

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 100699 Analyst Brandi Barnett Start Date 9/16/15

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 09214080A2 Exp 5/1/16
- iv. 0.100g/210L Mnf ILMO Lot 02915000A1 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 12/2/16
 - 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 1/20/15
- iii. Negative Control - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
 - 1. Simulator S/N DR4178 Date Calibrated 1/19/2015

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 9/17/15

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100699

Date: 09/16/2015
Time: 10:55:01

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 44.4°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.53 V PASSED
(0.92 V - 2.14 V)
Cooler Voltage = 1.46 V PASSED
(0.88 V - 2.04 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 556 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.2 in

PUMP INFO

Flow Rate = 4.016 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 = 0.074 0.58% (0.00% - 4.00%) PASSED

Technician Screen

DATAMASTER dmt: 100699

Date: 09/16/2015
Time: 11:03 AM

Temperatures (°C)
Sample Cell: 48.7°C
Breath Tube: 44.3°C

Current Barometer 29.2 in
Volume (Ltr) 1.47

Settings
Lamp: 1.56 V
Bias: 79 V
Cooler: 1.46 V
Chopper: 555 Hz

Voltages (V)
Flow: 1.05 V
Detector: 0.077 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100699

Date: 09/14/2015
Time: 14:16:03

OPERATOR NAME:
BRANDI BARNETT
CERTIFICATE #: 7038

Ca = 0.1000
CAL = 0.952416 0.800 <= CAL < 1.200
b1 = 0.0003 0.0000 <= b1 < 0.0040
b2 = 0.0053 0.0010 <= b2 < 0.0100
b3 = 0.0000 0.0000 <= b3 < 0.0040
Xq = 0.0746 0.0500 <= Xq < 0.2000
a21 = 1.147407 1.050 <= a21 < 1.300
a31 = 0.412118 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATA MASTER dmt: 100699

Date: 09/16/2015
Time: 11:04:15

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

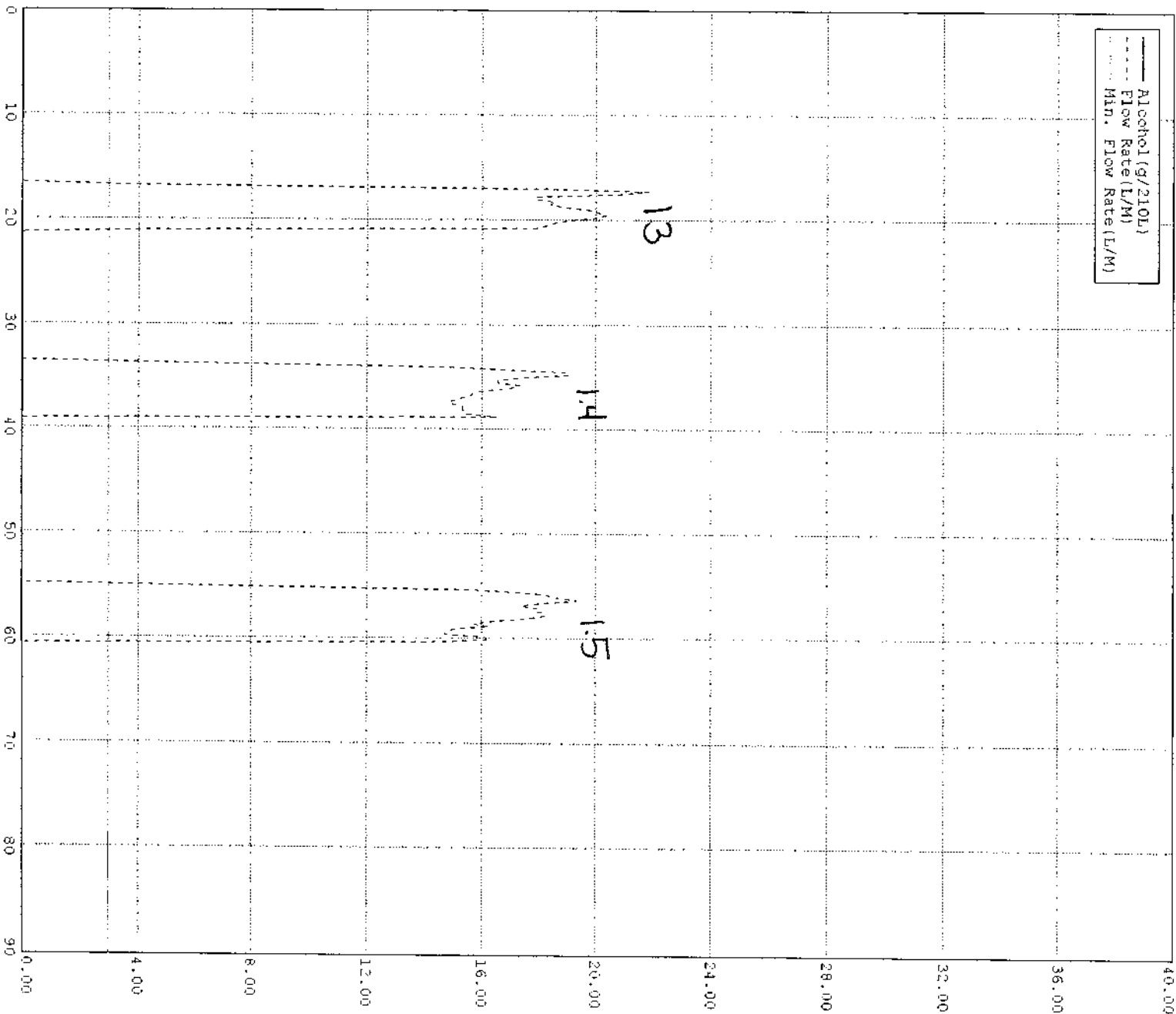
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
MINIMUM VOLUME
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.22: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

| DIAGNOSTIC CHECK | PASSED | 11:05 |
|----------------------------|----------|-------|
| BLANK TEST | 0.000 | 11:05 |
| INTERNAL STANDARD | VERIFIED | 11:05 |
| EXTERNAL STANDARD | 0.075 | 11:05 |
| BLANK TEST | 0.000 | 11:06 |
| SUBJECT SAMPLE (Vol=1.5IL) | 0.000 | 11:07 |
| BLANK TEST | 0.000 | 11:08 |
| EXTERNAL STANDARD | 0.076 | 11:08 |
| BLANK TEST | 0.000 | 11:09 |

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LINEARITY CHECK

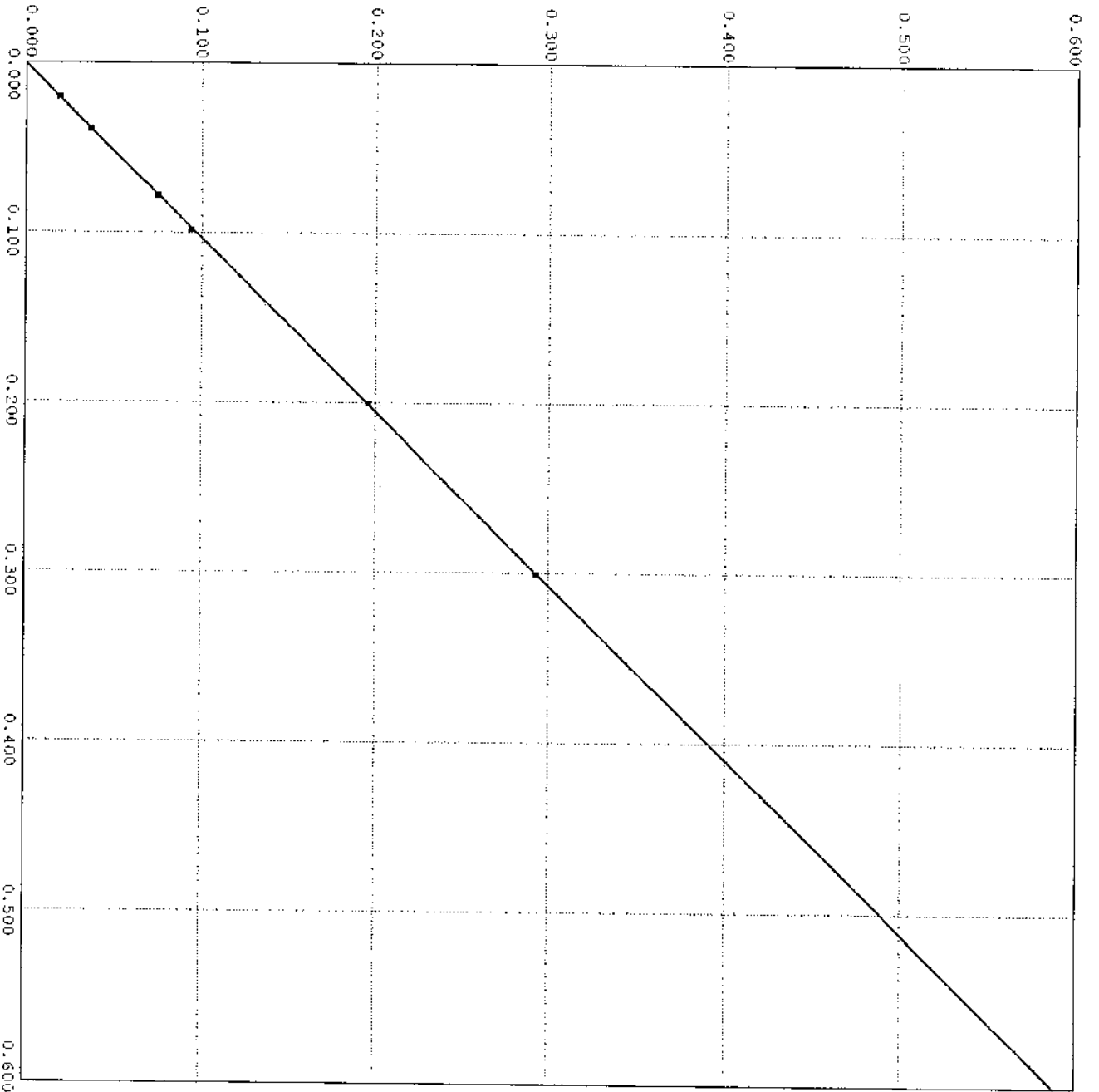
Alaska Department of Public Safety
DATAMASTER dmt: 100699

