

# 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 100364 Analyst Brandi Barnett Start Date 2/12/19

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 Airgas Lot AG805804 Exp 2/27/20
- ii. 0.040g/210L Mnf Airgas Lot AG733403 Exp 11/30/19
- iii. 0.080g/210L Mnf Airgas Lot AG826101 Exp 9/10/20
- iv. 0.100g/210L Mnf Airgas Lot AG805903 Exp 2/28/20
- v. 0.200g/210L Mnf Guth Lot 17340 Exp 10/9/19
  - 1. Simulator S/N DR4177 Date Calibrated 6/4/18
- vi. 0.300g/210L Mnf Guth Lot 17350 Exp 10/11/19
  - 1. Simulator S/N SD1176 Date Calibrated 6/1/18

5. Functional Tests (attached)

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

- i. Acetone - Mnf Guth Lot 18070 Level 0.100 Exp 2/26/20
  - 1. Simulator S/N SD1200 Date Calibrated 6/1/18
- ii. Isopropanol - Mnf Guth Lot 18070 Level 0.100 Exp 2/26/20
  - 1. Simulator S/N DR4176 Date Calibrated 6/4/18
- iii. Negative Control - Mnf Guth Lot 18070 Level 0.100 Exp 2/26/20
  - 1. Simulator S/N DR4163 Date Calibrated 6/4/18

e. RFI

- 6. Verify stylus is calibrated
- 7. Reset Options
- 8. Clear Memory
- 9. Verification of Calibration
- 10. Non-Drinking Subject Test (attached)
- 11. Upload
- 13. Remove tank prior to shut down

End Date 2/14/19

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100364  
-----

Date: 02/12/2019  
Time: 12:46:47

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

TEMPERATURES

Sample Chamber = 48.9°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 48.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.07 V PASSED  
(1.16 V - 2.72 V)  
Cooler Voltage = 1.94 V PASSED  
(1.18 V - 2.76 V)  
Bias Voltage = 79 V PASSED  
(48 V - 112 V)  
Chopper Freq = 518 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.7 in

PUMP INFO

Flow Rate = 5.398 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 = 0.100 2.41% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100364  
-----

Date: 02/12/2019  
Time: 1:20 PM

Temperatures (°C)  
Sample Cell: 49.5°C  
Breath Tube: 46.6°C

Current Barometer 29.7 in  
Volume (Ltr) 1.46

Settings  
Lamp: 2.10 V  
Bias: 79 V  
Cooler: 1.99 V  
Chopper: 517 Hz

Voltages (V)  
Flow: 1.03 V  
Detector: 0.088 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100364  
-----

Date: 10/02/2015  
Time: 09:52:21

Ca = 0.1010  
CAL = 0.997233    0.800 <= CAL < 1.200  
b1 = 0.0012    0.0000 <= b1 < 0.0040  
b2 = 0.0058    0.0010 <= b2 < 0.0100  
b3 = 0.0005    0.0000 <= b3 < 0.0040  
Xq = 0.0980    0.0500 <= Xq < 0.2000  
a21 = 1.177996    1.050 <= a21 < 1.300  
a31 = 0.602952    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100364

Date: 02/12/2019  
Time: 13:24:48

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

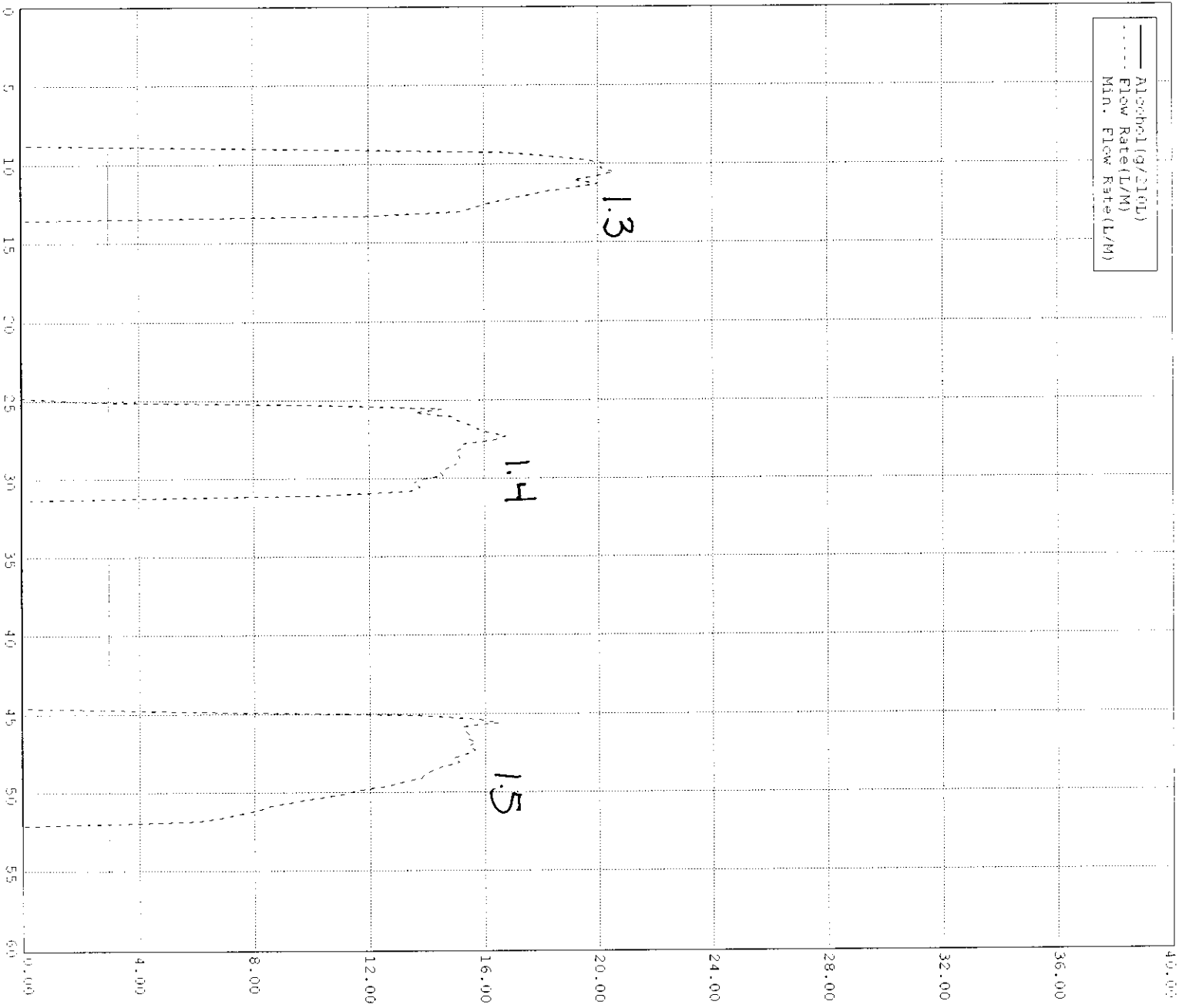
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.65: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:25
BLANK TEST	0.000	13:25
INTERNAL STANDARD	VERIFIED	13:26
EXTERNAL STANDARD	0.080	13:26
BLANK TEST	0.000	13:27
SUBJECT SAMPLE (Vol=1.53L)	0.000	13:28
BLANK TEST	0.000	13:29
EXTERNAL STANDARD	0.081	13:29
BLANK TEST	0.000	13:30



LINEARITY CHECK

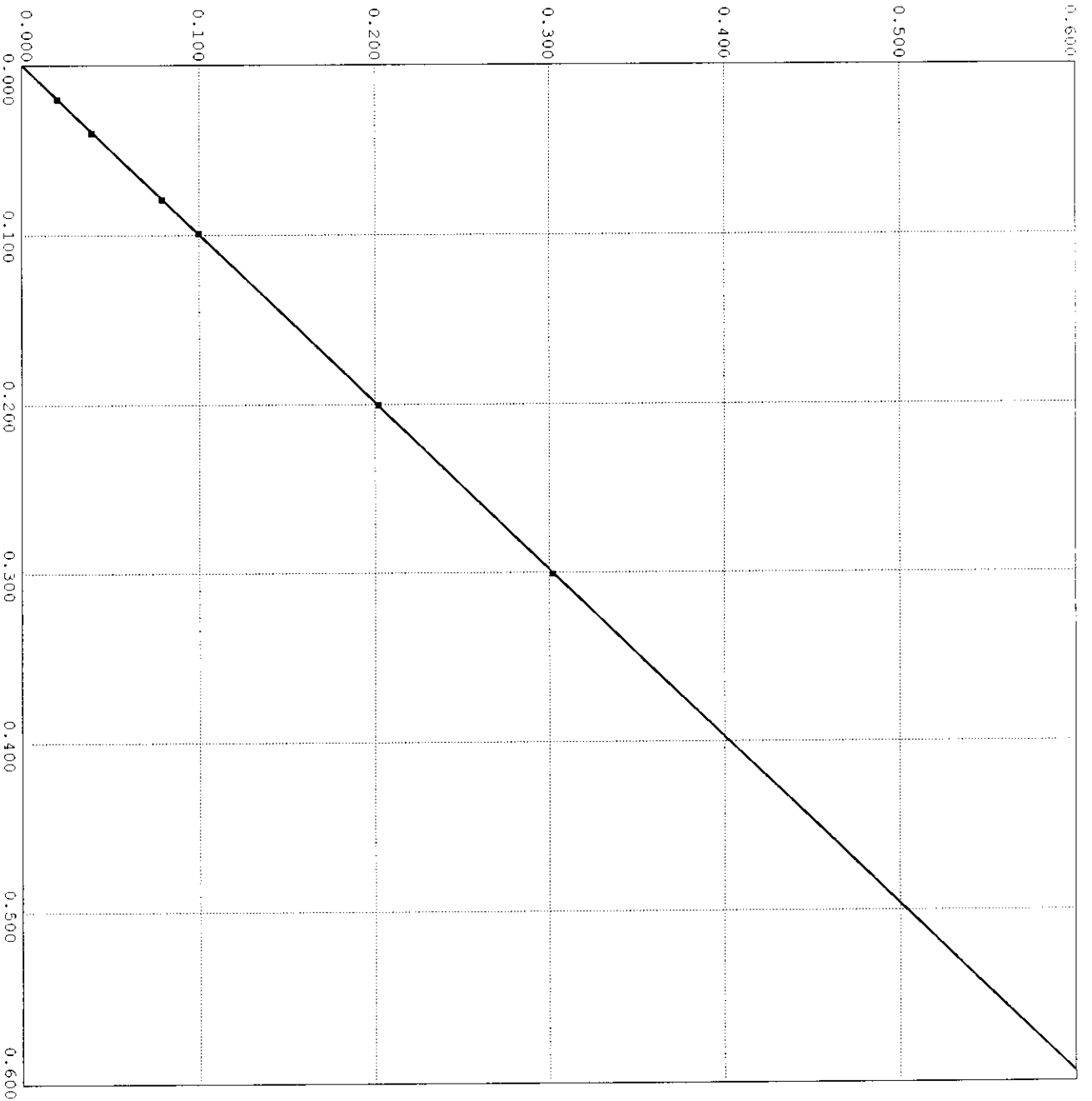
Alaska Department of Public Safety  
DATAMASTER dmt: 100364

