

# 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 100682 Analyst Brandi Barnett Start Date 8/10/16

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 03/05/17
- ii. 0.040g/210L Mnf ILMO Lot 02915040A3 Exp 03/05/17
- iii. 0.080g/210L Mnf Airgas Lot AG608504 Exp 03/25/18
- iv. 0.100g/210L Mnf Dymo Lot 02915100A1 Exp 03/05/17
- v. 0.200g/210L Mnf Guth Lot 15130 Exp 05/11/17
  - 1. Simulator S/N DR4176 Date Calibrated 03/03/16
- vi. 0.300g/210L Mnf Guth Lot 15170 Exp 07/20/17
  - 1. Simulator S/N DR4176 Date Calibrated 03/03/16

5. Functional Tests (attached)

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

i. Acetone - Mnf Guth Lot 15220 Level 0.100 Exp 09/28/17

1. Simulator S/N DR4162 Date Calibrated 03/02/16

ii. Isopropanol - Mnf Guth Lot 15220 Level 0.100 Exp 09/28/17

1. Simulator S/N DR4163 Date Calibrated 03/02/16

iii. Negative Control - Mnf Guth Lot 15220 Level 0.100 Exp 09/28/17

1. Simulator S/N SD1200 Date Calibrated 03/03/16

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 8/11/16

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100682  
-----

Date: 08/10/2016  
Time: 10:07:30

VERSIONS  
DMT: 3.02  
PIC: 3.03  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 49.0°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  
(1.09 V - 2.53 V)  
Cooler Voltage = 1.79 V PASSED  
(1.04 V - 2.44 V)  
Bias Voltage = 78 V PASSED  
(47 V - 109 V)  
Chopper Freq = 531 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.7 in

PUMP INFO

Flow Rate = 4.439 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 PASSED

Xq = 0.085 0.51% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100682  
-----

Date: 08/10/2016  
Time: 10:21 AM

Temperatures (°C)

Sample Cell: 48.8°C  
Breath Tube: 47.3°C

Current Barometer 29.7 in  
Volume (Ltr) 1.55

Settings

Lamp: 1.81 V  
Bias: 78 V  
Cooler: 1.79 V  
Chopper: 530 Hz

Voltages (V)

Flow: 1.04 V  
Detector: -0.003 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100682  
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Date: 01/17/2013  
Time: 05:32:06

Ca = 0.1010  
CAL = 0.979558 0.800 <= CAL < 1.200  
b1 = 0.0003 0.0000 <= b1 < 0.0040  
b2 = 0.0037 0.0010 <= b2 < 0.0100  
b3 = 0.0002 0.0000 <= b3 < 0.0040  
Xq = 0.0849 0.0500 <= Xq < 0.2000  
a21 = 1.121346 1.050 <= a21 < 1.300  
a31 = 0.437570 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100682

Date: 08/10/2016  
Time: 10:23:59

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

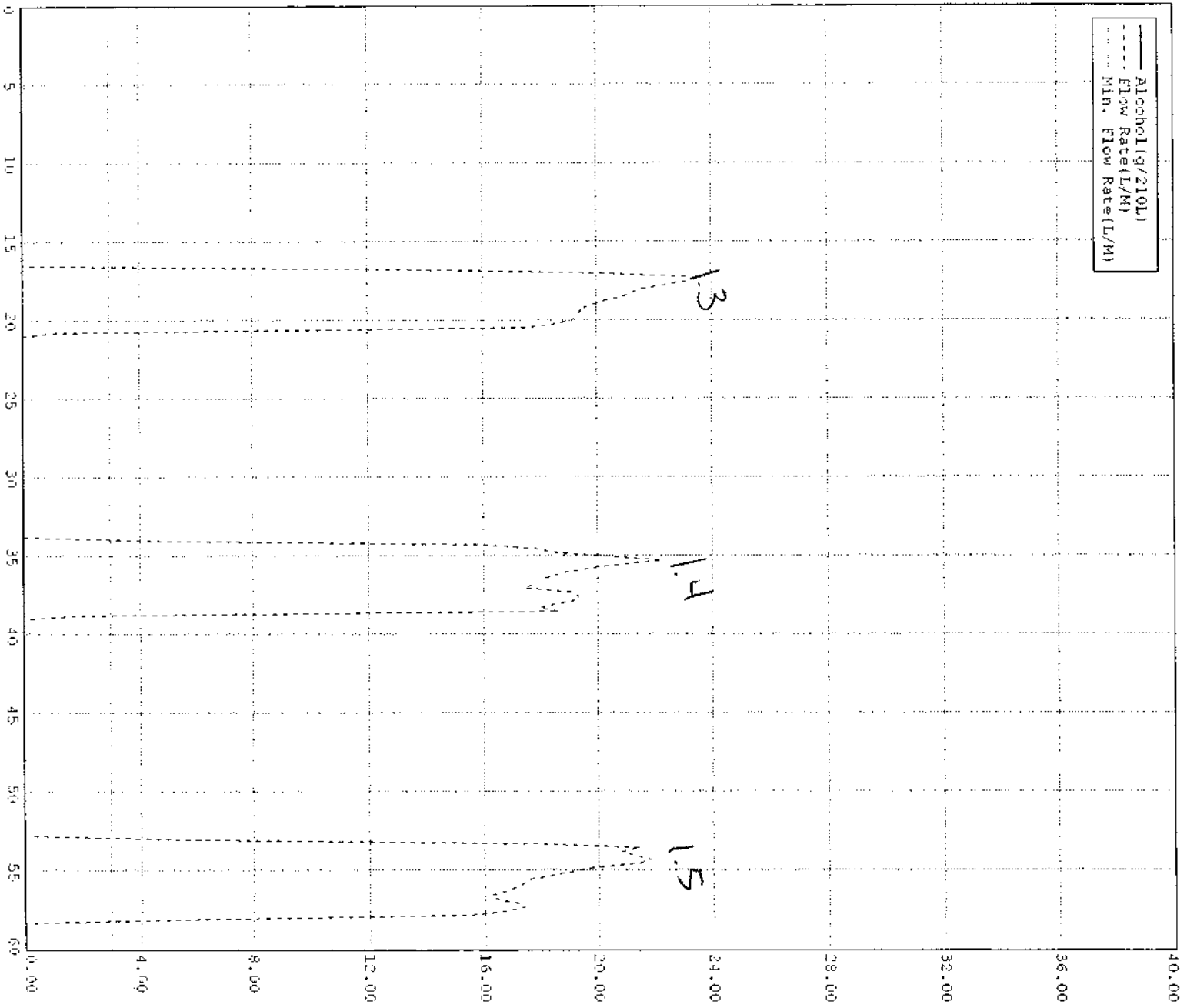
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:29
BLANK TEST	0.000	10:30
INTERNAL STANDARD	VERIFIED	10:30
EXTERNAL STANDARD	0.080	10:30
BLANK TEST	0.000	10:31
SUBJECT SAMPLE (Vol=1.51L)	0.000	10:32
BLANK TEST	0.000	10:33
EXTERNAL STANDARD	0.080	10:33
BLANK TEST	0.000	10:34

*BMB*



LINEARITY CHECK

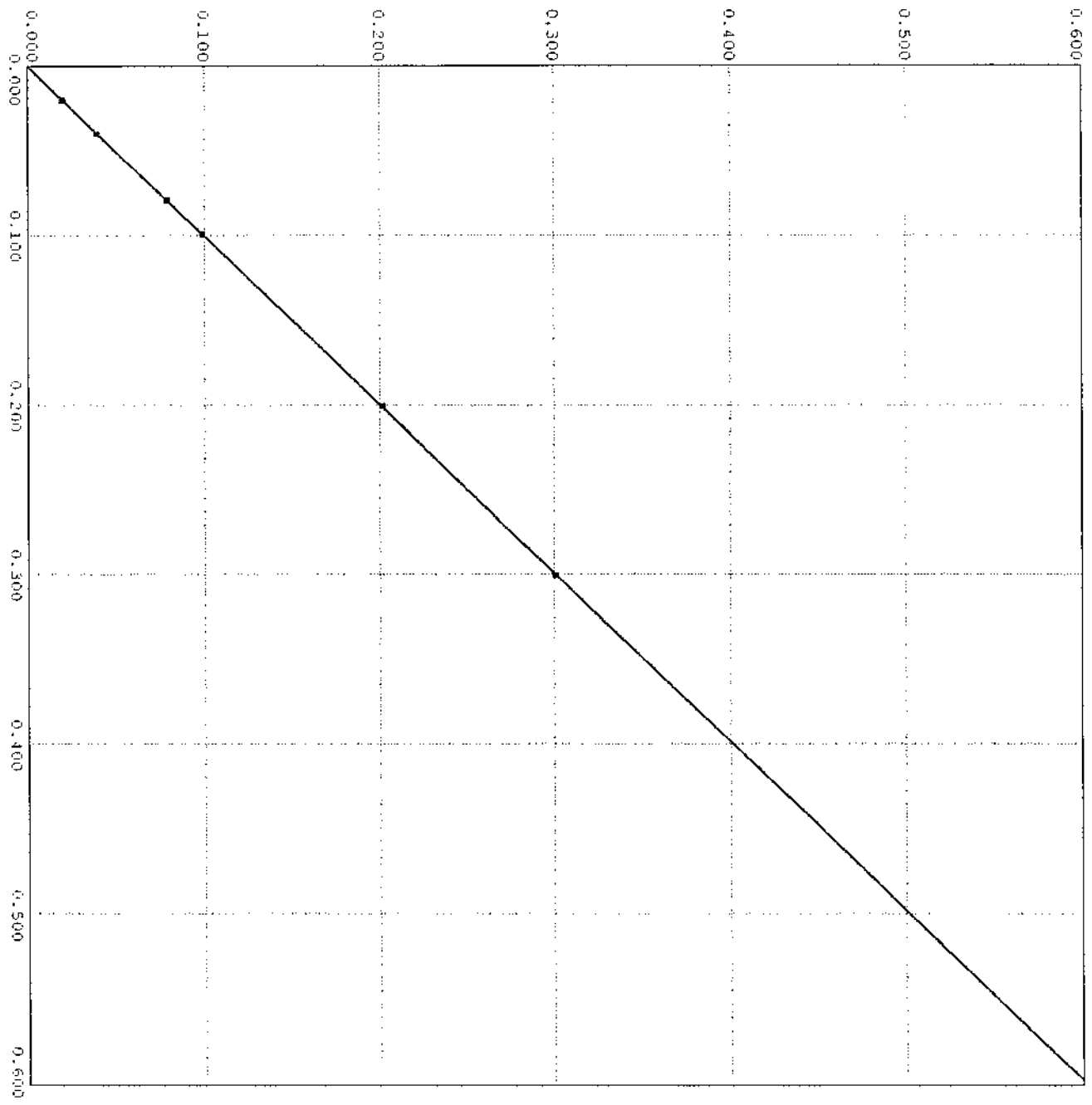
Alaska Department of Public Safety  
DATAMASTER dmt: 100682

