

# 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 100691 Analyst Brandi Barnett Start Date 10/20/15

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 TUMO Lot 02915090A2 Exp 3/5/17
- ii. 0.040g/210L Mnf TUMO Lot 02915040A3 Exp 3/5/17
- iii. 0.080g/210L Mnf TUMO Lot 01315080A2 Exp 2/5/17
- iv. 0.100g/210L Mnf TUMO 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 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 01/19/15
- 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 1/19/15

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 10/21/15

DIAGNOSTIC RECORD

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 10/20/2015  
Time: 12:52:12

~~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 = 48.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.81 V PASSED  
(1.10 V - 2.56 V)  
Cooler Voltage = 1.77 V PASSED  
(1.06 V - 2.48 V)  
Bias Voltage = 81 V PASSED  
(49 V - 113 V)  
Chopper Freq = 539 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.3 in

PUMP INFO

Flow Rate = 4.085 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 = 0.099 0.71% (0.00% - 4.00%) PASSED

Technician Screen

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DATAMASTER dmt: 100691  
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Date: 10/20/2015  
Time: 12:56 PM

Temperatures (°C)  
Sample Cell: 48.7°C  
Breath Tube: 47.9°C

Current Barometer 29.3 in  
Volume (Ltr) 1.47

Settings  
Lamp: 1.81 V  
Bias: 81 V  
Cooler: 1.79 V  
Chopper: 538 Hz

Voltages (V)  
Flow: 1.05 V  
Detector: 0.008 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100691  
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Date: 09/21/2015  
Time: 05:49:02

OPERATOR NAME:  
R MARTIN  
CERTIFICATE #: G12921, 34.0C, 15040

Ca = 0.1010  
CAL = 1.008268    0.800 <= CAL < 1.200  
b1 = 0.0000    0.0000 <= b1 < 0.0040  
b2 = 0.0041    0.0010 <= b2 < 0.0100  
b3 = 0.0000    0.0000 <= b3 < 0.0040  
Xq = 0.0987    0.0500 <= Xq < 0.2000  
a21 = 1.218023    1.050 <= a21 < 1.300  
a31 = 0.429778    0.300 <= a31 < 0.800

R

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 10/20/2015  
Time: 12:58:04

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

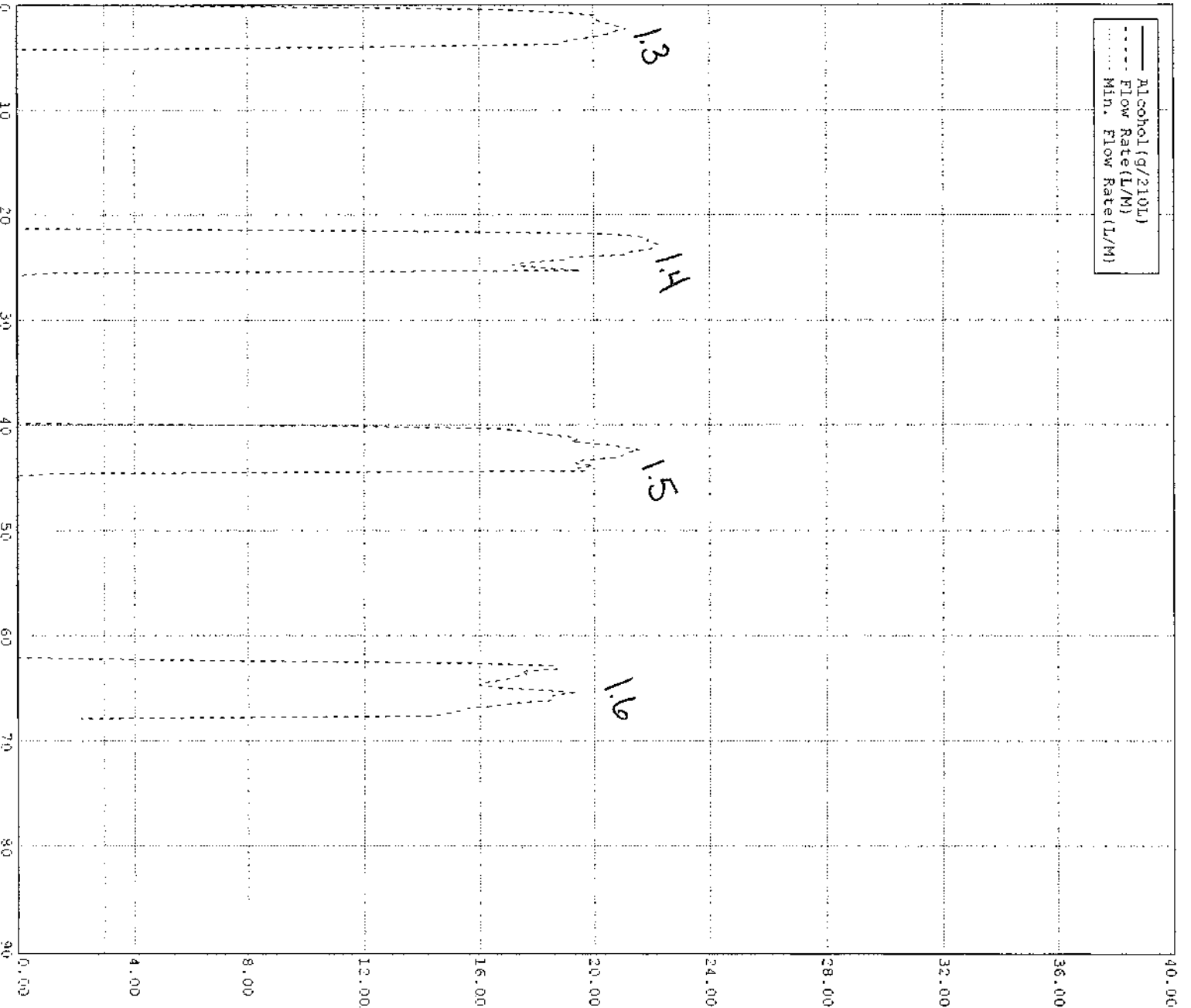
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:59
BLANK TEST	0.000	12:59
INTERNAL STANDARD	VERIFIED	12:59
EXTERNAL STANDARD	0.080	12:59
BLANK TEST	0.000	13:00
SUBJECT SAMPLE (Vol=1.52L)	0.000	13:01
BLANK TEST	0.000	13:02
EXTERNAL STANDARD	0.080	13:02
BLANK TEST	0.000	13:03

*BMB*



LINEARITY CHECK

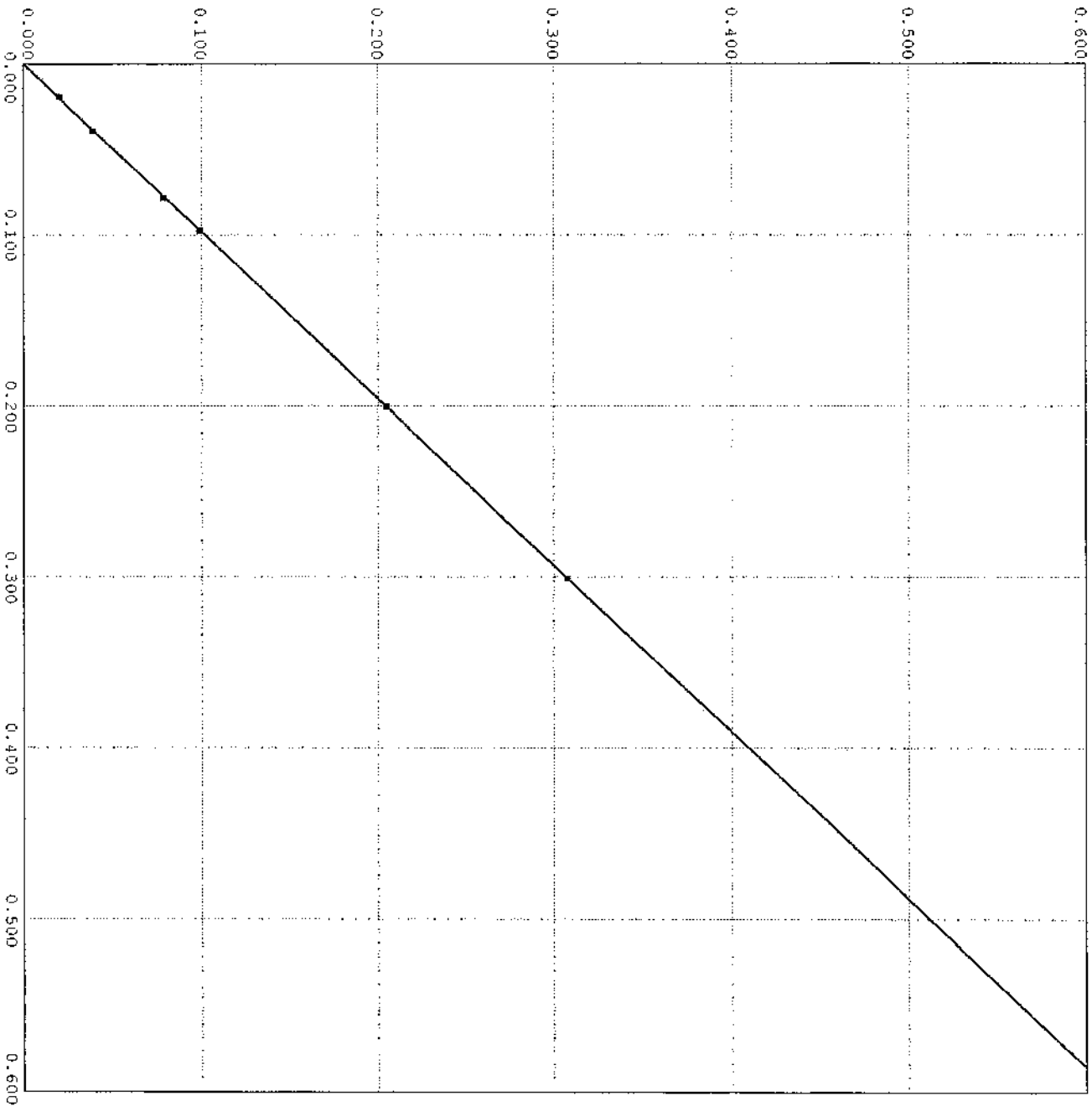
Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 10/21/2015  
Time: 09:17:33