Date: 02/13/2019  
Time: 08:48:28

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0208	0.0004
0.040	0.0400	0.0000
0.079	0.0800	0.0000
0.099	0.1006	0.0005
0.200	0.2030	0.0000
0.300	0.3026	0.0005

SLOPE = 1.009192  
R<sup>2</sup> = 0.999972



*BBMB*

LINEARITY CHECK: Control Test 1

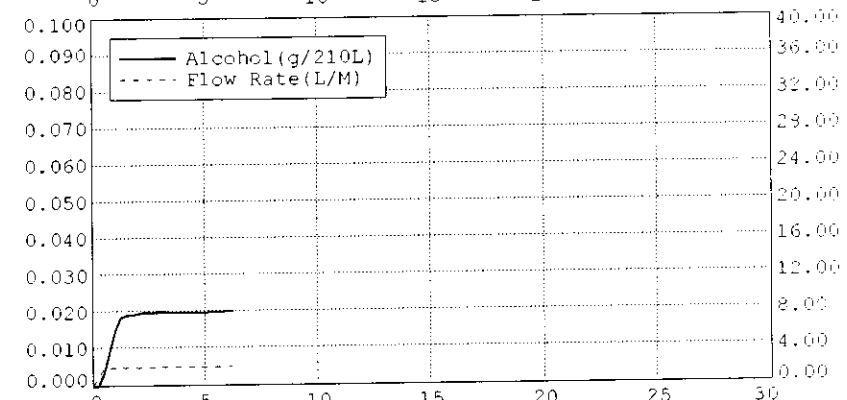
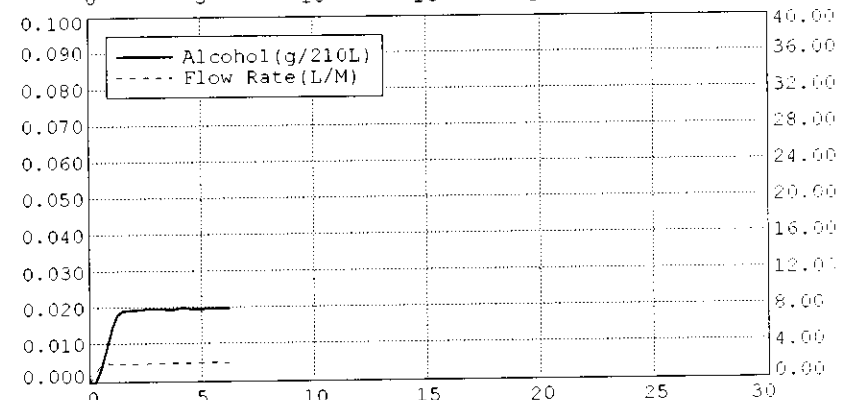
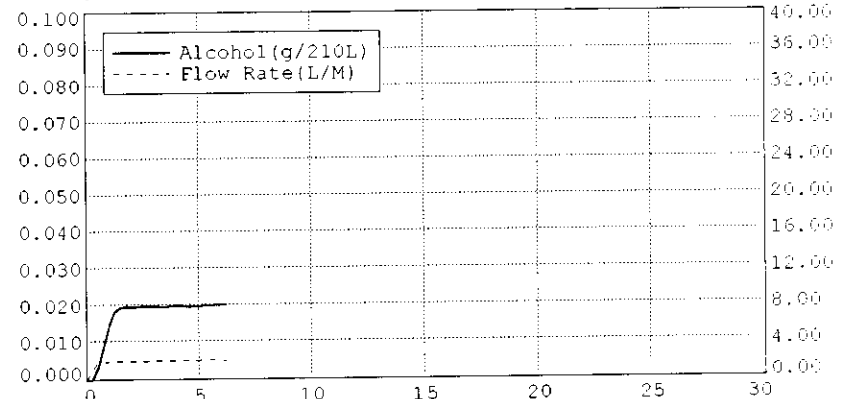
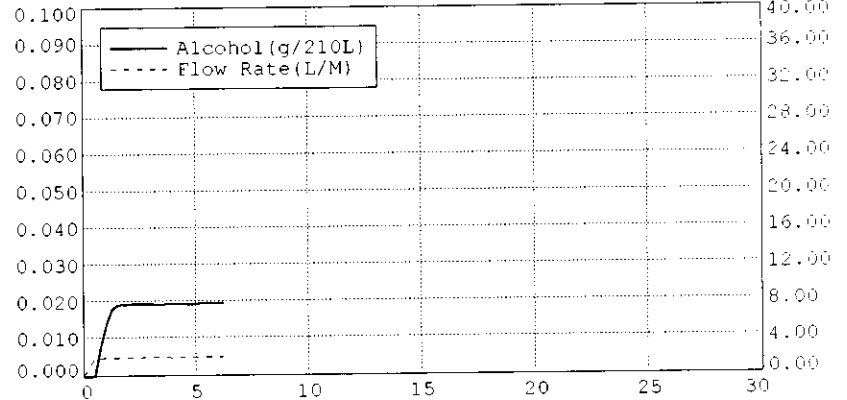
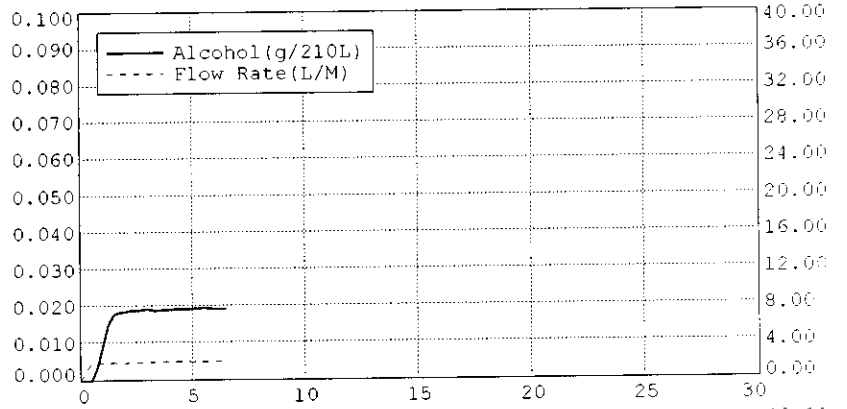
Alaska Department of Public Safety  
 DATAMASTER dmt: 100364

Date: 02/13/2019  
 Time: 08:48:31

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.020  
 TARGET AT 29.56: 0.020  
 LOT #: AG805804  
 EXPIRATION: 02/27/2020  
 TANK PRESSURE: 968 psi

BLANK TEST	0.000	08:49
INTERNAL STANDARD	VERIFIED	08:49
EXTERNAL STANDARD	0.020	08:49
BLANK TEST	0.000	08:50
EXTERNAL STANDARD	0.021	08:51
BLANK TEST	0.000	08:51
EXTERNAL STANDARD	0.021	08:52
BLANK TEST	0.000	08:53
EXTERNAL STANDARD	0.021	08:53
BLANK TEST	0.000	08:54
EXTERNAL STANDARD	0.021	08:54
BLANK TEST	0.000	08:55