Date: 09/16/2015
Time: 12:45:20

SUPERVISOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

| TARGET | AVERAGE | STD. DEV. |
|--------|---------|-----------|
| 0.020 | 0.0198 | 0.0004 |
| 0.039 | 0.0380 | 0.0000 |
| 0.078 | 0.0760 | 0.0000 |
| 0.098 | 0.0950 | 0.0000 |
| 0.200 | 0.1968 | 0.0004 |
| 0.300 | 0.2938 | 0.0008 |

SLOPE = 0.981206
R² = 0.999967



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100699

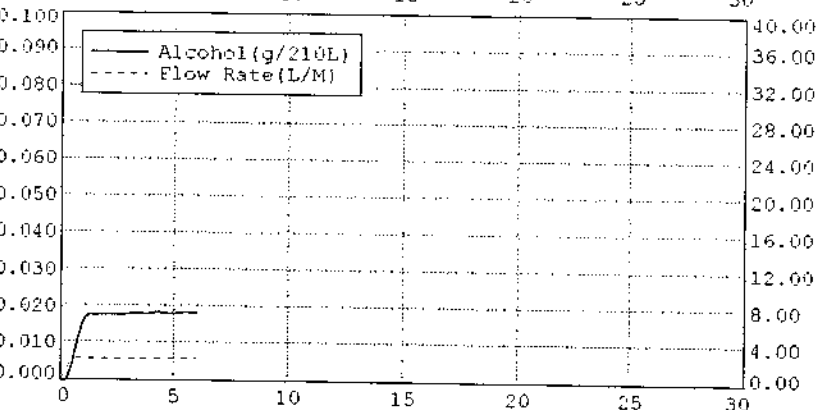
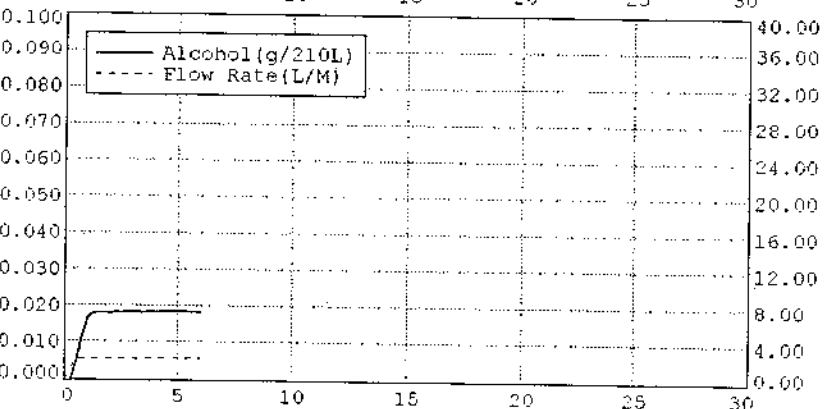
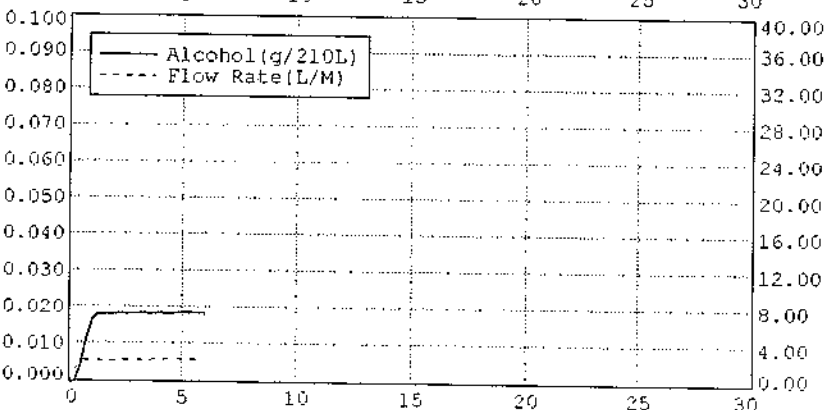
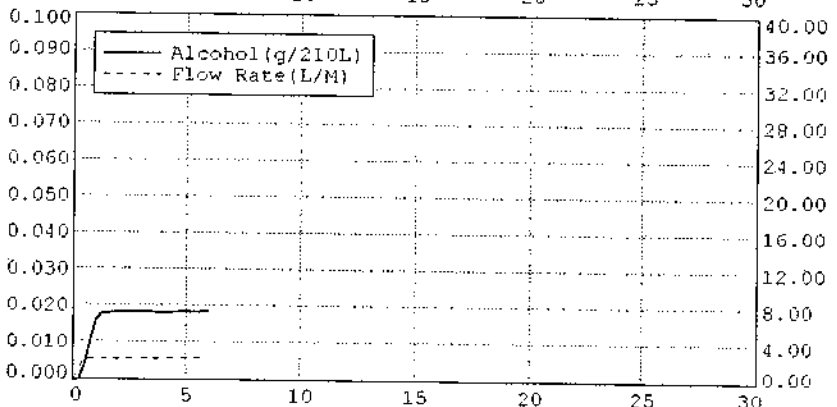
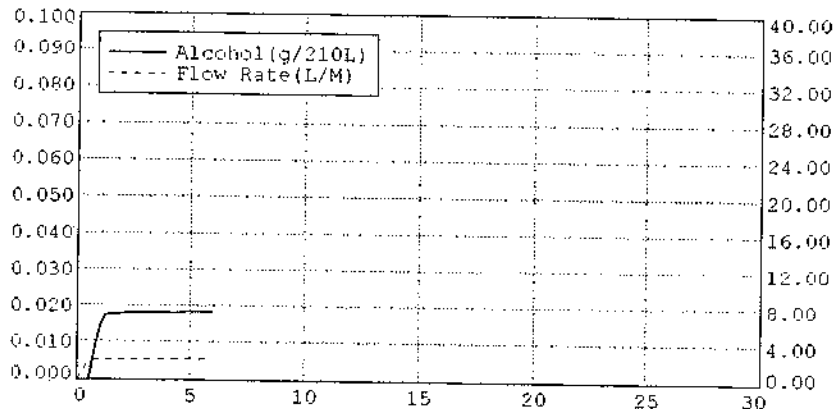
Date: 09/16/2015
 Time: 12:45:22

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.20: 0.020
 LOT #: 02915020A2
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 366 psi

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 12:46 |
| INTERNAL STANDARD | VERIFIED | 12:46 |
| EXTERNAL STANDARD | 0.020 | 12:47 |
| BLANK TEST | 0.000 | 12:47 |
| EXTERNAL STANDARD | 0.020 | 12:48 |
| BLANK TEST | 0.000 | 12:48 |
| EXTERNAL STANDARD | 0.020 | 12:49 |
| BLANK TEST | 0.000 | 12:50 |
| EXTERNAL STANDARD | 0.020 | 12:50 |
| BLANK TEST | 0.000 | 12:51 |
| EXTERNAL STANDARD | 0.019 | 12:51 |
| BLANK TEST | 0.000 | 12:52 |

Average = 0.0198
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100699

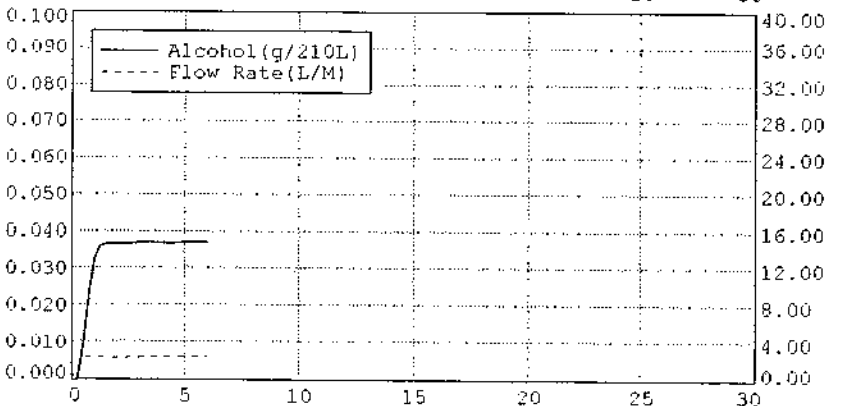
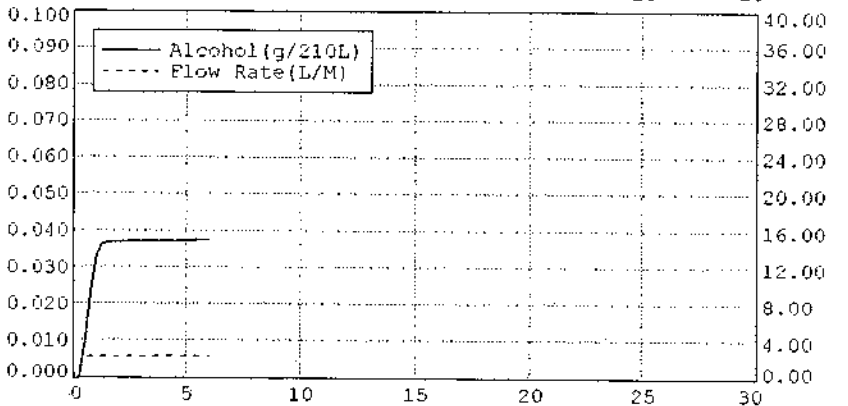
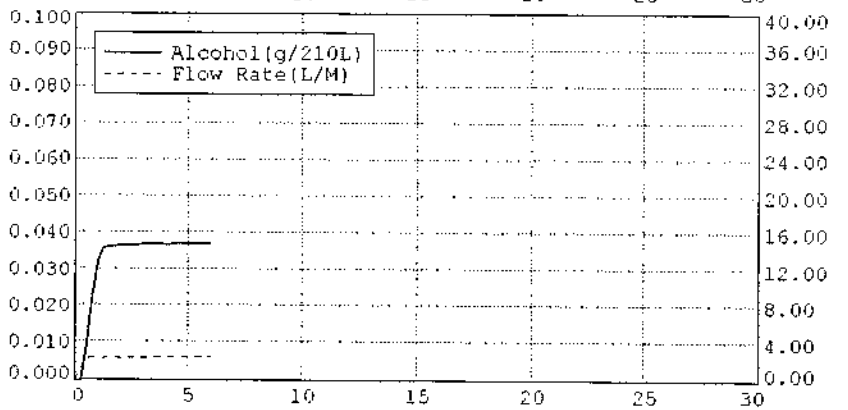
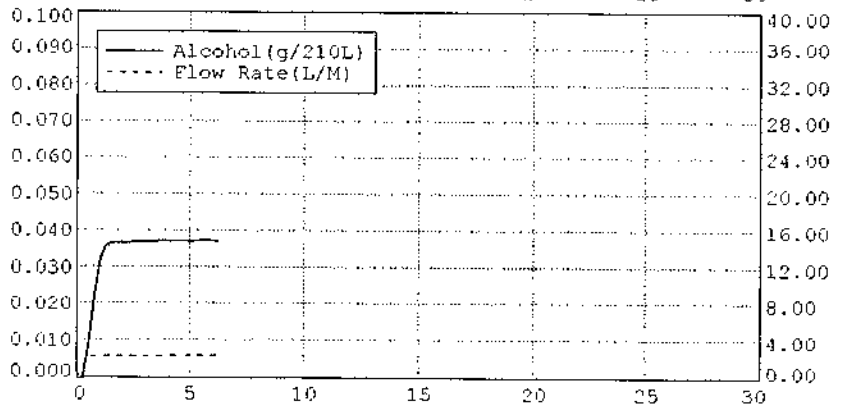
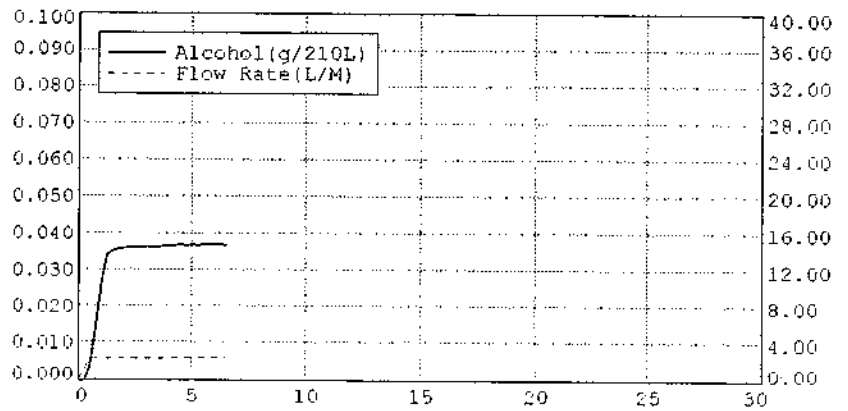
Date: 09/16/2015
 Time: 12:55:06

