

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 100390 Analyst C. O'Bryant Start Date 9/30/15

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 1.6 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 01815080A2 Exp 02/5/17
- 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 DR4162 Date Calibrated 1/19/15
- vi. 0.300g/210L Mnf Guth Lot 14270 Exp 8/6/16
 - 1. Simulator S/N DR6267 Date Calibrated 1/20/15

5. Functional Tests (attached)

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

- i. Acetone - Mnf Guth Lot 14110 Level 0.100 Exp 5/1/16
 - 1. Simulator S/N DR4163 Date Calibrated 1/19/15
- ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
 - 1. Simulator S/N SD1176 Date Calibrated 1/19/15
- iii. Negative Control - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
 - 1. Simulator S/N DR4178 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 9/30/15

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100390

Date: 09/30/2015
Time: 09:21:40

VERSIONS

DMT: 3.01
PIC: 3.02
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 45.3°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.59 V PASSED
(0.99 V - 2.31 V)
Cooler Voltage = 1.62 V PASSED
(0.96 V - 2.24 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 546 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.5 in

PUMP INFO

Flow Rate = 4.707 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 1.46% (0.00% - 4.00%) PASSED

Technician Screen

DATAMASTER dmt: 100390

Date: 09/30/2015
Time: 9:29 AM

Temperatures (°C)

Sample Cell: 48.7°C
Breath Tube: 45.2°C

Current Barometer 29.4 in
Volume (Ltr) 1.45

Settings

Lamp: 1.65 V
Bias: 80 V
Cooler: 1.57 V
Chopper: 546 Hz

Voltages (V)

Flow: 1.06 V
Detector: 0.057 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100390

Date: 03/10/2011
Time: 07:44:47

Ca = 0.1000
CAL = 0.993918 0.800 <= CAL < 1.200
b1 = 0.0005 0.0000 <= b1 < 0.0040
b2 = 0.0038 0.0010 <= b2 < 0.0100
b3 = 0.0003 0.0000 <= b3 < 0.0040
Xq = 0.0958 0.0500 <= Xq < 0.2000
a21 = 1.168537 1.050 <= a21 < 1.300
a31 = 0.503509 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety

DATA MASTER dmt: 100390

Date: 09/30/2015

Time: 10:05:39

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

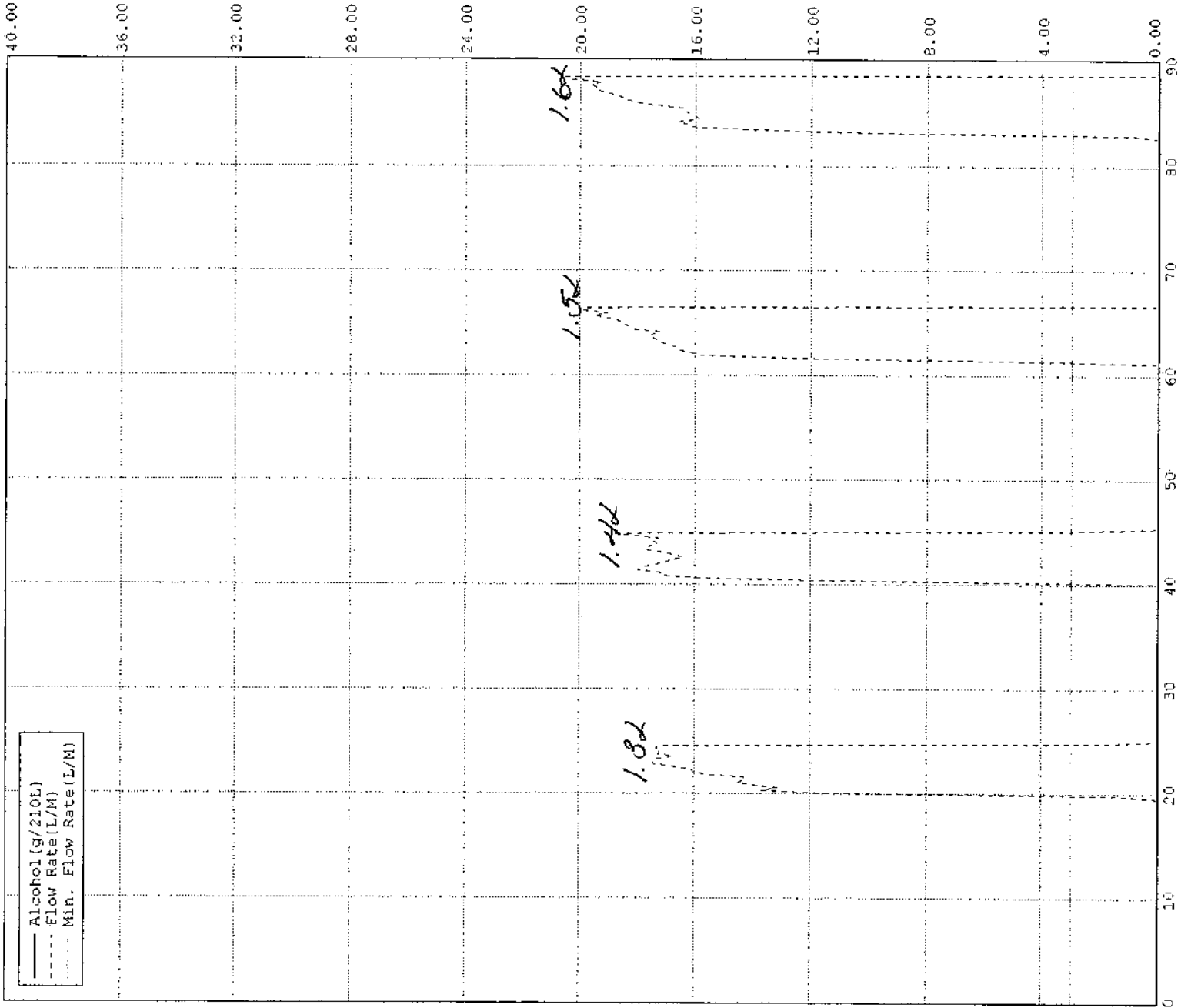
TARGET AT 29.43: 0.079

LOT #: 01315080A2

EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:07
BLANK TEST	0.000	10:07
INTERNAL STANDARD	VERIFIED	10:07
EXTERNAL STANDARD	0.080	10:07
BLANK TEST	0.000	10:08
SUBJECT SAMPLE (Vol=1.59L)	0.000	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.080	10:11
BLANK TEST	0.000	10:12

MS



LINEARITY CHECK

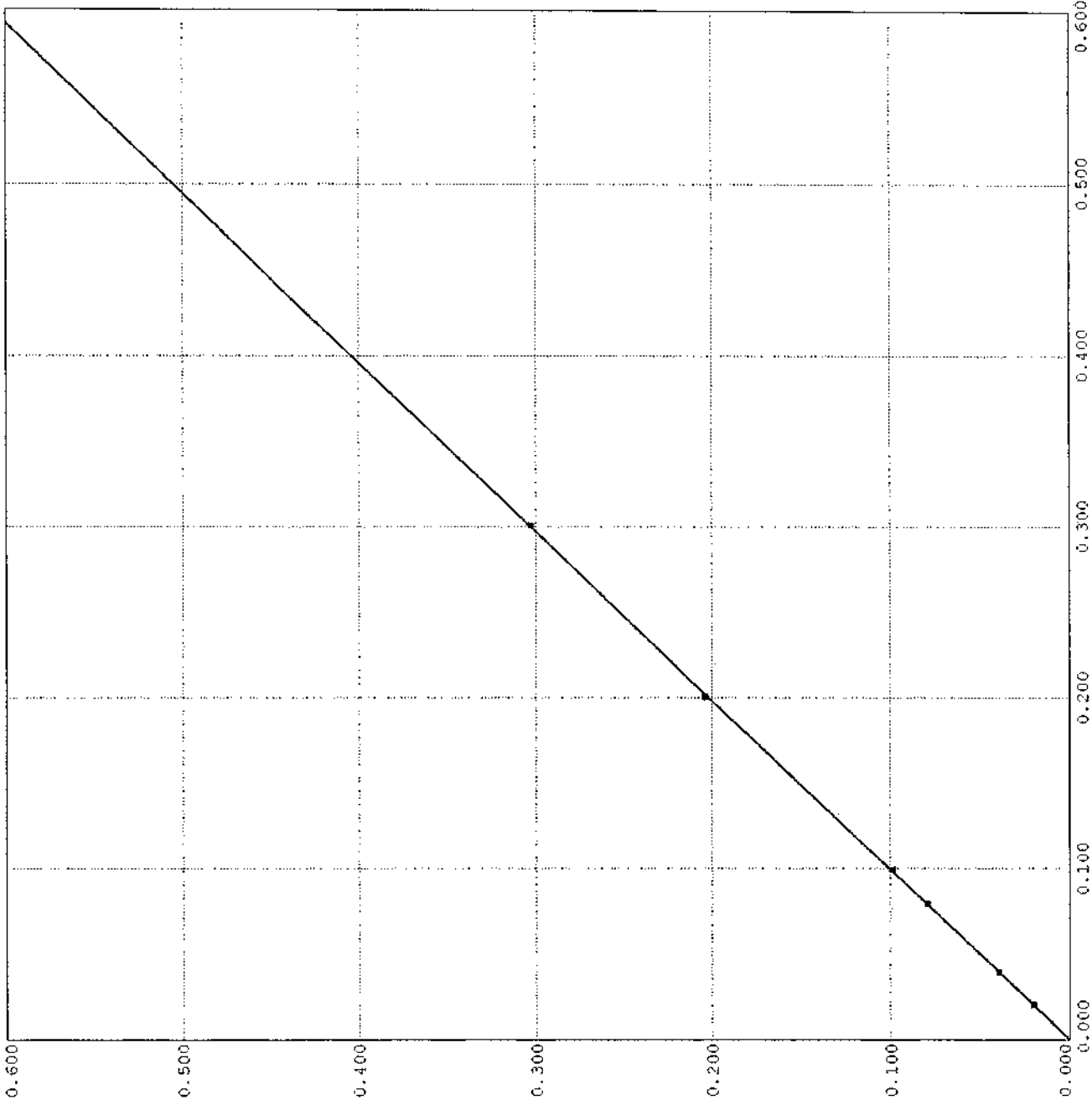
Alaska Department of Public Safety
 DATAMASTER dmt: 100390

Date: 09/30/2015
 Time: 10:27:23

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0210	0.0000
0.039	0.0404	0.0005
0.079	0.0802	0.0004
0.099	0.1000	0.0000
0.200	0.2046	0.0005
0.300	0.3036	0.0009