Average = 0.0208  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100364

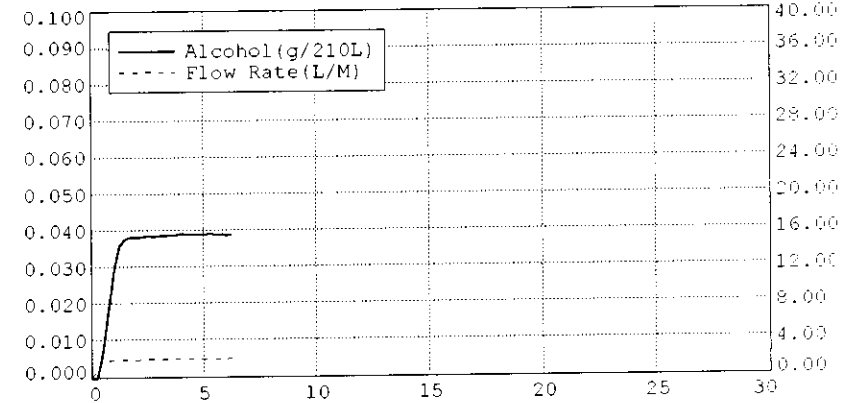
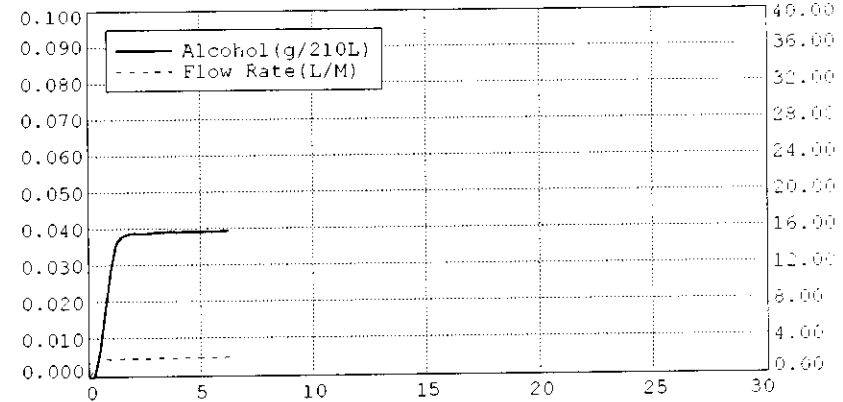
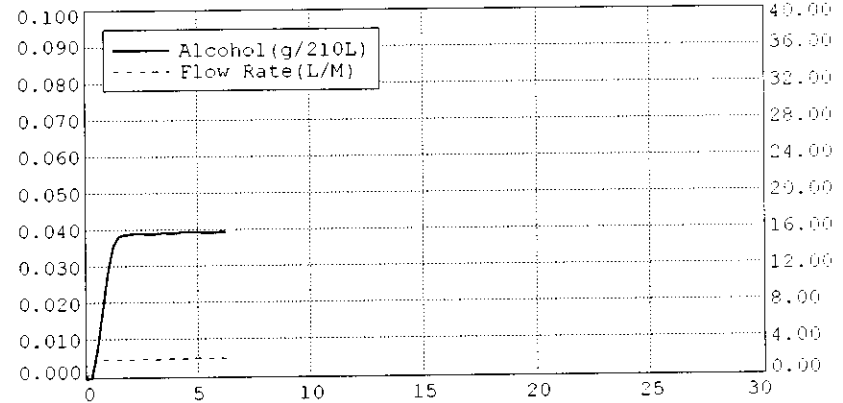
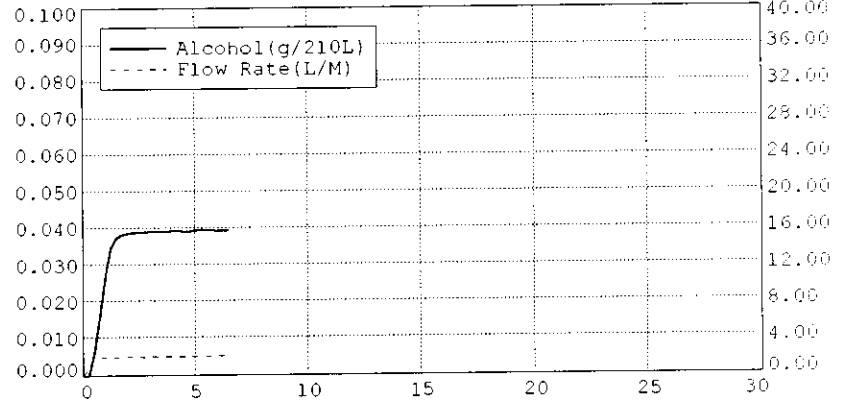
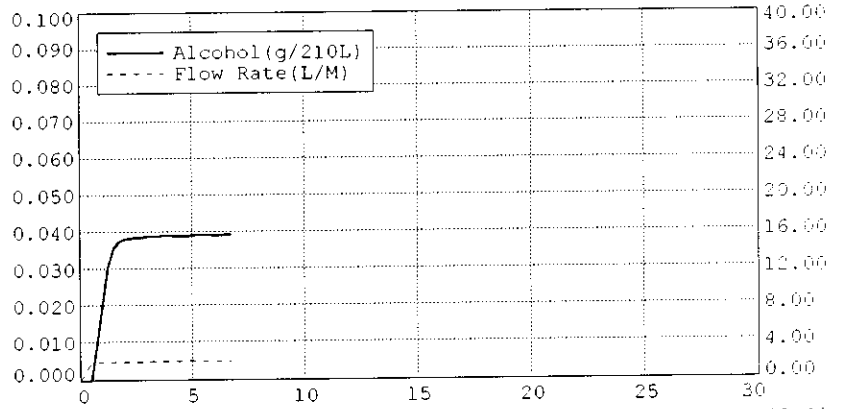
Date: 02/13/2019  
 Time: 08:56:14

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.56: 0.040  
 LOT #: AG733403  
 EXPIRATION: 11/30/2019  
 TANK PRESSURE: 928 psi

BLANK TEST	0.000	08:58
INTERNAL STANDARD	VERIFIED	08:58
EXTERNAL STANDARD	0.040	08:58
BLANK TEST	0.000	08:59
EXTERNAL STANDARD	0.040	08:59
BLANK TEST	0.000	09:00
EXTERNAL STANDARD	0.040	09:00
BLANK TEST	0.000	09:01
EXTERNAL STANDARD	0.040	09:01
BLANK TEST	0.000	09:02
EXTERNAL STANDARD	0.040	09:02
BLANK TEST	0.000	09:03

Average = 0.0400  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

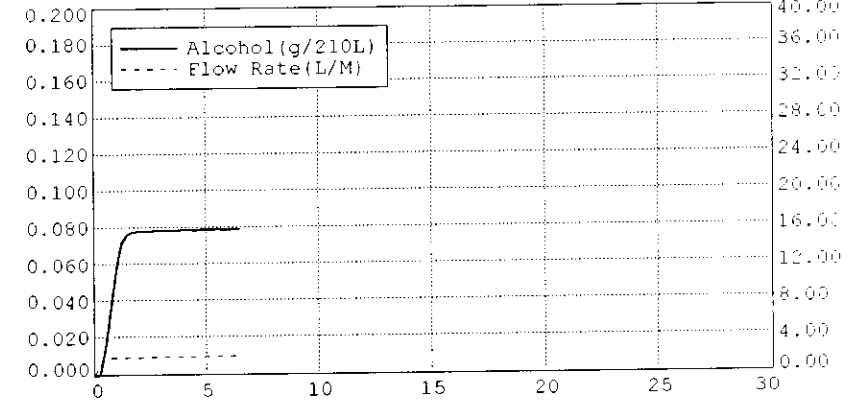
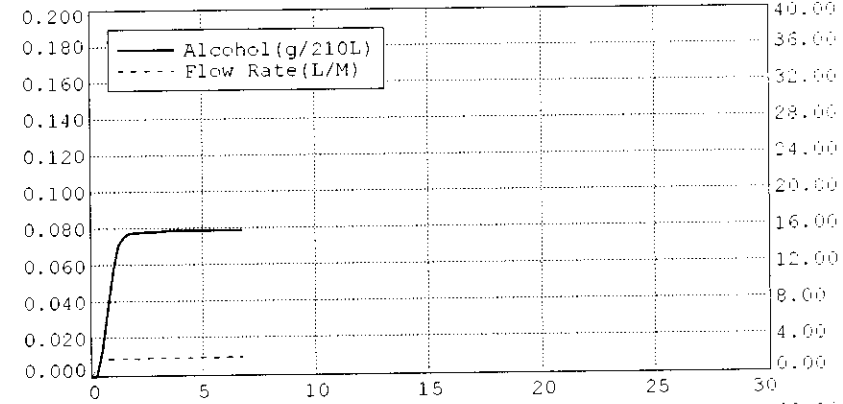
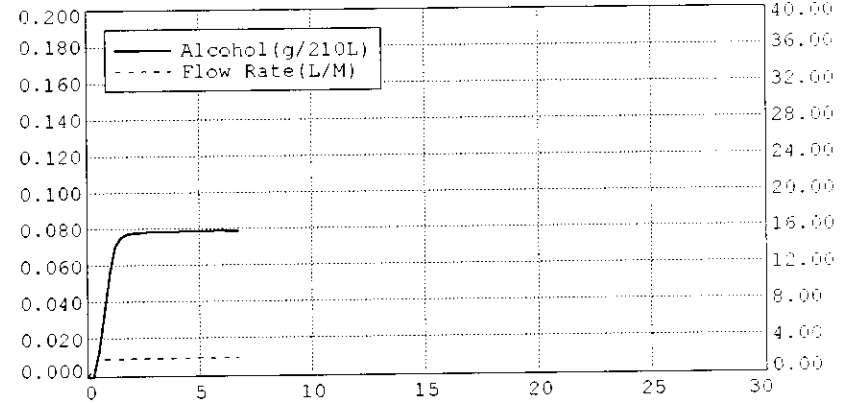
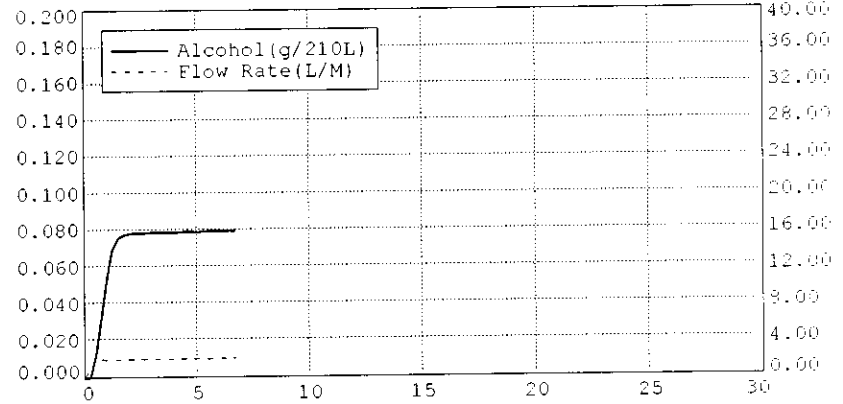
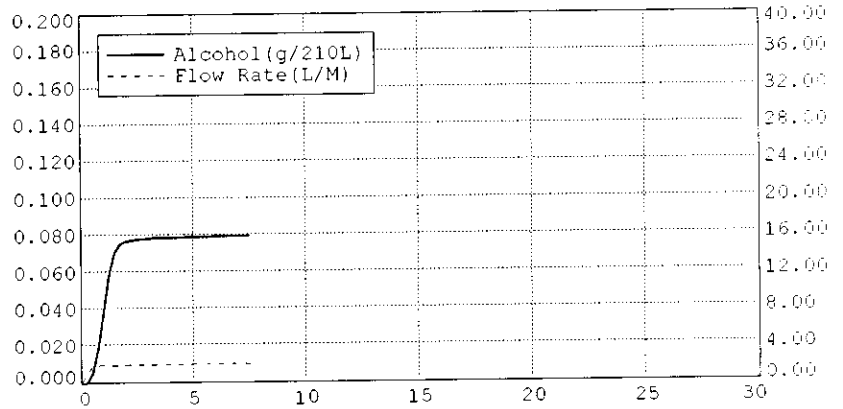
Alaska Department of Public Safety  
 DATAMASTER dmt: 100364

