

# 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 1006068 Analyst Colleen O'Bryan Start Date 10/6/15

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 1.5 L (1.3L to 1.7L)
4. Linearity Test (attached)
  - a. Levels Used
    - i. 0.020g/210L Mnf ILMO Lot 02915020A2 Exp 3/5/17
    - ii. 0.040g/210L Mnf ILMO Lot 02915040A3 Exp 3/5/17
    - iii. 0.080g/210L Mnf ILMO Lot 02914080A2 Exp 5/1/16
    - iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17
    - v. 0.200g/210L Mnf Guth Lot 15130 Exp 5/11/17
      1. Simulator S/N DR 6267 Date Calibrated 1/20/15
    - vi. 0.300g/210L Mnf Guth Lot 14270 Exp 12/2/16
      1. Simulator S/N DR 4162 Date Calibrated 1/19/15
5. Functional Tests (attached)
  - a. Incomplete
  - b. Invalid
  - c. Interference
  - d. Exceeded attempts 
    - i. Acetone - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
      1. Simulator S/N DR 4163 Date Calibrated 1/19/15
    - ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
      1. Simulator S/N SD 1176 Date Calibrated 1/20/15
    - iii. Negative Control - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
      1. Simulator S/N DR 4178 Date Calibrated 1/19/15
  - 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 11/2/15

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100668  
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Date: 10/28/2015  
Time: 11:07:45

VERSIONS  
DMT: 3.01  
PIC: 3.03  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 49.1°C                    PASSED  
(44.0°C - 52.0°C)  
Breath Tube       = 48.1°C                   PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage     = 1.61 V                   PASSED  
(1.00 V - 2.32 V)  
Cooler Voltage   = 1.76 V                   PASSED  
(1.01 V - 2.37 V)  
Bias Voltage      = 79 V                    PASSED  
(48 V - 112 V)  
Chopper Freq     = 536 Hz                    PASSED  
(475 Hz - 575 Hz)  
Barometer         = 29.1 in

PUMP INFO

Flow Rate = 4.730 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 = 0.093 (2.31%) (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100668  
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Date: 10/28/2015  
Time: 11:19 AM

Temperatures (°C)  
Sample Cell: 48.9°C  
Breath Tube: 48.0°C

Current Barometer 29.0 in  
Volume (Ltr) 1.52

Settings  
Lamp: 1.63 V  
Bias: 80 V  
Cooler: 1.77 V  
Chopper: 536 Hz

Voltages (V)  
Flow: 1.06 V  
Detector: -0.081 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100668  
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Date: 09/21/2011  
Time: 14:00:28

Ca = 0.1500  
CAL = 0.988351    0.800 <= CAL < 1.200  
b1 = 0.0000    0.0000 <= b1 < 0.0040  
b2 = 0.0016    0.0010 <= b2 < 0.0100  
b3 = 0.0000    0.0000 <= b3 < 0.0040  
Xq = 0.0947    0.0500 <= Xq < 0.2000  
a21 = 1.169724    1.050 <= a21 < 1.300  
a31 = 0.527723    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100668

Date: 10/28/2015  
Time: 12:07:32

SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

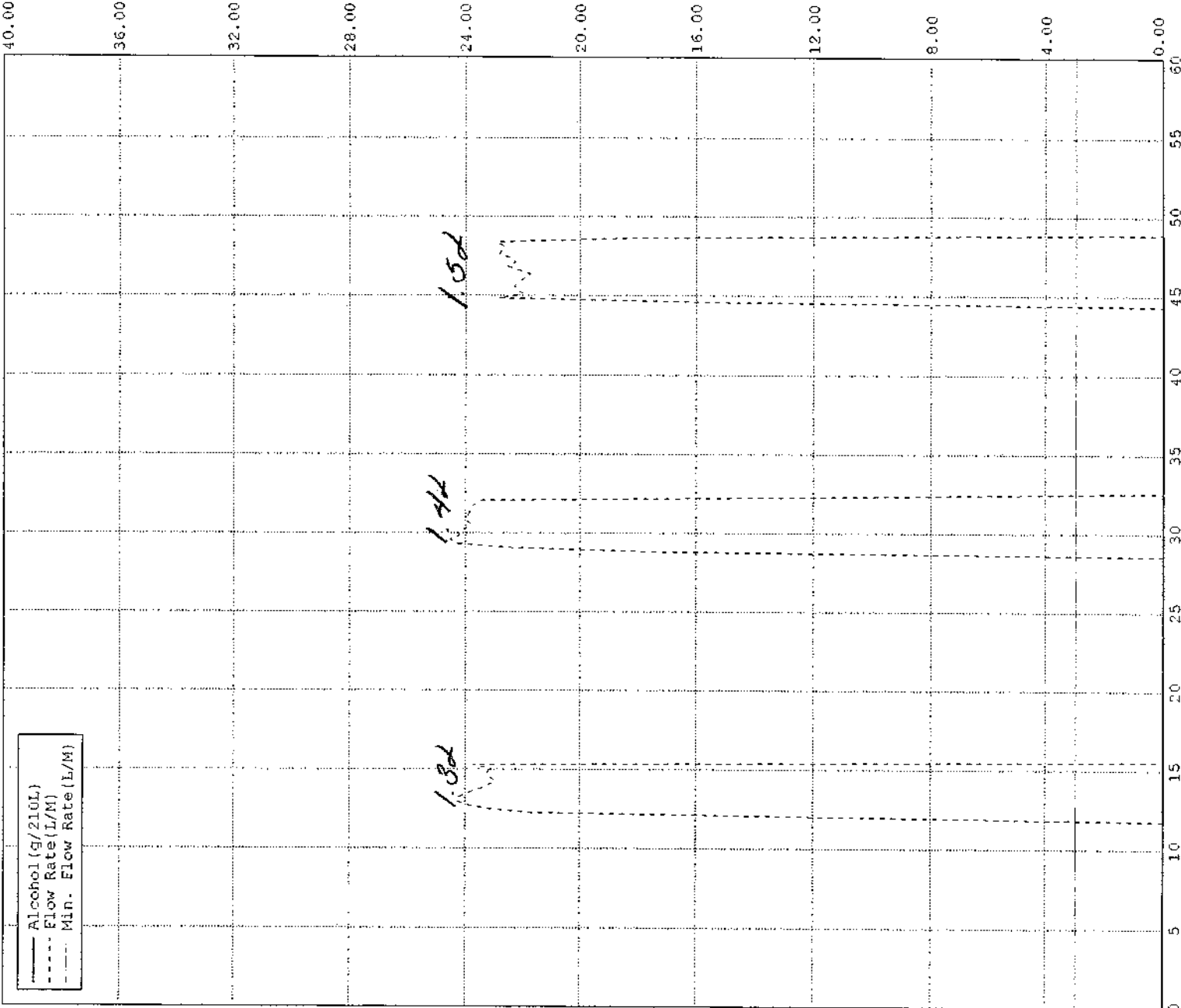
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.05: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	12:08
BLANK TEST	0.000	12:08
INTERNAL STANDARD	VERIFIED	12:09
EXTERNAL STANDARD	0.077	12:09
BLANK TEST	0.000	12:10
SUBJECT SAMPLE (Vol=1.54L)	0.000	12:11
BLANK TEST	0.000	12:11
EXTERNAL STANDARD	0.077	12:12
BLANK TEST	0.000	12:13



LINEARITY CHECK

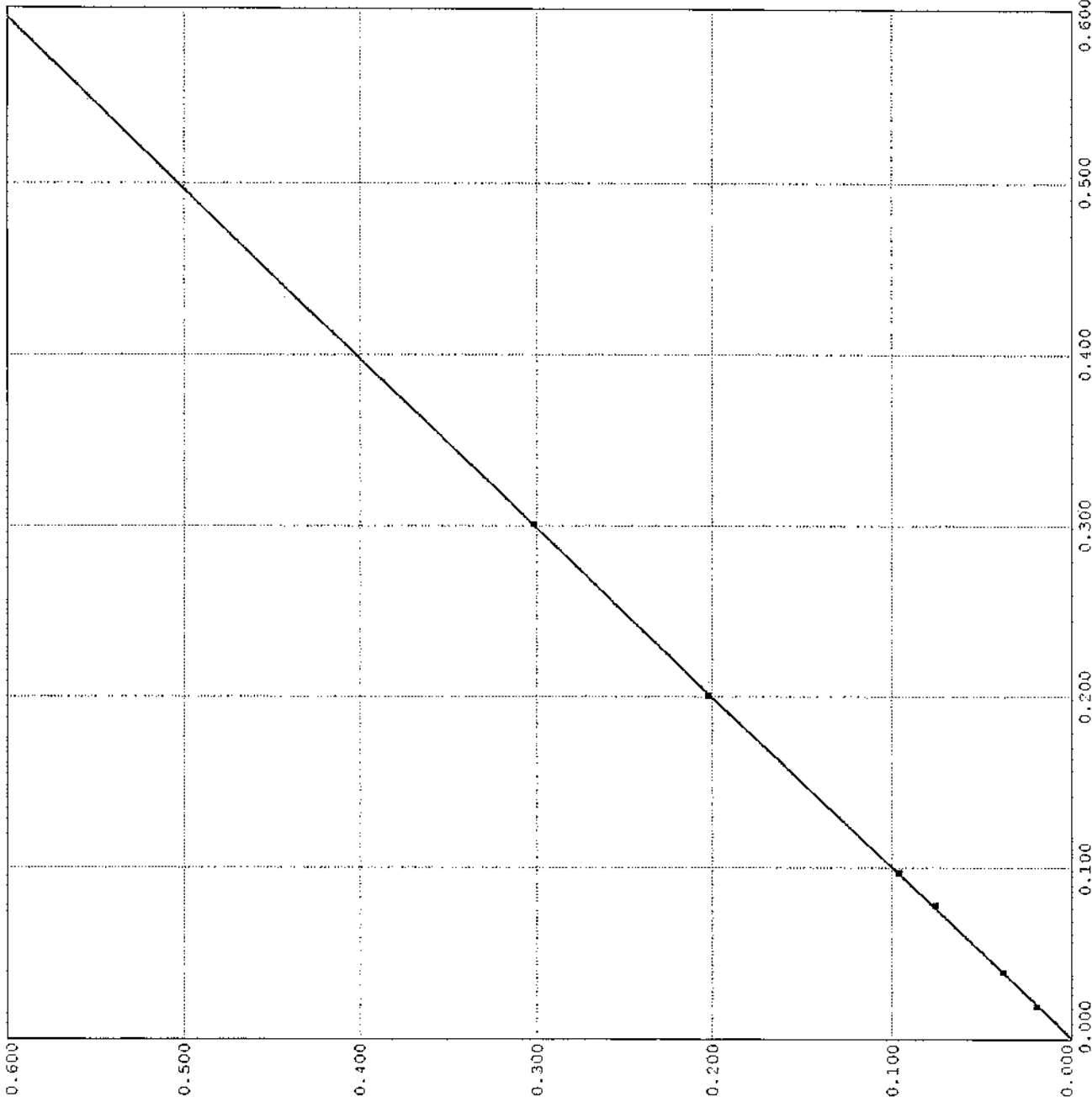
Alaska Department of Public Safety  
DATAMASTER dmt: 100668

