

# 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 100361 Analyst Brandi Bamuth 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 1.7 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 AG735001 Exp 12/10/19
- 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 DR501177 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

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Alaska Department of Public Safety  
DATAMASTER dmt: 100361  
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Date: 05/29/2018  
Time: 09:09:26

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 45.3°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.90 V PASSED  
(1.34 V - 3.12 V)  
Cooler Voltage = 1.81 V PASSED  
(1.03 V - 2.39 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 549 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.7 in

PUMP INFO

Flow Rate = 4.259 L/M PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED  
(0.005 V <= 0.010 V)  
PUMP OFF PASSED  
(0.003 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD PASSED  
Xq = 0.074 0.81% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100361  
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Date: 05/29/2018  
Time: 9:38 AM

Temperatures (°C)

Sample Cell: 48.7°C  
Breath Tube: 45.0°C

Current Barometer 29.7 in  
Volume (Ltr) 1.43

Settings

Lamp: 1.90 V  
Bias: 80 V  
Cooler: 1.86 V  
Chopper: 539 Hz

Voltages (V)

Flow: 1.05 V  
Detector: -0.042 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100361  
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Date: 05/02/2011  
Time: 14:04:52

OPERATOR NAME:  
COLLEEN OBRYANT  
CERTIFICATE #: 6237

LOT #: GUTH100  
BOTTLE #: 10260  
EXPIRATION: 10/25/2012

Ca	=	0.1000			
CAL	=	0.999924	0.800	<=	CAL < 1.200
b1	=	0.0008	0.0000	<=	b1 < 0.0040
b2	=	0.0055	0.0010	<=	b2 < 0.0100
b3	=	0.0005	0.0000	<=	b3 < 0.0040
Xq	=	0.0749	0.0500	<=	Xq < 0.2000
a21	=	1.193542	1.050	<=	a21 < 1.300
a31	=	0.505376	0.300	<=	a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100361

Date: 05/29/2018  
Time: 09:42:59

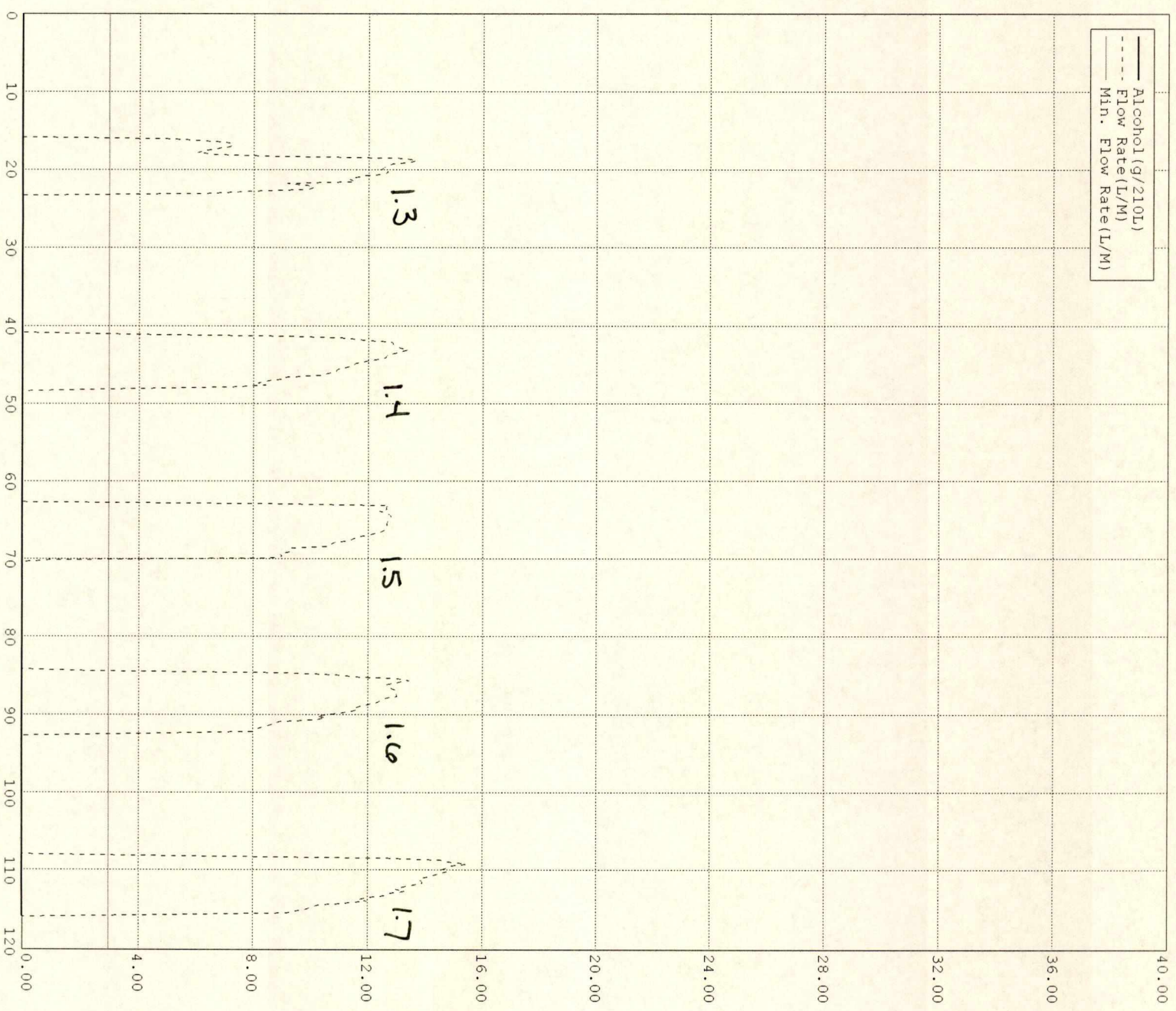
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

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 29.71: 0.079  
LOT #: AG735001  
EXPIRATION: 12/16/2019

TEST TYPE	PASSED	09:44
DIAGNOSTIC CHECK	0.000	09:44
INTERNAL STANDARD	VERIFIED	09:44
EXTERNAL STANDARD	0.081	09:45
BLANK TEST	0.000	09:45
SUBJECT SAMPLE (Vol=1.61L)	0.000	09:47
BLANK TEST	0.000	09:48
EXTERNAL STANDARD	0.080	09:49
BLANK TEST	0.000	09:49



LINEARITY CHECK

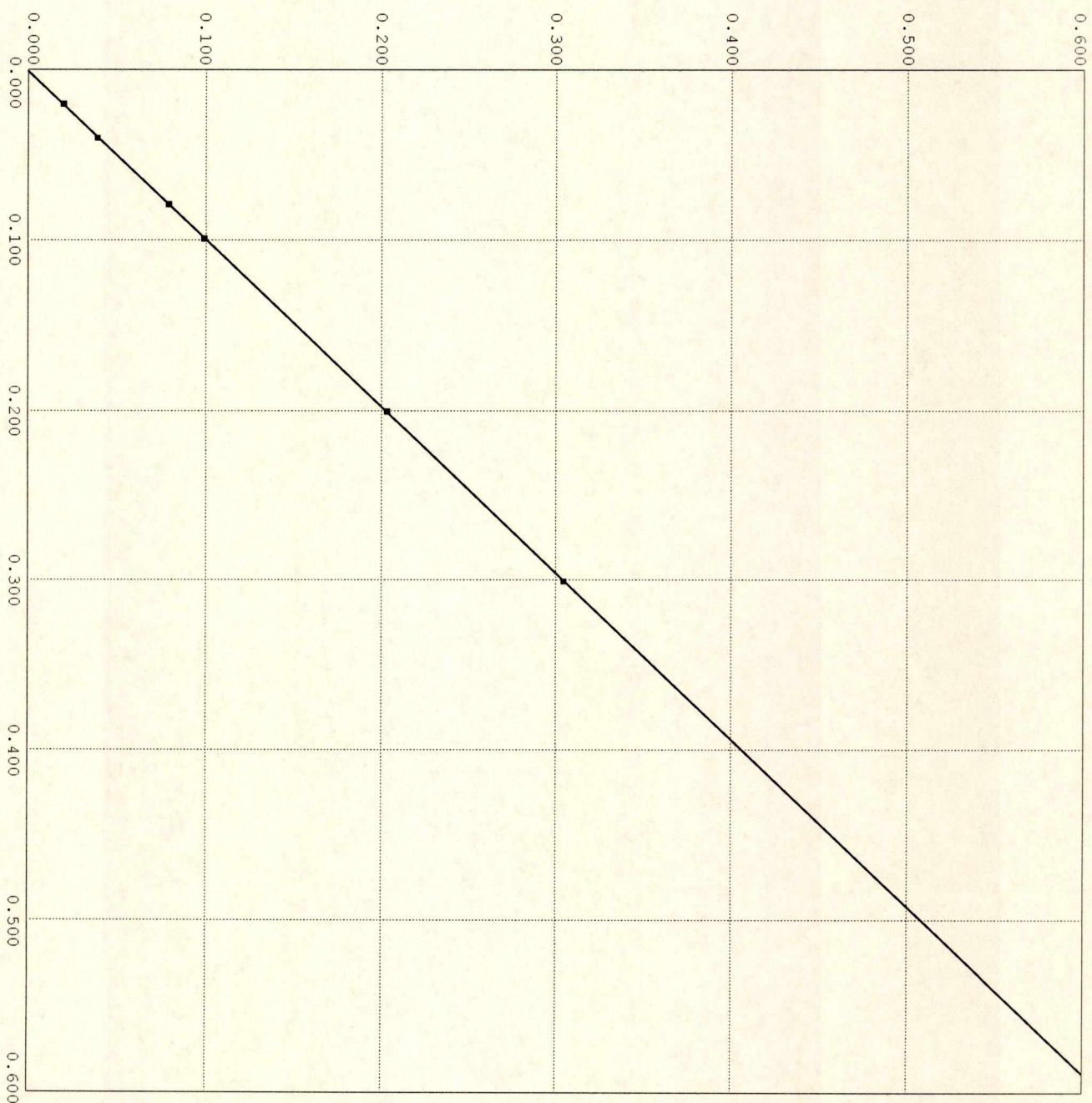
Alaska Department of Public Safety  
DATAMASTER dmt: 100361