Date: 08/10/2016  
Time: 12:56:59

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0204	0.0005
0.040	0.0402	0.0004
0.079	0.0800	0.0000
0.099	0.0998	0.0004
0.200	0.2022	0.0004
0.300	0.3014	0.0013

SLOPE  $\approx$  1.005172  
 $R^2$  = 0.999981



*Handwritten signature/initials*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

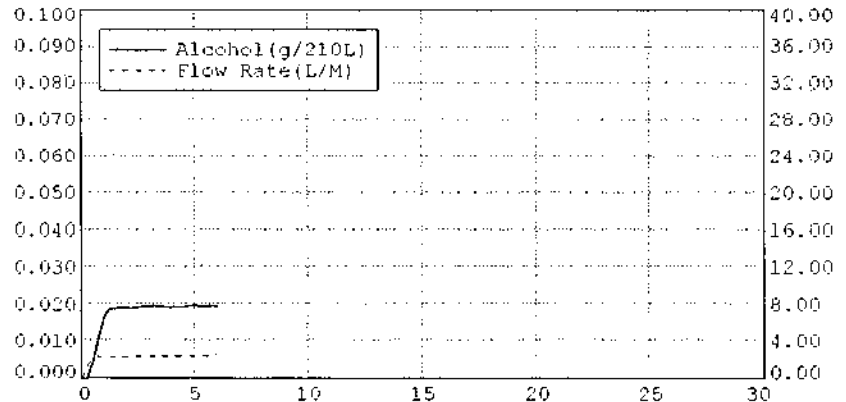
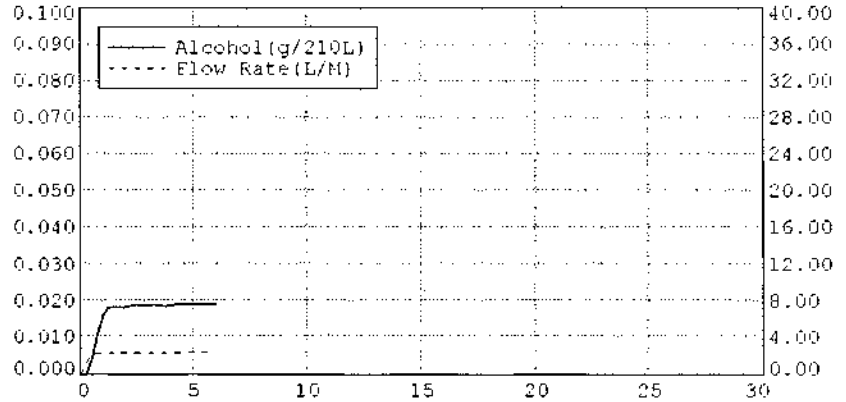
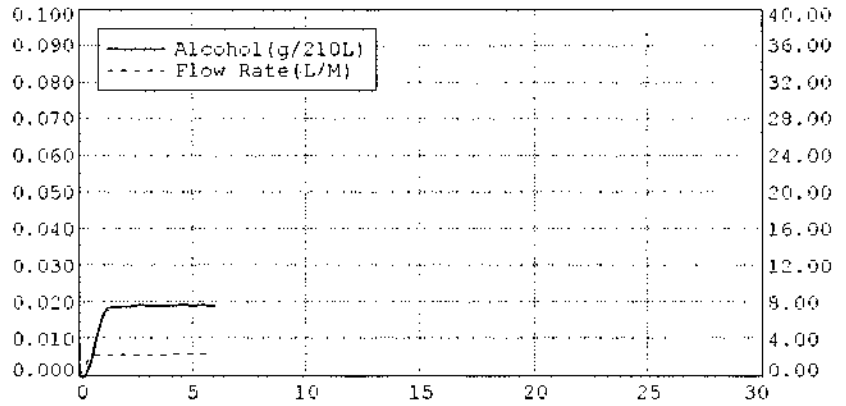
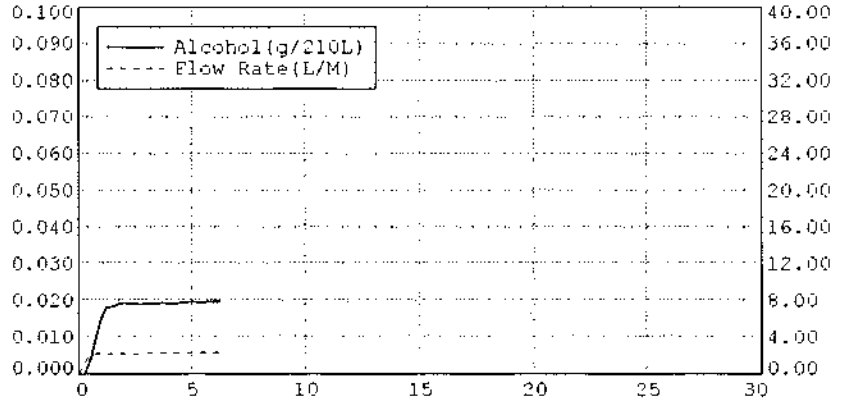
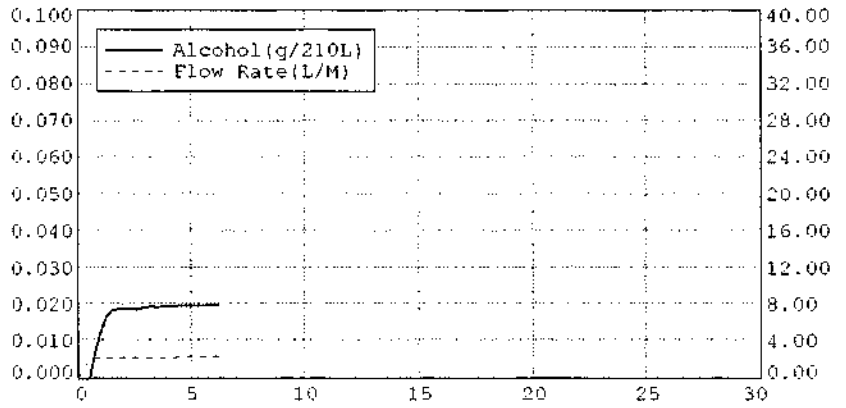
Date: 08/10/2016  
 Time: 12:57:01

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.72: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 435 psi

BLANK TEST	0.000	12:58
INTERNAL STANDARD	VERIFIED	12:58
EXTERNAL STANDARD	0.021	12:58
BLANK TEST	0.000	12:59
EXTERNAL STANDARD	0.020	12:59
BLANK TEST	0.000	13:00
EXTERNAL STANDARD	0.020	13:00
BLANK TEST	0.000	13:01
EXTERNAL STANDARD	0.020	13:01
BLANK TEST	0.000	13:02
EXTERNAL STANDARD	0.021	13:02
BLANK TEST	0.000	13:03