SLOPE = 1.012120
 R² = 0.999936



CS

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100390

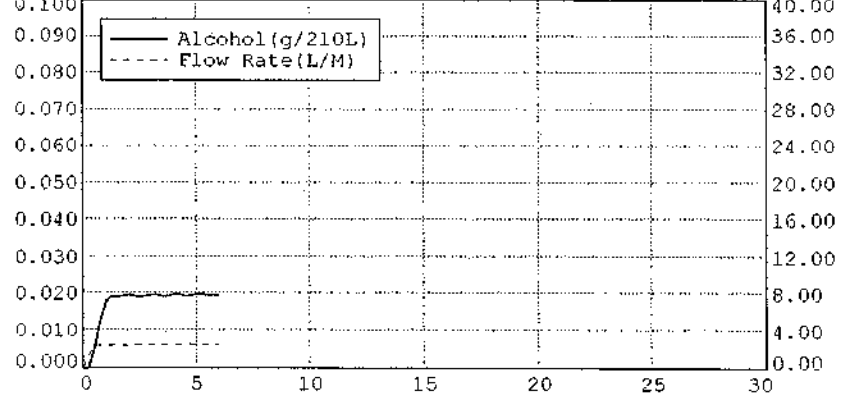
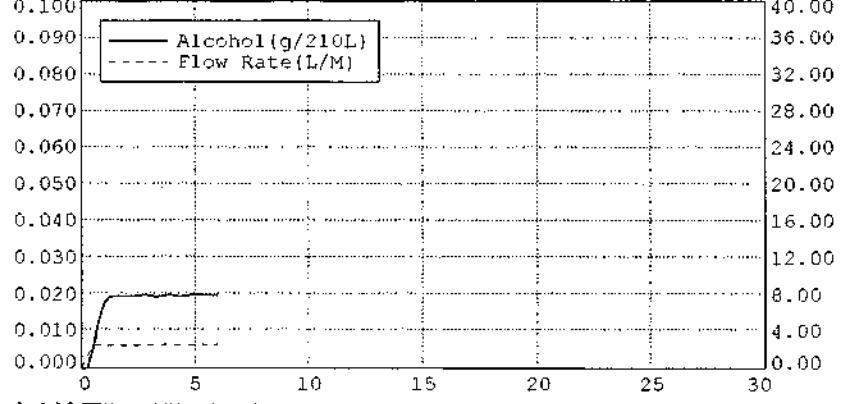
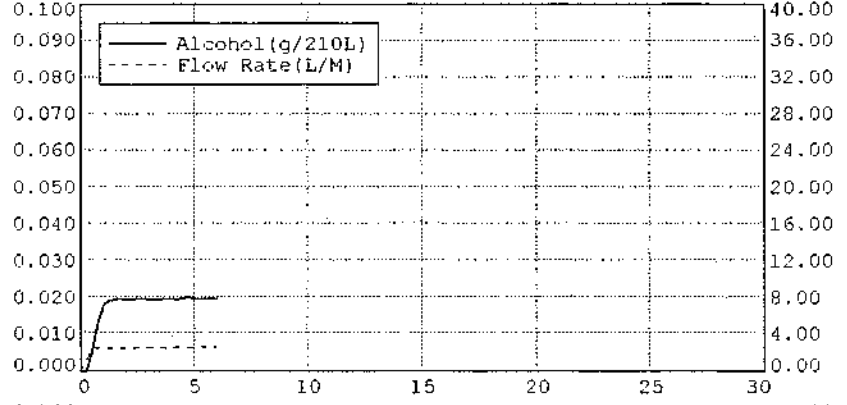
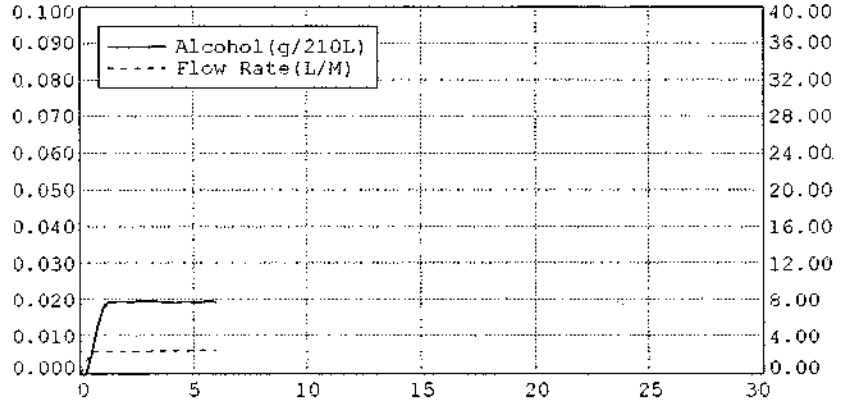
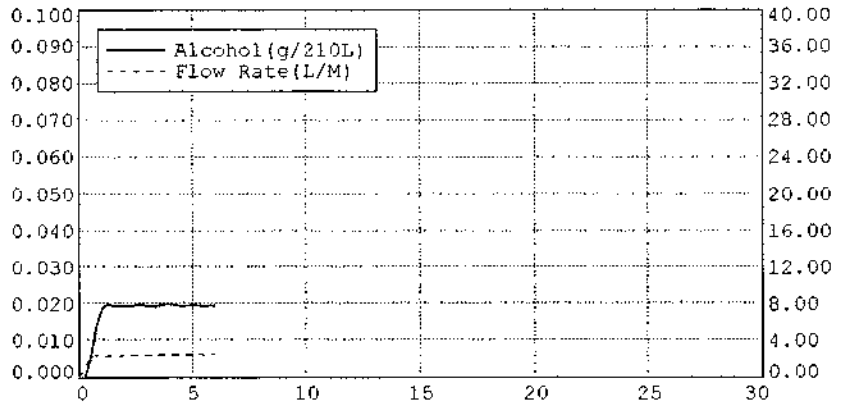
Date: 09/30/2015
 Time: 10:27:25

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.46: 0.020
 LOT #: 02915020A2
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 1016 psi

BLANK TEST	0.000	10:34
INTERNAL STANDARD	VERIFIED	10:34
EXTERNAL STANDARD	0.021	10:35
BLANK TEST	0.000	10:36
EXTERNAL STANDARD	0.021	10:36
BLANK TEST	0.000	10:37
EXTERNAL STANDARD	0.021	10:37
BLANK TEST	0.000	10:38
EXTERNAL STANDARD	0.021	10:38
BLANK TEST	0.000	10:39
EXTERNAL STANDARD	0.021	10:39
BLANK TEST	0.000	10:40

Average = 0.0210
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100390

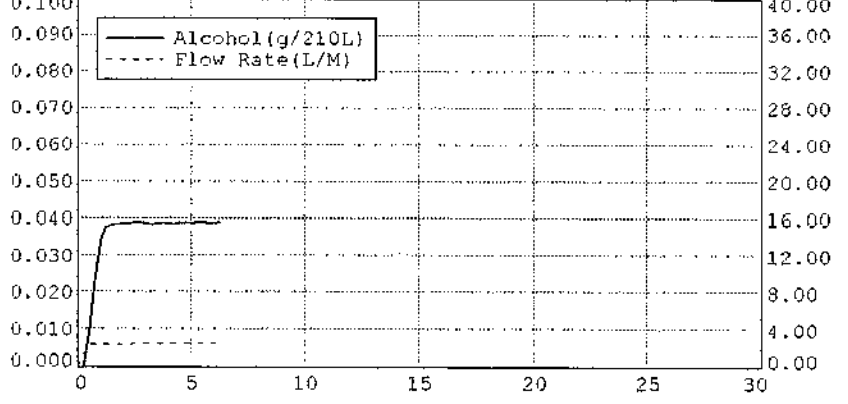
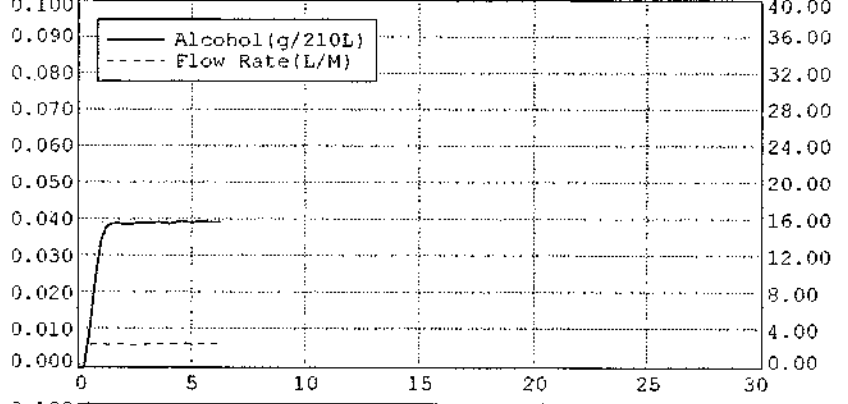
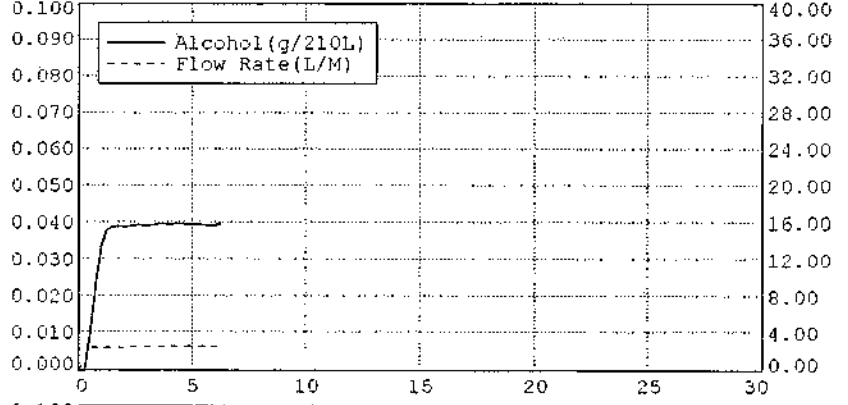
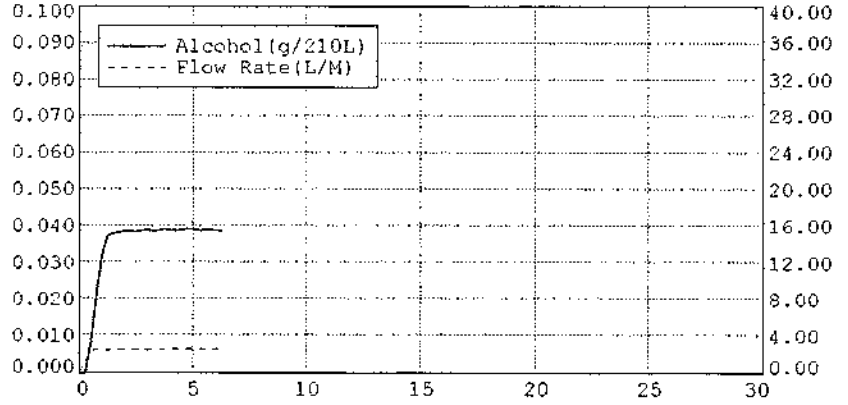
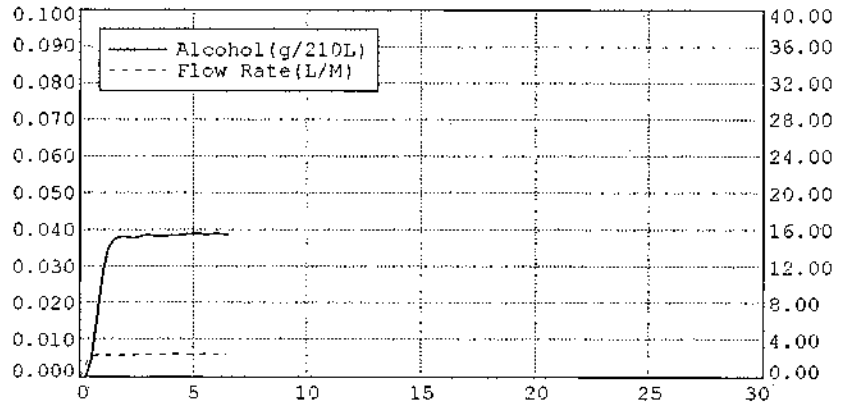
Date: 09/30/2015
 Time: 10:41:57