Date: 02/13/2019  
 Time: 09:06:33

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.56: 0.079  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020  
 TANK PRESSURE: 845 psi

BLANK TEST	0.000	09:07
INTERNAL STANDARD	VERIFIED	09:07
EXTERNAL STANDARD	0.080	09:08
BLANK TEST	0.000	09:08
EXTERNAL STANDARD	0.080	09:09
BLANK TEST	0.000	09:10
EXTERNAL STANDARD	0.080	09:10
BLANK TEST	0.000	09:11
EXTERNAL STANDARD	0.080	09:11
BLANK TEST	0.000	09:12
EXTERNAL STANDARD	0.080	09:12
BLANK TEST	0.000	09:13

Average = 0.0800  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100364

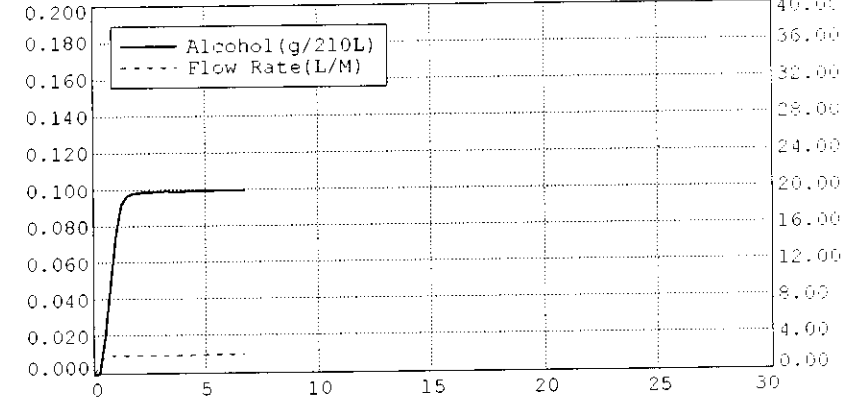
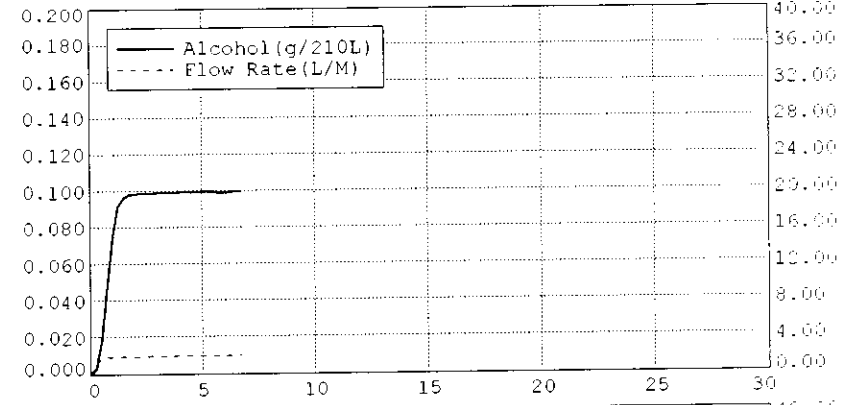
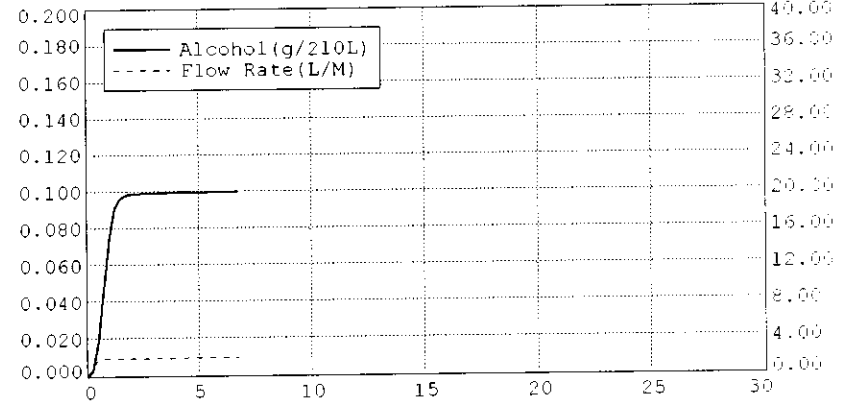
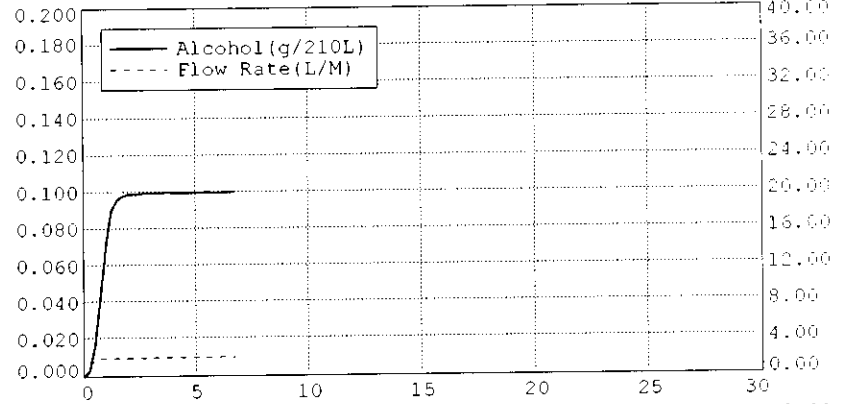
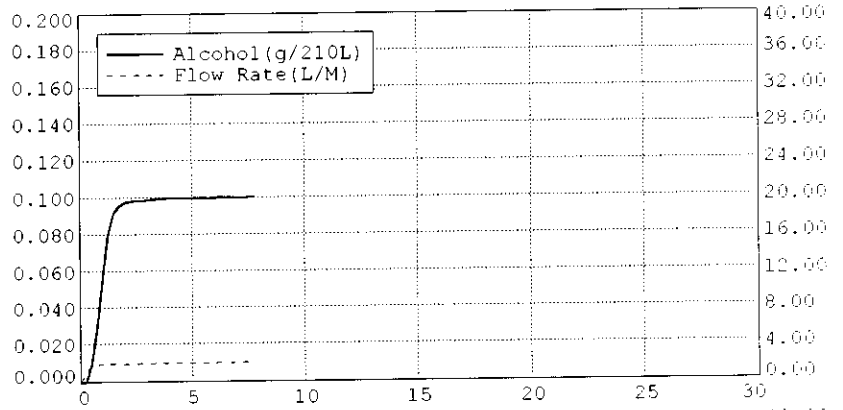
Date: 02/13/2019  
 Time: 09:17:21

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.57: 0.099  
 LOT #: AG805903  
 EXPIRATION: 02/28/2020  
 TANK PRESSURE: 931 psi

BLANK TEST	0.000	09:20
INTERNAL STANDARD	VERIFIED	09:20
EXTERNAL STANDARD	0.101	09:20
BLANK TEST	0.000	09:21
EXTERNAL STANDARD	0.101	09:22
BLANK TEST	0.000	09:22
EXTERNAL STANDARD	0.101	09:23
BLANK TEST	0.000	09:24
EXTERNAL STANDARD	0.100	09:24
BLANK TEST	0.000	09:25
EXTERNAL STANDARD	0.100	09:25
BLANK TEST	0.000	09:26