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.019	0.0210	0.0000
0.039	0.0400	0.0000
0.078	0.0798	0.0004
0.097	0.1000	0.0000
0.200	0.2058	0.0004
0.300	0.3082	0.0008

SLOPE = 1.025337  
R<sup>2</sup> = 0.999971



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100691

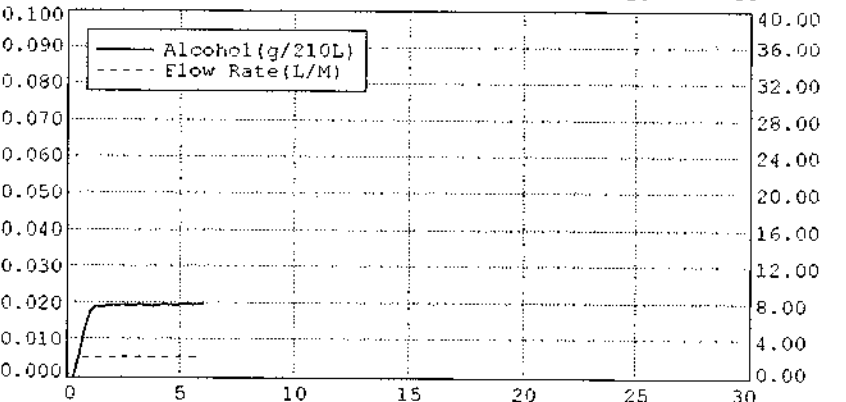
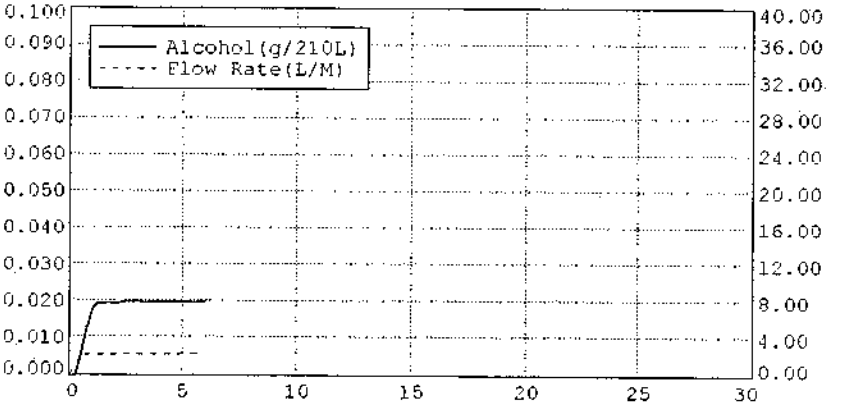
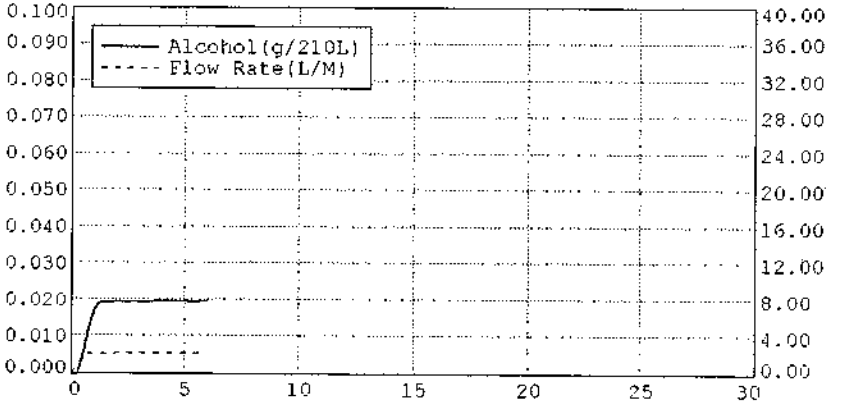
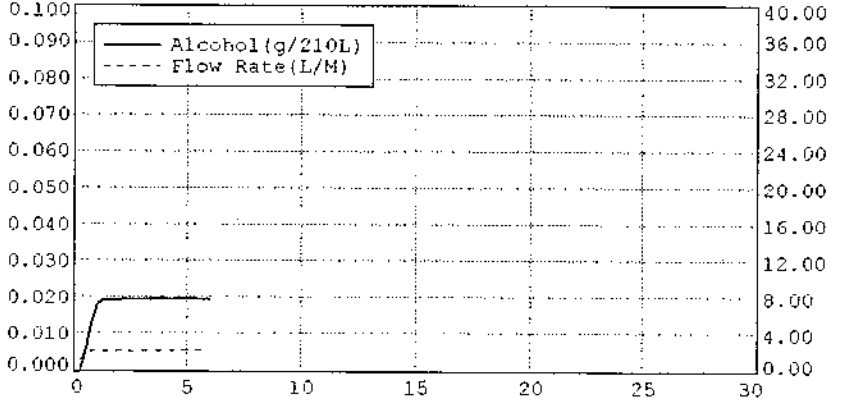
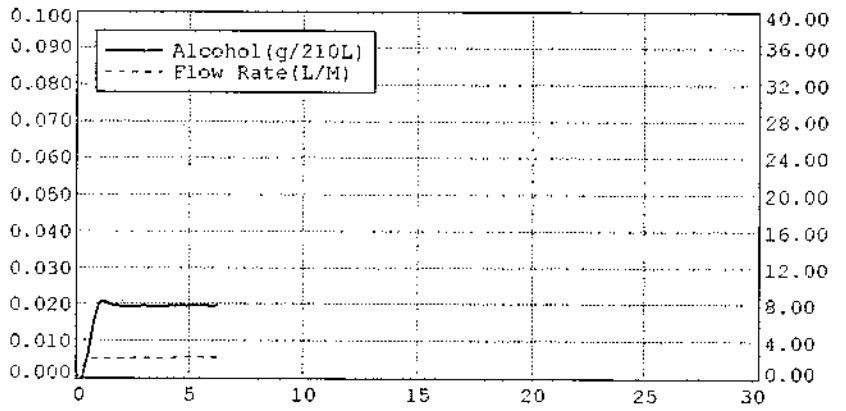
Date: 10/21/2015  
 Time: 09:17:34

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.13: 0.019  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 894 psi

BLANK TEST	0.000	09:19
INTERNAL STANDARD	VERIFIED	09:19
EXTERNAL STANDARD	0.021	09:19
BLANK TEST	0.000	09:20
EXTERNAL STANDARD	0.021	09:20
BLANK TEST	0.000	09:21
EXTERNAL STANDARD	0.021	09:21
BLANK TEST	0.000	09:22
EXTERNAL STANDARD	0.021	09:22
BLANK TEST	0.000	09:23
EXTERNAL STANDARD	0.021	09:23
BLANK TEST	0.000	09:24

