

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Effective: 11/10/2021

Version: 2.0

Instrument #: 100691 Analyst: C. O'Bryant Start Date: 11/29/21

- 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 1.5 L (1.3L to 1.7L)

### Linearity Test (attached)

0.020g/210L Mnf: Argon Lot: AG100401 Exp: 1/4/23

0.040g/210L Mnf: Argon Lot: AG111710 Exp: 4/27/23 4/27/23

0.080g/210L Mnf: Argon Lot: AG018102 Exp: 6/29/22 COB 12/8/21

0.100g/210L Mnf: Argon Lot: AG108404 Exp: 5/25/23

0.200g/210L Mnf: Guth Lot: 20510 Exp: 10/3/22

Simulator S/N: DR4161 Date Calibrated: 6/16/21

0.300g/210L Mnf: Guth Lot: 21030 Exp: 2/2/23

Simulator S/N: SD1002 Date Calibrated: 6/15/21

### Functional Tests (attached)

- Incomplete
  - Invalid
  - Maximum Attempts Exceeded
  - Radio Frequency Interference
  - Interference (Volatiles)
- Acetone Mnf: Life/oc Lot: 21DP41158 Level: 0.100 Exp: 4/29/23
- Simulator S/N: SD1177 Date Calibrated: 6/15/21
- Isopropanol Mnf: Life/oc Lot: 21DP41158 Level: 0.100 Exp: 4/29/23
- Simulator S/N: SD1198 Date Calibrated: 6/15/21
- Neg. Control Mnf: Life/oc Lot: 21DP41158 Level: 0.100 Exp: 4/29/23
- Simulator S/N: SD1088 Date Calibrated: 6/15/21

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

End Date: 11/30/21

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100691  
-----

Date: 11/29/2021  
Time: 13:27:38

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 = 48.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.83 V PASSED  
(1.10 V - 2.56 V)  
Cooler Voltage = 1.82 V PASSED  
(1.09 V - 2.55 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 513 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.1 in

PUMP INFO

Flow Rate = 5.049 L/M PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

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

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.103 0.43% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100691  
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Date: 11/29/2021  
Time: 2:42 PM

Temperatures (°C)

Sample Cell: 49.0°C  
Breath Tube: 47.8°C

Current Barometer 29.3 in  
Volume (Ltr) 1.59

Settings

Lamp: 1.78 V  
Bias: 80 V  
Cooler: 1.82 V  
Chopper: 511 Hz

Voltages (V)

Flow: 1.06 V  
Detector: -0.019 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100691  
-----

Date: 10/12/2021  
Time: 14:17:18

OPERATOR NAME:  
BRANDI BARNETT  
CERTIFICATE #: 7038

Ca = 0.1000  
CAL = 0.977643    0.800 <= CAL < 1.200  
b1 = 0.0000    0.0000 <= b1 < 0.0040  
b2 = 0.0057    0.0010 <= b2 < 0.0100  
b3 = 0.0000    0.0000 <= b3 < 0.0040  
Xq = 0.1030    0.0500 <= Xq < 0.2000  
a21 = 1.197996    1.050 <= a21 < 1.300  
a31 = 0.440779    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100691

Date: 11/29/2021  
Time: 14:56:12

SUBJECT NAME:  
TEST TEST  
LICENSE #: MIN VOLUME

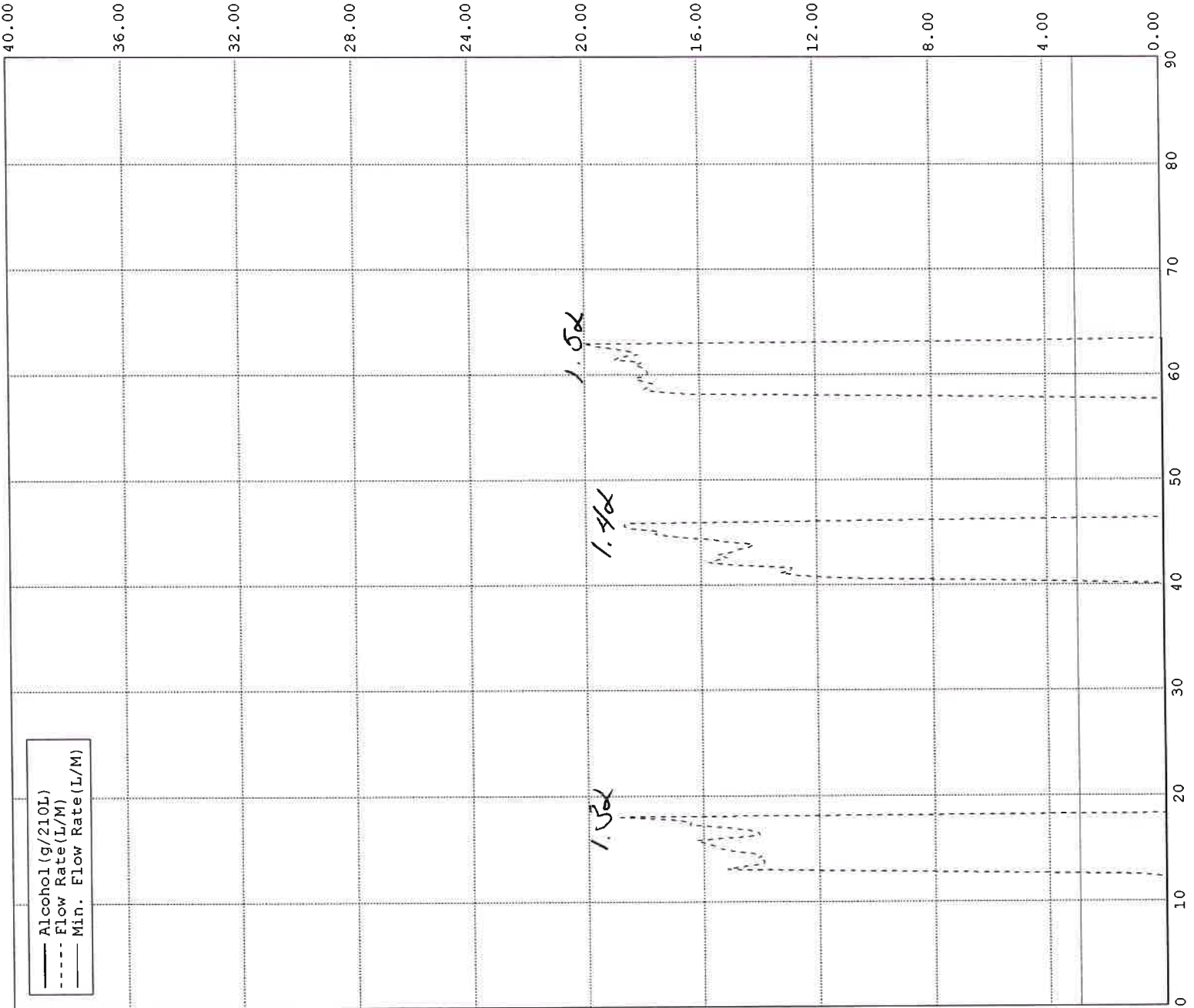
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.29: 0.078  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	14:57
BLANK TEST	0.000	14:57
INTERNAL STANDARD	VERIFIED	14:57
EXTERNAL STANDARD	0.077	14:57
BLANK TEST	0.000	14:58
SUBJECT SAMPLE (Vol=1.57L)	0.000	14:59
BLANK TEST	0.000	15:00
EXTERNAL STANDARD	0.076	15:00
BLANK TEST	0.000	15:01



LINEARITY CHECK

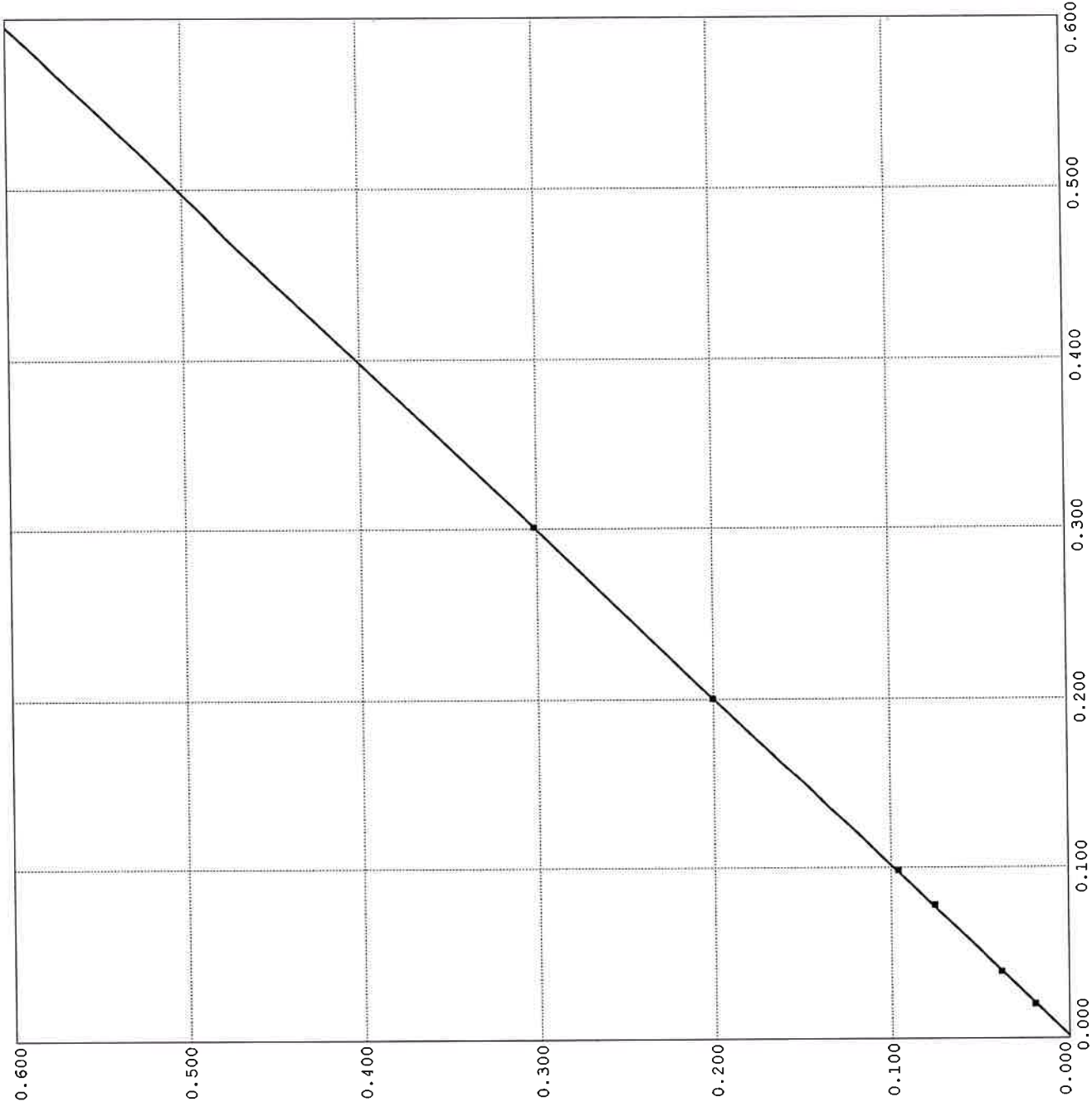
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100691  
 -----