Average = 0.1006  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

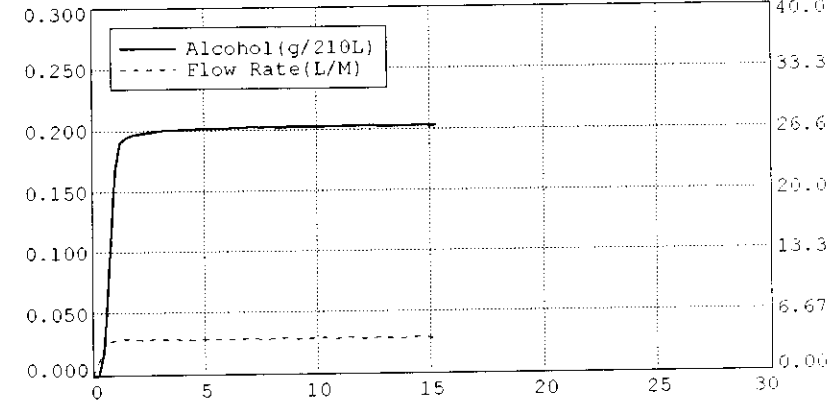
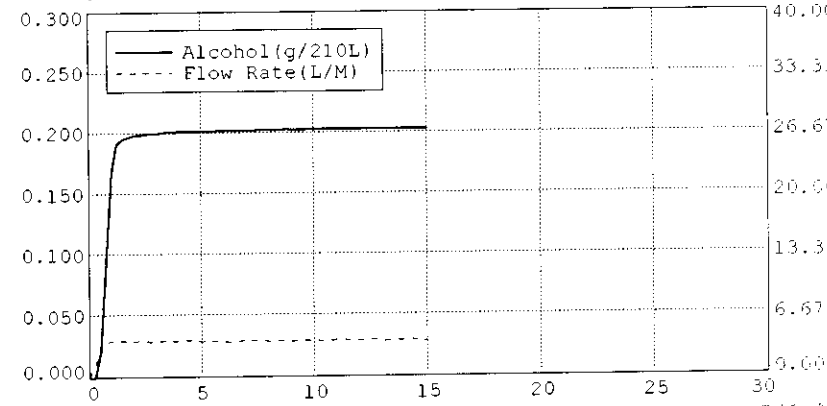
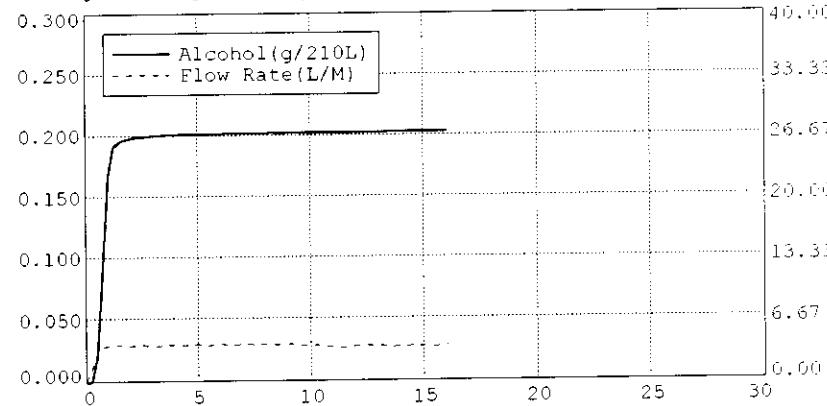
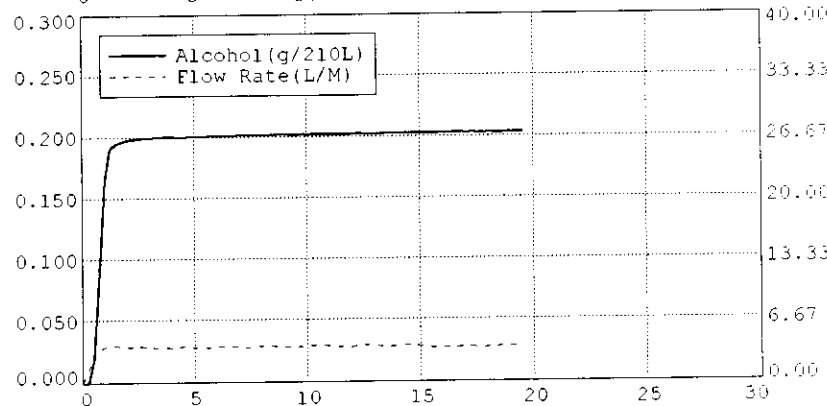
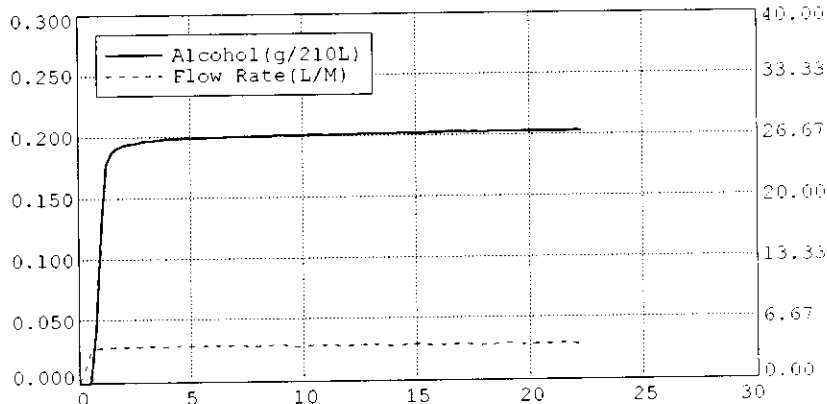
Alaska Department of Public Safety  
 DATAMASTER dmt: 100364

Date: 02/13/2019  
 Time: 09:29:33

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: GUTH 17340  
 EXPIRATION: 10/09/2019

BLANK TEST	0.000	09:30
INTERNAL STANDARD	VERIFIED	09:30
EXTERNAL STANDARD	0.203	09:31
BLANK TEST	0.000	09:32
EXTERNAL STANDARD	0.203	09:32
BLANK TEST	0.000	09:33
EXTERNAL STANDARD	0.203	09:33
BLANK TEST	0.000	09:34
EXTERNAL STANDARD	0.203	09:35
BLANK TEST	0.000	09:36
EXTERNAL STANDARD	0.203	09:36
BLANK TEST	0.000	09:37

Average = 0.2030  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 6

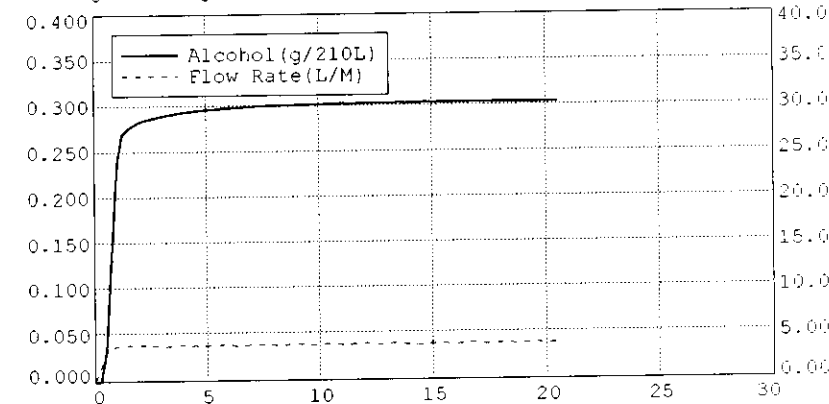
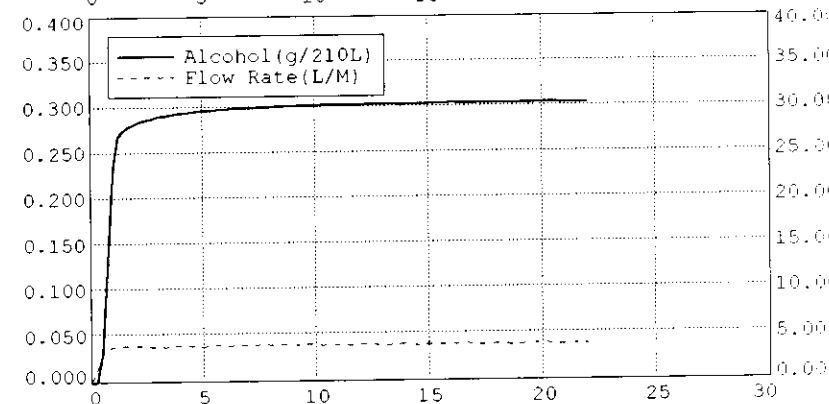
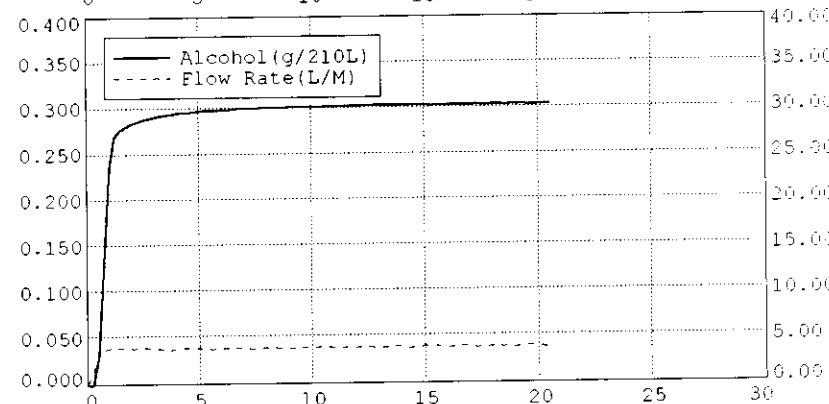
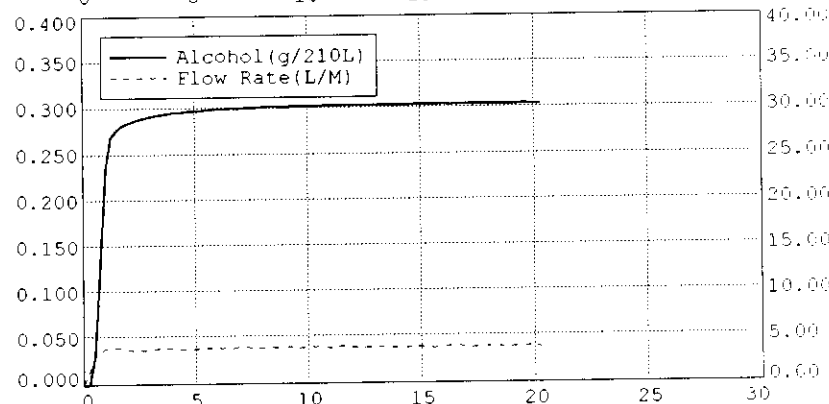
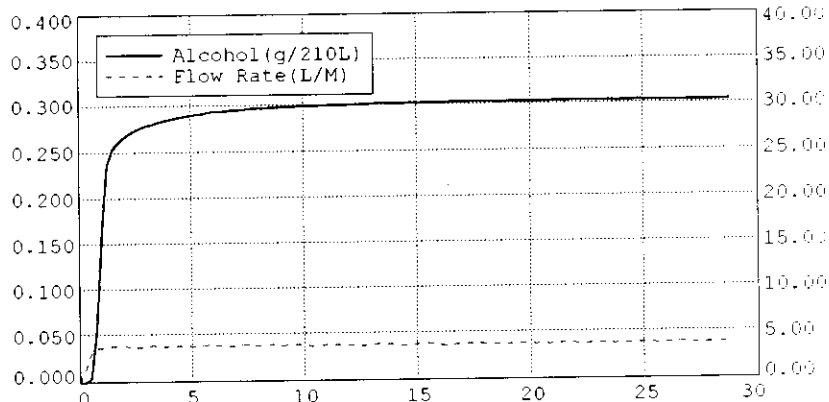
Alaska Department of Public Safety  
 DATAMASTER dmt: 100364

Date: 02/13/2019  
 Time: 09:41:56

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: GUTH 17350  
 EXPIRATION: 10/11/2019

BLANK TEST	0.000	09:43
INTERNAL STANDARD	VERIFIED	09:43
EXTERNAL STANDARD	0.303	09:44
BLANK TEST	0.000	09:45
EXTERNAL STANDARD	0.302	09:45
BLANK TEST	0.000	09:46
EXTERNAL STANDARD	0.302	09:47
BLANK TEST	0.000	09:48
EXTERNAL STANDARD	0.303	09:48
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.303	09:49
BLANK TEST	0.000	09:50