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.20: 0.039
 LOT #: 02915040A3
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 452 psi

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 12:56 |
| INTERNAL STANDARD | VERIFIED | 12:56 |
| EXTERNAL STANDARD | 0.038 | 12:56 |
| BLANK TEST | 0.000 | 12:57 |
| EXTERNAL STANDARD | 0.038 | 12:57 |
| BLANK TEST | 0.000 | 12:58 |
| EXTERNAL STANDARD | 0.038 | 12:58 |
| BLANK TEST | 0.000 | 12:59 |
| EXTERNAL STANDARD | 0.038 | 12:59 |
| BLANK TEST | 0.000 | 13:00 |
| EXTERNAL STANDARD | 0.038 | 13:00 |
| BLANK TEST | 0.000 | 13:01 |

Average = 0.0380
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100699

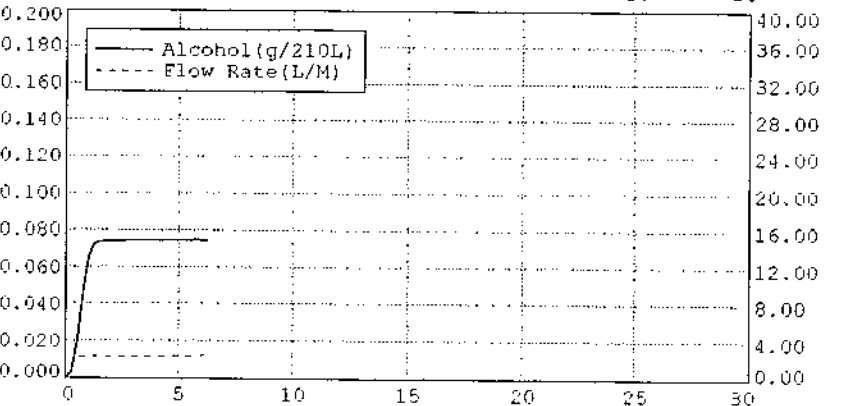
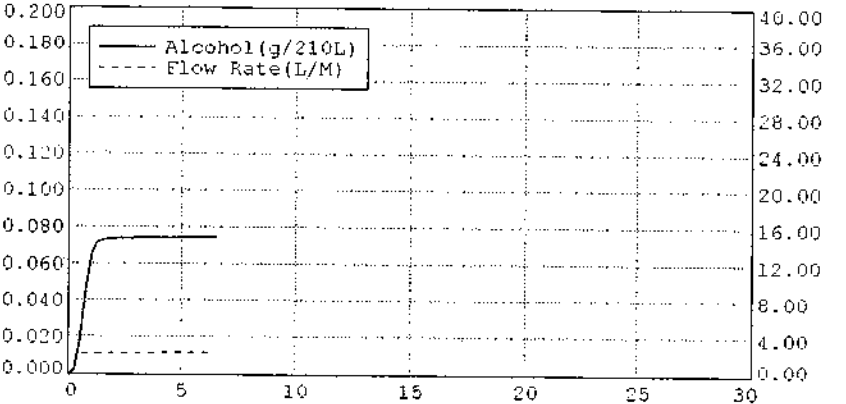
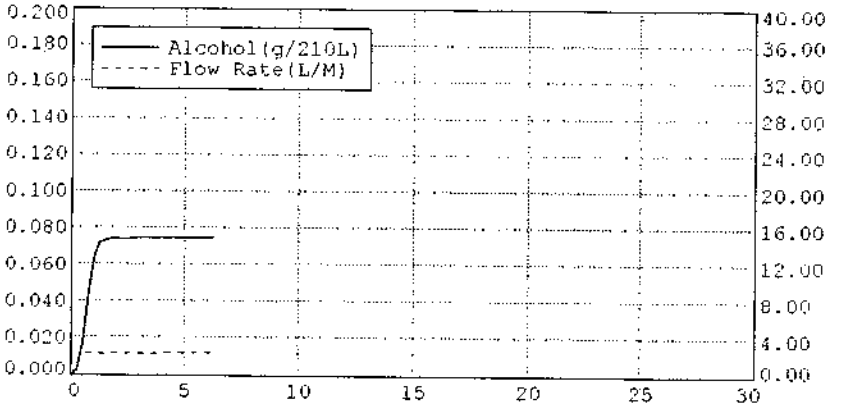
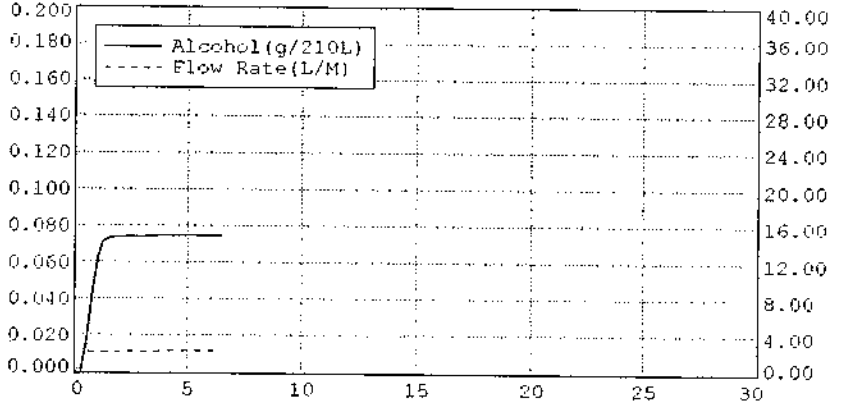
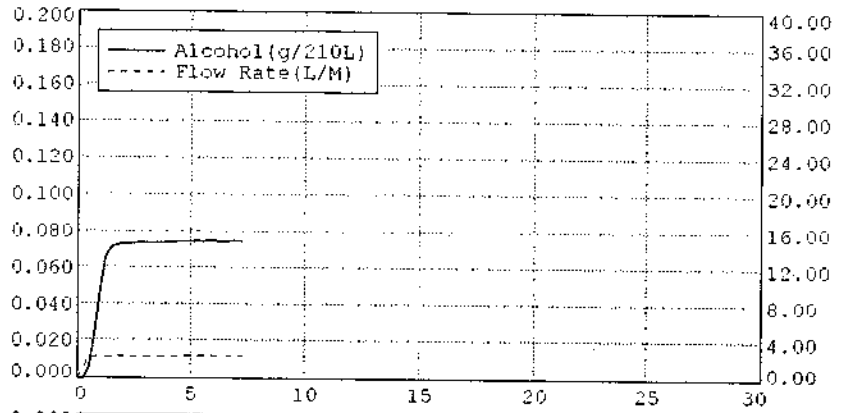
Date: 09/16/2015
 Time: 13:21:05

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.19: 0.078
 LOT #: 09214080A2
 EXPIRATION: 05/01/2016
 TANK PRESSURE: 457 psi

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 13:22 |
| INTERNAL STANDARD | VERIFIED | 13:22 |
| EXTERNAL STANDARD | 0.076 | 13:22 |
| BLANK TEST | 0.000 | 13:23 |
| EXTERNAL STANDARD | 0.076 | 13:23 |
| BLANK TEST | 0.000 | 13:24 |
| EXTERNAL STANDARD | 0.076 | 13:24 |
| BLANK TEST | 0.000 | 13:25 |
| EXTERNAL STANDARD | 0.076 | 13:25 |
| BLANK TEST | 0.000 | 13:26 |
| EXTERNAL STANDARD | 0.076 | 13:27 |
| BLANK TEST | 0.000 | 13:28 |