Date: 11/29/2021  
 Time: 15:08:44

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0198	0.0004
0.039	0.0388	0.0004
0.078	0.0764	0.0005
0.098	0.0970	0.0000
0.200	0.2012	0.0004
0.300	0.3024	0.0009

SLOPE = 1.011323  
 R<sup>2</sup> = 0.999942



CRB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

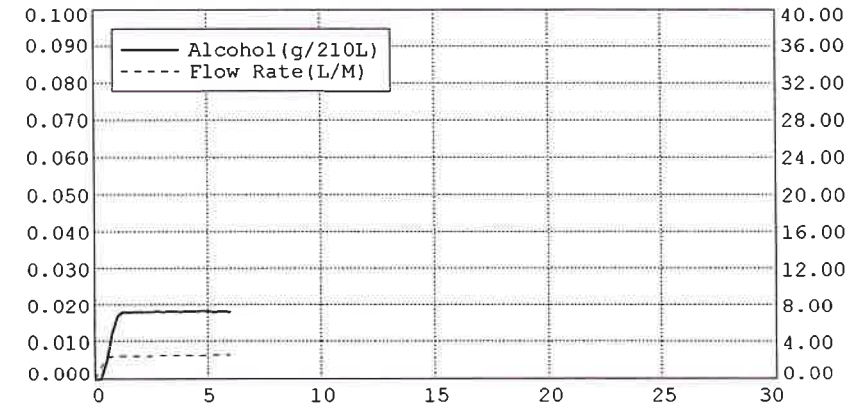
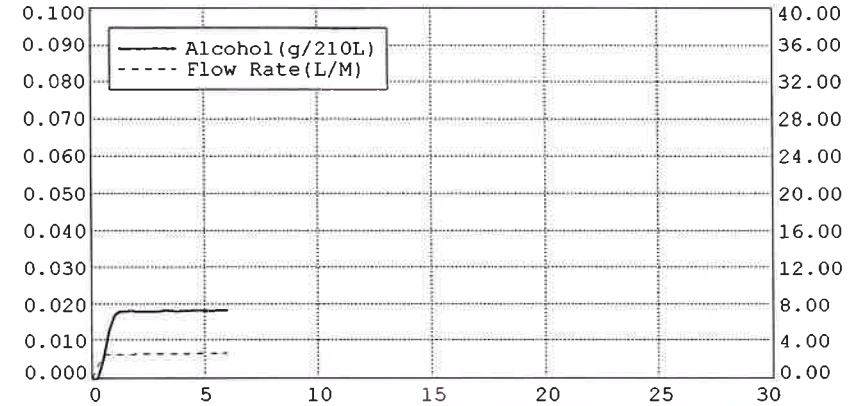
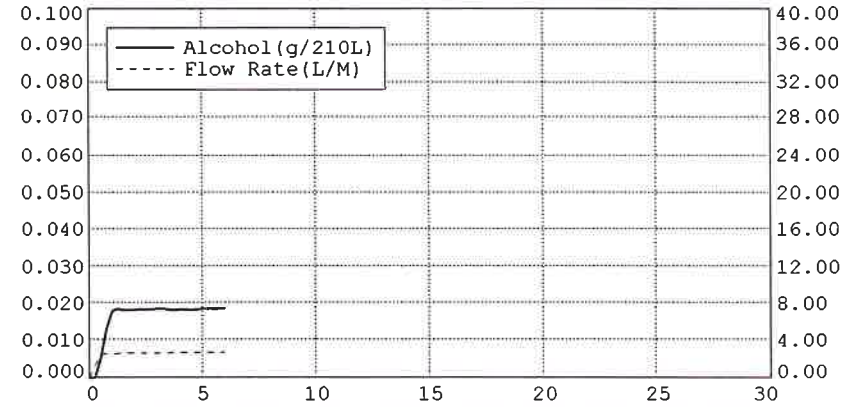
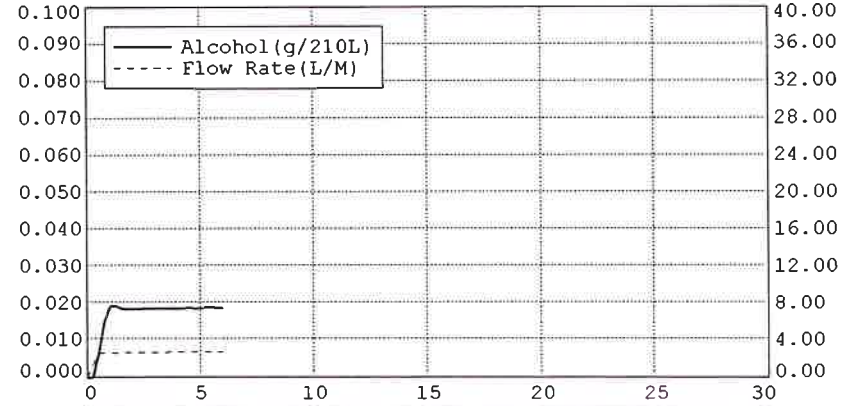
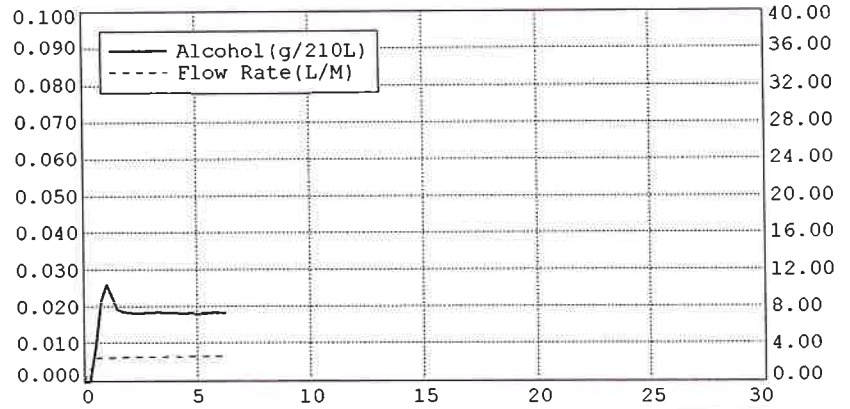
Date: 11/29/2021  
Time: 15:08:46

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
TARGET AT 29.29: 0.020  
LOT #: AG100401  
EXPIRATION: 01/04/2023  
TANK PRESSURE: 850 psi

BLANK TEST	0.000	15:10
INTERNAL STANDARD	VERIFIED	15:10
EXTERNAL STANDARD	0.019	15:10
BLANK TEST	0.000	15:11
EXTERNAL STANDARD	0.020	15:11
BLANK TEST	0.000	15:12
EXTERNAL STANDARD	0.020	15:12
BLANK TEST	0.000	15:13
EXTERNAL STANDARD	0.020	15:13
BLANK TEST	0.000	15:14
EXTERNAL STANDARD	0.020	15:14
BLANK TEST	0.000	15:15