Date: 05/29/2018  
Time: 12:23:16

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0204	0.0005
0.040	0.0396	0.0005
0.079	0.0800	0.0000
0.099	0.1000	0.0000
0.200	0.2040	0.0007
0.300	0.3052	0.0004

SLOPE = 1.020123  
R<sup>2</sup> = 0.999979



BRN

LINEARITY CHECK: Control Test 1

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Alaska Department of Public Safety  
DATAMASTER dmt: 100361  
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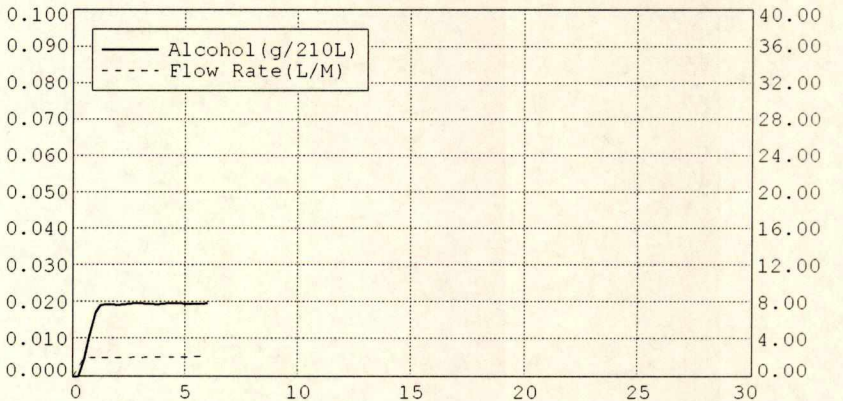
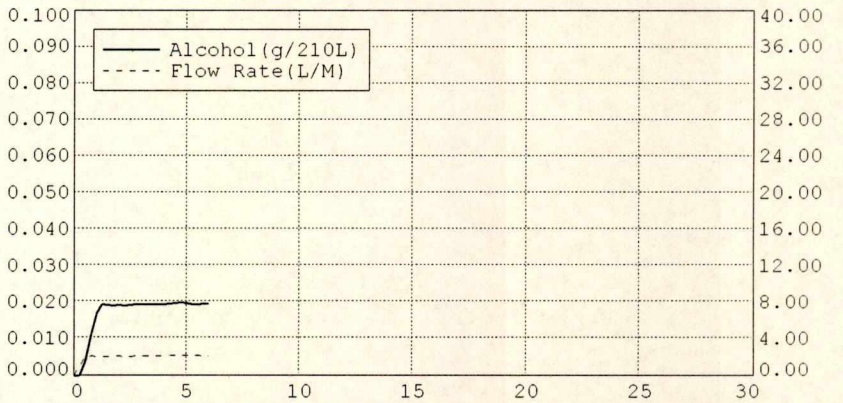
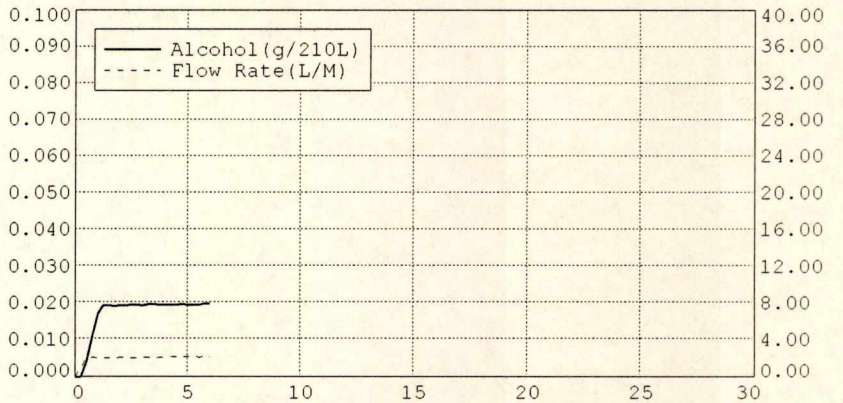
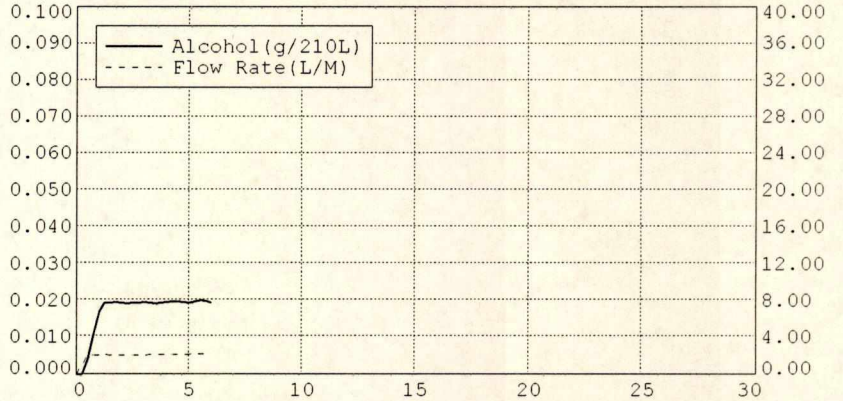
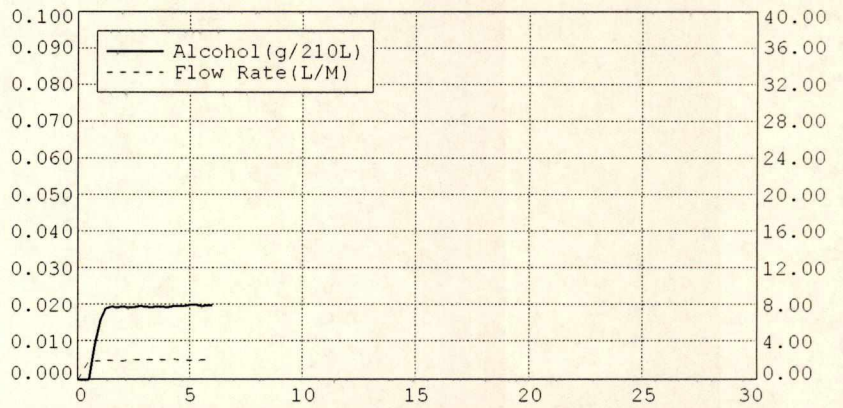
Date: 05/29/2018  
Time: 12:23:18

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
TARGET AT 29.71: 0.020  
LOT #: AG616504  
EXPIRATION: 06/13/2018  
TANK PRESSURE: 1016 psi

BLANK TEST	0.000	12:24
INTERNAL STANDARD	VERIFIED	12:24
EXTERNAL STANDARD	0.021	12:24
BLANK TEST	0.000	12:25
EXTERNAL STANDARD	0.020	12:25
BLANK TEST	0.000	12:26
EXTERNAL STANDARD	0.020	12:26
BLANK TEST	0.000	12:27
EXTERNAL STANDARD	0.020	12:27
BLANK TEST	0.000	12:28
EXTERNAL STANDARD	0.021	12:29
BLANK TEST	0.000	12:29

Average = 0.0204  
Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
DATAMASTER dmt: 100361