Date: 10/28/2015  
Time: 12:17:54

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

TARGET	AVERAGE	STD. DEV.
0.019	0.0202	0.0004
0.039	0.0390	0.0000
0.078	0.0770	0.0000
0.097	0.0970	0.0000
0.200	0.2028	0.0004
0.300	0.3024	0.0009

SLOPE = 1.009772  
R<sup>2</sup> = 0.999904



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LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dnt: 180668

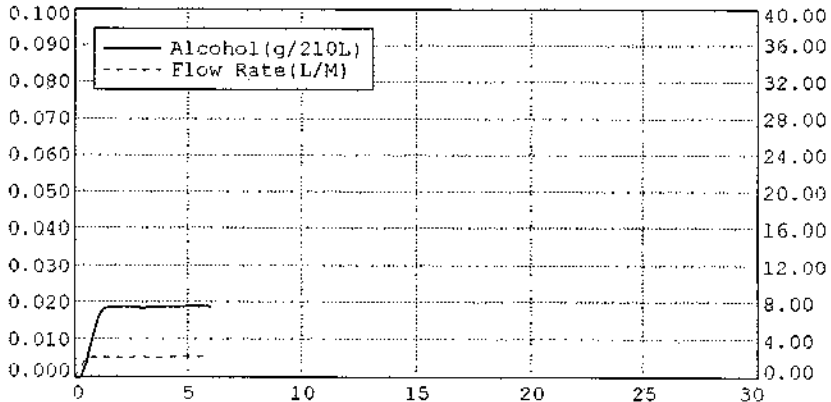
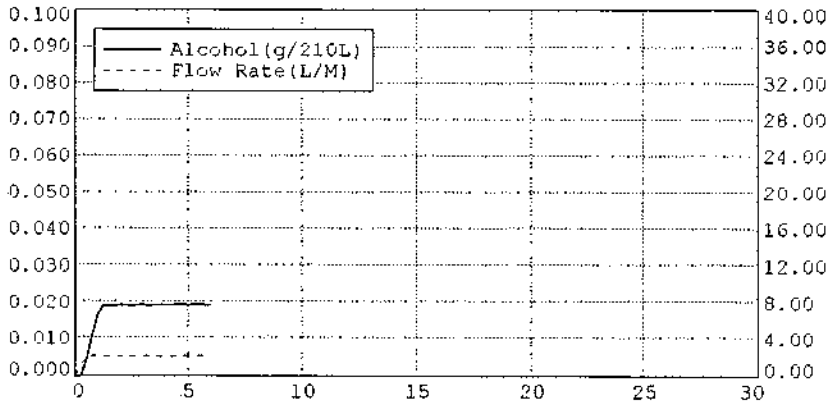
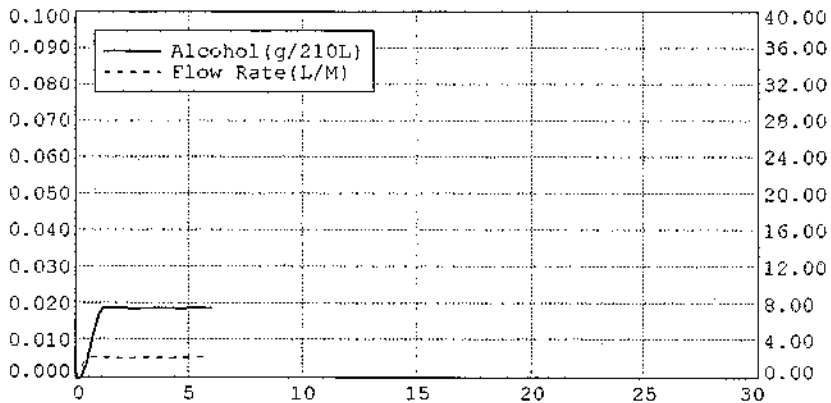
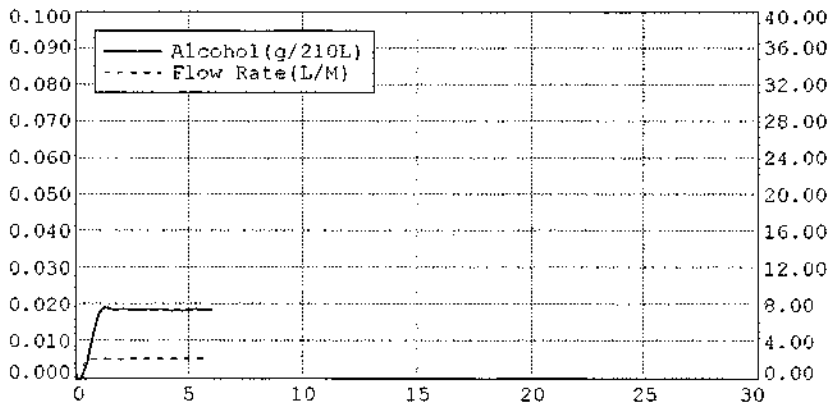
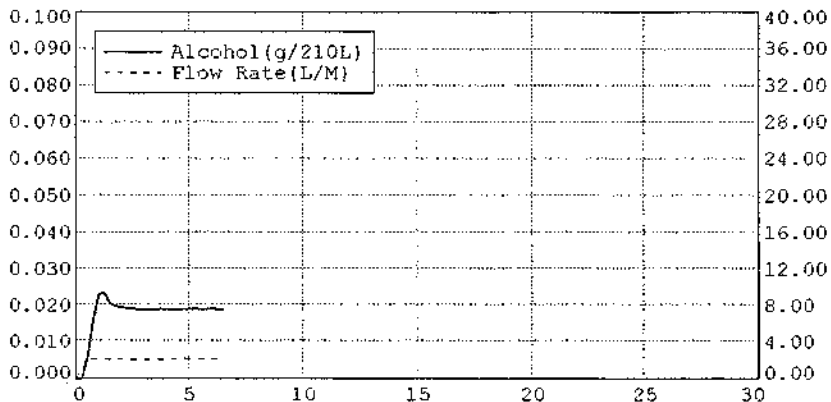
Date: 10/28/2015  
 Time: 12:17:55

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.05: 0.019  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 865 psi

BLANK TEST	0.000	12:19
INTERNAL STANDARD	VERIFIED	12:19
EXTERNAL STANDARD	0.020	12:19
BLANK TEST	0.000	12:20
EXTERNAL STANDARD	0.020	12:20
BLANK TEST	0.000	12:21
EXTERNAL STANDARD	0.020	12:21
BLANK TEST	0.000	12:22
EXTERNAL STANDARD	0.021	12:22
BLANK TEST	0.000	12:23
EXTERNAL STANDARD	0.020	12:23
BLANK TEST	0.000	12:24