Average = 0.0210  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100691

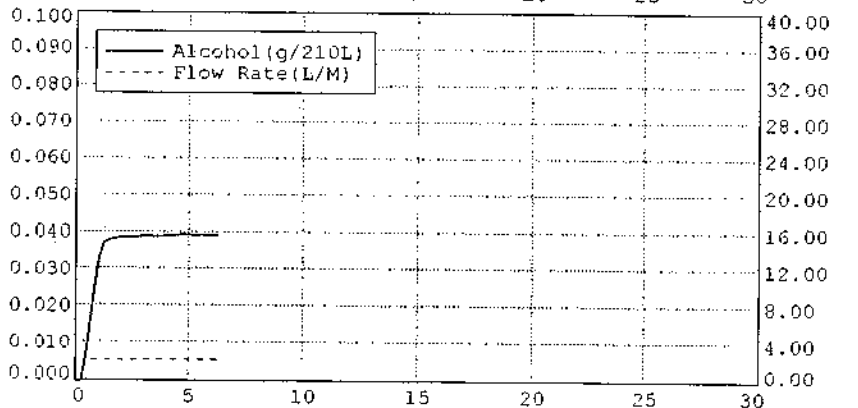
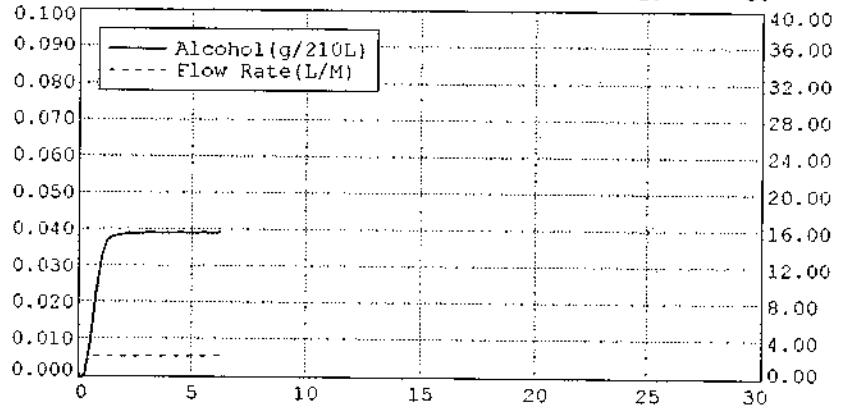
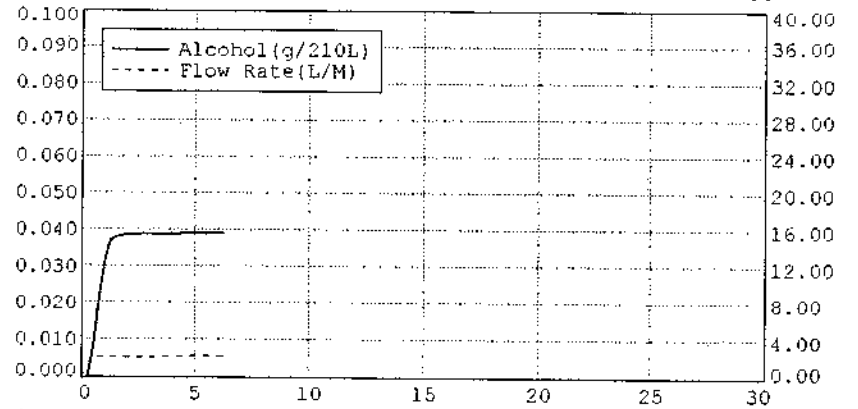
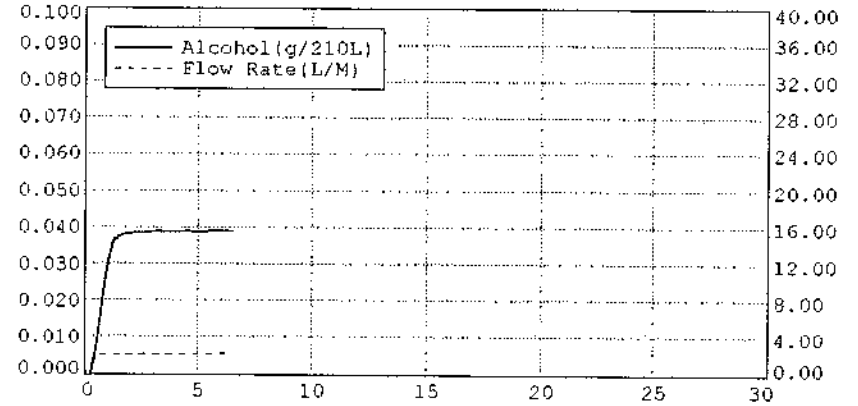
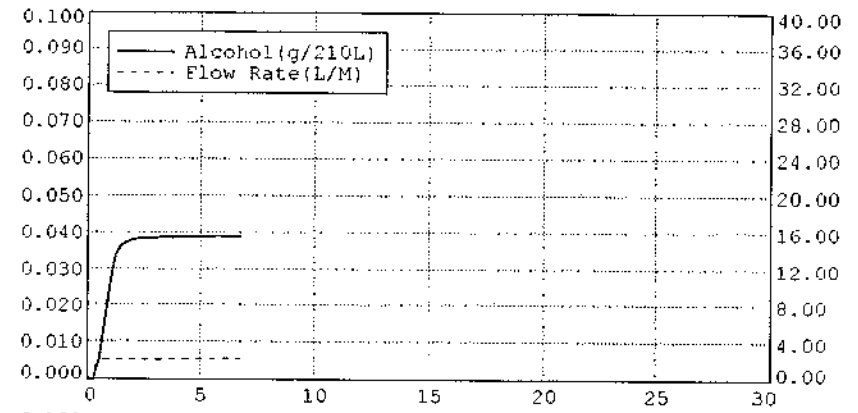
Date: 10/21/2015  
 Time: 09:33:26

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.14: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 934 psi

BLANK TEST	0.000	09:34
INTERNAL STANDARD	VERIFIED	09:35
EXTERNAL STANDARD	0.040	09:35
BLANK TEST	0.000	09:36
EXTERNAL STANDARD	0.040	09:36
BLANK TEST	0.000	09:37
EXTERNAL STANDARD	0.040	09:37
BLANK TEST	0.000	09:38
EXTERNAL STANDARD	0.040	09:38
BLANK TEST	0.000	09:39
EXTERNAL STANDARD	0.040	09:39
BLANK TEST	0.000	09:40

Average = 0.0400  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100691

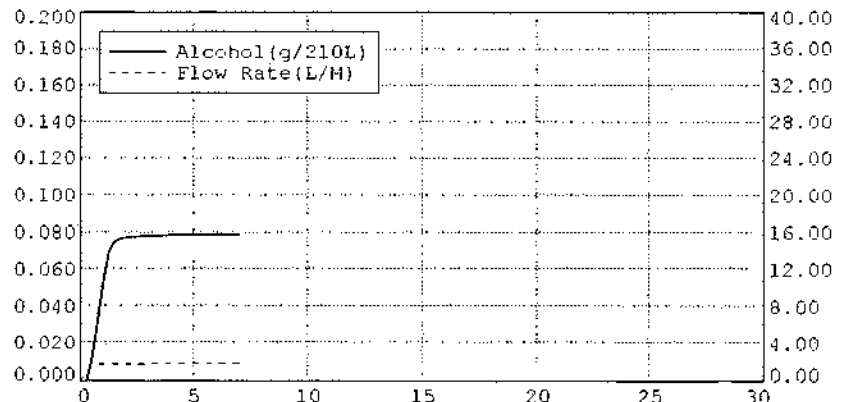
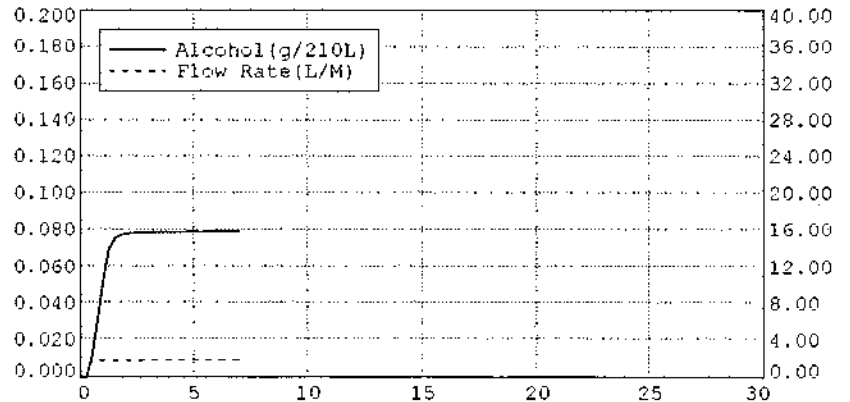
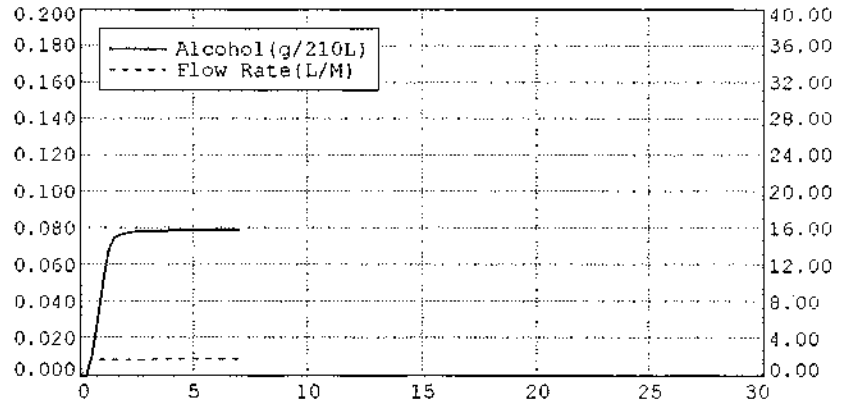
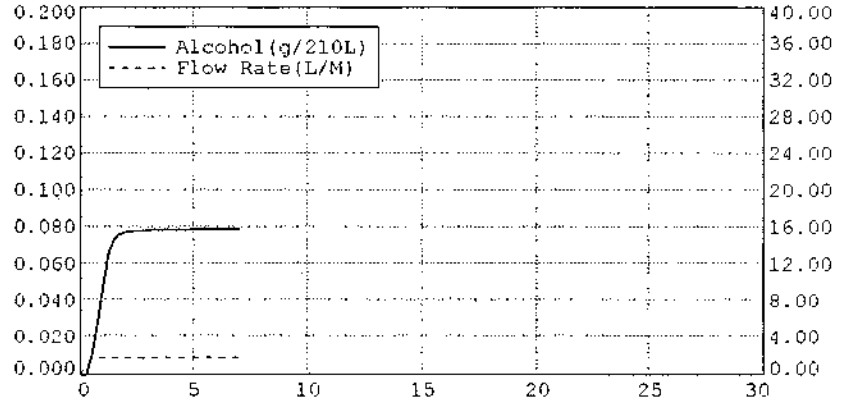
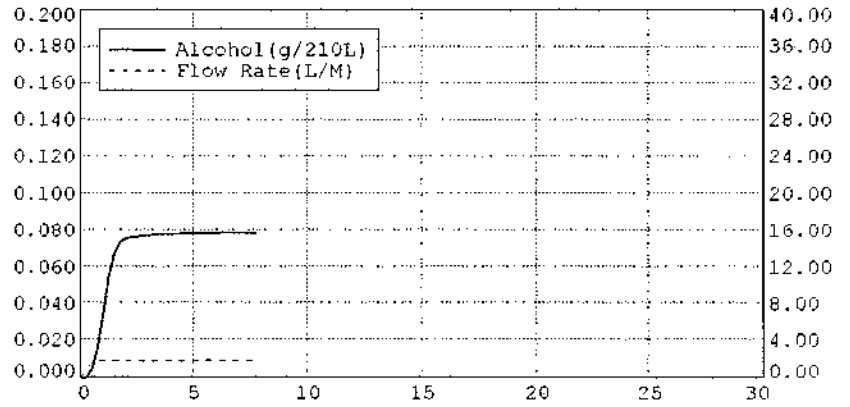
Date: 10/21/2015  
 Time: 09:48:08

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.14: 0.078  
 LOT #: 01315080A2  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 277 psi