Average = 0.0204  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

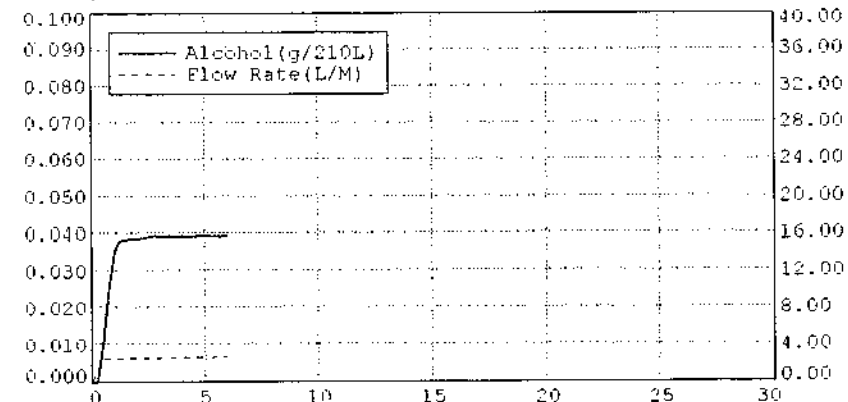
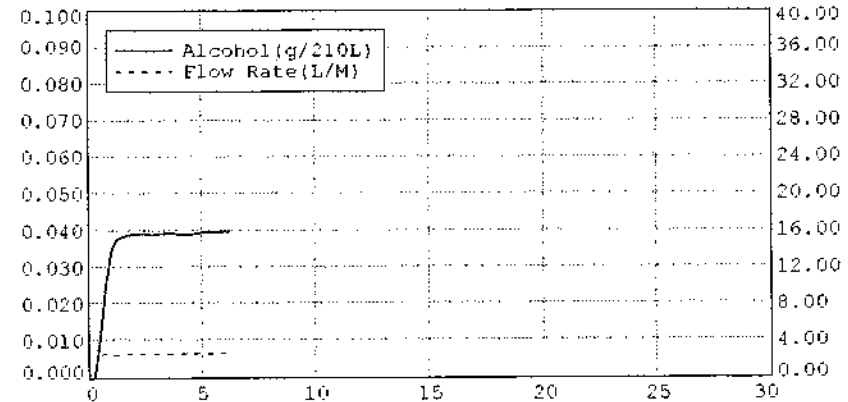
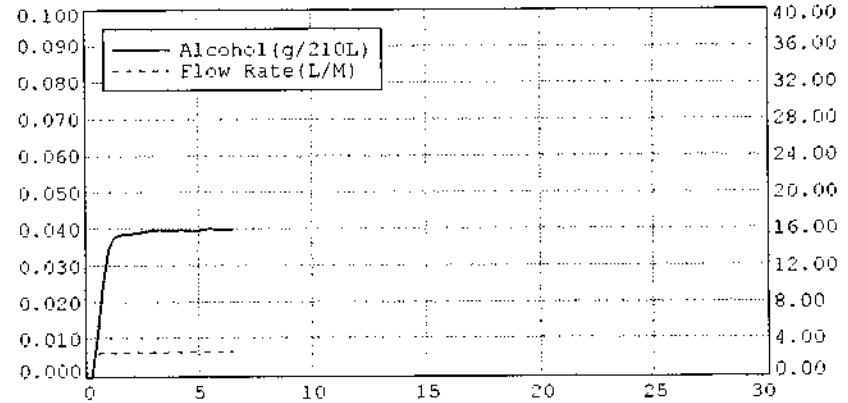
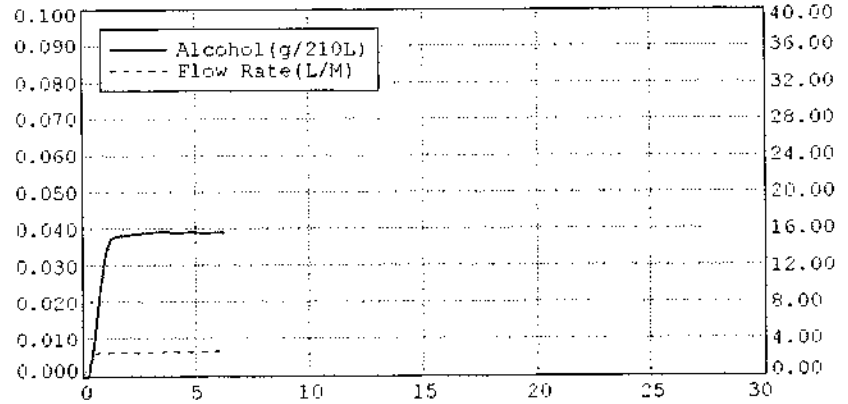
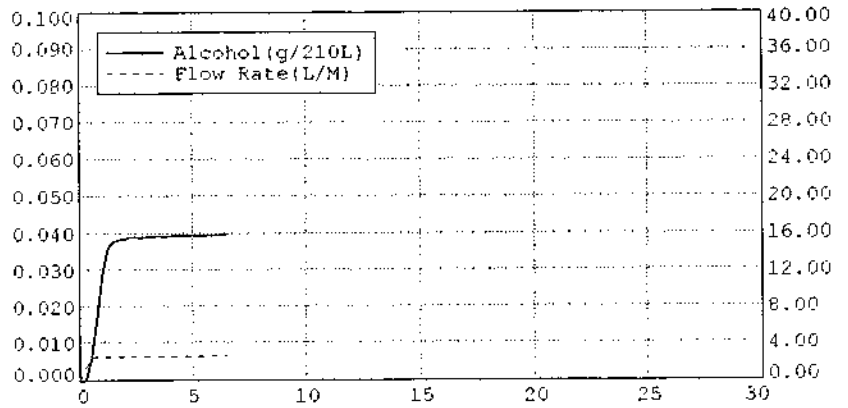
Date: 08/10/2016  
 Time: 13:06:26

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.72: 0.040  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 915 psi

BLANK TEST	0.000	13:07
INTERNAL STANDARD	VERIFIED	13:07
EXTERNAL STANDARD	0.040	13:07
BLANK TEST	0.000	13:08
EXTERNAL STANDARD	0.040	13:08
BLANK TEST	0.000	13:09
EXTERNAL STANDARD	0.041	13:10
BLANK TEST	0.000	13:10
EXTERNAL STANDARD	0.040	13:11
BLANK TEST	0.000	13:12
EXTERNAL STANDARD	0.040	13:12
BLANK TEST	0.000	13:13

Average = 0.0402  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

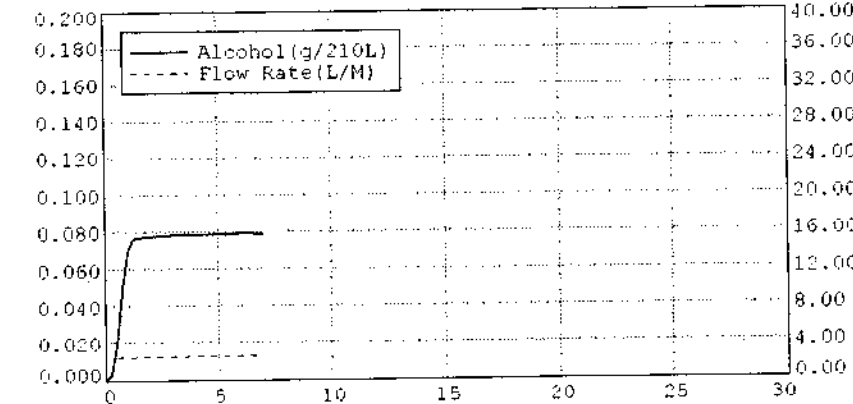
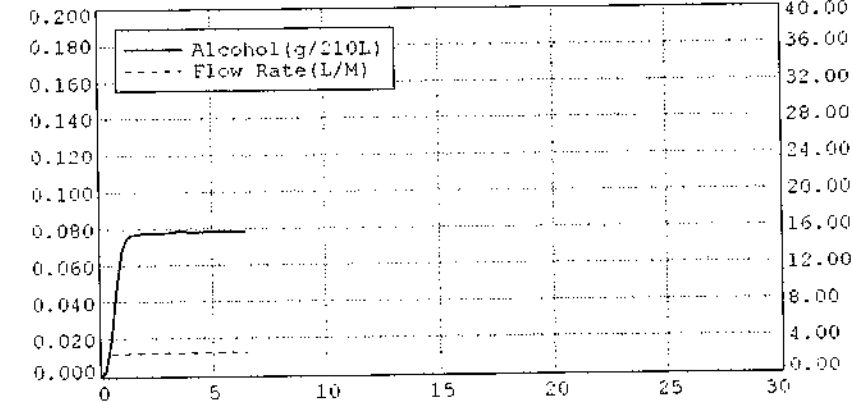
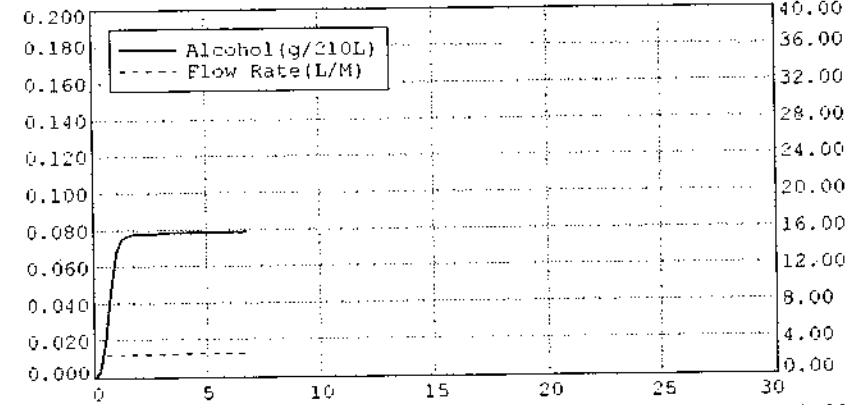
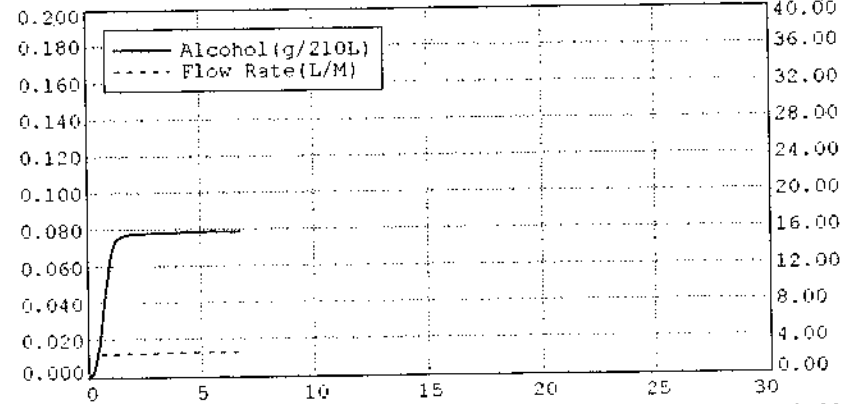
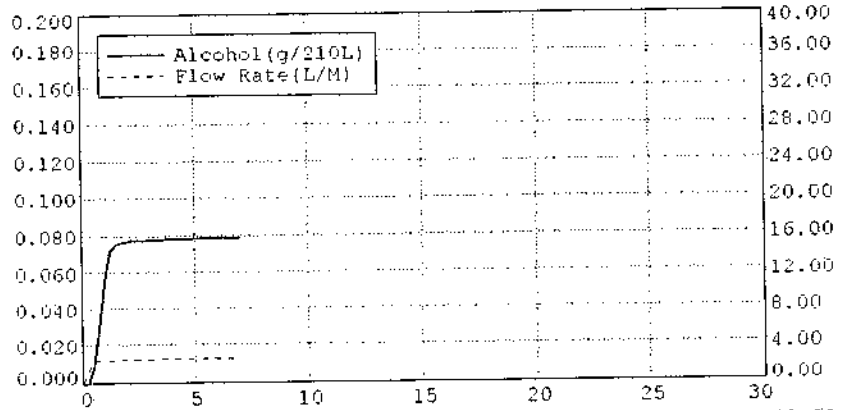
Date: 08/10/2016  
 Time: 13:19:17

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.72: 0.079  
 LOT #: AG608504  
 EXPIRATION: 03/25/2018  
 TANK PRESSURE: 888 psi

