

# 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 100374 Analyst Brandi Barnett Start Date 5/29/18

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 400 <sup>Bmb</sup> 1.6 L (1.3L to 1.7L)
4. Linearity Test (attached)

- a. Levels Used
  - i. 0.020g/210L Mnf Airgas Lot AG616504 Exp 6/13/18
  - ii. 0.040g/210L Mnf Airgas Lot AG630101 Exp 10/27/18
  - iii. 0.080g/210L Mnf Airgas Lot AG634001 Exp 12/5/2018
  - iv. 0.100g/210L Mnf Airgas Lot AG629304 Exp 10/19/18
  - v. 0.200g/210L Mnf Guth Lot 17090 Exp 2/24/19
    1. Simulator S/N DR5298 Date Calibrated 1/24/18
  - vi. 0.300g/210L Mnf Guth Lot 17140 Exp 5/15/19
    1. Simulator S/N SD1202 Date Calibrated 1/24/18

5. Functional Tests (attached)
  - a. Incomplete
  - b. Invalid
  - c. Interference
  - d. Exceeded attempts
  - i. Acetone - Mnf Guth Lot 17280 Level 0.100 Exp 9/11/19
    1. Simulator S/N SD1177 Date Calibrated 1/24/18
  - ii. Isopropanol - Mnf Guth Lot 17280 Level 0.100 Exp 9/11/19
    1. Simulator S/N SD1199 Date Calibrated 1/24/18
  - iii. Negative Control - Mnf Guth Lot 18070 Level 0.100 Exp 2/26/20
    1. Simulator S/N DR4161 Date Calibrated 1/24/18

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 5/30/18

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100374  
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Date: 05/29/2018  
Time: 08:58:58

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 46.6°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.56 V PASSED  
(0.95 V - 2.23 V)  
Cooler Voltage = 1.51 V PASSED  
(0.86 V - 2.00 V)  
Bias Voltage = 79 V PASSED  
(48 V - 112 V)  
Chopper Freq = 534 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.8 in

PUMP INFO

Flow Rate = 4.203 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 = 0.094 1.23% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100374  
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Date: 05/29/2018  
Time: 9:15 AM

Temperatures (°C)  
Sample Cell: 48.6°C  
Breath Tube: 45.9°C

Current Barometer 29.7 in  
Volume (Ltr) 1.44

Settings  
Lamp: 1.62 V  
Bias: 79 V  
Cooler: 1.51 V  
Chopper: 532 Hz

Voltages (V)  
Flow: 1.05 V  
Detector: -0.034 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100374  
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Date: 08/12/2015  
Time: 13:25:02

OPERATOR NAME:  
COLLEEN S OBRYANT  
CERTIFICATE #: 6237

Ca	=	0.1000		
CAL	=	0.953026	0.800	<= CAL < 1.200
b1	=	0.0005	0.0000	<= b1 < 0.0040
b2	=	0.0070	0.0010	<= b2 < 0.0100
b3	=	0.0001	0.0000	<= b3 < 0.0040
Xq	=	0.0925	0.0500	<= Xq < 0.2000
a21	=	1.201969	1.050	<= a21 < 1.300
a31	=	0.393302	0.300	<= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

Date: 05/29/2018  
Time: 09:16:44

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

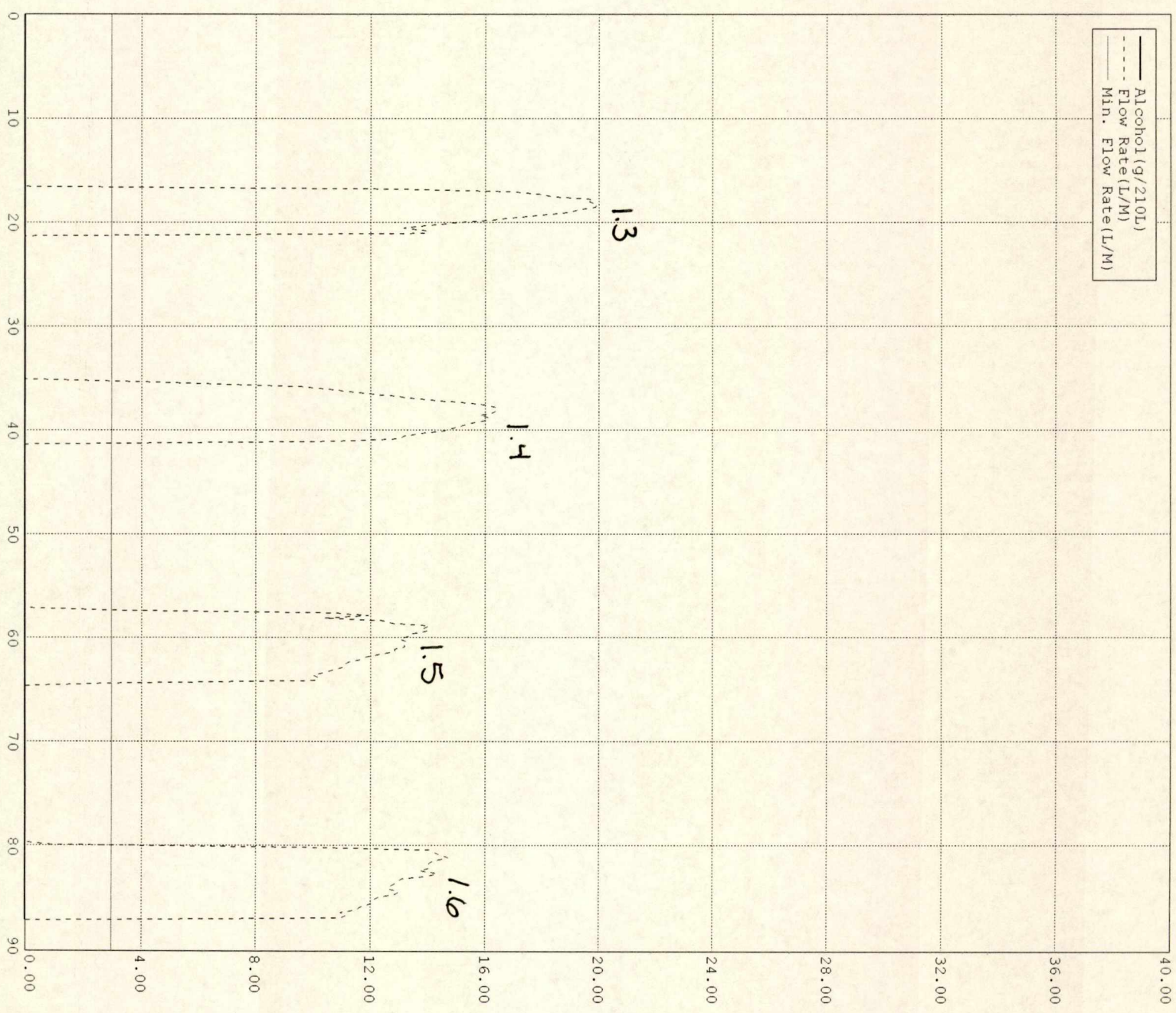
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	09:17
BLANK TEST	0.000	09:17
INTERNAL STANDARD	VERIFIED	09:18
EXTERNAL STANDARD	0.078	09:18
BLANK TEST	0.000	09:19
SUBJECT SAMPLE (Vol=1.50L)	0.000	09:20
BLANK TEST	0.000	09:21
EXTERNAL STANDARD	0.077	09:21
BLANK TEST	0.000	09:22

*BMB*



LINEARITY CHECK

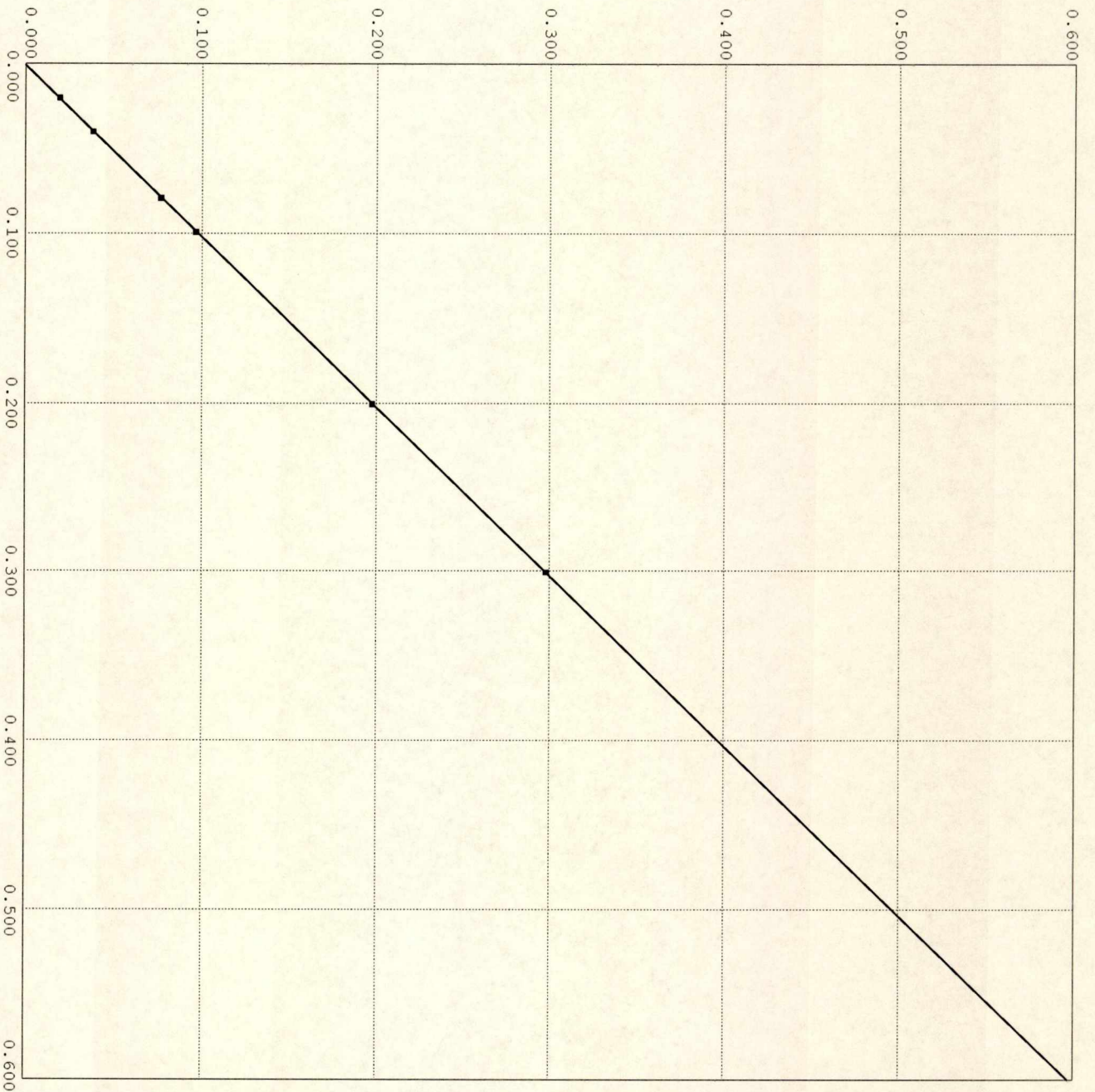
Alaska Department of Public Safety  
DATAMASTER dmt: 100374