Average = 0.0198  
Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100691

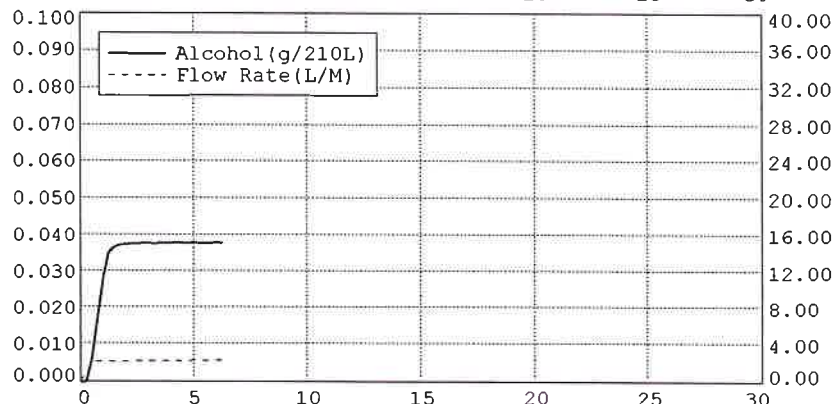
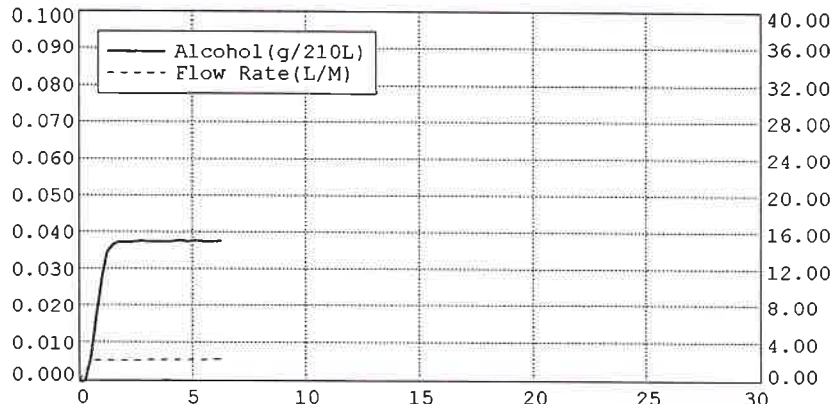
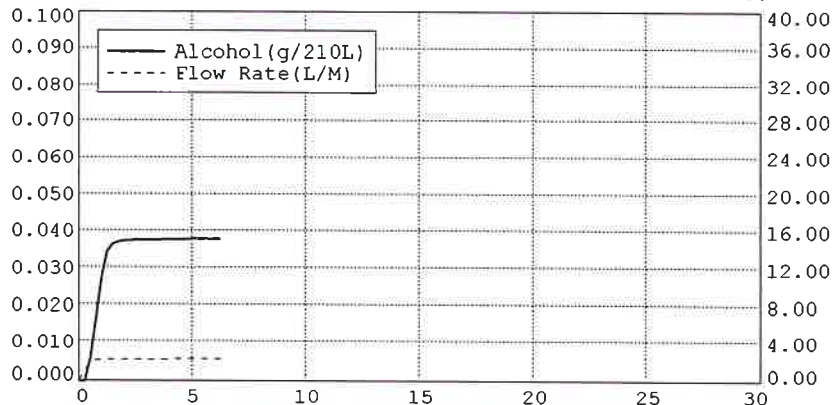
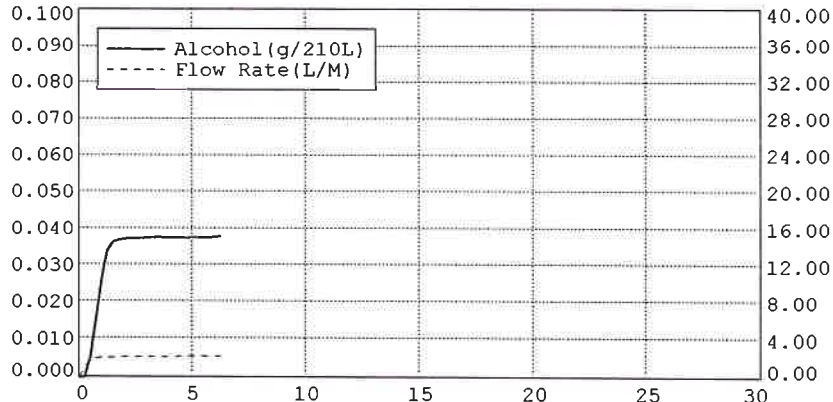
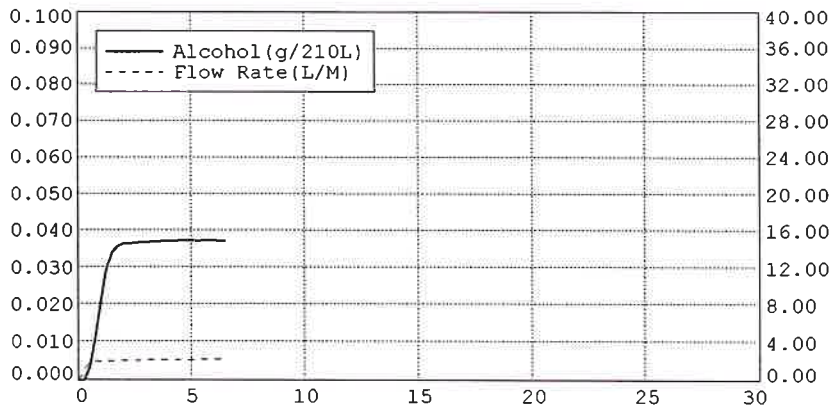
Date: 11/29/2021  
 Time: 15:29:35

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.27: 0.039  
 LOT #: AG111710  
 EXPIRATION: 04/27/2023  
 TANK PRESSURE: 539 psi

BLANK TEST	0.000	15:30
INTERNAL STANDARD	VERIFIED	15:30
EXTERNAL STANDARD	0.038	15:31
BLANK TEST	0.000	15:31
EXTERNAL STANDARD	0.039	15:32
BLANK TEST	0.000	15:33
EXTERNAL STANDARD	0.039	15:33
BLANK TEST	0.000	15:34
EXTERNAL STANDARD	0.039	15:34
BLANK TEST	0.000	15:35
EXTERNAL STANDARD	0.039	15:35
BLANK TEST	0.000	15:36

Average = 0.0388  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

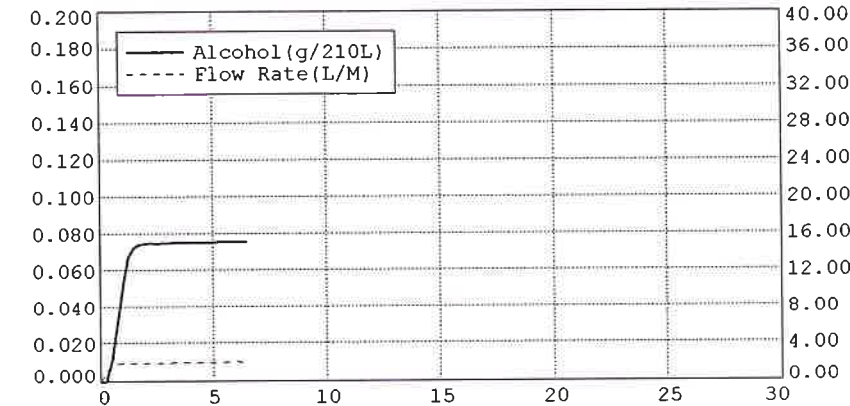
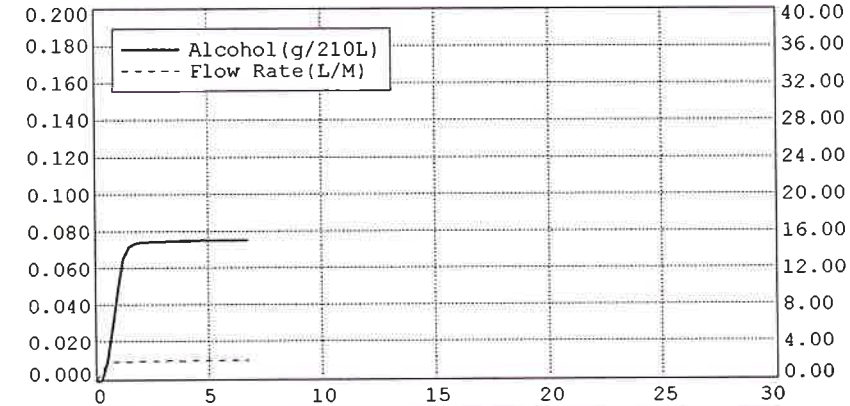
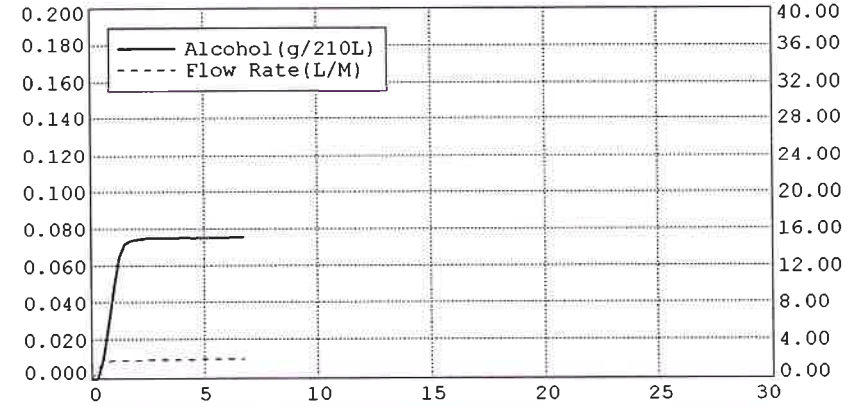
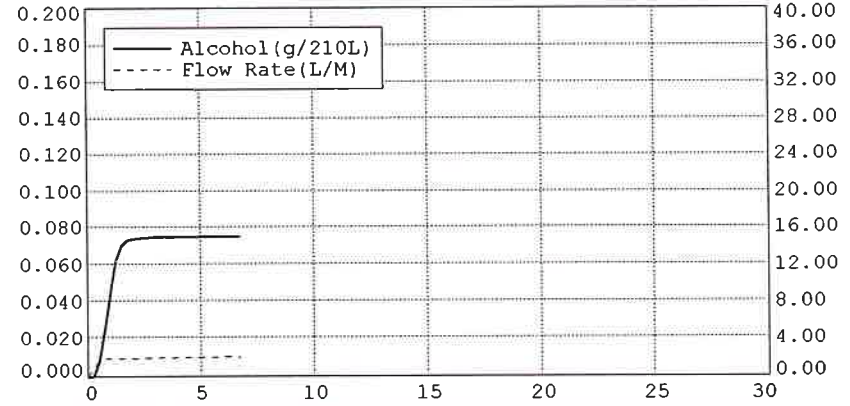
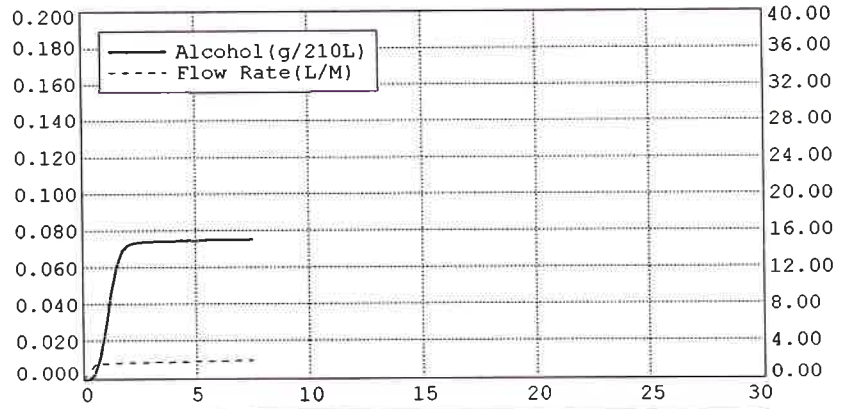
Date: 11/29/2021  
Time: 15:38:01

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.27: 0.078  
LOT #: AG018102  
EXPIRATION: 06/29/2022  
TANK PRESSURE: 180 psi