Average = 0.3026  
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100364

Date: 02/14/2019  
Time: 08:45:55

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

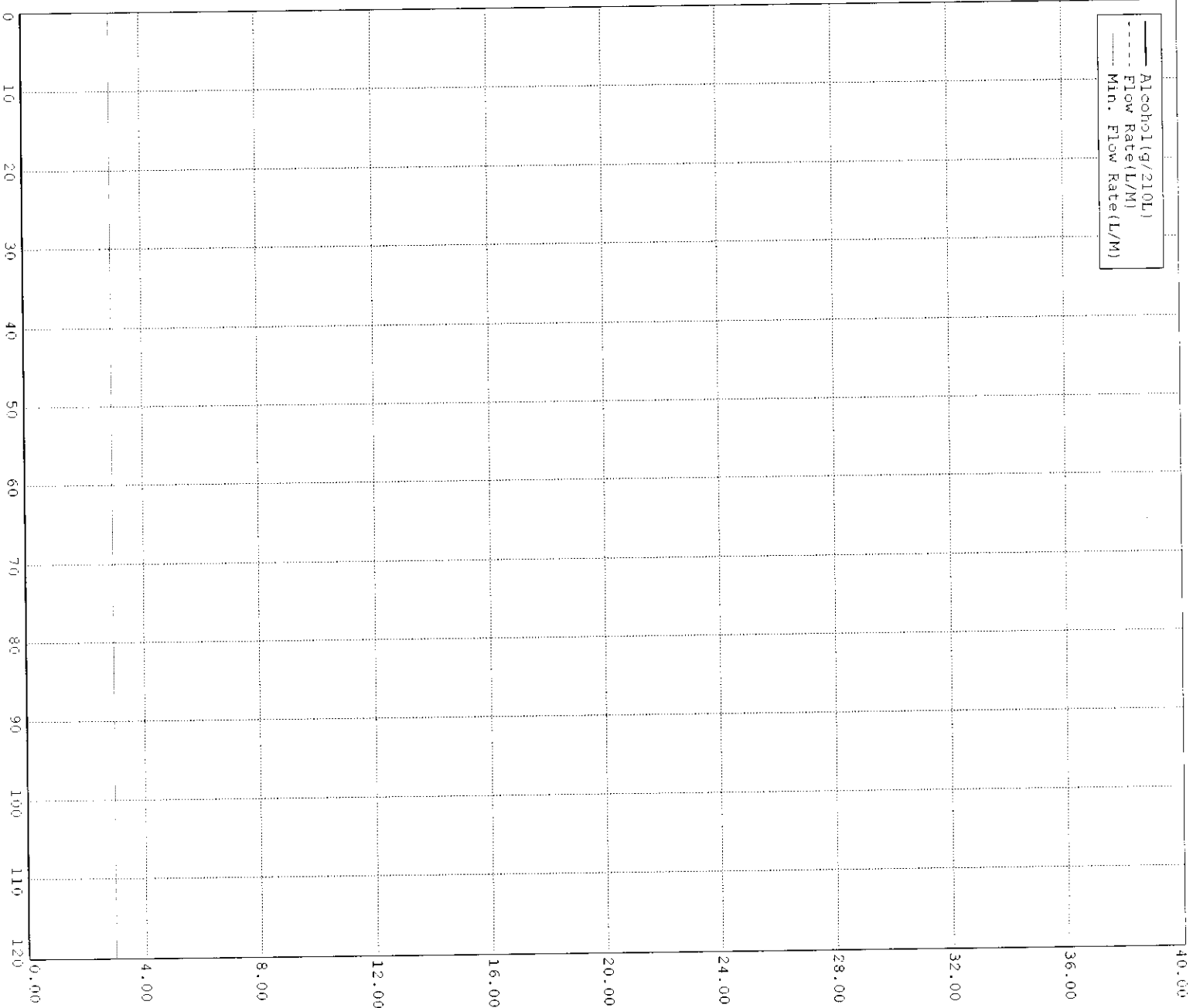
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.81: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	08:47
BLANK TEST	0.000	08:47
INTERNAL STANDARD	0.080	08:47
EXTERNAL STANDARD	0.000	08:48
BLANK TEST	INCOMPLETE	08:50

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100364

Date: 02/14/2019  
Time: 08:53:26

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

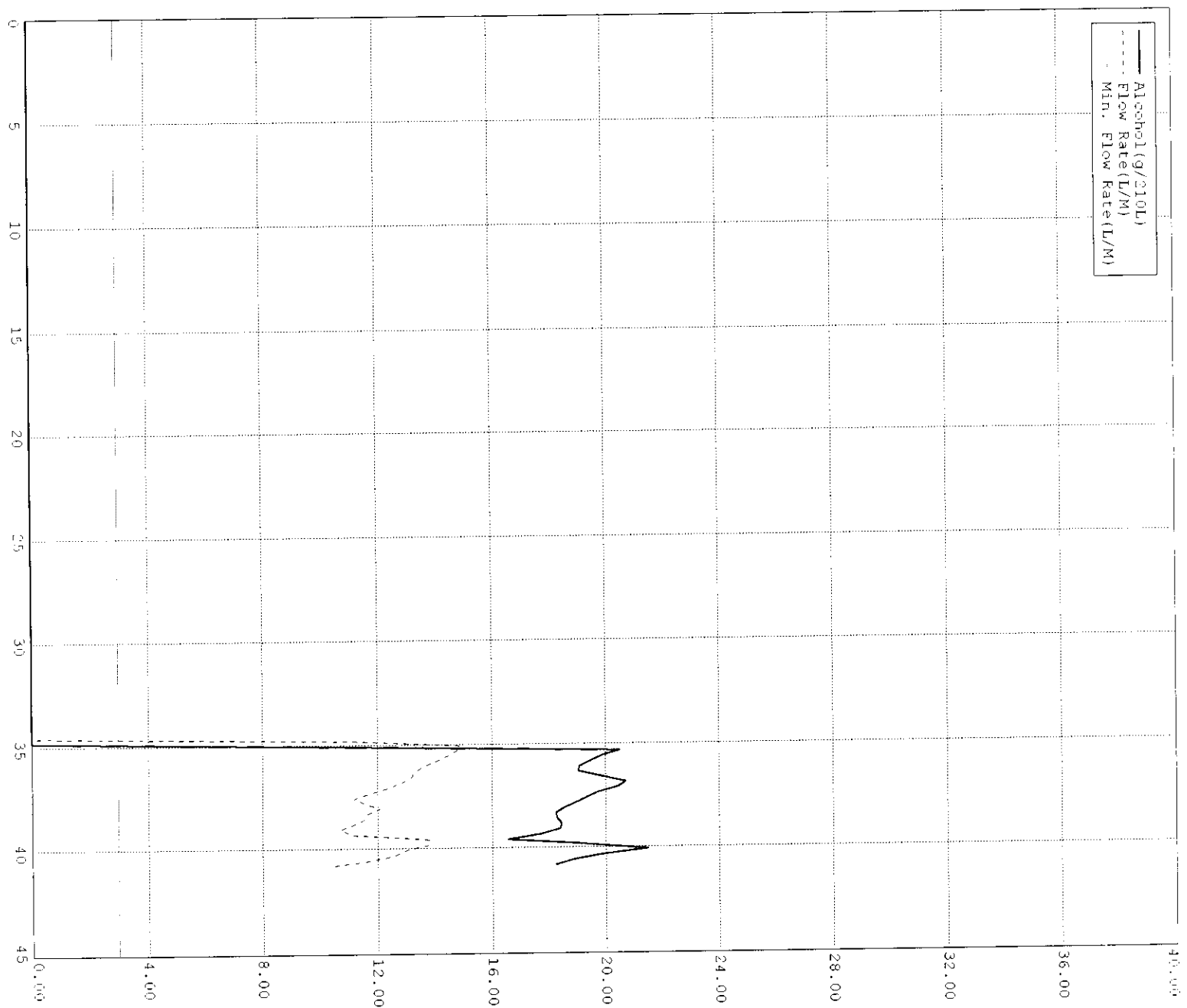
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.82: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	08:55
BLANK TEST	0.000	08:55
INTERNAL STANDARD	VERIFIED	08:55
EXTERNAL STANDARD	0.081	08:55
BLANK TEST	0.000	08:56
SUBJECT SAMPLE	INVALID	08:57

*BMF*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100364

Date: 02/14/2019  
Time: 09:00:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