Average = 0.0760
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100699

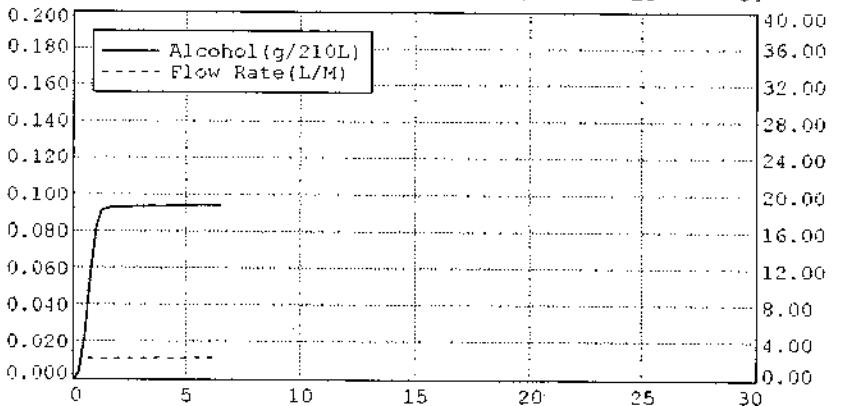
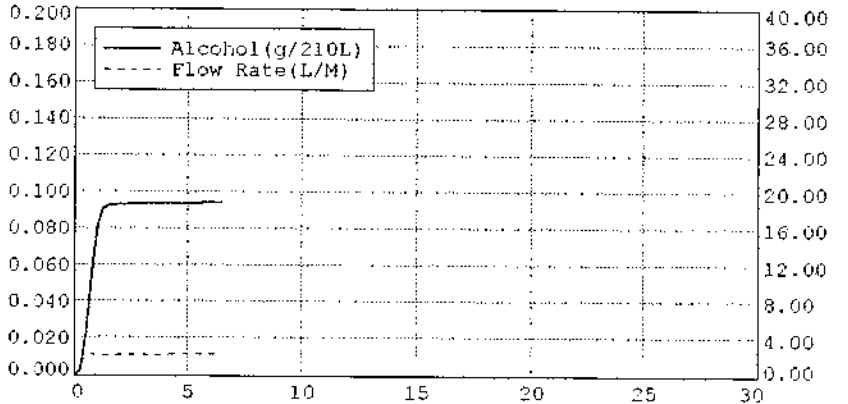
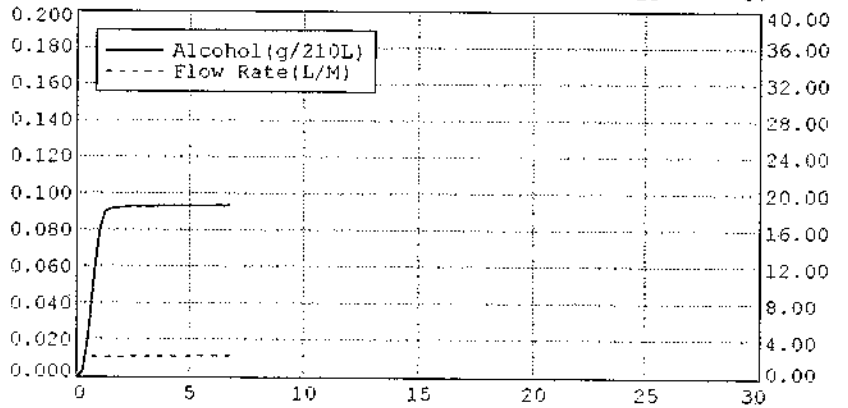
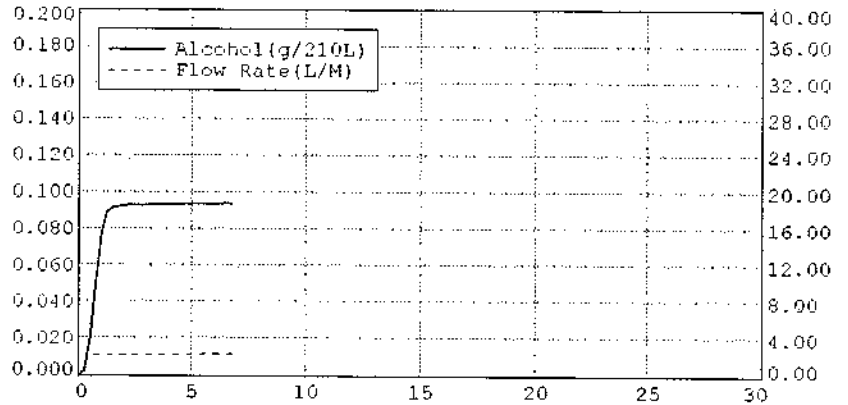
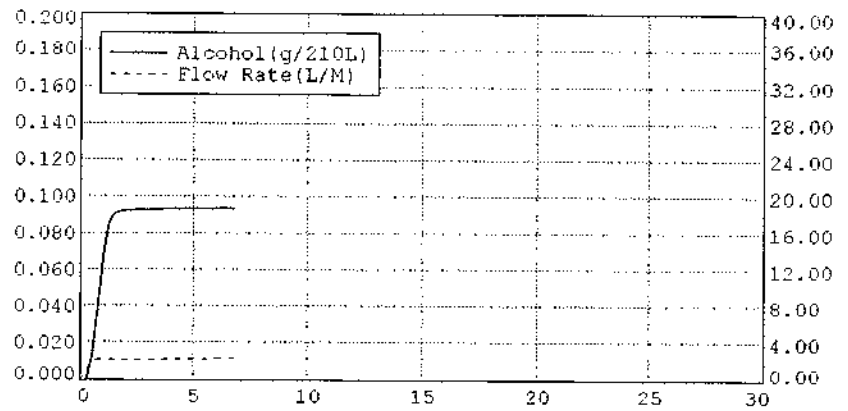
Date: 09/16/2015
 Time: 13:32:44

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.20: 0.098
 LOT #: 02915100A1
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 305 psi

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 13:33 |
| INTERNAL STANDARD | VERIFIED | 13:33 |
| EXTERNAL STANDARD | 0.095 | 13:34 |
| BLANK TEST | 0.000 | 13:35 |
| EXTERNAL STANDARD | 0.095 | 13:35 |
| BLANK TEST | 0.000 | 13:36 |
| EXTERNAL STANDARD | 0.095 | 13:36 |
| BLANK TEST | 0.000 | 13:37 |
| EXTERNAL STANDARD | 0.095 | 13:37 |
| BLANK TEST | 0.000 | 13:38 |
| EXTERNAL STANDARD | 0.095 | 13:38 |
| BLANK TEST | 0.000 | 13:39 |

Average = 0.0950
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100699

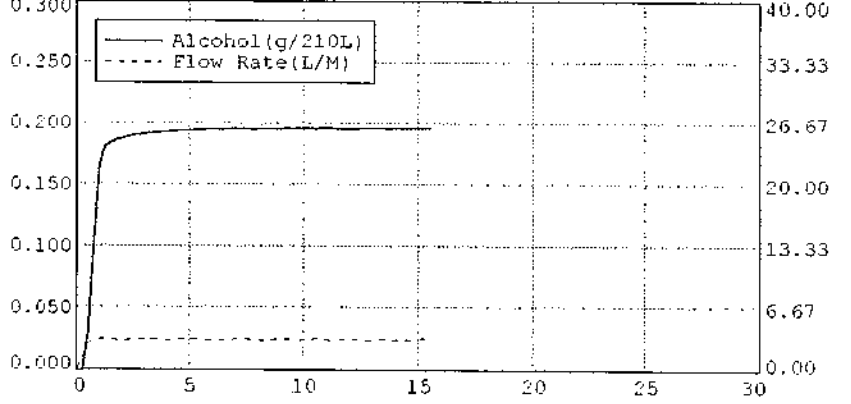
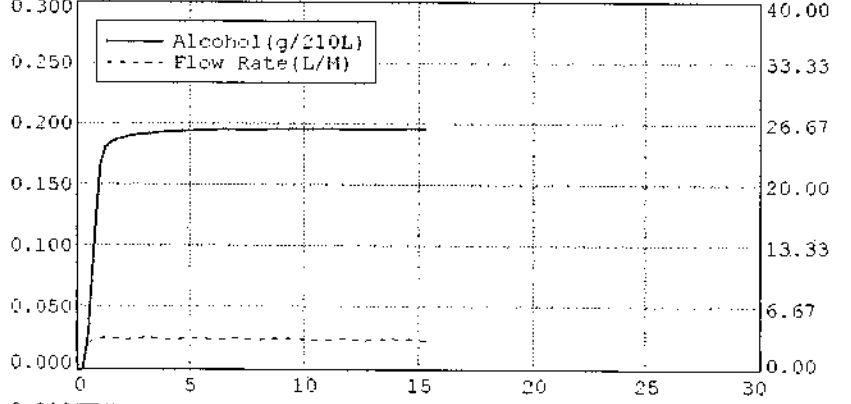
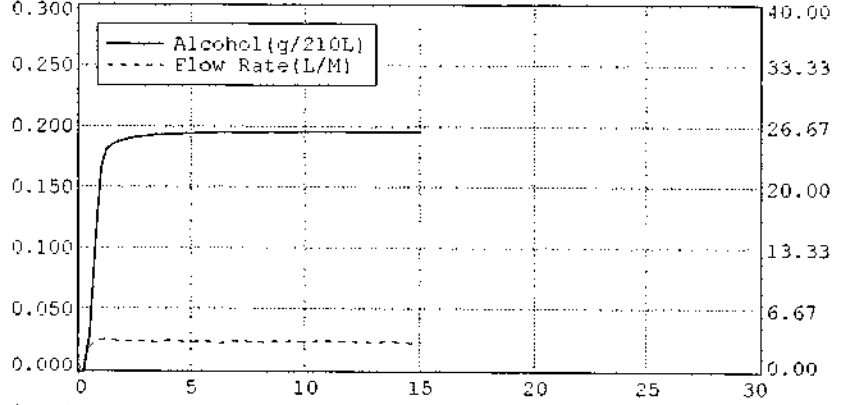
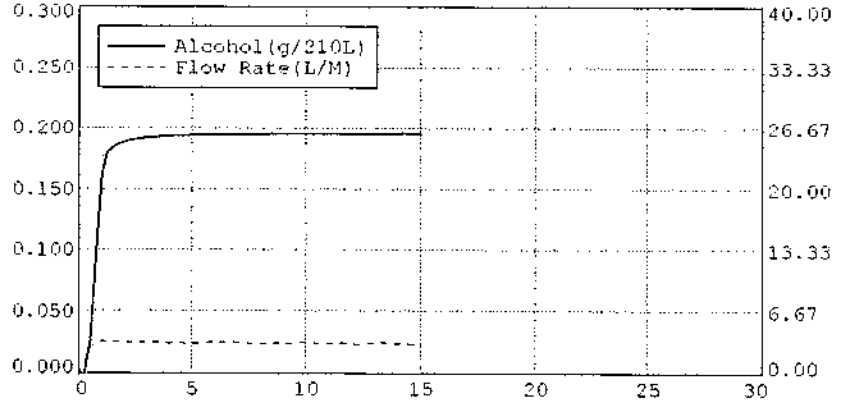
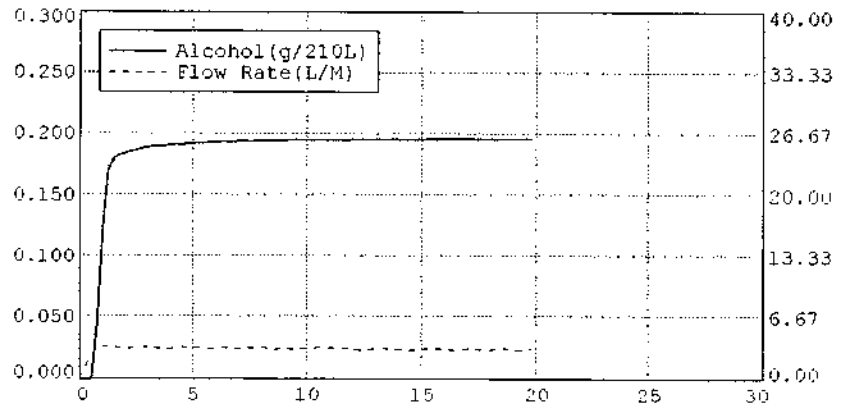
Date: 09/16/2015
 Time: 13:40:56

