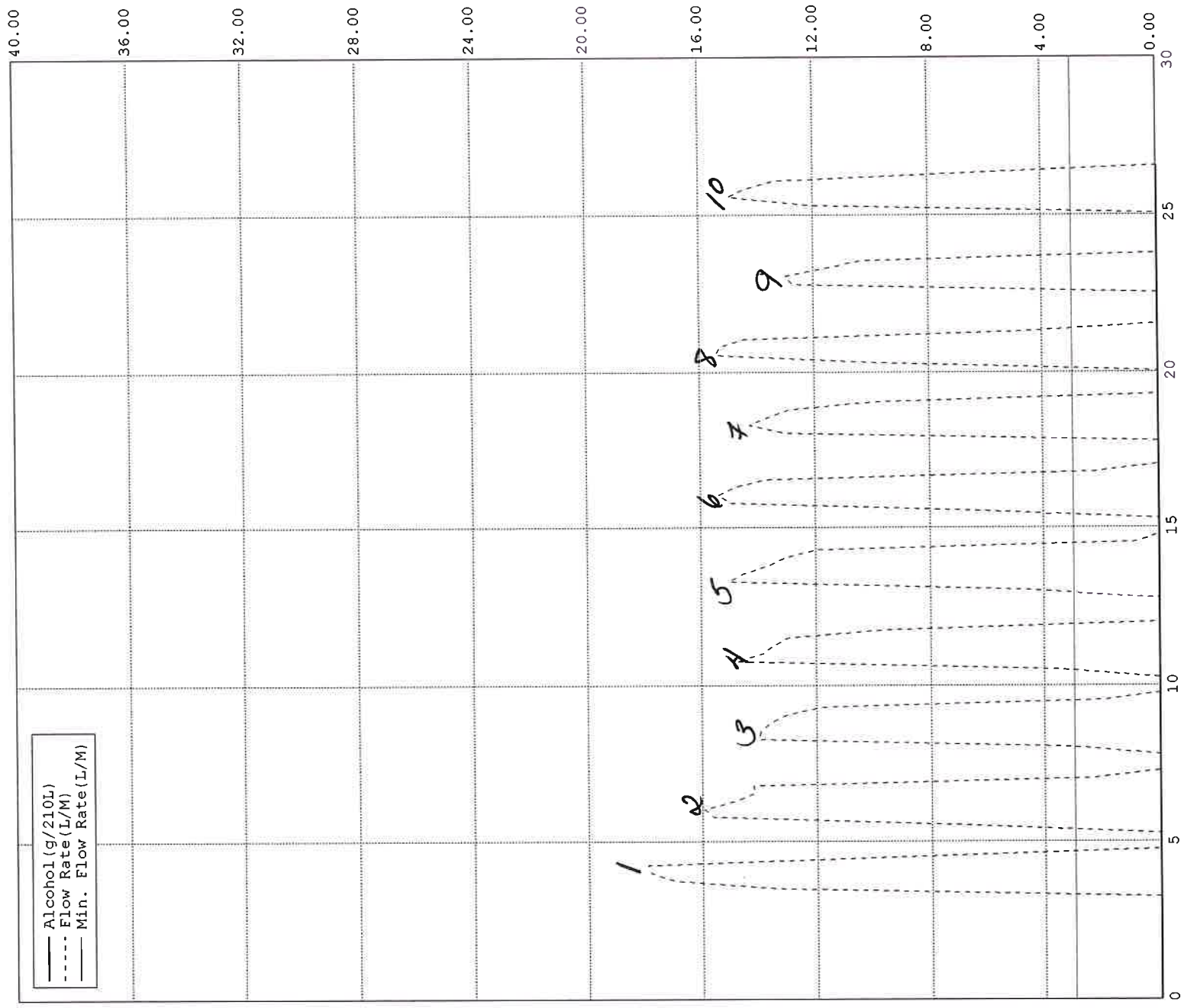
OPERATOR NAME:  
COLLEEN S OBRVANT  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 28.94: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 11:41  
BLANK TEST 0.000 11:41  
INTERNAL STANDARD VERIFIED 11:41  
EXTERNAL STANDARD 0.077 11:42  
BLANK TEST 0.000 11:43  
SUBJECT SAMPLE XXX 11:43

Maximum Attempts Exceeded



**SUBJECT TEST**

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100382  
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Date: 11/24/2021  
 Time: 11:29:31