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.47: 0.039
 LOT #: 02915040A3
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 1060 psi

BLANK TEST	0.000	10:43
INTERNAL STANDARD	VERIFIED	10:43
EXTERNAL STANDARD	0.040	10:43
BLANK TEST	0.000	10:44
EXTERNAL STANDARD	0.040	10:44
BLANK TEST	0.000	10:45
EXTERNAL STANDARD	0.041	10:45
BLANK TEST	0.000	10:46
EXTERNAL STANDARD	0.041	10:46
BLANK TEST	0.000	10:47
EXTERNAL STANDARD	0.040	10:48
BLANK TEST	0.000	10:48

Average = 0.0404
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100390

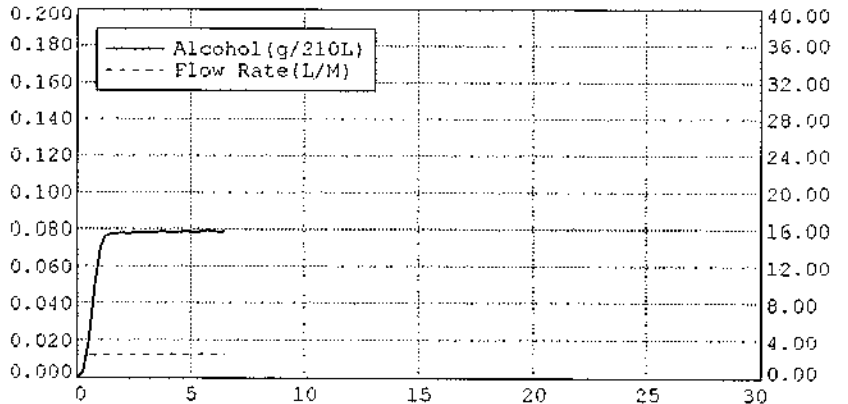
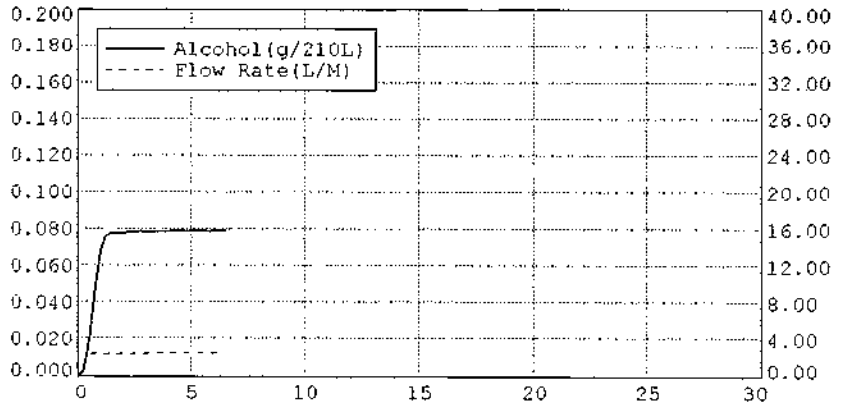
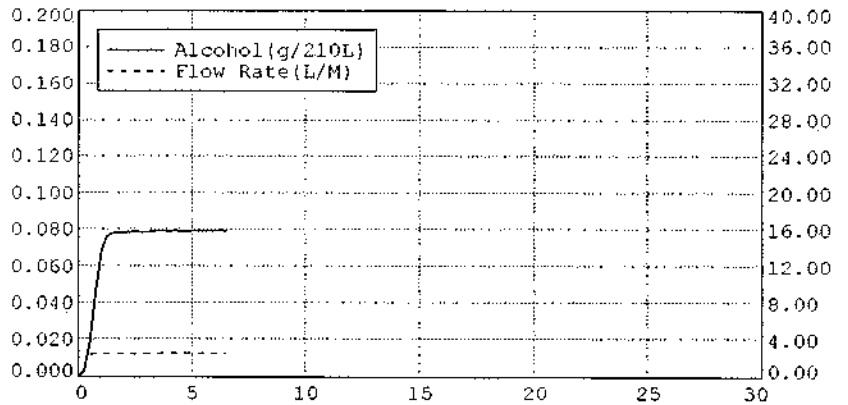
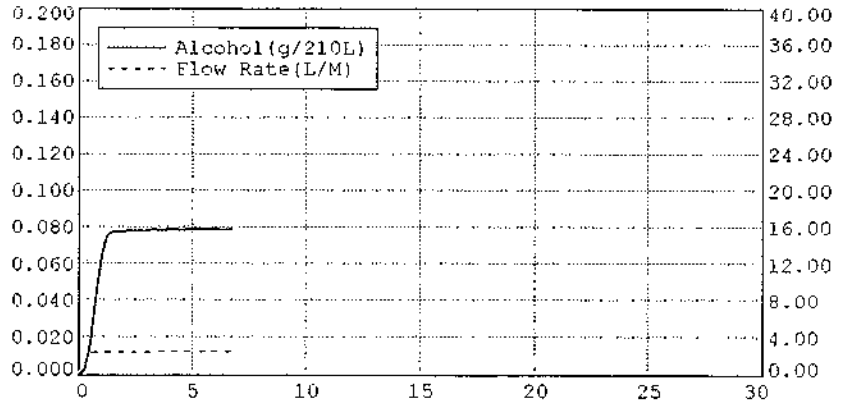
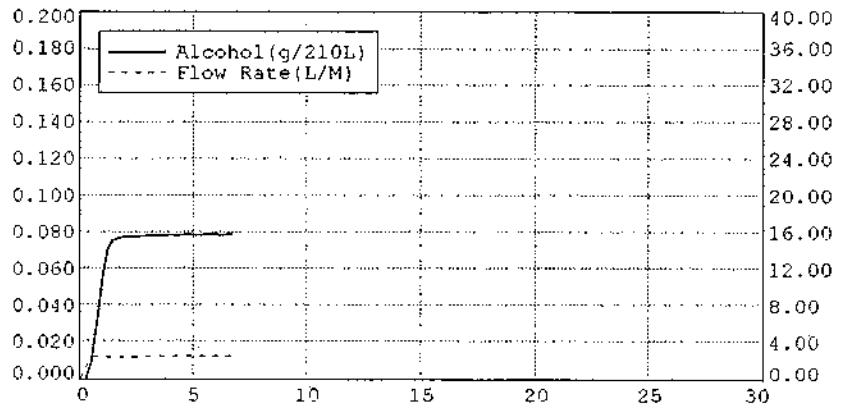
Date: 09/30/2015
 Time: 10:49:47

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.48: 0.079
 LOT #: 01315080A2
 EXPIRATION: 02/05/2017
 TANK PRESSURE: 1034 psi

BLANK TEST	0.000	10:51
INTERNAL STANDARD	VERIFIED	10:51
EXTERNAL STANDARD	0.080	10:51
BLANK TEST	0.000	10:52
EXTERNAL STANDARD	0.080	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.081	10:53
BLANK TEST	0.000	10:54
EXTERNAL STANDARD	0.080	10:55
BLANK TEST	0.000	10:55
EXTERNAL STANDARD	0.080	10:56
BLANK TEST	0.000	10:57