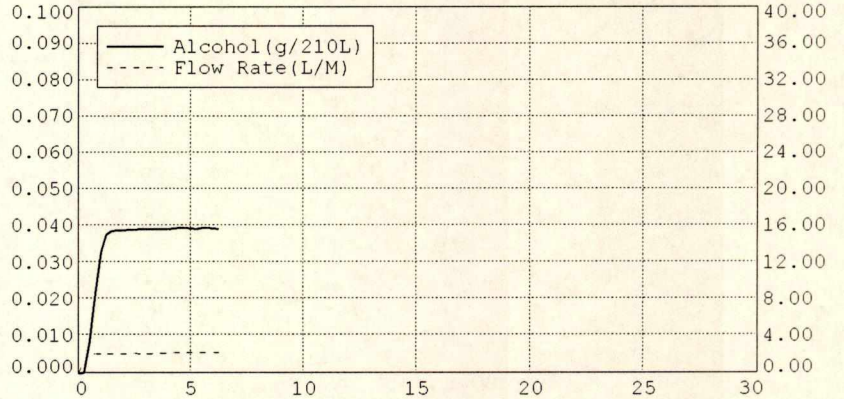
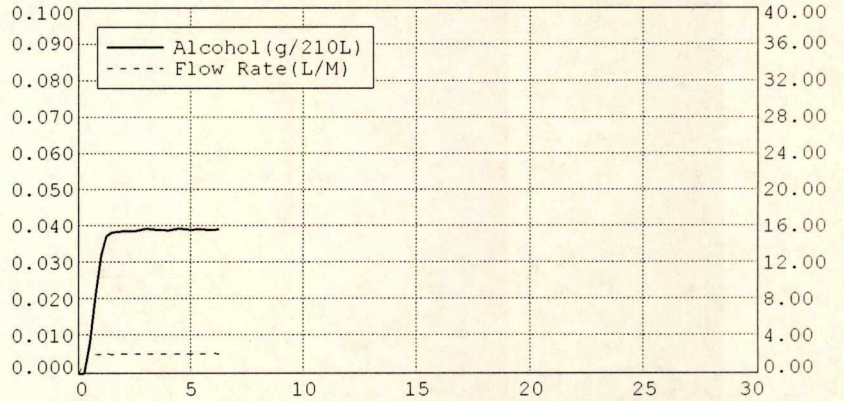
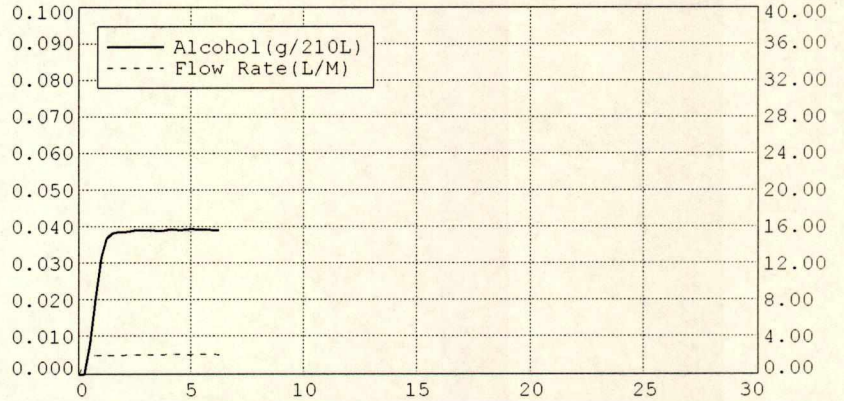
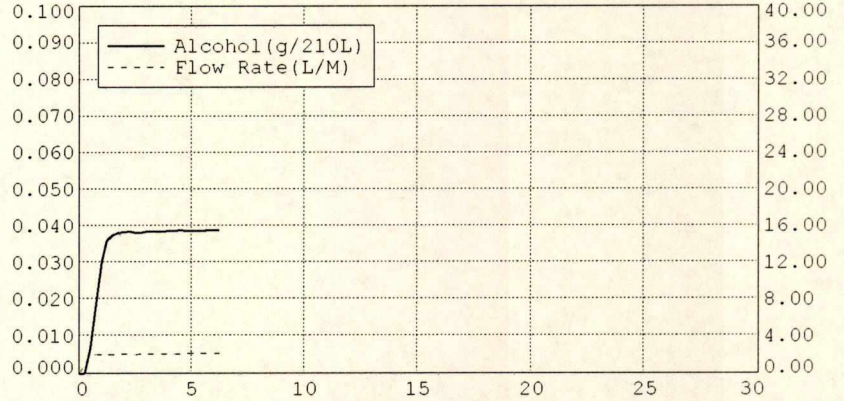
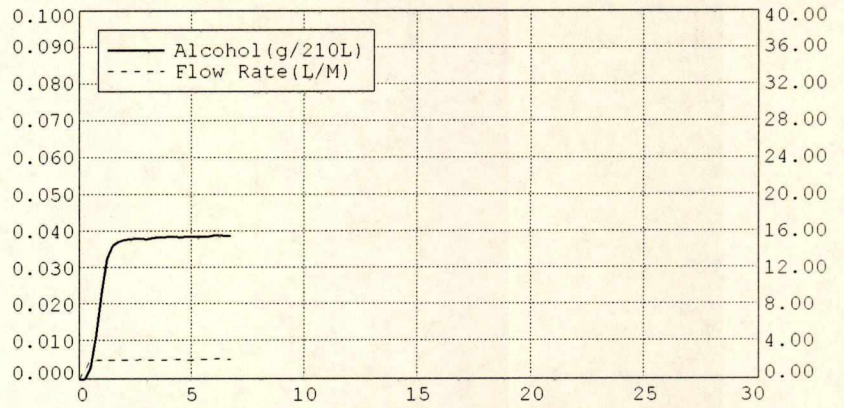
Date: 05/29/2018  
Time: 12:35:37

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
TARGET AT 29.71: 0.040  
LOT #: AG630101  
EXPIRATION: 10/27/2018  
TANK PRESSURE: 939 psi

BLANK TEST	0.000	12:37
INTERNAL STANDARD	VERIFIED	12:37
EXTERNAL STANDARD	0.039	12:37
BLANK TEST	0.000	12:38
EXTERNAL STANDARD	0.039	12:38
BLANK TEST	0.000	12:39
EXTERNAL STANDARD	0.040	12:39
BLANK TEST	0.000	12:40
EXTERNAL STANDARD	0.040	12:40
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.040	12:41
BLANK TEST	0.000	12:42

Average = 0.0396  
Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

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 Alaska Department of Public Safety  
 DATAMASTER dmt: 100361  
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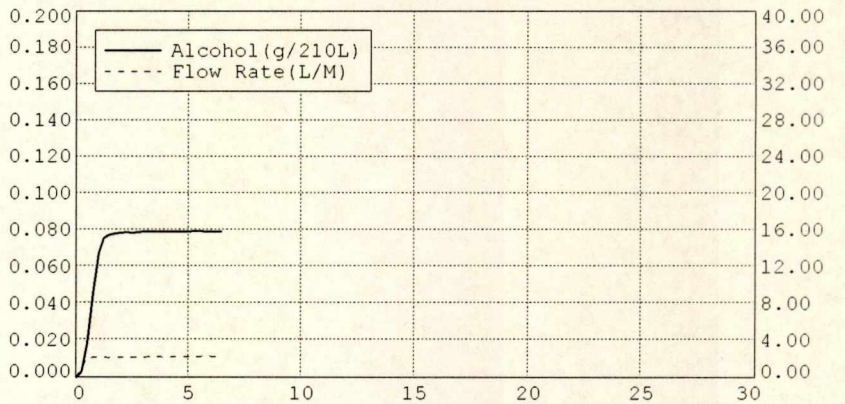
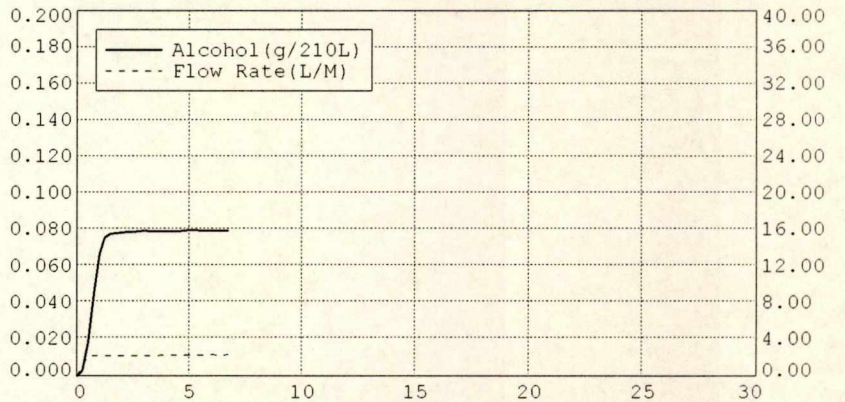
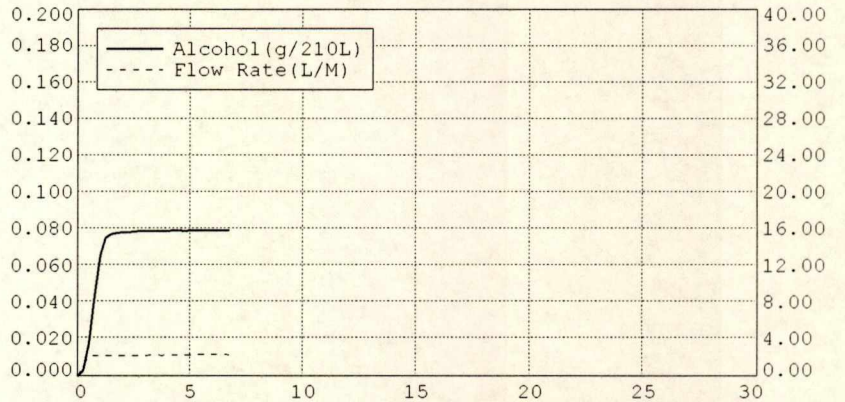
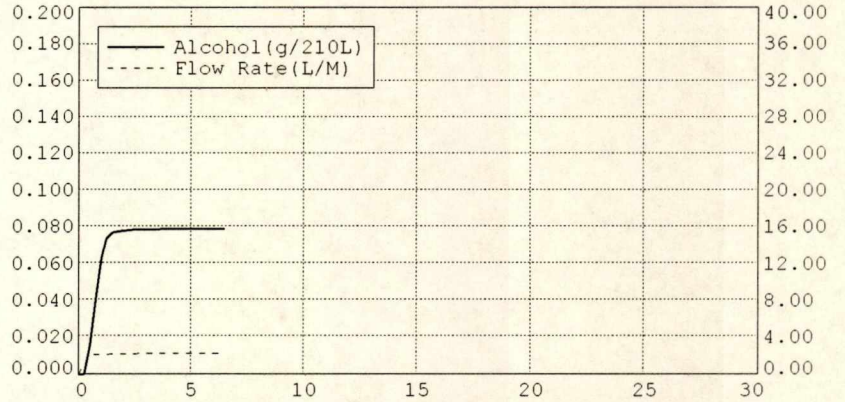
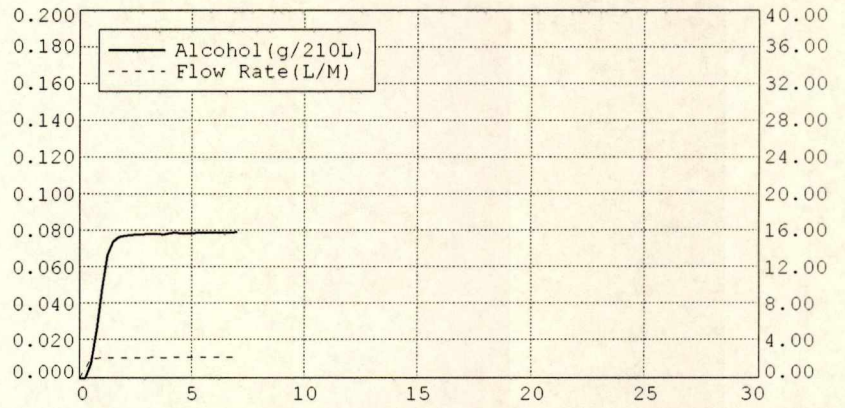
Date: 05/29/2018  
 Time: 12:47:45

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.71: 0.079  
 LOT #: AG735001  
 EXPIRATION: 12/16/2019  
 TANK PRESSURE: 1158 psi

BLANK TEST	0.000	12:49
INTERNAL STANDARD	VERIFIED	12:49
EXTERNAL STANDARD	0.080	12:50
BLANK TEST	0.000	12:51
EXTERNAL STANDARD	0.080	12:51
BLANK TEST	0.000	12:52
EXTERNAL STANDARD	0.080	12:52
BLANK TEST	0.000	12:53
EXTERNAL STANDARD	0.080	12:53
BLANK TEST	0.000	12:54
EXTERNAL STANDARD	0.080	12:54
BLANK TEST	0.000	12:55