EXTERNAL STANDARD INFORMATION

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

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 13:42 |
| INTERNAL STANDARD | VERIFIED | 13:42 |
| EXTERNAL STANDARD | 0.197 | 13:43 |
| BLANK TEST | 0.000 | 13:43 |
| EXTERNAL STANDARD | 0.196 | 13:44 |
| BLANK TEST | 0.000 | 13:45 |
| EXTERNAL STANDARD | 0.197 | 13:45 |
| BLANK TEST | 0.000 | 13:46 |
| EXTERNAL STANDARD | 0.197 | 13:46 |
| BLANK TEST | 0.000 | 13:47 |
| EXTERNAL STANDARD | 0.197 | 13:48 |
| BLANK TEST | 0.000 | 13:49 |

Average = 0.1968
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100699

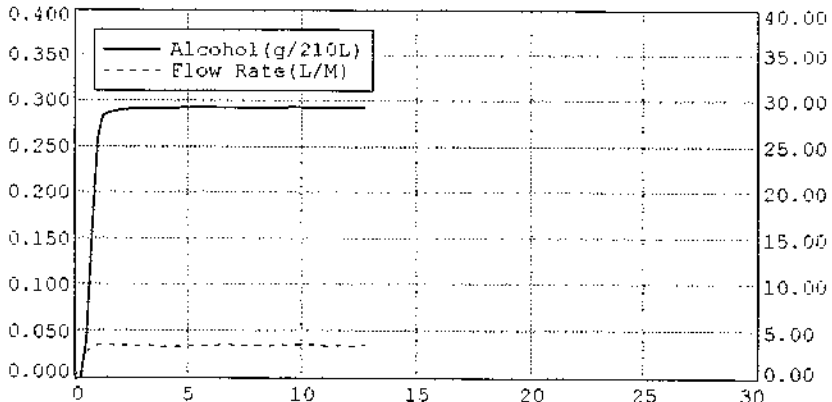
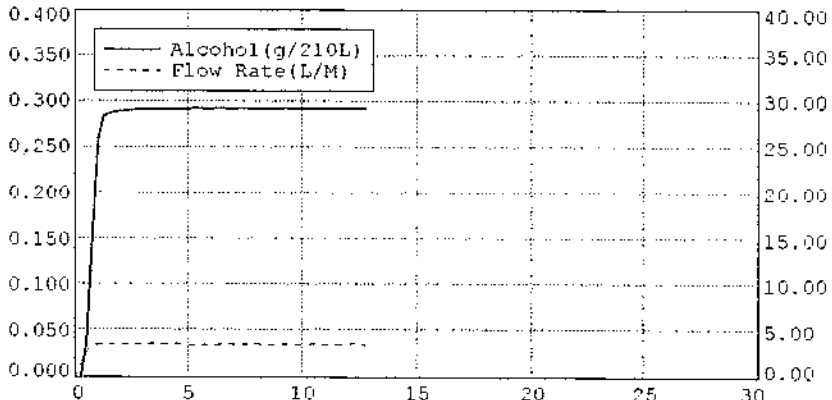
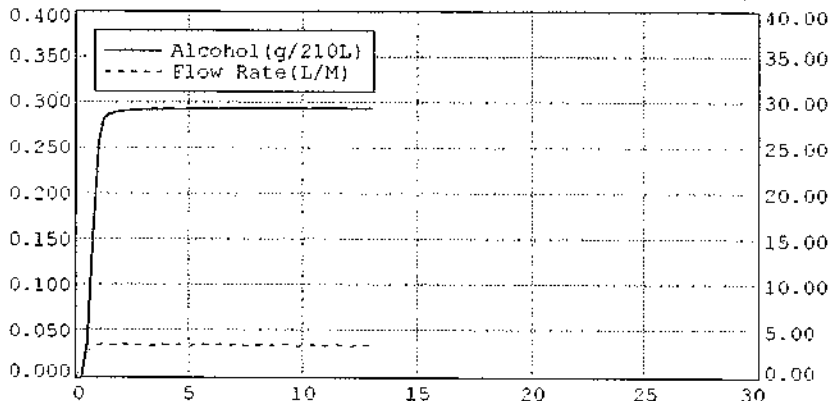
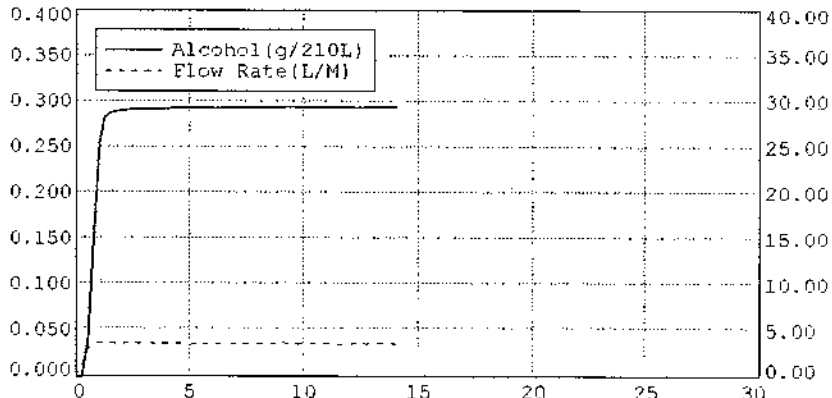
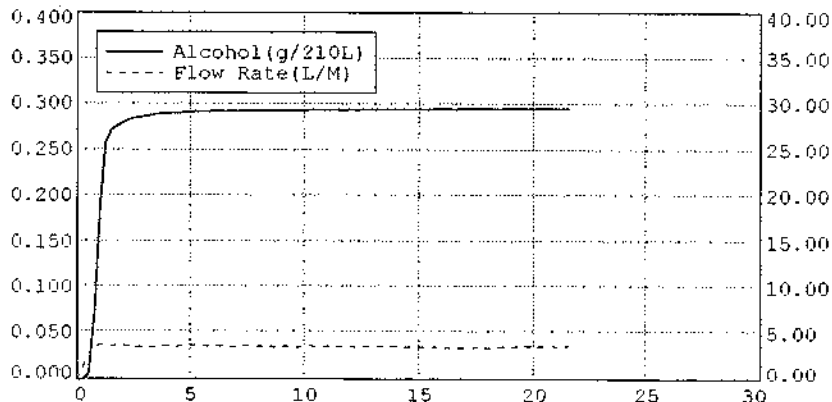
Date: 09/16/2015
 Time: 13:51:17

EXTERNAL STANDARD INFORMATION

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

| | | |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 13:52 |
| INTERNAL STANDARD | VERIFIED | 13:52 |
| EXTERNAL STANDARD | 0.295 | 13:53 |
| BLANK TEST | 0.000 | 13:54 |
| EXTERNAL STANDARD | 0.294 | 13:54 |
| BLANK TEST | 0.000 | 13:55 |
| EXTERNAL STANDARD | 0.294 | 13:55 |
| BLANK TEST | 0.000 | 13:56 |
| EXTERNAL STANDARD | 0.293 | 13:57 |
| BLANK TEST | 0.000 | 13:57 |
| EXTERNAL STANDARD | 0.293 | 13:58 |
| BLANK TEST | 0.000 | 13:59 |