BLANK TEST	0.000	09:49
INTERNAL STANDARD	VERIFIED	09:49
EXTERNAL STANDARD	0.079	09:49
BLANK TEST	0.000	09:50
EXTERNAL STANDARD	0.080	09:50
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.080	09:51
BLANK TEST	0.000	09:52
EXTERNAL STANDARD	0.080	09:52
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.080	09:54
BLANK TEST	0.000	09:55

Average = 0.0798  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100691

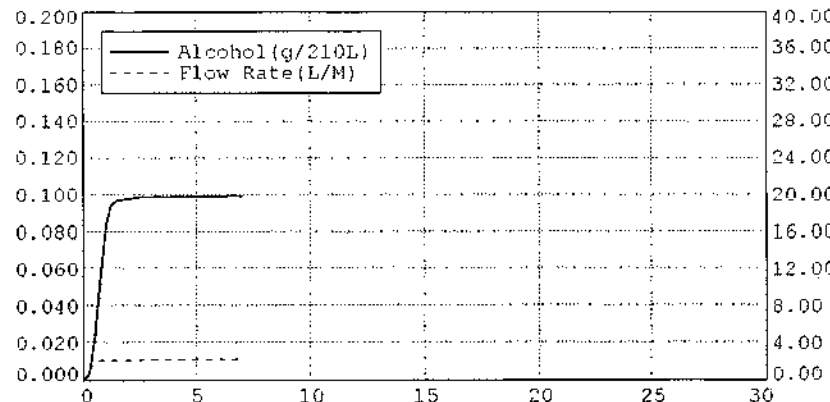
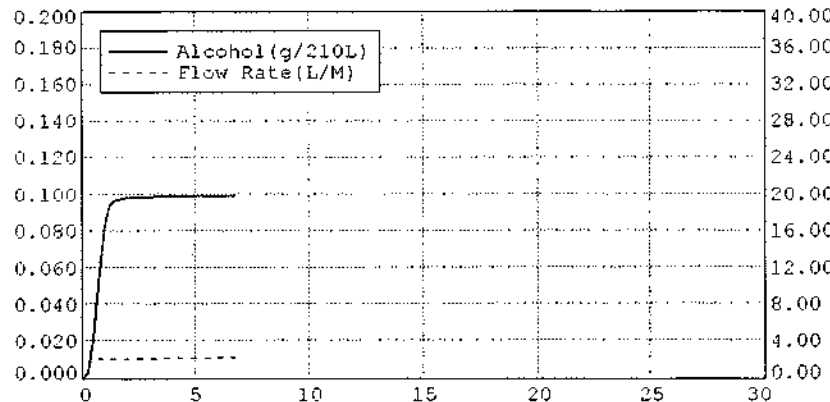
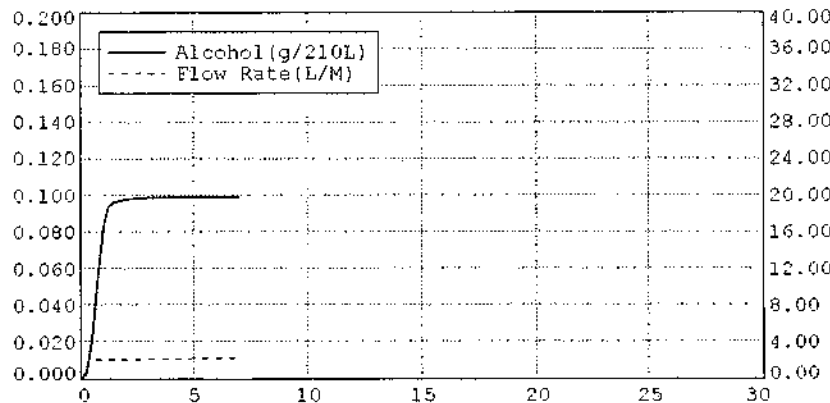
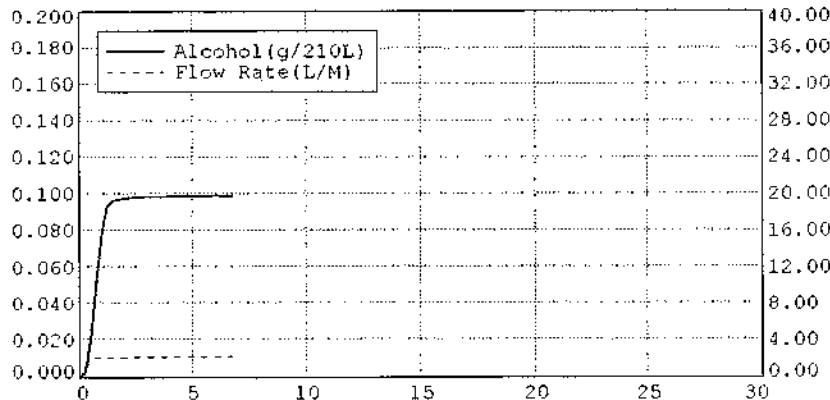
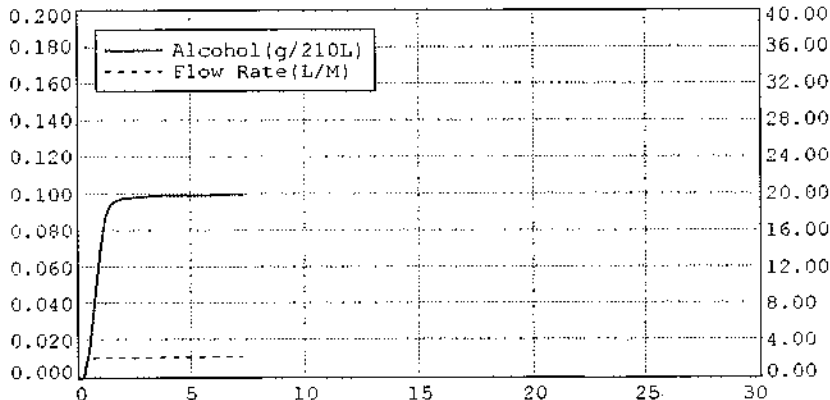
Date: 10/21/2015  
 Time: 09:56:36

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.15: 0.097  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 915 psi

BLANK TEST	0.000	09:58
INTERNAL STANDARD	VERIFIED	09:58
EXTERNAL STANDARD	0.100	09:58
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.100	09:59
BLANK TEST	0.000	10:00
EXTERNAL STANDARD	0.100	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.100	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.100	10:02
BLANK TEST	0.000	10:03

Average = 0.1000  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

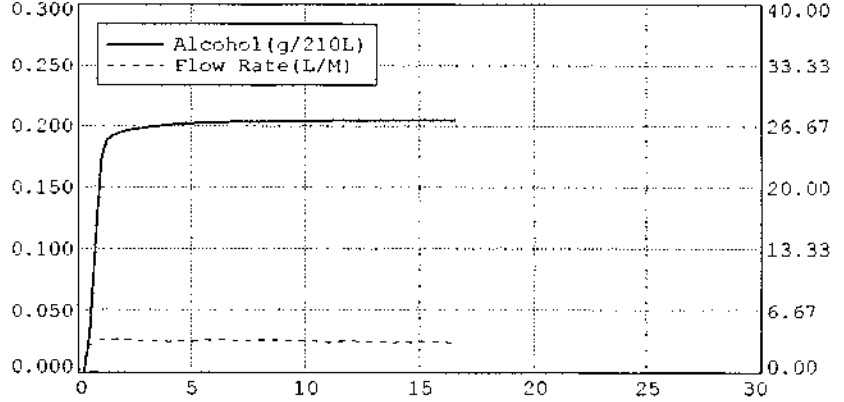
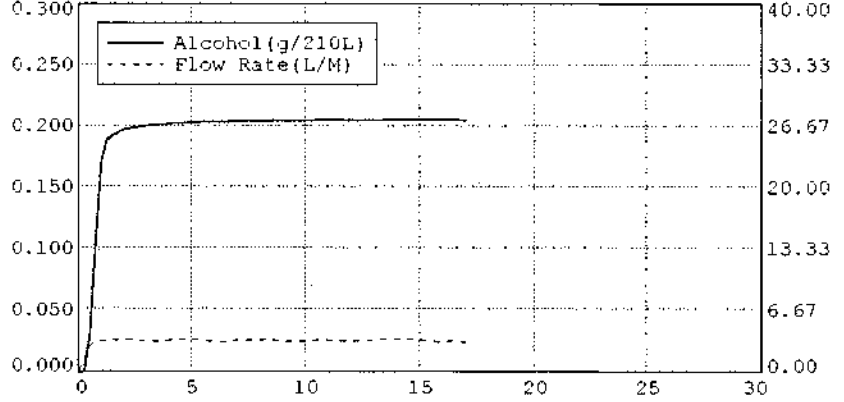
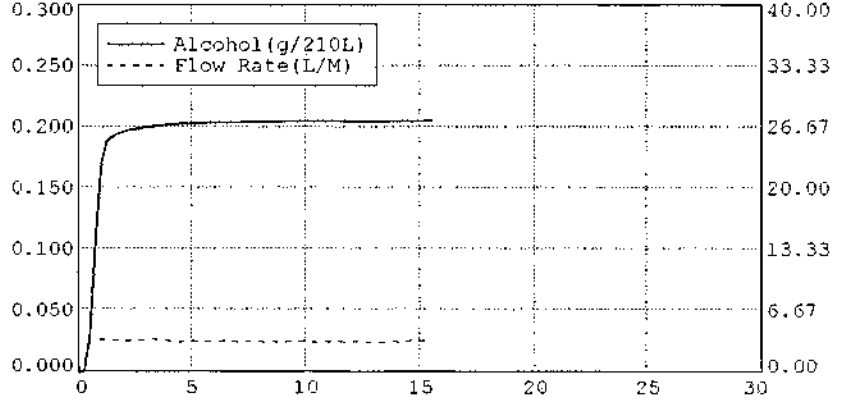
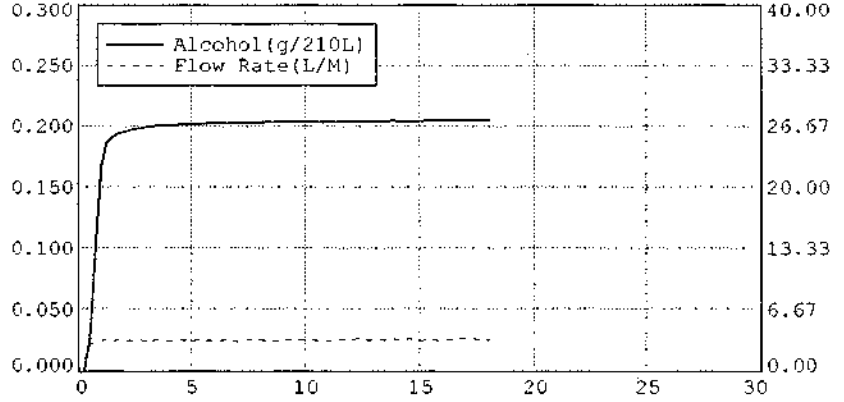
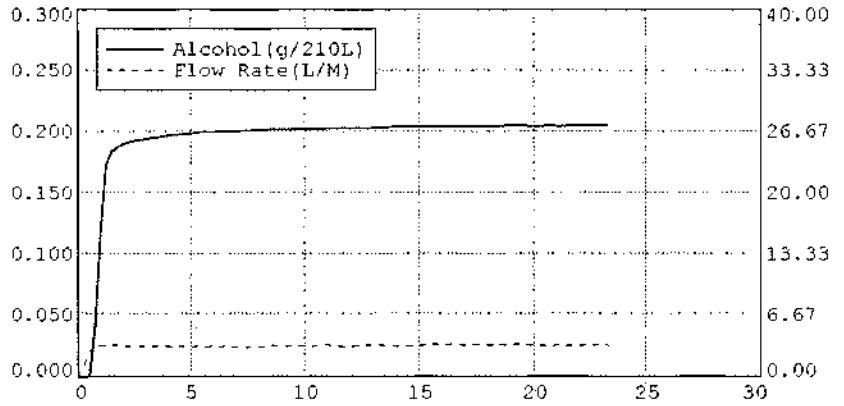
Alaska Department of Public Safety  
 DATAMASTER dmt: 100691