Average = 0.0800  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

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 Alaska Department of Public Safety  
 DATAMASTER dmt: 100361  
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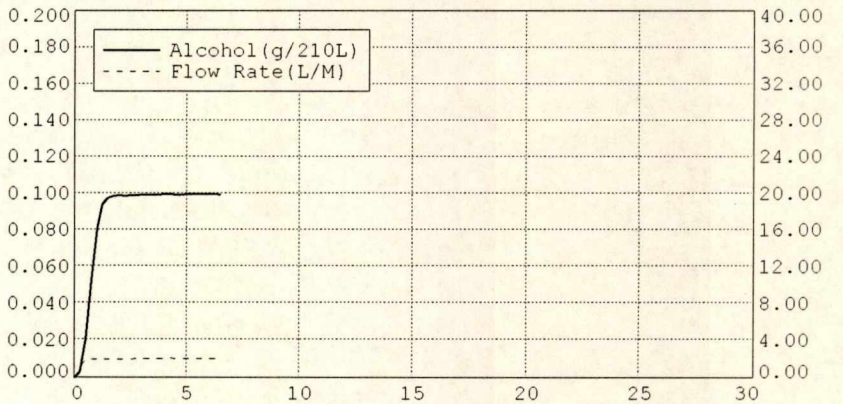
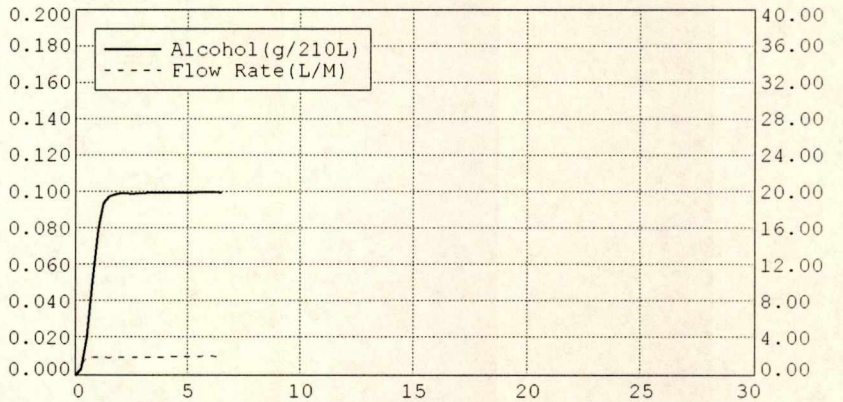
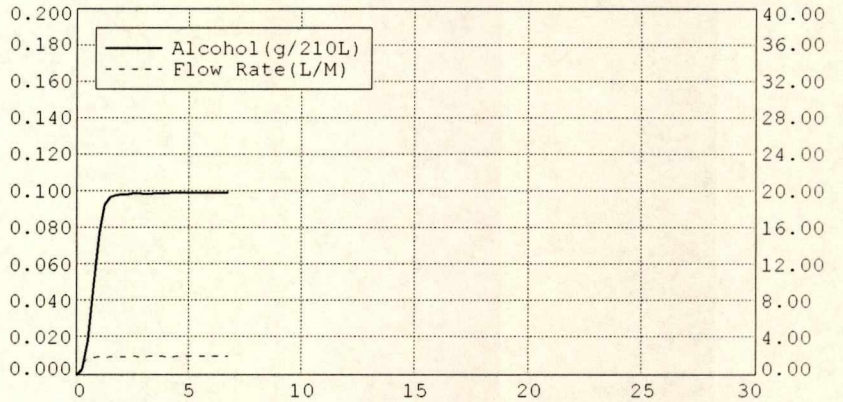
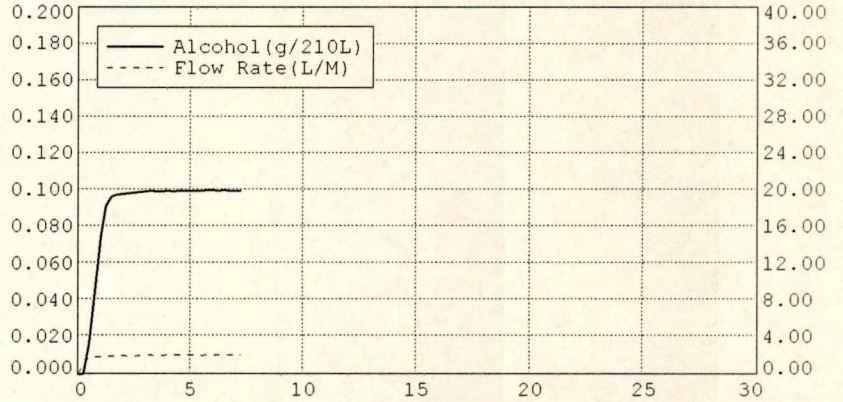
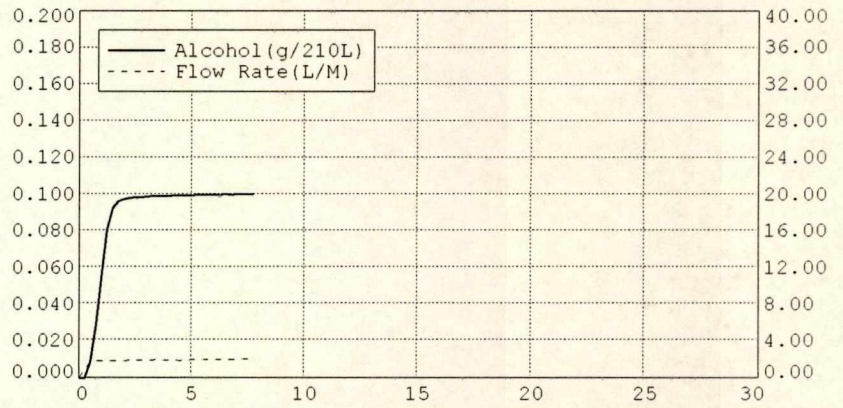
Date: 05/29/2018  
 Time: 13:02:48

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.70: 0.099  
 LOT #: AG629304  
 EXPIRATION: 10/19/2018  
 TANK PRESSURE: 508 psi

BLANK TEST	0.000	13:05
INTERNAL STANDARD	VERIFIED	13:05
EXTERNAL STANDARD	0.100	13:06
BLANK TEST	0.000	13:06
EXTERNAL STANDARD	0.100	13:07
BLANK TEST	0.000	13:08
EXTERNAL STANDARD	0.100	13:08
BLANK TEST	0.000	13:09
EXTERNAL STANDARD	0.100	13:09
BLANK TEST	0.000	13:10
EXTERNAL STANDARD	0.100	13:10
BLANK TEST	0.000	13:11

Average = 0.1000  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

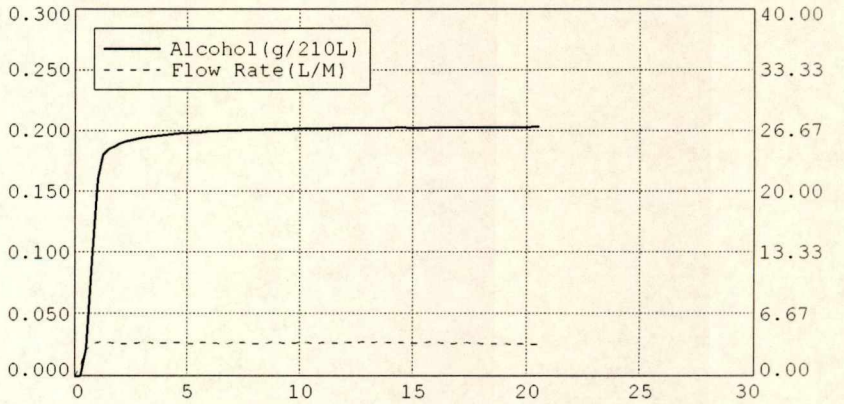
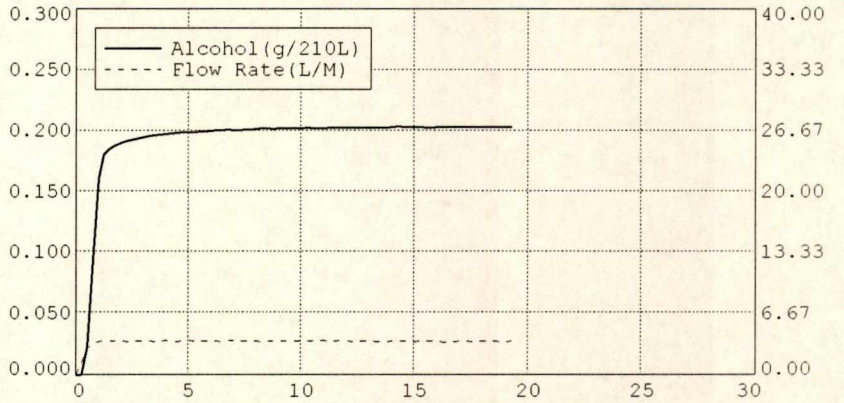
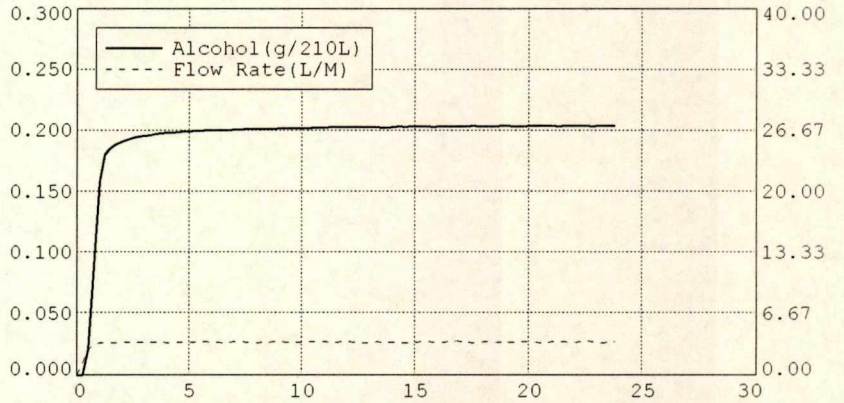
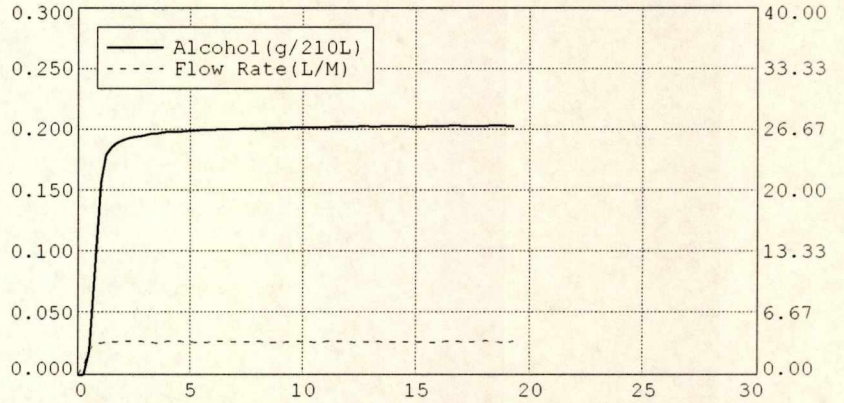
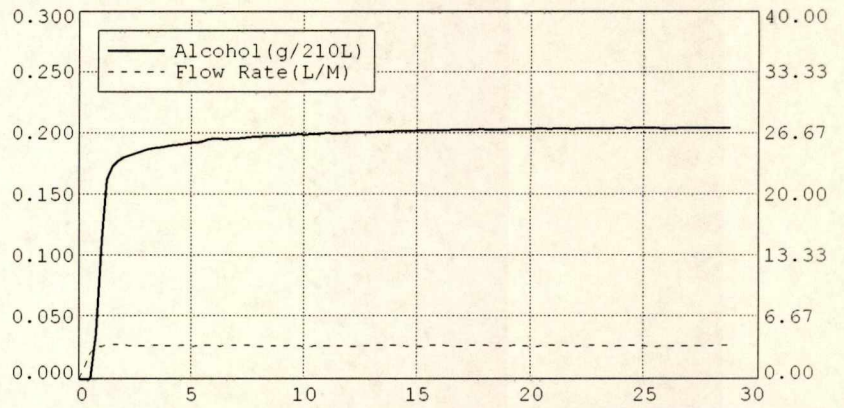
Alaska Department of Public Safety  
 DATAMASTER dmt: 100361

