

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 7/10/2015  
Effective: 7/10/2015

Version: DMCEF 2015 R1  
Status: Active

Instrument S/N 100665 Analyst C. O'Bryant Start Date 2/12/18

1. Diagnostic Test (attached)  Internal Standard value  $\leq 3.00\%$  Yes
1. Voltage Checks
- a. Adjust voltages, if needed 
    - i. Lamp (2.6V Maximum)
    - ii. Bias
    - iii. Cooler (2.0V Maximum)
    - iv. Chopper Frequency
    - v. Detector Voltage (-0.100V to 0.100V)
  - b. Set RFI
  - c. Adjust barometer reading to match NIST traceable barometer
  - d. Adjust volume setting, if needed (1.5L +/- 0.1L)
  - e. Print Technician Screen (attached)

2. Print Calibration Factors (attached)

3. Volume Test - Minimum 1.4 L (1.3L to 1.7L)

4. Linearity Test (attached)

a. Levels Used

- i. 0.020g/210L Mnf Aurigas Lot AG616504 Exp 6/13/18
- ii. 0.040g/210L Mnf Aurigas Lot AG630101 Exp 10/24/18
- iii. 0.080g/210L Mnf Aurigas Lot AG608504 Exp 3/25/18
- iv. 0.100g/210L Mnf Aurigas Lot AG629304 Exp 10/19/18
- v. 0.200g/210L Mnf Both Lot 17090 Exp 2/24/19
  - 1. Simulator S/N SD1200 Date Calibrated 3/29/17
- vi. 0.300g/210L Mnf Both Lot 17140 Exp 5/15/19
  - 1. Simulator S/N DR4162 Date Calibrated 3/27/17

5. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
- d. Exceeded attempts

- i. Acetone - Mnf Both Lot 17060 Level 0.100 Exp 2/14/19
  - 1. Simulator S/N SD1177 Date Calibrated 1/24/18
- ii. Isopropanol - Mnf Both Lot 17280 Level 0.100 Exp 9/11/19
  - 1. Simulator S/N SD1199 Date Calibrated 1/24/18
- iii. Negative Control - Mnf Both Lot 17060 Level 0.100 Exp 2/14/19
  - 1. Simulator S/N SD1088 Date Calibrated 1/24/18

e. RFI

- 6. Verify stylus is calibrated
- 7. Reset Options
- 8. Clear Memory

- 9. Verification of Calibration
- 10. Non-Drinking Subject Test (attached)
- 11. Upload
- 13. Remove tank prior to shut down

End Date 2/12/18

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100665  
-----

Date: 02/08/2018  
Time: 15:49:44

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

TEMPERATURES

Sample Chamber = 49.1°C                    PASSED  
(44.0°C - 52.0°C)  
Breath Tube       = 45.9°C                PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage     = 1.70 V                PASSED  
(0.98 V - 2.30 V)  
Cooler Voltage   = 1.67 V                PASSED  
(1.03 V - 2.41 V)  
Bias Voltage      = 79 V                    PASSED  
(47 V - 111 V)  
Chopper Freq     = 541 Hz                PASSED  
(475 Hz - 575 Hz)  
Barometer         = 30.3 in

PUMP INFO

Flow Rate = 5.352 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  
(0.001 V <= 0.010 V)

FILTER INFO

Filter 1                                  PASSED  
Filter 2                                  PASSED  
Filter 3                                  PASSED

INTERNAL STANDARD

Xq = 0.128 0.35% (0.00% - 4.00%)       PASSED

Technician Screen

-----  
DATAMASTER dmt: 100665  
-----

Date: 02/12/2018  
Time: 8:43 AM

Temperatures (°C)  
Sample Cell: 49.5°C  
Breath Tube: 45.8°C

Current Barometer 29.3 in  
Volume (Ltr) 1.57

Settings  
Lamp: 1.73 V  
Bias: 80 V  
Cooler: 1.70 V  
Chopper: 542 Hz

Voltages (V)  
Flow: 1.06 V  
Detector: 0.025 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100665  
-----

Date: 04/17/2012  
Time: 04:30:06

Ca = 0.1000  
CAL = 0.968497 0.800 <= CAL < 1.200  
b1 = 0.0001 0.0000 <= b1 < 0.0040  
b2 = 0.0054 0.0010 <= b2 < 0.0100  
b3 = 0.0003 0.0000 <= b3 < 0.0040  
Xq = 0.1289 0.0500 <= Xq < 0.2000  
a21 = 1.229257 1.050 <= a21 < 1.300  
a31 = 0.541082 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100665

Date: 02/12/2018  
Time: 08:44:16

SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

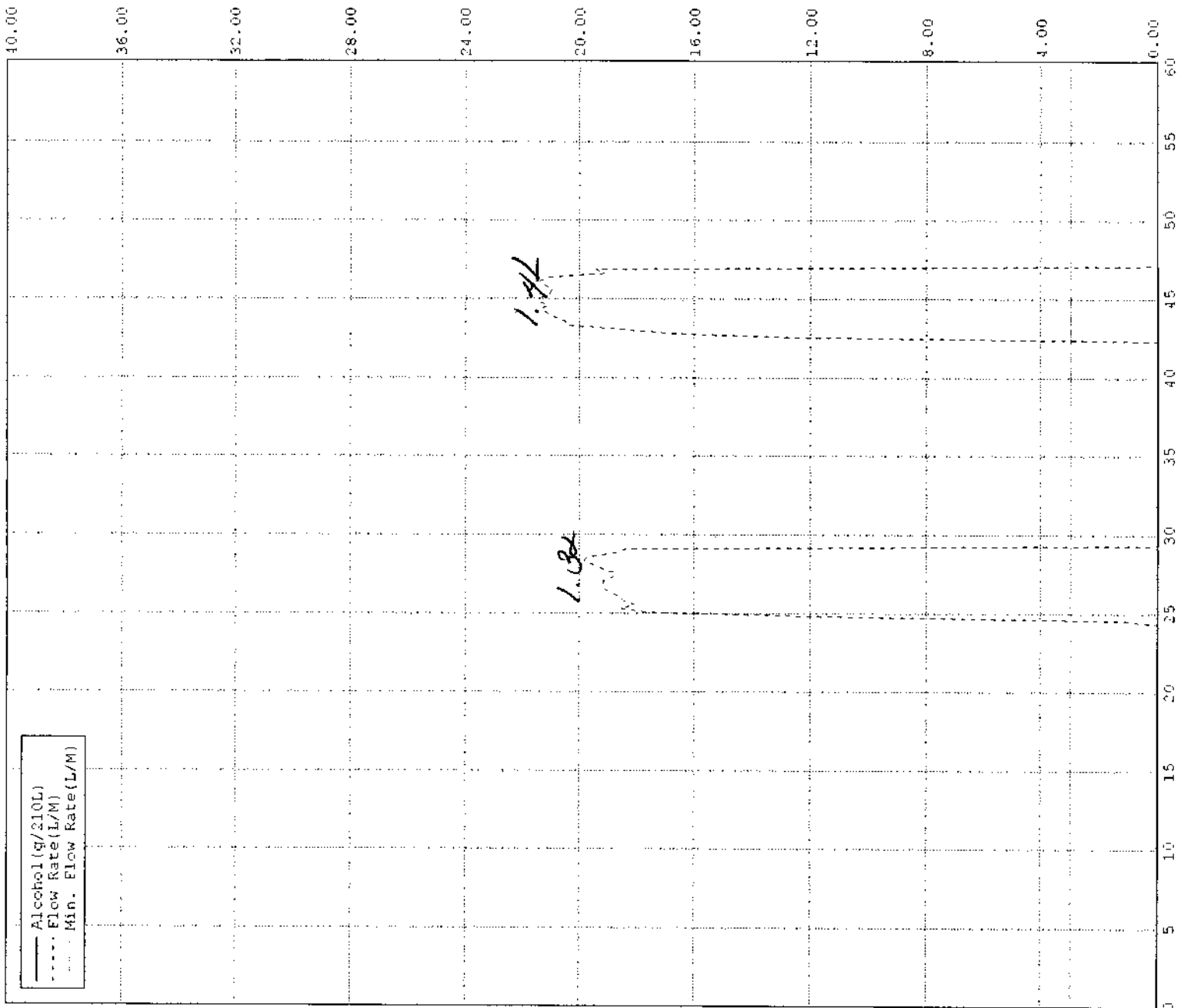
OPERATOR NAME:  
COLLEEN S O'BRYANT  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 18-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.35: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 08:45  
BLANK TEST 0.000 08:45  
INTERNAL STANDARD VERIFIED 08:45  
EXTERNAL STANDARD 0.076 08:45  
BLANK TEST 0.000 08:46  
SUBJECT SAMPLE (Vol=1.50L) 0.000 08:47  
BLANK TEST 0.000 08:48  
EXTERNAL STANDARD 0.076 08:48  
BLANK TEST 0.000 08:49