Average = 0.2938
 Std Dev = 0.0008



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100699

Date: 09/17/2015
Time: 09:04:16

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

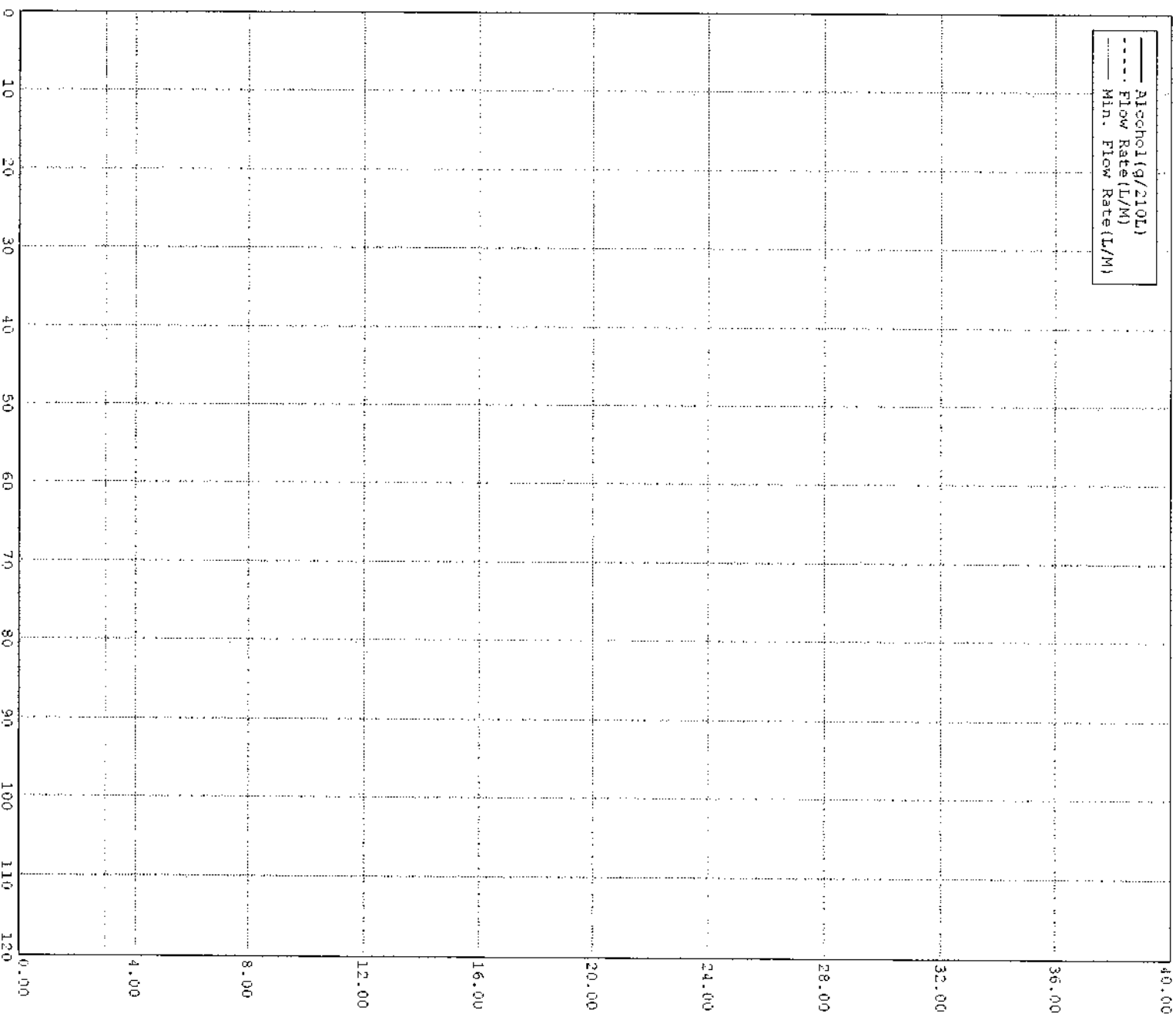
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
INCOMPLETE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.04: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

| DIAGNOSTIC CHECK | PASSED | 09:07 |
|-------------------|------------|-------|
| BLANK TEST | 0.000 | 09:07 |
| INTERNAL STANDARD | VERIFIED | 09:07 |
| EXTERNAL STANDARD | 0.076 | 09:07 |
| BLANK TEST | 0.000 | 09:08 |
| SUBJECT SAMPLE | INCOMPLETE | 09:10 |

BMFB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100699

Date: 09/17/2015
Time: 09:12:43

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

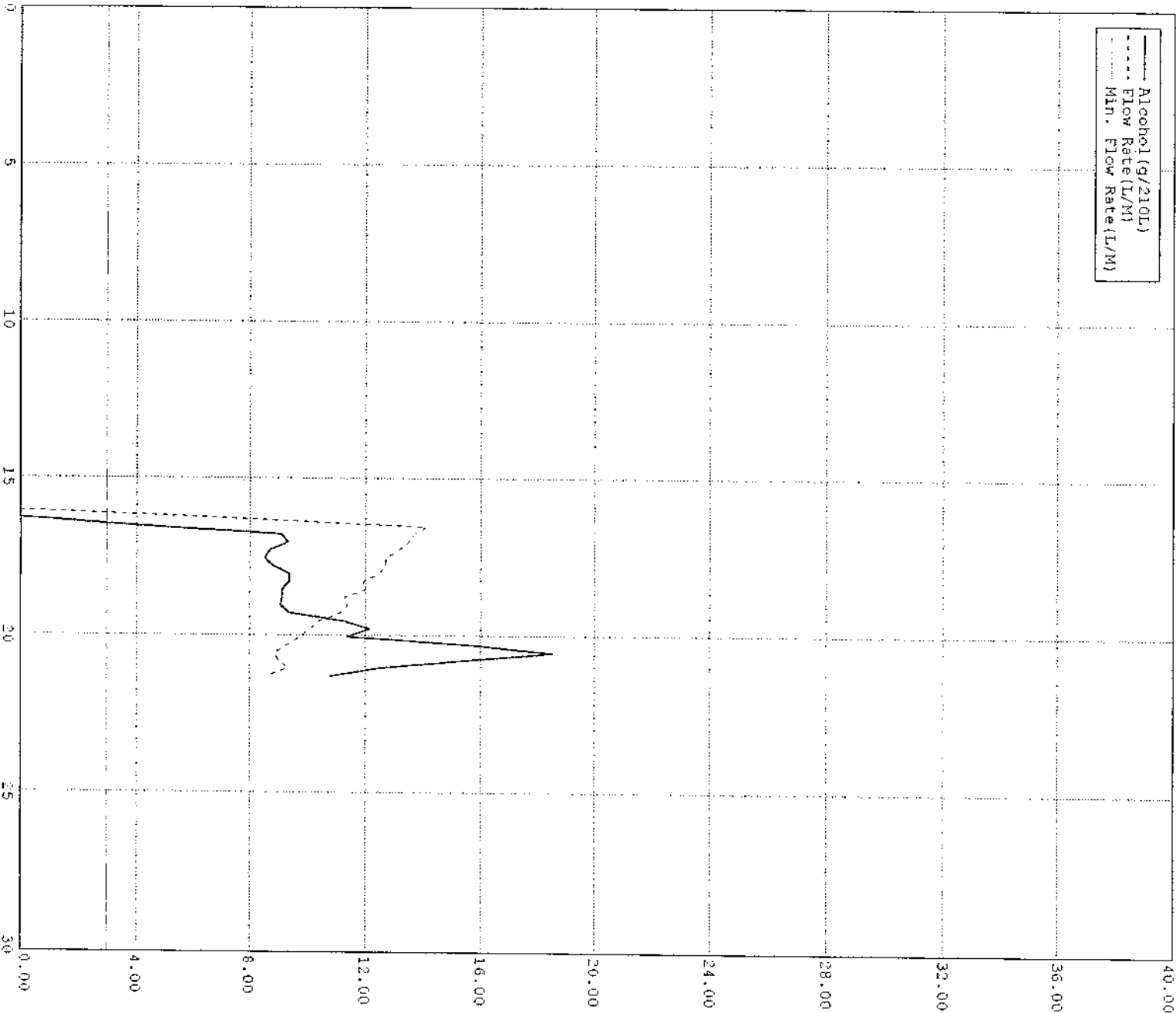
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
INVALID
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.04: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

| DIAGNOSTIC CHECK | PASSED | 09:13 |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 09:14 |
| INTERNAL STANDARD | VERIFIED | 09:14 |
| EXTERNAL STANDARD | 0.076 | 09:14 |
| BLANK TEST | 0.000 | 09:15 |
| SUBJECT SAMPLE | INVALID | 09:15 |

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SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100699

Date: 09/17/2015
Time: 12:02:23

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
INTERFERENCE ACETONE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.03: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

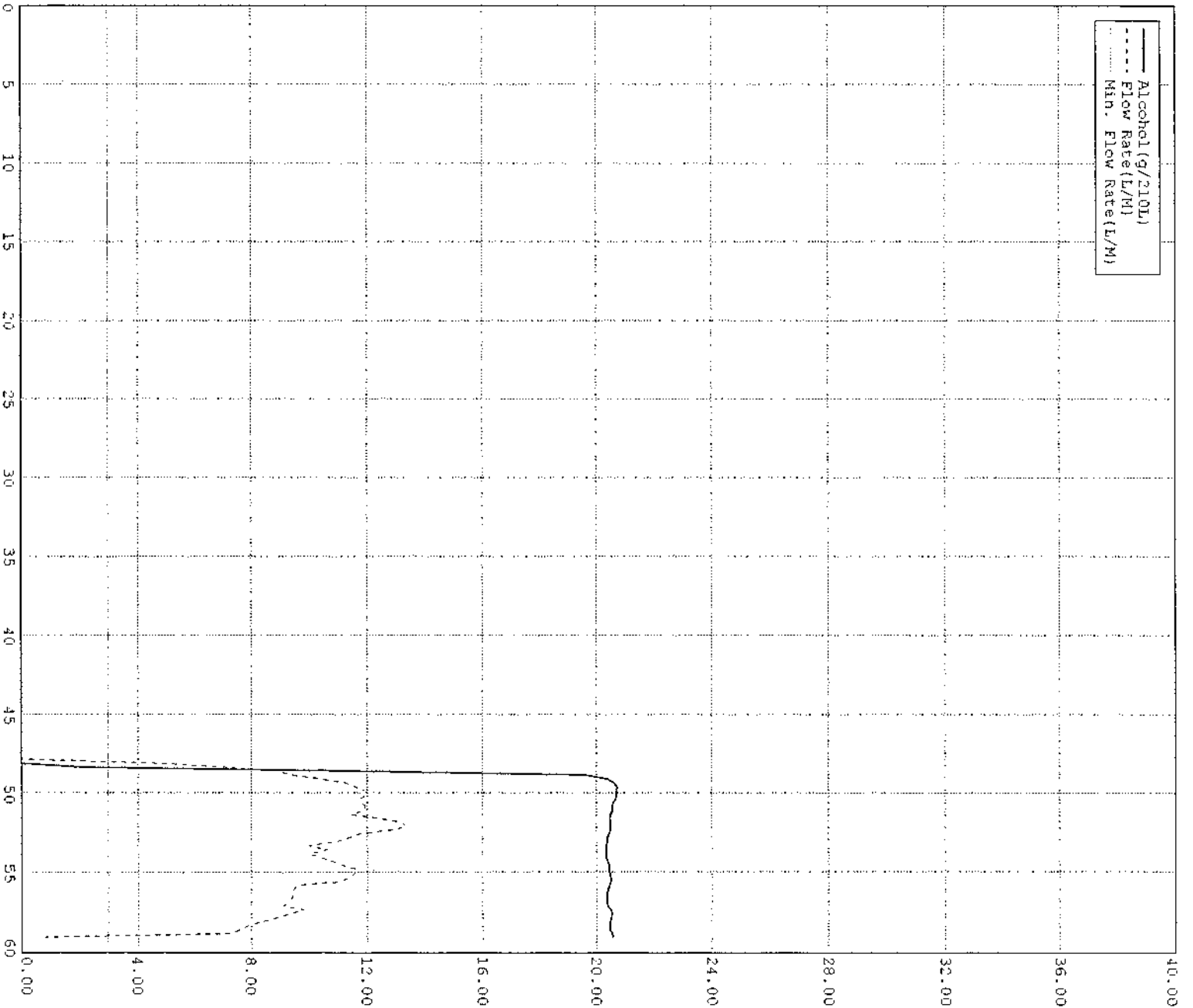
| DIAGNOSTIC CHECK | PASSED | 12:03 |
|-------------------------|-------------------------|----------|
| BLANK TEST | 0.000 | 12:03 |
| INTERNAL STANDARD | VERIFIED | 12:03 |
| X9 = 0.075 (0.008) | 0.075 | 12:03 |
| EXTERNAL STANDARD | X[1] = 0.0754 (-0.0013) | (0.0020) |
| BLANK TEST | 0.000 | 12:04 |
| SUBJECT SAMPLE | XXX | 12:05 |
| X[1] = 0.1032 (-0.0126) | (-0.0001) | |