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: RFI

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

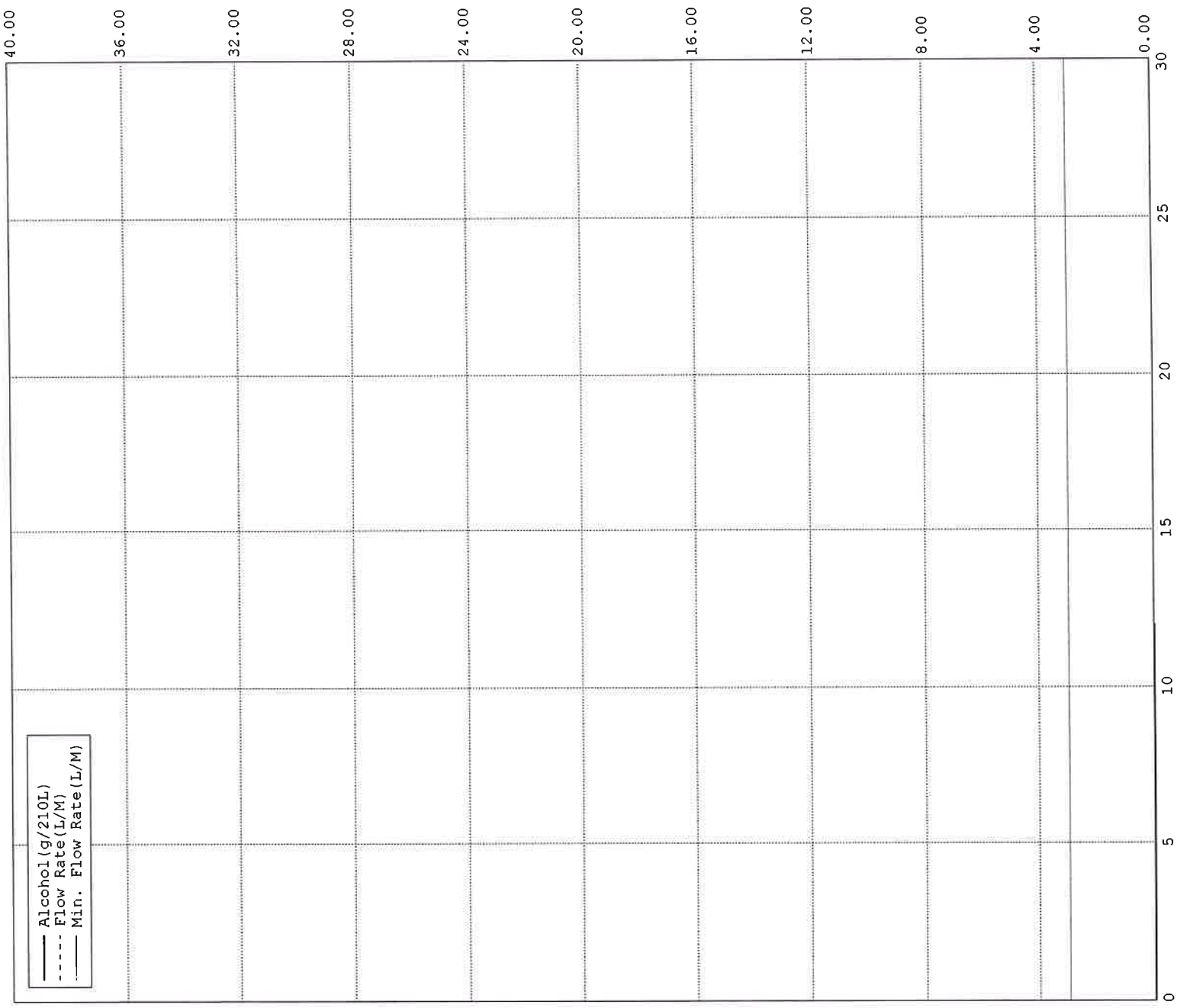
DEPT/AGENCY:  
 AAA1  
 CASE/REPORT: 21-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 28.94: 0.077  
 LOT #: AG018102  
 EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 11:31  
 BLANK TEST 0.000 11:31  
 INTERNAL STANDARD VERIFIED 11:31  
 EXTERNAL STANDARD 0.076 11:31  
 BLANK TEST 0.000 11:32

RFI DETECTED

*CS*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 11/24/2021  
Time: 11:45:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