Date: 10/21/2015  
 Time: 10:05:12

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

BLANK TEST	0.000	10:07
INTERNAL STANDARD	VERIFIED	10:07
EXTERNAL STANDARD	0.206	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.206	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.205	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.206	10:11
BLANK TEST	0.000	10:12
EXTERNAL STANDARD	0.206	10:13
BLANK TEST	0.000	10:14

Average = 0.2058  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100691

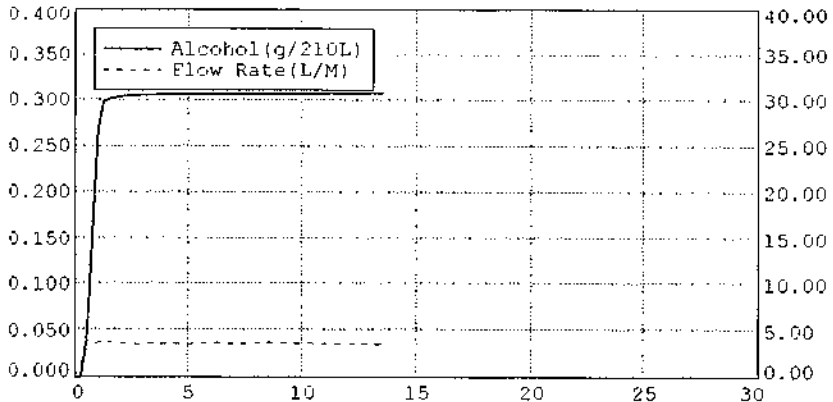
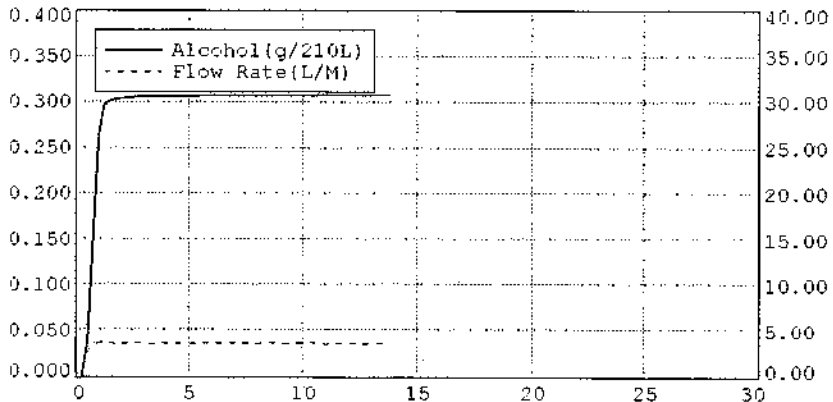
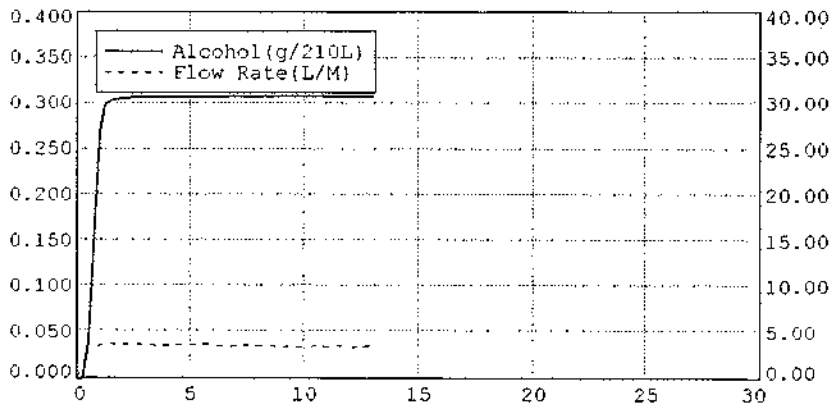
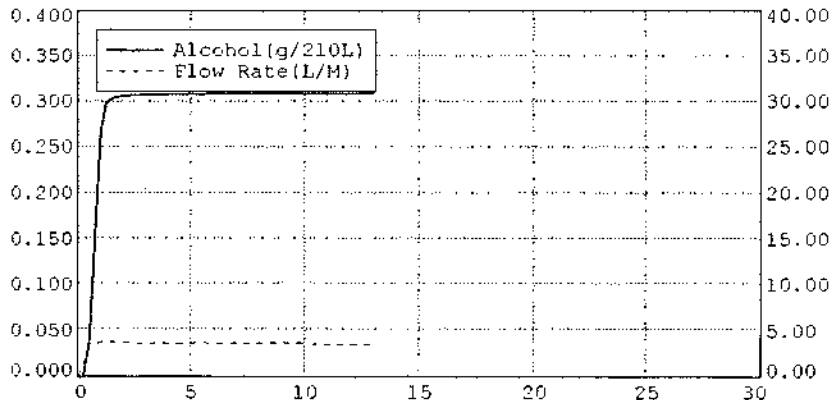
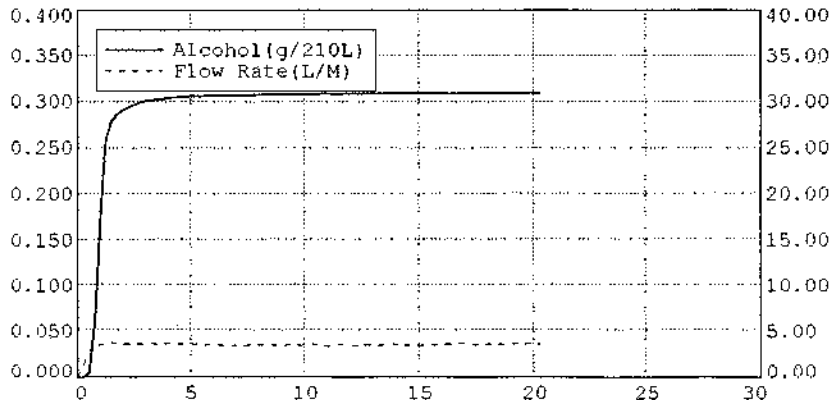
Date: 10/21/2015  
 Time: 10:16:04

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:17
INTERNAL STANDARD	VERIFIED	10:17
EXTERNAL STANDARD	0.309	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.309	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.308	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.308	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.307	10:22
BLANK TEST	0.000	10:23

Average = 0.3082  
 Std Dev = 0.0008



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100691

Date: 10/20/2015  
Time: 13:27:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