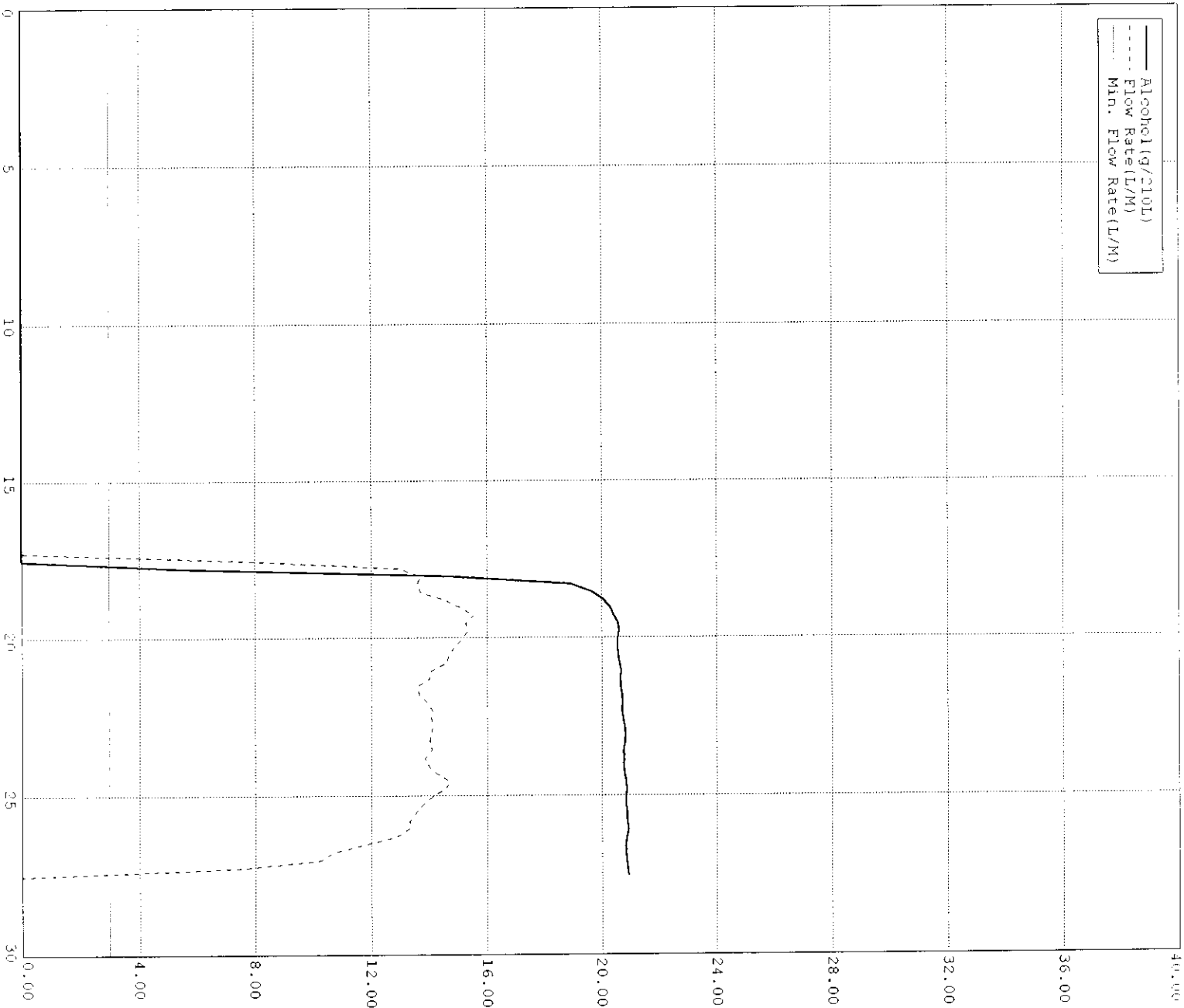
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.82: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	09:02
BLANK TEST	0.000	09:02
INTERNAL STANDARD	VERIFIED	09:02
Xq = 0.100 (2.41%)	0.078	09:02
EXTERNAL STANDARD	X[1] = 0.0776 (-0.0009)	(0.0025)
BLANK TEST	0.000	09:03
SUBJECT SAMPLE	XXX	09:04
X[1] = 0.1053 (-0.0173)	(0.0018)	

Interference Detected

Filter 2 Avg: -0.0005  
Filter 3 Avg: 0.0030  
BMB 2/15/19

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100364

Date: 02/14/2019  
Time: 09:09:50

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

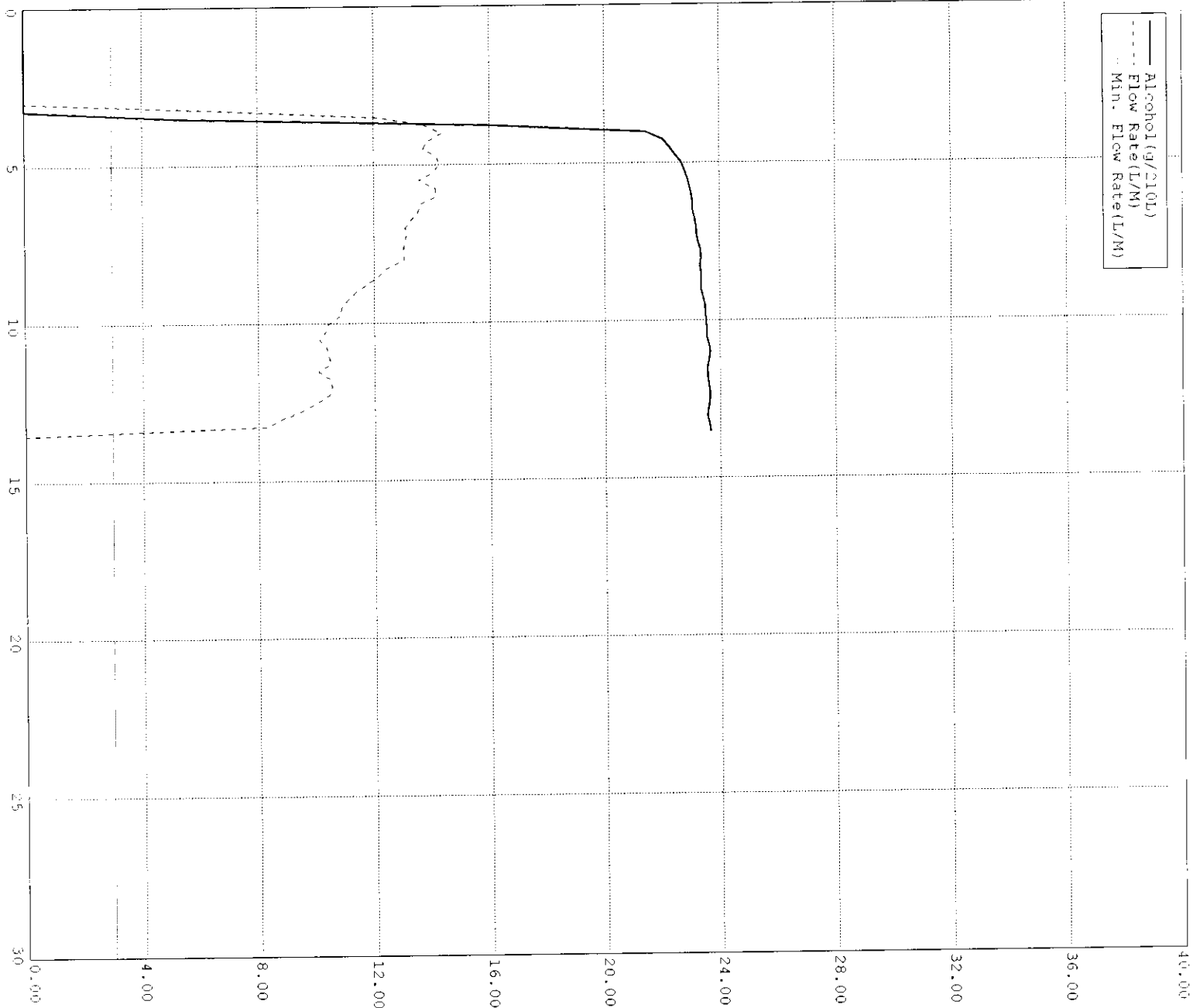
DEPT/AGENCY:  
INTERFERENCE ISOPROPANOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.82: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	09:11
BLANK TEST	0.000	09:11
INTERNAL STANDARD	VERIFIED	09:11
Xq = 0.101 (2.86%)	0.080	09:11
EXTERNAL STANDARD	X[1] = 0.0801 (0.0007)	(0.0036)
BLANK TEST	0.000	09:12
SUBJECT SAMPLE	X[1] = 0.1189 (-0.0255)	(0.0011)

Interference Detected

*Handwritten signature: BMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100364

Date: 02/14/2019  
Time: 09:17:40

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

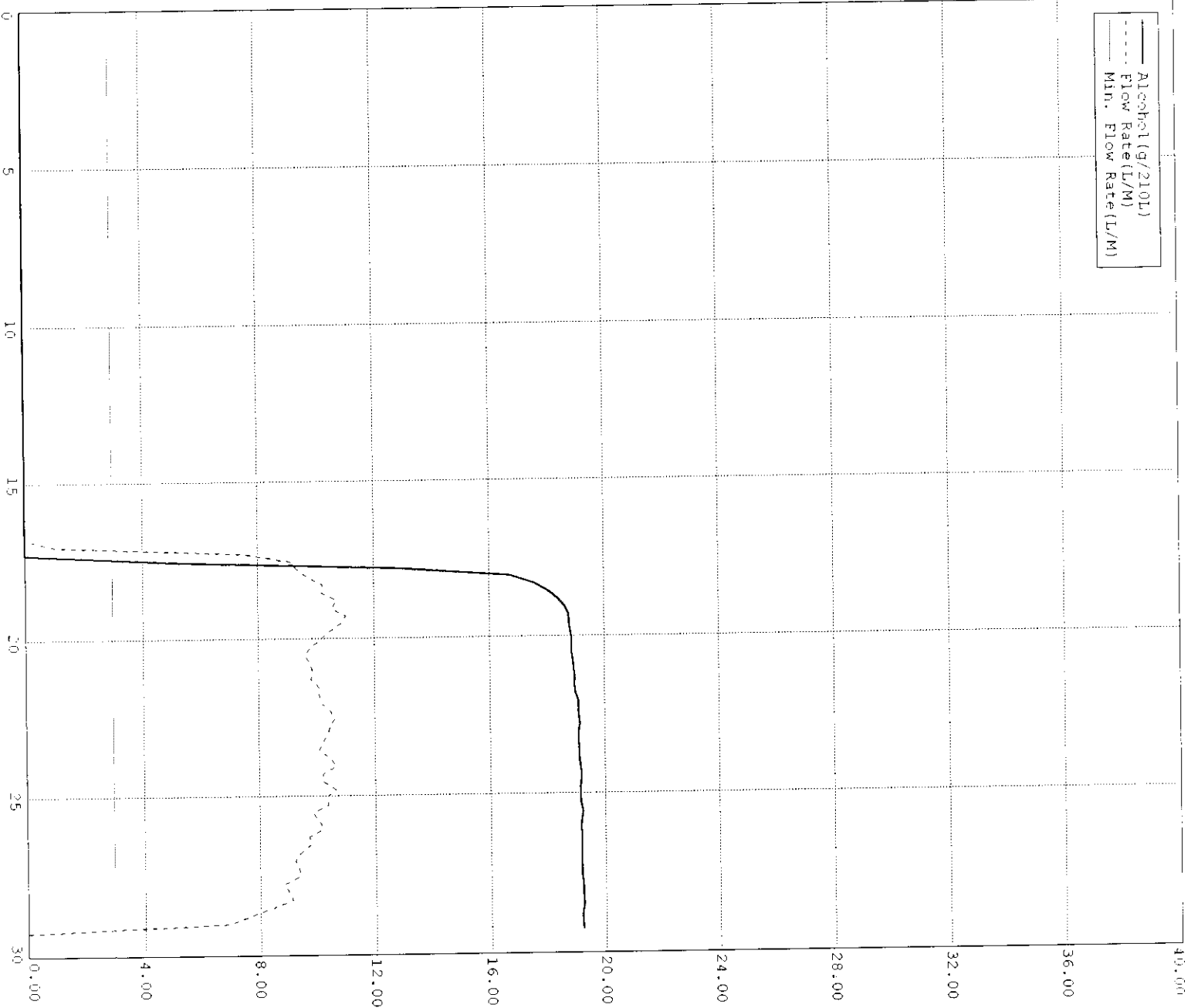
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.82: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	09:18
BLANK TEST	0.000	09:18
INTERNAL STANDARD	VERIFIED	09:19
Xq = 0.101 (2.59%)	0.080	09:19
EXTERNAL STANDARD	(0.0034)	
X[1] = 0.0800 (-0.0004)	0.000	09:20
BLANK TEST	0.096	09:20
SUBJECT SAMPLE (Vol=1.97L)	(0.0008)	
X[1] = 0.0967 (0.0003)	0.000	09:21
BLANK TEST	0.080	09:21
EXTERNAL STANDARD	(0.0024)	
X[1] = 0.0796 (-0.0014)	0.000	09:22
BLANK TEST		