Interference Detected

Filter 2 Avg: -0.0015
Filter 3 Avg: 0.0018

BMB 9/18/15

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100699

Date: 09/17/2015
Time: 12:08:25

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

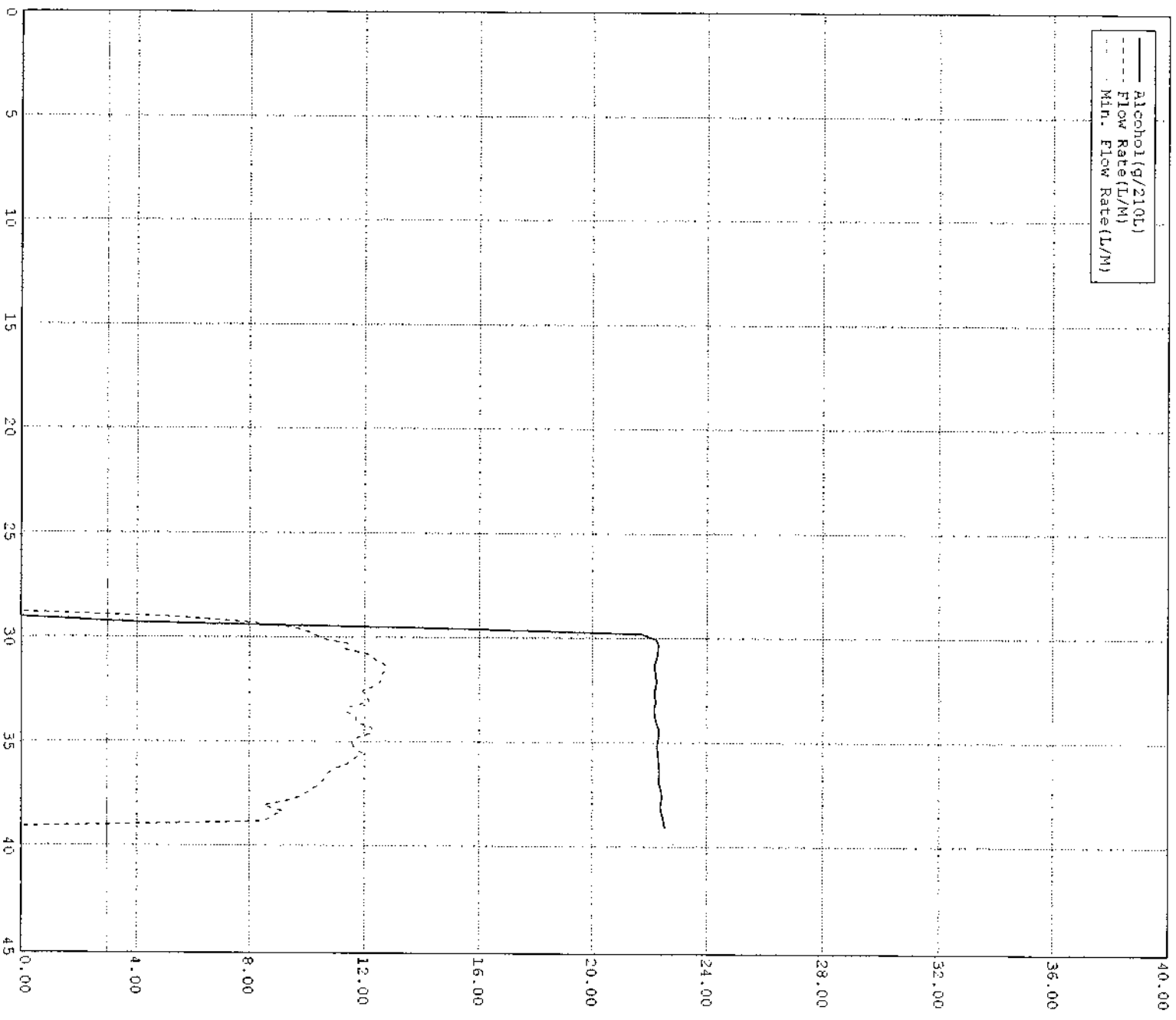
DEPT/AGENCY:
INTERFERENCE ISOPROPYL
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.04: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

| DIAGNOSTIC CHECK | PASSED | 12:09 |
|-------------------------|-----------|-------|
| BLANK TEST | 0.000 | 12:09 |
| INTERNAL STANDARD | VERIFIED | 12:09 |
| Xq = 0.075 (0.00%) | | |
| EXTERNAL STANDARD | 0.075 | 12:09 |
| X[1] = 0.0755 (-0.0017) | (0.0016) | |
| BLANK TEST | 0.000 | 12:10 |
| SUBJECT SAMPLE | XXX | 12:11 |
| X[1] = 0.1131 (-0.0243) | (-0.0001) | |

Interference Detected

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100699

Date: 09/17/2015
Time: 09:39:55

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

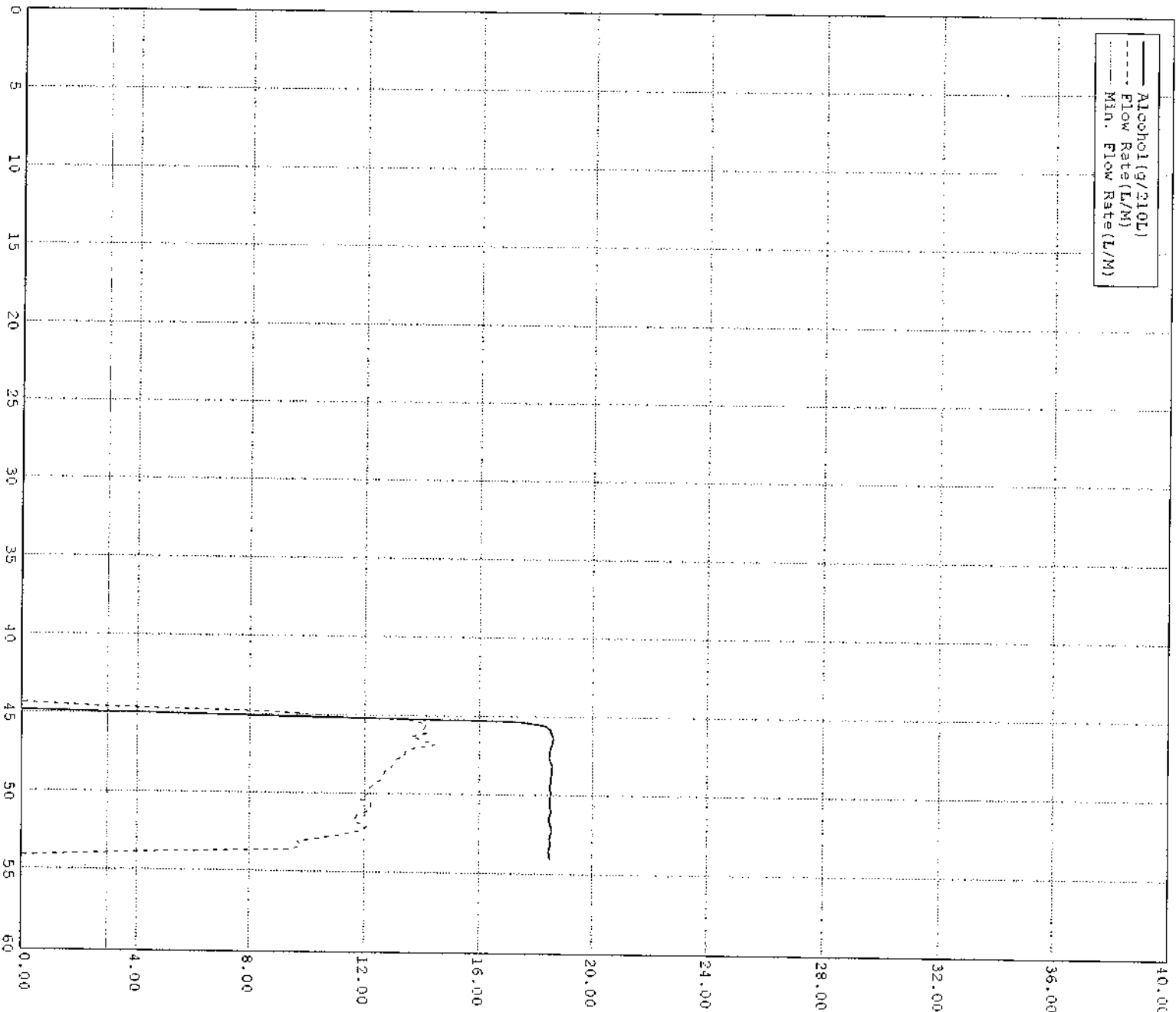
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
INTERFERENCE NEGATIVE CONTROL
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.04: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

| DIAGNOSTIC CHECK | PASSED | 09:41 |
|----------------------------|----------|-------|
| BLANK TEST | 0.000 | 09:41 |
| INTERNAL STANDARD | VERIFIED | 09:41 |
| Xq = 0.075 (0.46%) | | |
| EXTERNAL STANDARD | 0.076 | 09:41 |
| X[1] = 0.0757 (-0.0014) | (0.0020) | |
| BLANK TEST | 0.000 | 09:42 |
| SUBJECT SAMPLE (Vol=1.87L) | 0.093 | 09:43 |
| X[1] = 0.0931 (-0.0008) | (0.0002) | |
| BLANK TEST | 0.000 | 09:44 |
| EXTERNAL STANDARD | 0.075 | 09:44 |
| X[1] = 0.0752 (-0.0015) | (0.0016) | |
| BLANK TEST | 0.000 | 09:45 |