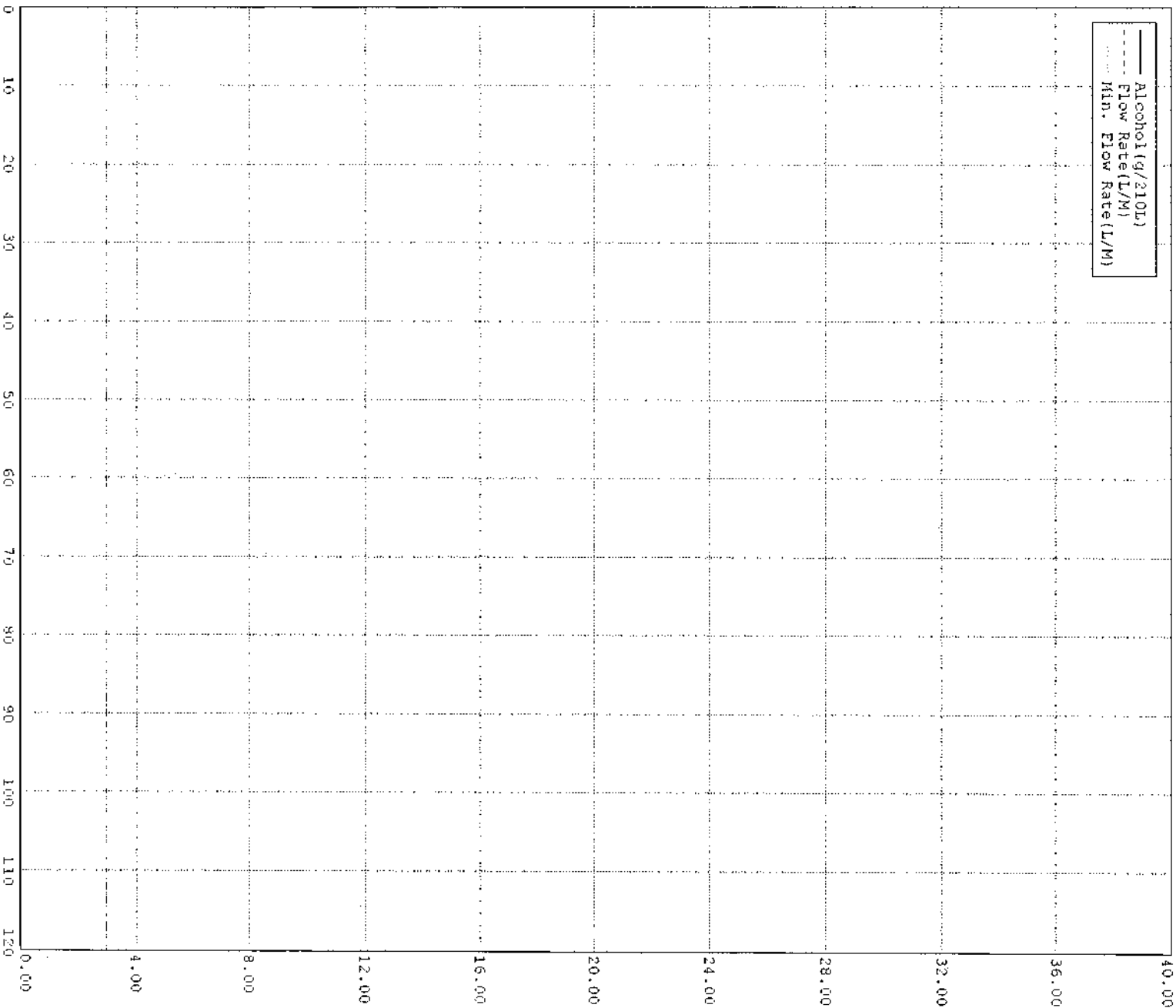
DEPT/AGENCY:  
INCOMPLETE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:31
BLANK TEST	0.000	13:31
INTERNAL STANDARD	VERIFIED	13:31
EXTERNAL STANDARD	0.080	13:31
BLANK TEST	0.000	13:32
SUBJECT SAMPLE	INCOMPLETE	13:34

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 10/20/2015  
Time: 13:38:02

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

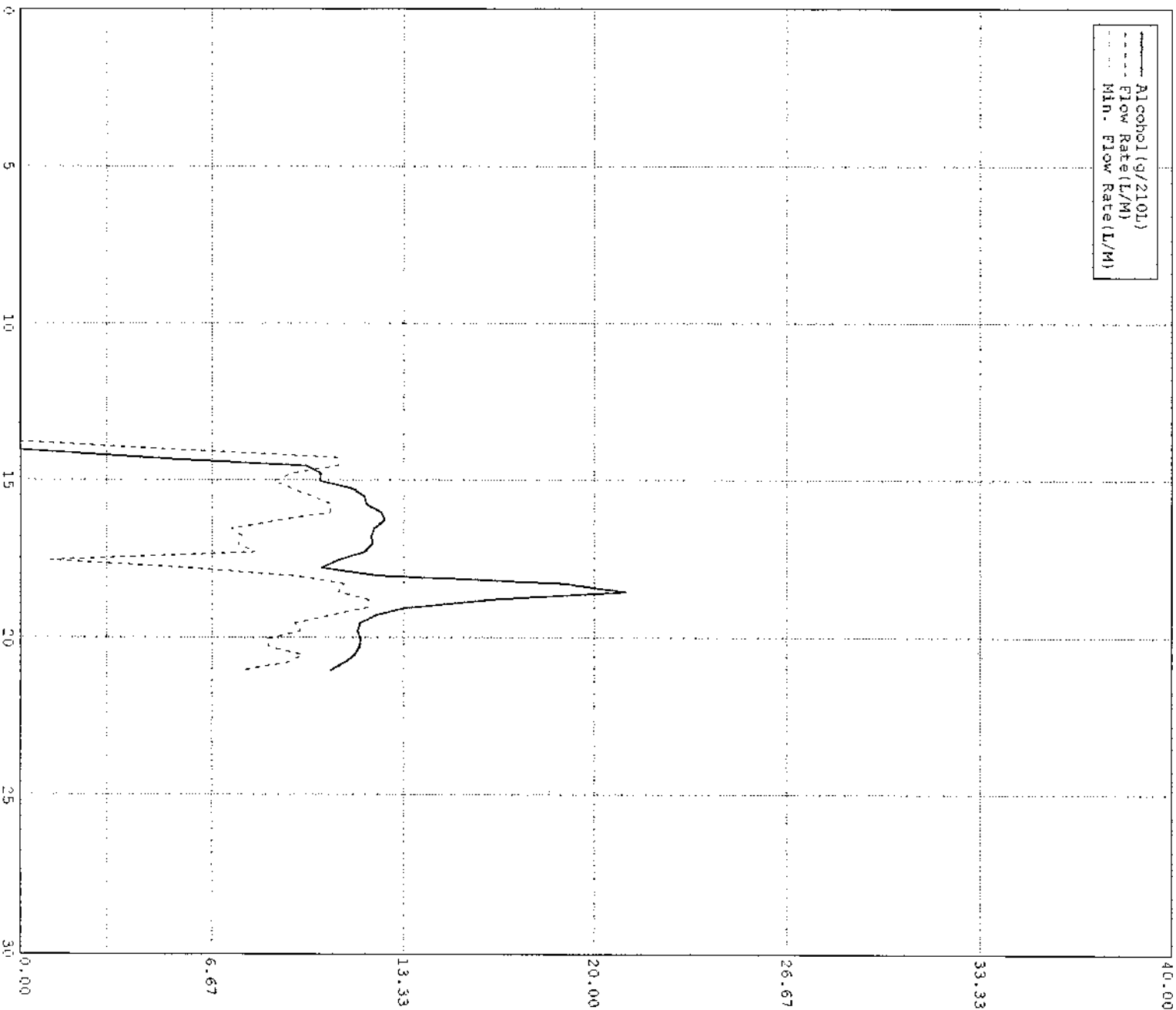
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INVALID KNOWN MOUTH ALCOHOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.29: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:40
BLANK TEST	0.000	13:40
INTERNAL STANDARD	VERIFIED	13:40
EXTERNAL STANDARD	0.079	13:40
BLANK TEST	0.000	13:41
SUBJECT SAMPLE	INVALID	13:43

*BRMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 10/21/2015  
Time: 08:21:15

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

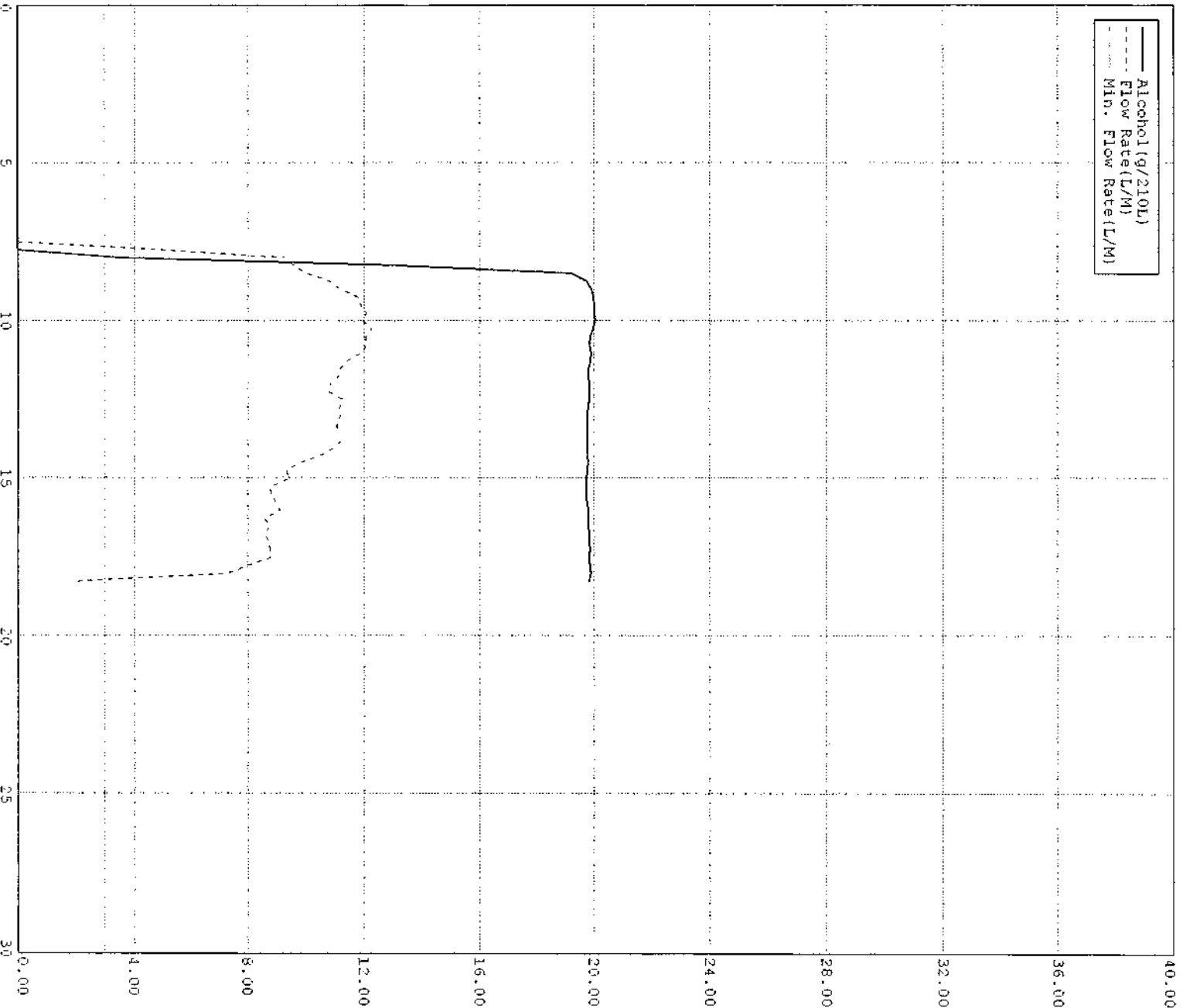
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.13: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	08:22
BLANK TEST	0.000	08:22
INTERNAL STANDARD	VERIFIED	08:22
Xq = 0.099 (0.00%)	0.079	08:22
EXTERNAL STANDARD	X[1] = 0.0790 (0.0009)	(0.0010)
BLANK TEST	0.000	08:23
SUBJECT SAMPLE	X[1] = 0.1001 (-0.0117)	(0.0001) XXX 08:24