*Handwritten signature: BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100364

Date: 02/14/2019  
Time: 09:29:37

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

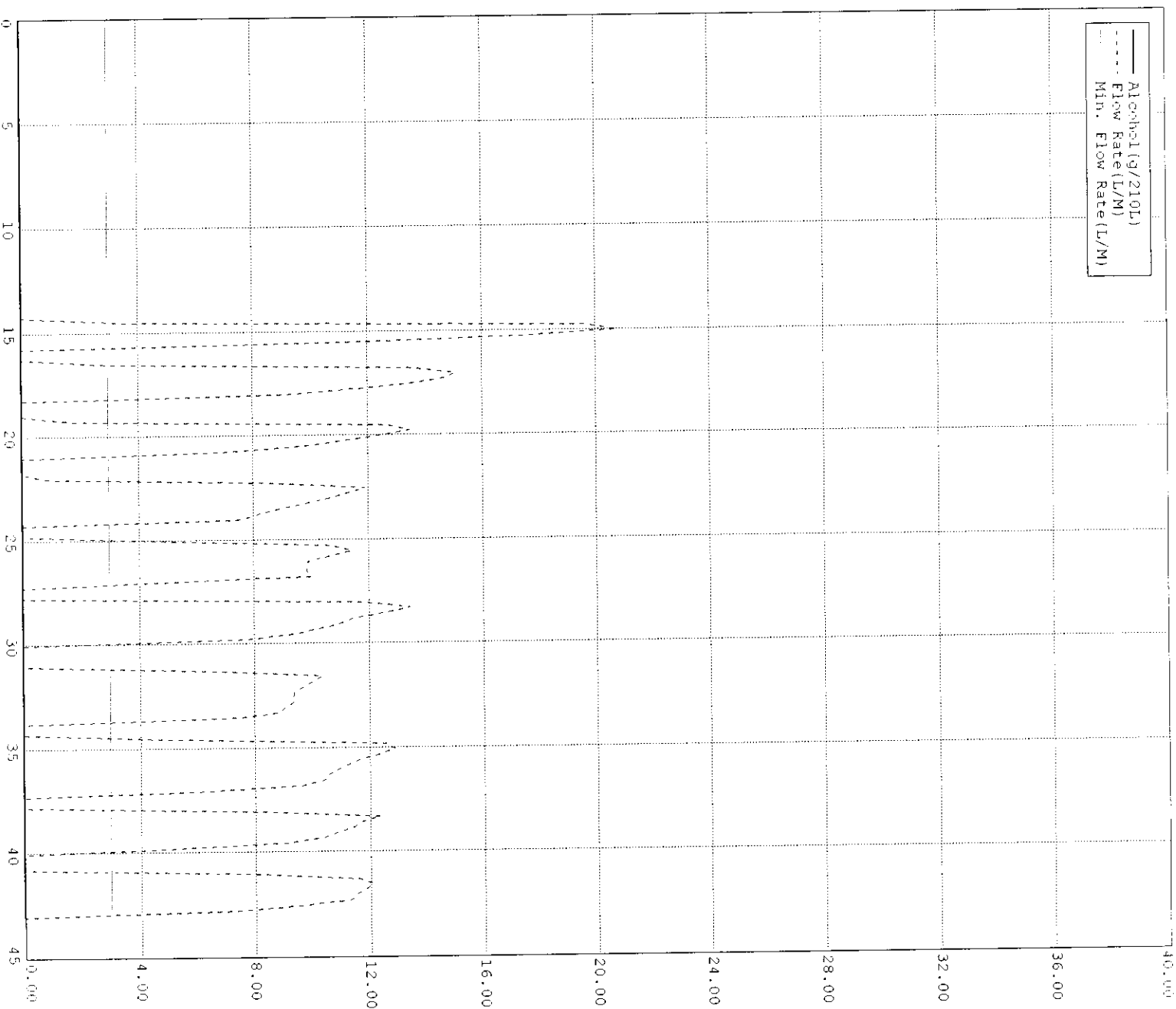
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.83: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	09:31
BLANK TEST	0.000	09:31
INTERNAL STANDARD	VERIFIED	09:32
EXTERNAL STANDARD	0.080	09:32
BLANK TEST	0.000	09:33
SUBJECT SAMPLE	XXX	09:34

Maximum Attempts Exceeded

*BBB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100364

Date: 02/14/2019  
Time: 09:37:49

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

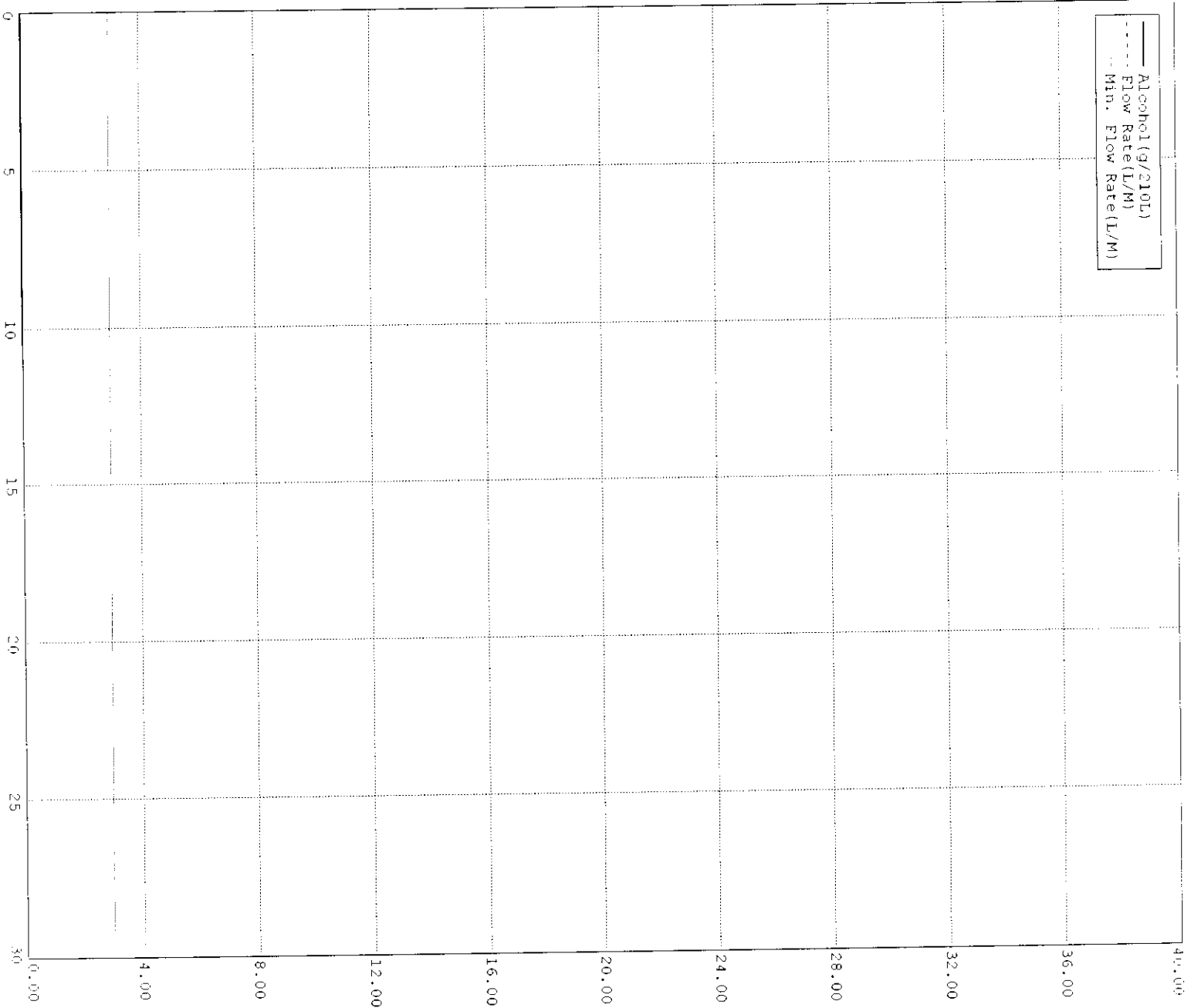
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.83: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	09:39
BLANK TEST	0.000	09:39
INTERNAL STANDARD	VERIFIED	09:39
EXTERNAL STANDARD	0.080	09:39
BLANK TEST	0.000	09:40

RFI DETECTED

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100364

Date: 02/14/2019  
Time: 09:54:15

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 29.81: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	09:55
BLANK TEST	0.000	09:55
INTERNAL STANDARD	VERIFIED	09:55
EXTERNAL STANDARD	0.081	09:56
BLANK TEST	0.000	09:57
SUBJECT SAMPLE (Vol=1.94L)	0.000	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.081	09:58
BLANK TEST	0.000	09:59

*BMMB*