CS



LINEARITY CHECK

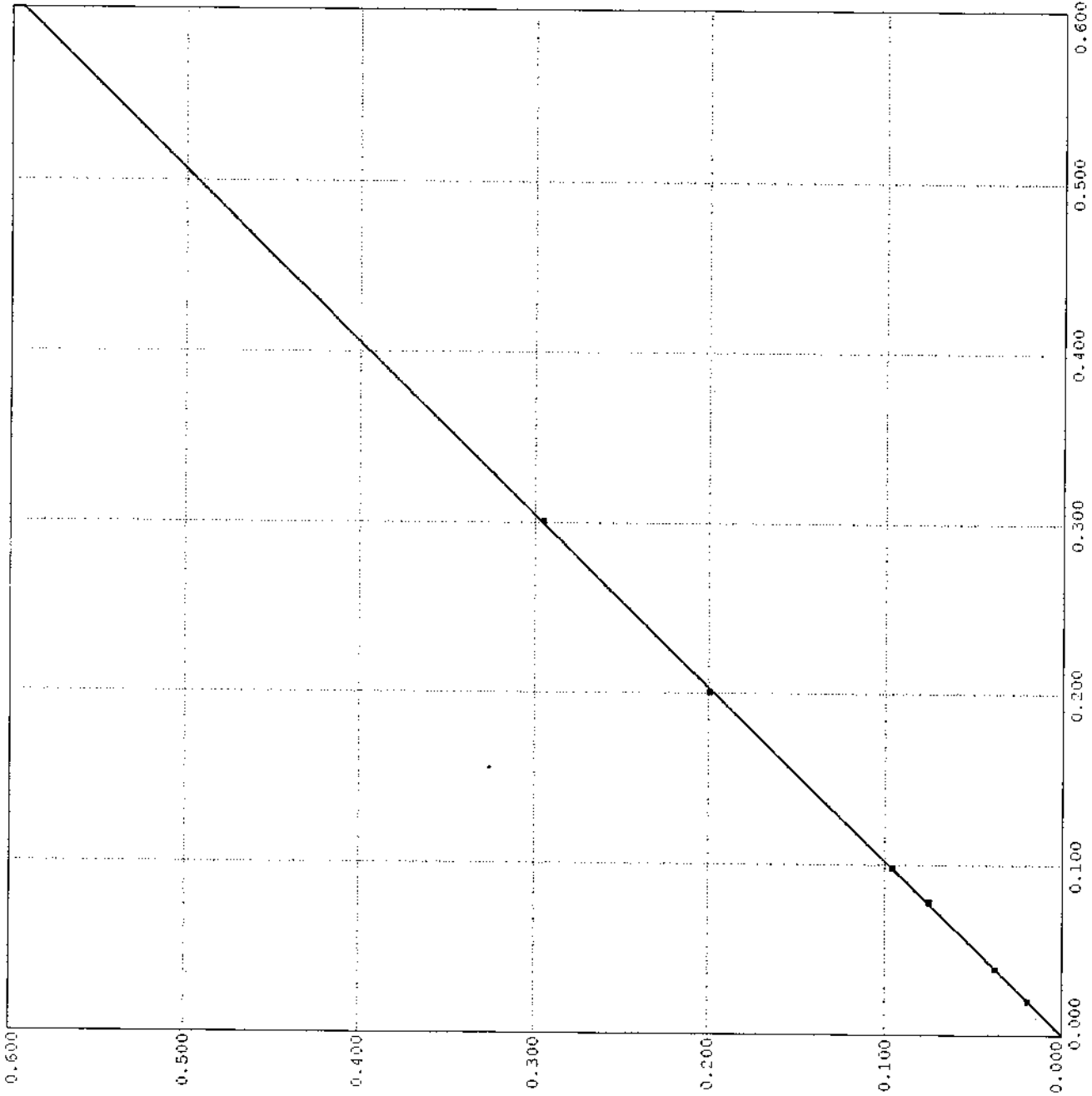
Alaska Department of Public Safety  
 DATAMASTER dmt: 100665

Date: 02/12/2018  
 Time: 08:56:10

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.039	0.0386	0.0005
0.078	0.0760	0.0000
0.098	0.0968	0.0004
0.200	0.2002	0.0004
0.300	0.2958	0.0004

SLOPE = 0.989957  
 R<sup>2</sup> = 0.999861



*CRB*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100665

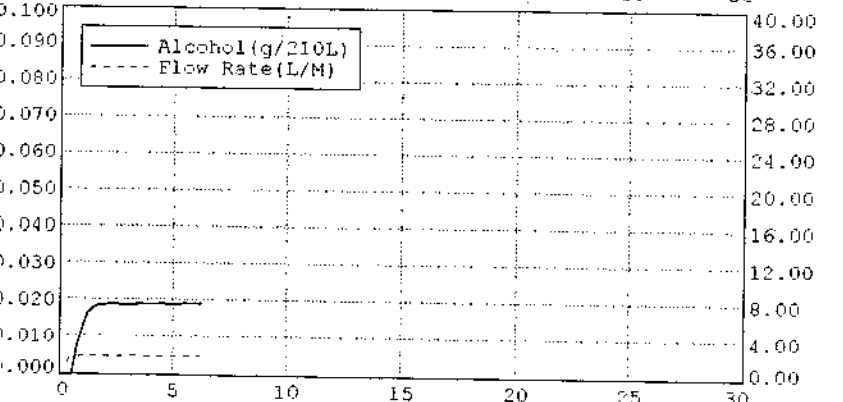
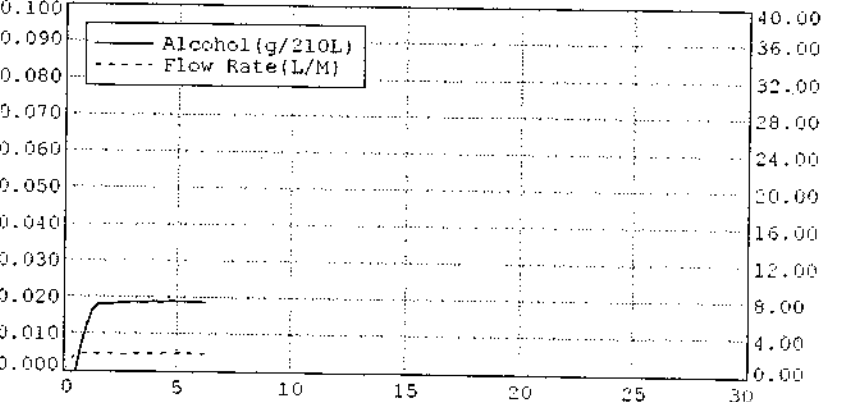
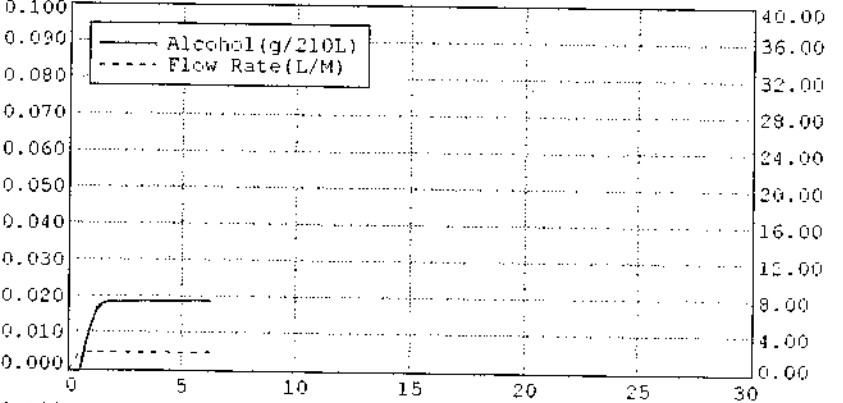
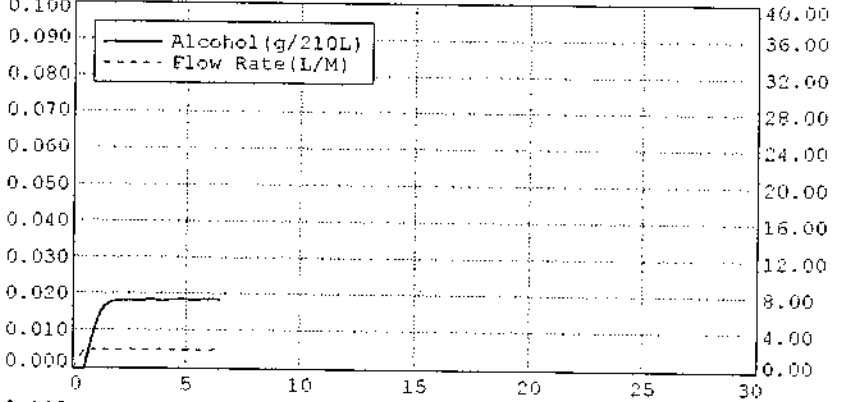
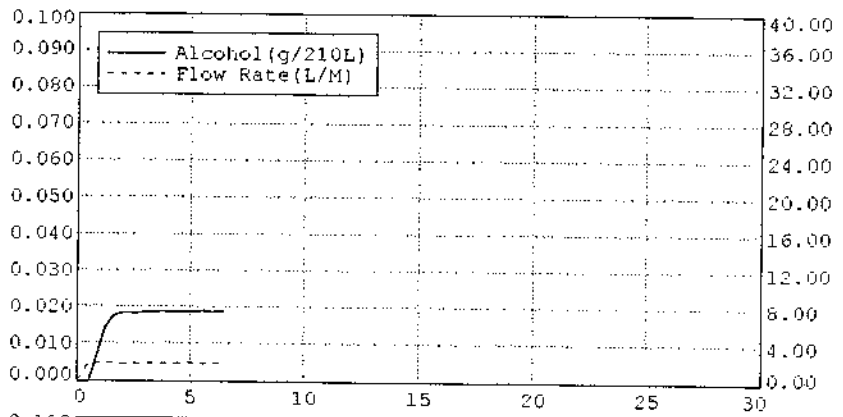
Date: 02/12/2018  
 Time: 08:56:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.35: 0.020  
 LOT #: AG616504  
 EXPIRATION: 06/13/2018  
 TANK PRESSURE: 250 psi