Interference Detected

Filter 2 Avg: 0.0014  
Filter 3 Avg: 0.0005  
BMB 10/21/15

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 10/21/2015  
Time: 08:27:18

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

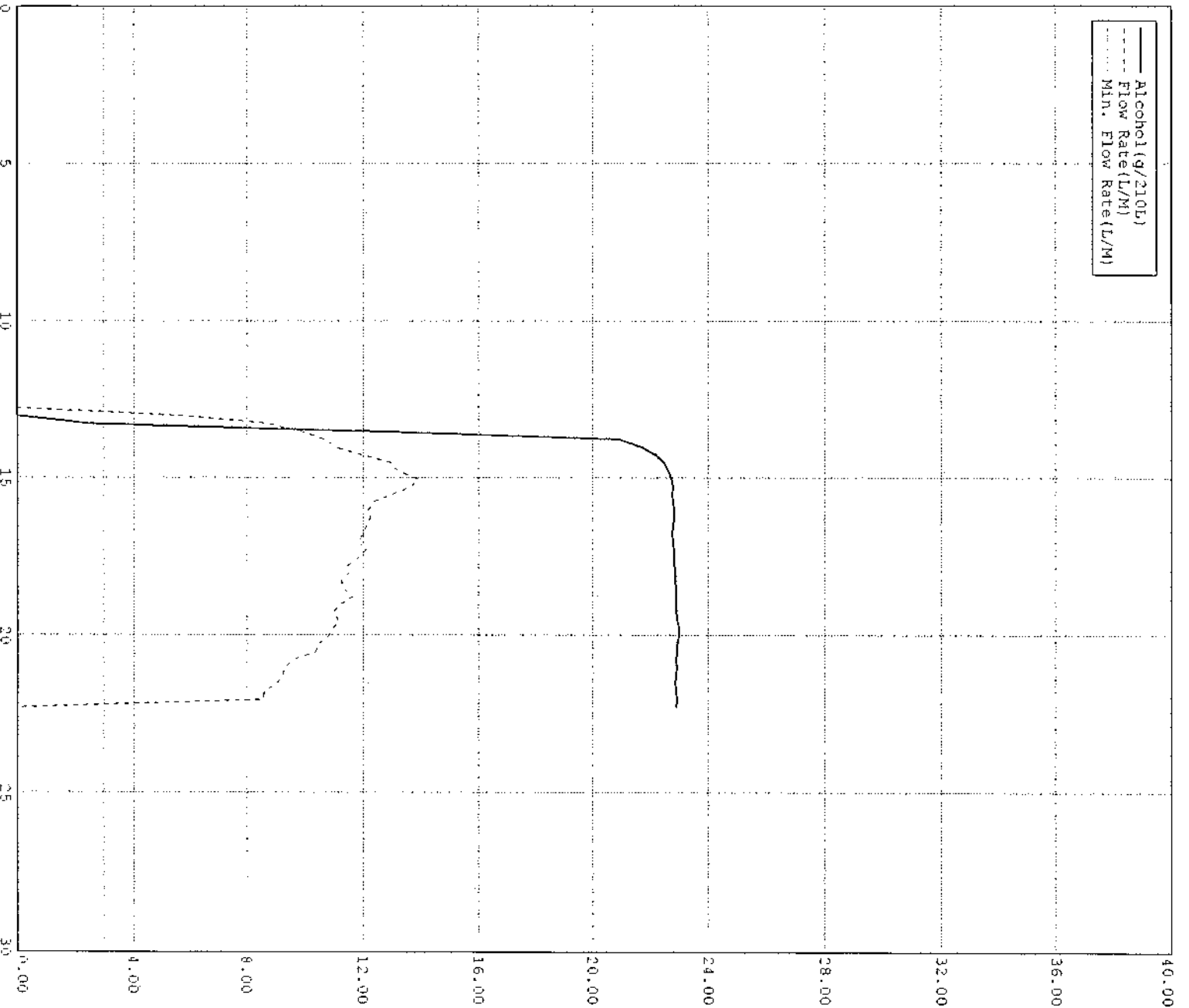
DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.13: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	08:28
BLANK TEST	0.000	08:28
INTERNAL STANDARD	VERIFIED	08:29
Xq = 0.099 (0.62%)		
EXTERNAL STANDARD	0.080	08:29
X[1] = 0.0795 (0.0014)	0.0006	08:30
BLANK TEST	0.000	08:30
SUBJECT SAMPLE	XXX	08:30
X[1] = 0.1148 (-0.0259)	(-0.0003)	

Interference Detected

*BMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 10/21/2015  
Time: 08:32:25

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

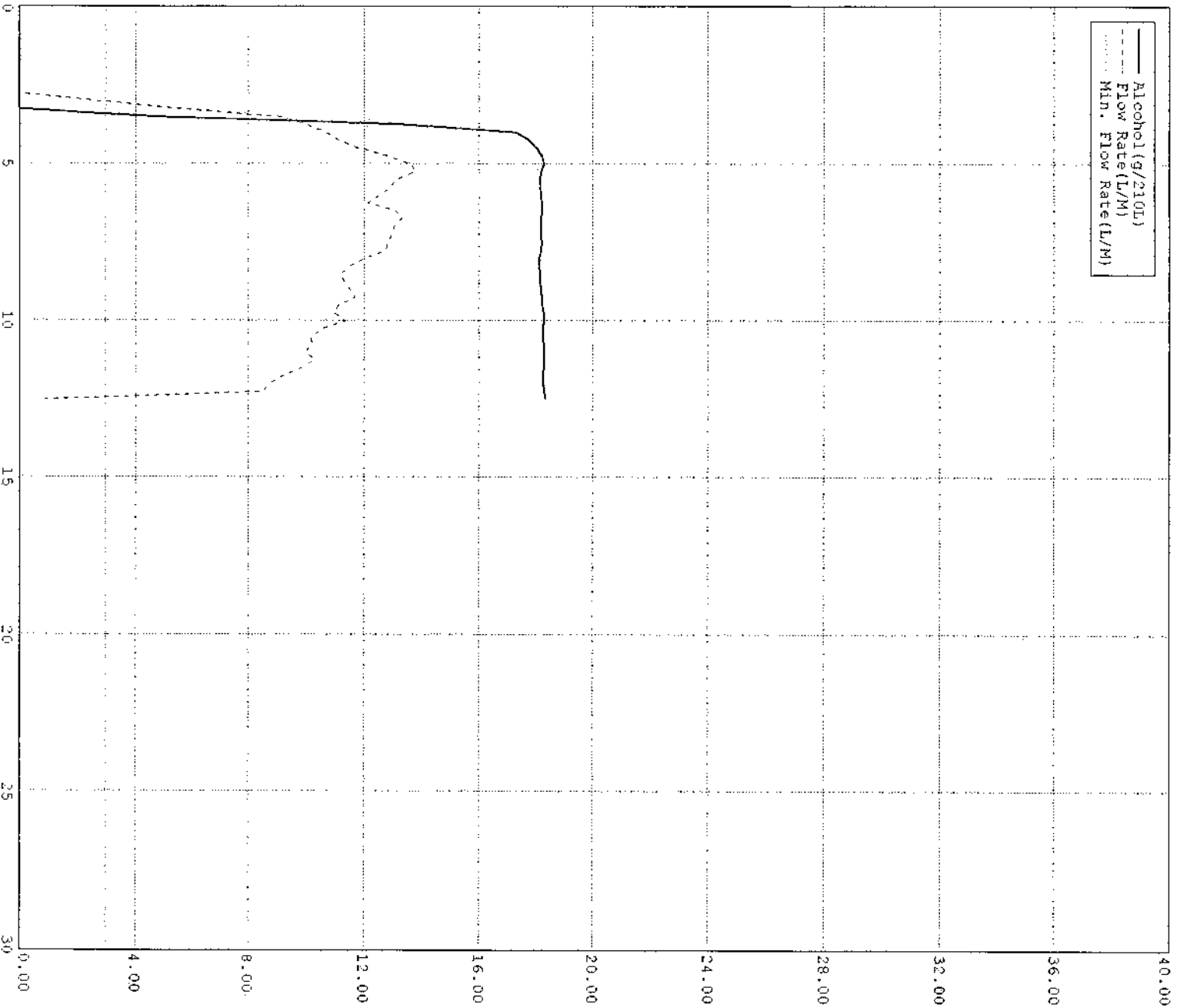
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.13: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	08:33
BLANK TEST	0.000	08:33
INTERNAL STANDARD	VERIFIED	08:33
Xq = 0.100 (0.89%)		
EXTERNAL STANDARD	0.080	08:34
X[1] = 0.0801 (0.0019)	0.0004	
BLANK TEST	0.000	08:35
SUBJECT SAMPLE (Vol=1.75L)	0.092	08:35
X[1] = 0.0921 (-0.0010)	-0.0003	
BLANK TEST	0.000	08:36
EXTERNAL STANDARD	0.079	08:36
X[1] = 0.0793 (0.0015)	-0.0001	
BLANK TEST	0.000	08:37