Average = 0.0202  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100668

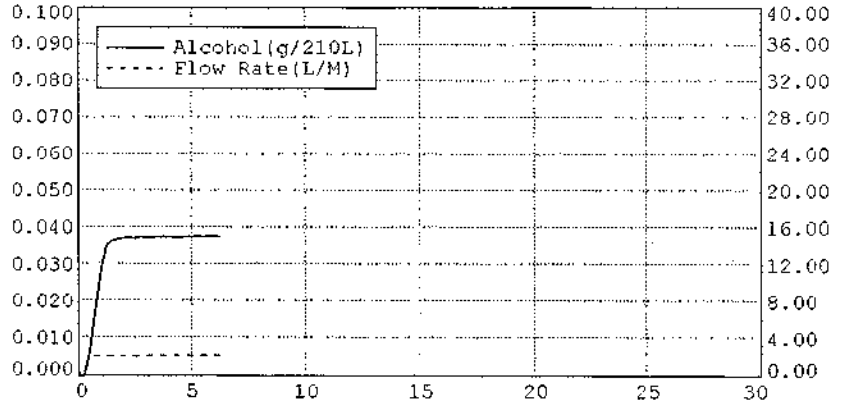
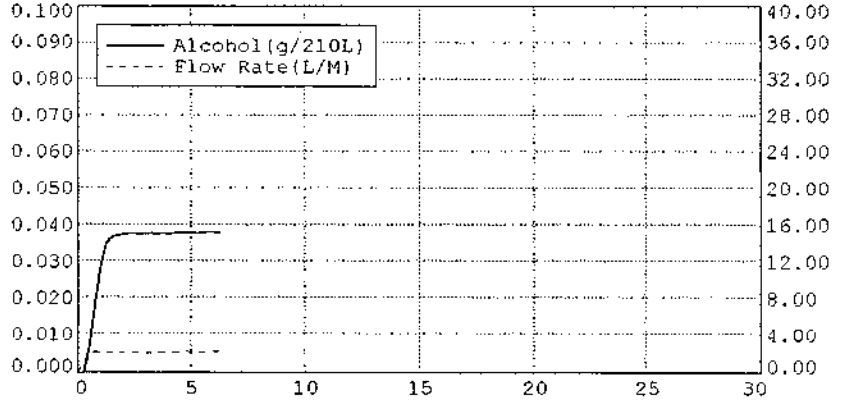
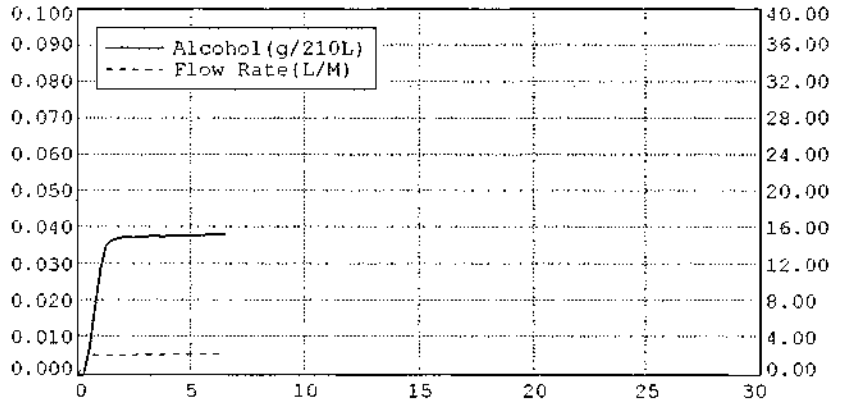
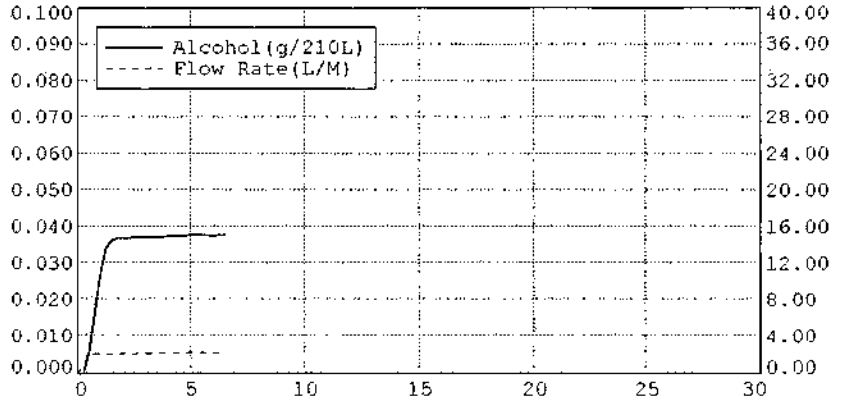
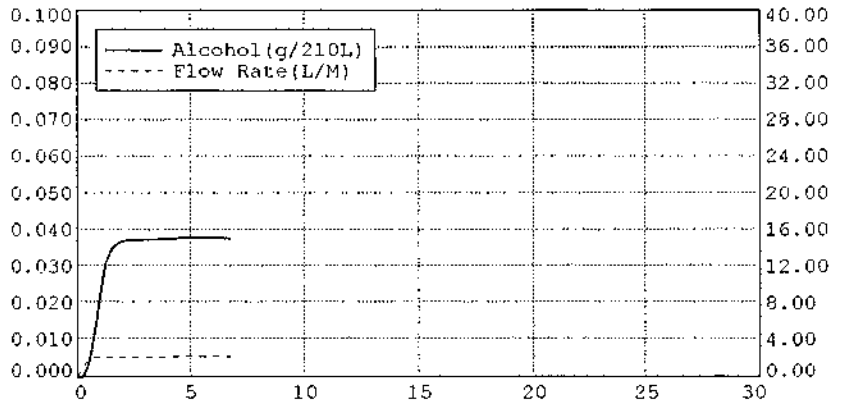
Date: 10/28/2015  
 Time: 12:25:57

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.05: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 906 psi

BLANK TEST	0.000	12:27
INTERNAL STANDARD	VERIFIED	12:27
EXTERNAL STANDARD	0.039	12:27
BLANK TEST	0.000	12:28
EXTERNAL STANDARD	0.039	12:28
BLANK TEST	0.000	12:29
EXTERNAL STANDARD	0.039	12:29
BLANK TEST	0.000	12:30
EXTERNAL STANDARD	0.039	12:30
BLANK TEST	0.000	12:31
EXTERNAL STANDARD	0.039	12:31
BLANK TEST	0.000	12:32

Average = 0.0390  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100668

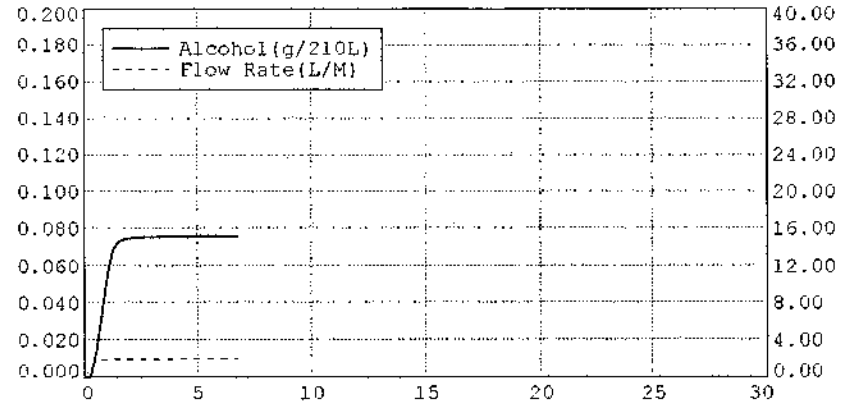
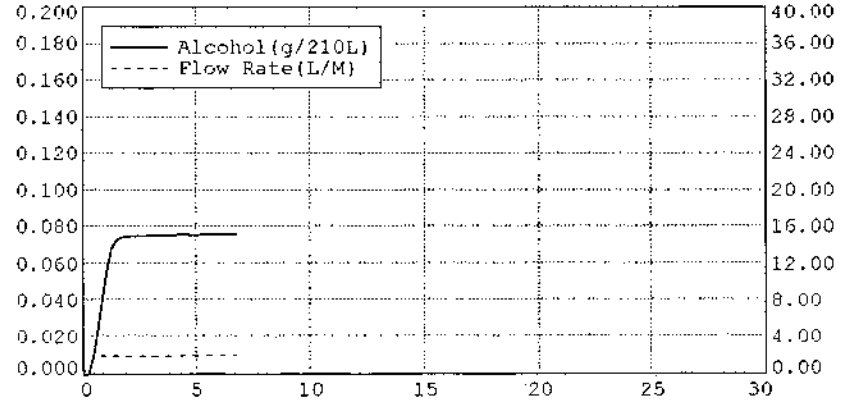
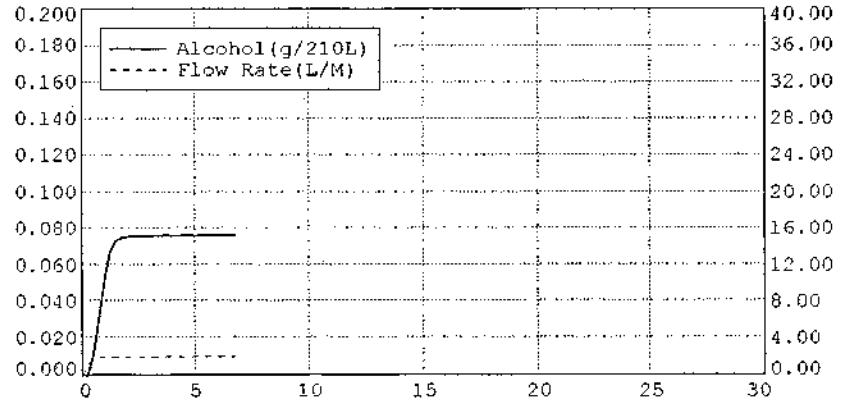
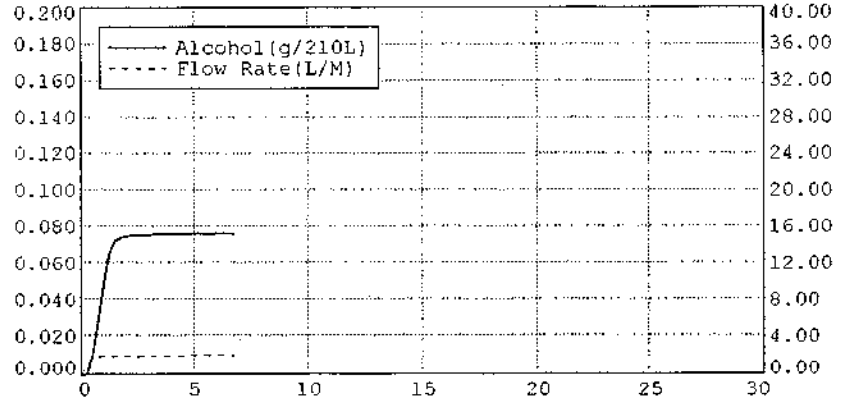
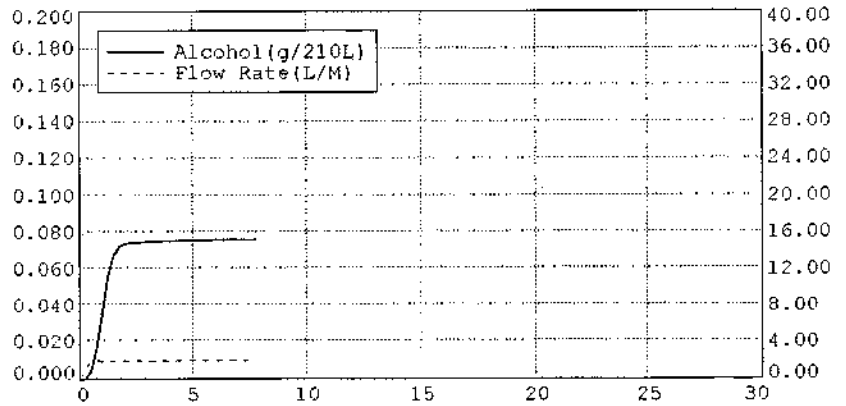
Date: 10/28/2015  
 Time: 12:33:30

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.05: 0.078  
 LOT #: 09214080A2  
 EXPIRATION: 05/01/2016  
 TANK PRESSURE: 358 psi