BLANK TEST	0.000	09:45
INTERNAL STANDARD	VERIFIED	09:45
EXTERNAL STANDARD	0.020	09:45
BLANK TEST	0.000	09:46
EXTERNAL STANDARD	0.020	09:46
BLANK TEST	0.000	09:47
EXTERNAL STANDARD	0.020	09:47
BLANK TEST	0.000	09:48
EXTERNAL STANDARD	0.020	09:48
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.020	09:49
BLANK TEST	0.000	09:50

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100665

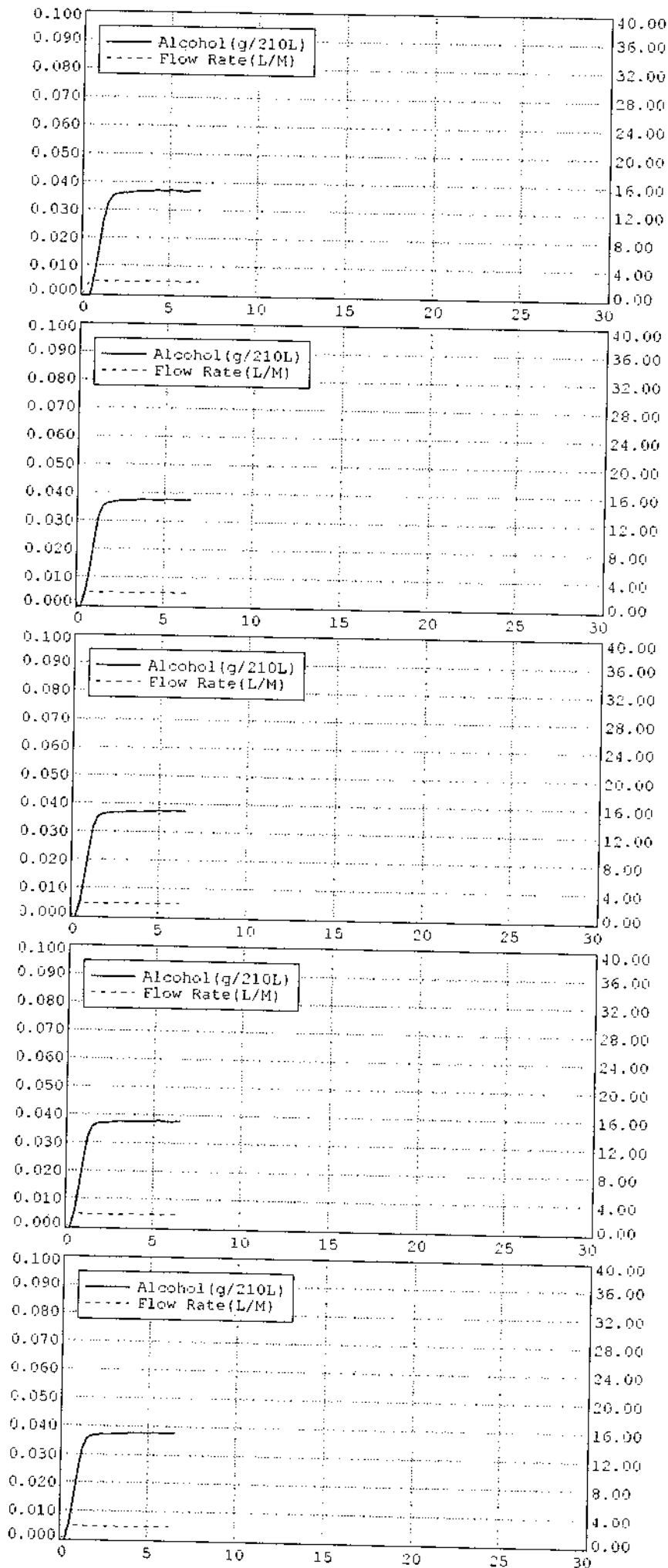
Date: 02/12/2018  
 Time: 09:54:59

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.34: 0.039  
 LOT #: AG630101  
 EXPIRATION: 10/27/2018  
 TANK PRESSURE: 334 psi

BLANK TEST	0.000	09:56
INTERNAL STANDARD	VERIFIED	09:56
EXTERNAL STANDARD	0.038	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.039	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.038	09:59
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.039	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.039	10:01
BLANK TEST	0.000	10:02

Average = 0.0386  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100665

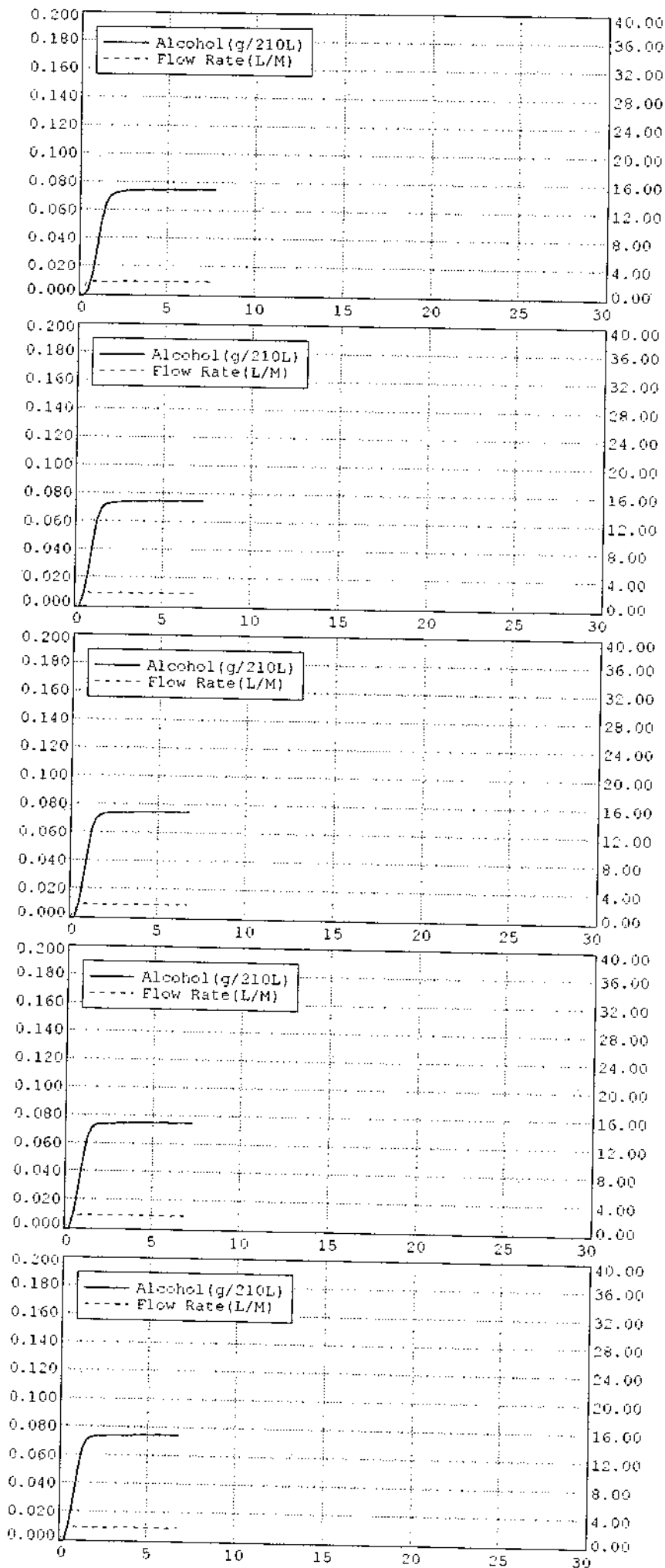
Date: 02/12/2018  
 Time: 10:03:19

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.35: 0.078  
 LOT #: AG608504  
 EXPIRATION: 03/25/2018  
 TANK PRESSURE: 198 psi

BLANK TEST	0.000	10:05
INTERNAL STANDARD	VERIFIED	10:05
EXTERNAL STANDARD	0.076	10:05
BLANK TEST	0.000	10:06
EXTERNAL STANDARD	0.076	10:06
BLANK TEST	0.000	10:07
EXTERNAL STANDARD	0.076	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.076	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.076	10:09
BLANK TEST	0.000	10:10