BLANK TEST	0.000	13:20
INTERNAL STANDARD	VERIFIED	13:20
EXTERNAL STANDARD	0.080	13:20
BLANK TEST	0.000	13:21
EXTERNAL STANDARD	0.080	13:21
BLANK TEST	0.000	13:22
EXTERNAL STANDARD	0.080	13:22
BLANK TEST	0.000	13:23
EXTERNAL STANDARD	0.080	13:23
BLANK TEST	0.000	13:24
EXTERNAL STANDARD	0.080	13:25
BLANK TEST	0.000	13:26

Average = 0.0800  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

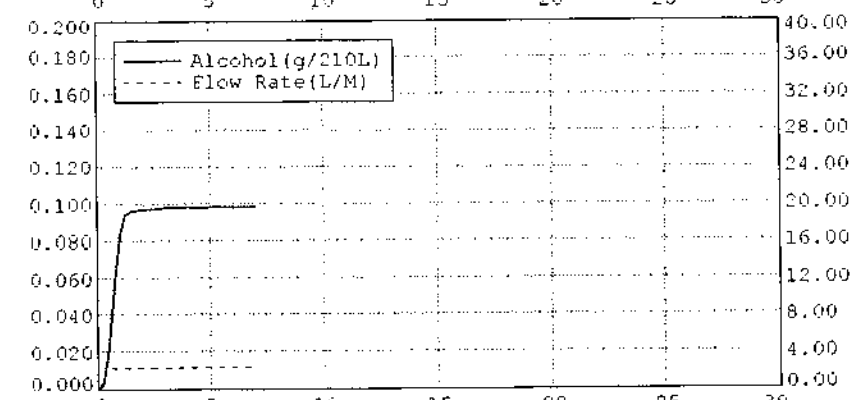
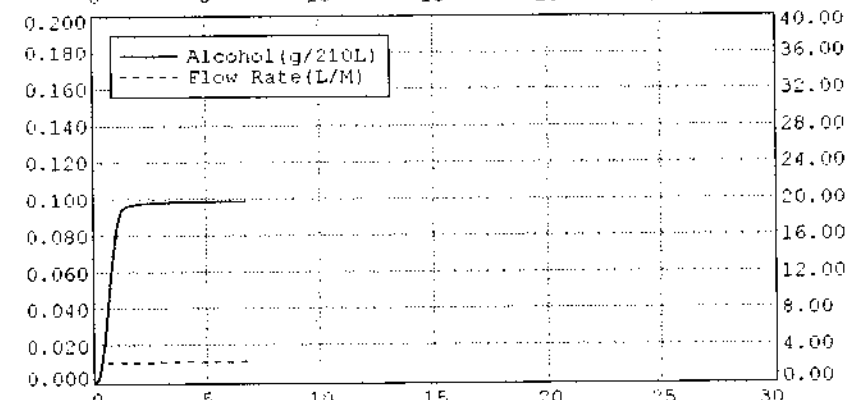
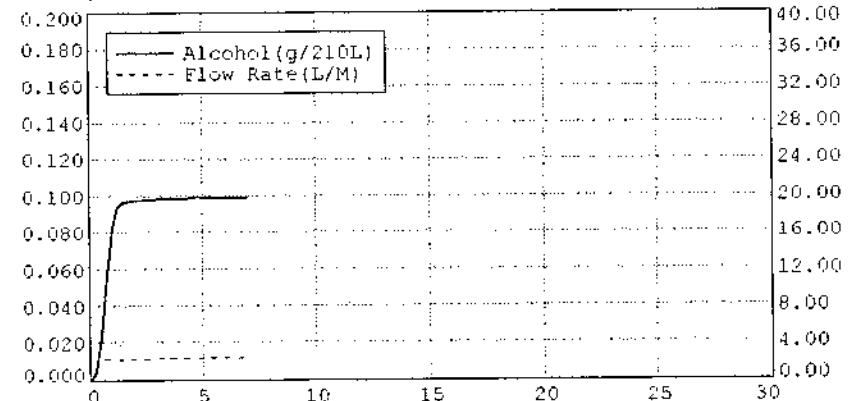
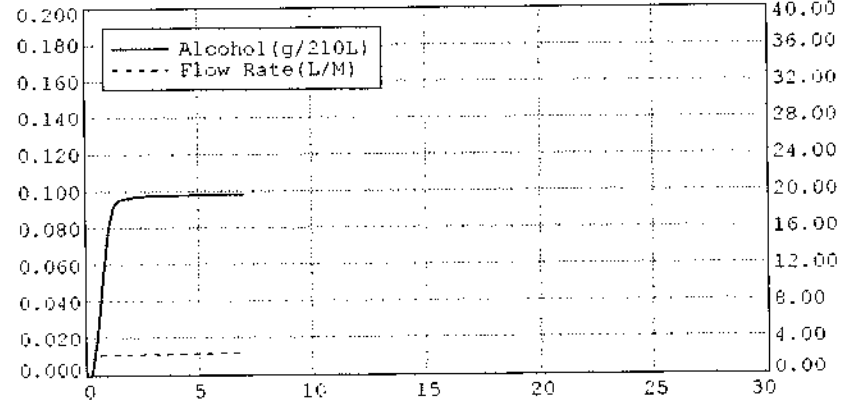
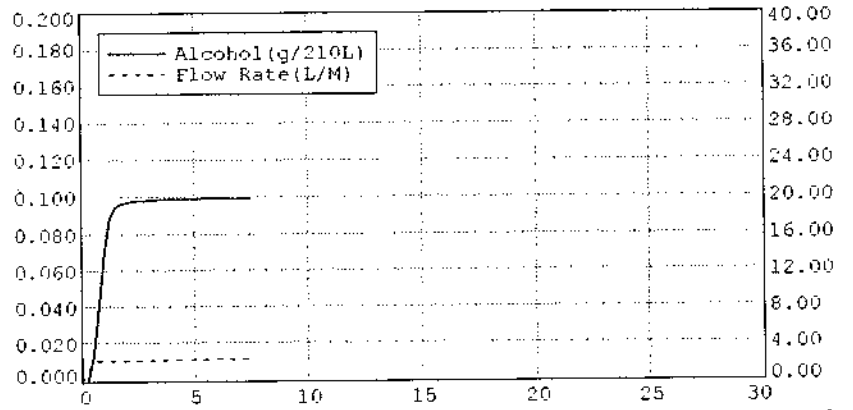
Date: 08/10/2016  
 Time: 13:30:51

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.72: 0.099  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 447 psi

BLANK TEST	0.000	13:31
INTERNAL STANDARD	VERIFIED	13:32
EXTERNAL STANDARD	0.100	13:32
BLANK TEST	0.000	13:33
EXTERNAL STANDARD	0.099	13:33
BLANK TEST	0.000	13:34
EXTERNAL STANDARD	0.100	13:34
BLANK TEST	0.000	13:35
EXTERNAL STANDARD	0.100	13:35
BLANK TEST	0.000	13:36
EXTERNAL STANDARD	0.100	13:36
BLANK TEST	0.000	13:37

Average = 0.0998  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

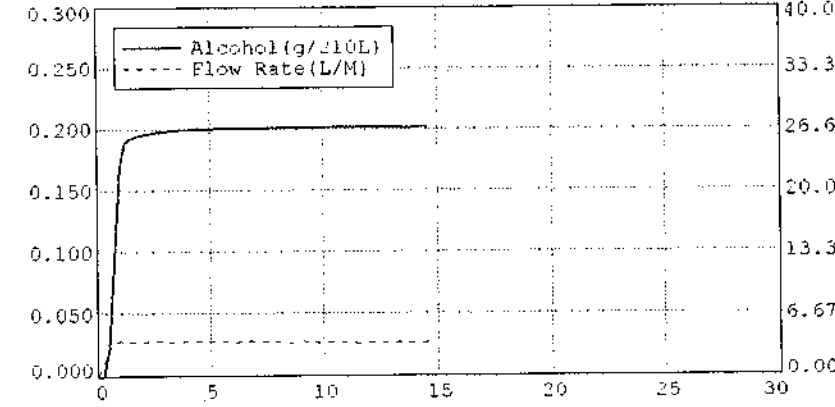
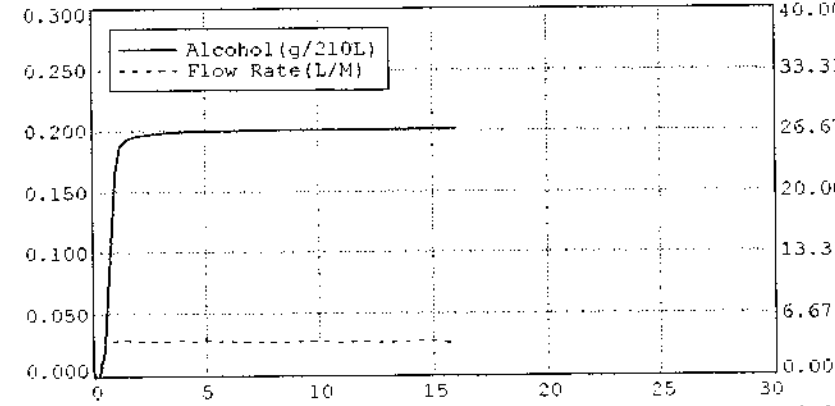
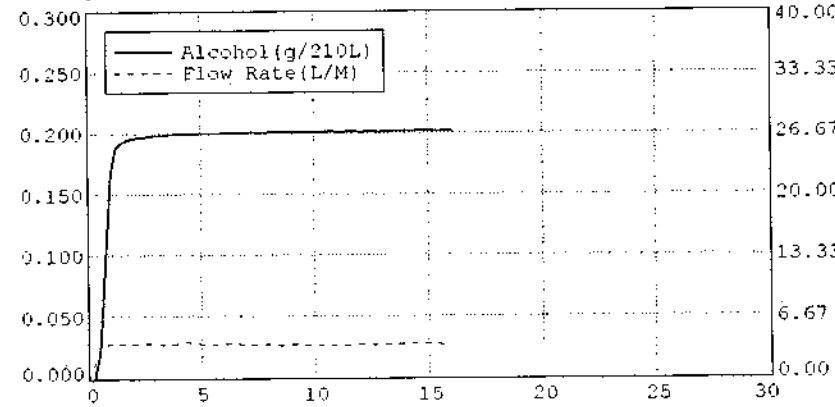
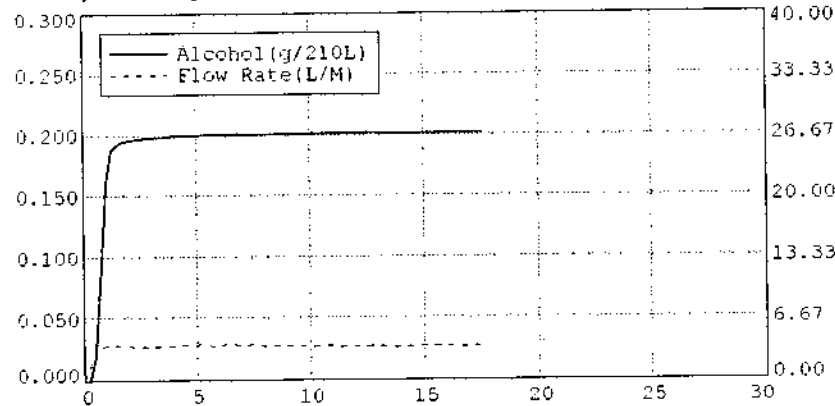
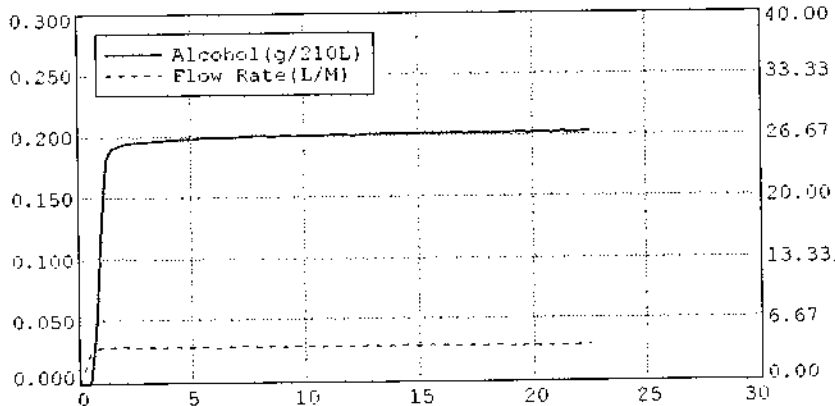
Date: 08/10/2016  
 Time: 13:42:14