Average = 0.0802
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

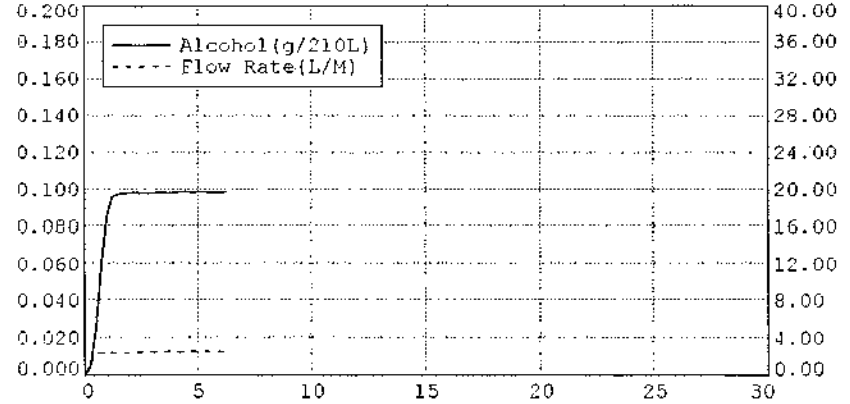
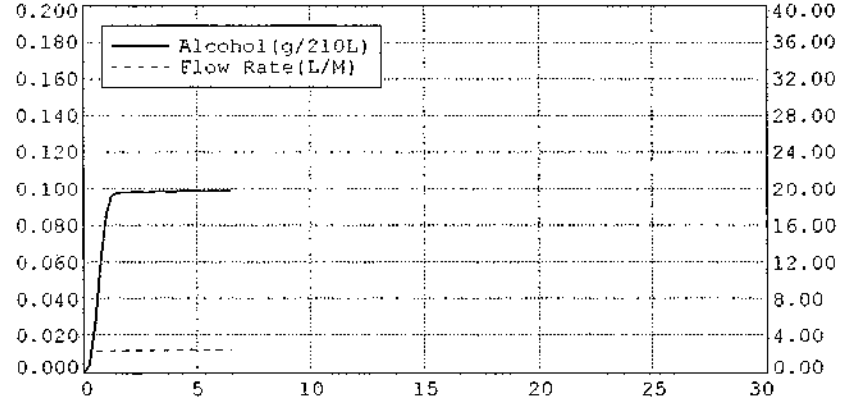
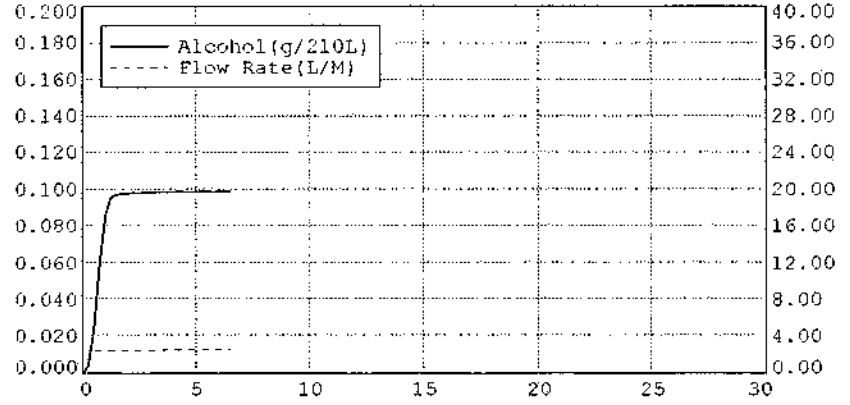
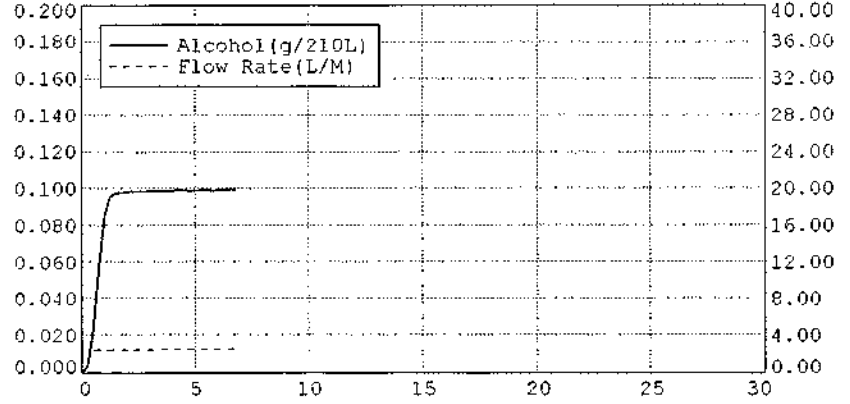
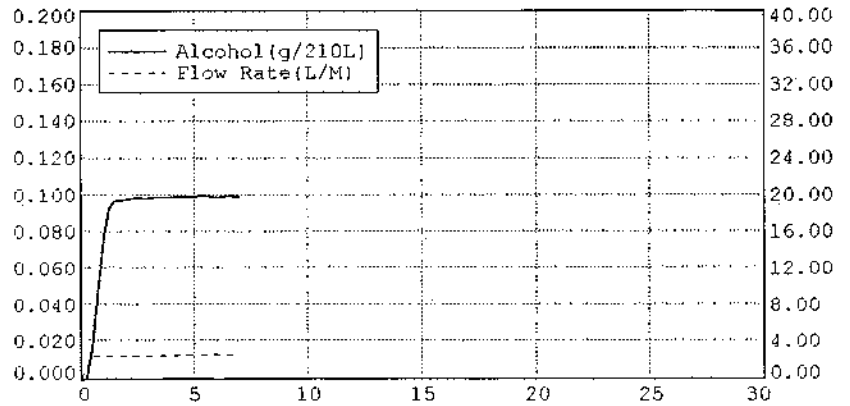
Alaska Department of Public Safety
 DATAMASTER dmt: 100390

Date: 09/30/2015
 Time: 10:57:17

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.100
 TARGET AT 29.48: 0.099
 LOT #: 02915100A1
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 1097 psi

BLANK TEST	0.000	10:58
INTERNAL STANDARD	VERIFIED	10:59
EXTERNAL STANDARD	0.100	10:59
BLANK TEST	0.000	11:00
EXTERNAL STANDARD	0.100	11:00
BLANK TEST	0.000	11:01
EXTERNAL STANDARD	0.100	11:01
BLANK TEST	0.000	11:02
EXTERNAL STANDARD	0.100	11:02
BLANK TEST	0.000	11:03
EXTERNAL STANDARD	0.100	11:03
BLANK TEST	0.000	11:04

Average = 0.1000
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100390

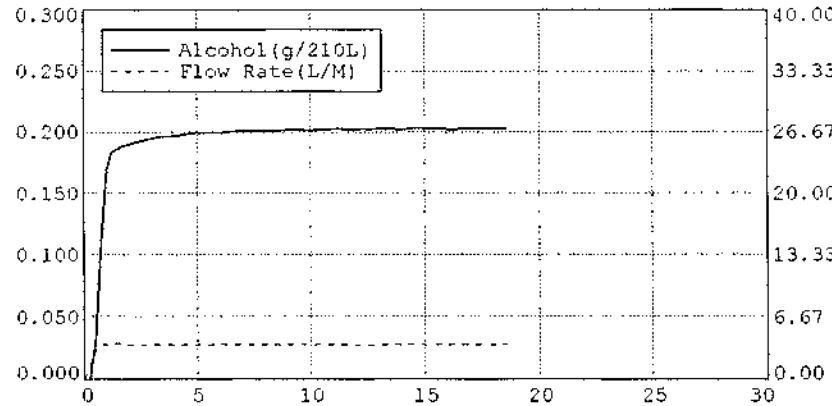
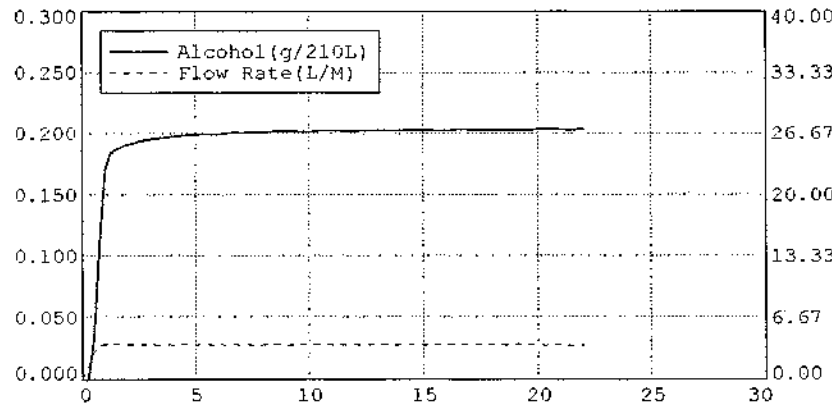
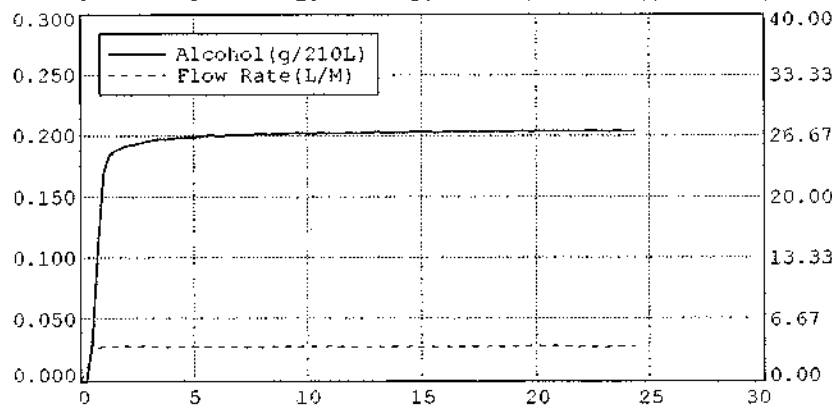
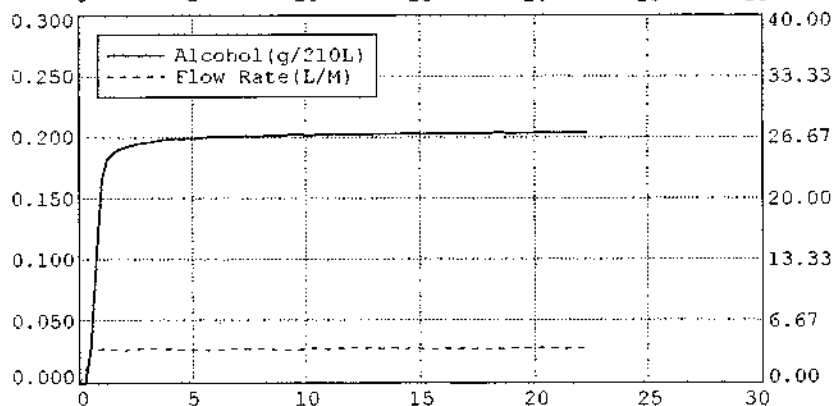
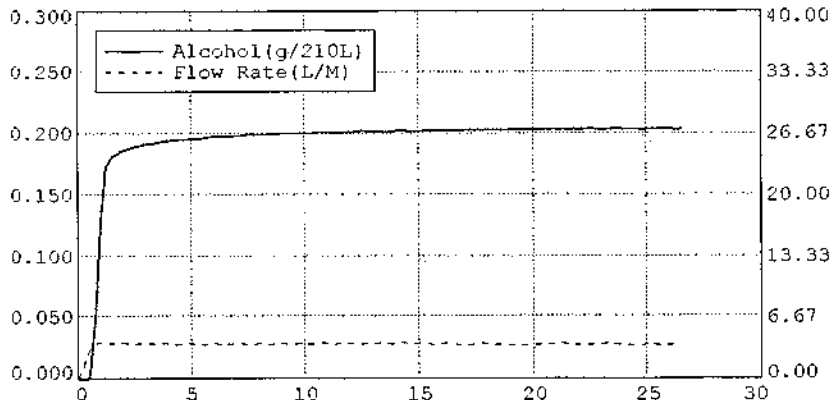
Date: 09/30/2015
 Time: 13:09:50

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200
 LOT #: 15130
 EXPIRATION: 05/11/2017