BLANK TEST	0.000	15:39
INTERNAL STANDARD	VERIFIED	15:39
EXTERNAL STANDARD	0.076	15:39
BLANK TEST	0.000	15:40
EXTERNAL STANDARD	0.076	15:40
BLANK TEST	0.000	15:41
EXTERNAL STANDARD	0.077	15:41
BLANK TEST	0.000	15:42
EXTERNAL STANDARD	0.076	15:42
BLANK TEST	0.000	15:43
EXTERNAL STANDARD	0.077	15:43
BLANK TEST	0.000	15:44

Average = 0.0764  
Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100691

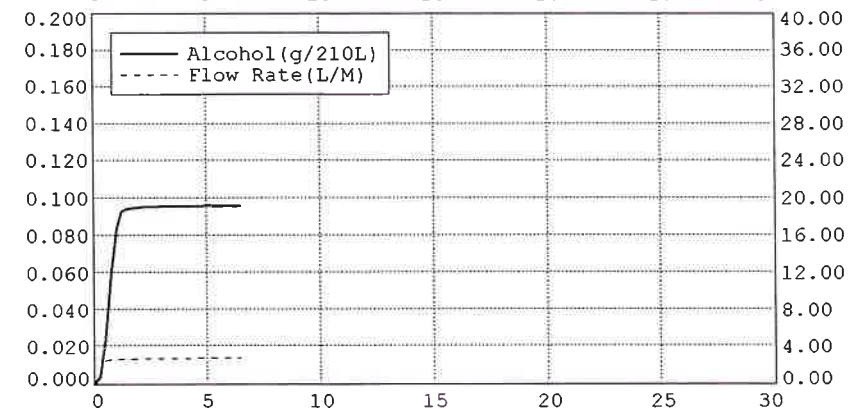
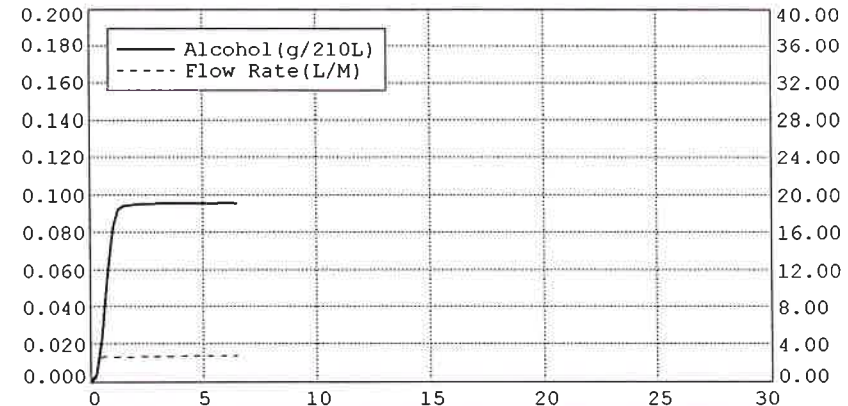
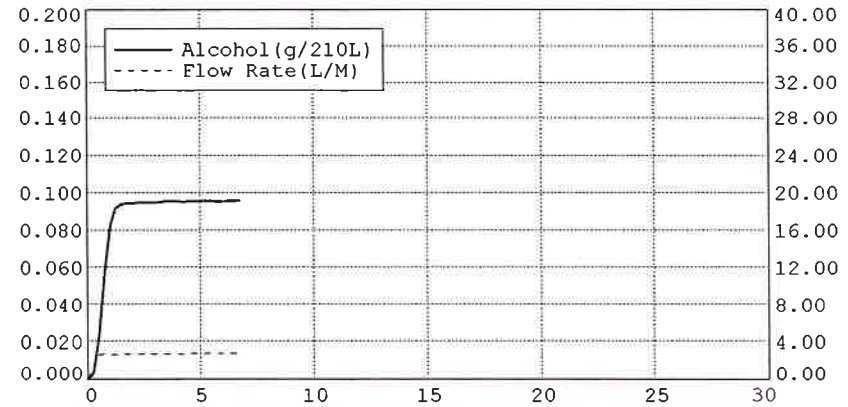
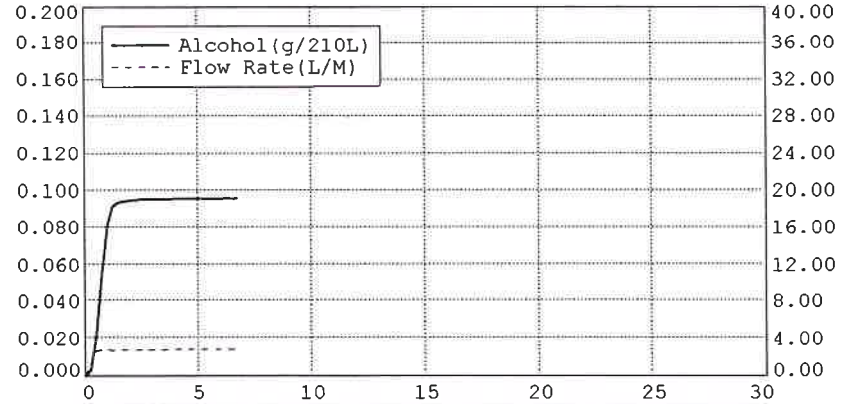
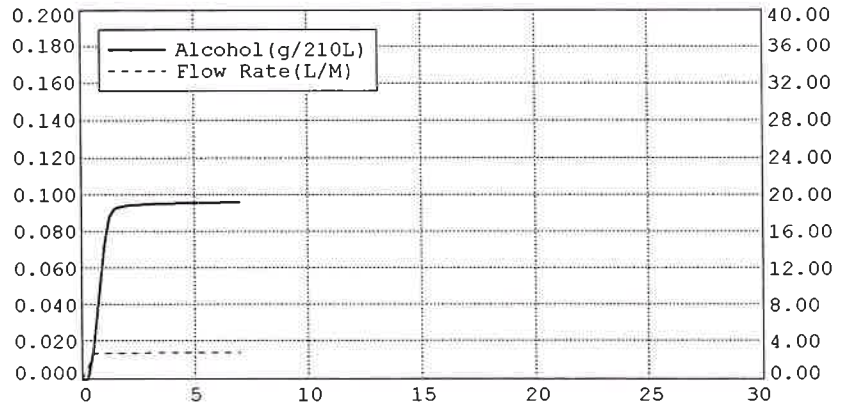
Date: 11/29/2021  
 Time: 15:46:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.26: 0.098  
 LOT #: AG108404  
 EXPIRATION: 03/25/2023  
 TANK PRESSURE: 876 psi

BLANK TEST	0.000	15:47
INTERNAL STANDARD	VERIFIED	15:47
EXTERNAL STANDARD	0.097	15:47
BLANK TEST	0.000	15:48
EXTERNAL STANDARD	0.097	15:49
BLANK TEST	0.000	15:49
EXTERNAL STANDARD	0.097	15:50
BLANK TEST	0.000	15:51
EXTERNAL STANDARD	0.097	15:51
BLANK TEST	0.000	15:52
EXTERNAL STANDARD	0.097	15:52
BLANK TEST	0.000	15:53

Average = 0.0970  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

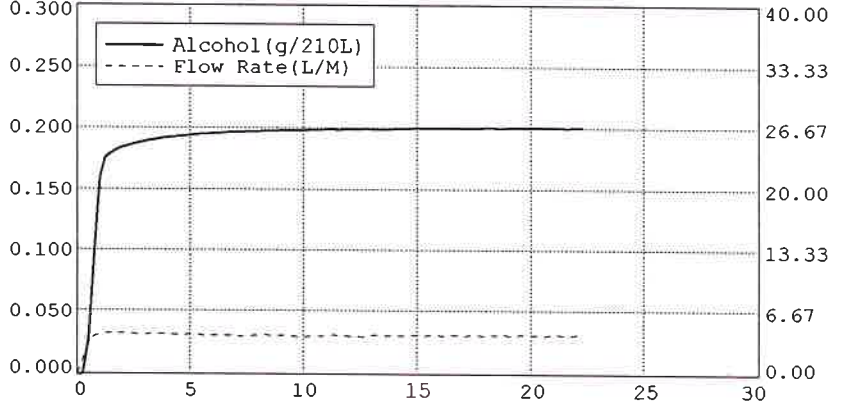
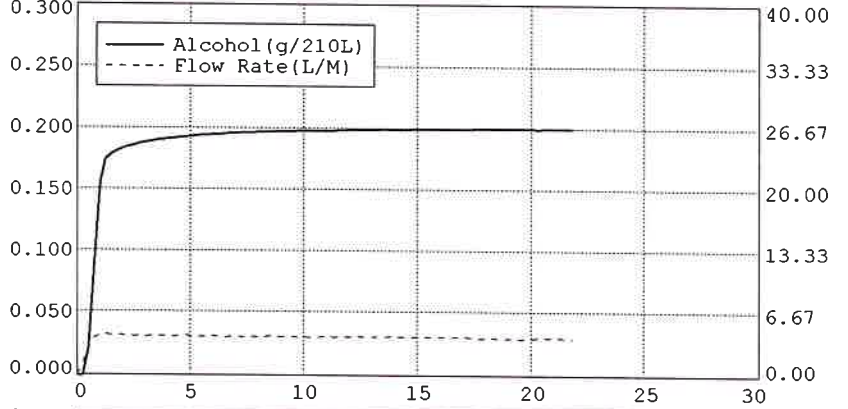
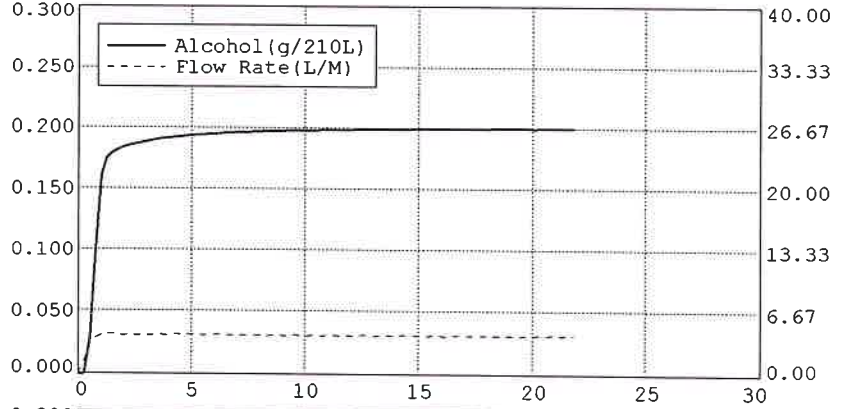
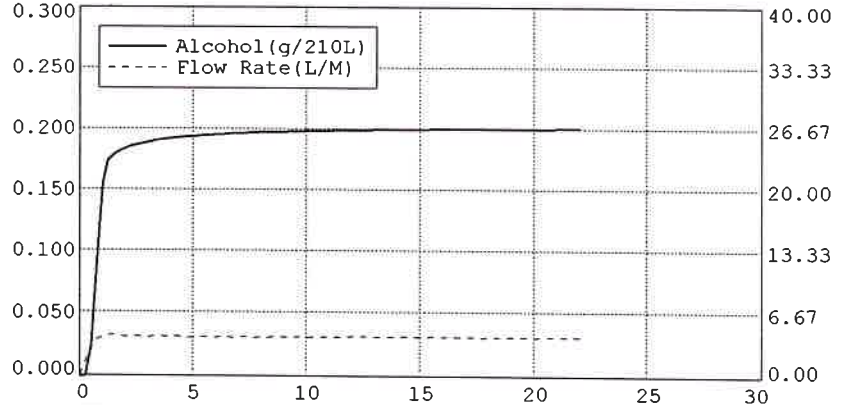
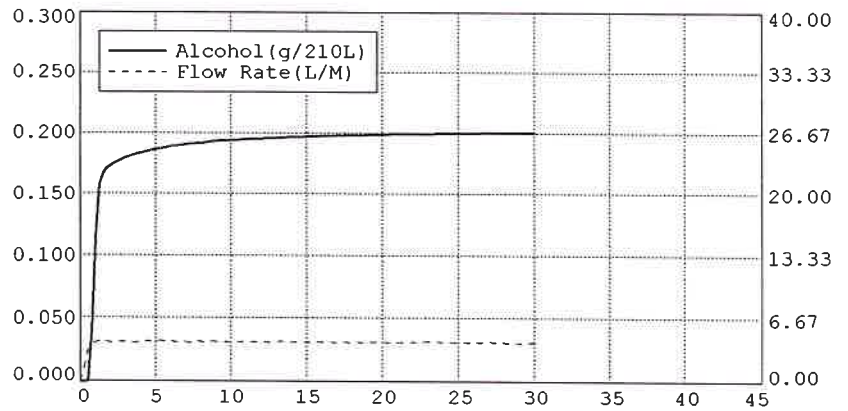
Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 11/29/2021  
Time: 16:02:24