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	13:43
INTERNAL STANDARD	VERIFIED	13:43
EXTERNAL STANDARD	0.203	13:43
BLANK TEST	0.000	13:44
EXTERNAL STANDARD	0.202	13:45
BLANK TEST	0.000	13:46
EXTERNAL STANDARD	0.202	13:46
BLANK TEST	0.000	13:47
EXTERNAL STANDARD	0.202	13:47
BLANK TEST	0.000	13:48
EXTERNAL STANDARD	0.202	13:49
BLANK TEST	0.000	13:50

Average = 0.2022  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

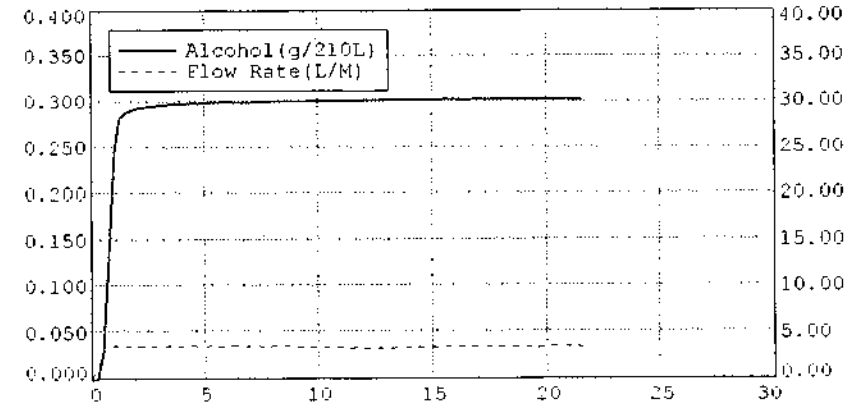
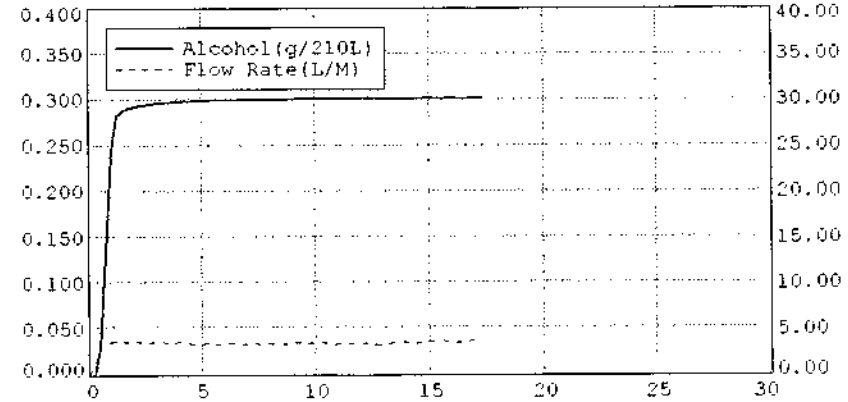
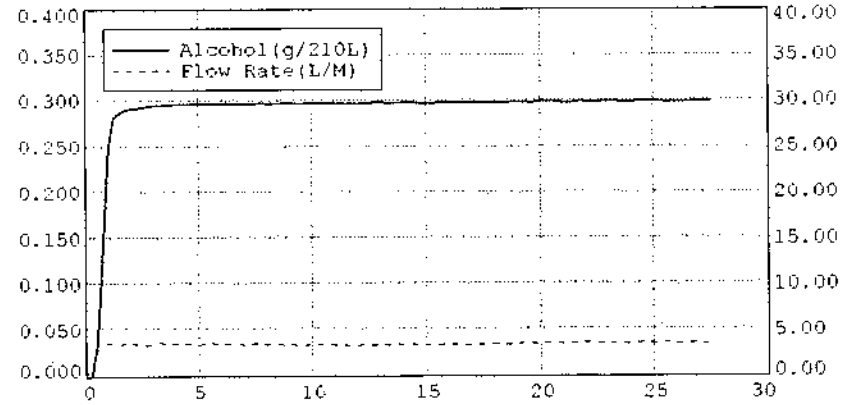
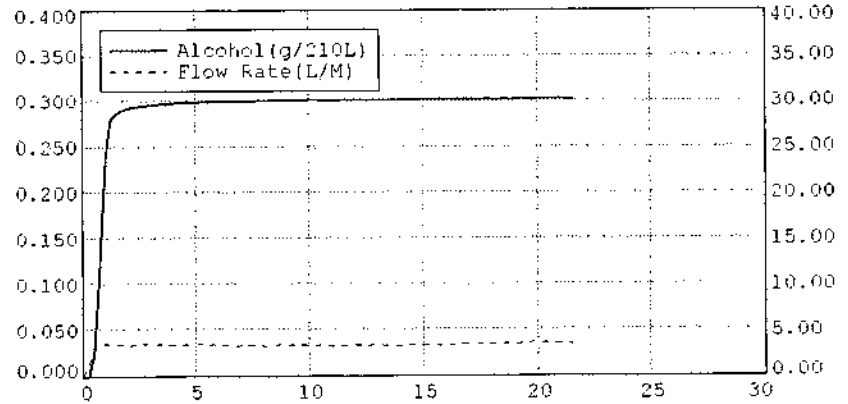
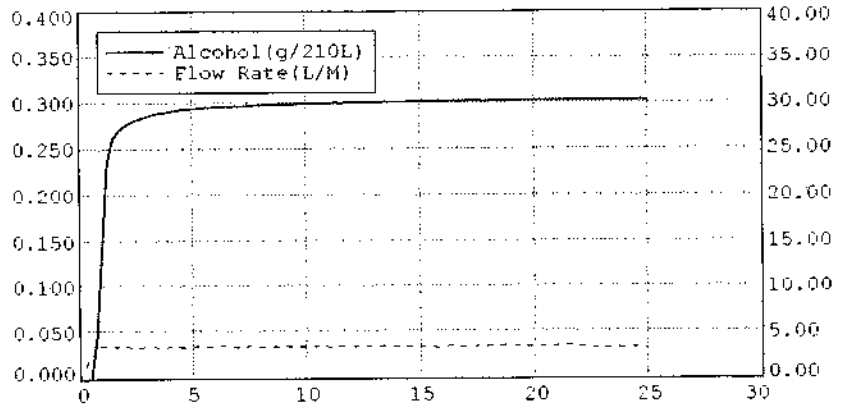
Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

Date: 08/10/2016  
 Time: 13:55:08

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: 15170  
 EXPIRATION: 07/20/2017

BLANK TEST	0.000	13:56
INTERNAL STANDARD	VERIFIED	13:56
EXTERNAL STANDARD	0.302	13:56
BLANK TEST	0.000	13:57
EXTERNAL STANDARD	0.302	13:58
BLANK TEST	0.000	13:59
EXTERNAL STANDARD	0.299	13:59
BLANK TEST	0.000	14:00
EXTERNAL STANDARD	0.302	14:01
BLANK TEST	0.000	14:02
EXTERNAL STANDARD	0.302	14:02
BLANK TEST	0.000	14:03

Average = 0.3014  
 Std Dev = 0.0013



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100682

Date: 08/11/2016  
Time: 09:09:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