Date: 05/29/2018  
Time: 11:49:41

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.040	0.0390	0.0000
0.079	0.0776	0.0005
0.099	0.0976	0.0005
0.200	0.1984	0.0005
0.300	0.2986	0.0005

SLOPE = 0.996633  
R<sup>2</sup> = 0.999981



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100374

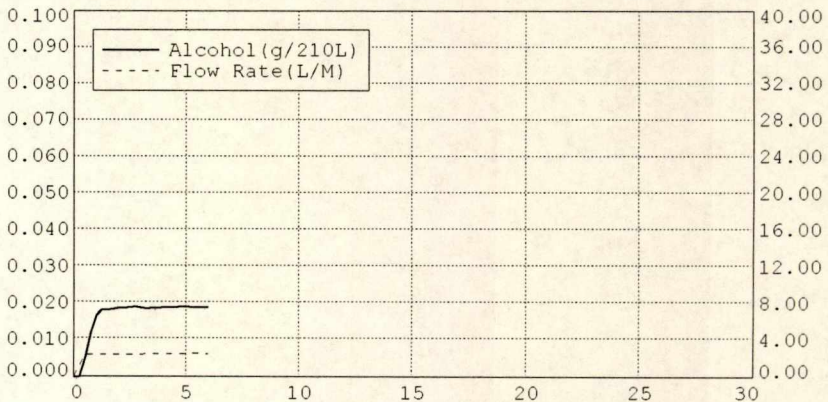
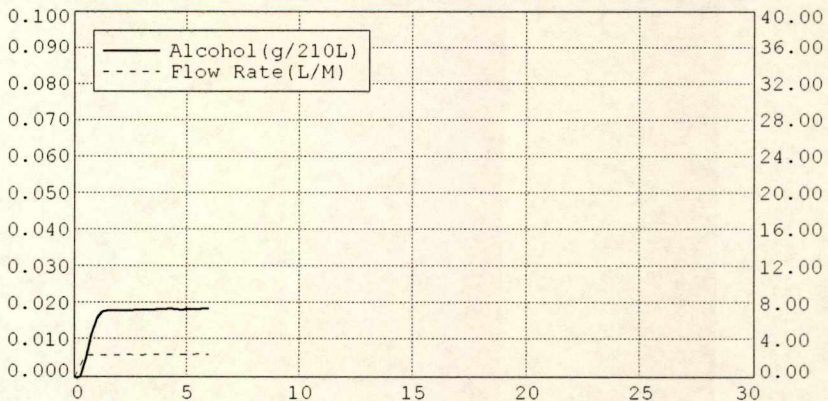
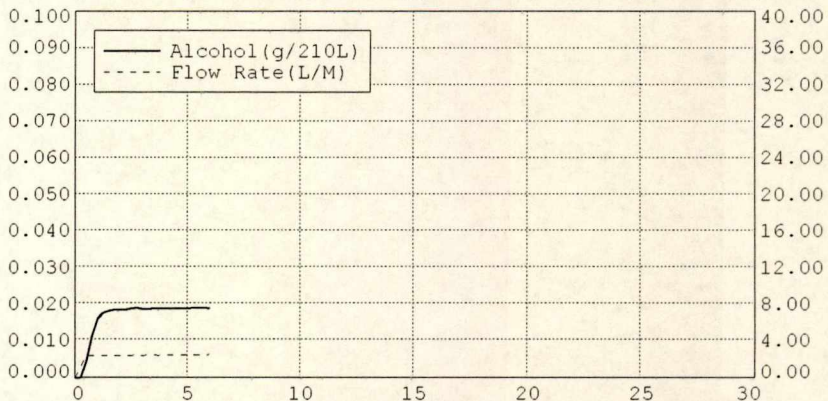
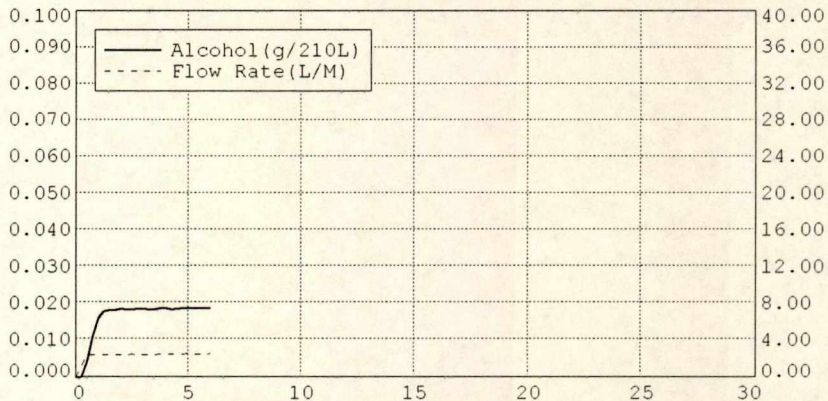
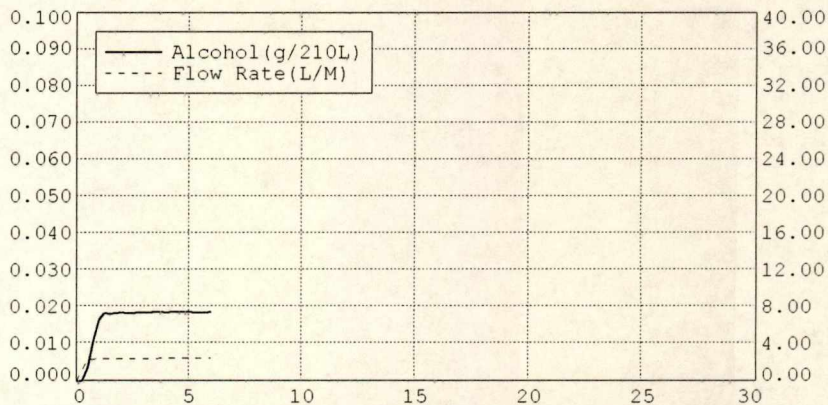
Date: 05/29/2018  
 Time: 11:49:43

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.71: 0.020  
 LOT #: AG616504  
 EXPIRATION: 06/13/2018  
 TANK PRESSURE: 1077 psi

BLANK TEST	0.000	11:50
INTERNAL STANDARD	VERIFIED	11:50
EXTERNAL STANDARD	0.020	11:51
BLANK TEST	0.000	11:51
EXTERNAL STANDARD	0.020	11:52
BLANK TEST	0.000	11:53
EXTERNAL STANDARD	0.020	11:53
BLANK TEST	0.000	11:54
EXTERNAL STANDARD	0.020	11:54
BLANK TEST	0.000	11:55
EXTERNAL STANDARD	0.020	11:55
BLANK TEST	0.000	11:56