Date: 05/29/2018  
 Time: 13:14:42

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

BLANK TEST	0.000	13:15
INTERNAL STANDARD	VERIFIED	13:15
EXTERNAL STANDARD	0.205	13:16
BLANK TEST	0.000	13:17
EXTERNAL STANDARD	0.203	13:17
BLANK TEST	0.000	13:18
EXTERNAL STANDARD	0.204	13:19
BLANK TEST	0.000	13:20
EXTERNAL STANDARD	0.204	13:20
BLANK TEST	0.000	13:21
EXTERNAL STANDARD	0.204	13:21
BLANK TEST	0.000	13:22

Average = 0.2040  
 Std Dev = 0.0007



LINEARITY CHECK: Control Test 6

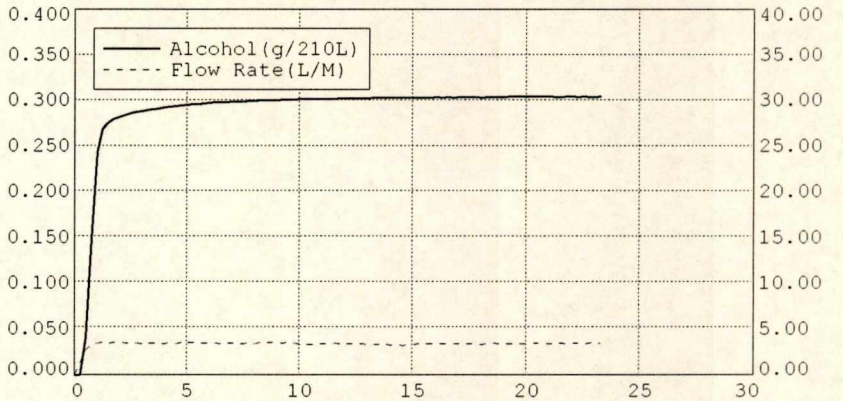
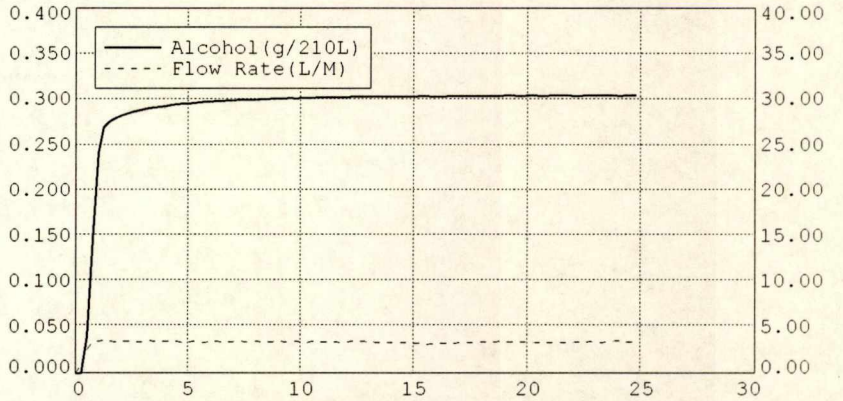
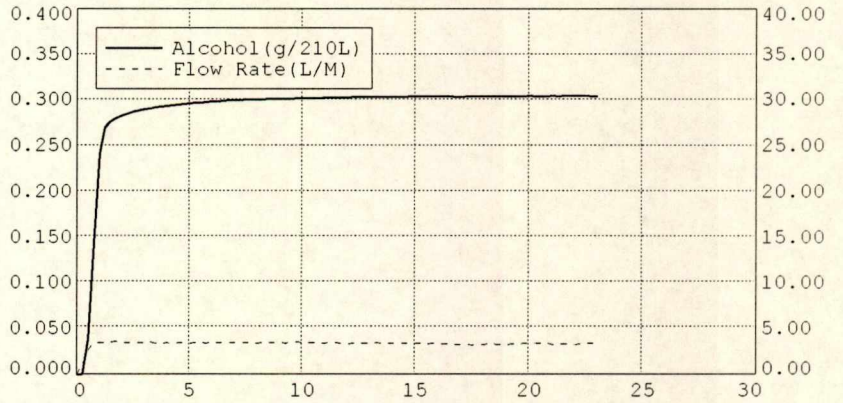
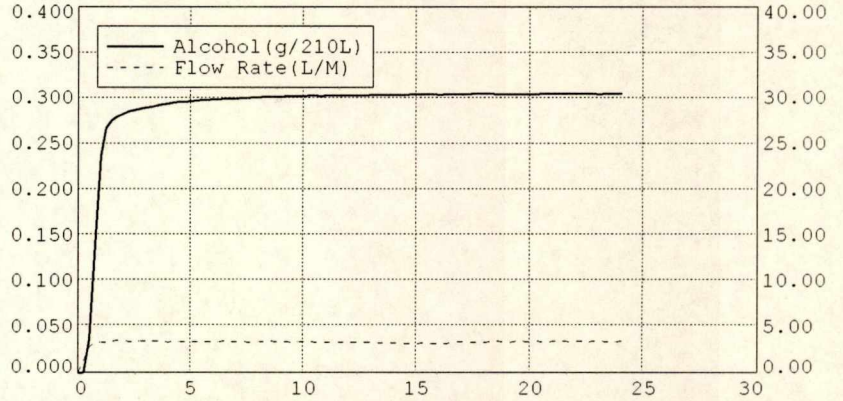
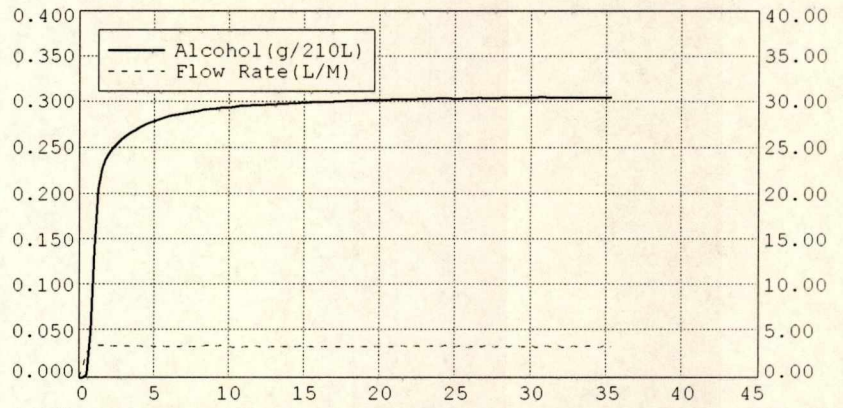
Alaska Department of Public Safety  
 DATAMASTER dmt: 100361

Date: 05/29/2018  
 Time: 13:26:48

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

BLANK TEST	0.000	13:27
INTERNAL STANDARD	VERIFIED	13:27
EXTERNAL STANDARD	0.306	13:28
BLANK TEST	0.000	13:29
EXTERNAL STANDARD	0.305	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.305	13:31
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.305	13:33
BLANK TEST	0.000	13:33
EXTERNAL STANDARD	0.305	13:34
BLANK TEST	0.000	13:35