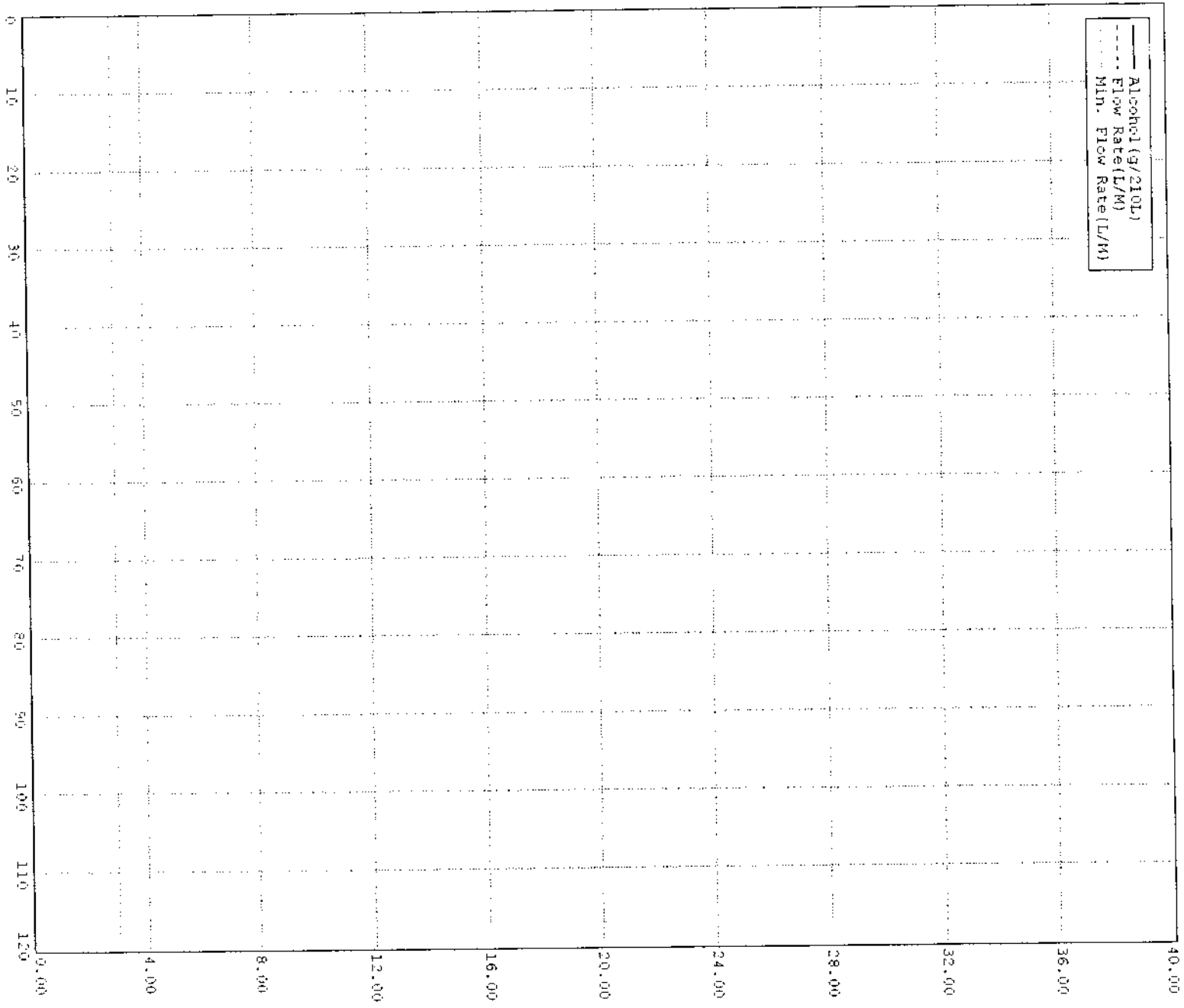
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	09:18
BLANK TEST	0.000	09:18
INTERNAL STANDARD	VERIFIED	09:18
EXTERNAL STANDARD	0.080	09:18
BLANK TEST	0.000	09:19
SUBJECT SAMPLE	INCOMPLETE	09:21

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SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100682

Date: 08/11/2016  
Time: 09:58:58

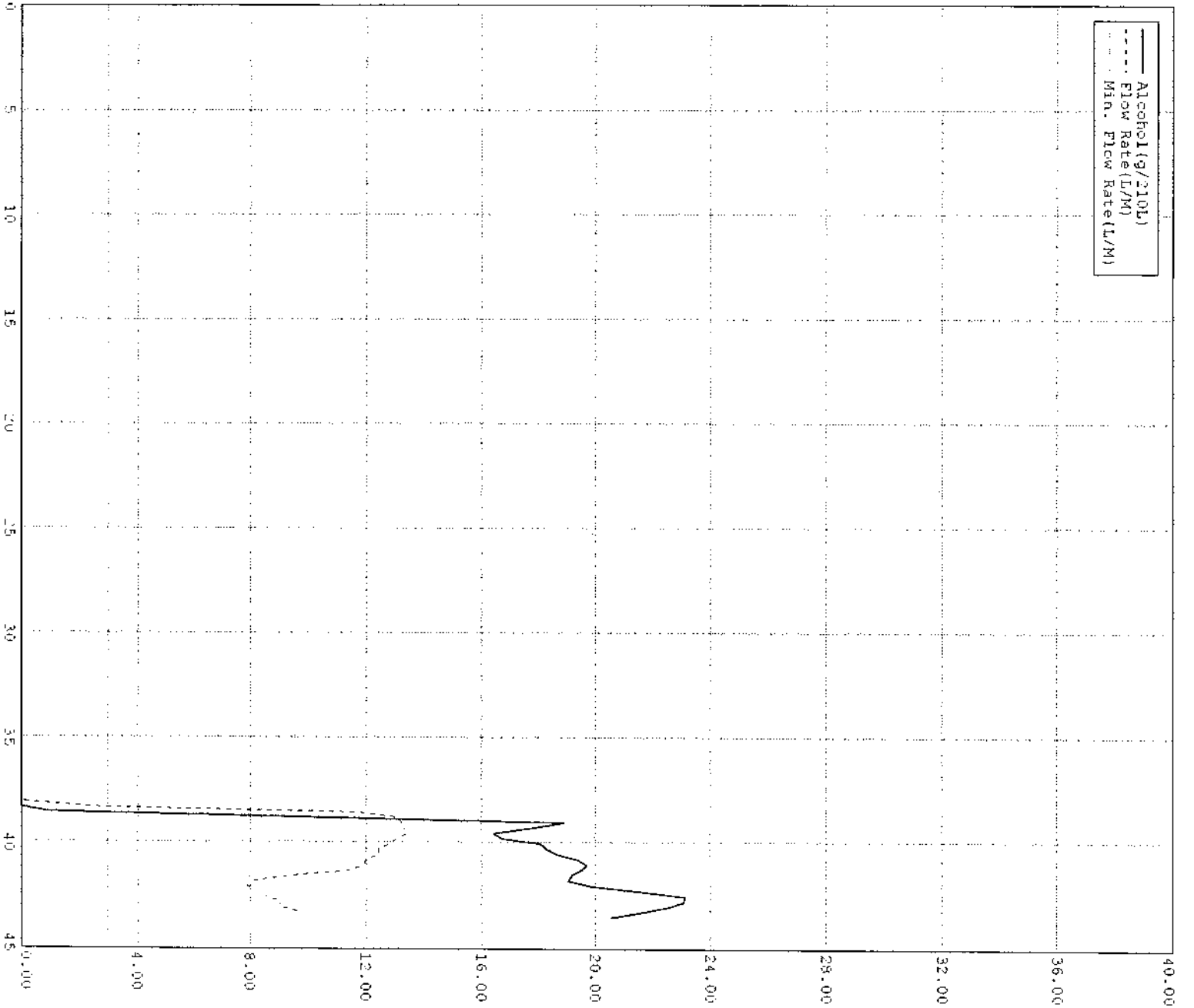
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX  
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:00
BLANK TEST	0.000	10:00
INTERNAL STANDARD	VERIFIED	10:00
EXTERNAL STANDARD	0.079	10:01
BLANK TEST	0.000	10:02
SUBJECT SAMPLE	INVALID	10:02

