

# 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 100351 Analyst Brandi Barnett Start Date 11/13/19

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 AG 805804 Exp 2/27/20

ii. 0.040g/210L Mnf Airgas Lot AG 733403 Exp 11/30/19

iii. 0.080g/210L Mnf Airgas Lot AG 826101 Exp 9/18/20

iv. 0.100g/210L Mnf Airgas Lot AG 805903 Exp 2/28/20

v. 0.200g/210L Mnf Guth Lot 19040 Exp 13/21/19 10/7/19 11/29/21 <sup>BMB</sup>

1. Simulator S/N DR4162 Date Calibrated 10/7/19

vi. 0.300g/210L Mnf Guth Lot 1900 Exp 1/3/21

1. Simulator S/N DR4178 Date Calibrated 10/4/19

5. Functional Tests (attached)

a. Incomplete

b. Invalid

c. Interference

d. Exceeded attempts

i. Acetone - Mnf Guth Lot 18370 Level 0.100 Exp 12/5/20

1. Simulator S/N SD1199 Date Calibrated 3/6/19

ii. Isopropanol - Mnf Guth Lot 18370 Level 0.100 Exp 12/5/20

1. Simulator S/N DR4161 Date Calibrated 3/7/19

iii. Negative Control - Mnf Guth Lot 18370 Level 0.100 Exp 12/5/20

1. Simulator S/N SD1202 Date Calibrated 3/5/19

e. RFI

6. Verify stylus is calibrated

9. Verification of Calibration

7. Reset Options

10. Non-Drinking Subject Test (attached)

8. Clear Memory

11. Upload

13. Remove tank prior to shut down

End Date 11/13/19

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100351  
-----

Date: 11/13/2019  
Time: 09:40:32

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 = 42.4°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.84 V PASSED  
(1.10 V - 2.58 V)  
Cooler Voltage = 1.76 V PASSED  
(1.06 V - 2.46 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 535 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.2 in

PUMP INFO

Flow Rate = 4.699 L/M PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED  
(0.001 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 = 0.112 0.16% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100351  
-----

Date: 11/13/2019  
Time: 10:19 AM

Temperatures (°C)  
Sample Cell: 49.0°C  
Breath Tube: 42.1°C

Current Barometer 29.2 in  
Volume (Ltr) 1.57

Settings  
Lamp: 1.84 V  
Bias: 80 V  
Cooler: 1.81 V  
Chopper: 535 Hz

Voltages (V)  
Flow: 1.04 V  
Detector: 0.068 V



CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100351  
-----

Date: 10/29/2019  
Time: 13:59:47

OPERATOR NAME:  
BRANDI BARNETT  
CERTIFICATE #: 7038

Ca	=	0.1000			
CAL	=	0.980777	0.800	<=	CAL < 1.200
b1	=	0.0007	0.0000	<=	b1 < 0.0040
b2	=	0.0049	0.0010	<=	b2 < 0.0100
b3	=	0.0009	0.0000	<=	b3 < 0.0040
Xq	=	0.1126	0.0500	<=	Xq < 0.2000
a21	=	1.170106	1.050	<=	a21 < 1.300
a31	=	0.489083	0.300	<=	a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100351

Date: 11/13/2019  
Time: 10:29:38

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

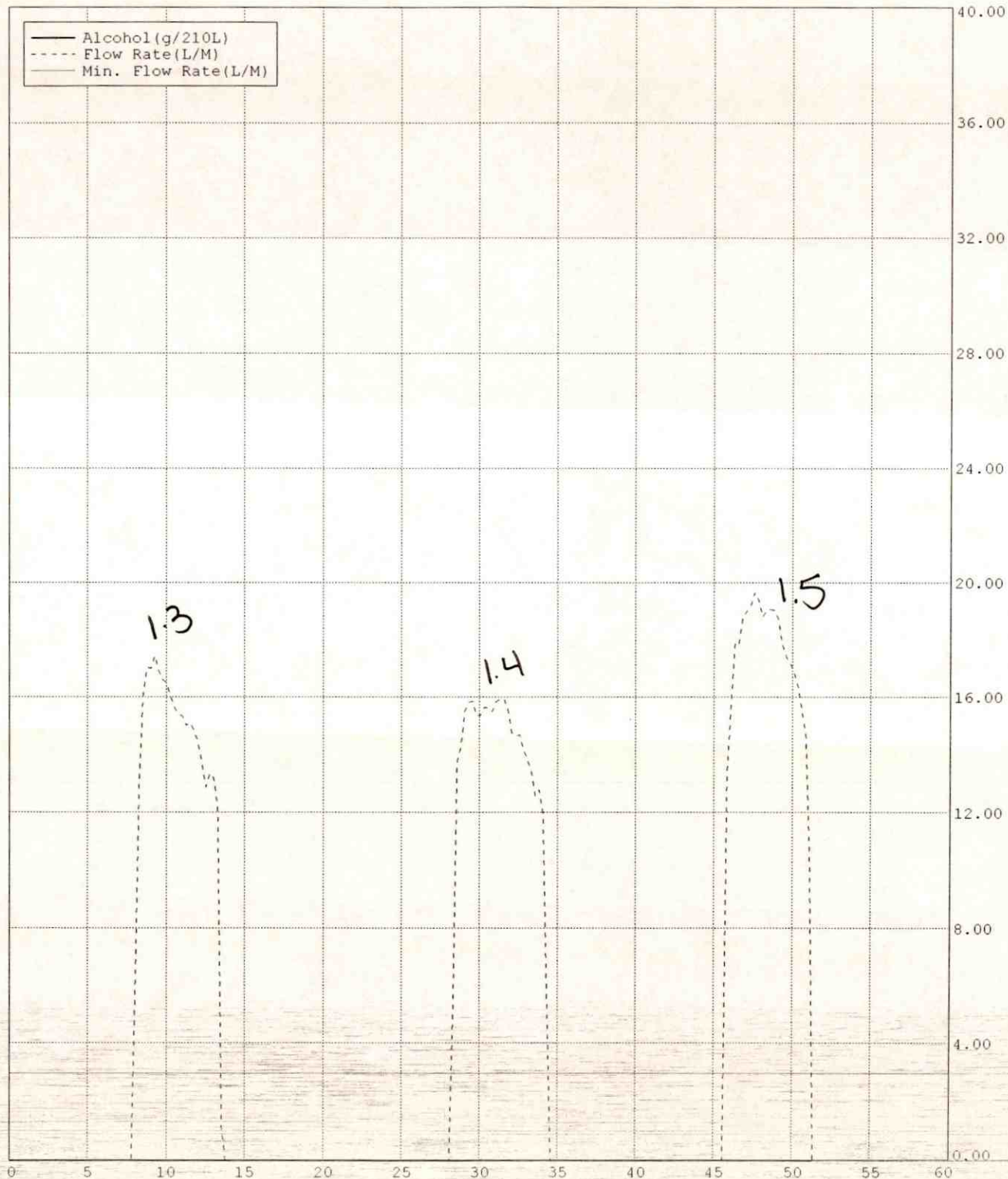
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.23: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	10:30
BLANK TEST	0.000	10:31
INTERNAL STANDARD	VERIFIED	10:31
EXTERNAL STANDARD	0.078	10:31
BLANK TEST	0.000	10:32
SUBJECT SAMPLE (Vol=1.59L)	0.000	10:33
BLANK TEST	0.000	10:34
EXTERNAL STANDARD	0.078	10:34
BLANK TEST	0.000	10:35

*Handwritten signature: BMB*



LINEARITY CHECK

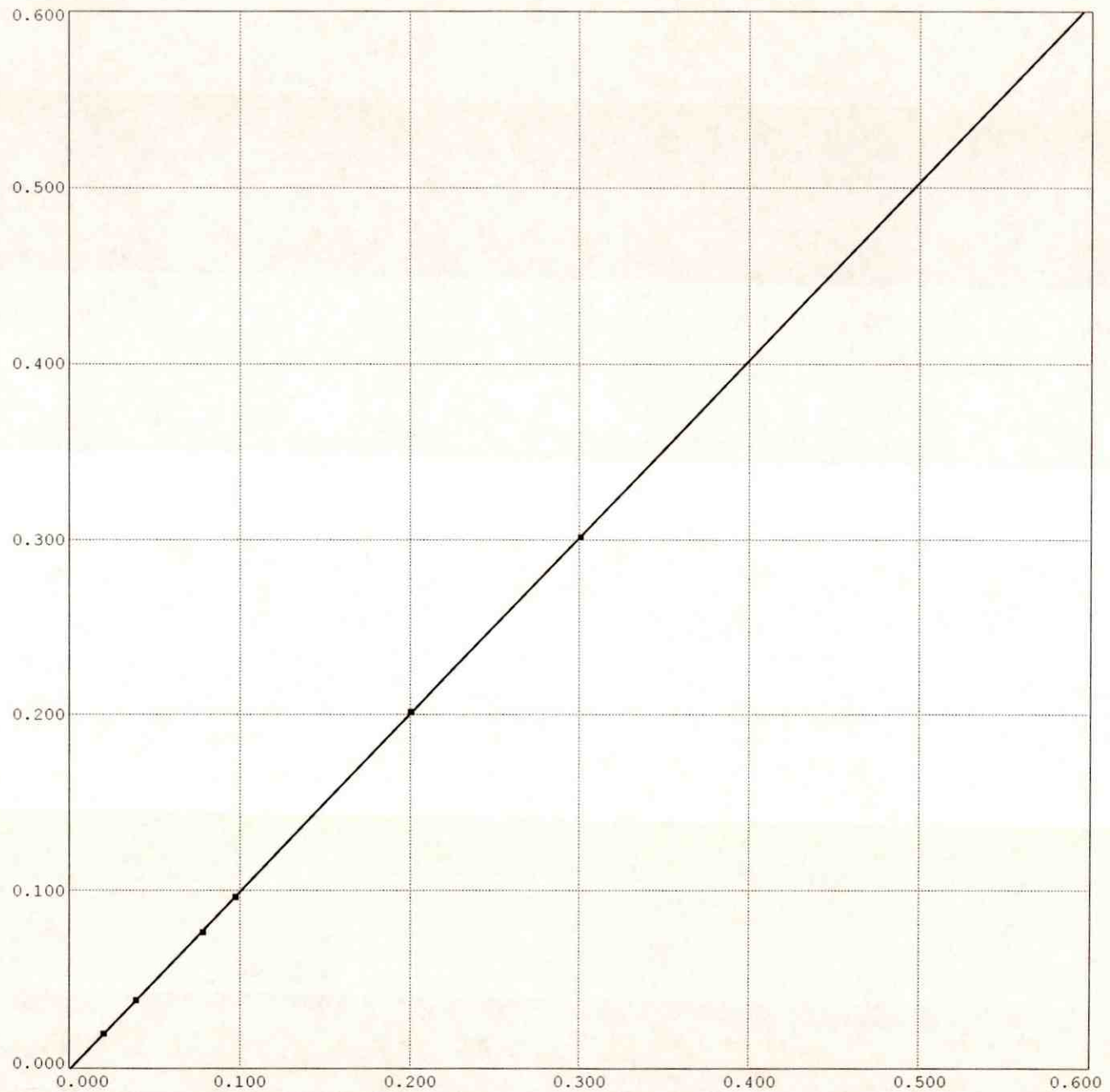
-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100351  
-----