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 10/20/2015  
Time: 13:56:01

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

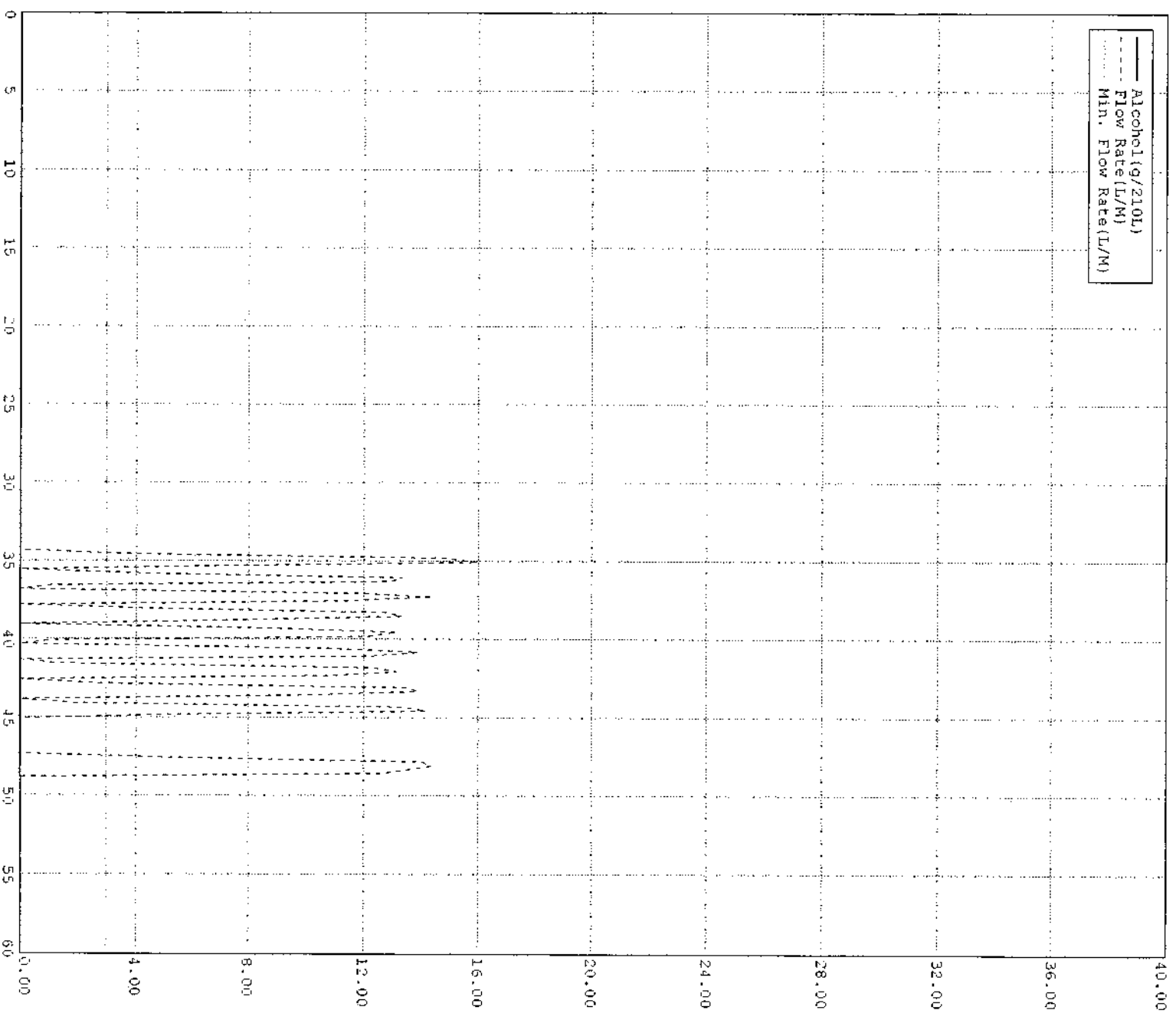
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AP 29.28: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:57
BLANK TEST	0.000	13:57
INTERNAL STANDARD	VERIFIED	13:57
EXTERNAL STANDARD	0.080	13:57
BLANK TEST	0.000	13:58
SUBJECT SAMPLE	XXX	13:59

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100691

Date: 10/20/2015  
Time: 13:46:38

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

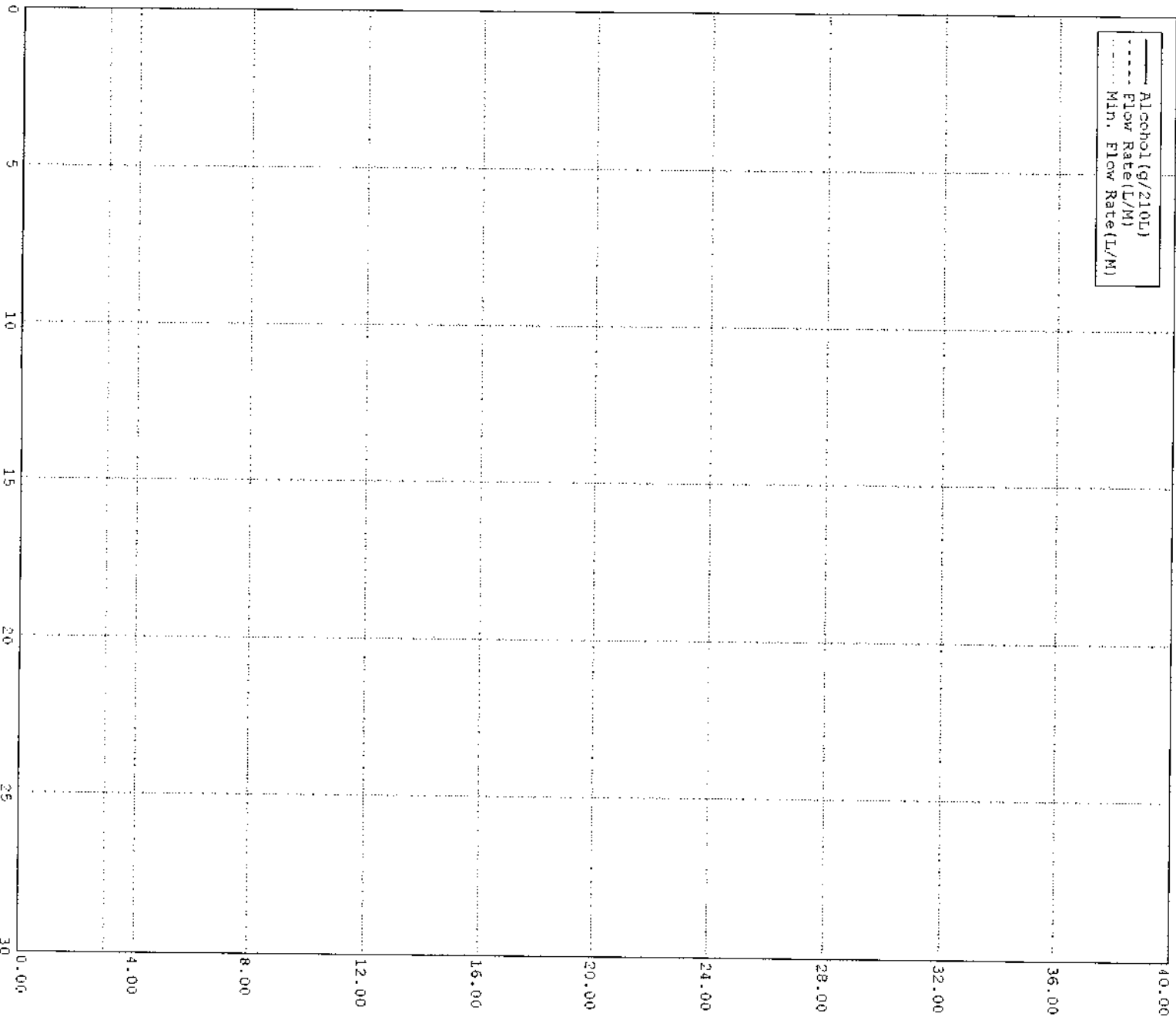
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.29: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK  
BLANK TEST PASSED 13:48  
INTERNAL STANDARD 0.000 13:48  
EXTERNAL STANDARD VERIFIED 13:48  
BLANK TEST 0.080 13:48  
0.000 13:49  
RFI DETECTED

*BRMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100691

Date: 10/21/2015  
Time: 10:43:37

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.16: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:44
BLANK TEST	0.000	10:45
INTERNAL STANDARD	VERIFIED	10:45
EXTERNAL STANDARD	0.080	10:45
BLANK TEST	0.000	10:46
SUBJECT SAMPLE (Vol=1.79L)	0.000	10:46
BLANK TEST	0.000	10:47
EXTERNAL STANDARD	0.080	10:47
BLANK TEST	0.000	10:48

BMB