Average = 0.3052  
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100361

Date: 05/30/2018  
Time: 08:16:32

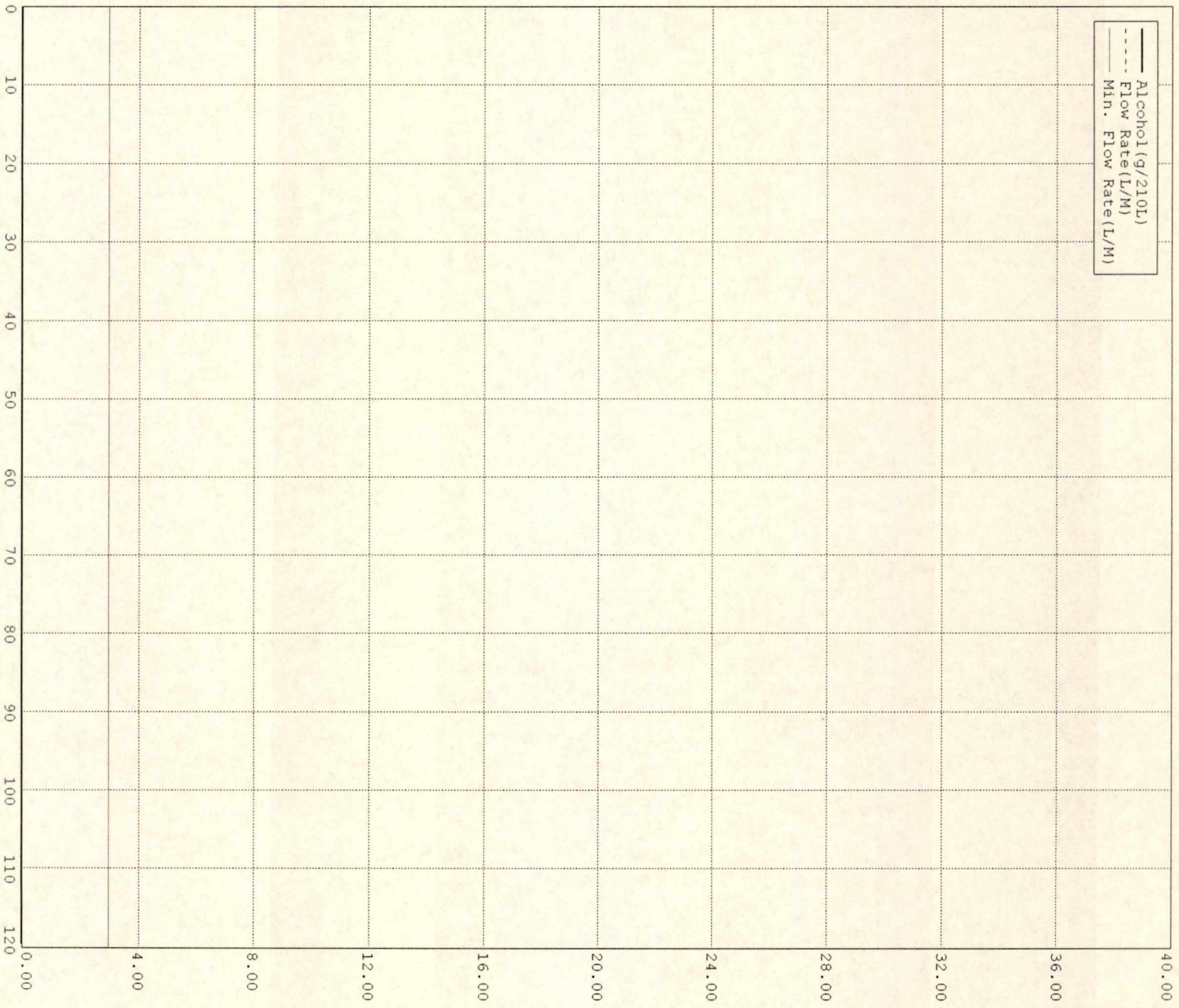
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

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: 0.079  
LOT #: AG735001  
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	08:17
BLANK TEST	0.000	08:17
INTERNAL STANDARD	VERIFIED	08:17
EXTERNAL STANDARD	0.080	08:18
BLANK TEST	0.000	08:18
SUBJECT SAMPLE	INCOMPLETE	08:21



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100361

Date: 05/30/2018  
Time: 08:23:10

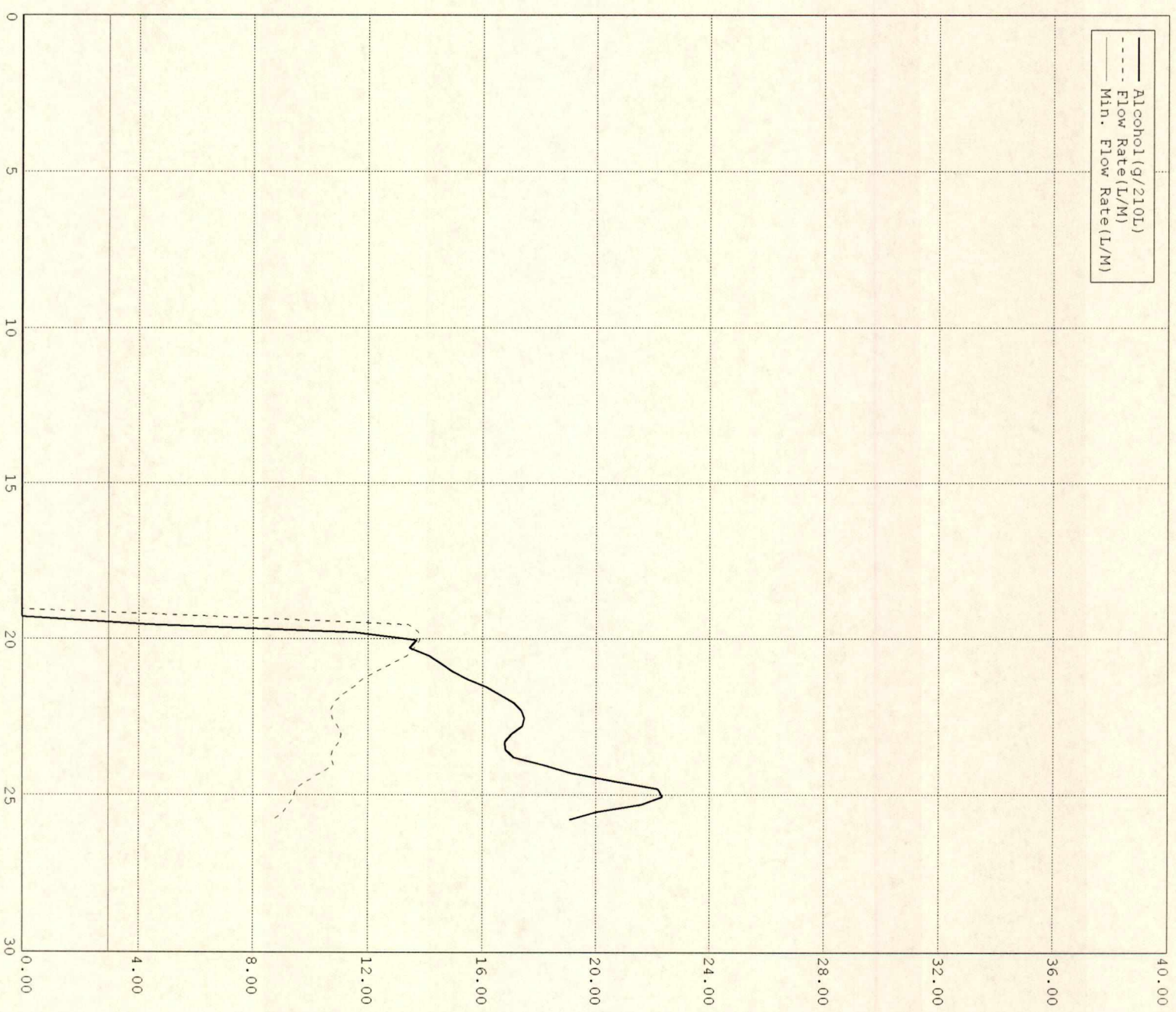
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

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 #: AG735001  
EXPIRATION: 12/16/2019

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	08:24
BLANK TEST	0.000	08:24
INTERNAL STANDARD	VERIFIED	08:24
EXTERNAL STANDARD	0.080	08:24
BLANK TEST	0.000	08:25
SUBJECT SAMPLE	INVALID	08:26