Average = 0.0760  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100665

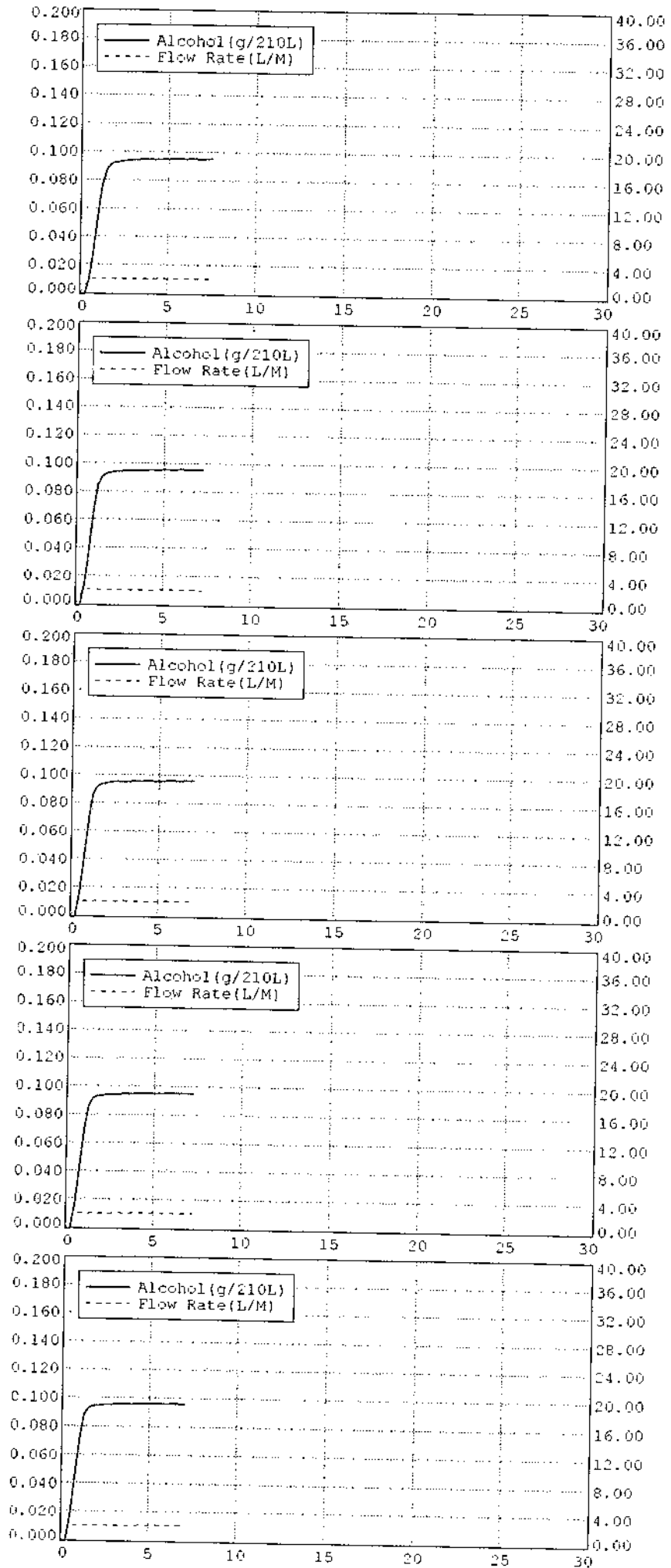
Date: 02/12/2018  
 Time: 10:12:59

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.35: 0.098  
 LOT #: AG629304  
 EXPIRATION: 10/19/2018  
 TANK PRESSURE: 1098 psi

BLANK TEST	0.000	10:14
INTERNAL STANDARD	VERIFIED	10:14
EXTERNAL STANDARD	0.097	10:14
BLANK TEST	0.000	10:15
EXTERNAL STANDARD	0.097	10:15
BLANK TEST	0.000	10:16
EXTERNAL STANDARD	0.097	10:16
BLANK TEST	0.000	10:17
EXTERNAL STANDARD	0.096	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.097	10:19
BLANK TEST	0.000	10:19

Average = 0.0968  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100665

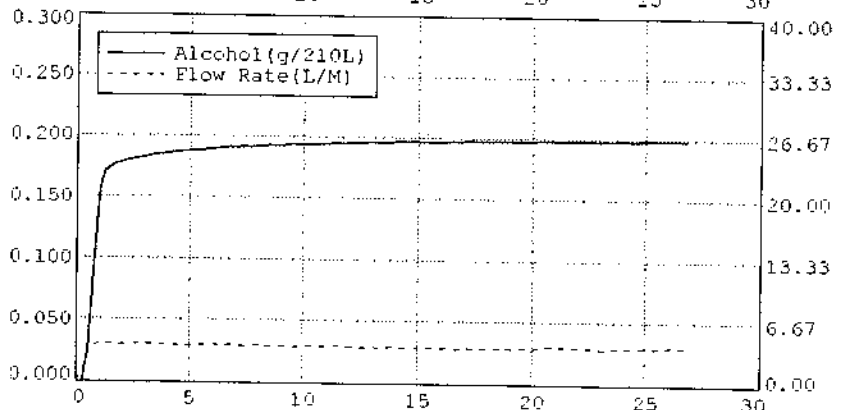
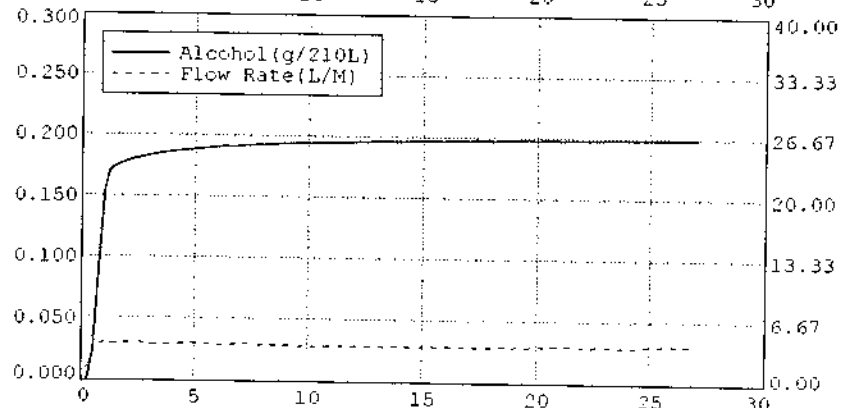
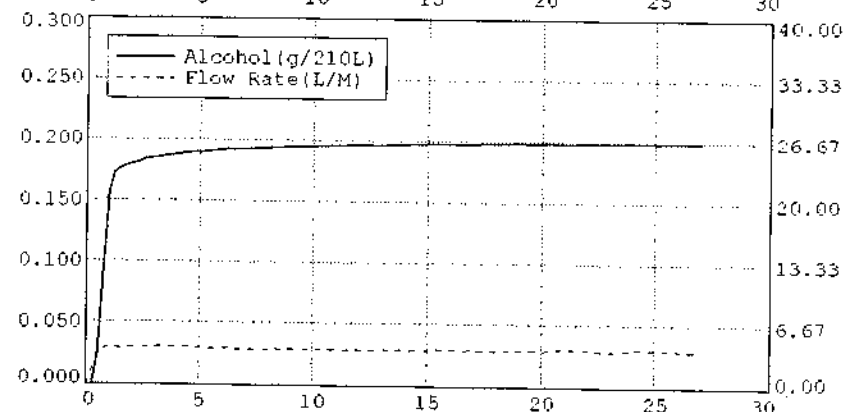
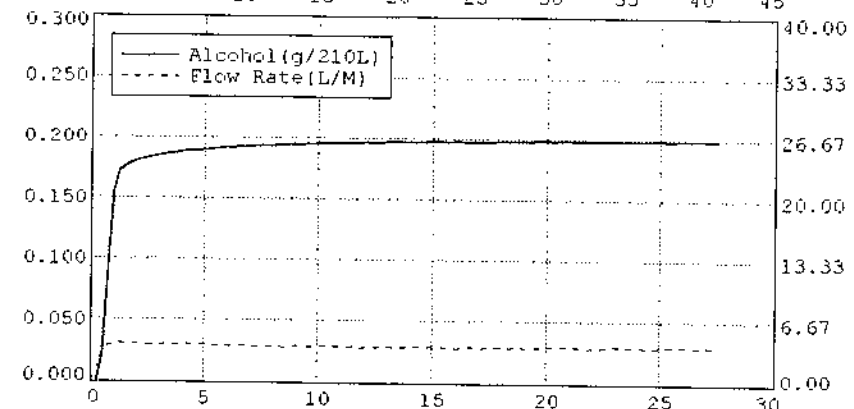
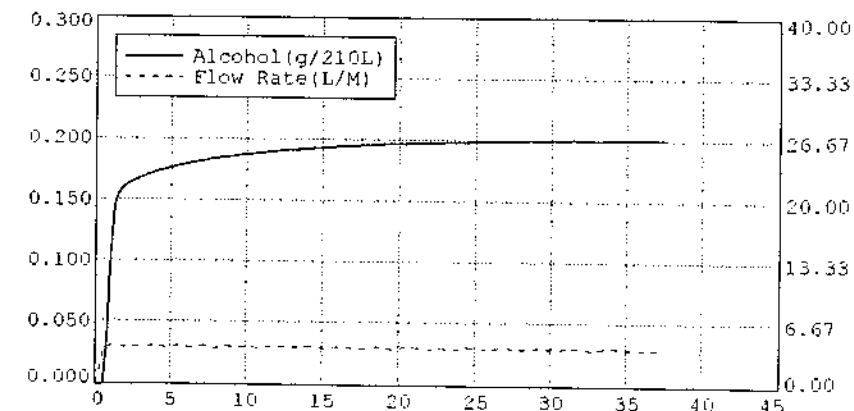
Date: 02/12/2018  
 Time: 10:20:33

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 17090  
 EXPIRATION: 02/24/2019

BLANK TEST	0.000	10:22
INTERNAL STANDARD	VERIFIED	10:22
EXTERNAL STANDARD	0.201	10:23
BLANK TEST	0.000	10:24
EXTERNAL STANDARD	0.200	10:24
BLANK TEST	0.000	10:25
EXTERNAL STANDARD	0.200	10:26
BLANK TEST	0.000	10:27
EXTERNAL STANDARD	0.200	10:27
BLANK TEST	0.000	10:28
EXTERNAL STANDARD	0.200	10:29
BLANK TEST	0.000	10:29