BLANK TEST	0.000	12:34
INTERNAL STANDARD	VERIFIED	12:34
EXTERNAL STANDARD	0.077	12:35
BLANK TEST	0.000	12:35
EXTERNAL STANDARD	0.077	12:36
BLANK TEST	0.000	12:37
EXTERNAL STANDARD	0.077	12:37
BLANK TEST	0.000	12:38
EXTERNAL STANDARD	0.077	12:38
BLANK TEST	0.000	12:39
EXTERNAL STANDARD	0.077	12:39
BLANK TEST	0.000	12:40

Average = 0.0770  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100668

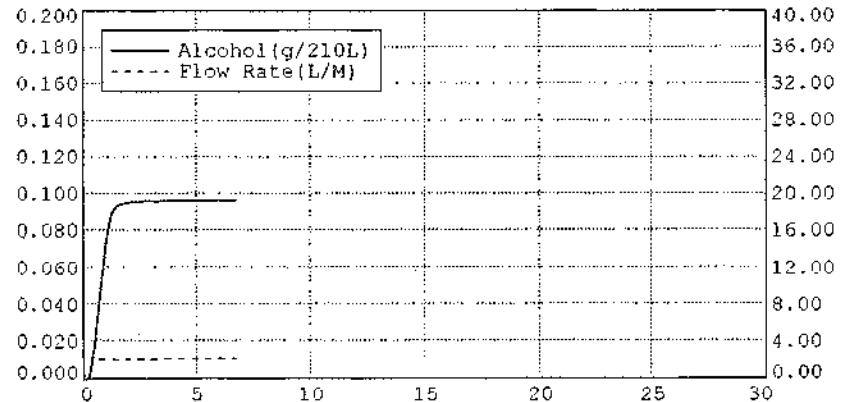
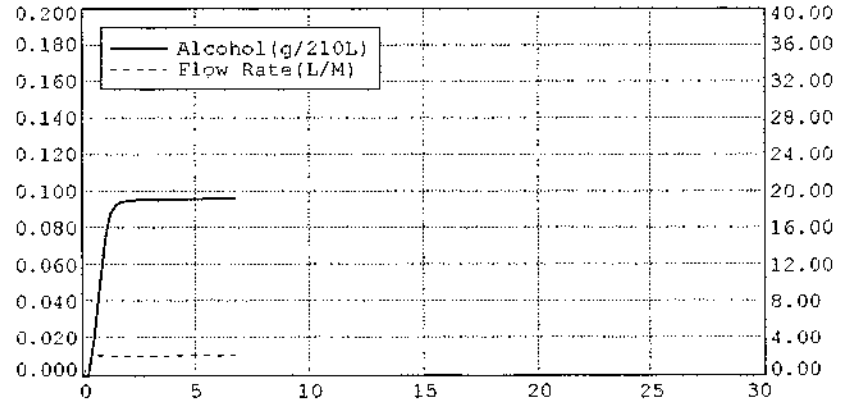
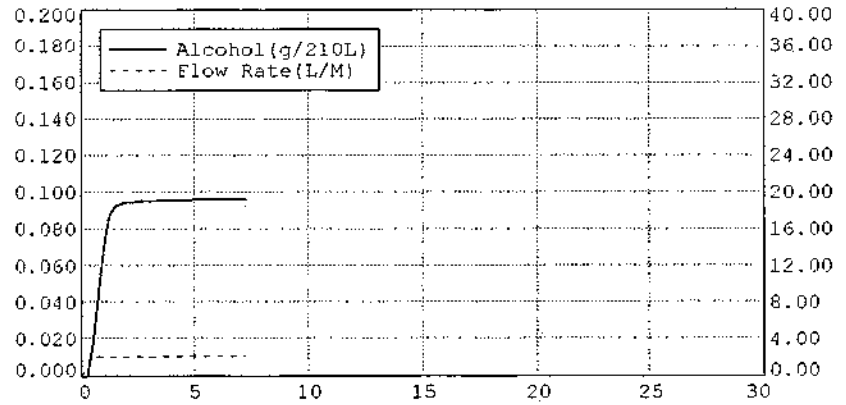
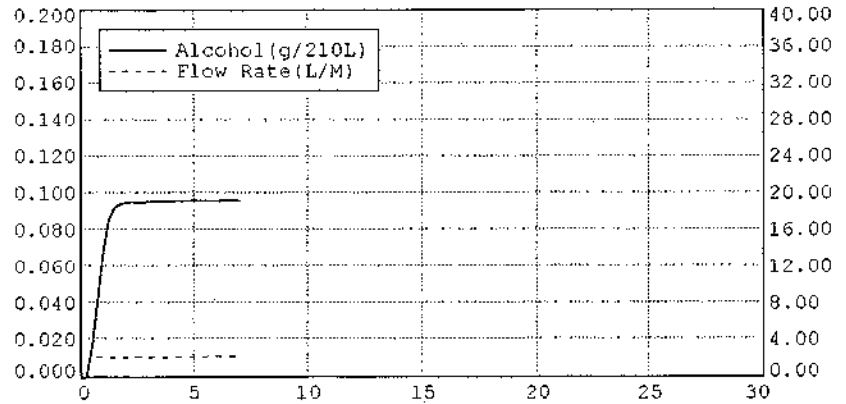
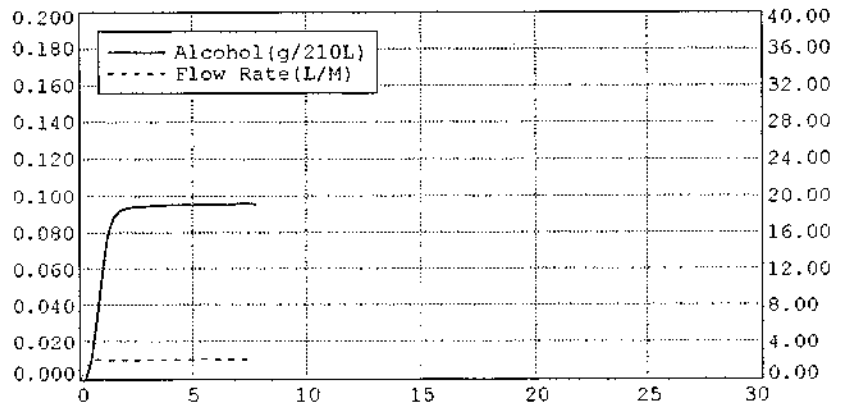
Date: 10/28/2015  
 Time: 12:43:03

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.05: 0.097  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 888 psi

BLANK TEST	0.000	12:44
INTERNAL STANDARD	VERIFIED	12:44
EXTERNAL STANDARD	0.097	12:44
BLANK TEST	0.000	12:45
EXTERNAL STANDARD	0.097	12:45
BLANK TEST	0.000	12:46
EXTERNAL STANDARD	0.097	12:46
BLANK TEST	0.000	12:47
EXTERNAL STANDARD	0.097	12:47
BLANK TEST	0.000	12:48
EXTERNAL STANDARD	0.097	12:49
BLANK TEST	0.000	12:49

Average = 0.0970  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

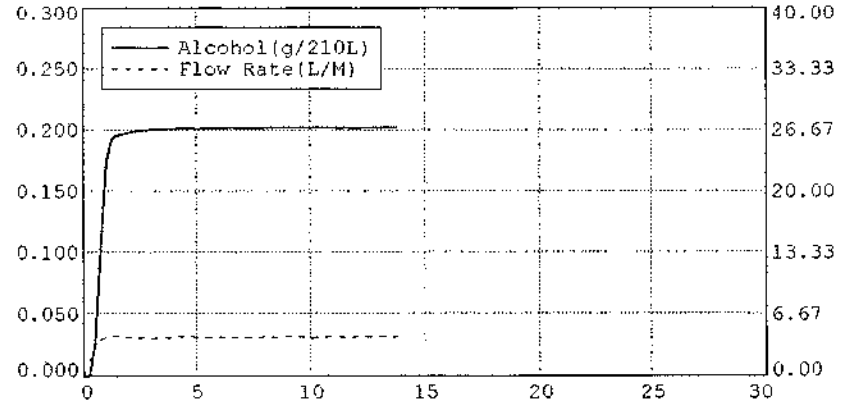
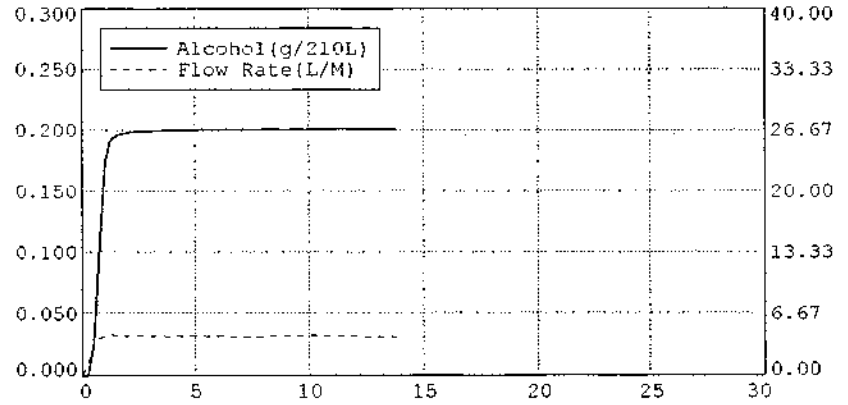
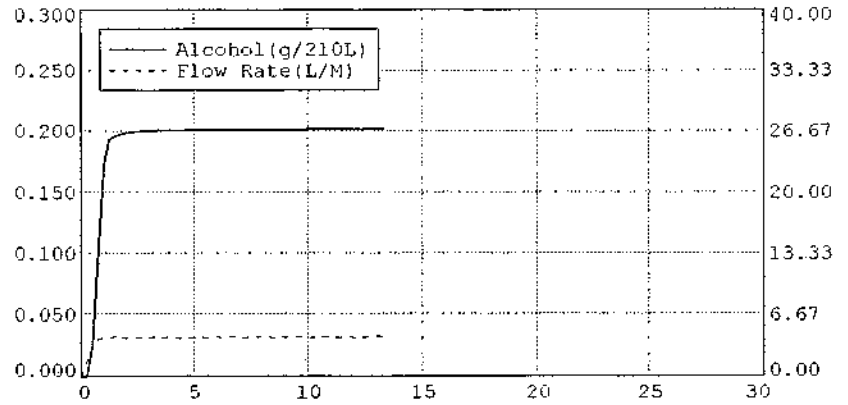
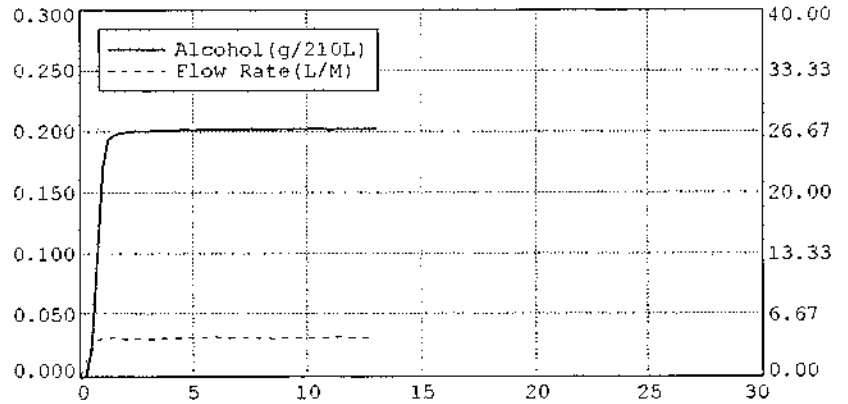
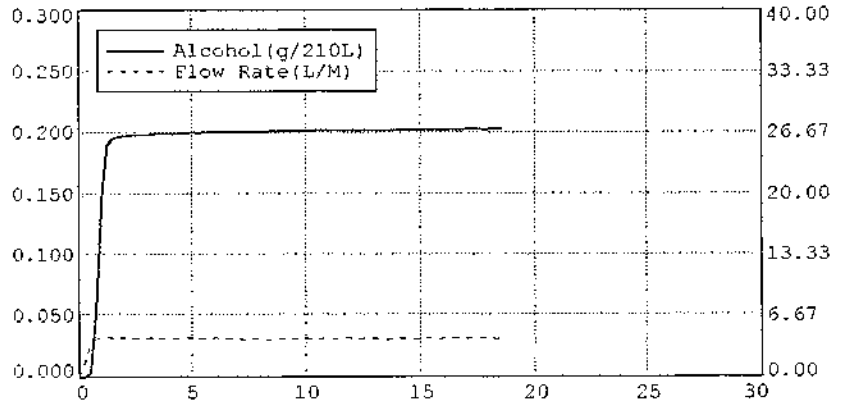
Alaska Department of Public Safety  
 DATAMASTER dmt: 100668