BLANK TEST	0.000	13:19
INTERNAL STANDARD	VERIFIED	13:19
EXTERNAL STANDARD	0.205	13:19
BLANK TEST	0.000	13:20
EXTERNAL STANDARD	0.205	13:21
BLANK TEST	0.000	13:22
EXTERNAL STANDARD	0.205	13:22
BLANK TEST	0.000	13:23
EXTERNAL STANDARD	0.204	13:24
BLANK TEST	0.000	13:24
EXTERNAL STANDARD	0.204	13:25
BLANK TEST	0.000	13:26

Average = 0.2046
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100390

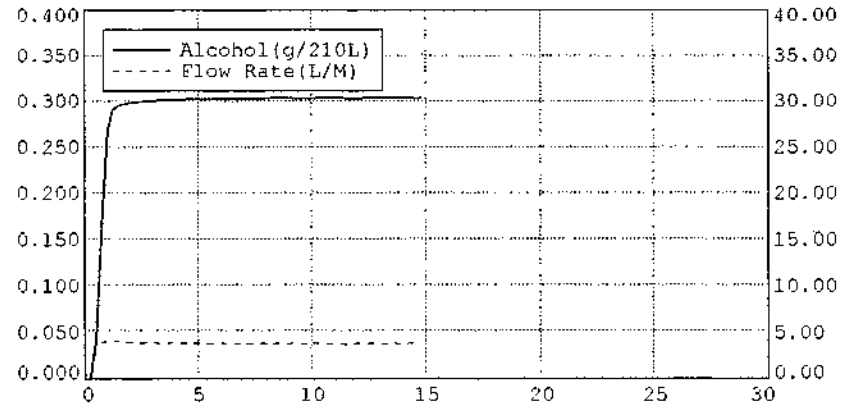
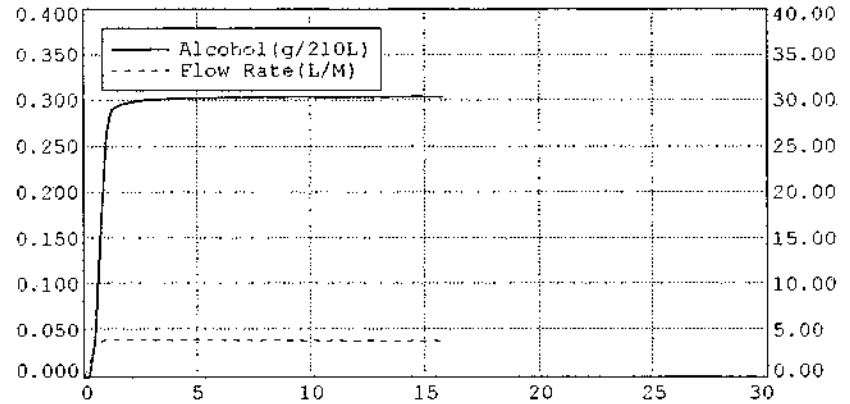
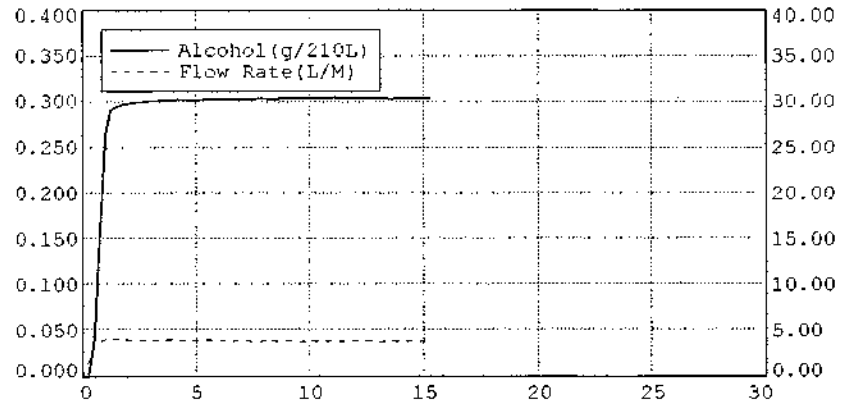
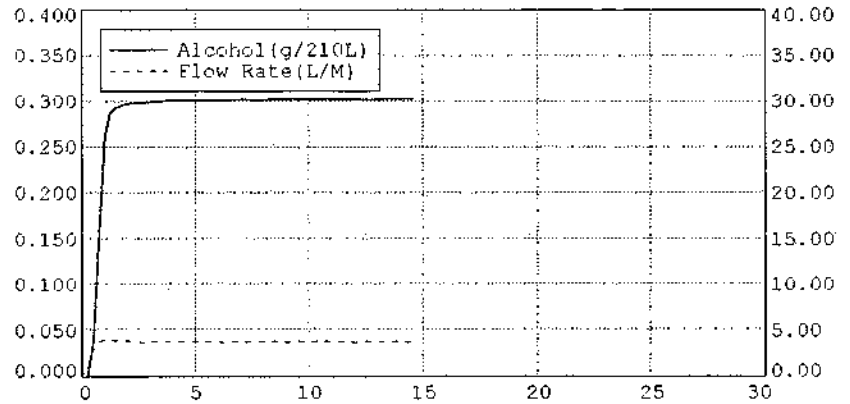
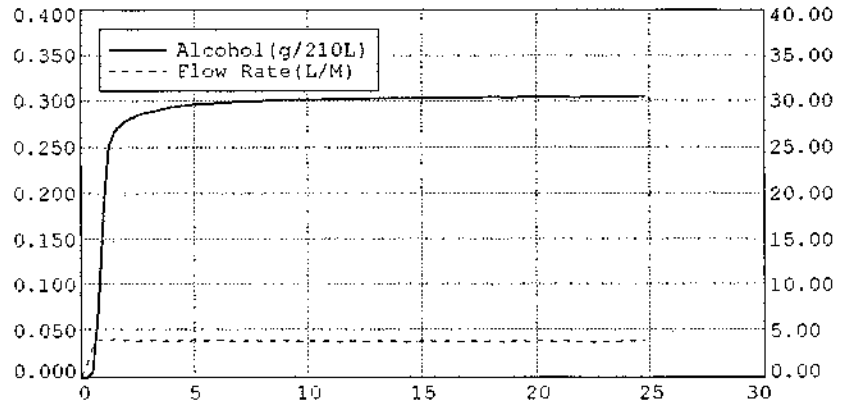
Date: 09/30/2015
 Time: 13:29:02

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	13:30
INTERNAL STANDARD	VERIFIED	13:30
EXTERNAL STANDARD	0.305	13:31
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.303	13:32
BLANK TEST	0.000	13:33
EXTERNAL STANDARD	0.303	13:33
BLANK TEST	0.000	13:34
EXTERNAL STANDARD	0.304	13:35
BLANK TEST	0.000	13:36
EXTERNAL STANDARD	0.303	13:36
BLANK TEST	0.000	13:37

Average = 0.3036
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100390

Date: 09/30/2015
Time: 13:48:22

SUBJECT NAME:
TEST TEST
LICENSE #: INCOMPLETE

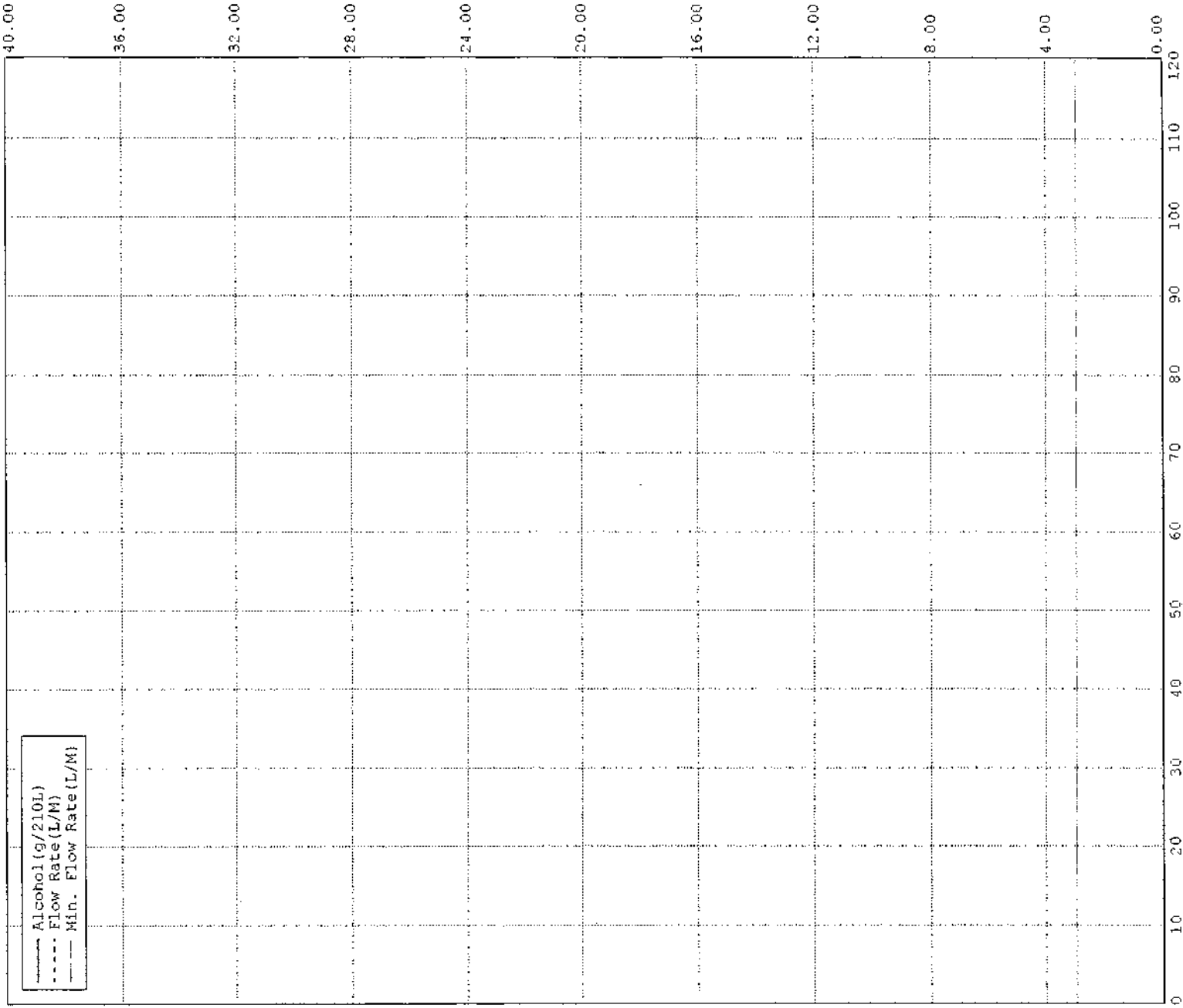
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.60: 0.079
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 13:49
BLANK TEST 0.000 13:49
INTERNAL STANDARD VERIFIED 13:49
EXTERNAL STANDARD 0.080 13:49
BLANK TEST 0.000 13:50
SUBJECT SAMPLE INCOMPLETE 13:52