Date: 11/13/2019  
Time: 10:49:30

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.039	0.0390	0.0000
0.078	0.0774	0.0005
0.097	0.0972	0.0004
0.200	0.2022	0.0004
0.300	0.3022	0.0015

SLOPE = 1.010122  
R<sup>2</sup> = 0.999974



*Handwritten signature: BMB*



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
DATAMASTER dmt: 100351

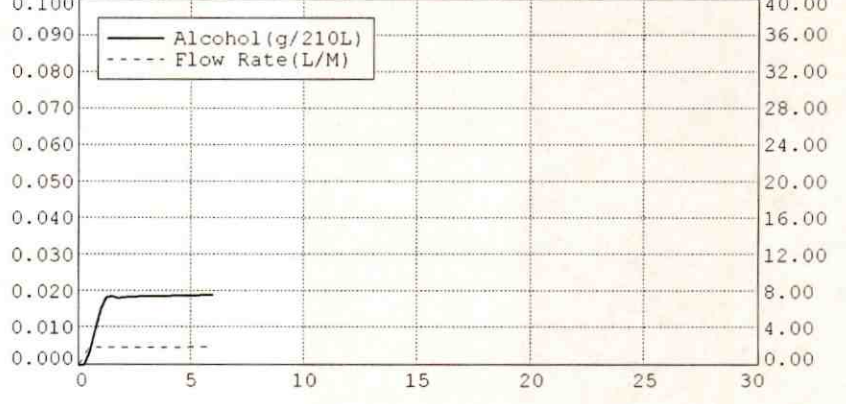
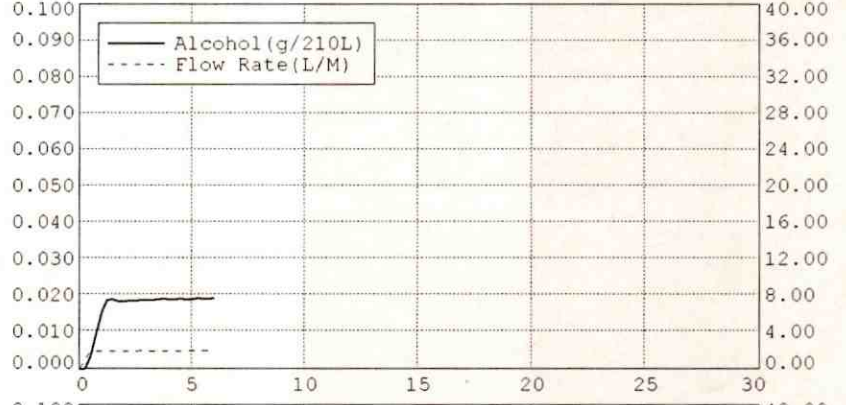
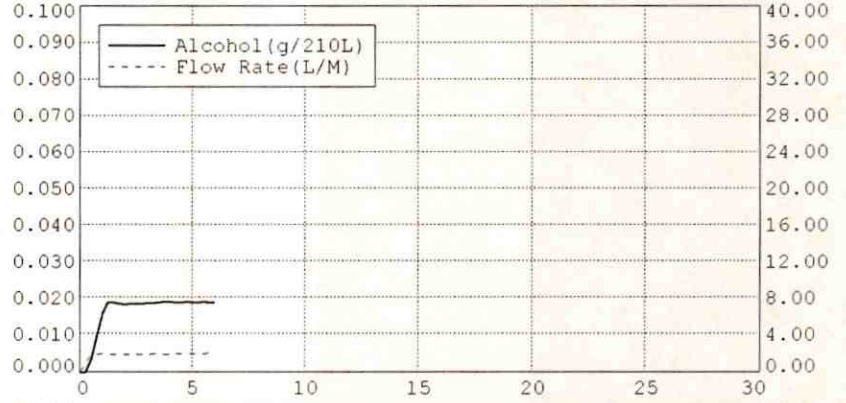
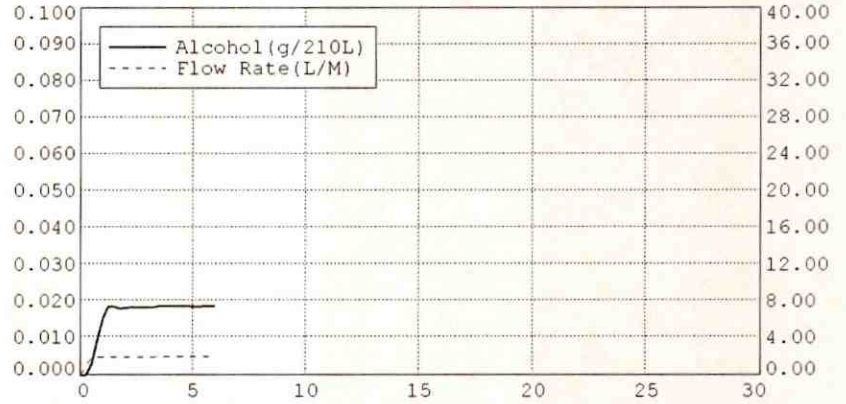
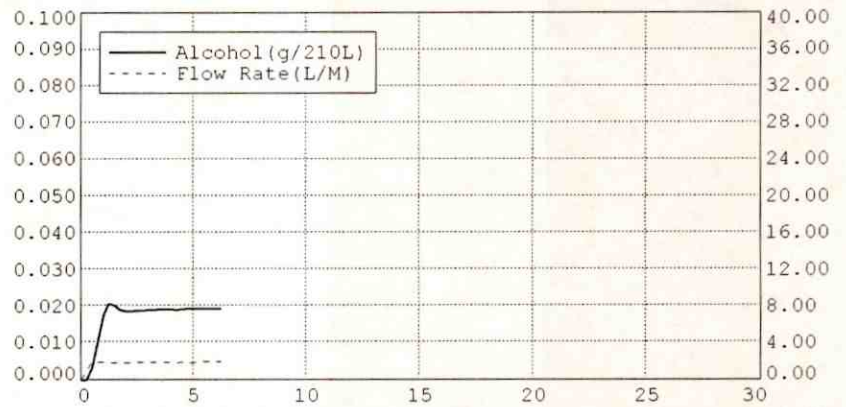
Date: 11/13/2019  
Time: 10:49:32

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
TARGET AT 29.22: 0.020  
LOT #: AG805804  
EXPIRATION: 02/27/2020  
TANK PRESSURE: 303 psi

BLANK TEST	0.000	10:52
INTERNAL STANDARD	VERIFIED	10:52
EXTERNAL STANDARD	0.020	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.020	10:53
BLANK TEST	0.000	10:54
EXTERNAL STANDARD	0.020	10:54
BLANK TEST	0.000	10:55
EXTERNAL STANDARD	0.020	10:55
BLANK TEST	0.000	10:56
EXTERNAL STANDARD	0.020	10:56
BLANK TEST	0.000	10:57