Date: 10/28/2015  
 Time: 12:52:13

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: 15130  
 EXPIRATION: 05/11/2017

BLANK TEST	0.000	12:53
INTERNAL STANDARD	VERIFIED	12:53
EXTERNAL STANDARD	0.203	12:54
BLANK TEST	0.000	12:55
EXTERNAL STANDARD	0.203	12:55
BLANK TEST	0.000	12:56
EXTERNAL STANDARD	0.203	12:56
BLANK TEST	0.000	12:57
EXTERNAL STANDARD	0.202	12:57
BLANK TEST	0.000	12:58
EXTERNAL STANDARD	0.203	12:59
BLANK TEST	0.000	13:00

Average = 0.2028  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100668

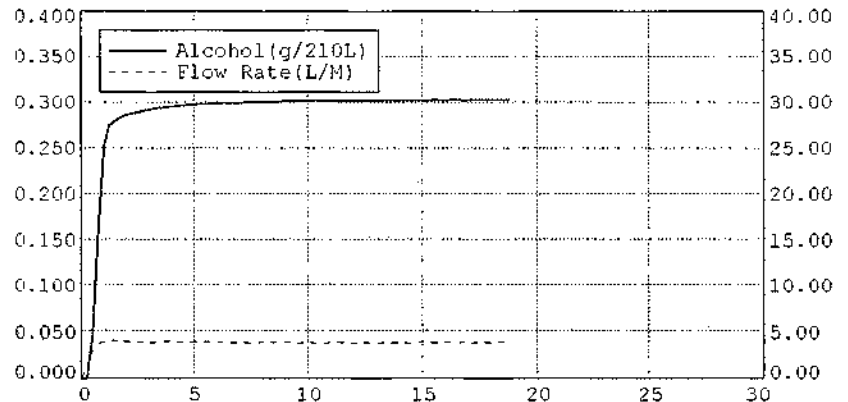
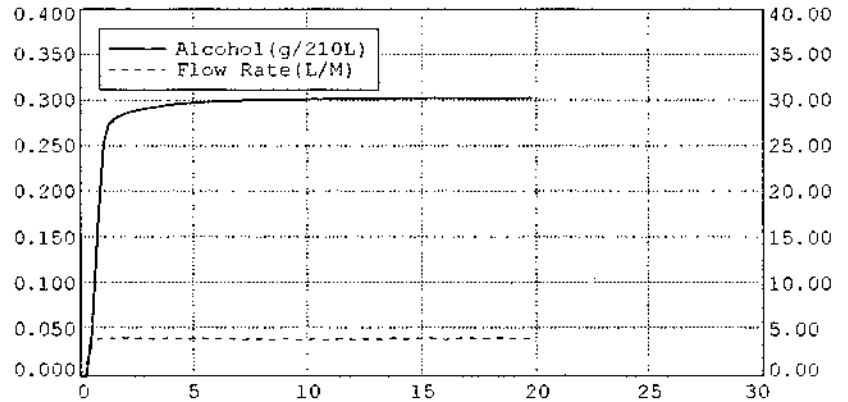
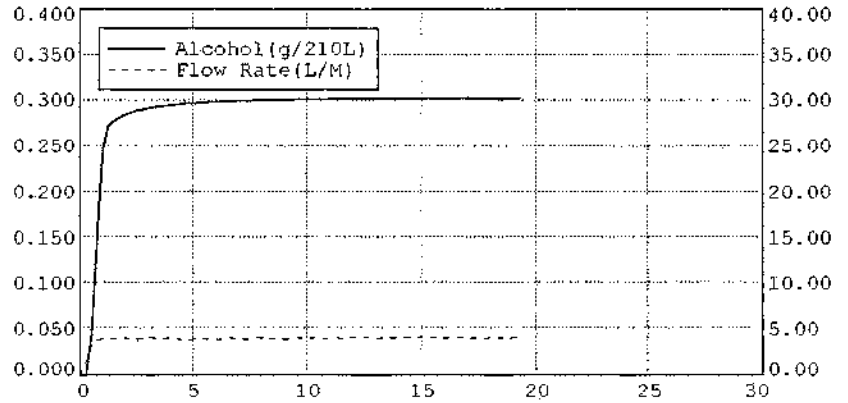
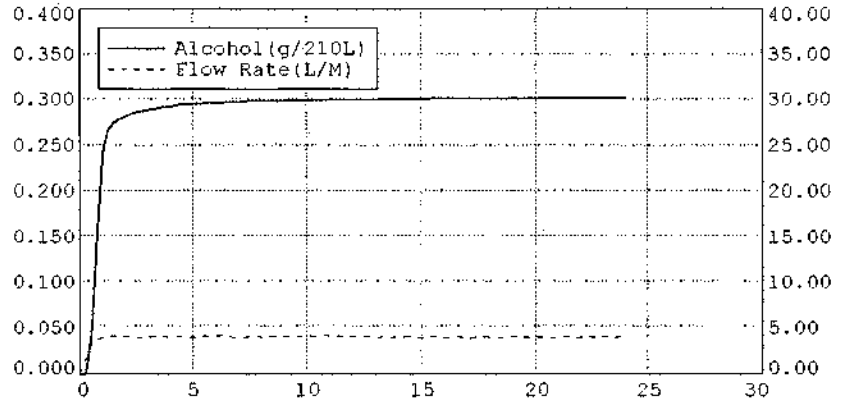
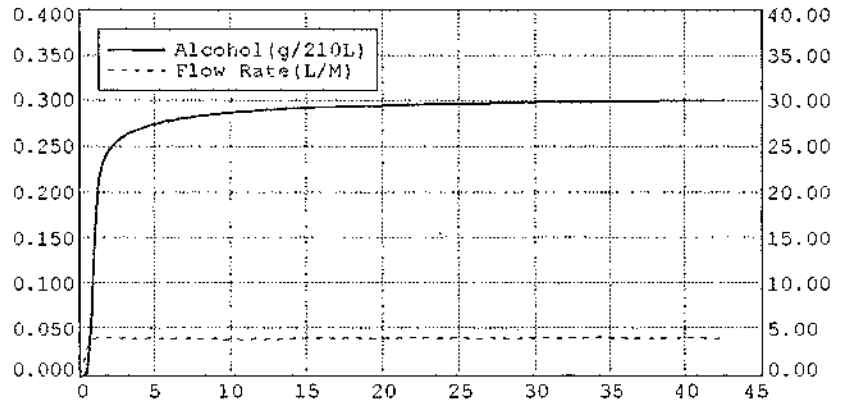
Date: 10/28/2015  
 Time: 13:01:39

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 14270  
 EXPIRATION: 12/02/2016

BLANK TEST	0.000	13:02
INTERNAL STANDARD	VERIFIED	13:02
EXTERNAL STANDARD	0.301	13:03
BLANK TEST	0.000	13:04
EXTERNAL STANDARD	0.302	13:05
BLANK TEST	0.000	13:06
EXTERNAL STANDARD	0.303	13:06
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.303	13:07
BLANK TEST	0.000	13:08
EXTERNAL STANDARD	0.303	13:09
BLANK TEST	0.000	13:10