Average = 0.2002  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

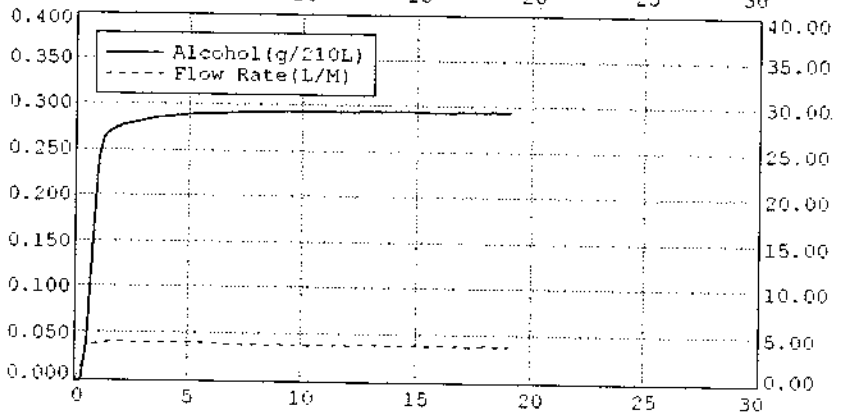
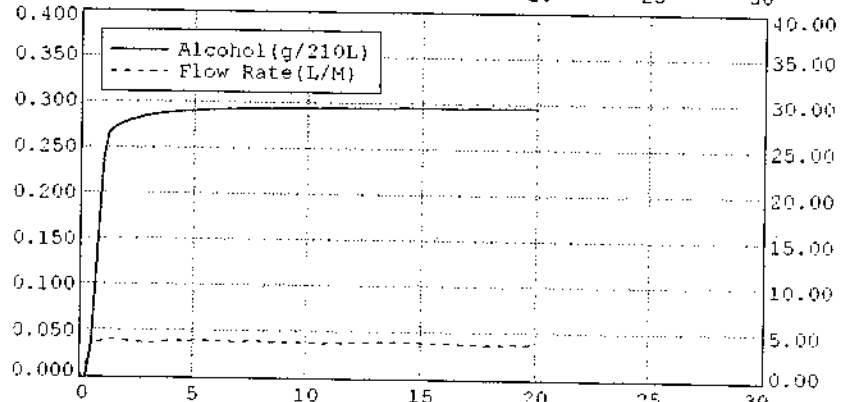
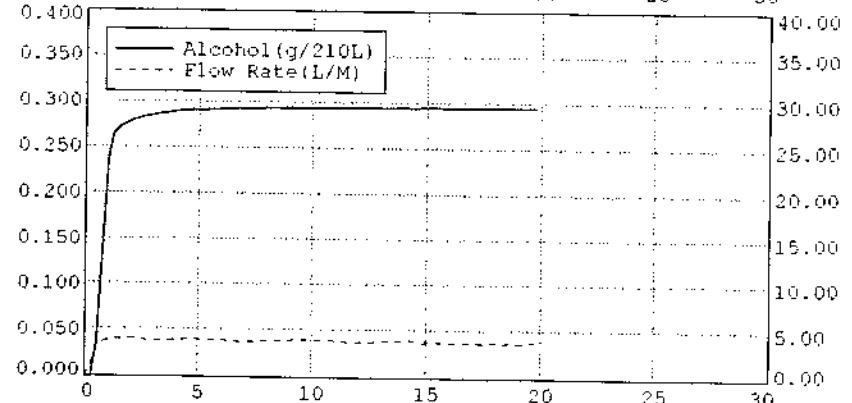
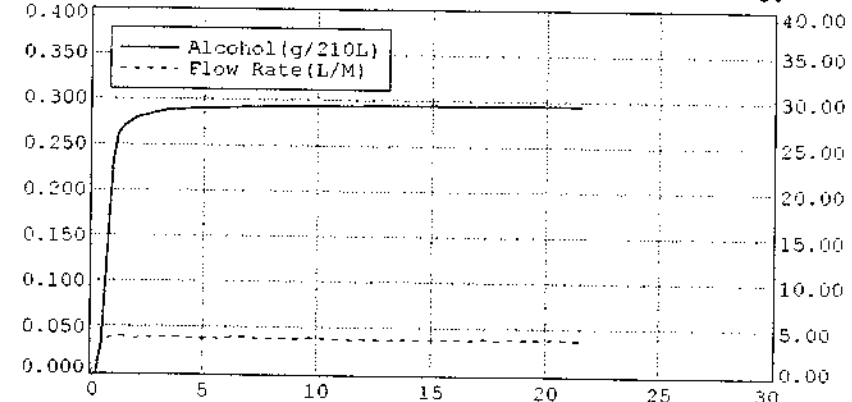
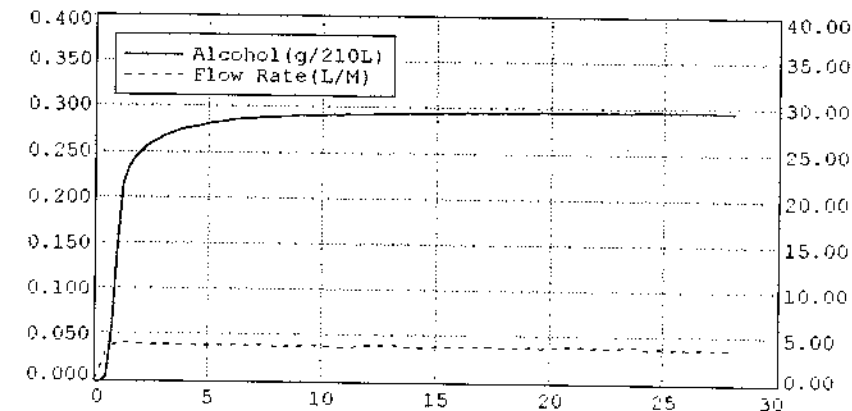
Alaska Department of Public Safety  
 DATAMASTER dmt: 100665

Date: 02/12/2018  
 Time: 10:32:20

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: 17140  
 EXPIRATION: 05/15/2019

BLANK TEST	0.000	10:33
INTERNAL STANDARD	VERIFIED	10:33
EXTERNAL STANDARD	0.296	10:34
BLANK TEST	0.000	10:35
EXTERNAL STANDARD	0.296	10:35
BLANK TEST	0.000	10:36
EXTERNAL STANDARD	0.296	10:36
BLANK TEST	0.000	10:37
EXTERNAL STANDARD	0.296	10:38
BLANK TEST	0.000	10:39
EXTERNAL STANDARD	0.295	10:39
BLANK TEST	0.000	10:40

Average = 0.2958  
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100665

Date: 02/12/2018  
Time: 10:46:25

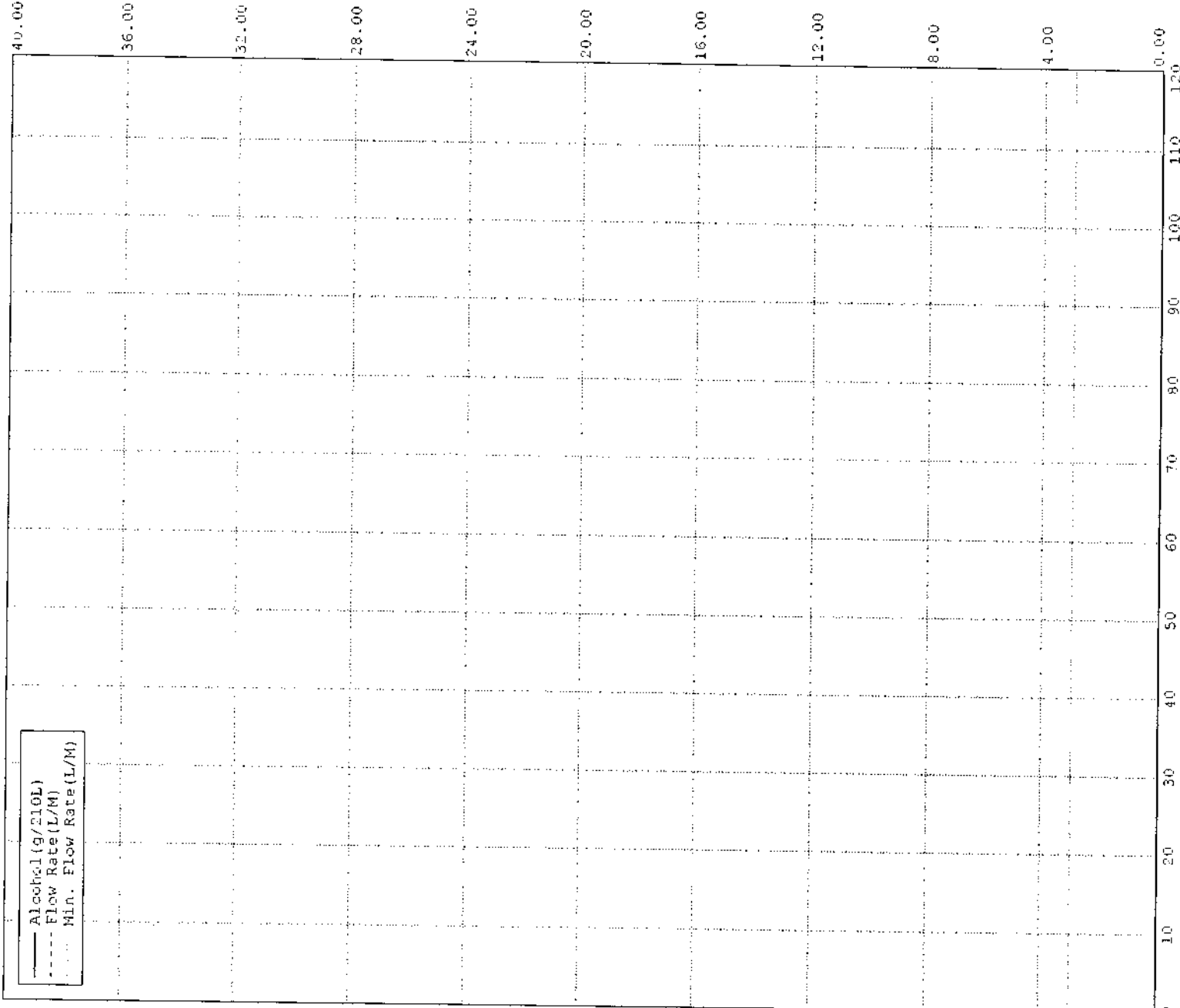
SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