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

BLANK TEST	0.000	16:03
INTERNAL STANDARD	VERIFIED	16:03
EXTERNAL STANDARD	0.202	16:04
BLANK TEST	0.000	16:05
EXTERNAL STANDARD	0.201	16:05
BLANK TEST	0.000	16:06
EXTERNAL STANDARD	0.201	16:07
BLANK TEST	0.000	16:08
EXTERNAL STANDARD	0.201	16:08
BLANK TEST	0.000	16:09
EXTERNAL STANDARD	0.201	16:09
BLANK TEST	0.000	16:10

Average = 0.2012  
Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

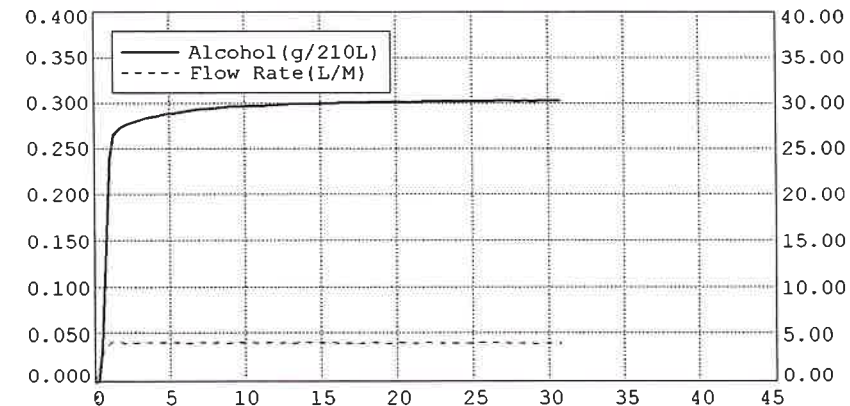
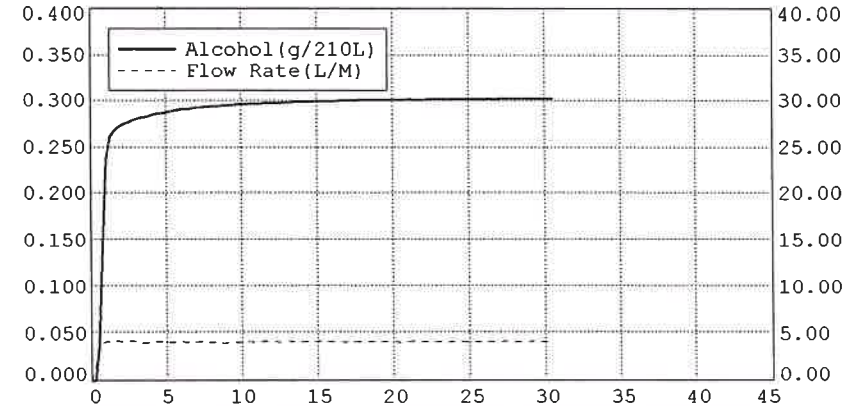
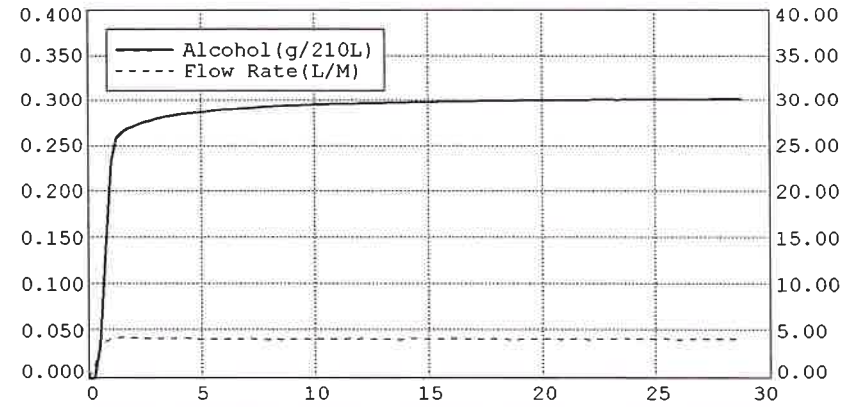
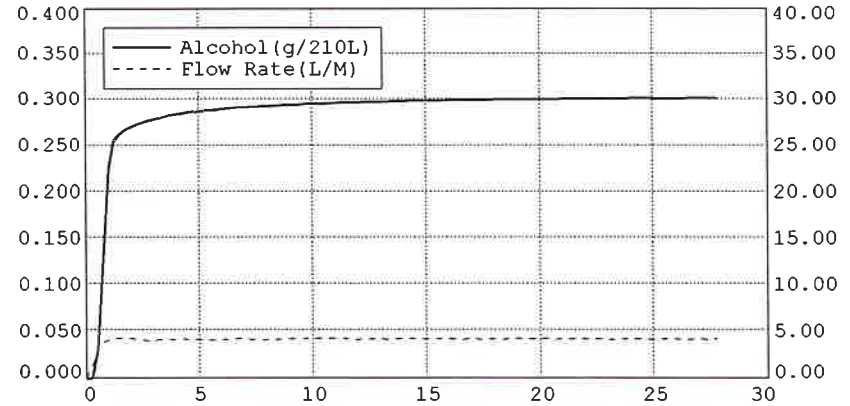
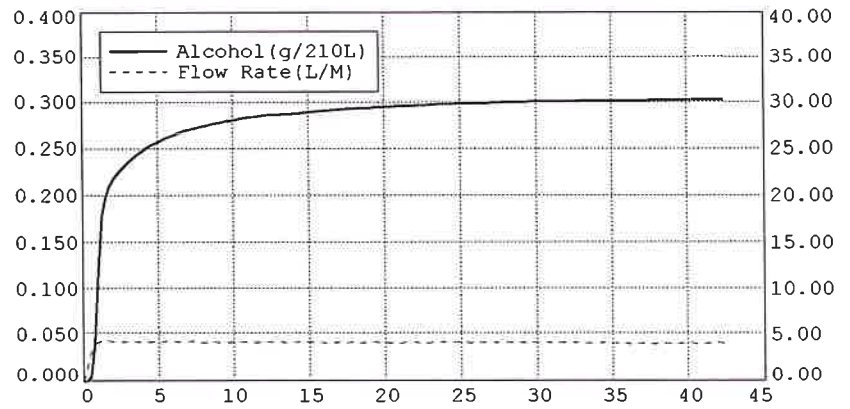
Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 11/29/2021  
Time: 16:12:03

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

BLANK TEST	0.000	16:13
INTERNAL STANDARD	VERIFIED	16:13
EXTERNAL STANDARD	0.303	16:14
BLANK TEST	0.000	16:15
EXTERNAL STANDARD	0.301	16:15
BLANK TEST	0.000	16:16
EXTERNAL STANDARD	0.302	16:17
BLANK TEST	0.000	16:17
EXTERNAL STANDARD	0.303	16:18
BLANK TEST	0.000	16:19
EXTERNAL STANDARD	0.303	16:20
BLANK TEST	0.000	16:21

Average = 0.3024  
Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 11/29/2021  
Time: 16:25:53