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

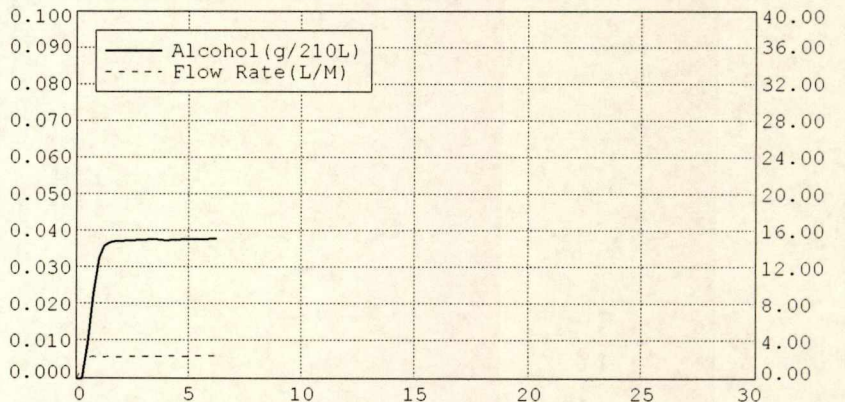
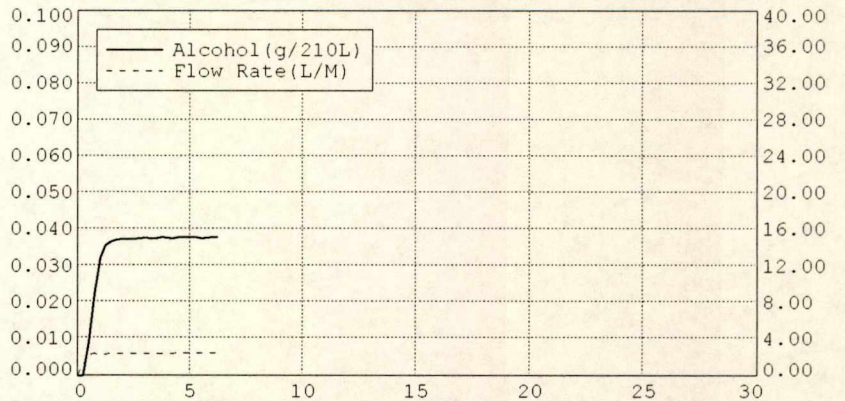
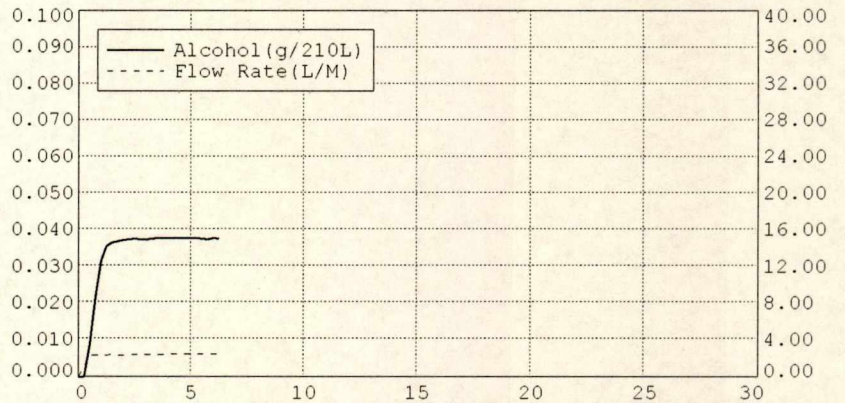
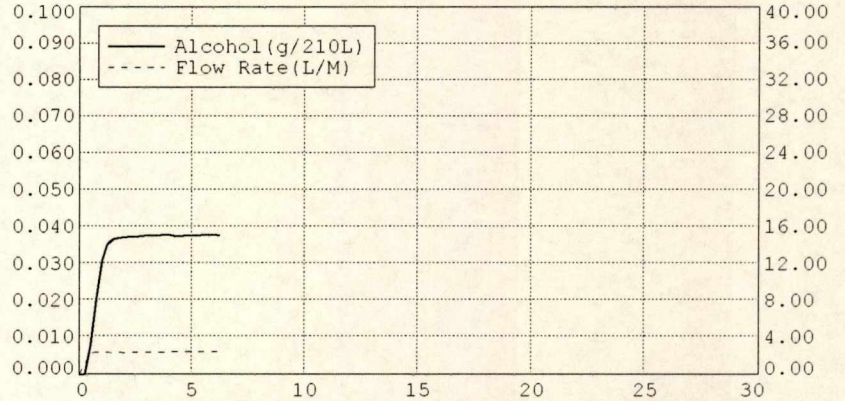
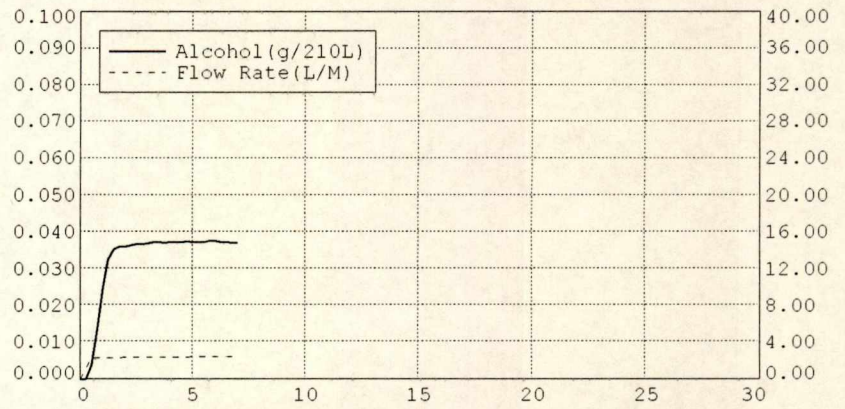
Date: 05/29/2018  
Time: 11:58:06

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
TARGET AT 29.71: 0.040  
LOT #: AG630101  
EXPIRATION: 10/27/2018  
TANK PRESSURE: 1002 psi

BLANK TEST	0.000	12:00
INTERNAL STANDARD	VERIFIED	12:00
EXTERNAL STANDARD	0.039	12:00
BLANK TEST	0.000	12:01
EXTERNAL STANDARD	0.039	12:01
BLANK TEST	0.000	12:02
EXTERNAL STANDARD	0.039	12:02
BLANK TEST	0.000	12:03
EXTERNAL STANDARD	0.039	12:03
BLANK TEST	0.000	12:04
EXTERNAL STANDARD	0.039	12:04
BLANK TEST	0.000	12:05

Average = 0.0390  
Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

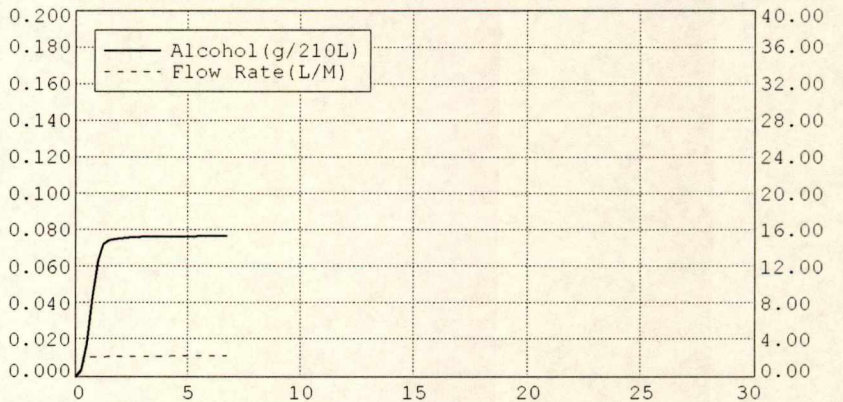
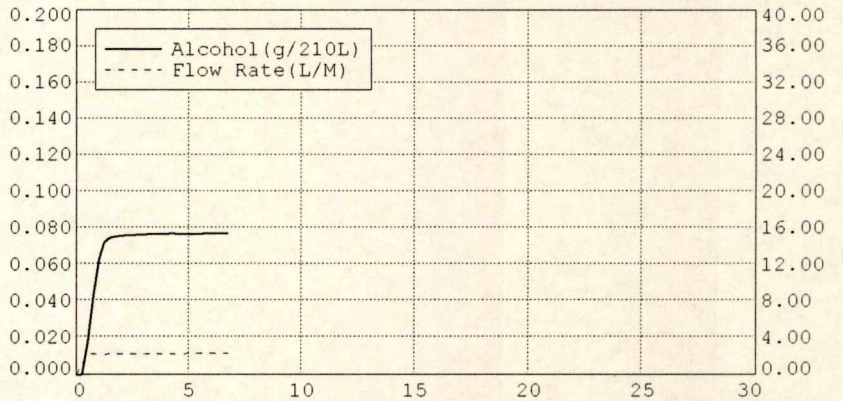
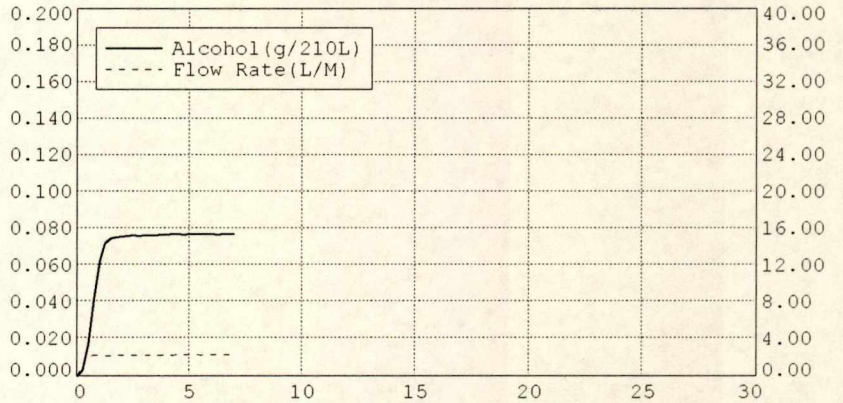
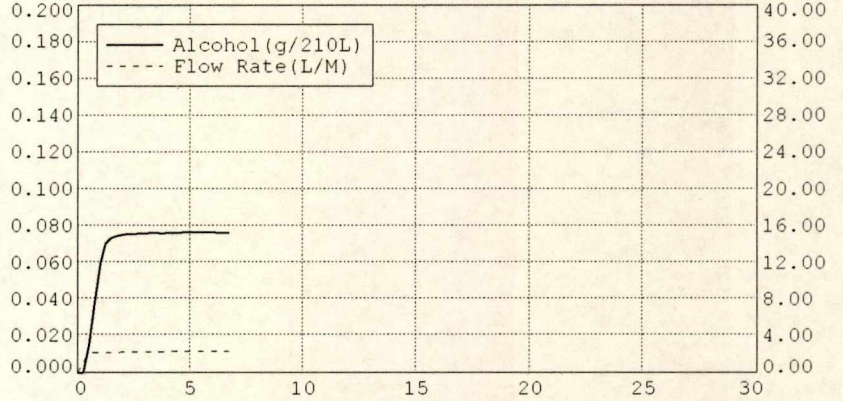
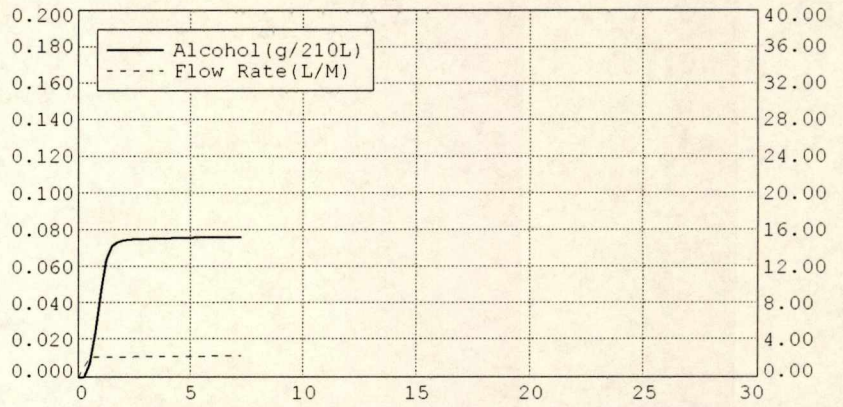
Date: 05/29/2018  
Time: 12:07:56

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018  
TANK PRESSURE: 611 psi