Average = 0.3024  
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100668

Date: 10/28/2015  
Time: 13:15:47

SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

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

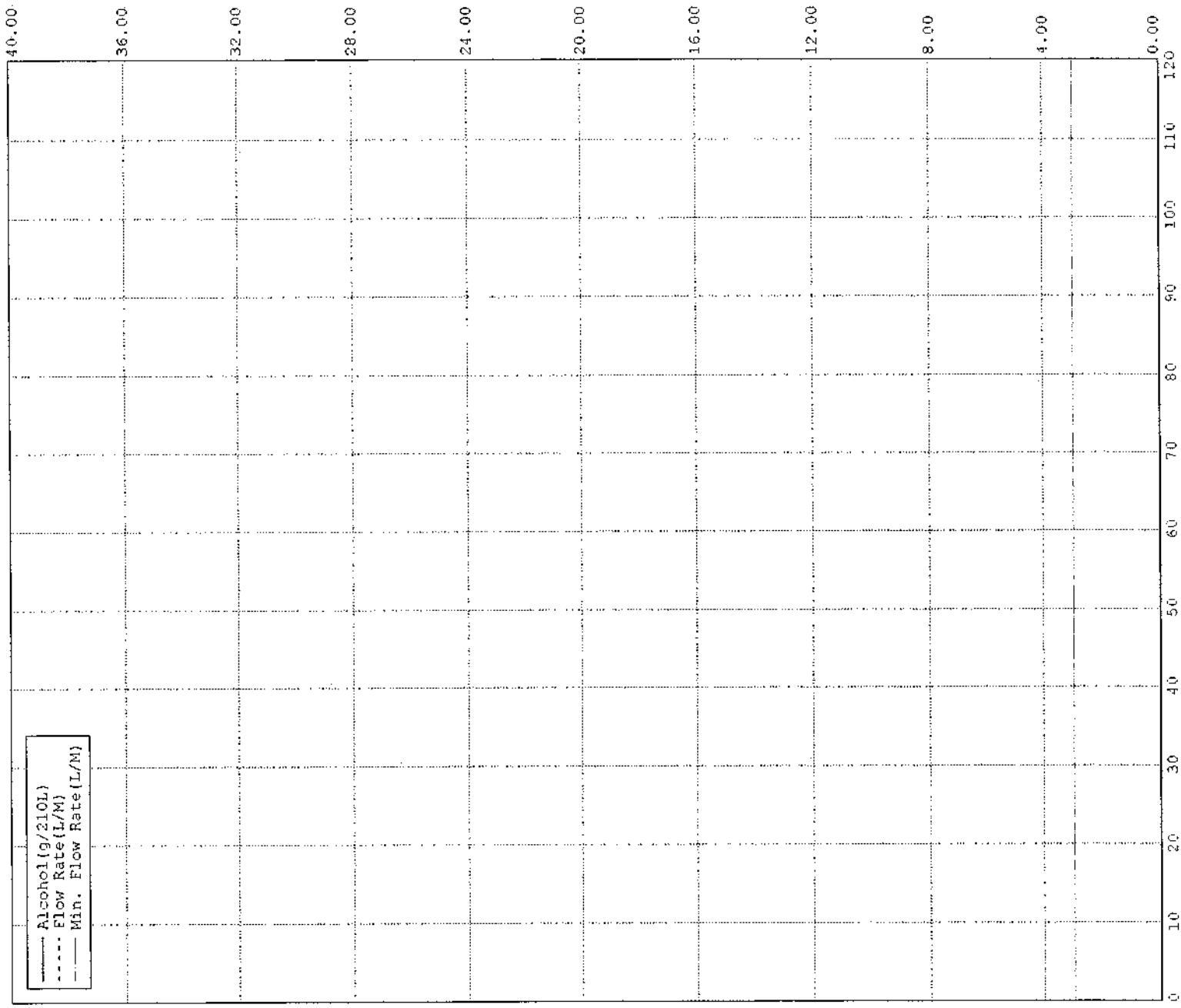
DEPT/AGENCY:

AAAI  
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.05: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 13:44  
BLANK TEST 0.000 13:44  
INTERNAL STANDARD VERIFIED 13:45  
EXTERNAL STANDARD 0.077 13:45  
BLANK TEST 0.000 13:46  
SUBJECT SAMPLE INCOMPLETE 13:48



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100668

Date: 11/02/2015

Time: 11:47:23

SUBJECT NAME:

TEST TEST

LICENSE #: INVALID

OPERATOR NAME:

COLLEEN S O'BRYAN

OPERATOR'S #: 6237

DEPT/AGENCY:

AAA1

CASE/REPORT: 15-1234

TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080

TARGET AT 29.75: 0.080

LOT #: 09214080A2

EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK

PASSED 11:48

0.000 11:49

VERIFIED 11:49

0.078 11:49

0.000 11:50

INVALID 11:51

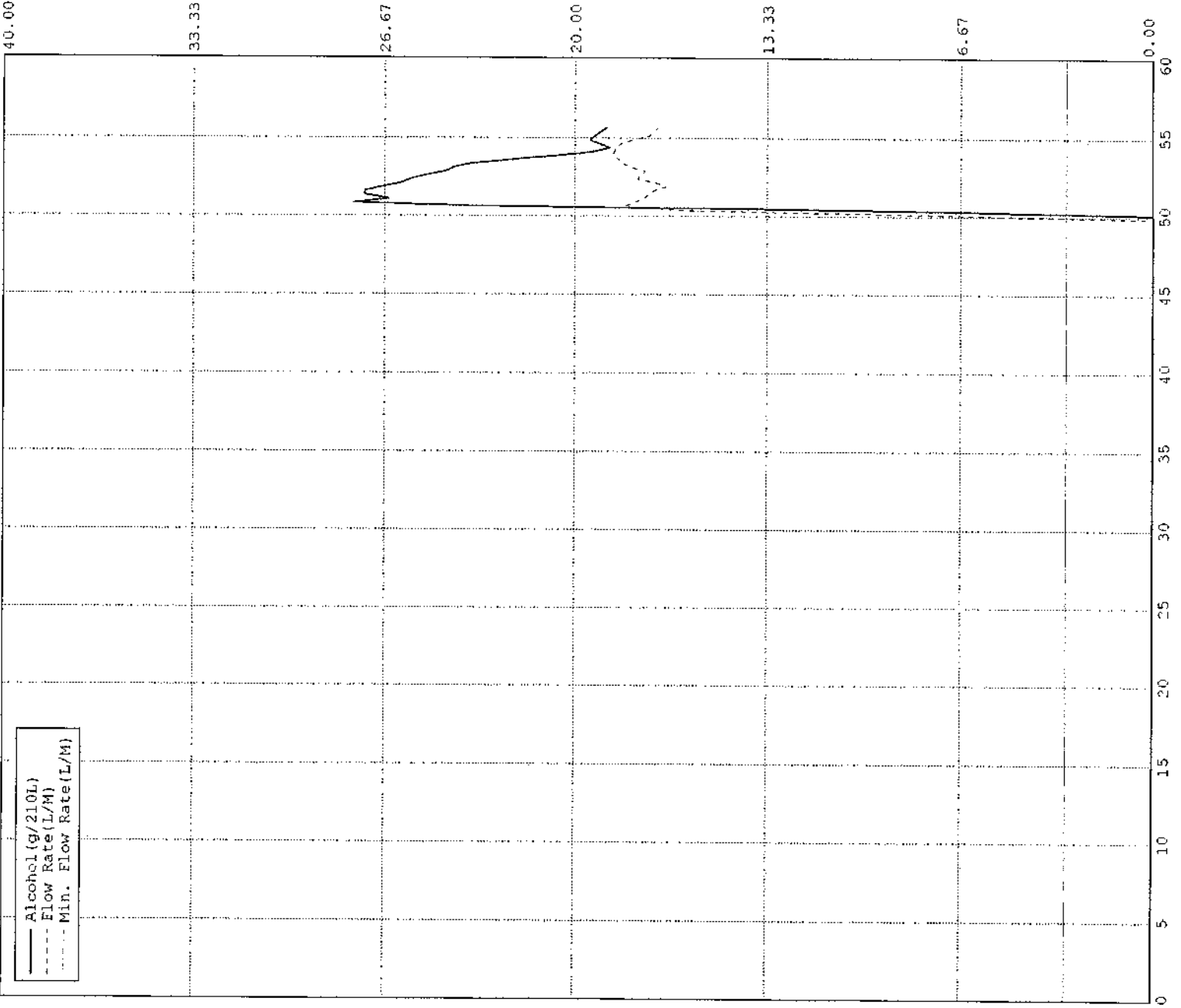
INTERNAL STANDARD

EXTERNAL STANDARD

BLANK TEST

SUBJECT SAMPLE

*CS*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100668

Date: 11/02/2015  
Time: 11:59:58

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 15-1234  
TEST TYPE: TEST

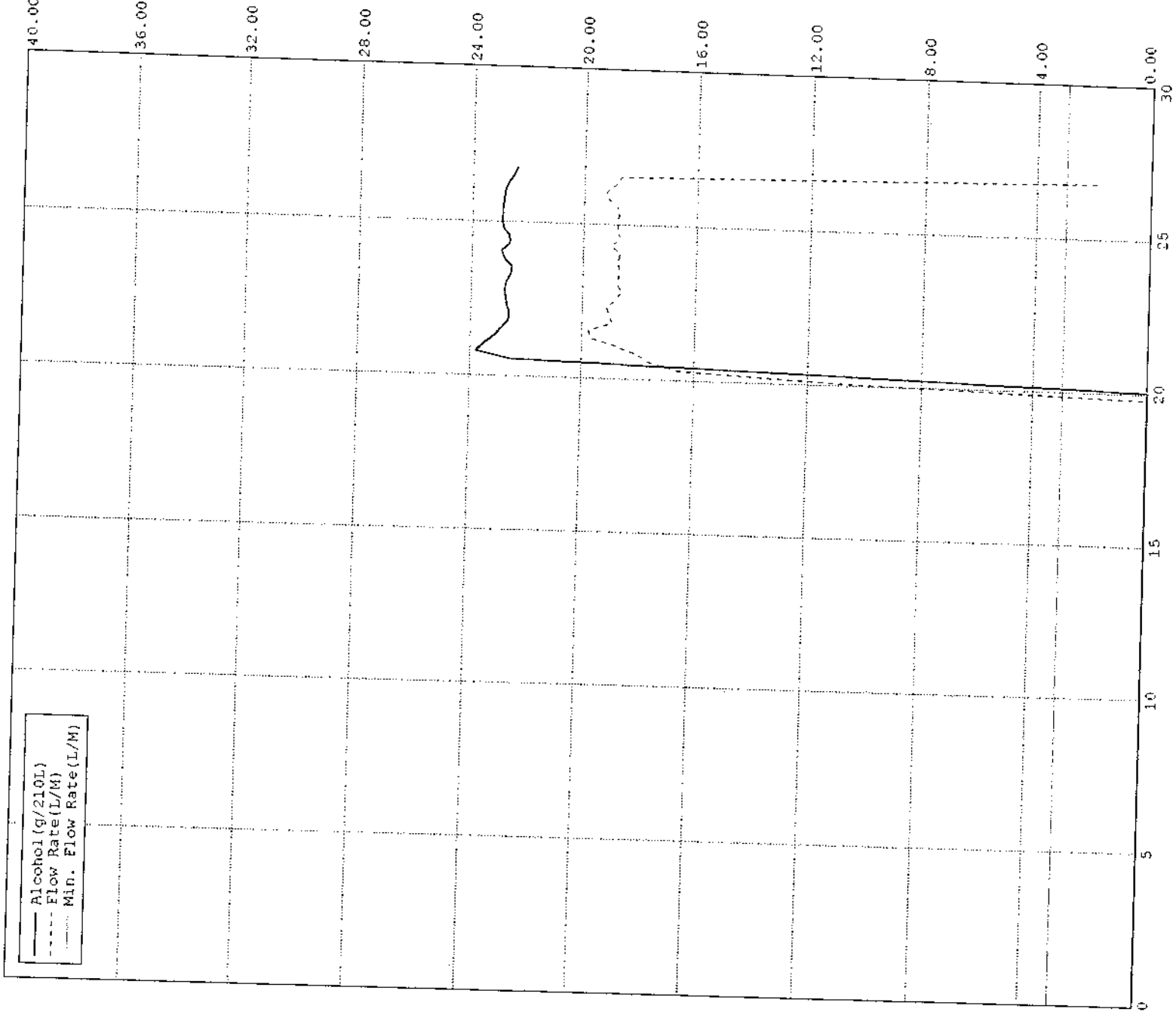
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.74: 0.080  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	12:01
BLANK TEST	0.000	12:01
INTERNAL STANDARD	VERIFIED	12:01
Xq = 0.092 (2.58%)		
EXTERNAL STANDARD	0.078	12:01
X[1] = 0.0782 (0.0006)	(0.0001)	
BLANK TEST	0.000	12:02
SUBJECT SAMPLE	XXX	12:02
X[1] = 0.1133 (-0.0173)	(0.0005)	

Interference Detected

CAB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100668

Date: 11/02/2015  
Time: 12:05:40

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 15-1234  
TEST TYPE: TEST

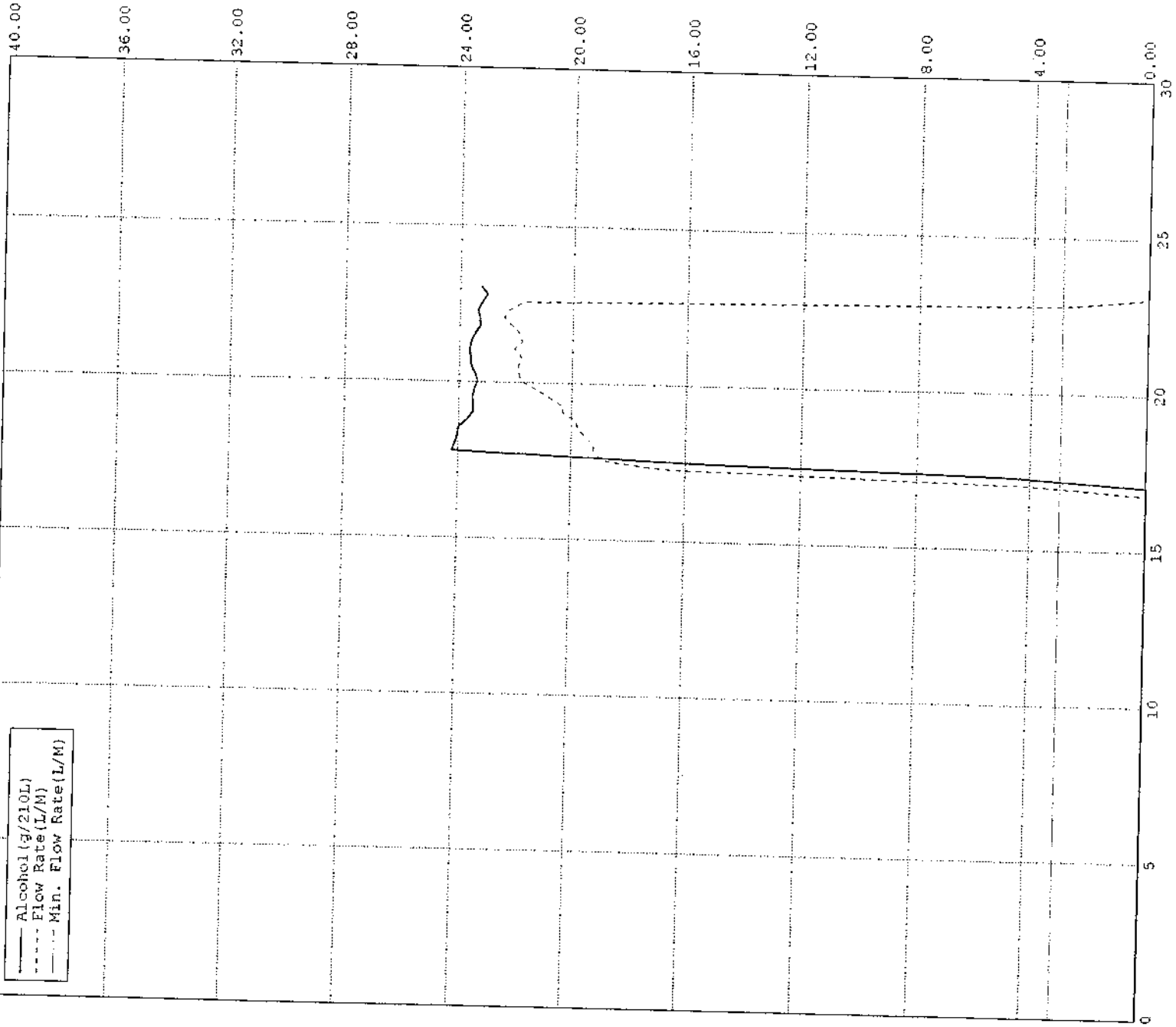
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.76: 0.080  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	12:06
BLANK TEST	0.000	12:06
INTERNAL STANDARD	VERIFIED	12:06
Xq = 0.092 (3.23%)		
EXTERNAL STANDARD	0.078	12:07
X[1] = 0.0782 (-0.0002) (0.0004)		
BLANK TEST	0.000	12:08
SUBJECT SAMPLE	XXX	12:08
X[1] = 0.1160 (-0.0278) (-0.0022)		

Interference Detected

*COB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100668

Date: 11/02/2015  
Time: 12:13:05

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEG

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 15-1234  
TEST TYPE: TEST

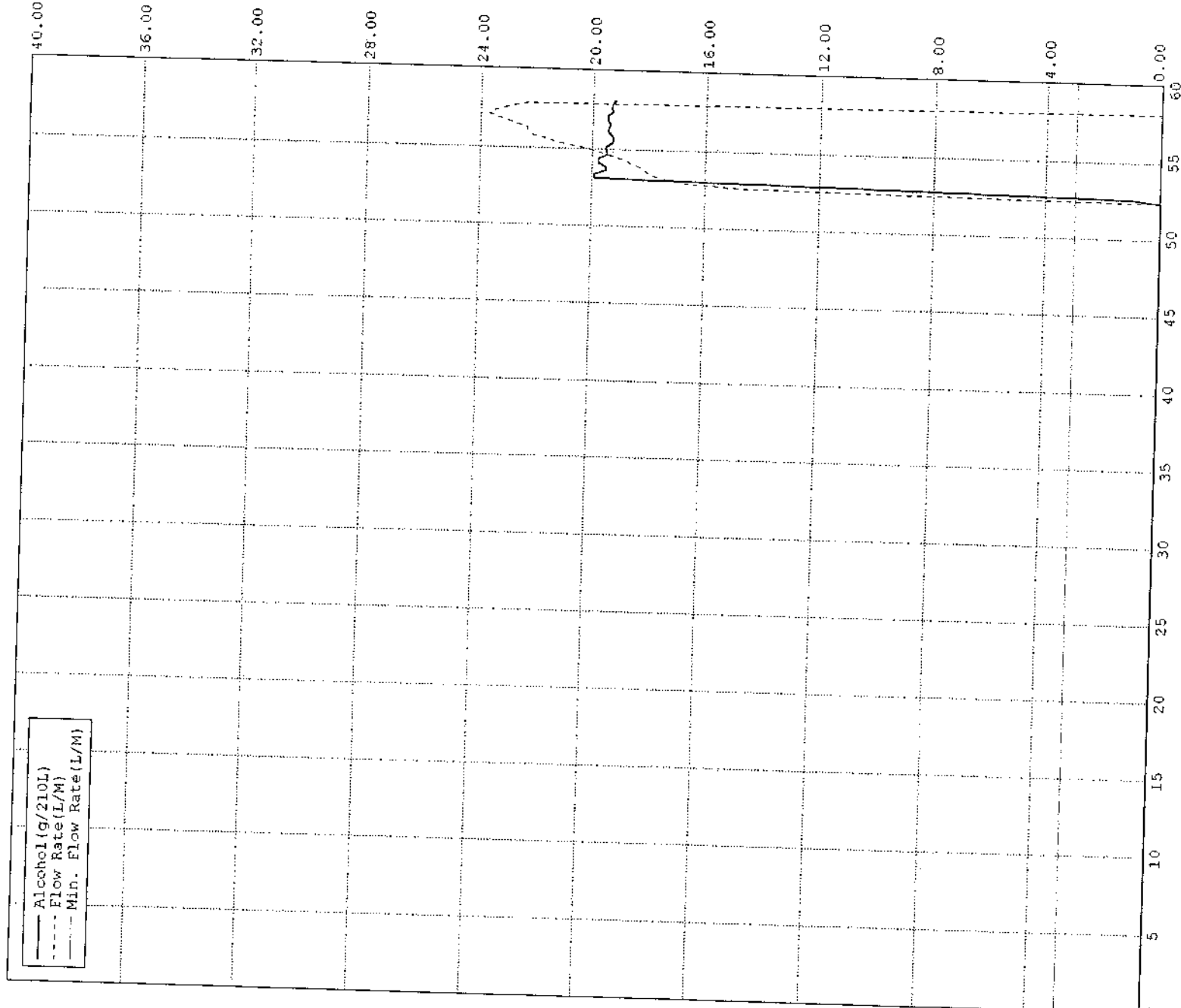
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.75: 0.080  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	12:14
BLANK TEST	0.000	12:14
INTERNAL STANDARD	VERIFIED	12:14
Xq = 0.093 (2.03%)		
EXTERNAL STANDARD	0.079	12:14
X[1] = 0.0791 (0.0013)	(0.0010)	
BLANK TEST	0.000	12:15
SUBJECT SAMPLE (Vol=1.87L)	0.095	12:16
X[1] = 0.0956 (-0.0032)	(-0.0018)	
BLANK TEST	0.000	12:17
EXTERNAL STANDARD	0.078	12:17
X[1] = 0.0784 (0.0006)	(0.0006)	
BLANK TEST	0.000	12:18