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

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 18-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.33: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 10:47  
BLANK TEST 0.000 10:47  
INTERNAL STANDARD VERIFIED 10:47  
EXTERNAL STANDARD 0.075 10:47  
BLANK TEST 0.000 10:48  
SUBJECT SAMPLE INCOMPLETE 10:50



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100665

Date: 02/12/2018  
Time: 10:54:34

SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

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

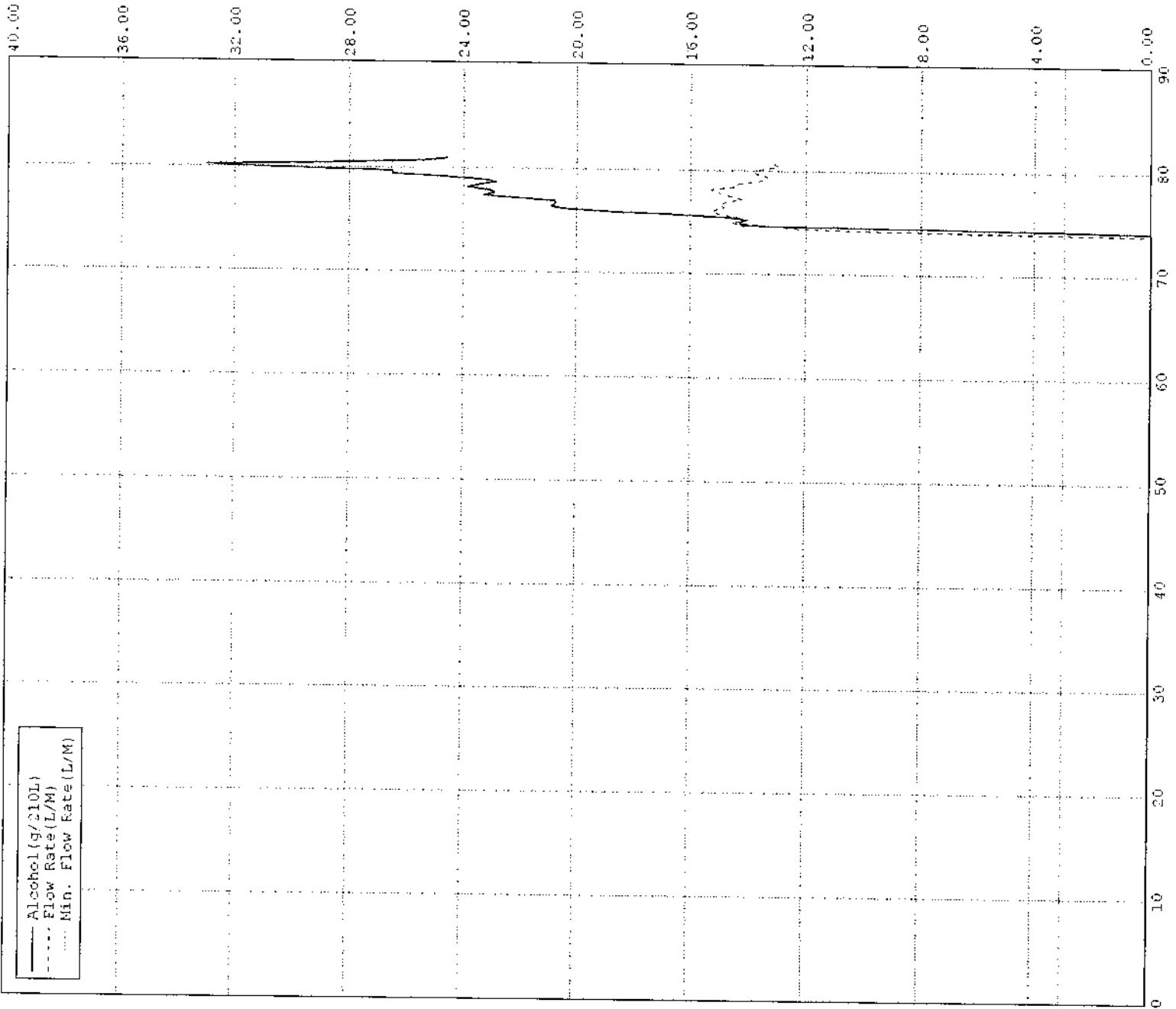
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 18-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.34: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:55
BLANK TEST	0.000	10:55
INTERNAL STANDARD	VERIFIED	10:55
EXTERNAL STANDARD	0.076	10:56
BLANK TEST	0.000	10:56
SUBJECT SAMPLE	INVALID	10:58

CUB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100665

Date: 02/12/2018  
Time: 11:05:47

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE  
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAAI  
CASE/REPORT: 18-1234  
TEST TYPE: TEST

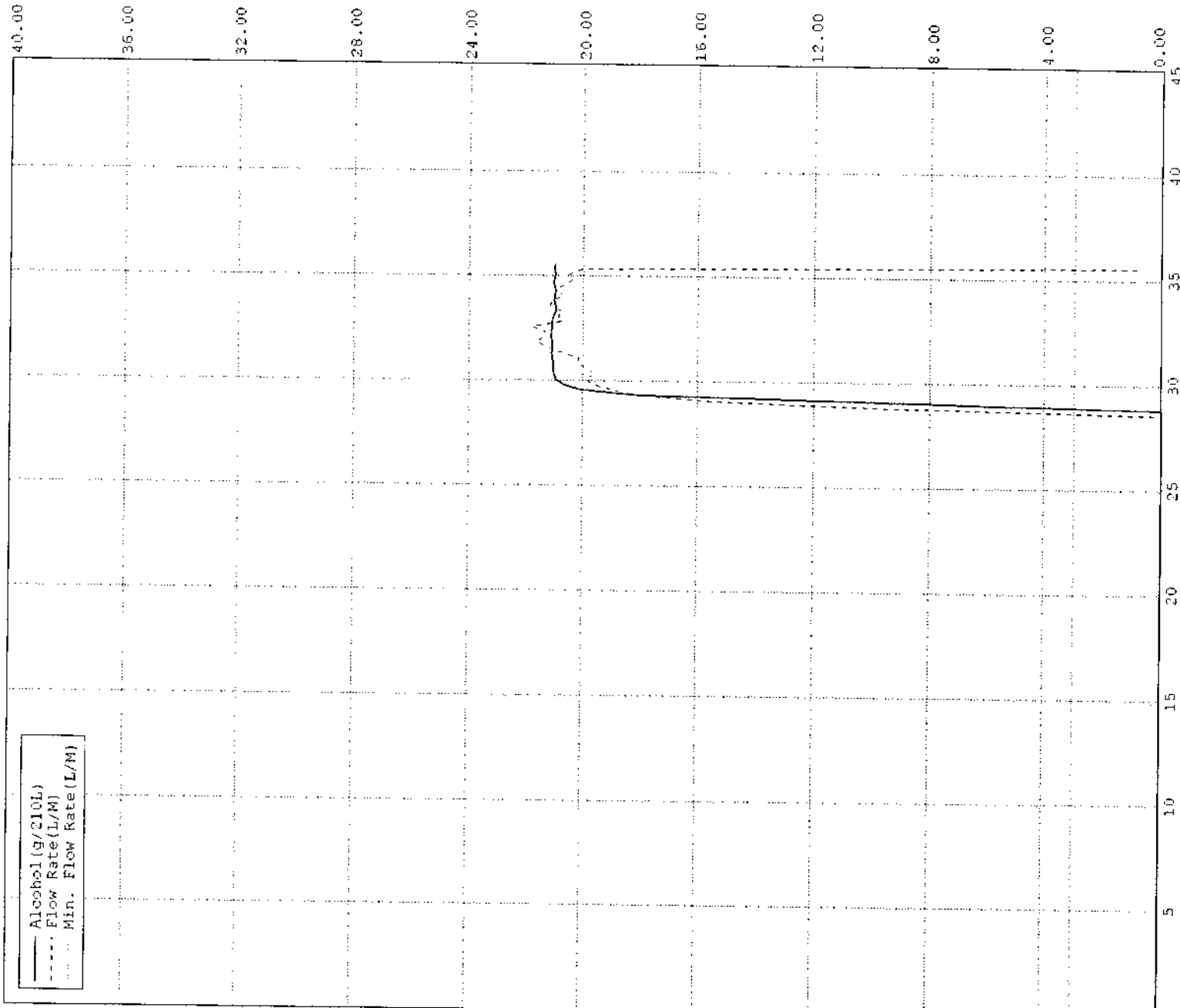
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.33: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 11:08  
BLANK TEST 0.000 11:08  
INTERNAL STANDARD VERIFIED 11:08  
Xq = 0.129 (0.14%)  
EXTERNAL STANDARD 0.076 11:08  
X[1] = 0.0758 (0.0007) (0.0030)  
BLANK TEST 0.000 11:09  
SUBJECT SAMPLE XXX 11:10  
X[1] = 0.1054 (-0.0168) (0.0020)