BLANK TEST	0.000	12:10
INTERNAL STANDARD	VERIFIED	12:10
EXTERNAL STANDARD	0.077	12:10
BLANK TEST	0.000	12:11
EXTERNAL STANDARD	0.077	12:11
BLANK TEST	0.000	12:12
EXTERNAL STANDARD	0.078	12:12
BLANK TEST	0.000	12:13
EXTERNAL STANDARD	0.078	12:13
BLANK TEST	0.000	12:14
EXTERNAL STANDARD	0.078	12:14
BLANK TEST	0.000	12:15

Average = 0.0776  
Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

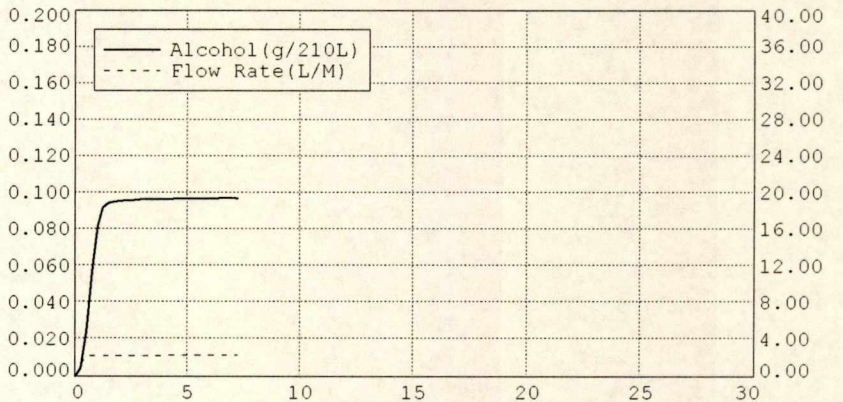
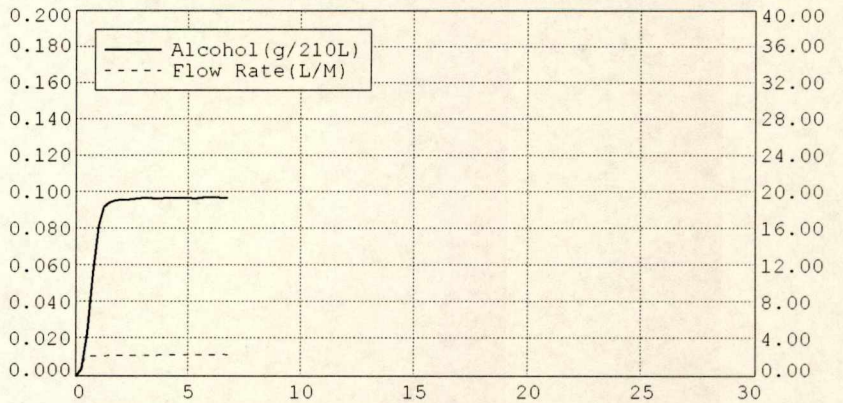
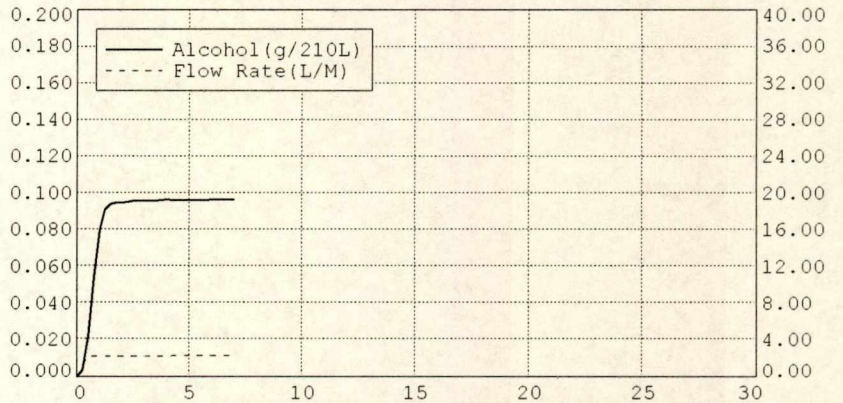
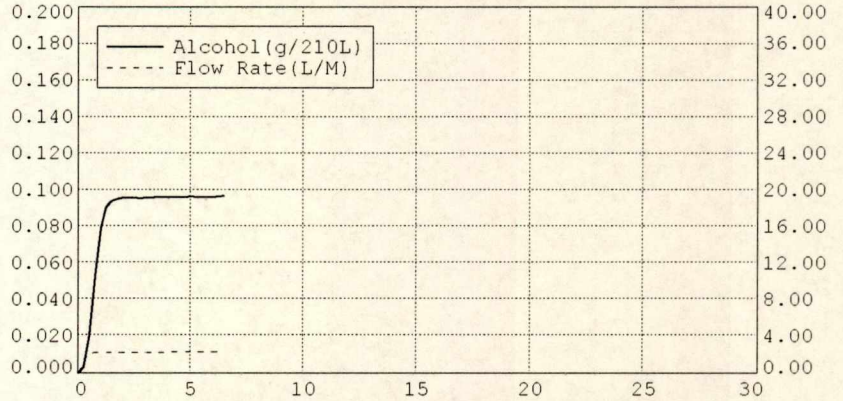
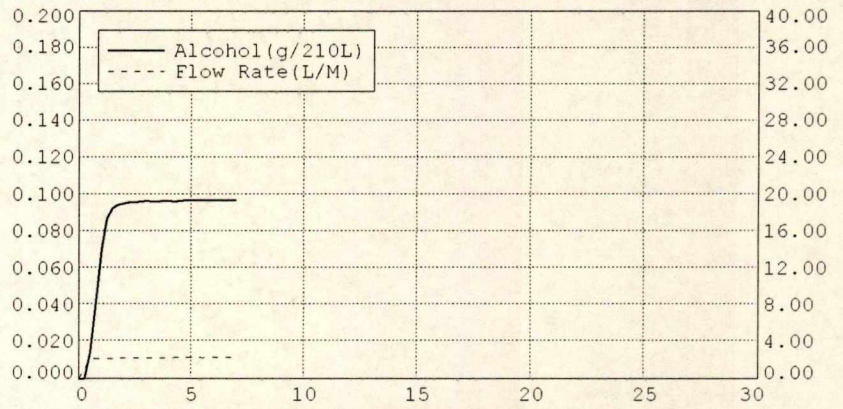
Date: 05/29/2018  
Time: 12:16:43

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
TARGET AT 29.71: 0.099  
LOT #: AG629304  
EXPIRATION: 10/19/2018  
TANK PRESSURE: 573 psi

BLANK TEST	0.000	12:17
INTERNAL STANDARD	VERIFIED	12:18
EXTERNAL STANDARD	0.098	12:18
BLANK TEST	0.000	12:19
EXTERNAL STANDARD	0.097	12:19
BLANK TEST	0.000	12:20
EXTERNAL STANDARD	0.097	12:20
BLANK TEST	0.000	12:21
EXTERNAL STANDARD	0.098	12:21
BLANK TEST	0.000	12:22
EXTERNAL STANDARD	0.098	12:22
BLANK TEST	0.000	12:23

Average = 0.0976  
Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

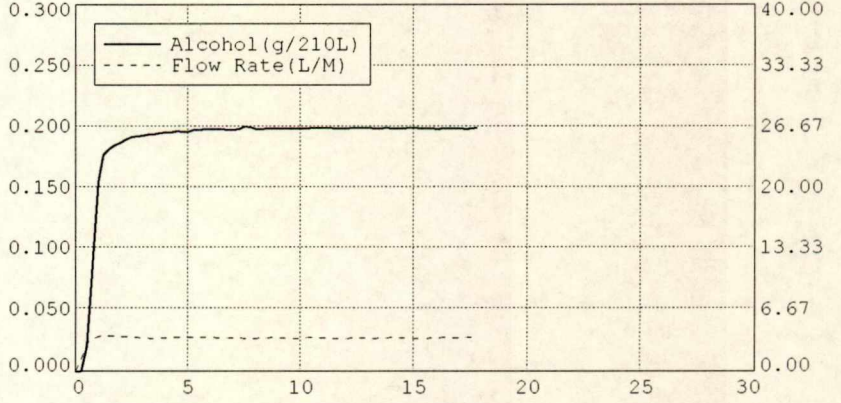
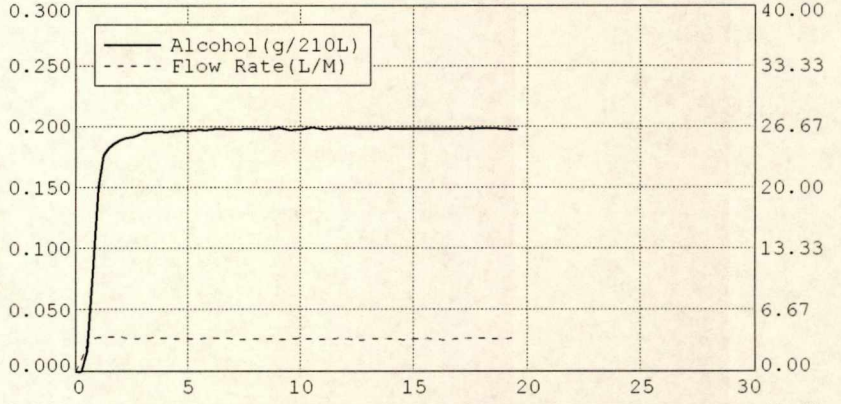
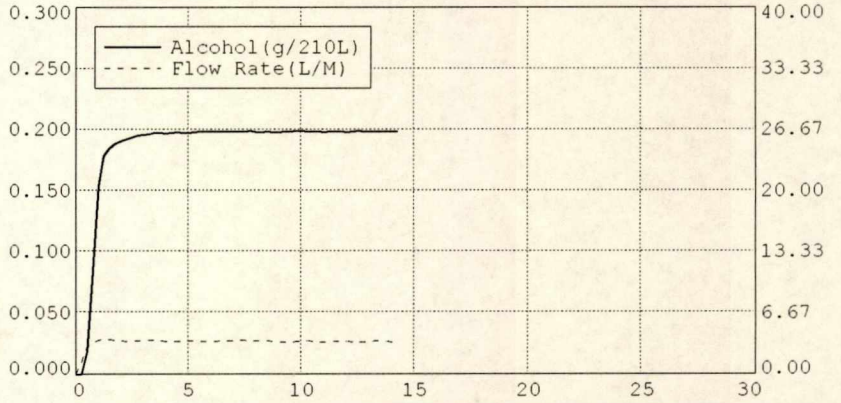
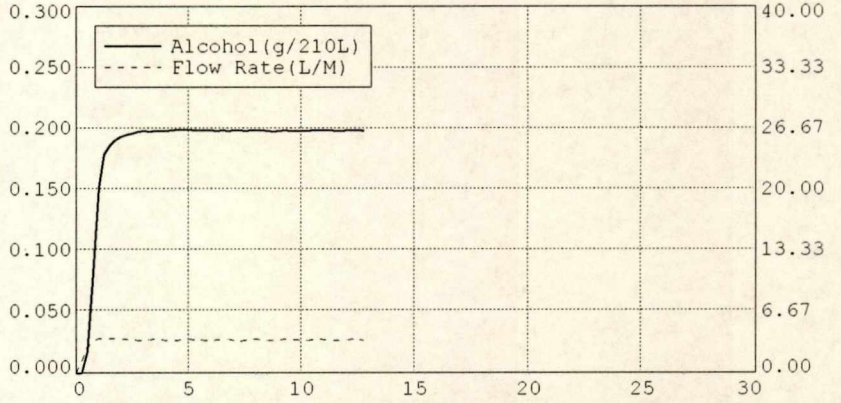
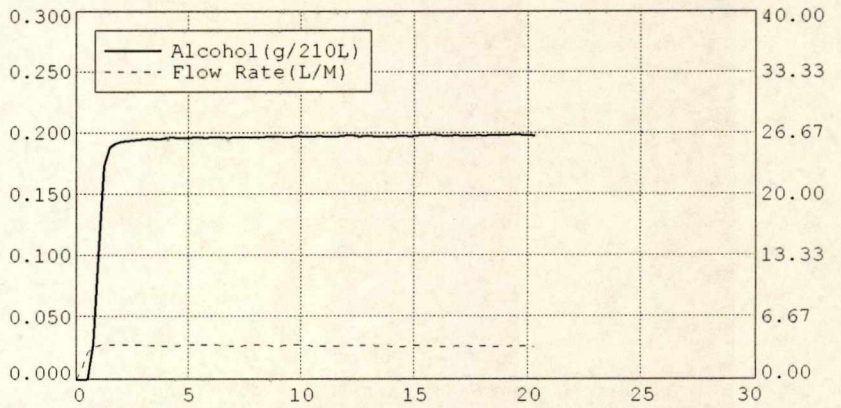
Alaska Department of Public Safety  
 DATAMASTER dmt: 100374