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATA MASTER dmt: 100699

Date: 09/17/2015
Time: 09:29:31

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

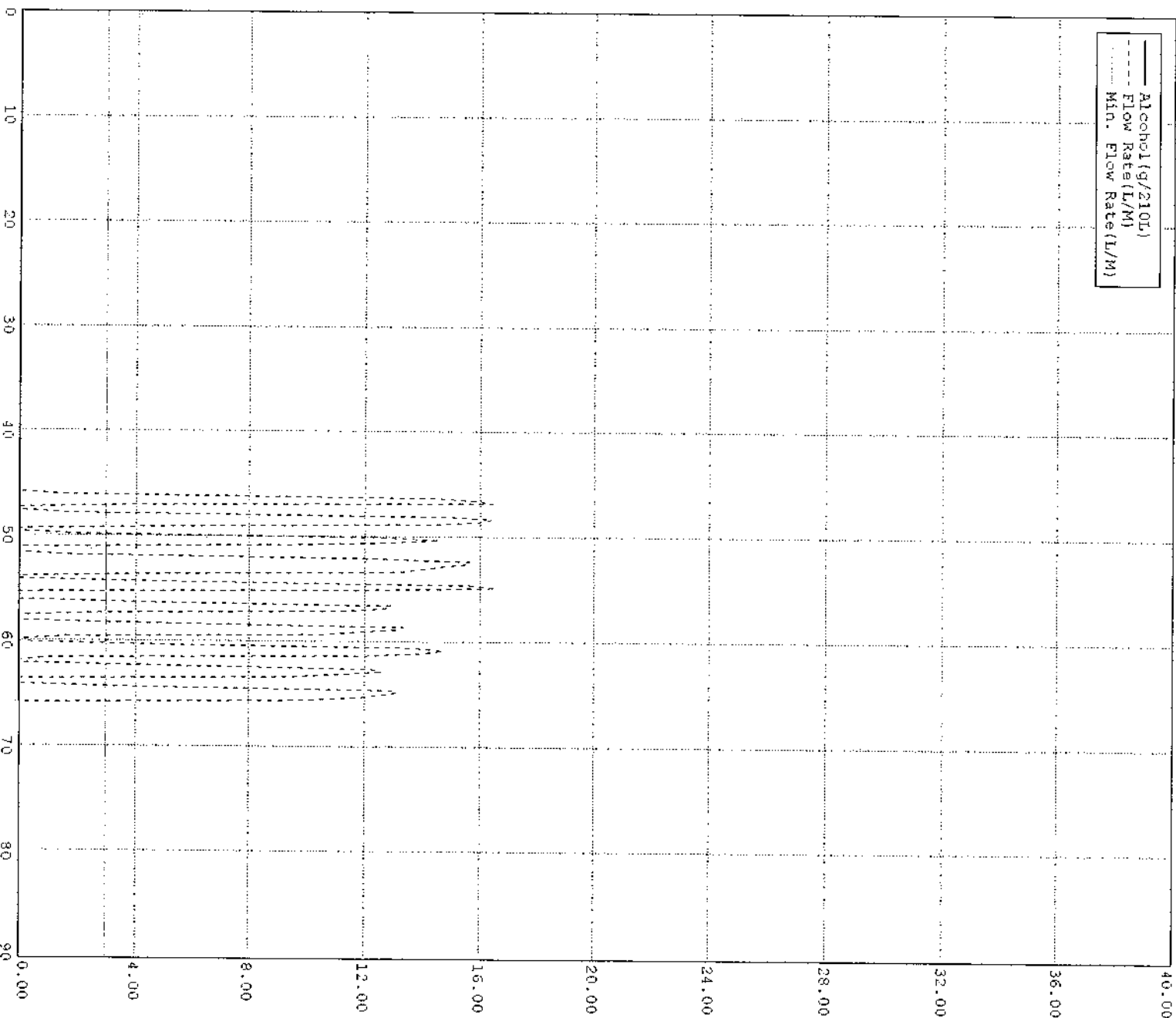
DEPT/AGENCY:
EXCEEDED ATTEMPTS
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.04: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

| DIAGNOSTIC CHECK | PASSED | 09:30 |
|-------------------|----------|-------|
| BLANK TEST | 0.000 | 09:30 |
| INTERNAL STANDARD | VERIFIED | 09:30 |
| EXTERNAL STANDARD | 0.075 | 09:31 |
| BLANK TEST | 0.000 | 09:32 |
| SUBJECT SAMPLE | XXX | 09:33 |

Maximum Attempts Exceeded

BMFB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100699

Date: 09/17/2015
Time: 09:17:47

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

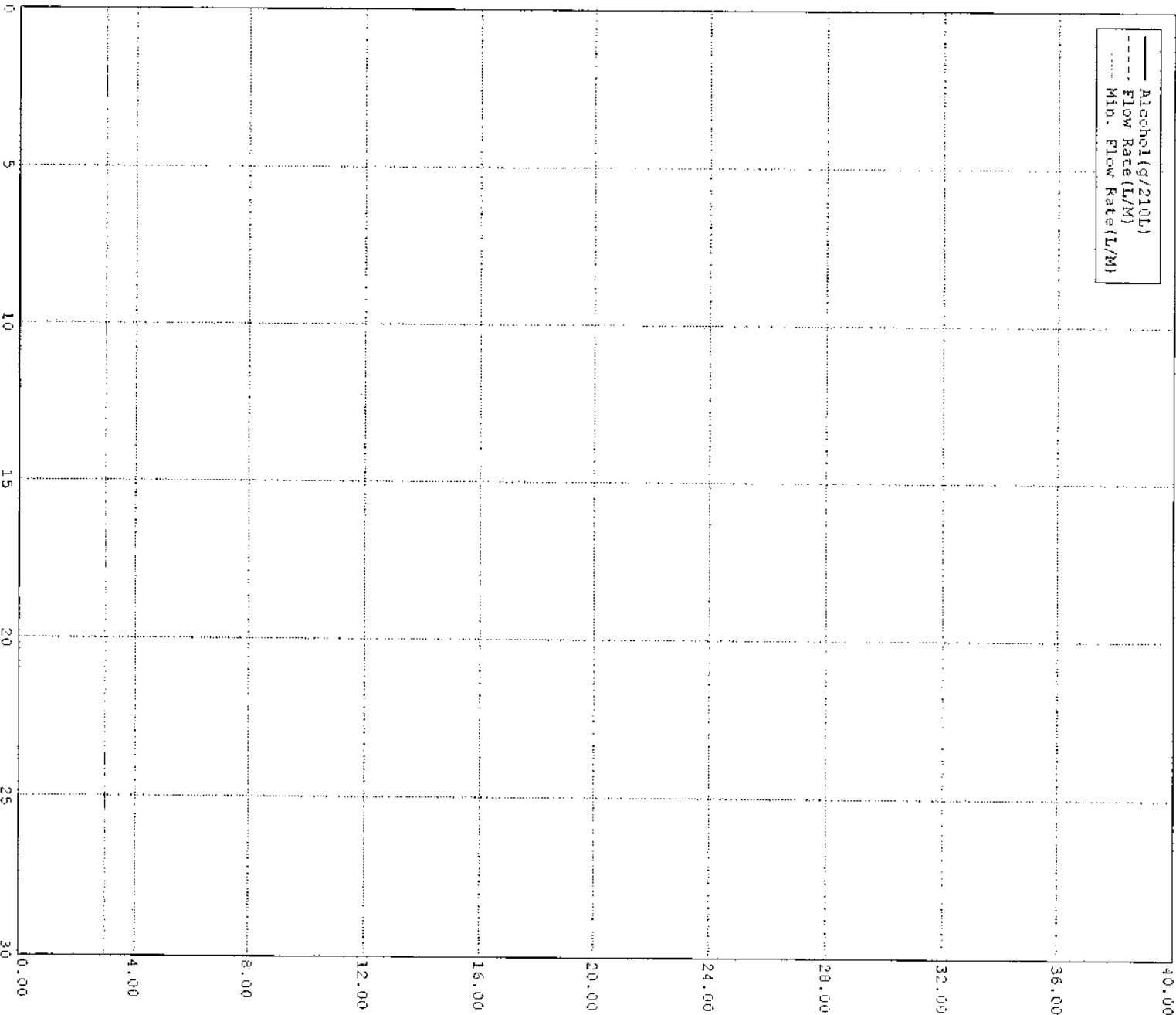
DEPT/AGENCY:
RFI
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.04: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK
BLANK TEST PASSED 09:22
INTERNAL STANDARD VERIFIED 09:22
EXTERNAL STANDARD 0.076 09:22
BLANK TEST 0.000 09:23

RFI DETECTED

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmc: 100699

Date: 09/17/2015
Time: 12:29:50

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
NON DRINKING SUBJECT
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.04: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

| DIAGNOSTIC CHECK | PASSED | 12:30 |
|----------------------------|----------|-------|
| BLANK TEST | 0.000 | 12:30 |
| INTERNAL STANDARD | VERIFIED | 12:31 |
| EXTERNAL STANDARD | 0.076 | 12:31 |
| BLANK TEST | 0.000 | 12:32 |
| SUBJECT SAMPLE (Vol=1.86L) | 0.000 | 12:33 |
| BLANK TEST | 0.000 | 12:34 |
| EXTERNAL STANDARD | 0.076 | 12:34 |
| BLANK TEST | 0.000 | 12:35 |

BMB