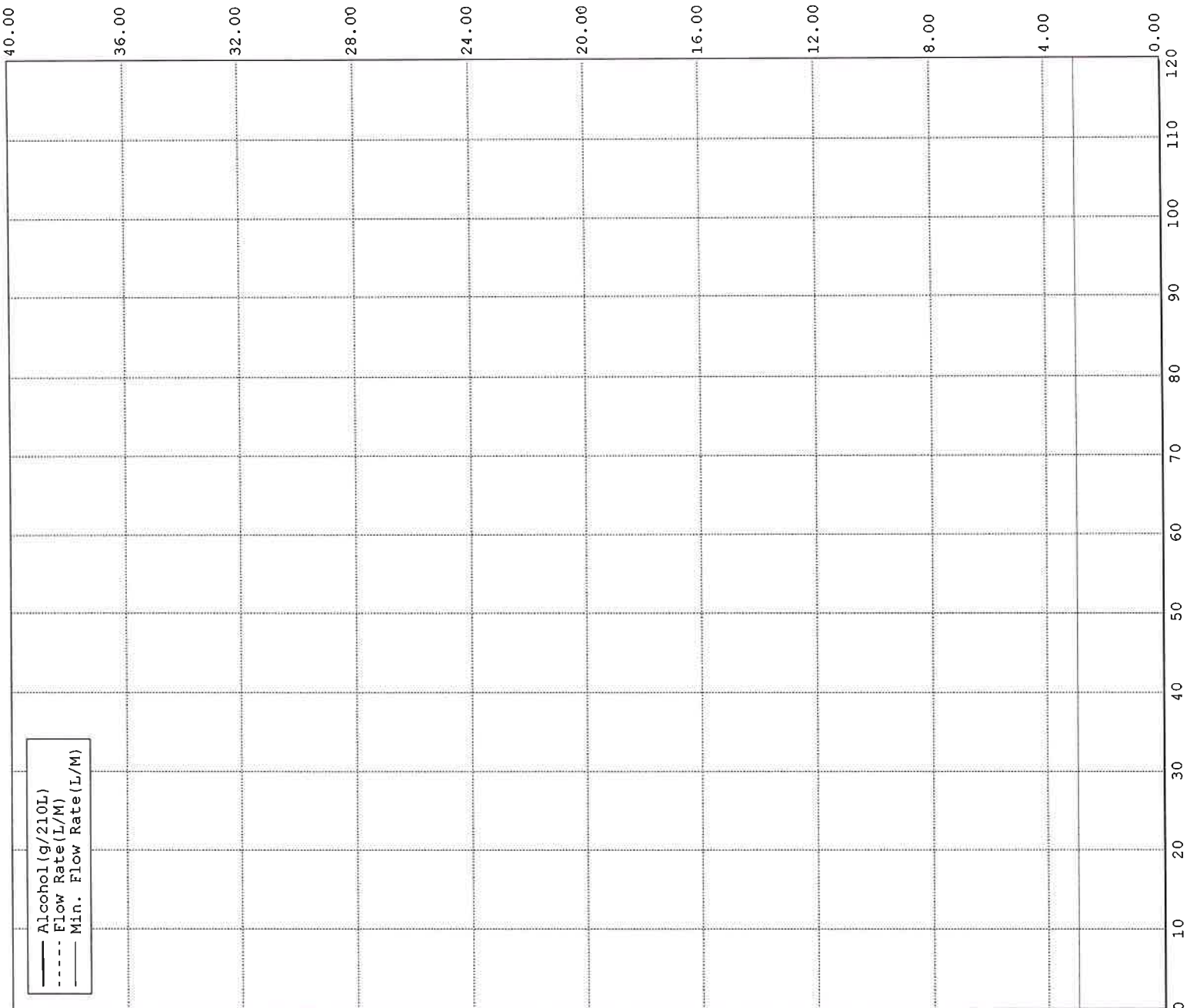
SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

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 29.22: 0.078  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 16:26  
BLANK TEST 0.000 16:26  
INTERNAL STANDARD VERIFIED 16:27  
EXTERNAL STANDARD 0.076 16:27  
BLANK TEST 0.000 16:28  
SUBJECT SAMPLE INCOMPLETE 16:30



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 11/29/2021  
Time: 16:39:29

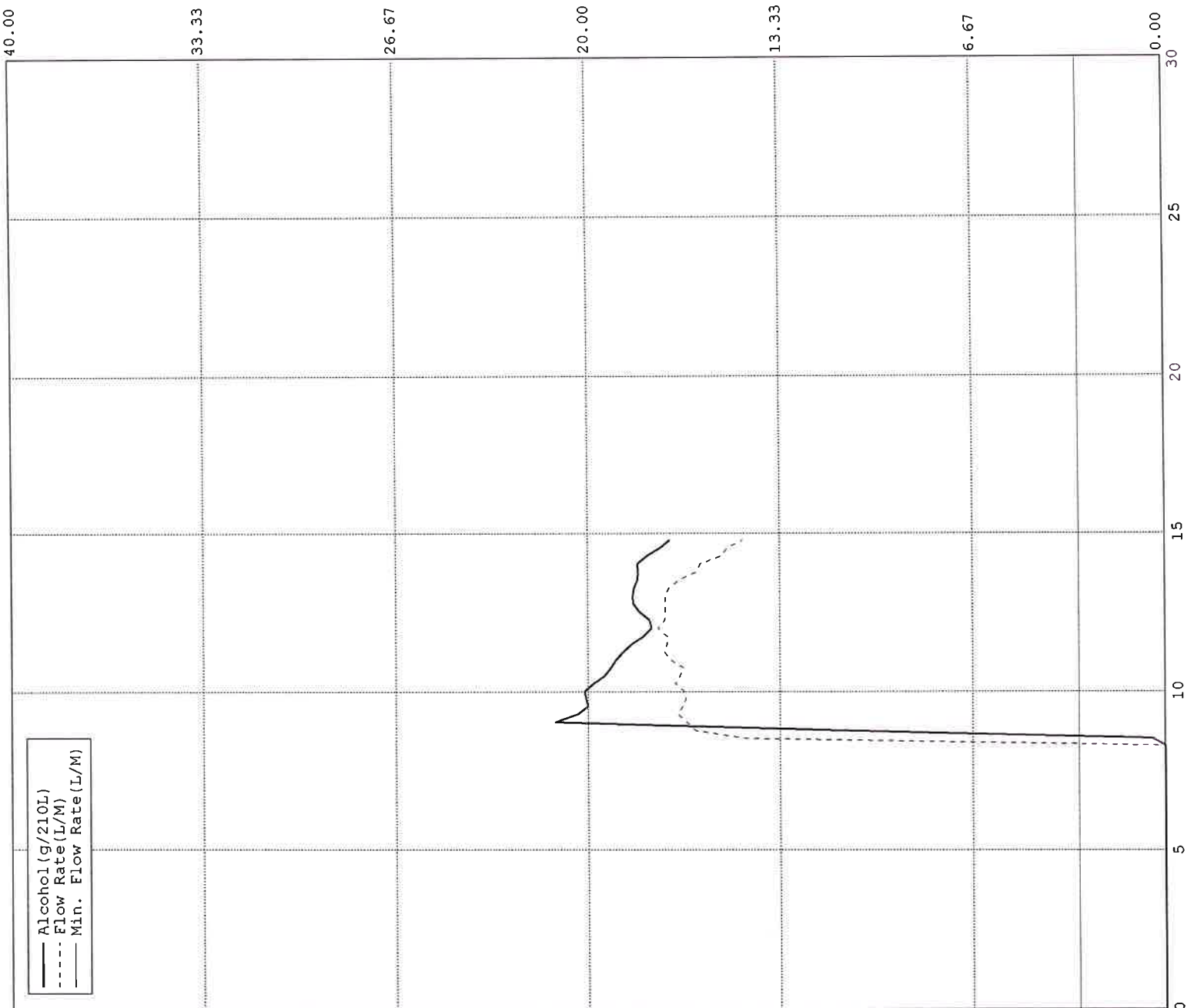
SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

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 29.22: 0.078  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 16:40  
BLANK TEST 0.000 16:40  
INTERNAL STANDARD VERIFIED 16:40  
EXTERNAL STANDARD 0.076 16:40  
BLANK TEST 0.000 16:41  
SUBJECT SAMPLE INVALID 16:42



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 11/30/2021  
Time: 08:46:47

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

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

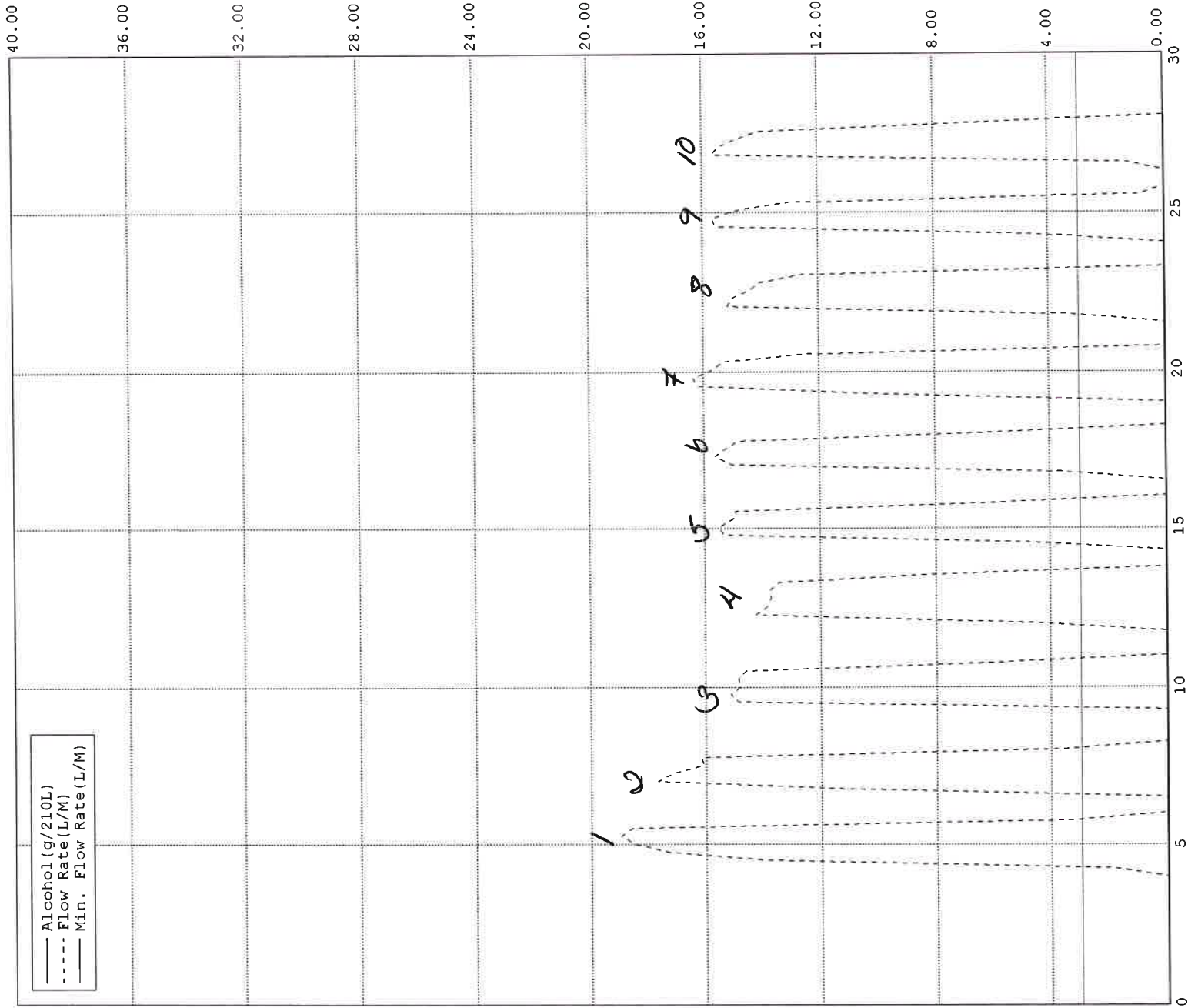
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