Average = 0.0200  
Std Dev = 0.0000





LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100351

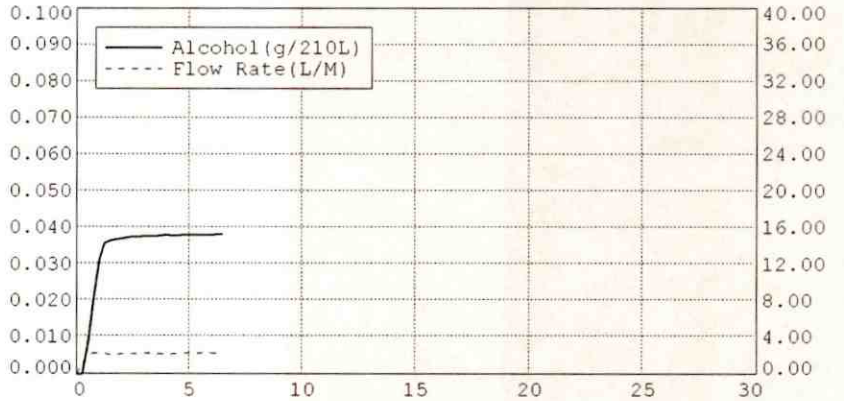
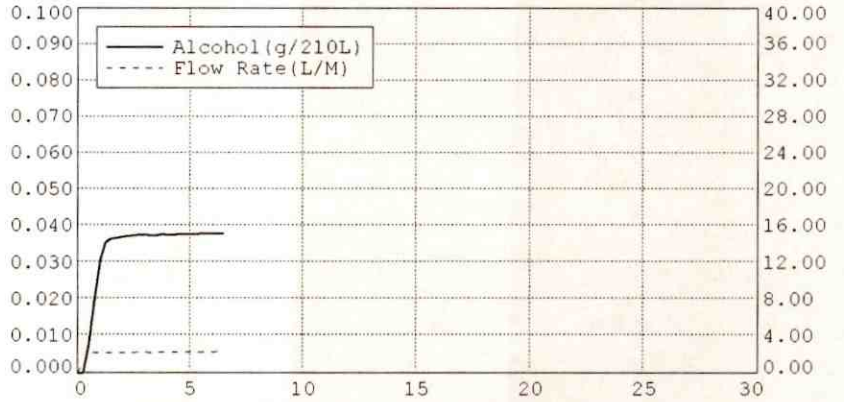
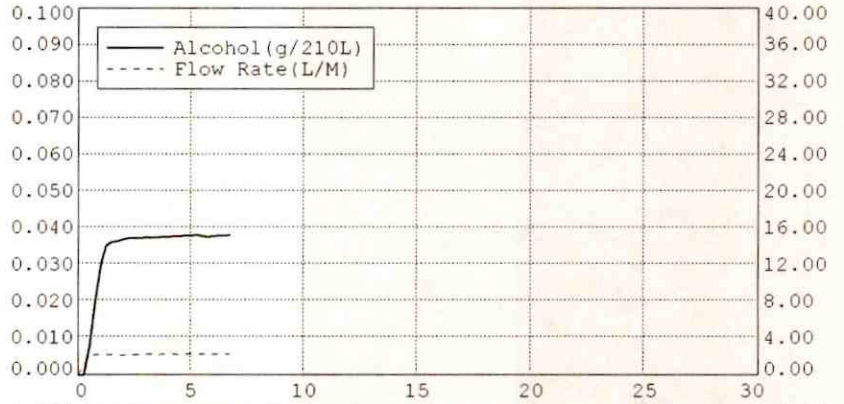
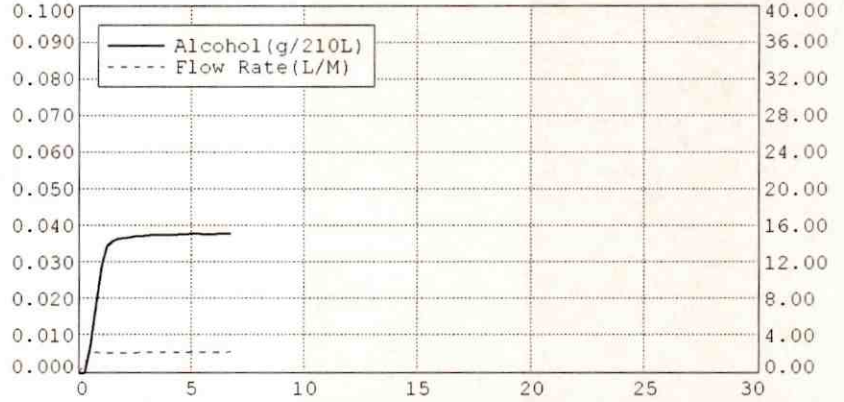
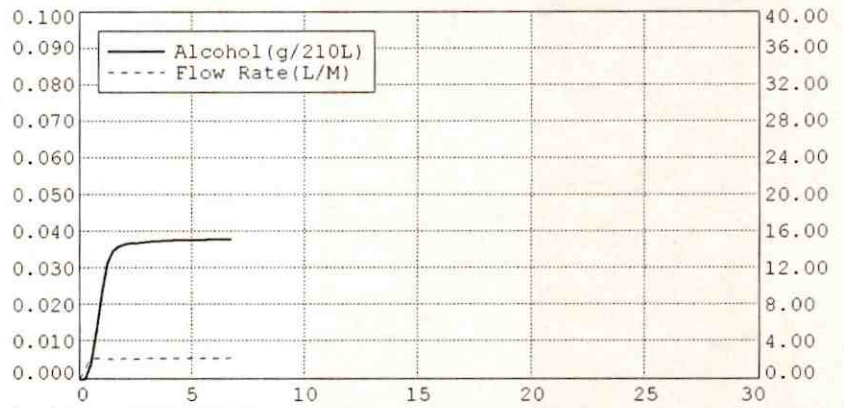
Date: 11/13/2019  
 Time: 10:58:55

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.21: 0.039  
 LOT #: AG733403  
 EXPIRATION: 11/30/2019  
 TANK PRESSURE: 880 psi

BLANK TEST	0.000	11:00
INTERNAL STANDARD	VERIFIED	11:00
EXTERNAL STANDARD	0.039	11:00
BLANK TEST	0.000	11:01
EXTERNAL STANDARD	0.039	11:01
BLANK TEST	0.000	11:02
EXTERNAL STANDARD	0.039	11:02
BLANK TEST	0.000	11:03
EXTERNAL STANDARD	0.039	11:03
BLANK TEST	0.000	11:04
EXTERNAL STANDARD	0.039	11:05
BLANK TEST	0.000	11:06

Average = 0.0390  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100351

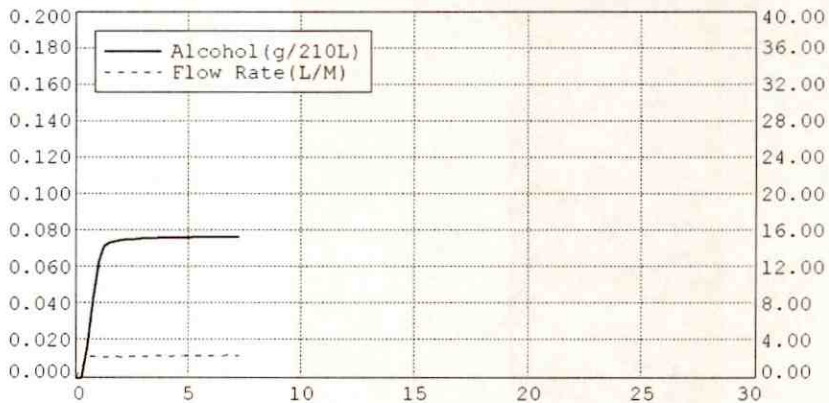
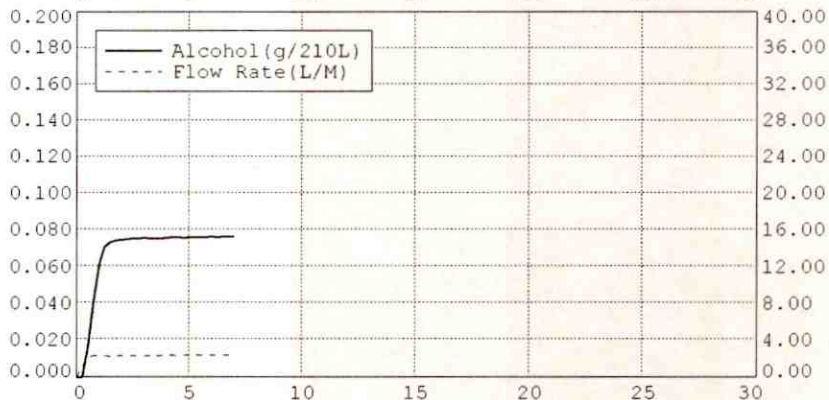
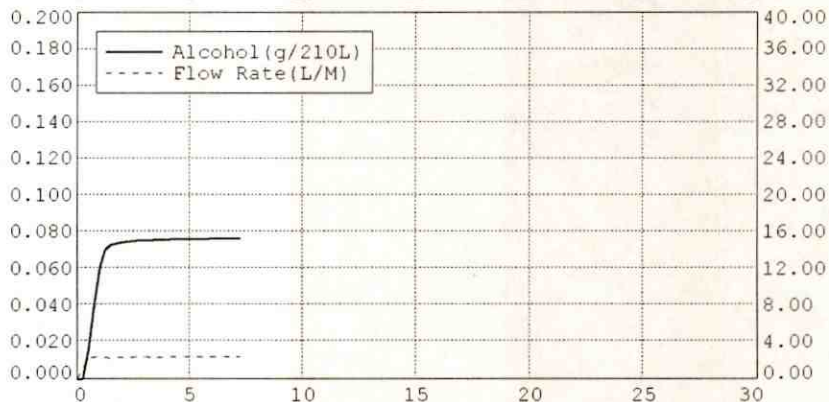
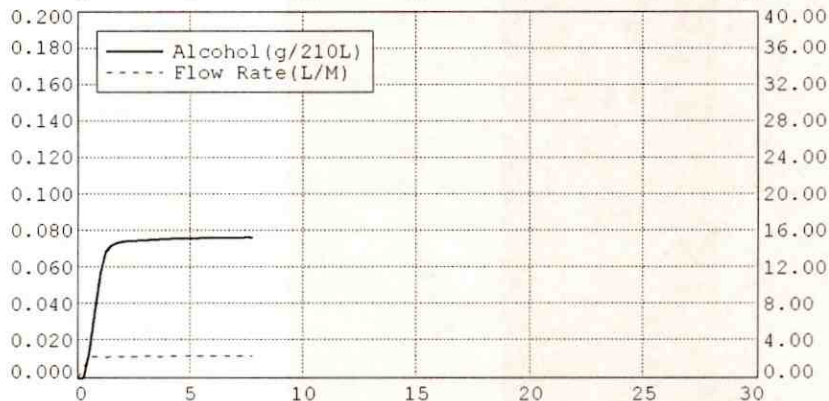
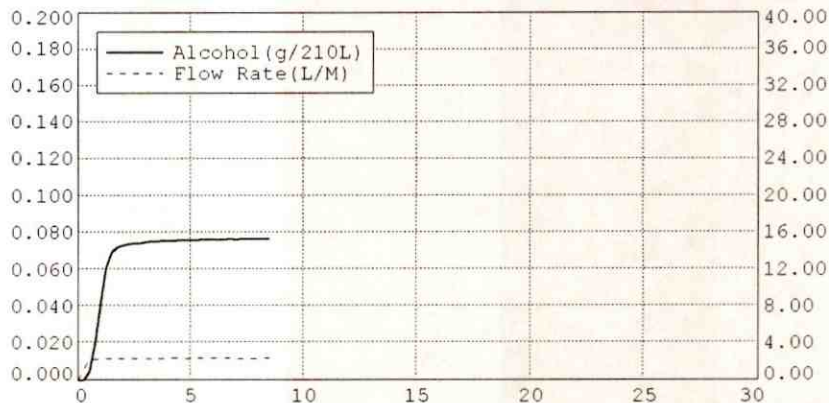
Date: 11/13/2019  
 Time: 11:43:14

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.19: 0.078  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020  
 TANK PRESSURE: 1178 psi