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100361

Date: 05/30/2018  
Time: 08:27:40

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

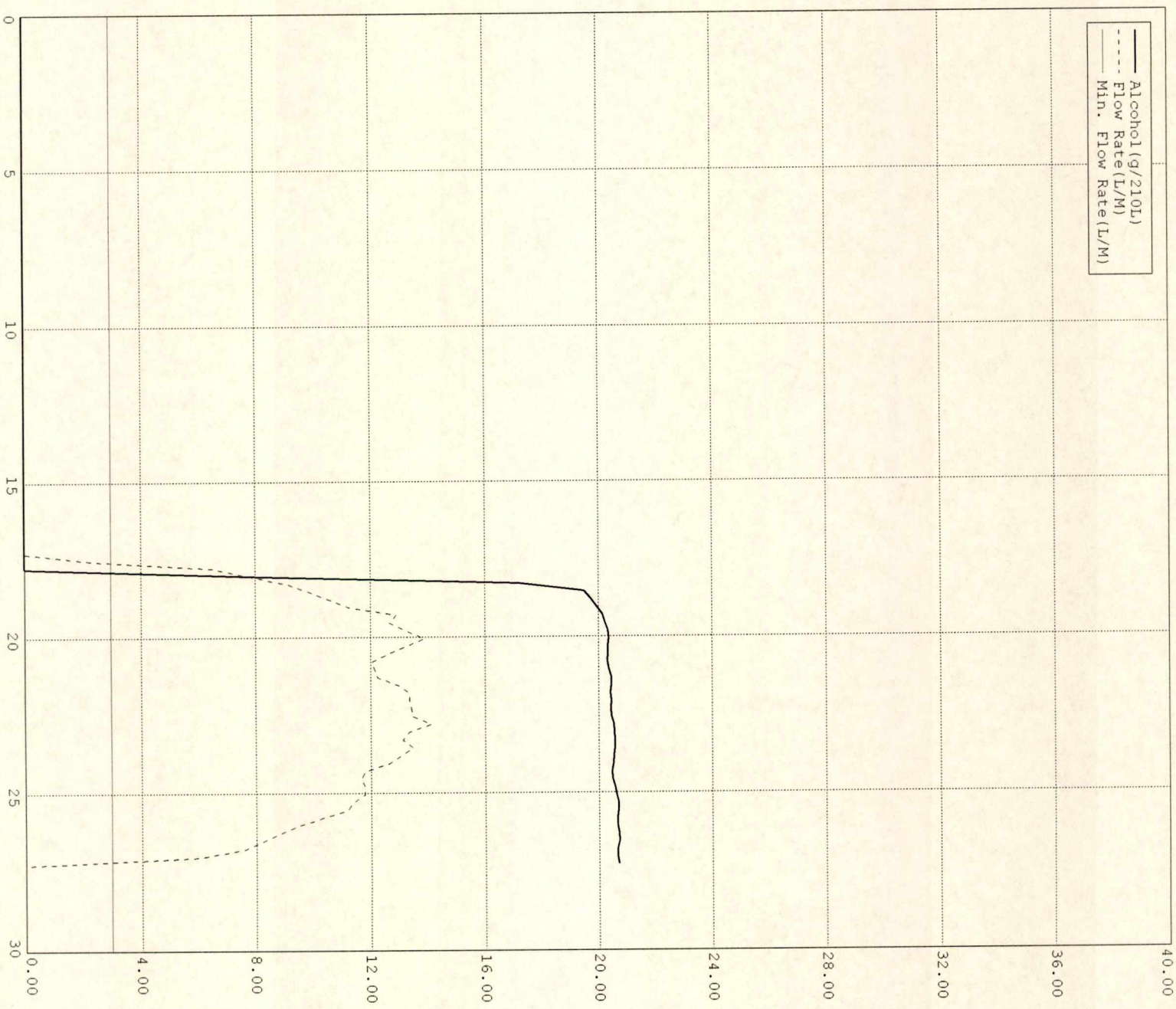
DEPT/AGENCY:  
INTERFERENCE ACETONE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG735001  
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	08:28
BLANK TEST	0.000	08:29
INTERNAL STANDARD	VERIFIED	08:29
Xq = 0.075 (0.58%)		
EXTERNAL STANDARD	0.081	08:29
X[1] = 0.0806 (-0.0006)	(0.0010)	
BLANK TEST	0.000	08:30
SUBJECT SAMPLE	XXX	08:30
X[1] = 0.1041 (-0.0175)	(-0.0005)	

Interference Detected

Filter 2 Avg: ~~-0.0016~~ -0.0004 BMB  
Filter 3 Avg: 0.0016 BMB  
BMB 5/30/18



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100361

Date: 05/30/2018  
Time: 08:34:24

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

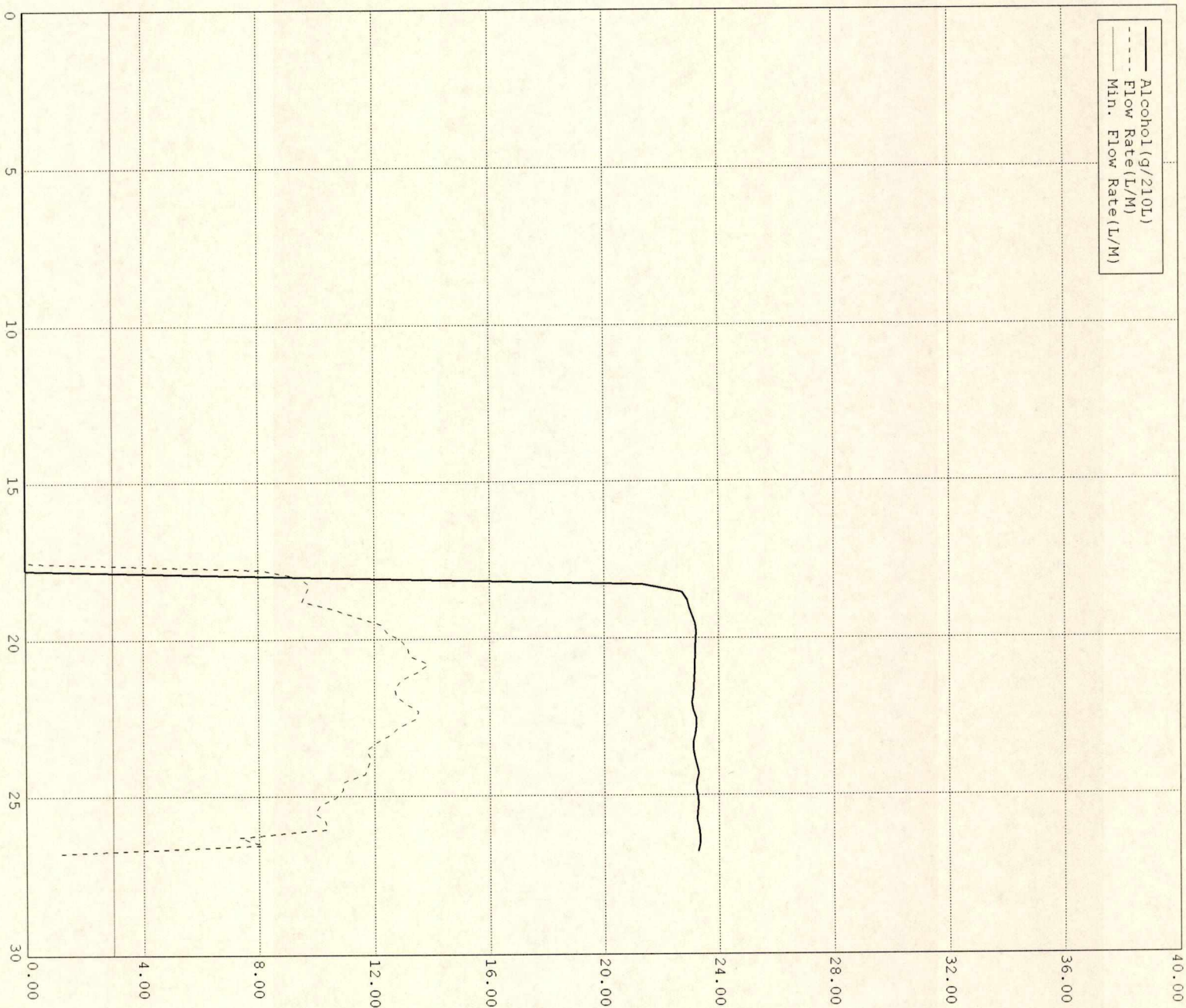
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.079  
LOT #: AG735001  
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	08:35
BLANK TEST	0.000	08:35
INTERNAL STANDARD	VERIFIED	08:35
Xq = 0.075 (0.35%)		
EXTERNAL STANDARD	0.080	08:36
X[1] = 0.0802 (0.0002)	(0.0021)	
BLANK TEST	0.000	08:37
SUBJECT SAMPLE	XXX	08:37
X[1] = 0.1165 (-0.0243)	(0.0013)	

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100361

Date: 05/30/2018  
Time: 08:40:55

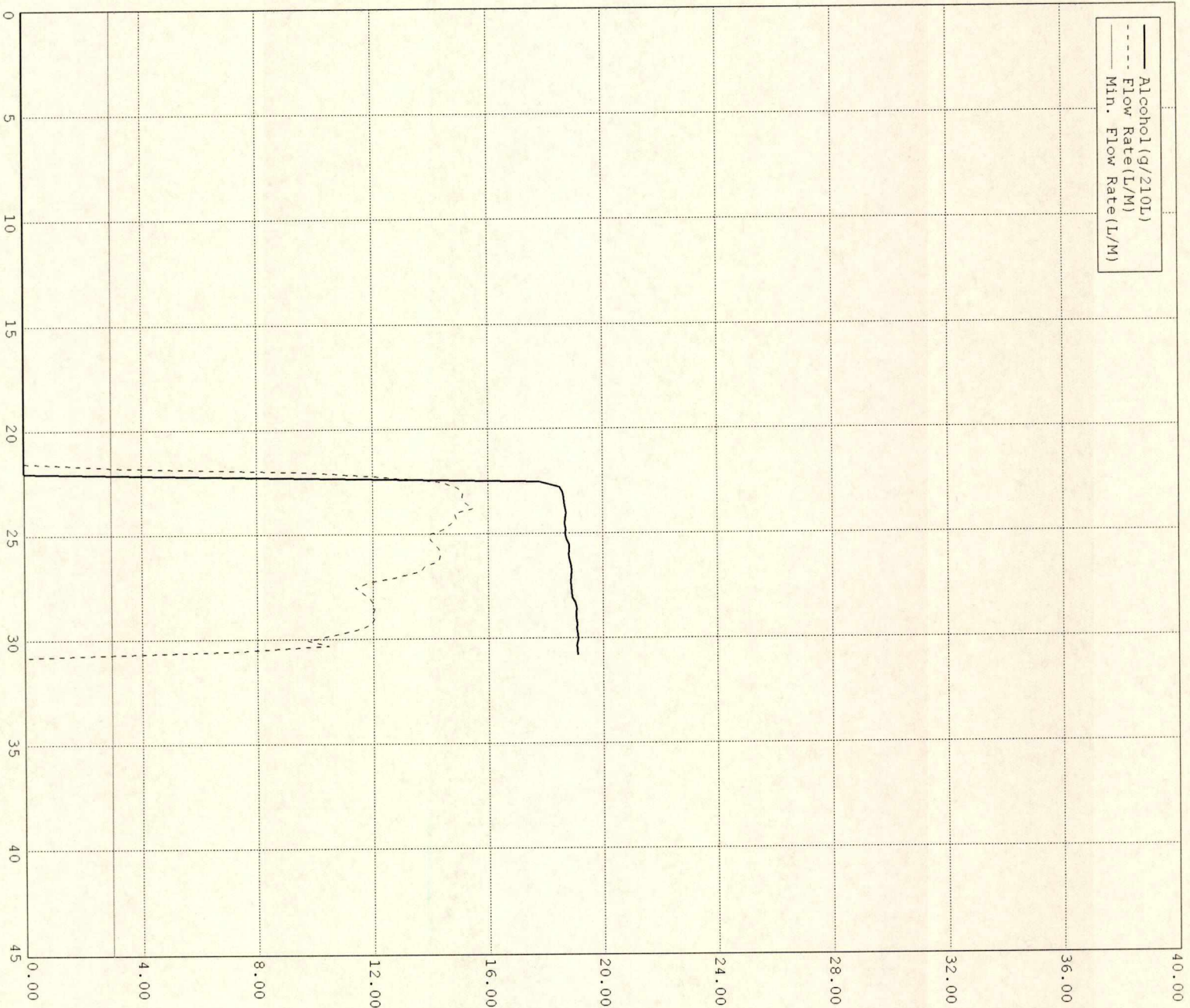
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.079  
LOT #: AG735001  
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	08:43
BLANK TEST	0.000	08:43
INTERNAL STANDARD	VERIFIED	08:43
Xd = 0.075 (0.23%)		
EXTERNAL STANDARD	0.080	08:43
X[1] = 0.0799 (-0.0006) (0.0019)		
BLANK TEST	0.000	08:44
SUBJECT SAMPLE (Vol=1.91L)	0.095	08:45
X[1] = 0.0959 (0.0009) (0.0007)		
BLANK TEST	0.000	08:46
EXTERNAL STANDARD	0.079	08:46
X[1] = 0.0792 (-0.0006) (0.0015)		
BLANK TEST	0.000	08:47