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

DIAGNOSTIC CHECK PASSED 08:48  
BLANK TEST 0.000 08:48  
INTERNAL STANDARD VERIFIED 08:48  
EXTERNAL STANDARD 0.076 08:48  
BLANK TEST 0.000 08:49  
SUBJECT SAMPLE XXX 08:50

Maximum Attempts Exceeded

COB



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100691

Date: 11/30/2021  
Time: 08:54:32

SUBJECT NAME:  
TEST TEST  
LICENSE #: RFI

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

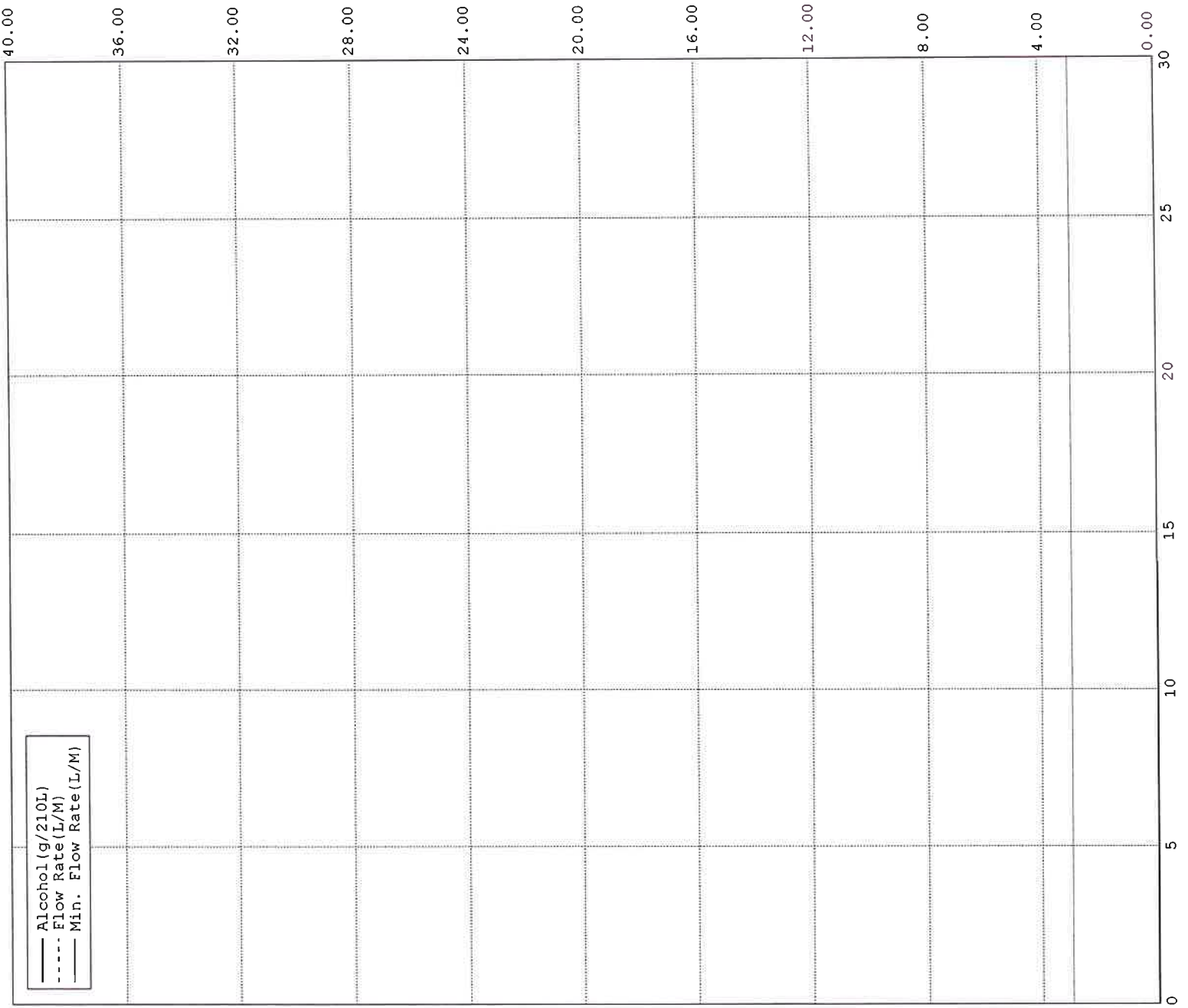
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 21-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 28.87: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 08:57  
BLANK TEST 0.000 08:57  
INTERNAL STANDARD VERIFIED 08:57  
EXTERNAL STANDARD 0.075 08:58  
BLANK TEST 0.000 08:59

RFI DETECTED





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 11/30/2021  
Time: 14:04:39

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

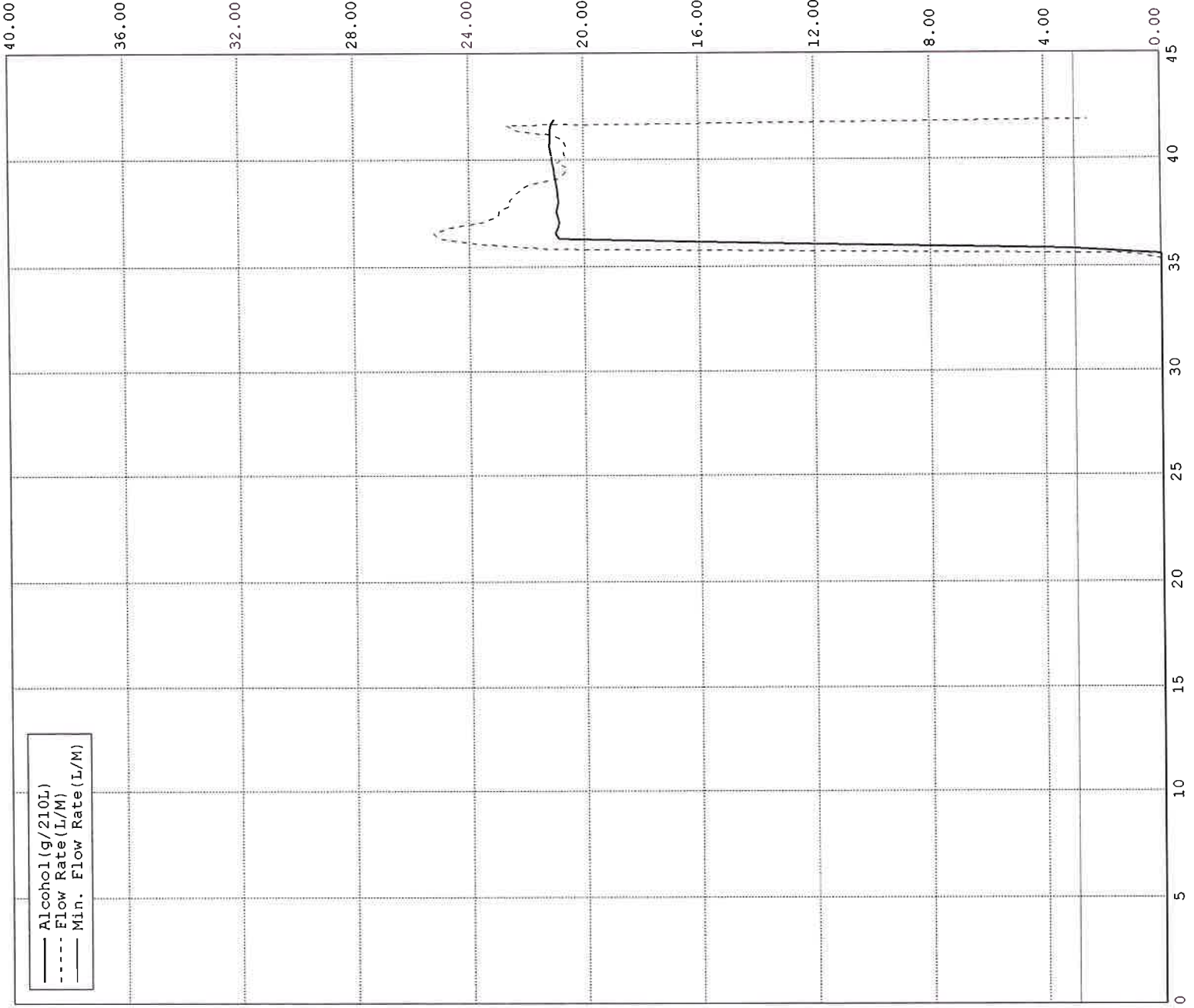
OPERATOR NAME:  
COLLEEN S OBRyant  
OPERATOR'S #: 6237