BLANK TEST	0.000	11:44
INTERNAL STANDARD	VERIFIED	11:44
EXTERNAL STANDARD	0.078	11:44
BLANK TEST	0.000	11:45
EXTERNAL STANDARD	0.077	11:45
BLANK TEST	0.000	11:46
EXTERNAL STANDARD	0.077	11:46
BLANK TEST	0.000	11:47
EXTERNAL STANDARD	0.077	11:48
BLANK TEST	0.000	11:48
EXTERNAL STANDARD	0.078	11:49
BLANK TEST	0.000	11:50

Average = 0.0774  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100351

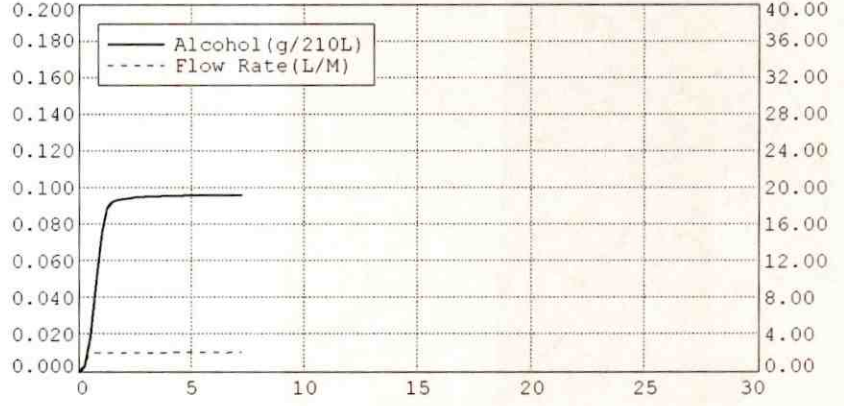
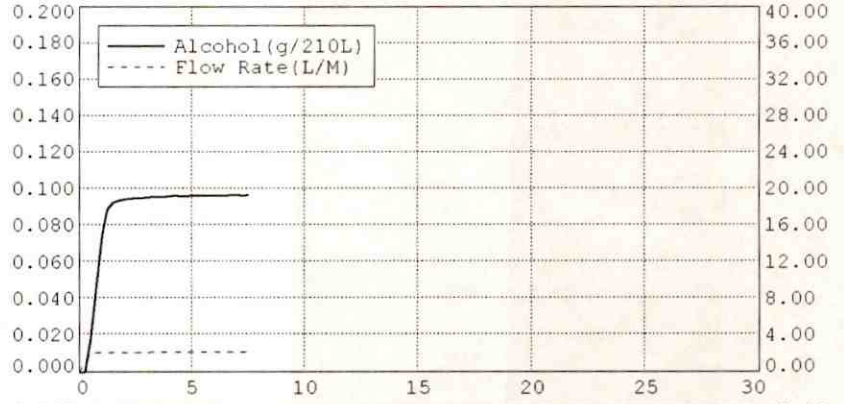
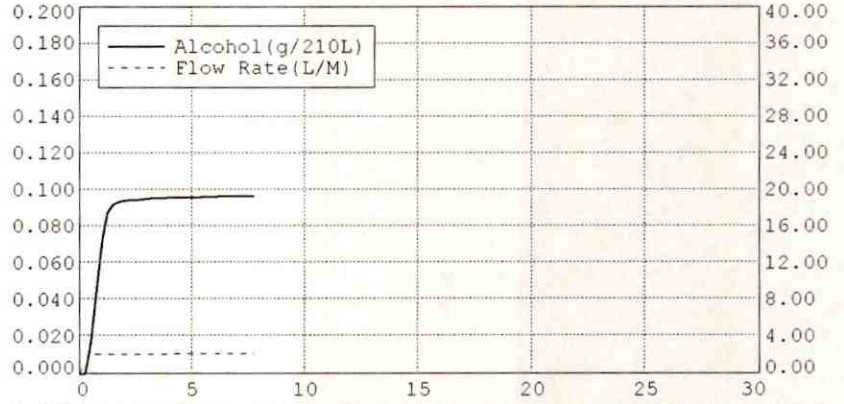
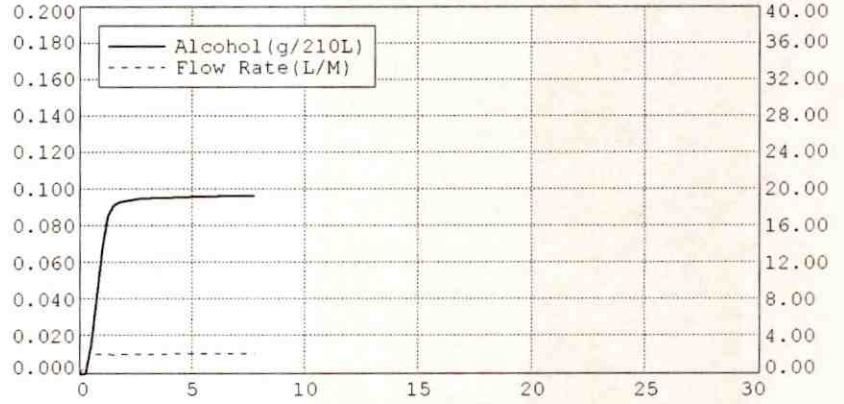
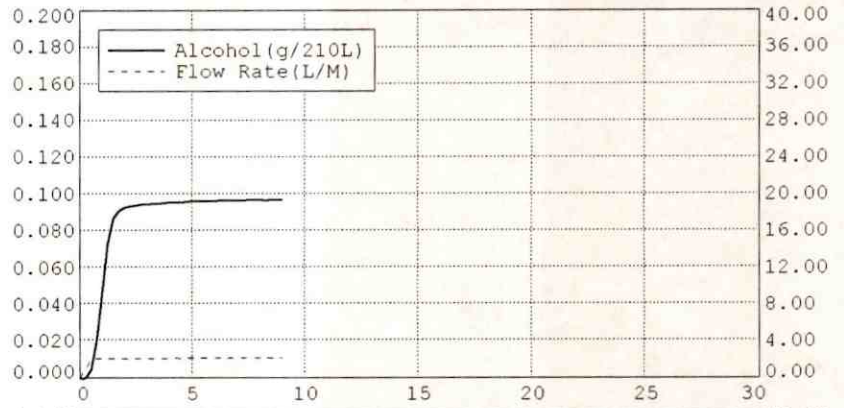
Date: 11/13/2019  
 Time: 13:13:22

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.14: 0.097  
 LOT #: AG805903  
 EXPIRATION: 02/28/2020  
 TANK PRESSURE: 730 psi

BLANK TEST	0.000	13:16
INTERNAL STANDARD	VERIFIED	13:16
EXTERNAL STANDARD	0.098	13:17
BLANK TEST	0.000	13:17
EXTERNAL STANDARD	0.097	13:18
BLANK TEST	0.000	13:19
EXTERNAL STANDARD	0.097	13:19
BLANK TEST	0.000	13:20
EXTERNAL STANDARD	0.097	13:20
BLANK TEST	0.000	13:21
EXTERNAL STANDARD	0.097	13:21
BLANK TEST	0.000	13:22

Average = 0.0972  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100351

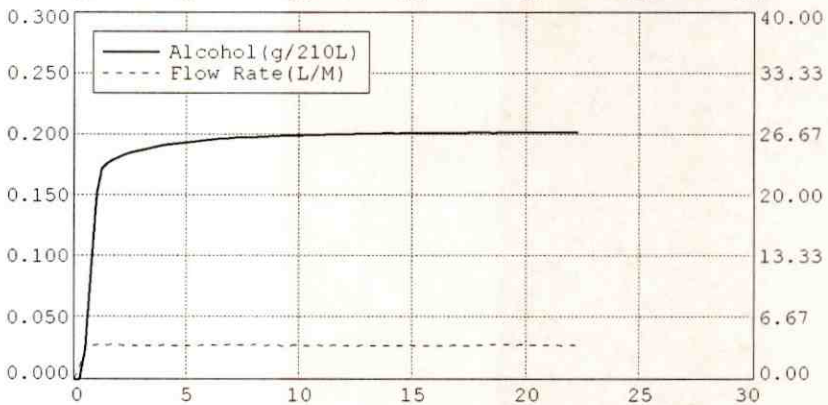
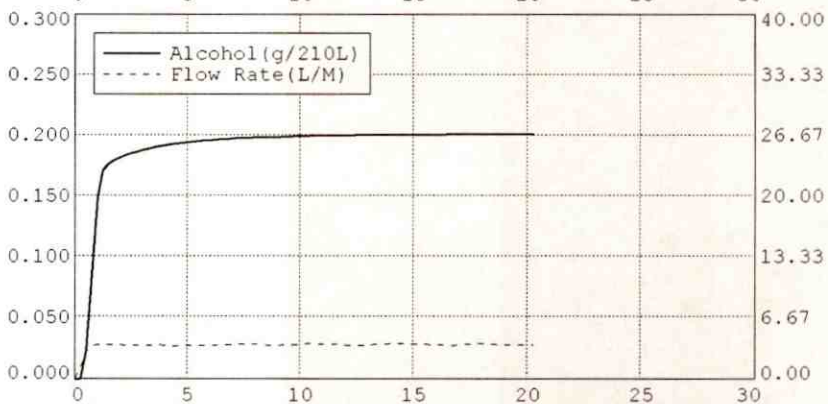
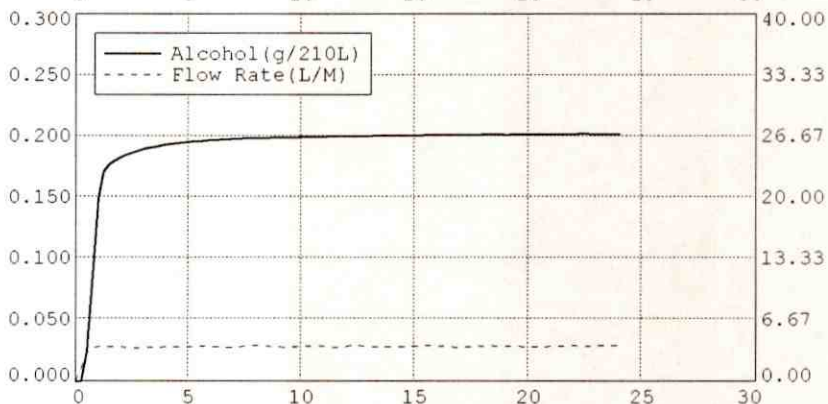
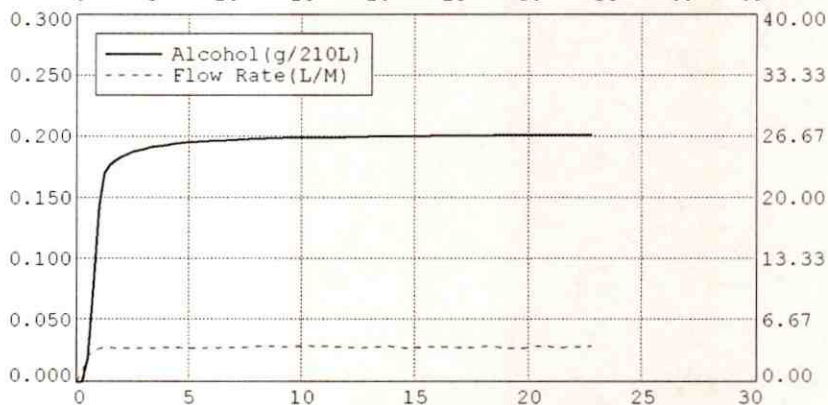
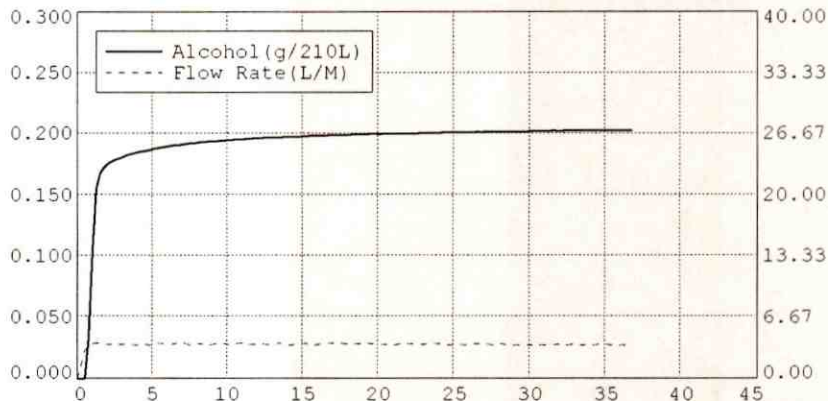
Date: 11/13/2019  
 Time: 13:32:38