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

DEPT/AGENCY:  
AAA1

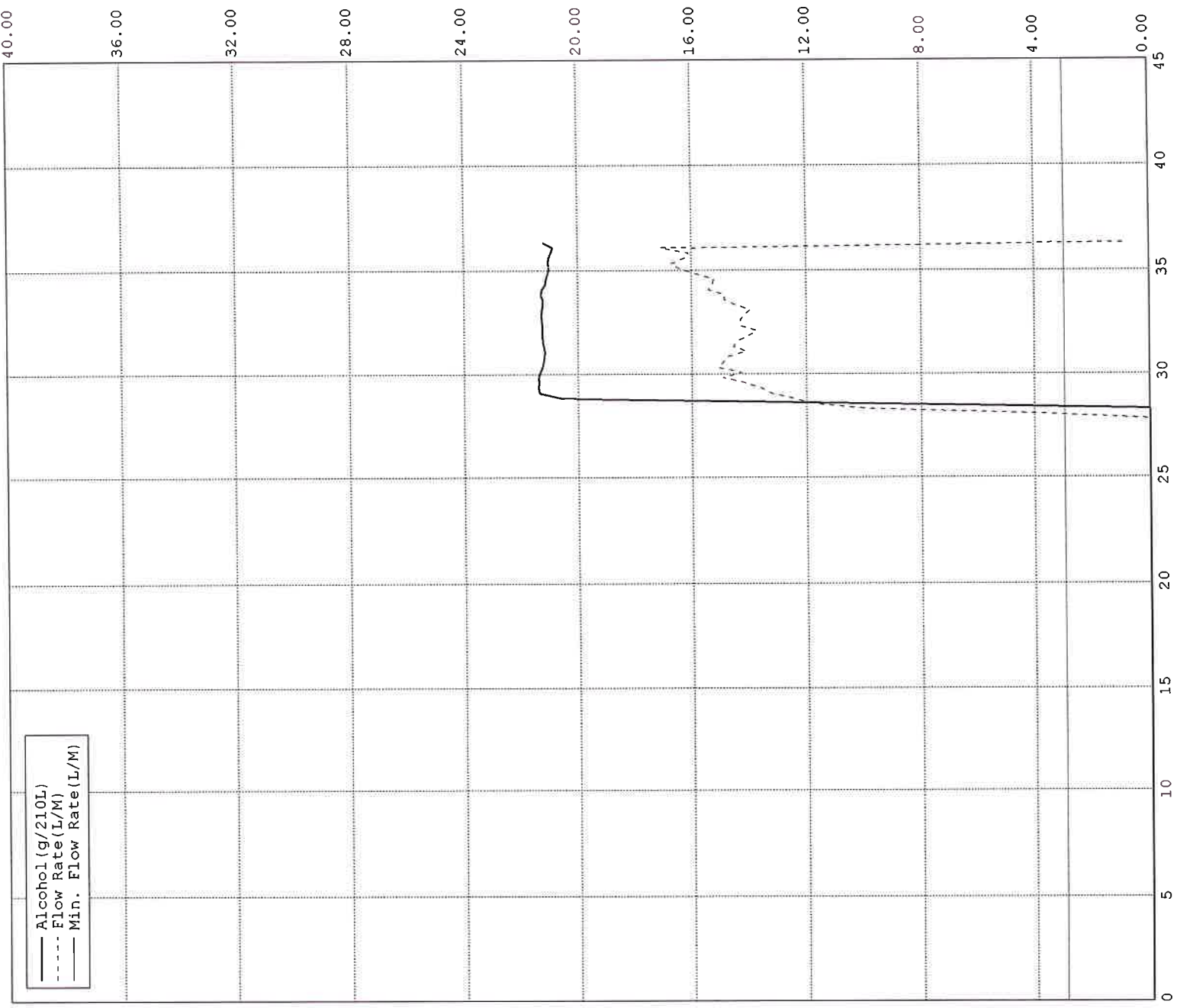
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 28.94: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:46
BLANK TEST	0.000	11:47
INTERNAL STANDARD	VERIFIED	11:47
Xg = 0.095 (0.46%)		
EXTERNAL STANDARD	0.076	11:47
X[1] = 0.0758 (-0.0007) (0.0022)		
BLANK TEST	0.000	11:48
SUBJECT SAMPLE	XXX	11:48
X[1] = 0.1080 (-0.0210) (0.0007)		

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 11/24/2021  
Time: 12:21:47