Date: 05/29/2018  
 Time: 12:29:58

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: GUTH 17090  
 EXPIRATION: 02/24/2019

BLANK TEST	0.000	12:31
INTERNAL STANDARD	VERIFIED	12:31
EXTERNAL STANDARD	0.198	12:31
BLANK TEST	0.000	12:32
EXTERNAL STANDARD	0.198	12:32
BLANK TEST	0.000	12:33
EXTERNAL STANDARD	0.198	12:34
BLANK TEST	0.000	12:35
EXTERNAL STANDARD	0.199	12:35
BLANK TEST	0.000	12:36
EXTERNAL STANDARD	0.199	12:36
BLANK TEST	0.000	12:37

Average = 0.1984  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

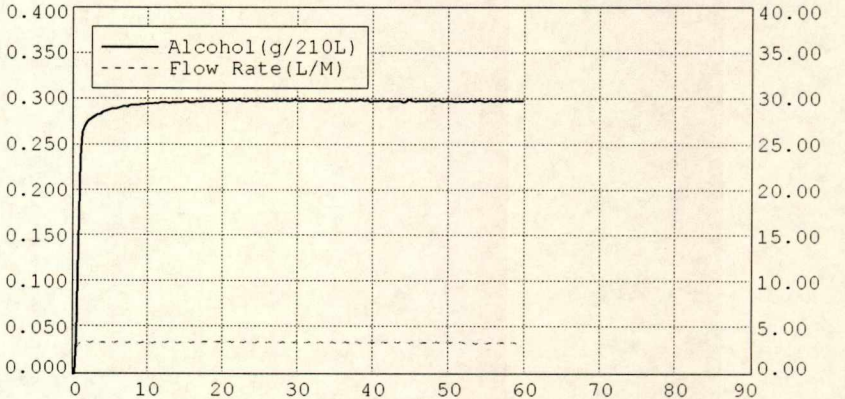
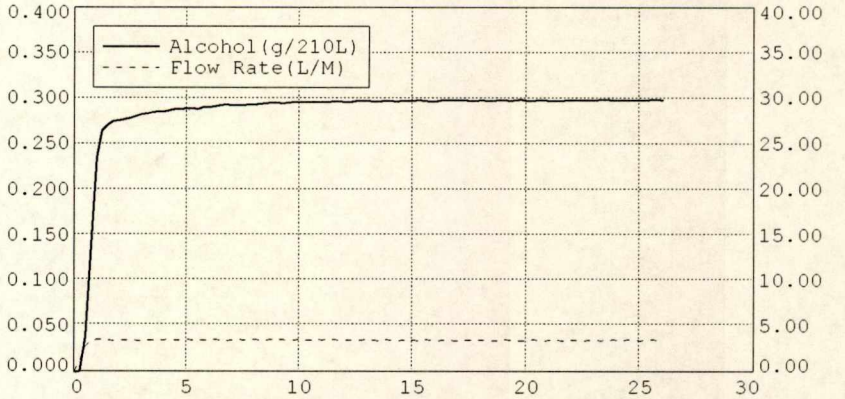
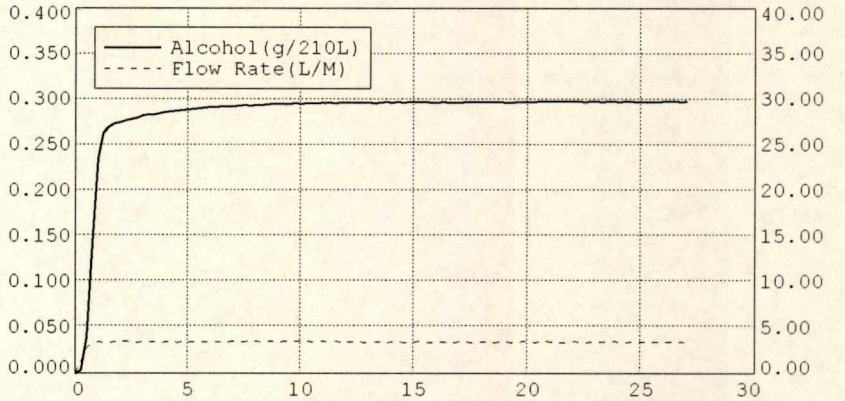
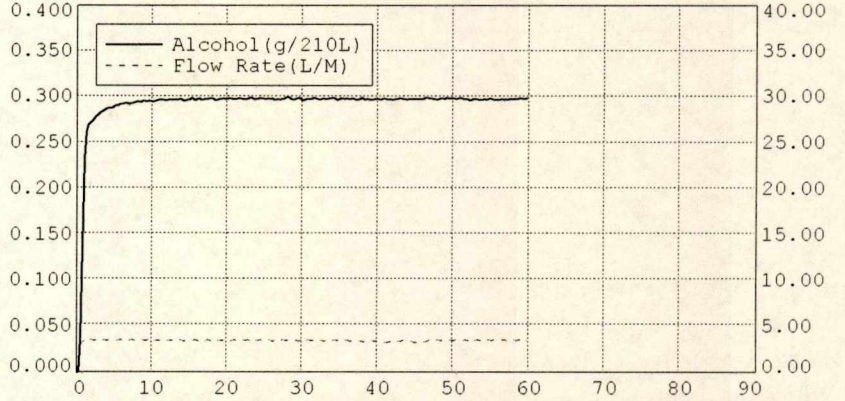
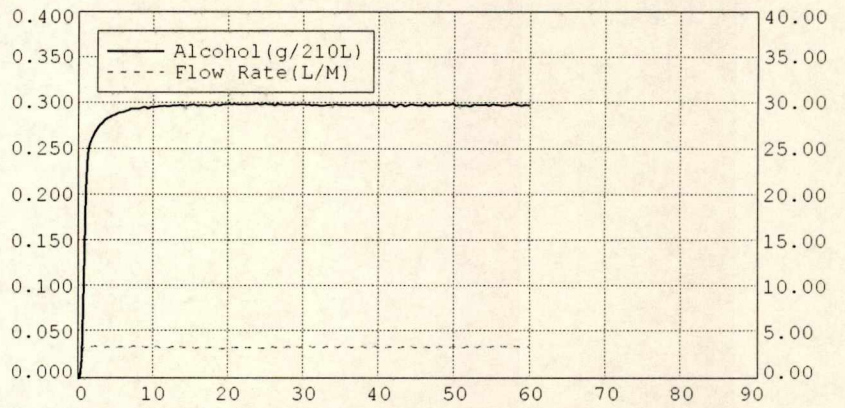
Alaska Department of Public Safety  
DATAMASTER dmt: 100374

Date: 05/29/2018  
Time: 12:45:31

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.300  
LOT #: GUTH 17140  
EXPIRATION: 05/15/2019

BLANK TEST	0.000	12:46
INTERNAL STANDARD	VERIFIED	12:46
EXTERNAL STANDARD	0.299	12:47
BLANK TEST	0.000	12:48
EXTERNAL STANDARD	0.298	12:49
BLANK TEST	0.000	12:50
EXTERNAL STANDARD	0.298	12:51
BLANK TEST	0.000	12:52
EXTERNAL STANDARD	0.299	12:52
BLANK TEST	0.000	12:53
EXTERNAL STANDARD	0.299	12:54
BLANK TEST	0.000	12:55