Filter 2 avg = 0.0006

Filter 3 avg = 0.0005



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100668

Date: 11/02/2015  
Time: 12:21:52

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

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

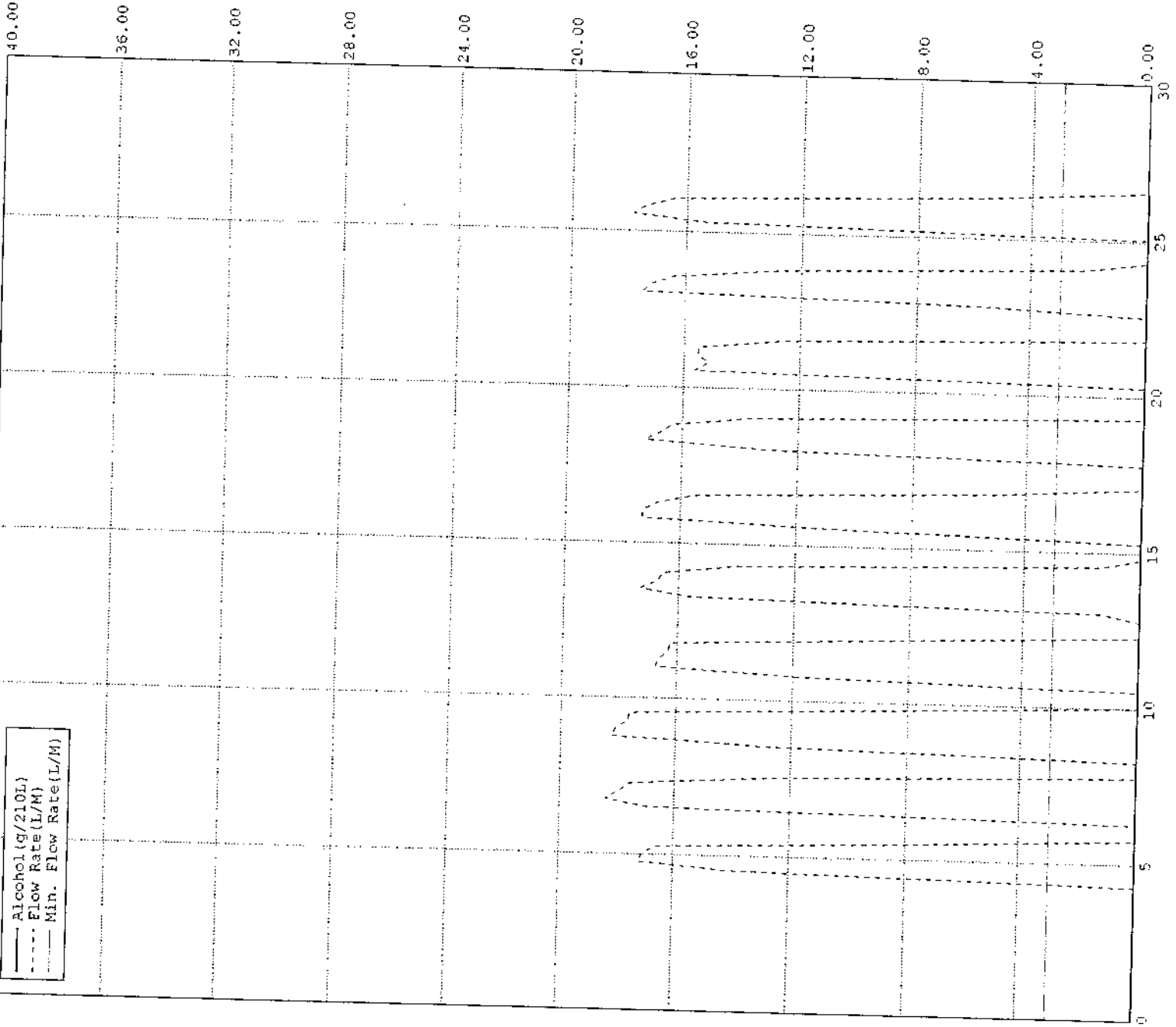
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.75: 0.080  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 12:22  
BLANK TEST 0.000 12:23  
INTERNAL STANDARD VERIFIED 12:23  
EXTERNAL STANDARD 0.079 12:23  
BLANK TEST 0.000 12:24  
SUBJECT SAMPLE XXX 12:24

Maximum Attempts Exceeded

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



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100668

Date: 11/02/2015  
Time: 12:28:01

SUBJECT NAME:  
TEST TEST  
LICENSE #: RFI

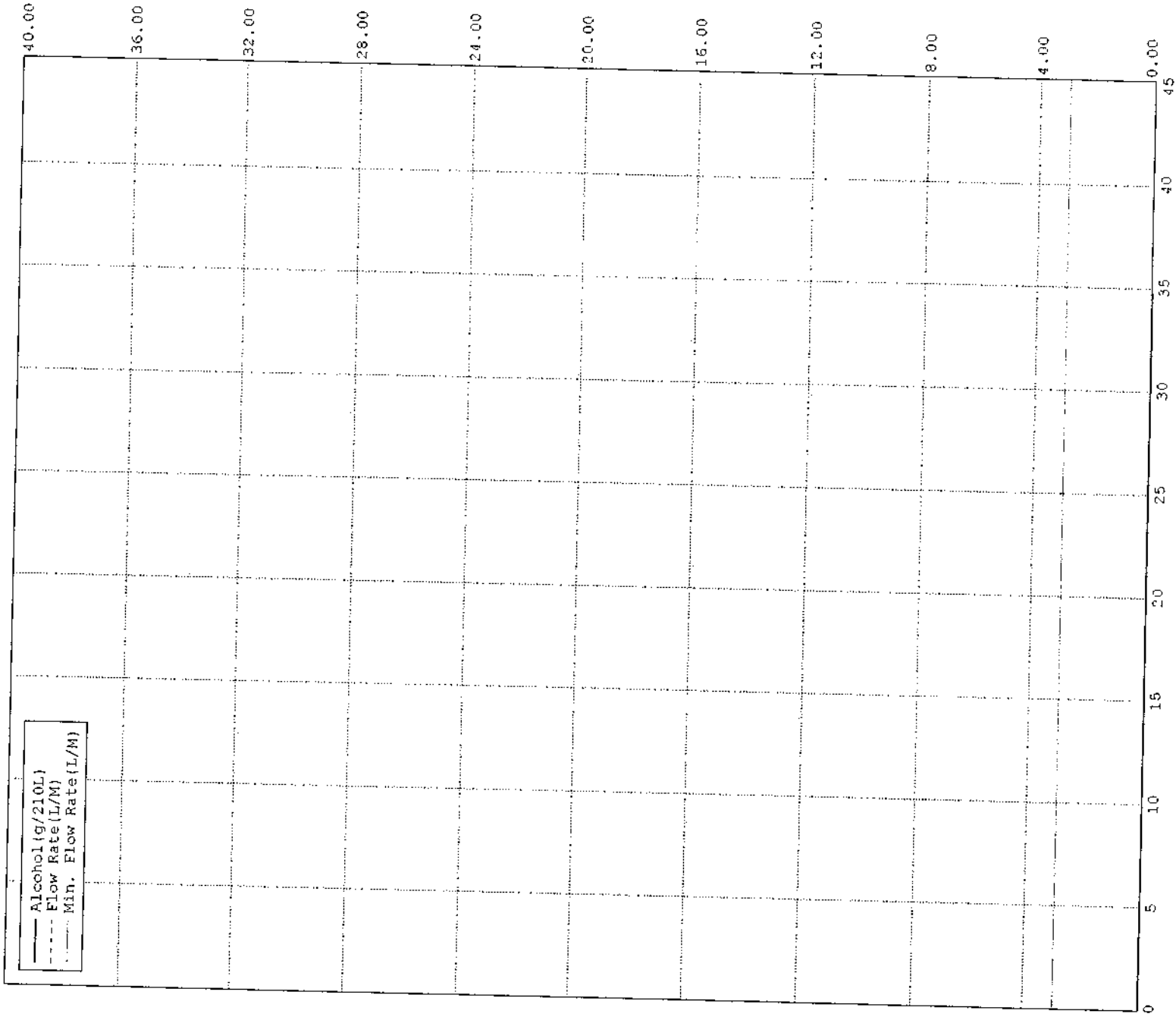
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.75: 0.080  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 12:36  
BLANK TEST 0.000 12:36  
INTERNAL STANDARD VERIFIED 12:36  
EXTERNAL STANDARD 0.079 12:36  
BLANK TEST 0.000 12:37

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100668

Date: 11/02/2015  
Time: 13:55:08

SUBJECT NAME:  
TEST TEST  
LICENSE #: NONDRINKING

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

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	13:56
BLANK TEST	0.000	13:56
INTERNAL STANDARD	VERIFIED	13:56
EXTERNAL STANDARD	0.078	13:56
BLANK TEST	0.000	13:57
SUBJECT SAMPLE (Vol=2.54L)	0.000	13:58
BLANK TEST	0.000	13:59
EXTERNAL STANDARD	0.079	13:59
BLANK TEST	0.000	14:00

CUB