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: GUTH 19040  
 EXPIRATION: 01/29/2021

BLANK TEST	0.000	13:35
INTERNAL STANDARD	VERIFIED	13:35
EXTERNAL STANDARD	0.203	13:36
BLANK TEST	0.000	13:37
EXTERNAL STANDARD	0.202	13:37
BLANK TEST	0.000	13:38
EXTERNAL STANDARD	0.202	13:39
BLANK TEST	0.000	13:39
EXTERNAL STANDARD	0.202	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.202	13:41
BLANK TEST	0.000	13:42

Average = 0.2022  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

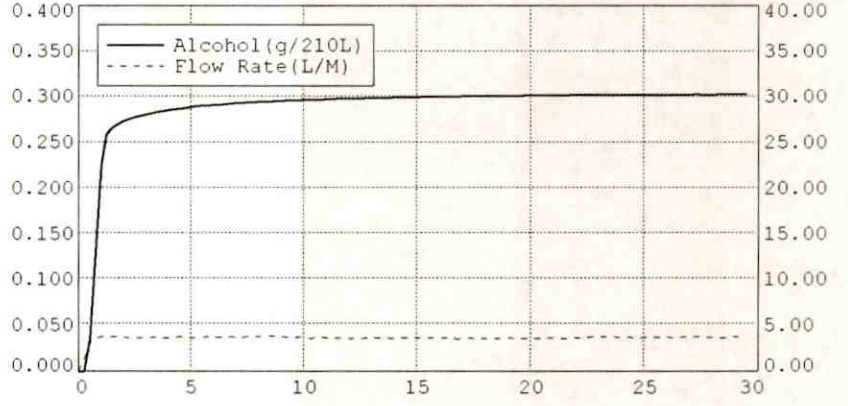
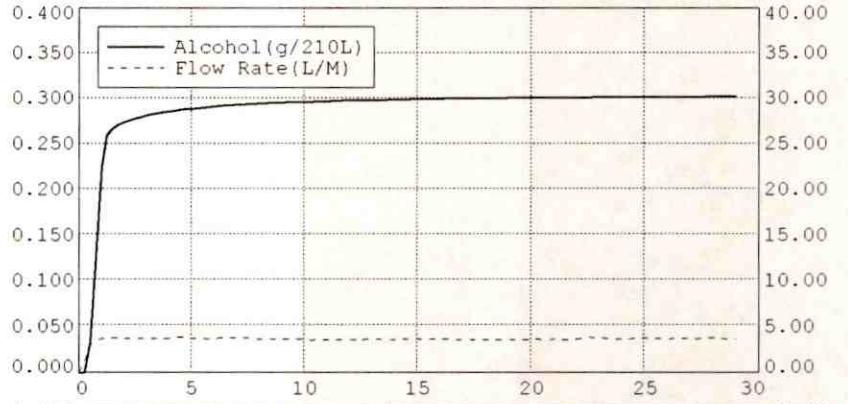
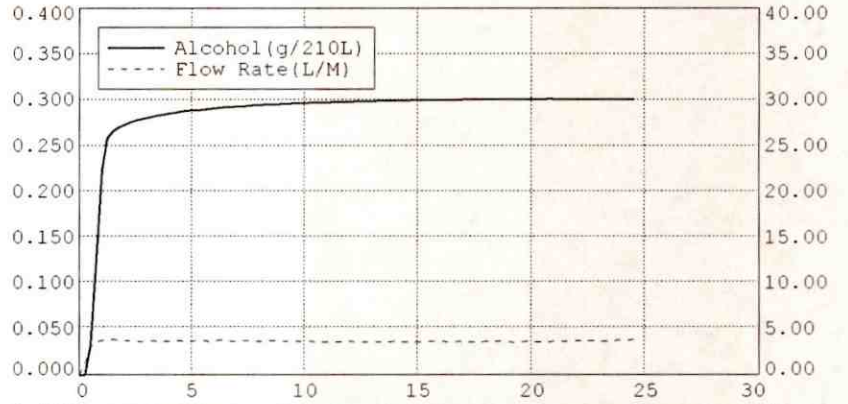
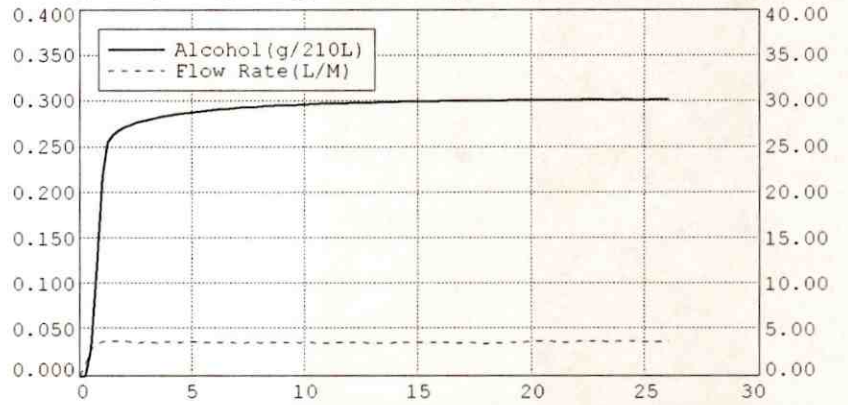
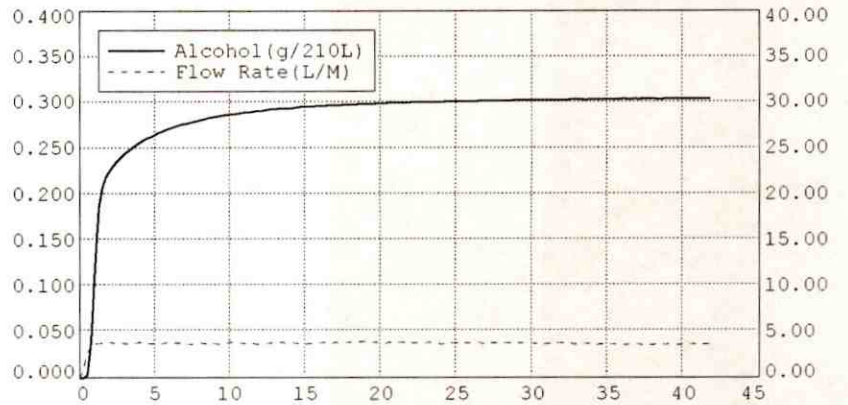
Alaska Department of Public Safety  
 DATAMASTER dmt: 100351

Date: 11/13/2019  
 Time: 13:45:11

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: GUTH 19010  
 EXPIRATION: 01/03/2021

BLANK TEST	0.000	13:46
INTERNAL STANDARD	VERIFIED	13:46
EXTERNAL STANDARD	0.304	13:47
BLANK TEST	0.000	13:48
EXTERNAL STANDARD	0.302	13:48
BLANK TEST	0.000	13:49
EXTERNAL STANDARD	0.300	13:50
BLANK TEST	0.000	13:51
EXTERNAL STANDARD	0.302	13:51
BLANK TEST	0.000	13:52
EXTERNAL STANDARD	0.303	13:53
BLANK TEST	0.000	13:54

Average = 0.3022  
 Std Dev = 0.0015





SUBJECT TEST

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Alaska Department of Public Safety  
DATAMASTER dmt: 100351  
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Date: 11/13/2019  
Time: 14:56:04