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100682

Date: 08/11/2016  
Time: 13:11:01

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

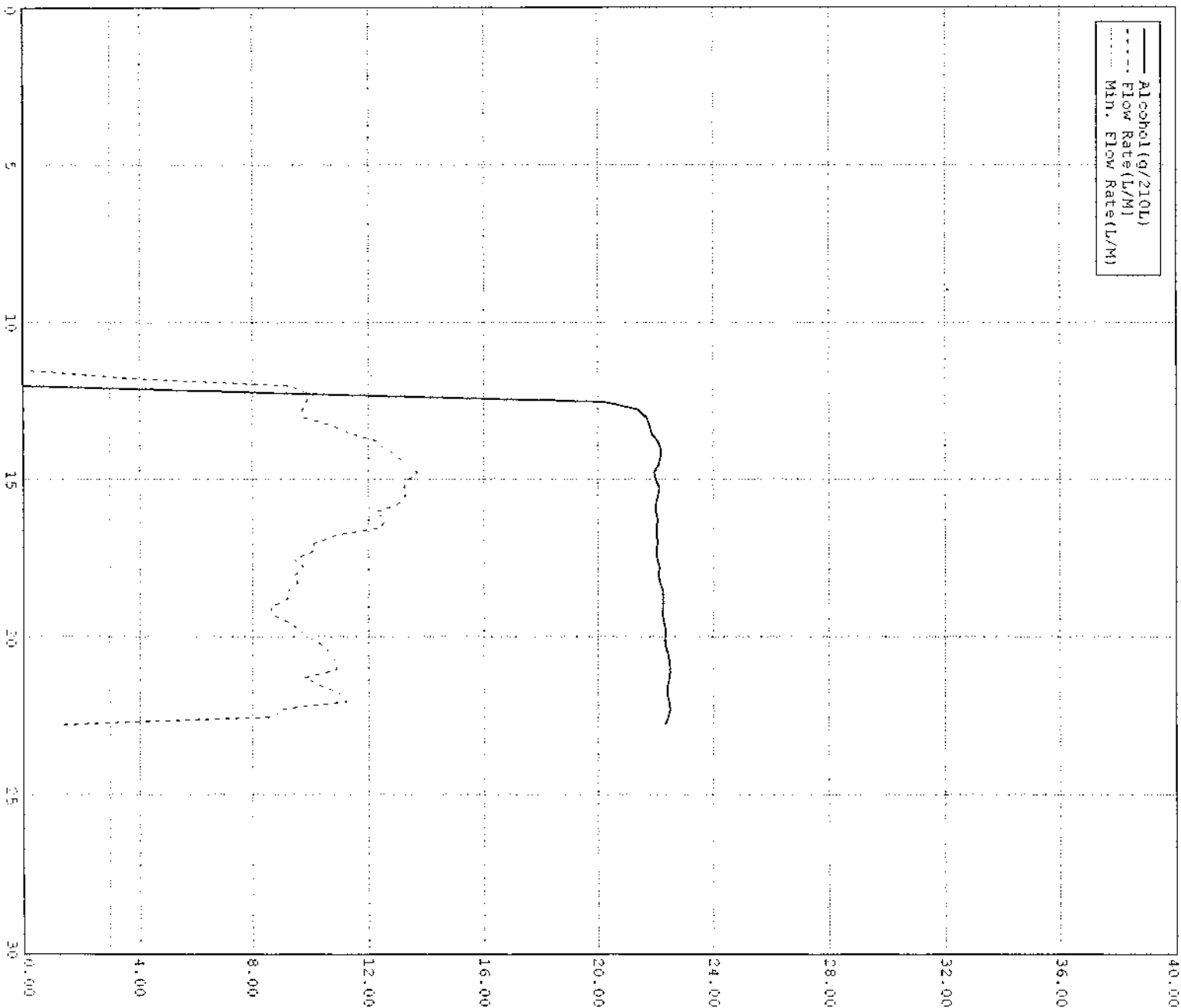
DEPT/AGENCY:  
INTERFERENCE ACETONE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:12
BLANK TEST	0.000	13:12
INTERNAL STANDARD	VERIFIED	13:12
Xq = 0.085 (0.31%)		
EXTERNAL STANDARD	0.080	13:12
X[1] = 0.0798 (0.0018) (0.0022)		
BLANK TEST	0.000	13:13
SUBJECT SAMPLE	XXX	13:13
X[1] = 0.1118 (-0.0150) (0.0013)		

Interference Detected

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100682

Date: 08/11/2016  
Time: 10:48:51

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

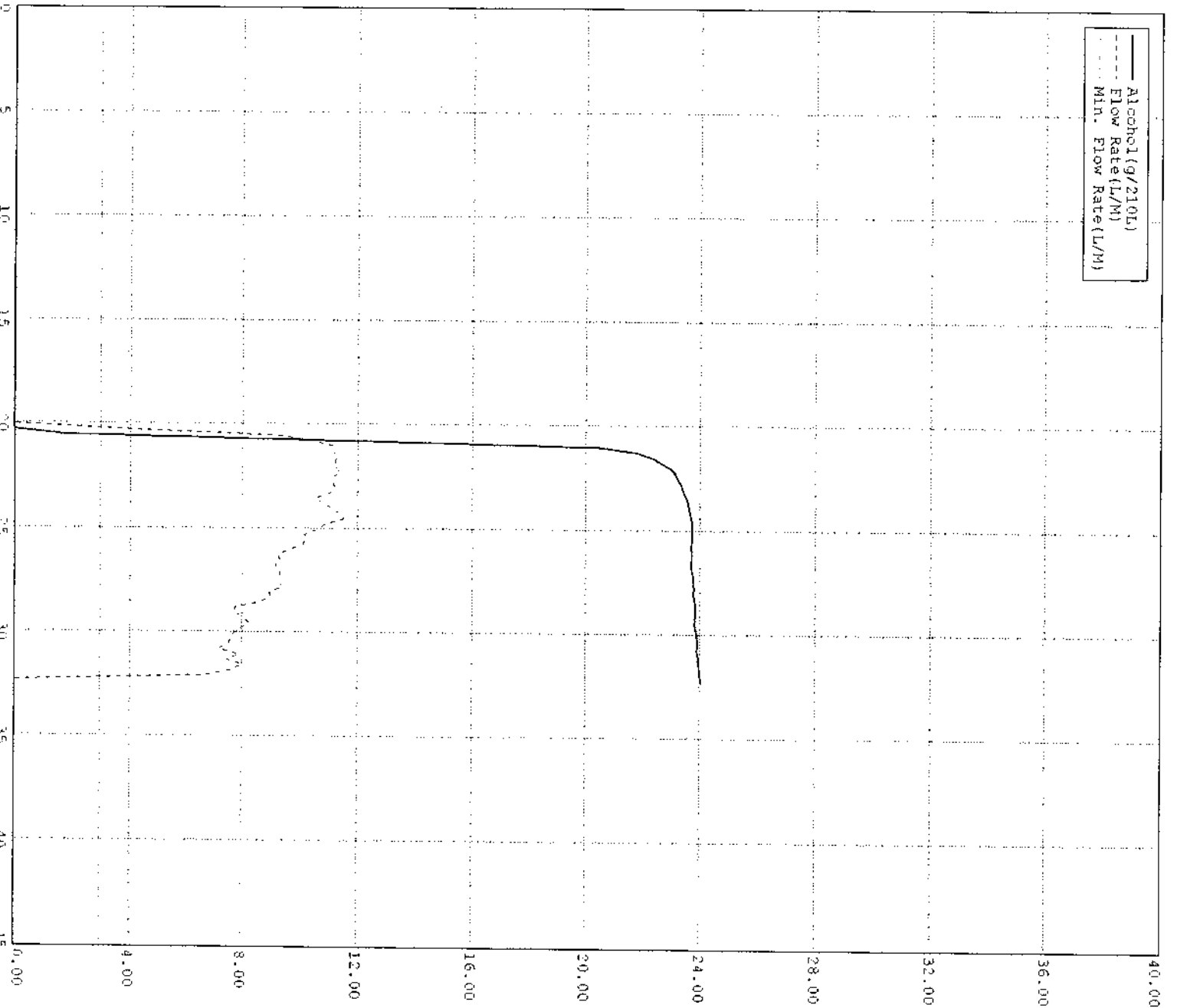
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 10:50  
BLANK TEST 0.000 10:50  
INTERNAL STANDARD VERIFIED 10:50  
Xq = 0.084 (0.928)  
EXTERNAL STANDARD 0.080 10:50  
X[1] = 0.0797 (0.0007) (0.0035)  
BLANK TEST 0.000 10:51  
SUBJECT SAMPLE XXX 10:52  
X[1] = 0.1201 (-0.0185) (0.0030)

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100682

Date: 08/11/2016  
Time: 13:18:26

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INTERREFERENCE NEGATIVE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

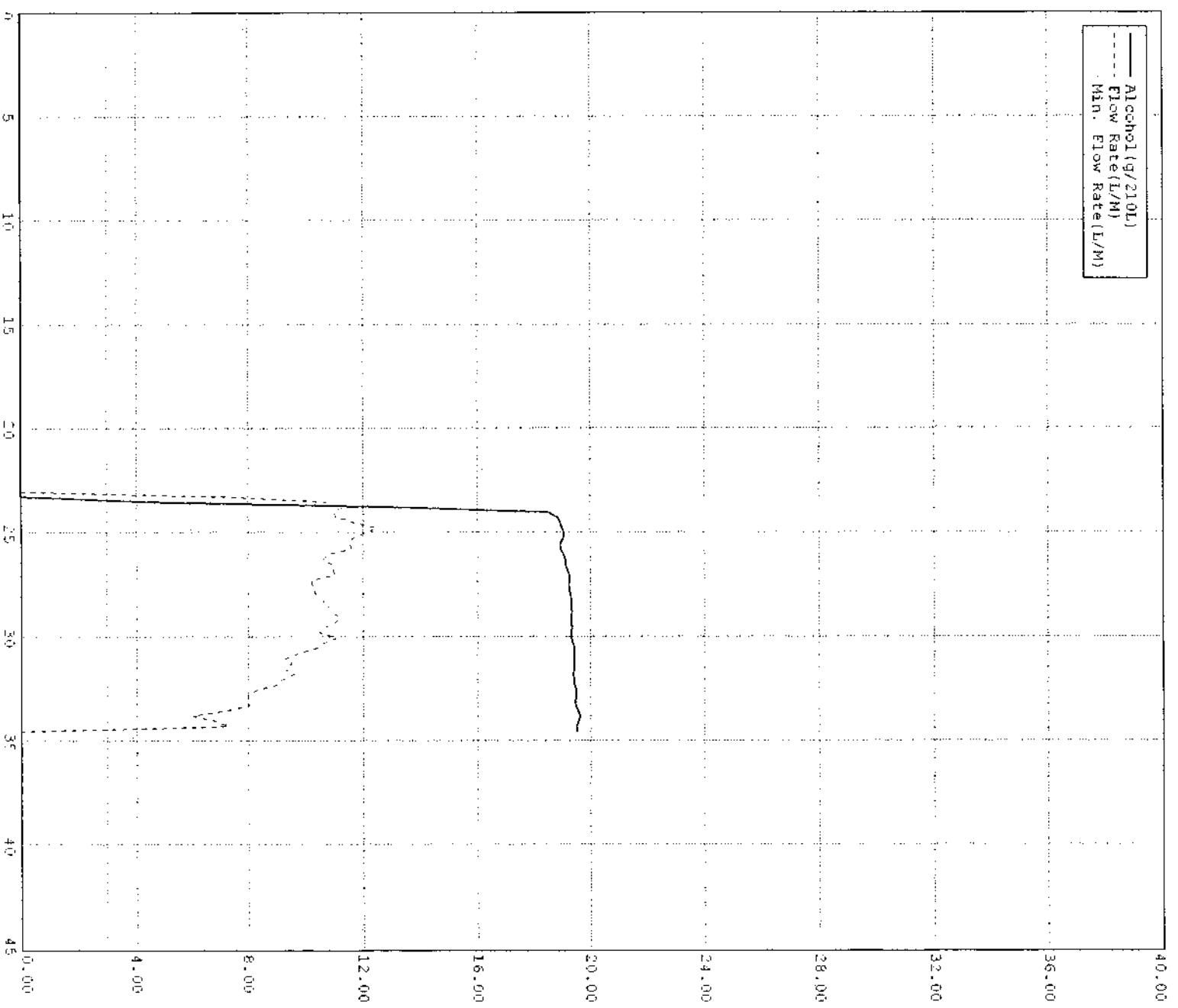
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:19
BLANK TEST	0.000	13:19
INTERNAL STANDARD	VERIFIED	13:19
Xg = 0.085 (0.00%)		
EXTERNAL STANDARD	0.081	13:20
X[1] = 0.0812 (0.0023)	(0.0020)	
BLANK TEST	0.000	13:21
SUBJECT SAMPLE (Vol=1.89L)	0.097	13:21
X[1] = 0.0976 (0.0002)	(-0.0002)	
BLANK TEST	0.000	13:22
EXTERNAL STANDARD	0.079	13:22
X[1] = 0.0786 (0.0004)	(0.0011)	
BLANK TEST	0.000	13:23