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

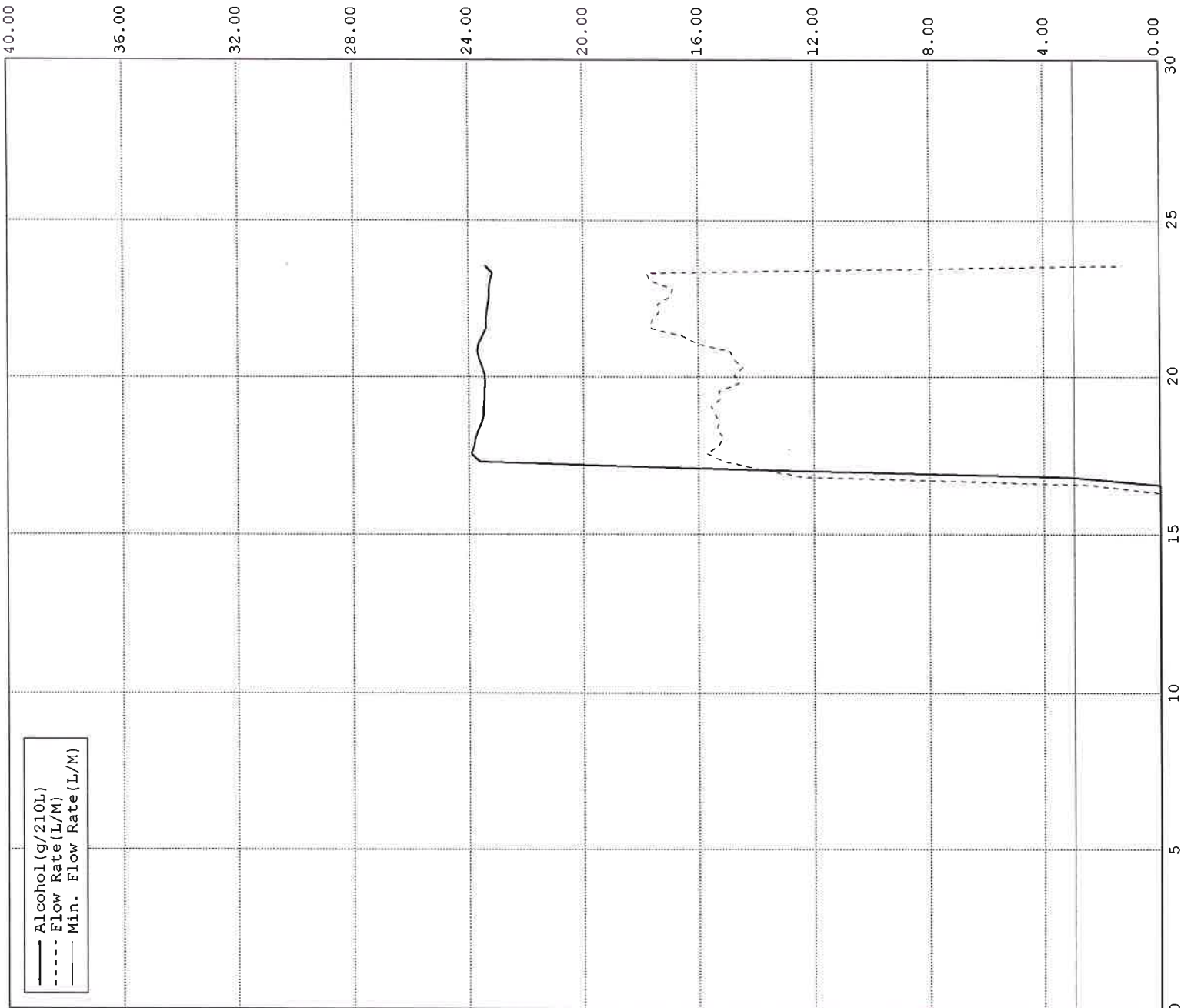
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 28.93: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	12:22
BLANK TEST	0.000	12:23
INTERNAL STANDARD	VERIFIED	12:23
Xg = 0.096 (0.37%)	0.076	12:23
EXTERNAL STANDARD	X[1] = 0.0762 (0.0005)	(0.0031)
BLANK TEST	0.000	12:24
SUBJECT SAMPLE	xxx	12:24
X[1] = 0.1194 (-0.0304)	(0.0015)	

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 11/24/2021  
Time: 12:38:16

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEGATIVE

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

DEPT/AGENCY:

AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

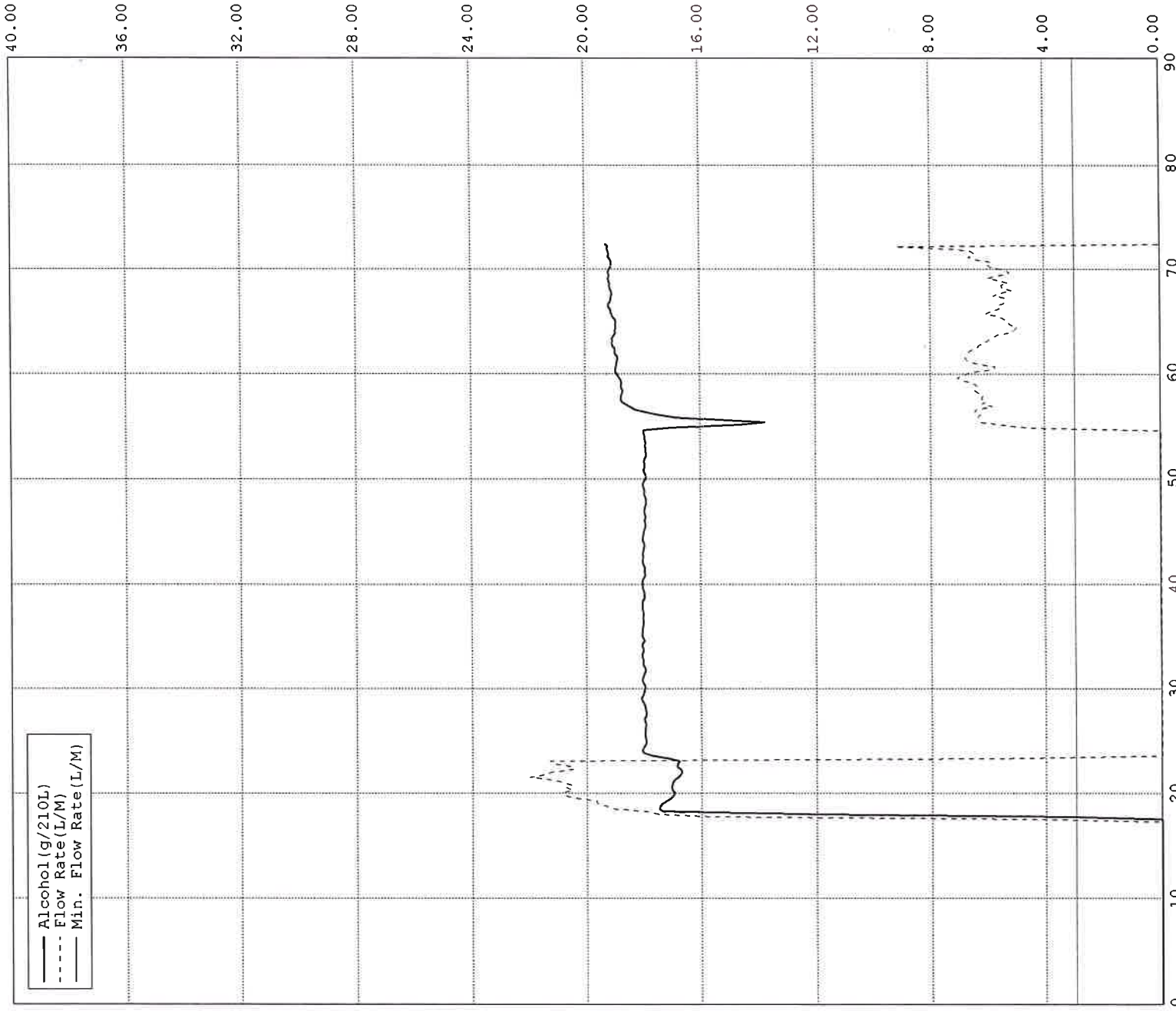
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 28.92: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	12:39
BLANK TEST	0.000	12:39
INTERNAL STANDARD	VERIFIED	12:39
Xg = 0.095 (0.28%)		
EXTERNAL STANDARD	0.076	12:39
X[1] = 0.0762 (0.0008) (0.0028)		
BLANK TEST	0.000	12:40
SUBJECT SAMPLE (Vol=1.77L) 0.097		12:42
X[1] = 0.0971 (-0.0008) (0.0014)		
BLANK TEST	0.000	12:43
EXTERNAL STANDARD	0.075	12:43
X[1] = 0.0752 (-0.0005) (0.0018)		
BLANK TEST	0.000	12:44

*Filter Avg = 0.0000*

*Filter Avg = 0.0025*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 11/24/2021  
Time: 14:21:03

SUBJECT NAME:  
TEST TEST  
LICENSE #: NON-DRINKING

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

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 28.88: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	14:22
BLANK TEST	0.000	14:22
INTERNAL STANDARD	VERIFIED	14:22
EXTERNAL STANDARD	0.077	14:23
BLANK TEST	0.000	14:23
SUBJECT SAMPLE (Vol=1.82L)	0.000	14:24
BLANK TEST	0.000	14:25
EXTERNAL STANDARD	0.076	14:25
BLANK TEST	0.000	14:26