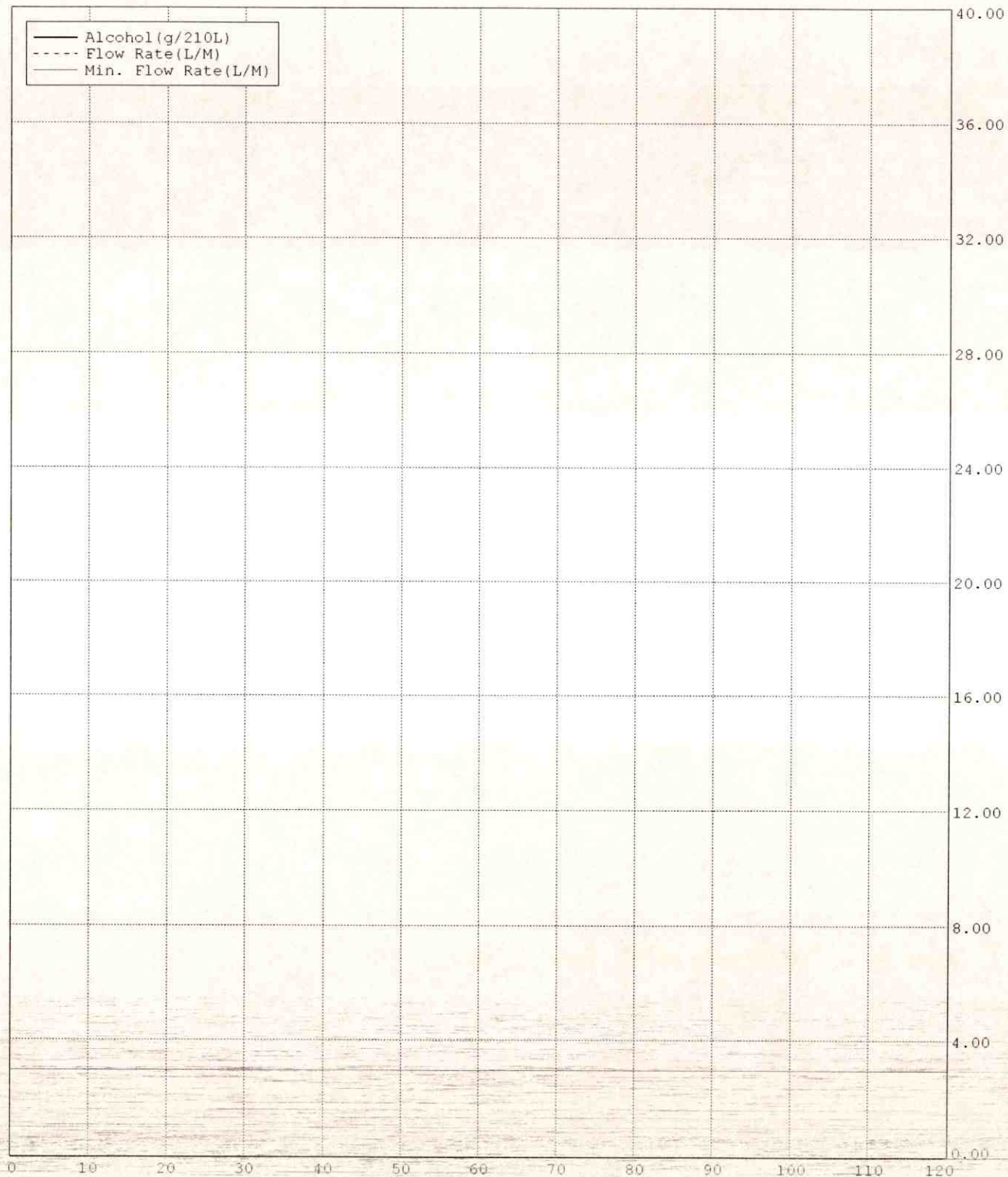
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.09: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	14:57
BLANK TEST	0.000	14:57
INTERNAL STANDARD	VERIFIED	14:58
EXTERNAL STANDARD	0.077	14:58
BLANK TEST	0.000	14:59
SUBJECT SAMPLE	INCOMPLETE	15:01



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100351  
-----

Date: 11/13/2019  
Time: 14:43:05

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

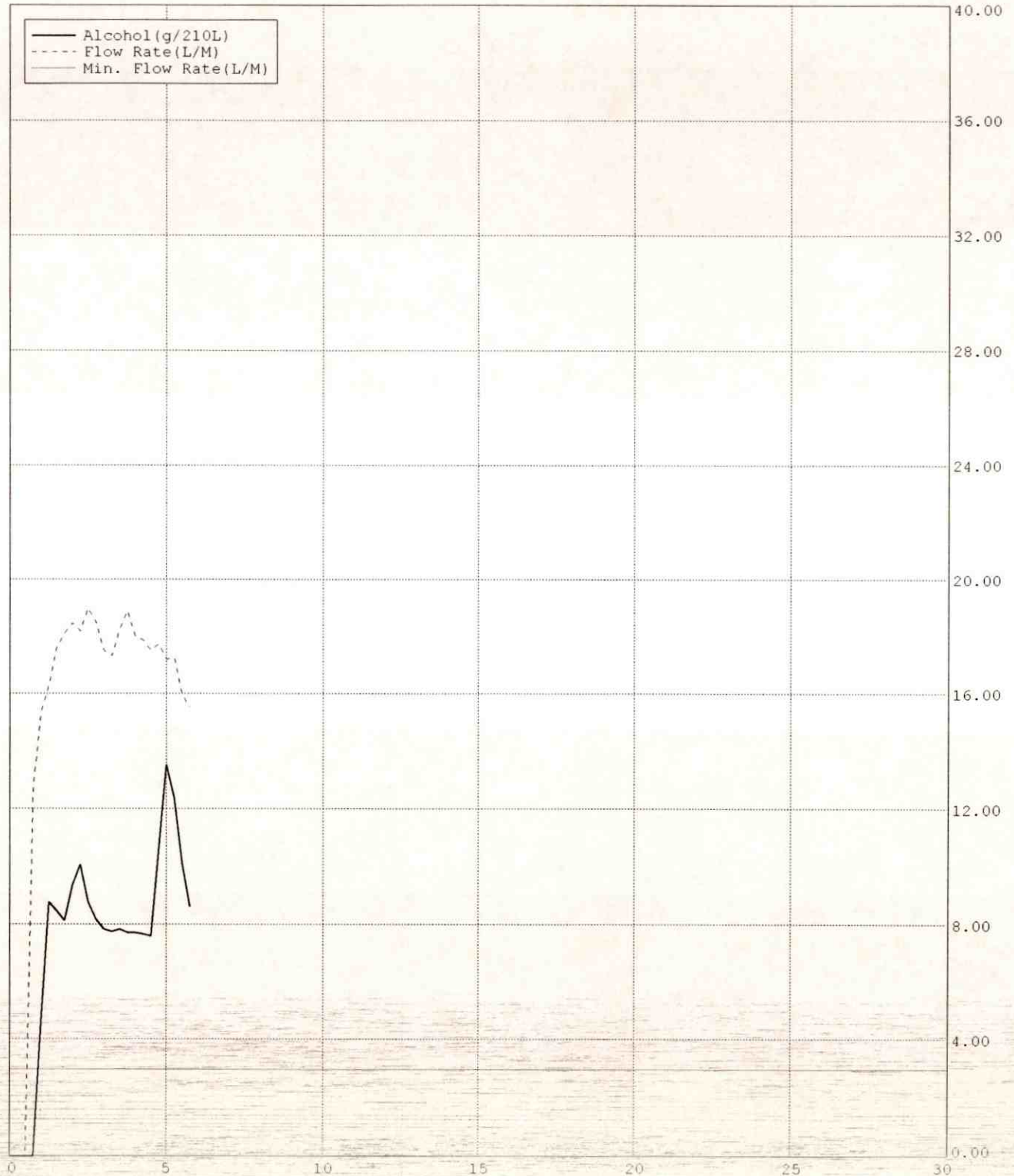
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.09: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	14:44
BLANK TEST	0.000	14:44
INTERNAL STANDARD	VERIFIED	14:44
EXTERNAL STANDARD	0.077	14:44
BLANK TEST	0.000	14:45
SUBJECT SAMPLE	INVALID	14:45

*BMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100351

Date: 11/13/2019  
Time: 15:06:38

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 29.09: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