Interference Detected

*Filter 2 avg = 0.0003*  
*Filter 3 avg = 0.0006*

*COB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100665

Date: 02/12/2018  
Time: 11:14:16

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

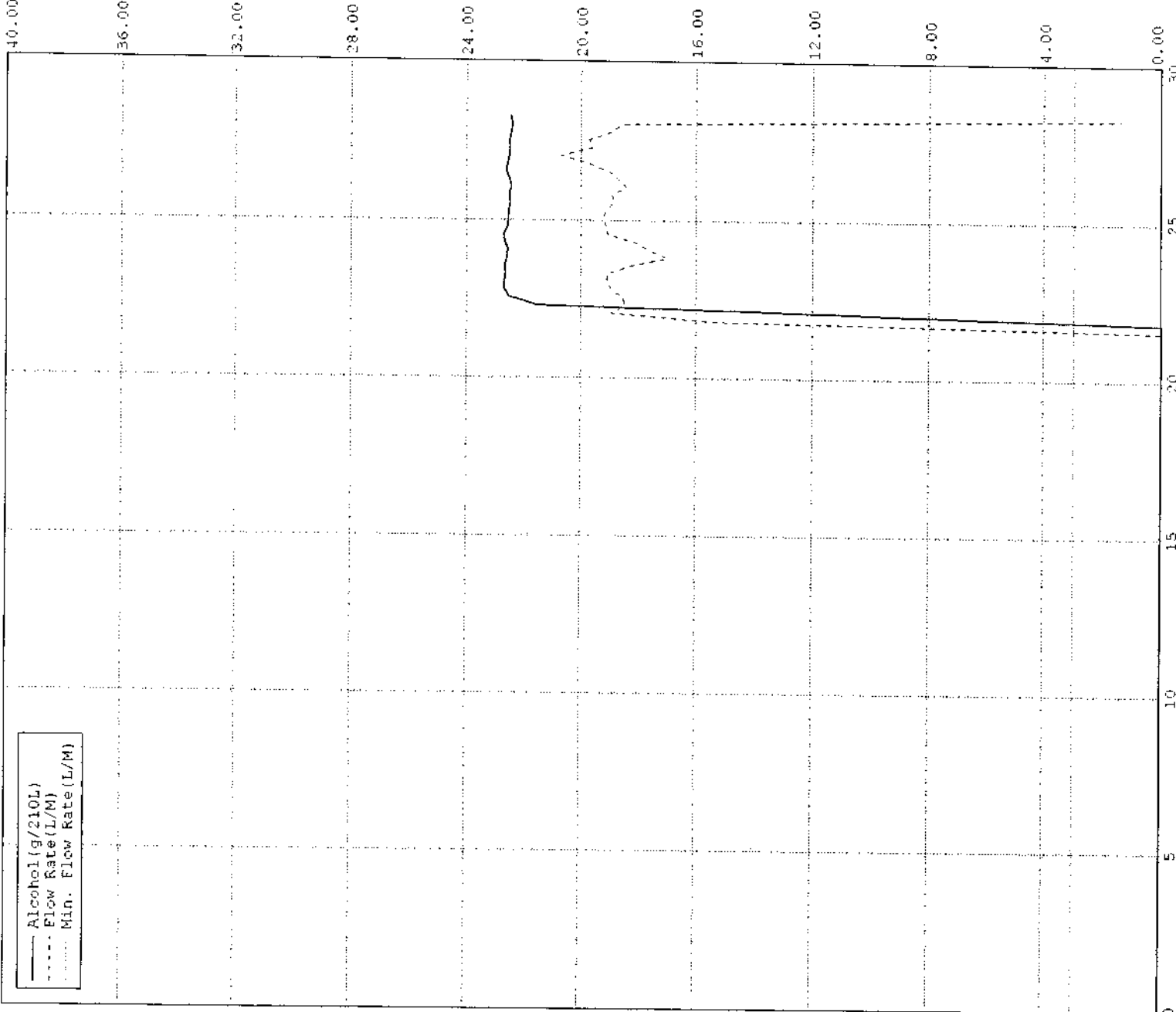
OPERATOR NAME:  
COLLEEN S OBRyant  
OPERATOR'S #: 6237

DEPT/AGENCY: AAAA  
CASE/REPORT: 18-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.33: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	11:16
BLANK TEST	0.000	11:16
INTERNAL STANDARD	VERIFIED	11:16
Xc = 0.129 (0.21%)		
EXTERNAL STANDARD	0.075	11:16
X[1] = 0.0753 (0.0000)	(0.0028)	
BLANK TEST	0.000	11:17
SUBJECT SAMPLE	XXX	11:18
X[1] = 0.1130 (-0.0267)	(0.0025)	

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100665

Date: 02/12/2018  
Time: 11:20:48

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEGATIVE

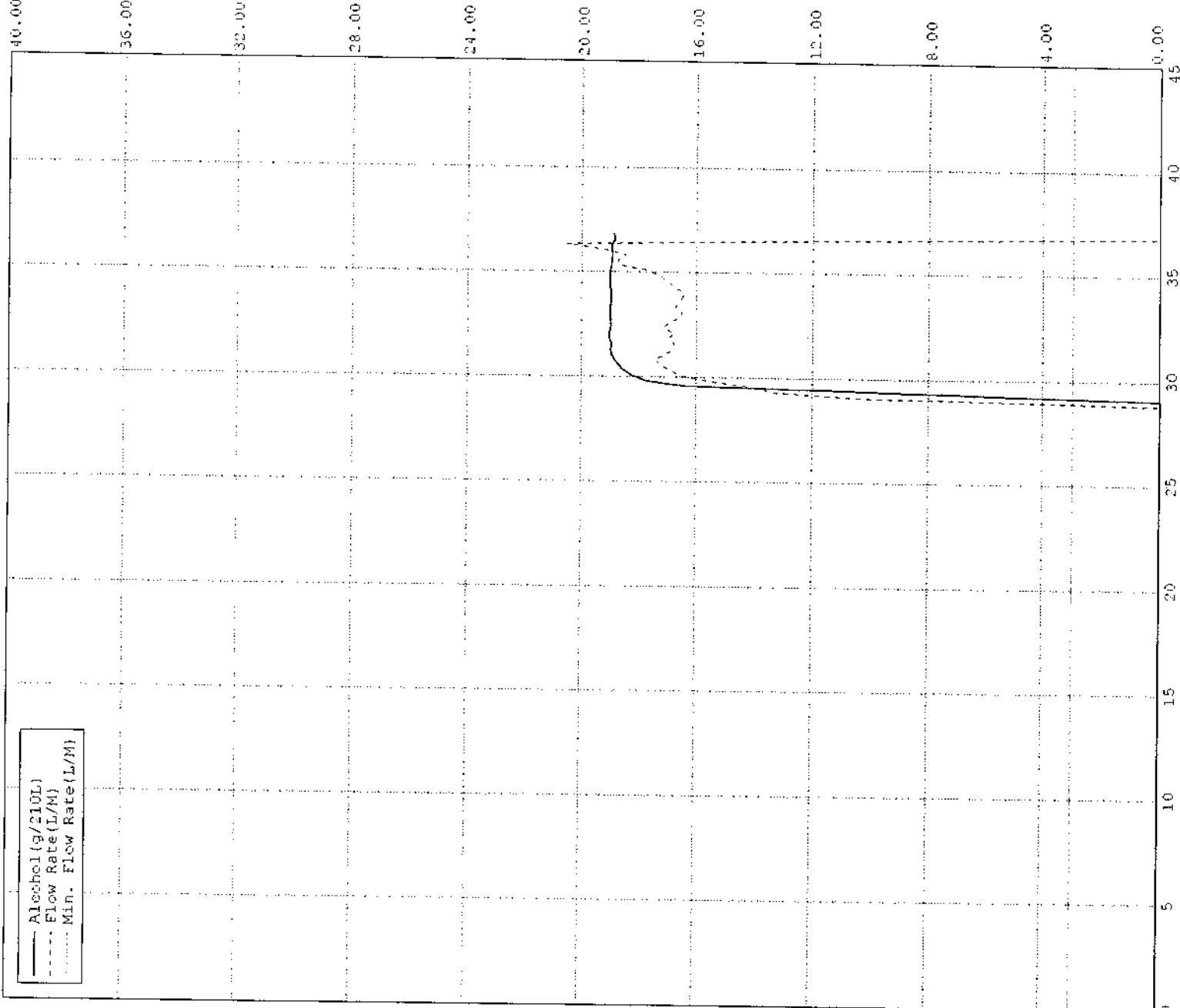
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 18-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.33: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	11:23
BLANK TEST	0.000	11:23
INTERNAL STANDARD	VERIFIED	11:24
Xq = 0.129 (0.07%)		
EXTERNAL STANDARD	0.076	11:24
X[1] = 0.0756 (-0.0001) (0.0027)		
BLANK TEST	0.000	11:25
SUBJECT SAMPLE (Vol=2.15L)	0.094	11:25
X[1] = 0.0949 (0.0003) (0.0017)		
BLANK TEST	0.000	11:26
EXTERNAL STANDARD	0.076	11:27
X[1] = 0.0757 (0.0004) (0.0020)		
BLANK TEST	0.000	11:28