Average = 0.2986  
Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

Date: 05/30/2018  
Time: 08:12:31

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

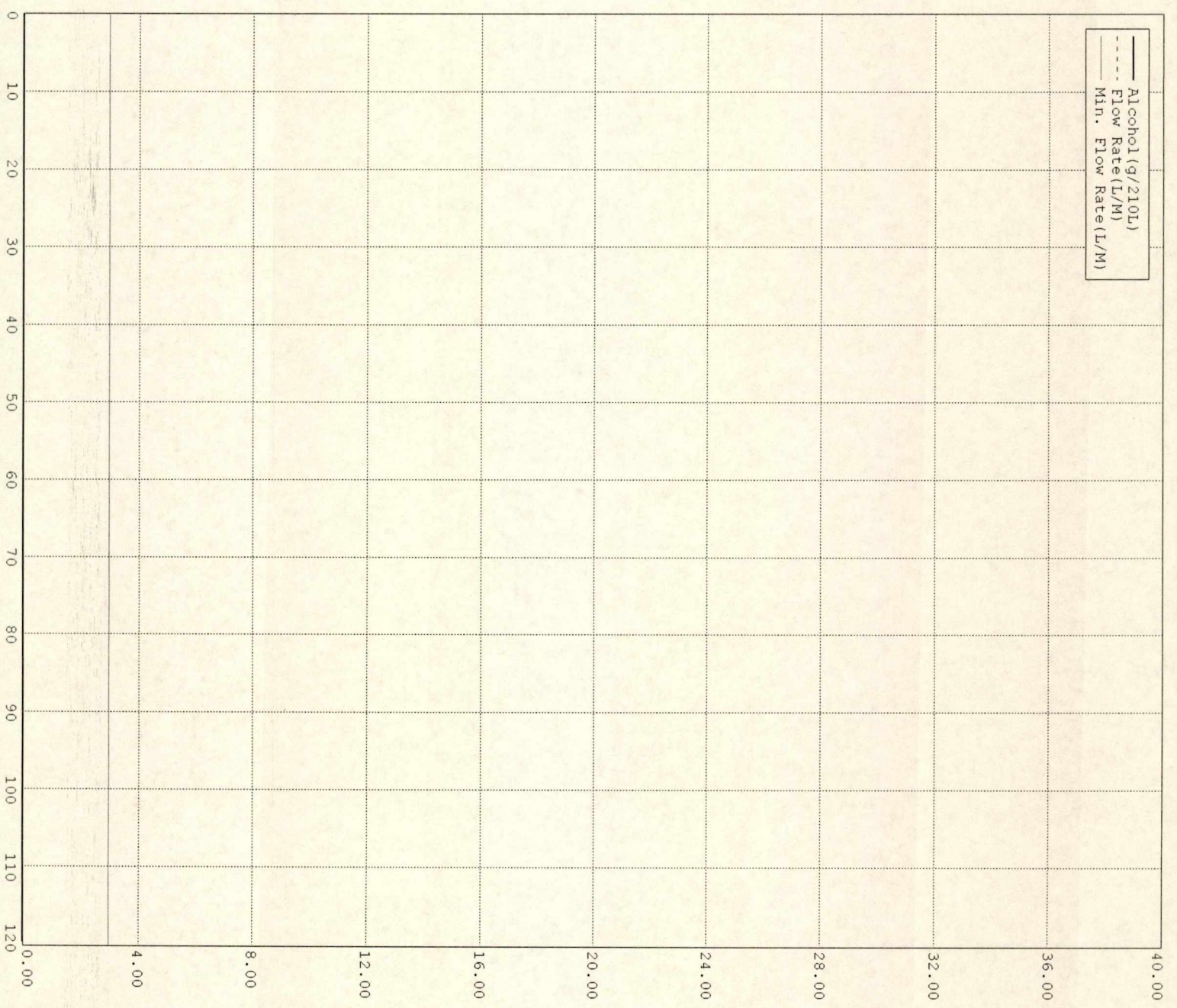
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.080  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	08:13
BLANK TEST	0.000	08:14
INTERNAL STANDARD	VERIFIED	08:14
EXTERNAL STANDARD	0.077	08:14
BLANK TEST	0.000	08:15
SUBJECT SAMPLE	INCOMPLETE	08:17

*Handwritten signature: BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

Date: 05/30/2018  
Time: 08:19:38

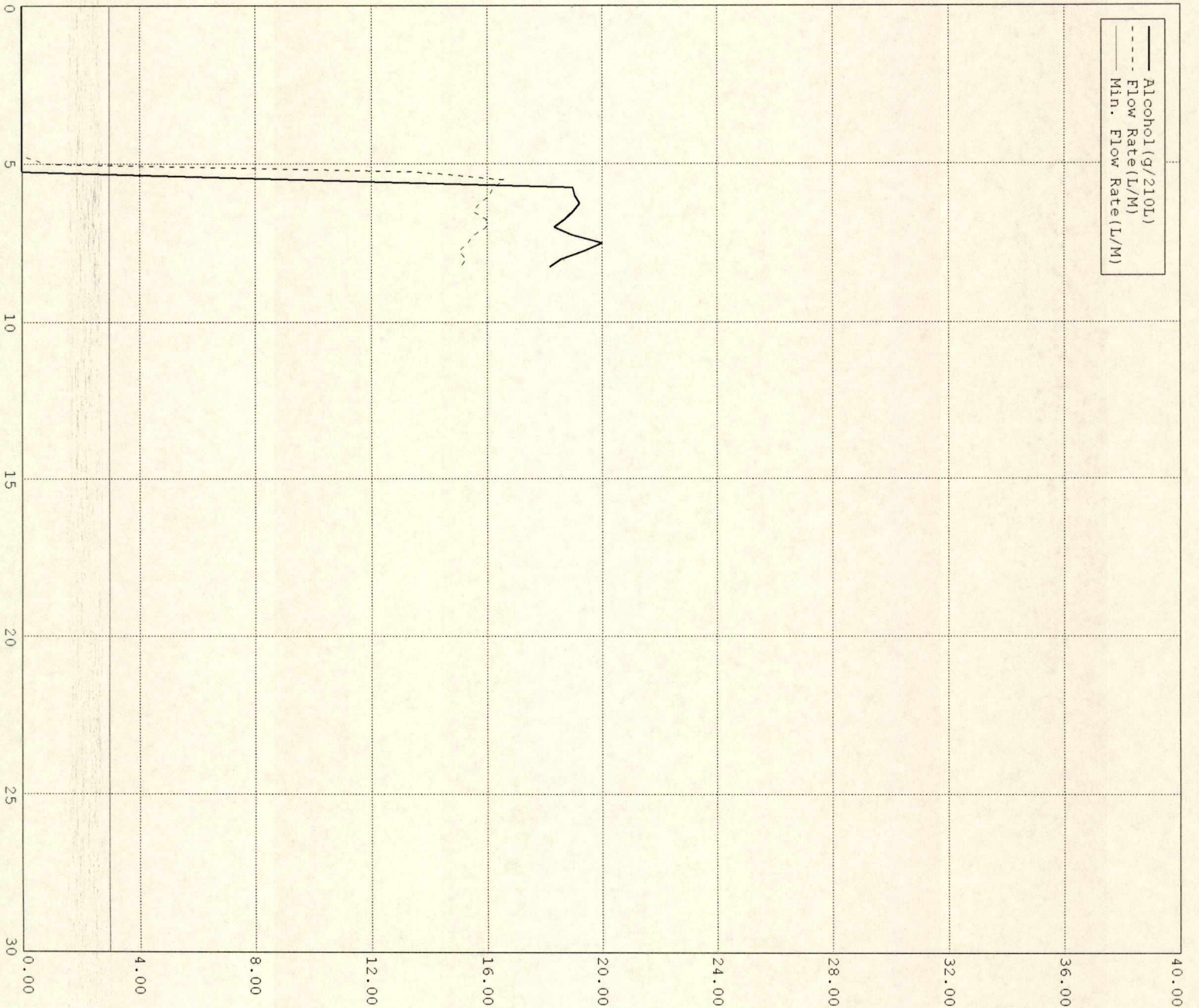
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX  
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.080  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	08:21
BLANK TEST	0.000	08:21
INTERNAL STANDARD	VERIFIED	08:21
EXTERNAL STANDARD	0.077	08:21
BLANK TEST	0.000	08:22
SUBJECT SAMPLE	INVALID	08:22

*BBB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

Date: 05/30/2018  
Time: 08:25:39

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 29.73: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	08:27
BLANK TEST	0.000	08:27
INTERNAL STANDARD	VERIFIED	08:27
Xq = 0.093 (0.57%)	0.078	08:27
EXTERNAL STANDARD	X[1] = 0.0776 (-0.0017)	(0.0014)
BLANK TEST	0.000	08:28
SUBJECT SAMPLE	XXX	08:29
X[1] = 0.1060 (-0.0135)	(-0.0005)	