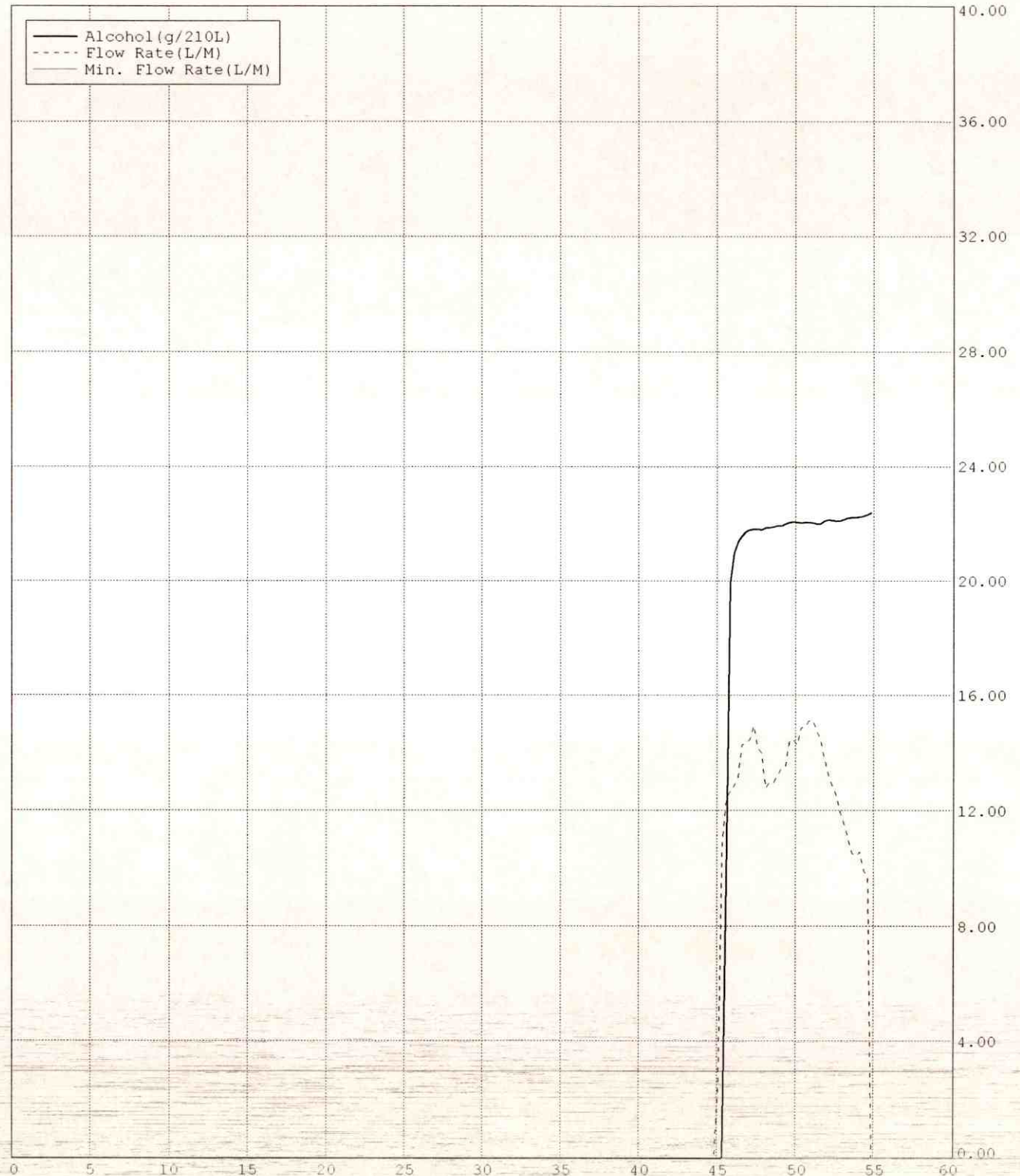
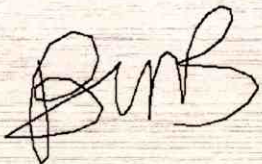
DIAGNOSTIC CHECK	PASSED	15:07
BLANK TEST	0.000	15:07
INTERNAL STANDARD	VERIFIED	15:08
Xq = 0.112 (0.31%)		
EXTERNAL STANDARD	0.077	15:08
X[1] = 0.0770 (-0.0014) (0.0032)		
BLANK TEST	0.000	15:09
SUBJECT SAMPLE	XXX	15:10
X[1] = 0.1123 (-0.0174) (0.0045)		

Interference Detected

Filter 2 Avg: -0.0009

Filter 3 Avg: 0.0031

BMB 11/13/19



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100351  
-----

Date: 11/13/2019  
Time: 15:13:59

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

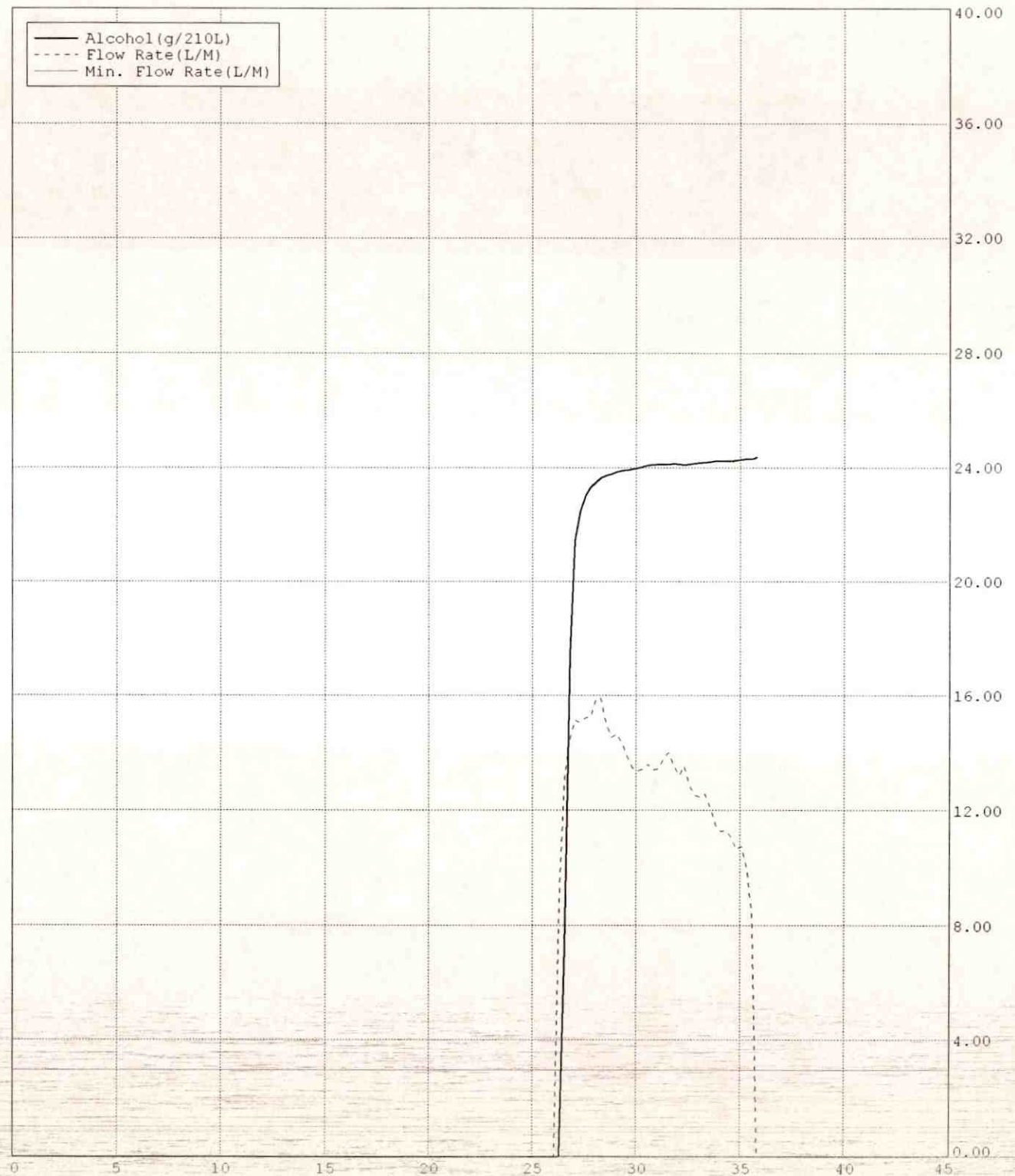
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.08: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	15:15
BLANK TEST	0.000	15:15
INTERNAL STANDARD	VERIFIED	15:15
Xq = 0.113 (0.16%)		
EXTERNAL STANDARD	0.077	15:15
X[1] = 0.0772 (-0.0005) (0.0035)		
BLANK TEST	0.000	15:16
SUBJECT SAMPLE	XXX	15:17
X[1] = 0.1221 (-0.0292) (0.0040)		

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100351

Date: 11/13/2019  
Time: 15:26:22

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

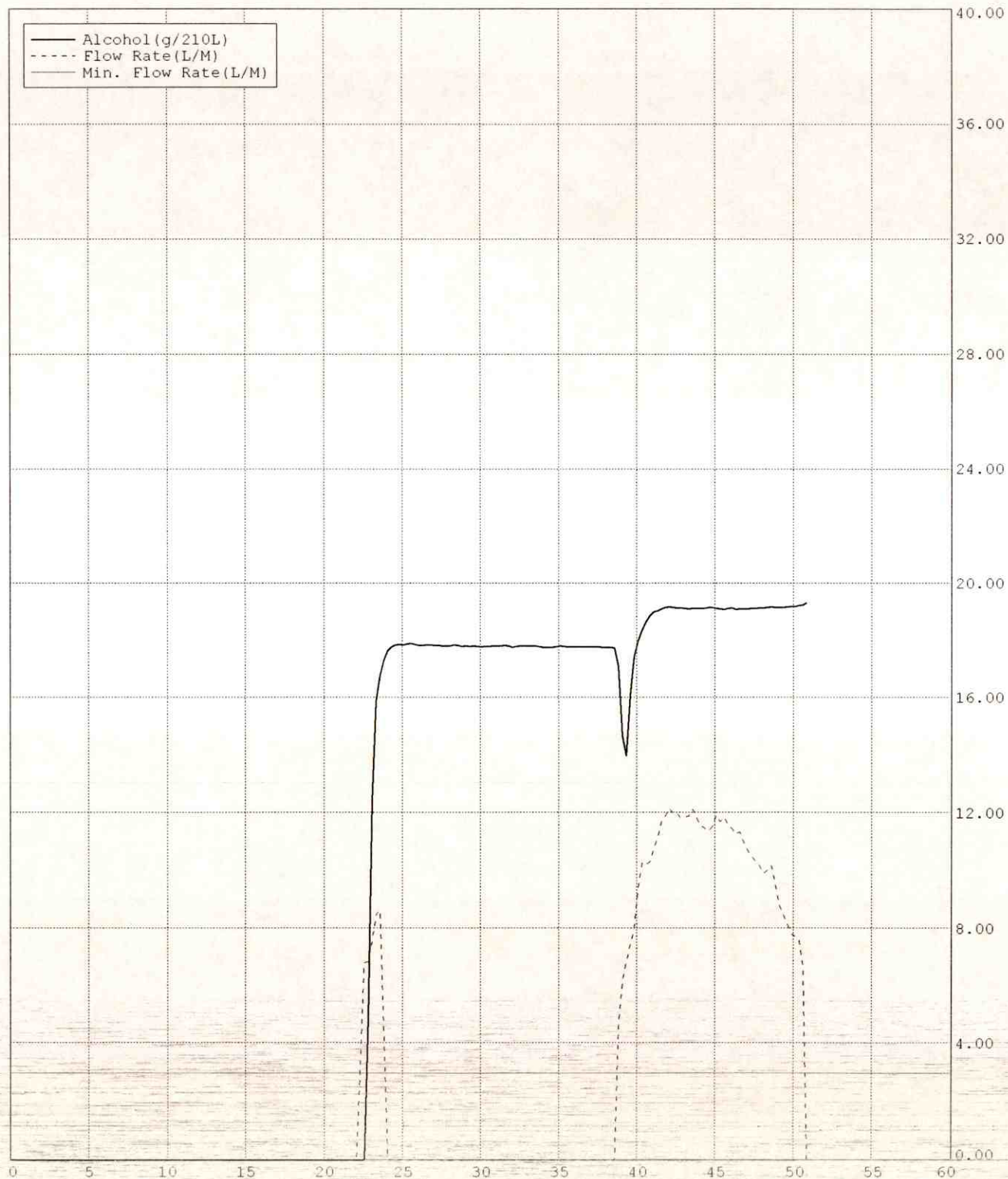
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.09: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	15:28
BLANK TEST	0.000	15:28
INTERNAL STANDARD	VERIFIED	15:28
Xq = 0.113 (0.31%)		
EXTERNAL STANDARD	0.077	15:28
X[1] = 0.0774 (-0.0009) (0.0036)		
BLANK TEST	0.000	15:29
SUBJECT SAMPLE (Vol=2.04L)	0.097	15:30
X[1] = 0.0970 (-0.0004) (0.0025)		
BLANK TEST	0.000	15:31
EXTERNAL STANDARD	0.077	15:31
X[1] = 0.0767 (-0.0008) (0.0020)		
BLANK TEST	0.000	15:32