*CO2*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100665

Date: 02/12/2018  
Time: 13:08:18

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

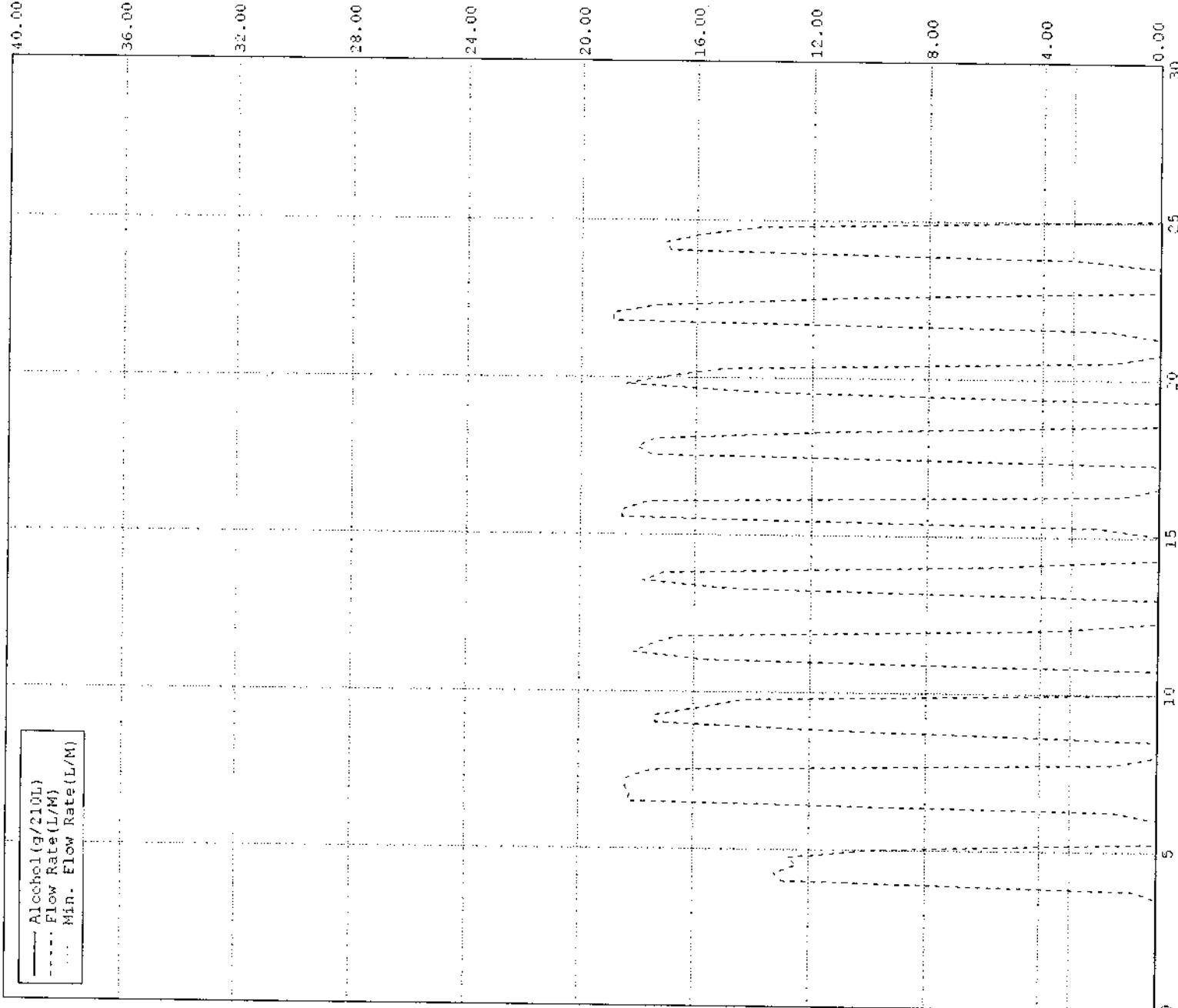
OPERATOR NAME:  
COLLEEN S OBRyant  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAAI  
CASE/REPORT: 18-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.33: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 13:11  
BLANK TEST 0.000 13:11  
INTERNAL STANDARD VERIFIED 13:11  
EXTERNAL STANDARD 0.075 13:11  
BLANK TEST 0.000 13:12  
SUBJECT SAMPLE XXX 13:13

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAWASTER dmt: 100665

Date: 02/12/2018  
Time: 13:19:50

SUBJECT NAME:  
TEST TEST  
LICENSE #: RFI

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 18-1234  
TEST TYPE: TEST

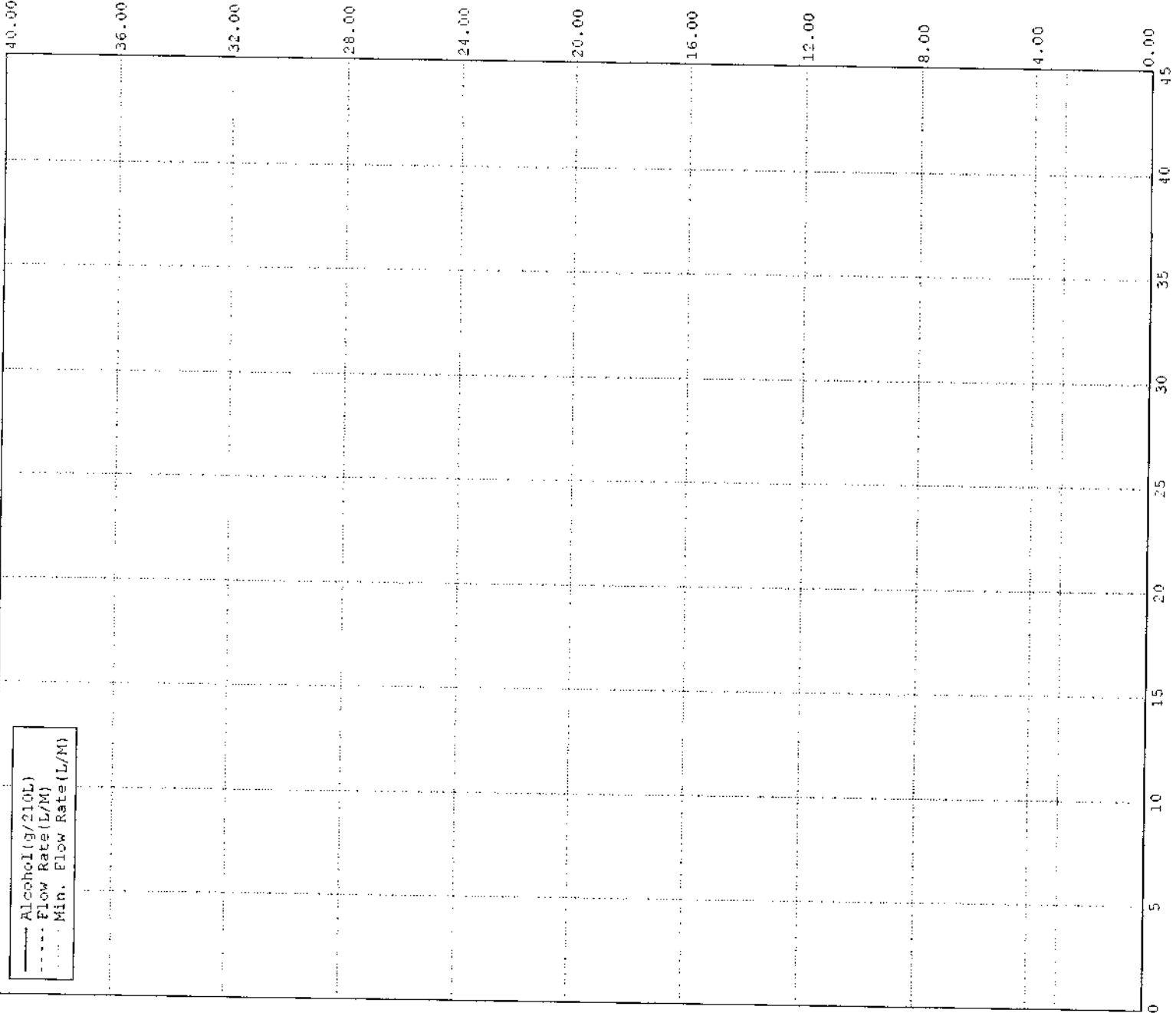
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.32: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 13:20  
BLANK TEST 0.000 13:21  
INTERNAL STANDARD VERIFIED 13:21  
EXTERNAL STANDARD 0.075 13:21  
BLANK TEST 0.000 13:22

RFI DETECTED

Alcohol(g/210L)  
Flow Rate(L/M)  
Min. Flow Rate(L/M)



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100665

Date: 02/12/2018  
Time: 13:36:10

SUBJECT NAME:  
TEST TEST  
LICENSE #: NON-DRINKING

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

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 18-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.31: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:37
BLANK TEST	0.000	13:37
INTERNAL STANDARD	VERIFIED	13:37
EXTERNAL STANDARD	0.076	13:37
BLANK TEST	0.000	13:38
SUBJECT SAMPLE (Vol=2.24l)	0.000	13:39
BLANK TEST	0.000	13:40
EXTERNAL STANDARD	0.077	13:40
BLANK TEST	0.000	13:41

*CB*

Alcohol(g/210L)  
Flow Rate(L/M)  
Min. Flow Rate(L/M)