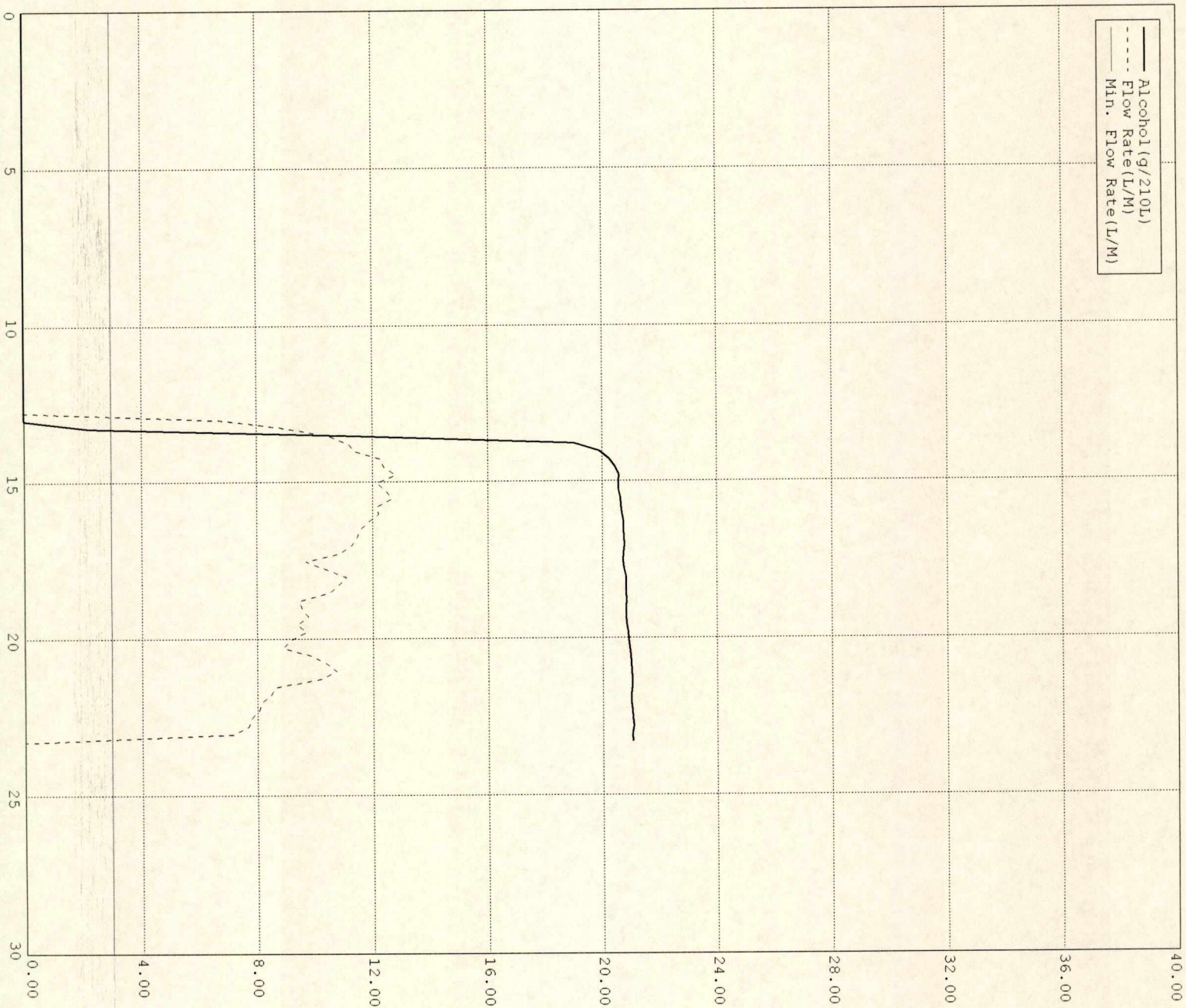
Interference Detected

Filter 2 Avg: -0.0020

Filter 3 Avg: 0.0014

BMB 513118

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

Date: 05/30/2018  
Time: 08:31:51

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

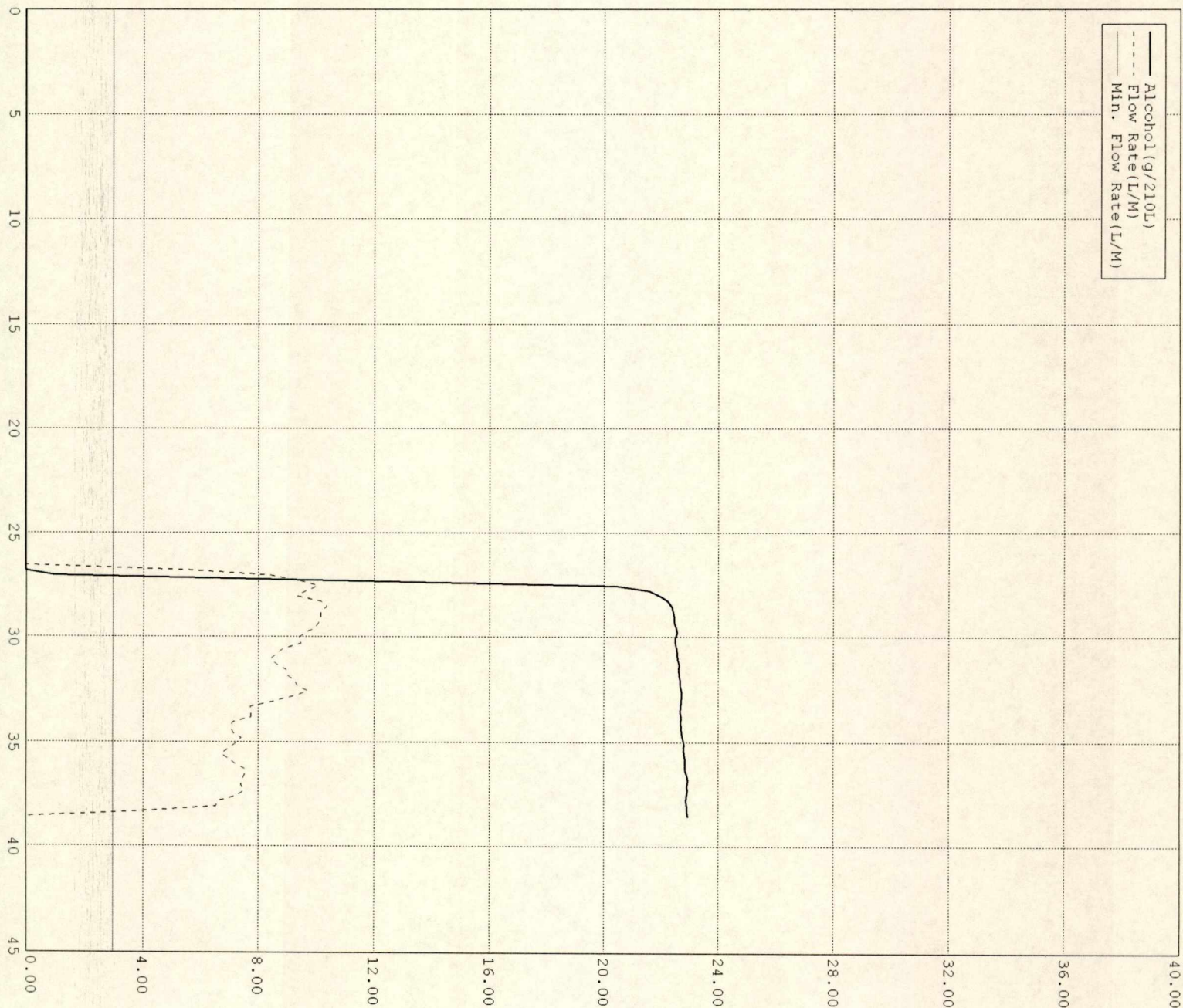
DEPT/AGENCY:  
INTERFERENCE ISOPROPANOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.080  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	08:33
BLANK TEST	0.000	08:33
INTERNAL STANDARD	VERIFIED	08:33
Xq = 0.094 (1.42%)	0.077	08:34
EXTERNAL STANDARD	X[1] = 0.0774 (-0.0019)	(0.0016)
BLANK TEST	0.000	08:34
SUBJECT SAMPLE	XXX	08:35
X[1] = 0.1153 (-0.0279)	(0.0011)	

Interference Detected

*BMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

Date: 05/30/2018  
Time: 08:39:18

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

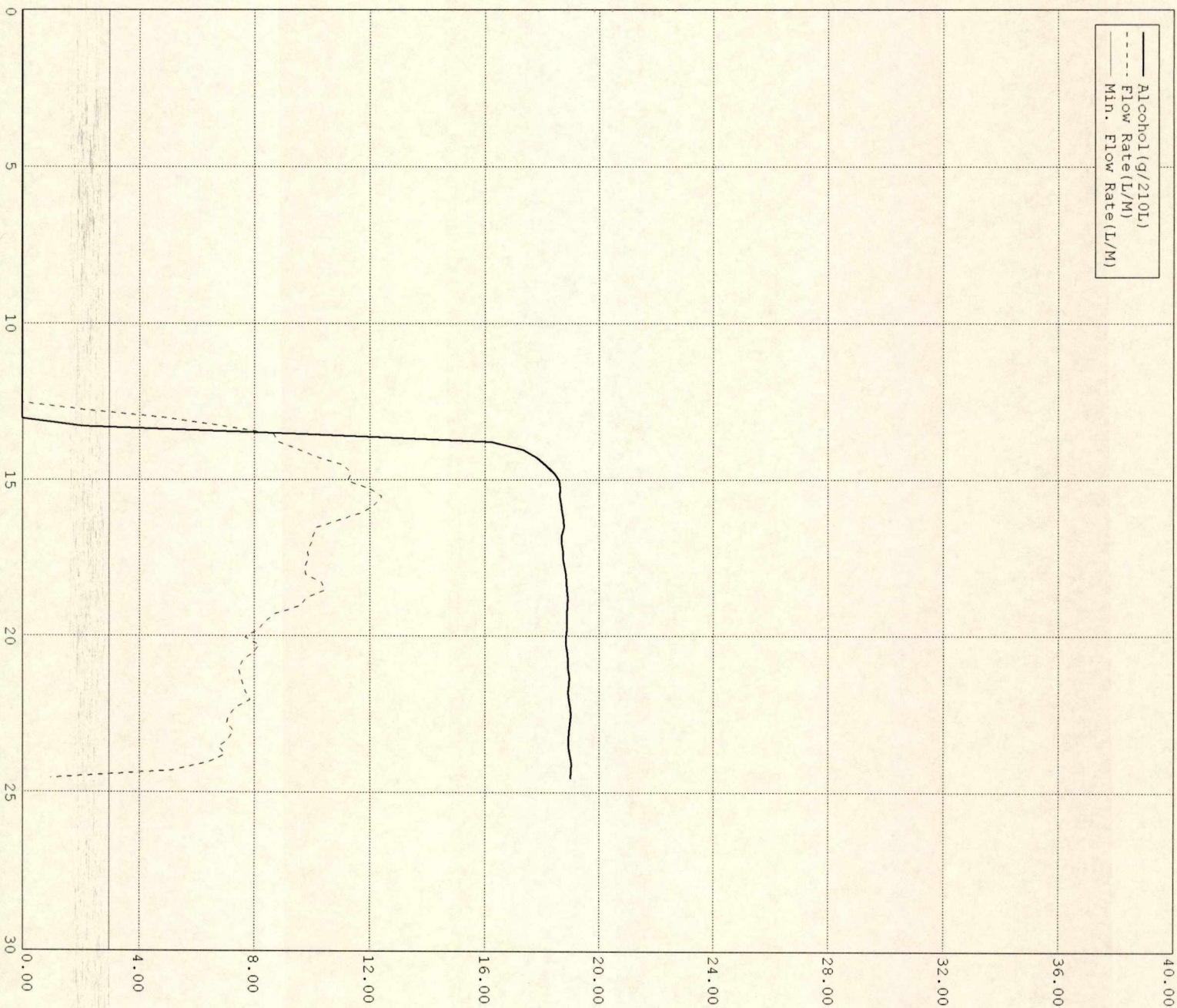
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.080  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	08:46
BLANK TEST	0.000	08:46
INTERNAL STANDARD	VERIFIED	08:46
Xq = 0.093 (0.76%)	0.077	08:46
EXTERNAL STANDARD	X[1] = 0.0771 (-0.0026)	(0.0015)
BLANK TEST	0.000	08:47
SUBJECT SAMPLE (Vol=1.71L)	0.095	08:47
X[1] = 0.0957 (0.0008)	(0.0001)	
BLANK TEST	0.000	08:48
EXTERNAL STANDARD	0.077	08:49
X[1] = 0.0772 (-0.0019)	(0.0010)	
BLANK TEST	0.000	08:49