Flkr 2 Avg: 0.0013  
Flkr 3 Avg: 0.0022  
BMB 8/11/16

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100682

Date: 08/11/2016  
Time: 10:11:23

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

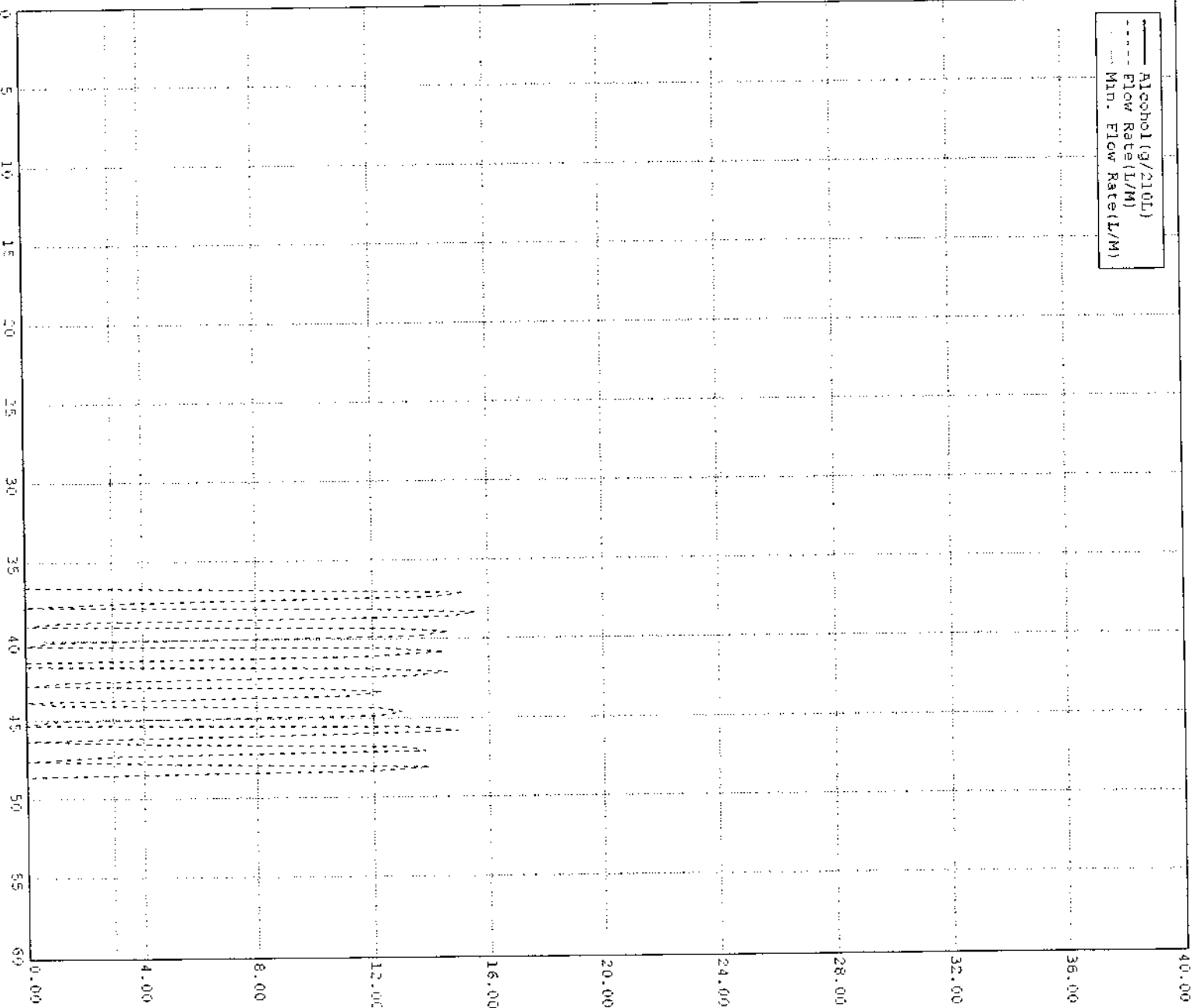
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:13
BLANK TEST	0.000	10:13
INTERNAL STANDARD	VERIFIED	10:13
EXTERNAL STANDARD	0.080	10:13
BLANK TEST	0.000	10:14
SUBJECT SAMPLE	XXX	10:15

Maximum Attempts Exceeded

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATALMASTER dmt: 100682

Date: 08/11/2016  
Time: 10:18:03

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

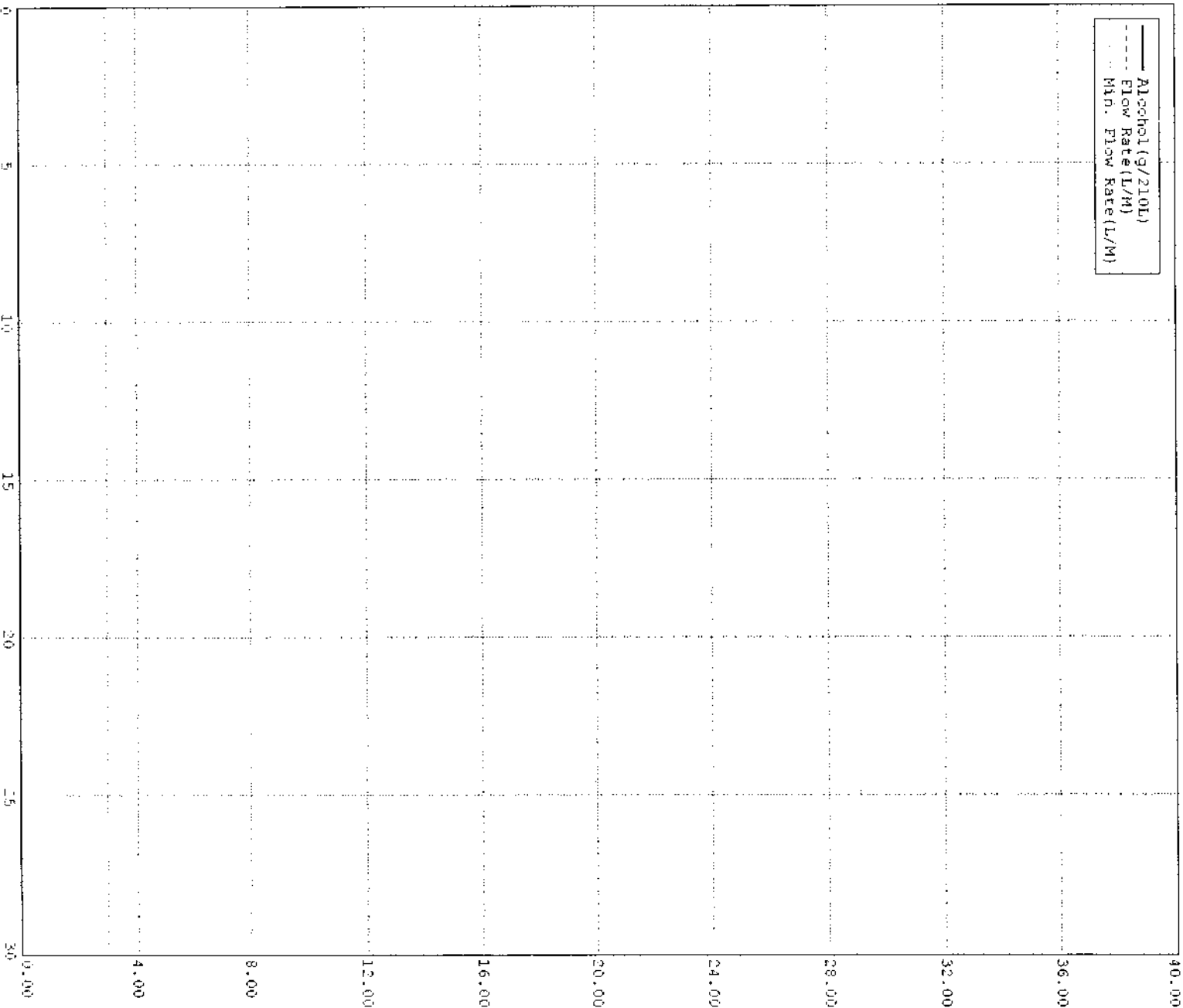
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AP 29.72: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:19
BLANK TEST	0.000	10:19
INTERNAL STANDARD	VERIFIED	10:19
EXTERNAL STANDARD	0.080	10:19
BLANK TEST	0.000	10:20

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100682

Date: 08/11/2016  
Time: 13:42:20

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 AF 29.71: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:43
BLANK TEST	0.000	13:43
INTERNAL STANDARD	VERIFIED	13:43
EXTERNAL STANDARD	0.081	13:44
BLANK TEST	0.000	13:45
SUBJECT SAMPLE (Vol=1.71L)	0.000	13:45
BLANK TEST	0.000	13:46
EXTERNAL STANDARD	0.080	13:46
BLANK TEST	0.000	13:47

*BMB*