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100361

Date: 05/30/2018  
Time: 08:57:57

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

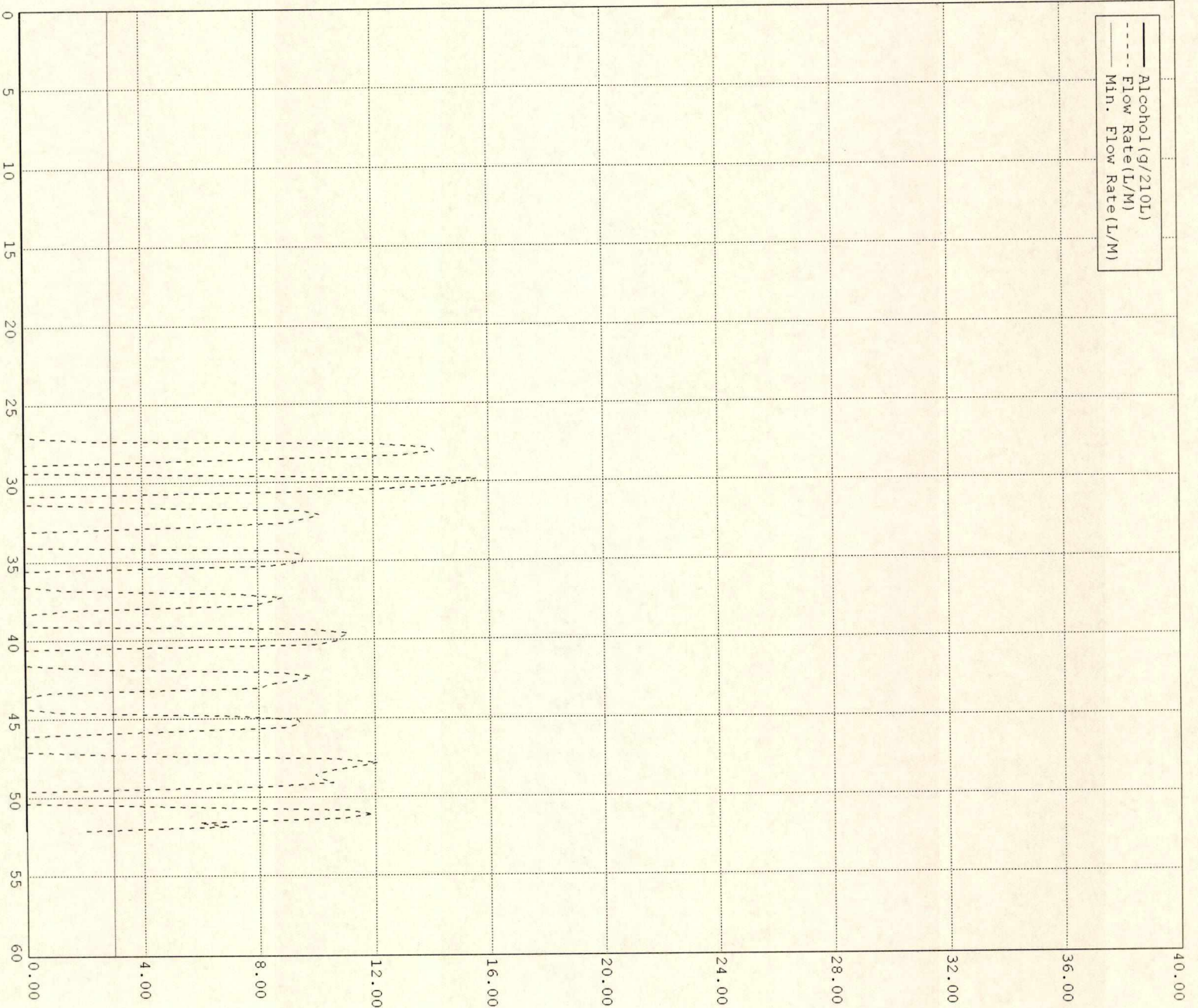
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG735001  
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	08:58
BLANK TEST	0.000	08:59
INTERNAL STANDARD	VERIFIED	08:59
EXTERNAL STANDARD	0.079	08:59
BLANK TEST	0.000	09:00
SUBJECT SAMPLE	XXX	09:01

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100361

Date: 05/30/2018  
Time: 09:07:19

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

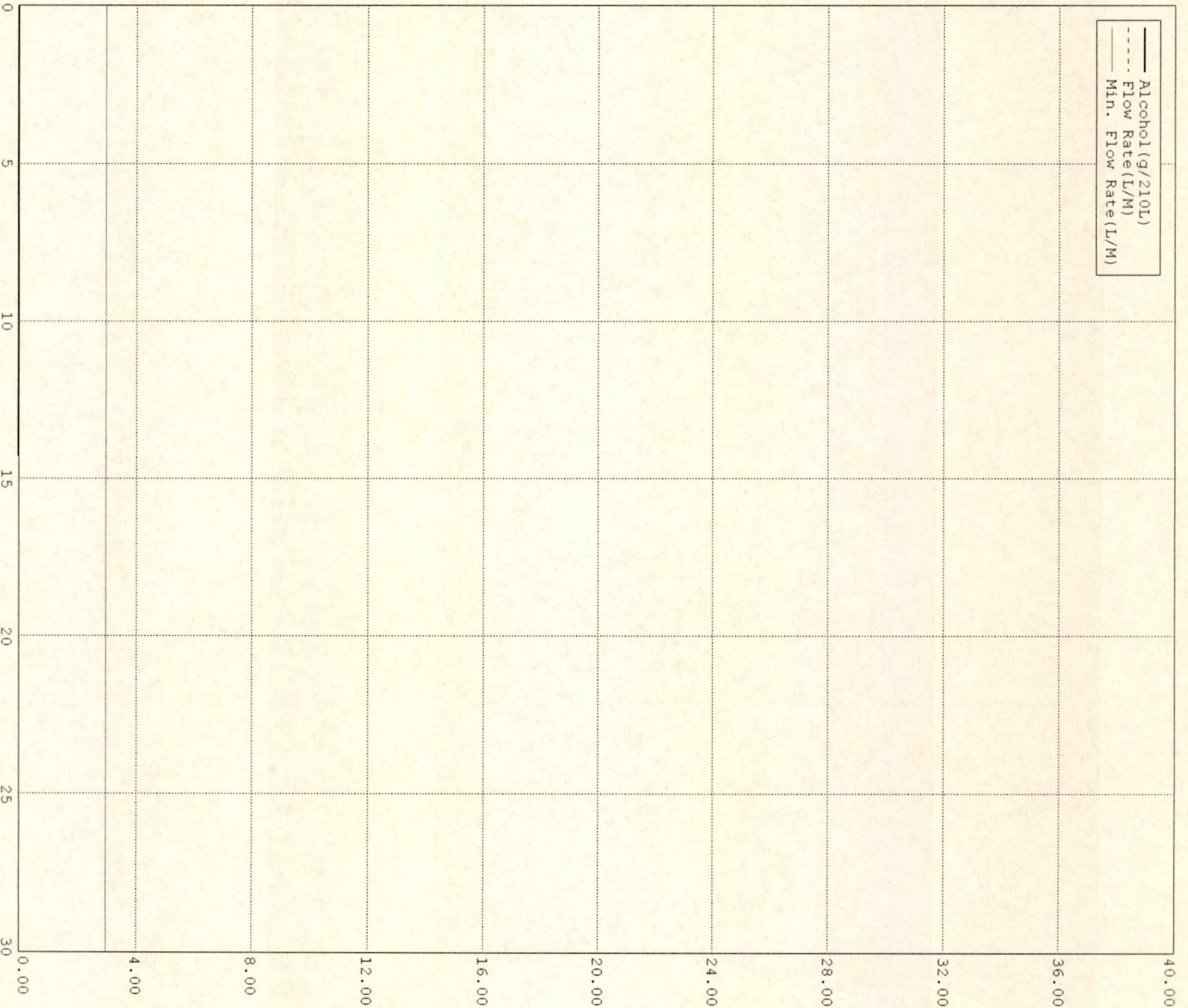
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.079  
LOT #: AG735001  
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK  
BLANK TEST PASSED 09:08  
INTERNAL STANDARD VERIFIED 09:08  
EXTERNAL STANDARD 0.079 09:09  
BLANK TEST 0.000 09:10

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100361

Date: 05/30/2018  
Time: 09:22:55

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 #: AG735001  
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	09:24
BLANK TEST	0.000	09:24
INTERNAL STANDARD	VERIFIED	09:24
EXTERNAL STANDARD	0.080	09:24
BLANK TEST	0.000	09:25
SUBJECT SAMPLE (Vol=1.77L)	0.000	09:26
BLANK TEST	0.000	09:27
EXTERNAL STANDARD	0.080	09:27
BLANK TEST	0.000	09:28

*BMB*