*BRB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

Date: 05/30/2018  
Time: 08:54:07

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

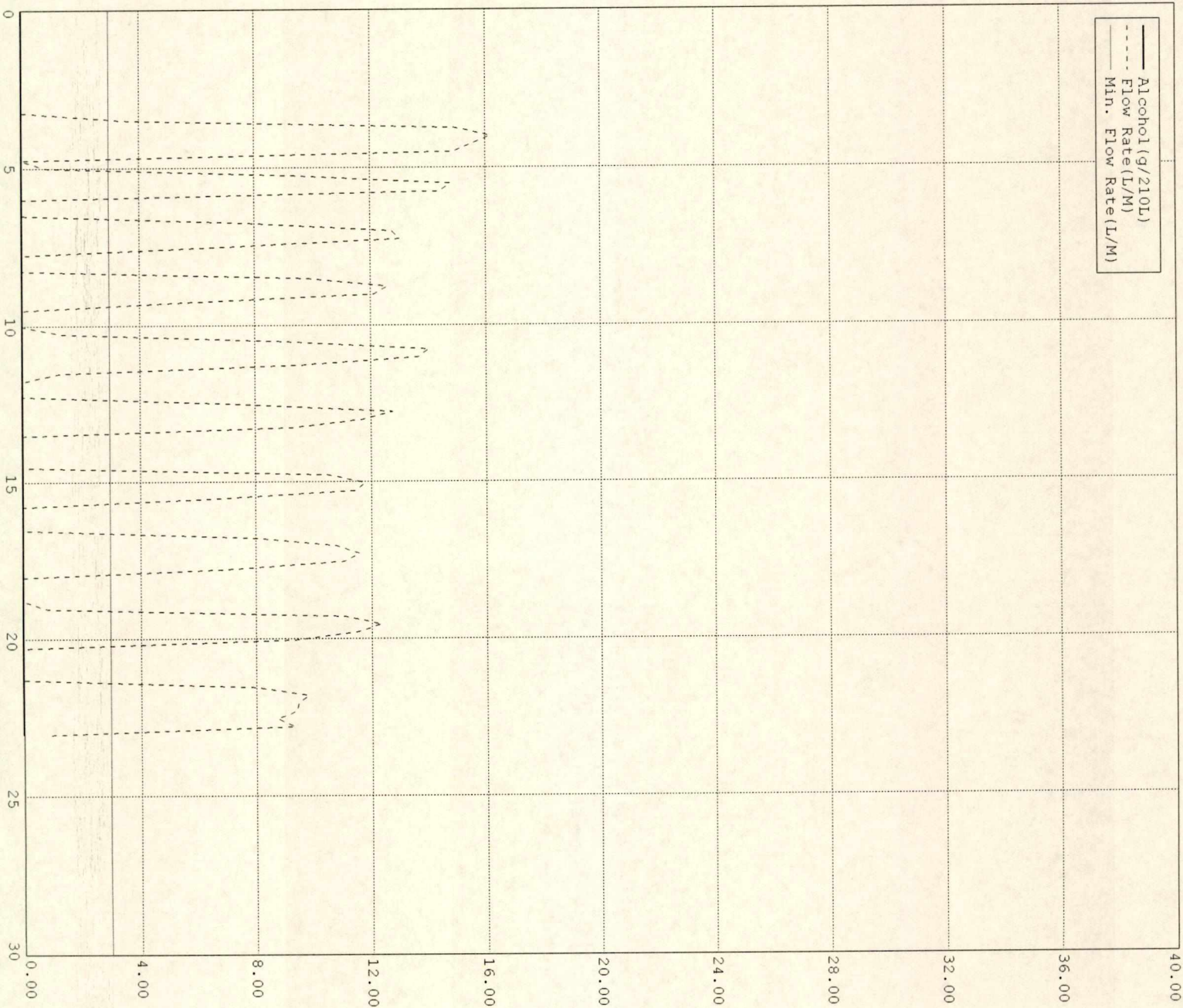
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.080  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	08:55
BLANK TEST	0.000	08:55
INTERNAL STANDARD	VERIFIED 0.078	08:55
EXTERNAL STANDARD	0.000	08:55
BLANK TEST	0.000	08:56
SUBJECT SAMPLE	XXX	08:57

Maximum Attempts Exceeded

*BBB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

Date: 05/30/2018  
Time: 09:04:53

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

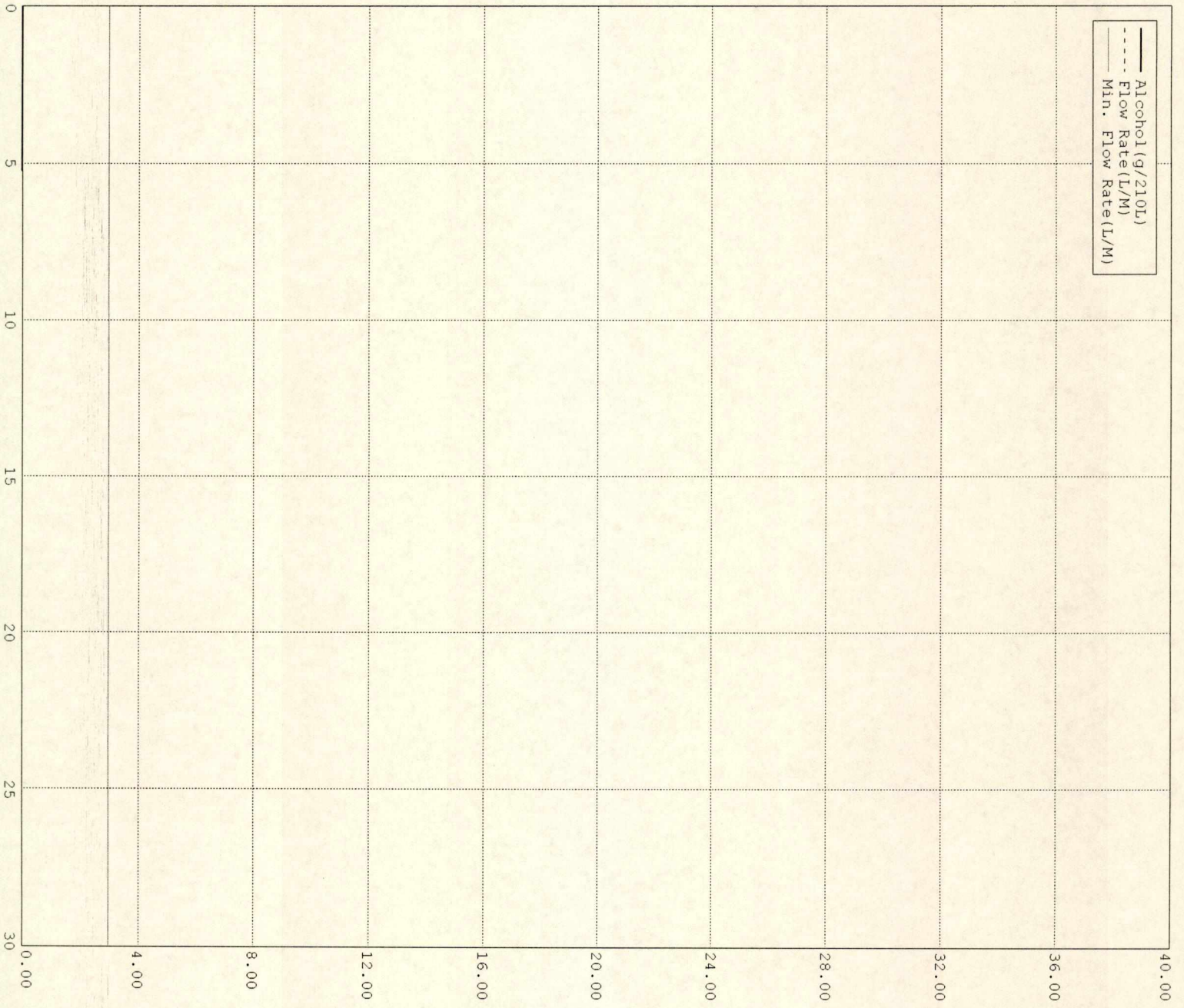
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	09:05
BLANK TEST	0.000	09:05
INTERNAL STANDARD	VERIFIED	09:06
EXTERNAL STANDARD	0.078	09:06
BLANK TEST	0.000	09:07

RFI DETECTED

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100374

Date: 05/30/2018  
Time: 09:19:30

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 29.73: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	09:21
BLANK TEST	0.000	09:21
INTERNAL STANDARD	VERIFIED	09:21
EXTERNAL STANDARD	0.077	09:21
BLANK TEST	0.000	09:22
SUBJECT SAMPLE (Vol=2.01L)	0.000	09:22
BLANK TEST	0.000	09:23
EXTERNAL STANDARD	0.078	09:24
BLANK TEST	0.000	09:24

*BRMB*