colb



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100390

Date: 09/30/2015
Time: 13:54:14

SUBJECT NAME:
TEST TEST
LICENSE #: INVALID

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

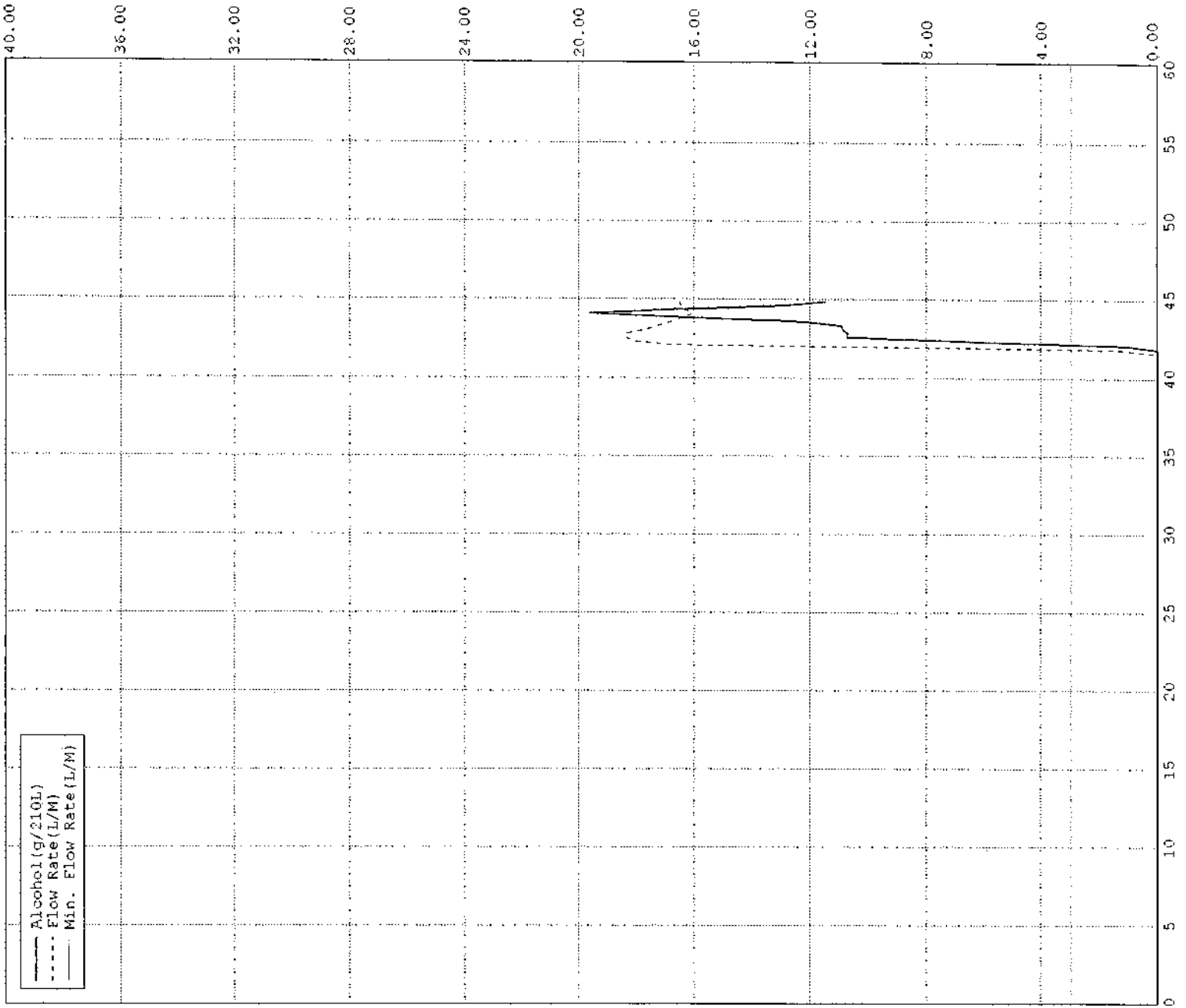
DEPT/AGENCY:
AAA1
CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.61: 0.079
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 13:55
BLANK TEST 0.000 13:55
INTERNAL STANDARD VERIFIED 13:56
EXTERNAL STANDARD 0.080 13:56
BLANK TEST 0.000 13:57
SUBJECT SAMPLE INVALID 13:58

CS



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dnt: 100390

Date: 09/30/2015
Time: 14:10:48

SUBJECT NAME:
TEST TEST
LICENSE #: INT-ACETONE

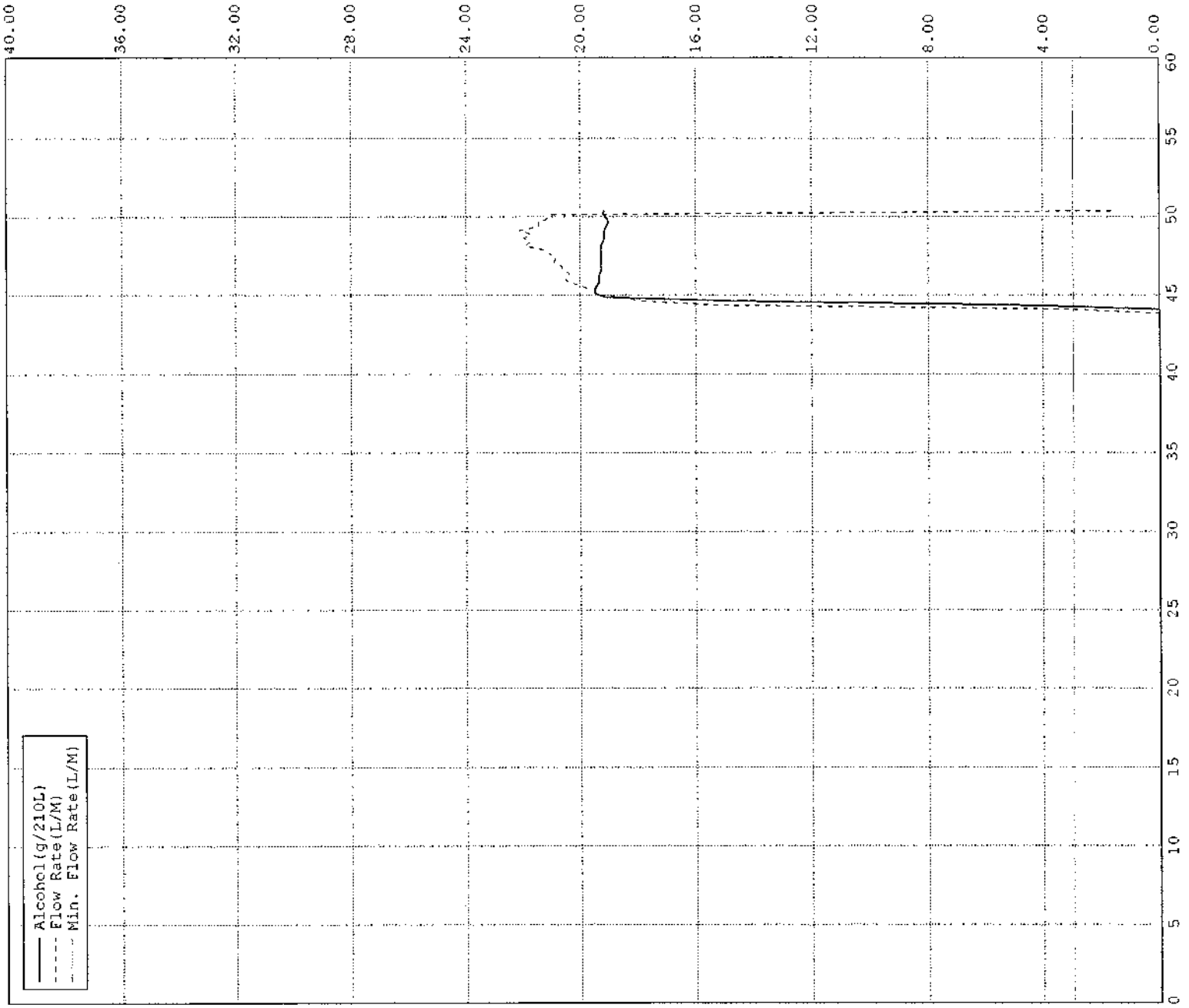
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