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

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

DIAGNOSTIC CHECK PASSED 14:05  
BLANK TEST 0.000 14:05  
INTERNAL STANDARD VERIFIED 14:05  
Xq = 0.103 (0.09%)  
EXTERNAL STANDARD 0.075 14:06  
X[1] = 0.0753 (-0.0015) (0.0020)  
BLANK TEST 0.000 14:07  
SUBJECT SAMPLE XXX 14:07  
X[1] = 0.1057 (-0.0178) (0.0002)

Interference Detected



SUBJECT TEST

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Alaska Department of Public Safety  
DATAMASTER dmt: 100691  
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Date: 11/30/2021  
Time: 14:11:00

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

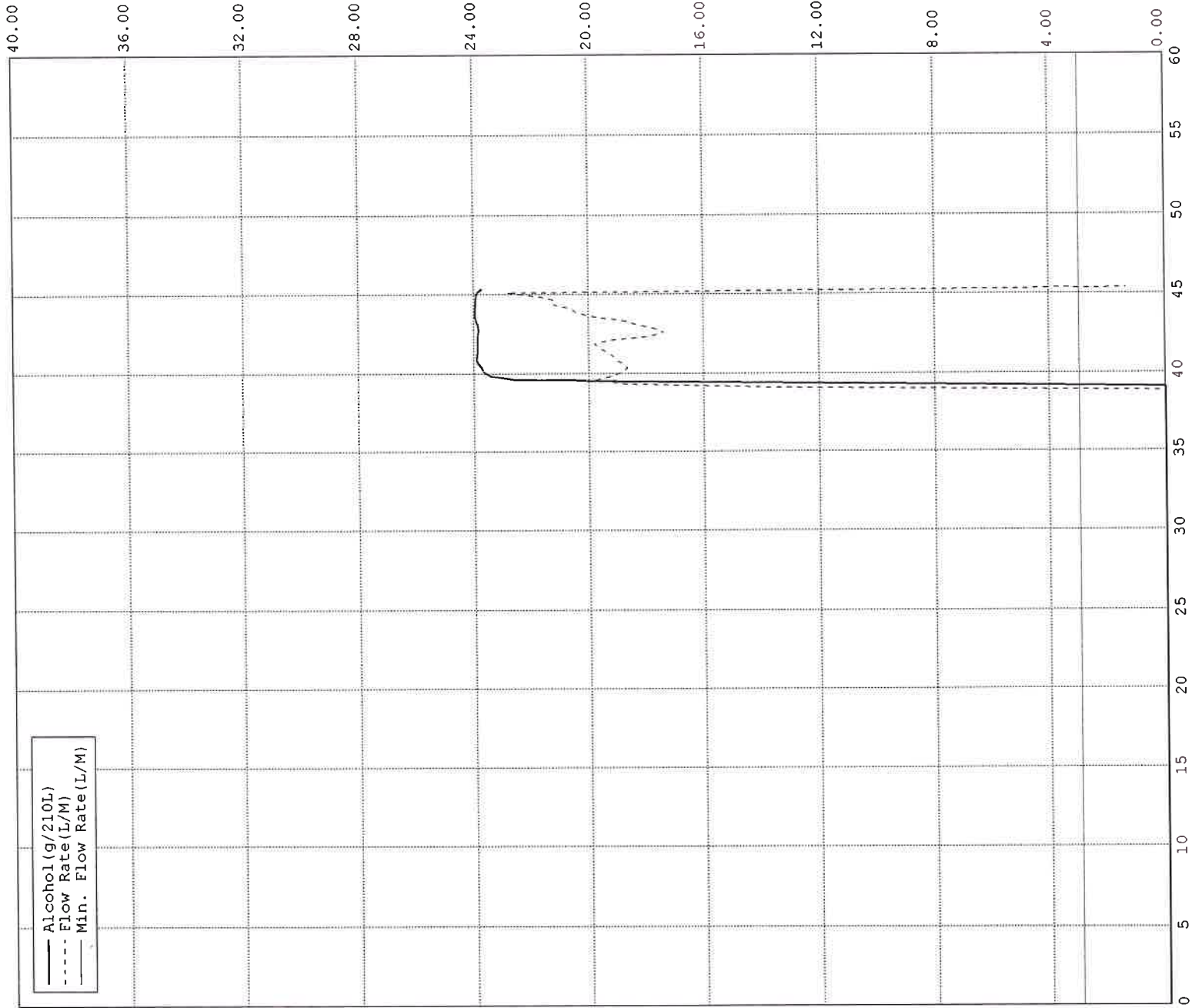
OPERATOR NAME:  
COLLIEN S OBRyant  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAAA1  
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 14:11  
BLANK TEST 0.000 14:12  
INTERNAL STANDARD VERIFIED 14:12  
Xq = 0.103 (0.17%) 0.076 14:12  
EXTERNAL STANDARD X[1] = 0.0756 (-0.0009) (0.0018) 0.000 14:13  
BLANK TEST 0.000 14:13  
SUBJECT SAMPLE XXX 14:14  
X[1] = 0.1185 (-0.0326) (0.0007)

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 11/30/2021  
Time: 14:16:35

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEGATIVE

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

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

EXTERNAL STANDARD INFORMATION

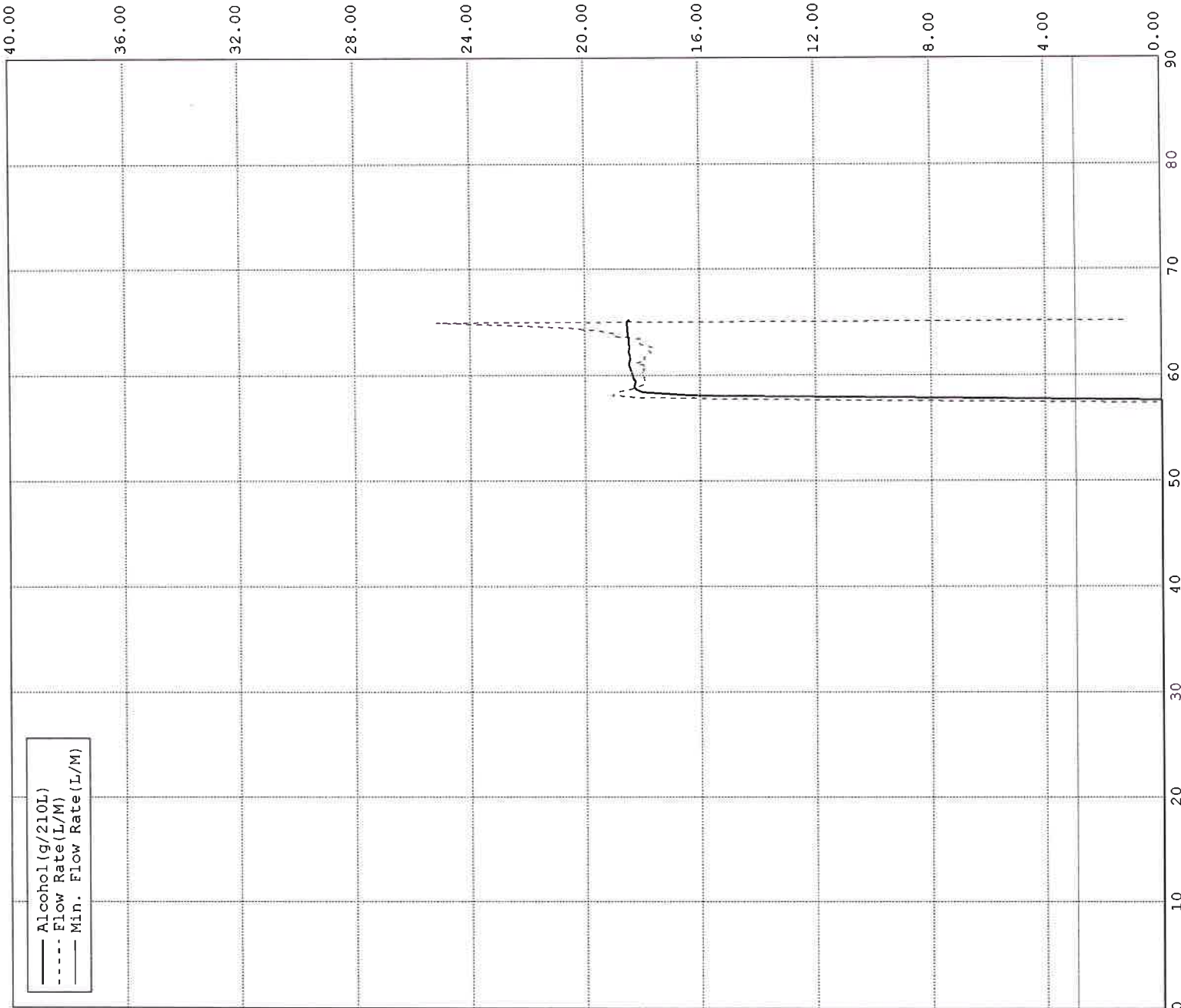
NOMINAL: 0.080  
TARGET AT 28.94: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	14:17
BLANK TEST	0.000	14:17
INTERNAL STANDARD	VERIFIED	14:17
Xg = 0.103 (0.09%)		
EXTERNAL STANDARD	0.076	14:18
X[1] = 0.0756 (-0.0012) (0.0015)		
BLANK TEST	0.000	14:19
SUBJECT SAMPLE (Vol=2.30L)	0.092	14:20
X[1] = 0.0923 (-0.0013) (0.0004)		
BLANK TEST	0.000	14:21
EXTERNAL STANDARD	0.075	14:21
X[1] = 0.0754 (-0.0008) (0.0011)		
BLANK TEST	0.000	14:22

*Filter Avg = -0.0011*

*Filter Avg = 0.0016*

*CS*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 11/30/2021  
Time: 14:48:00

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 28.94: 0.077  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	14:49
BLANK TEST	0.000	14:49
INTERNAL STANDARD	VERIFIED	14:49
EXTERNAL STANDARD	0.075	14:50
BLANK TEST	0.000	14:51
SUBJECT SAMPLE (Vol=2.03L)	0.000	14:52
BLANK TEST	0.000	14:52
EXTERNAL STANDARD	0.076	14:53
BLANK TEST	0.000	14:54