*Handwritten signature*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100351

Date: 11/13/2019  
Time: 15:40:10

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

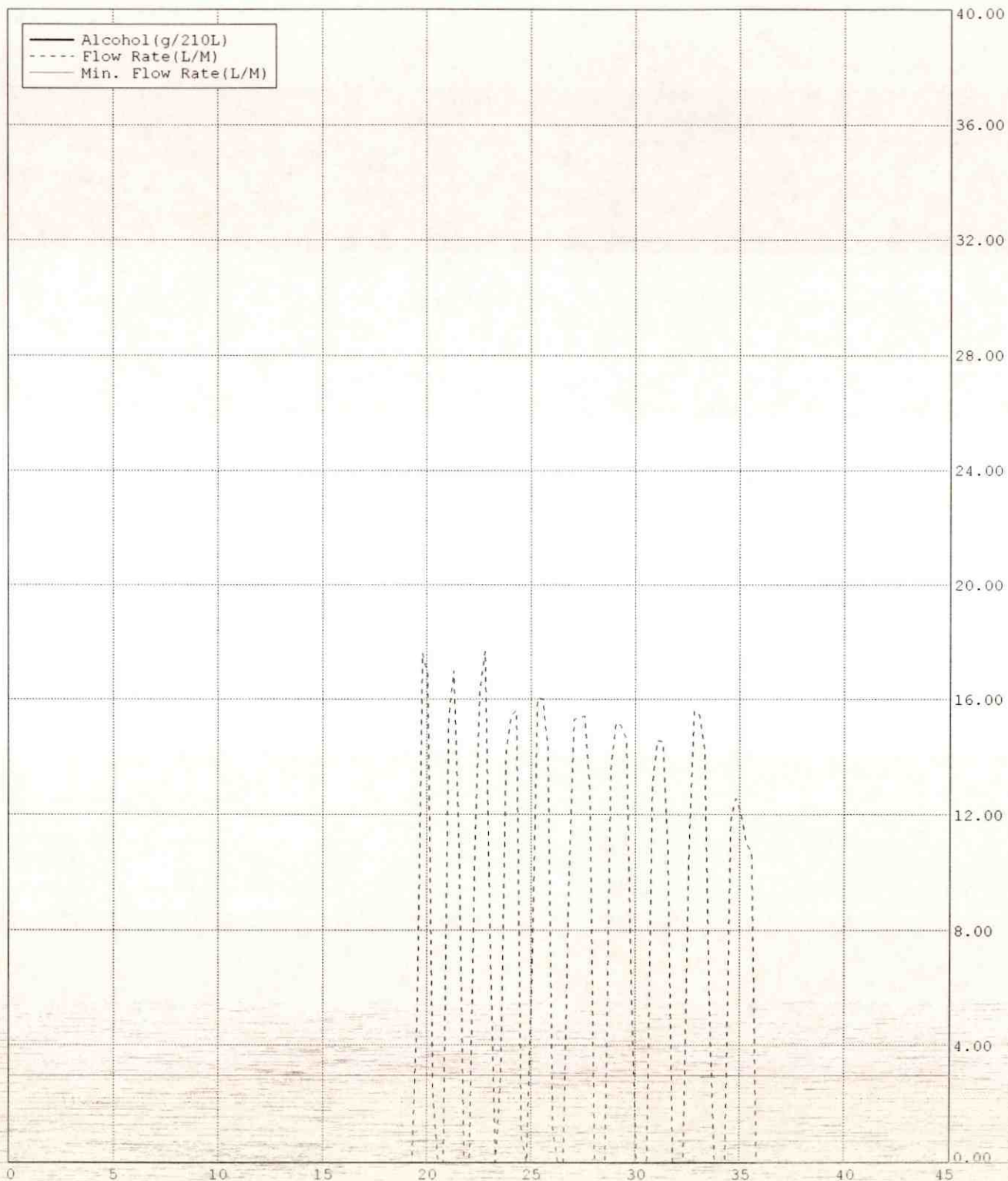
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.09: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	15:41
BLANK TEST	0.000	15:41
INTERNAL STANDARD	VERIFIED	15:42
Xq = 0.113 (0.24%)		
EXTERNAL STANDARD	0.077	15:42
X[1] = 0.0774 (-0.0008) (0.0037)		
BLANK TEST	0.000	15:43
SUBJECT SAMPLE	XXX	15:43
X[1] = 0.0000 (0.0000) (0.0000)		

Maximum Attempts Exceeded





SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100351  
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Date: 11/13/2019  
Time: 14:47:29

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

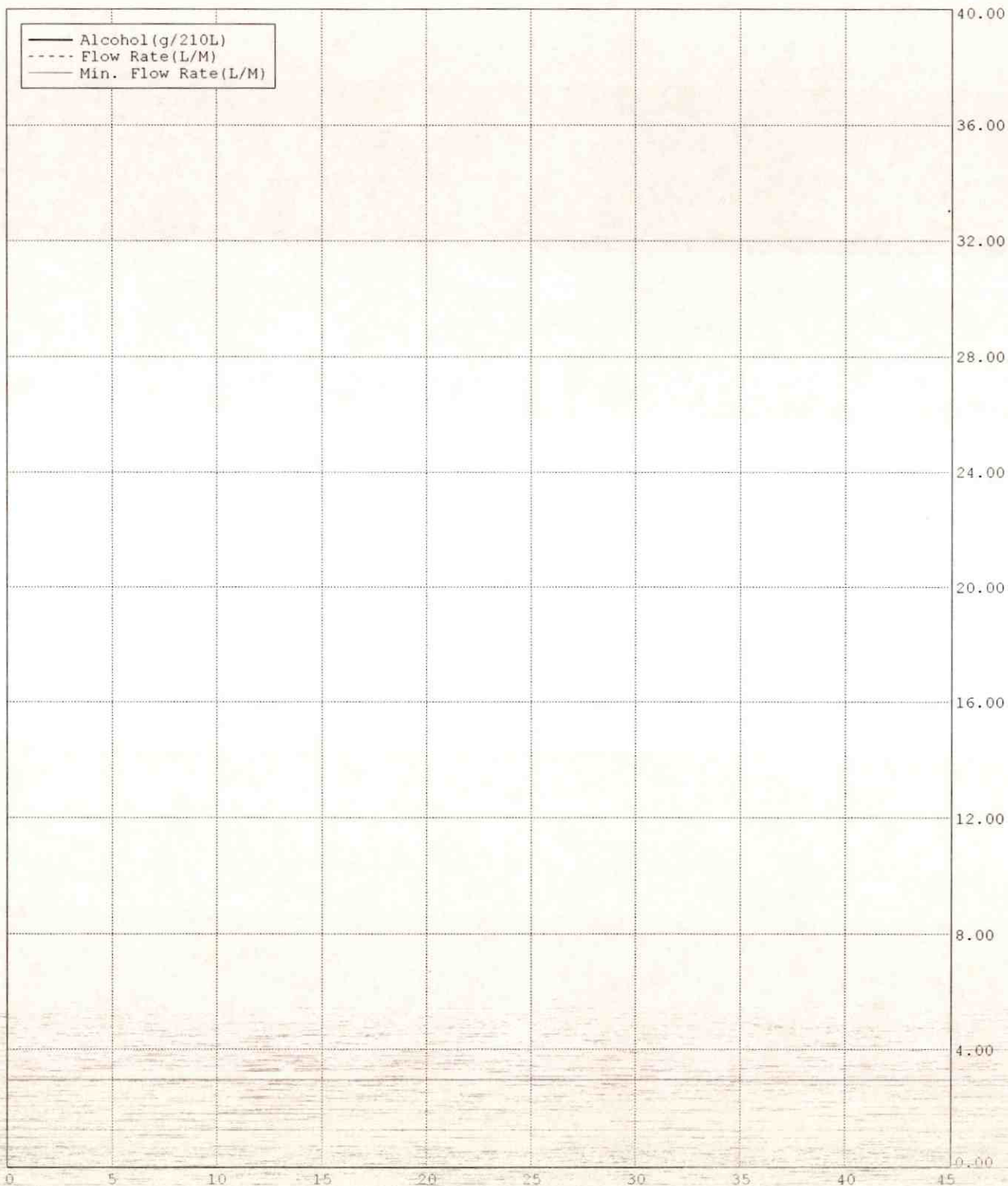
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.09: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	14:48
BLANK TEST	0.000	14:48
INTERNAL STANDARD	VERIFIED	14:48
EXTERNAL STANDARD	0.077	14:48
BLANK TEST	0.000	14:49

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100351

Date: 11/13/2019  
Time: 16:10:47

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 29.08: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	16:12
BLANK TEST	0.000	16:12
INTERNAL STANDARD	VERIFIED	16:12
EXTERNAL STANDARD	0.077	16:12
BLANK TEST	0.000	16:13
SUBJECT SAMPLE (Vol=1.96L)	0.000	16:14
BLANK TEST	0.000	16:15
EXTERNAL STANDARD	0.078	16:15
BLANK TEST	0.000	16:16