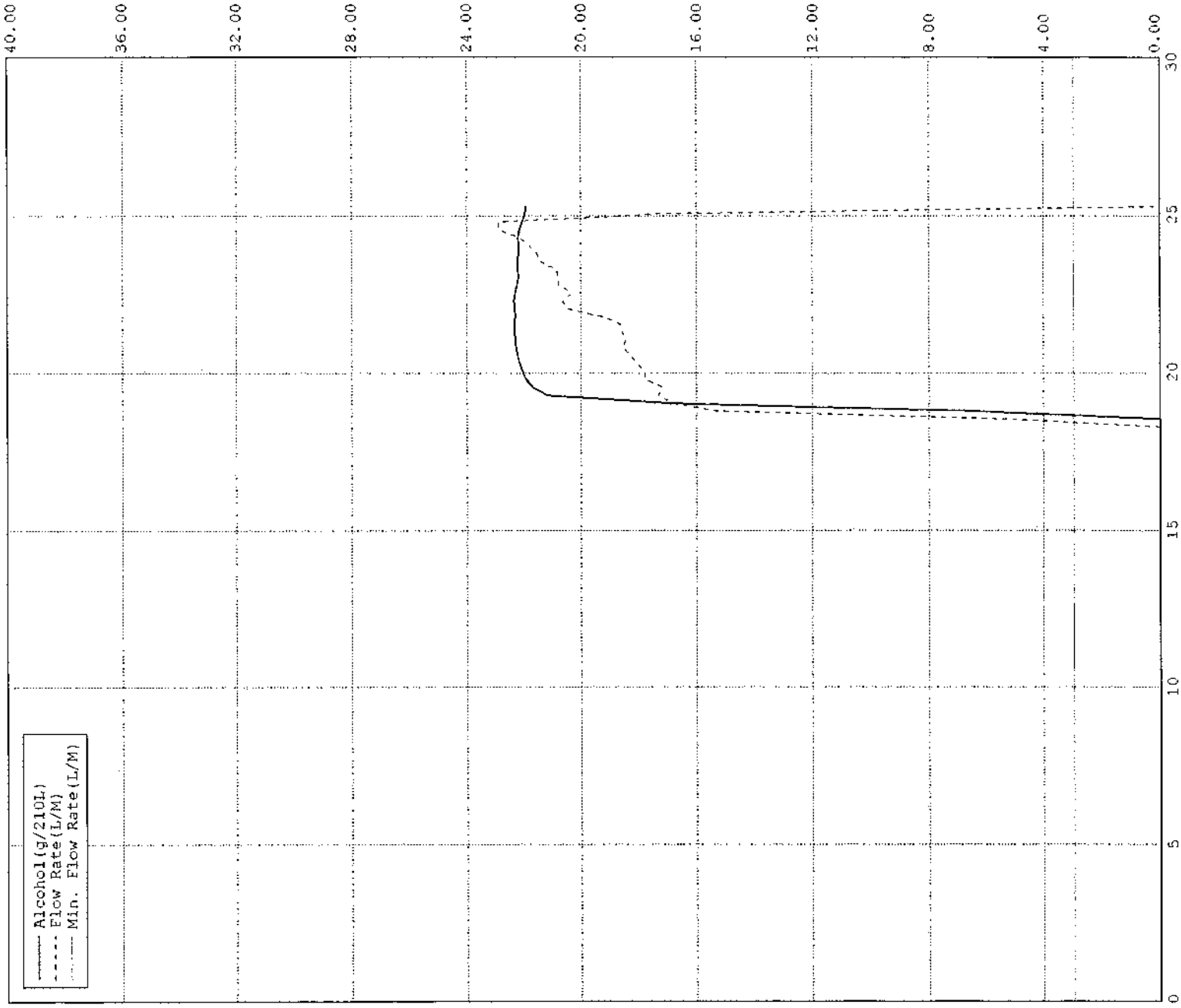
DEPT/AGENCY:
AAA1
CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.62: 0.079
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 14:26
BLANK TEST 0.000 14:26
INTERNAL STANDARD VERIFIED 14:26
Xg = 0.095 (0.46%)
EXTERNAL STANDARD 0.081 14:26
X[1] = 0.0807 (0.0004) (0.0027)
BLANK TEST 0.000 14:27
SUBJECT SAMPLE XXX 14:28
X[1] = 0.0962 (-0.0130) (0.0005)

Interference Detected





SUBJECT TEST

 Alaska Department of Public Safety
 DATAMASTER dmt: 100390

 Date: 09/30/2015
 Time: 14:35:48

SUBJECT NAME:
 TEST TEST
 LICENSE #: INT-IPA

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

DEPT/AGENCY:
 AAAA

CASE/REPORT: 15-1234
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.080
 TARGET AT 29.63: 0.079
 LOT #: 01315080A2
 EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 14:36
 BLANK TEST 0.000 14:36
 INTERNAL STANDARD VERIFIED 14:37
 $Xq = 0.095 (1.01\%)$
 EXTERNAL STANDARD 0.080 14:37
 $X[1] = 0.0800 (-0.0003) (0.0028)$
 BLANK TEST 0.000 14:38
 SUBJECT SAMPLE XXX 14:38
 $X[1] = 0.1100 (-0.0221) (0.0024)$

Interference Detected

CAB

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100390

Date: 09/30/2015
Time: 14:42:05

SUBJECT NAME:
TEST TEST
LICENSE #: INT-NEGATIVE

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

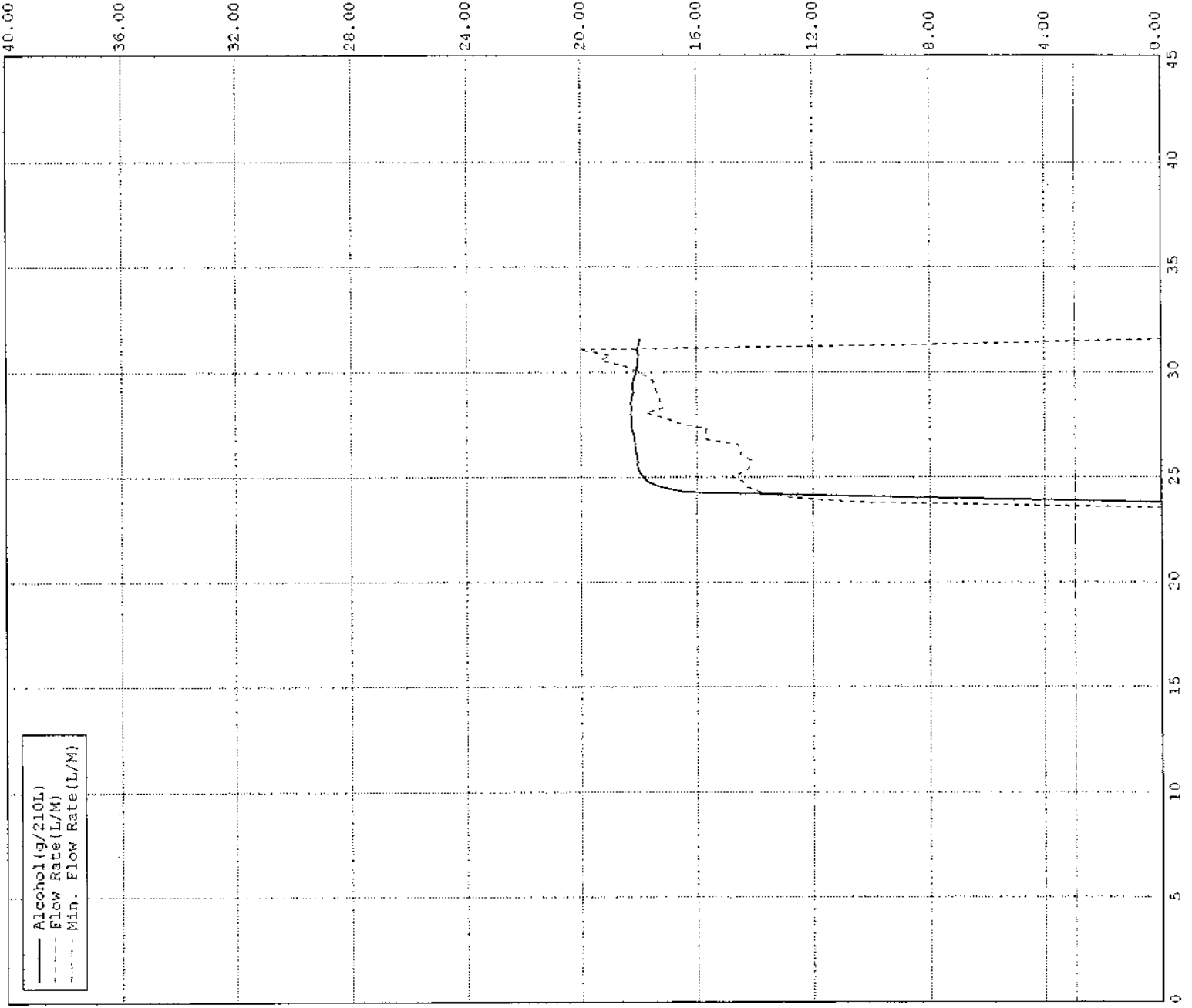
DEPT/AGENCY:
AAA1
CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.62: 0.079
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	14:44
BLANK TEST	0.000	14:44
INTERNAL STANDARD	VERIFIED	14:44
Xg = 0.096 (0.00%)		
EXTERNAL STANDARD	0.080	14:44
X[1] = 0.0804 (0.0007) (0.0023)		
BLANK TEST	0.000	14:45
SUBJECT SAMPLE (Vol=2.04L)	0.090	14:46
X[1] = 0.0907 (-0.0020) (0.0008)		
BLANK TEST	0.000	14:47
EXTERNAL STANDARD	0.080	14:47
X[1] = 0.0803 (0.0003) (0.0020)		
BLANK TEST	0.000	14:48

Filter 2 avg = 0.0003
Filter 3 avg = 0.0025

COB



SUBJECT TEST

Alaska Department of Public Safety

DATA MASTER dmt: 100390

Date: 09/30/2015
Time: 14:00:39

SUBJECT NAME:
TEST TEST
LICENSE #: MAX ATTEMPTS

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

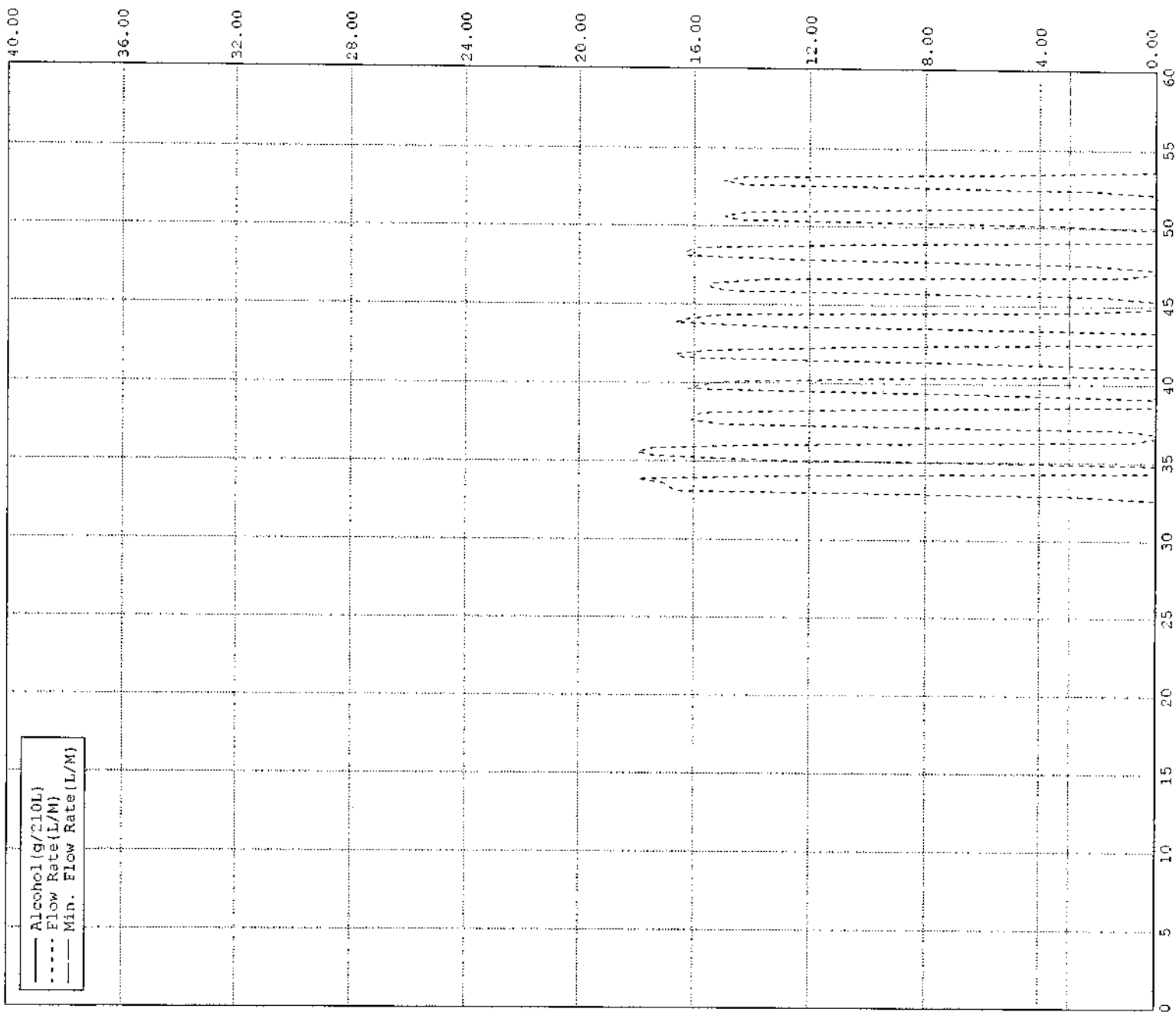
DEPT/AGENCY:
AAA1
CASE/REPORT: 15-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.62: 0.079
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 14:01
BLANK TEST 0.000 14:01
INTERNAL STANDARD VERIFIED 14:02
EXTERNAL STANDARD 0.081 14:02
BLANK TEST 0.000 14:03
SUBJECT SAMPLE XXX 14:04

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100390

Date: 09/30/2015
Time: 13:41:29

SUBJECT NAME:
TEST TEST
LICENSE #: RFI

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

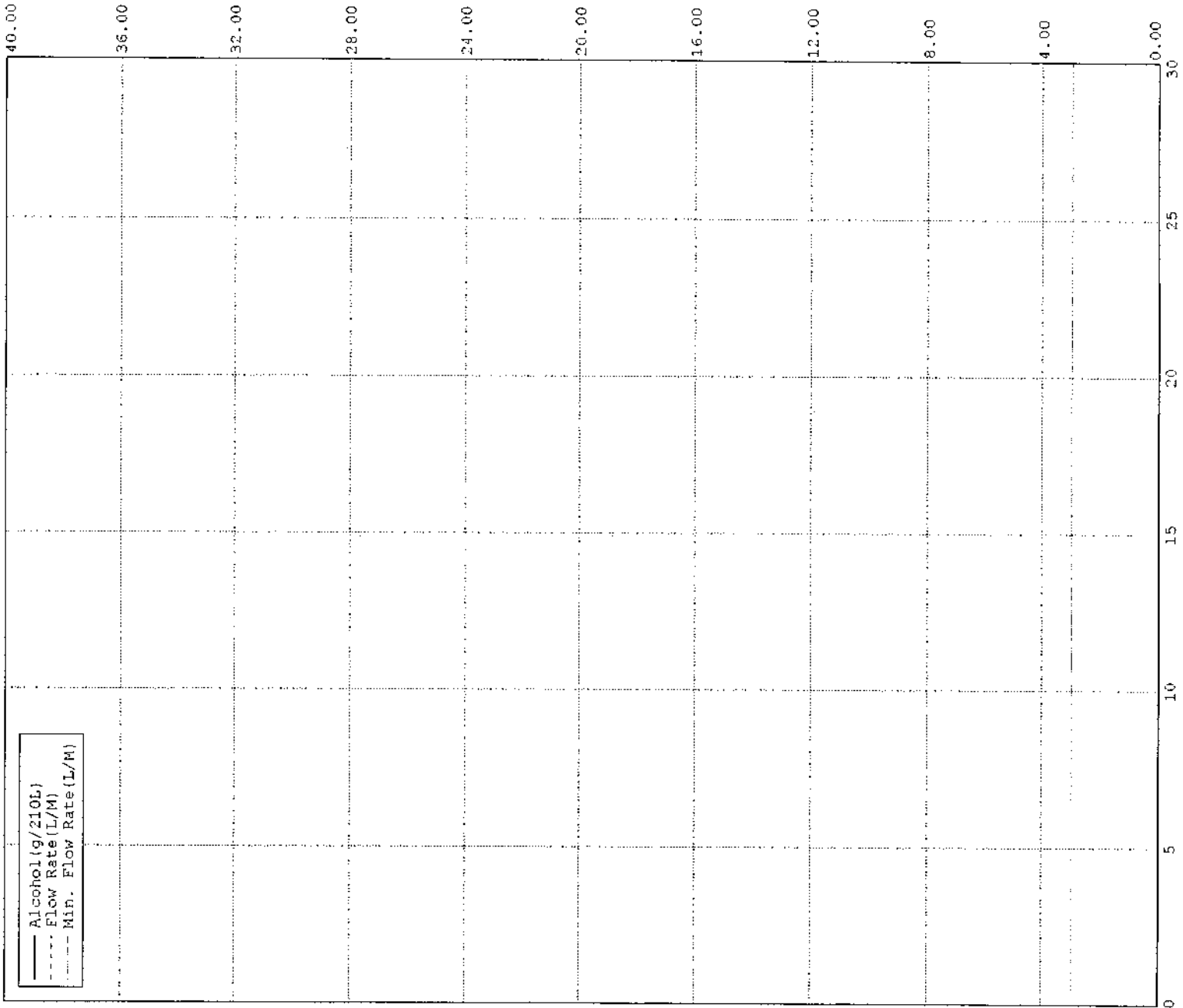
DEPT/AGENCY:
AAA1
CASE/REPORT: 15-1234
TEST TYPE: TEST

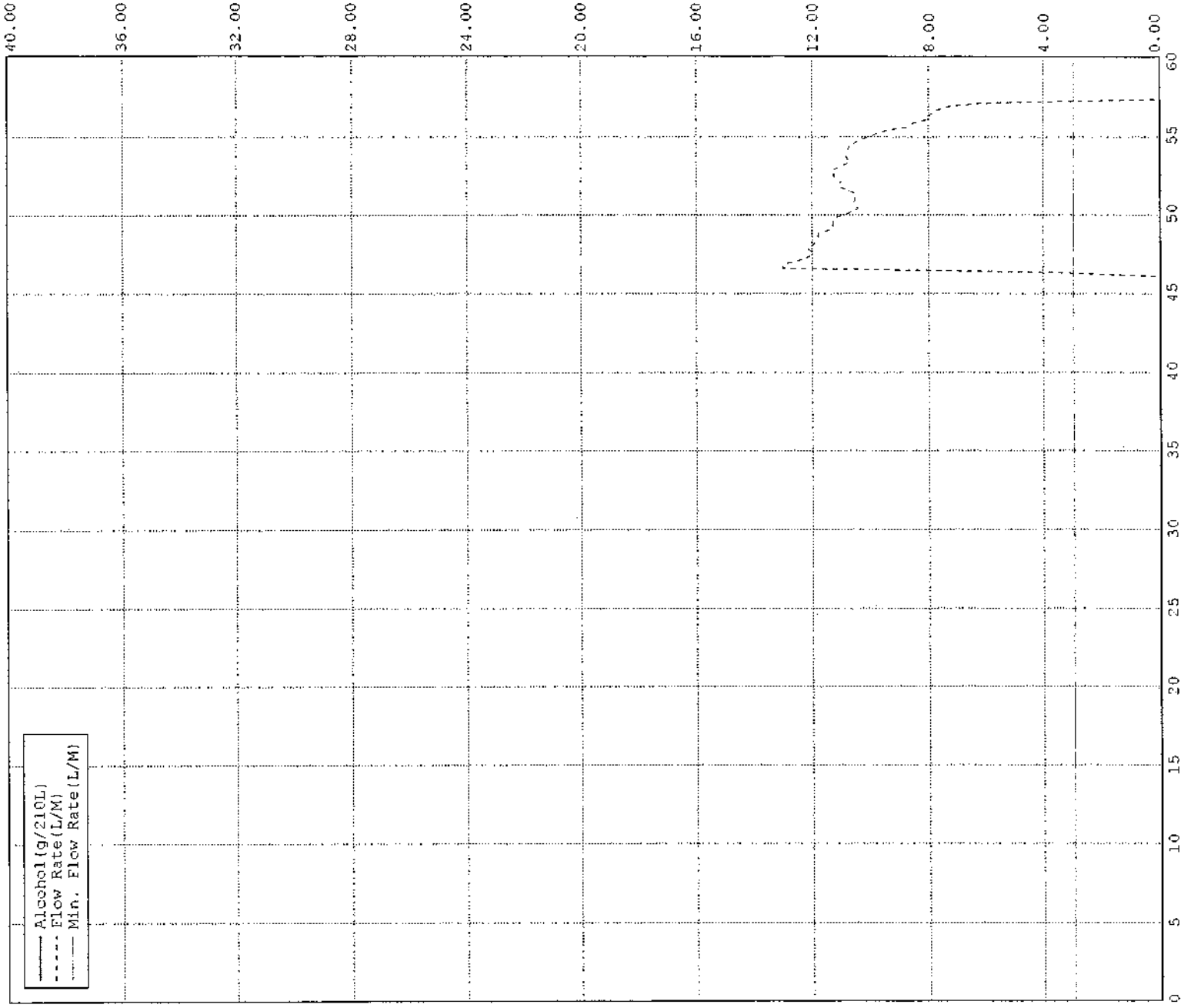
EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.60: 0.079
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 13:42
BLANK TEST 0.000 13:42
INTERNAL STANDARD VERIFIED 13:42
EXTERNAL STANDARD 0.080 13:42
BLANK TEST 0.000 13:43

RFI DETECTED

CAS





SUBJECT TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100390

Date: 09/30/2015
 Time: 15:01:06

SUBJECT NAME:
 TEST TEST
 LICENSE #: NON-DRINKING

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 29.65: 0.079
 LOT #: 01315080A2
 EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	TIME
BLANK TEST	0.000	15:02
INTERNAL STANDARD	0.081	15:03
EXTERNAL STANDARD	0.000	15:03
BLANK TEST	0.000	15:04
SUBJECT SAMPLE (Vol=1.93L)	0.000	15:05
BLANK TEST	0.000	15:06
EXTERNAL STANDARD	0.081	15:06
BLANK TEST	0.000	15:07

CS