

# 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 100411 Analyst Brandi Barrett Start Date 9/11/19

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 1.6 L (1.3L to 1.7L)

4. Linearity Test (attached)

a. Levels Used

- i. 0.020g/210L Mnf Airgas Lot AG805804 Exp 2/27/20
- ii. 0.040g/210L Mnf Airgas Lot AG733403 Exp 11/30/19
- iii. 0.080g/210L Mnf Airgas Lot AG826101 Exp 9/18/20
- iv. 0.100g/210L Mnf Airgas Lot AG805903 Exp 2/28/20
- v. 0.200g/210L Mnf Guth Lot 19040 Exp 1/29/21
  - 1. Simulator S/N SD1177 Date Calibrated 3/5/19
- vi. 0.300g/210L Mnf Guth Lot 19010 Exp 1/3/21
  - 1. Simulator S/N SD1088 Date Calibrated 3/5/19

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 DR411d Date Calibrated 3/7/19

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

- 1. Simulator S/N SD202 Date Calibrated 3/5/19

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 9/12/19

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100411  
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Date: 09/11/2019  
Time: 13:21:10

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

TEMPERATURES

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

SETTINGS

Lamp Voltage = 1.84 V PASSED  
(1.10 V - 2.58 V)  
Cooler Voltage = 1.85 V PASSED  
(1.06 V - 2.48 V)  
Bias Voltage = 79 V PASSED  
(48 V - 112 V)  
Chopper Freq = 538 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.6 in

PUMP INFO

Flow Rate = 5.194 L/M PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED  
(0.002 V <= 0.010 V)  
PUMP OFF PASSED  
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.085 0.71% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100411  
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Date: 09/11/2019  
Time: 1:35 PM

Temperatures (°C)  
Sample Cell: 48.5°C  
Breath Tube: 48.0°C

Current Barometer 29.6 in  
Volume (Ltr) 1.48

Settings  
Lamp: 1.89 V  
Bias: 79 V  
Cooler: 1.85 V  
Chopper: 530 Hz

Voltages (V)  
Flow: 1.04 V  
Detector: -0.063 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100411  
-----

Date: 07/06/2015  
Time: 12:08:31

OPERATOR NAME:

M M M

CERTIFICATE #: GUTH 2100, DR7001, 34.0C

Ca = 0.1010  
CAL = 1.001690    0.800 <= CAL < 1.200  
b1 = 0.0002    0.0000 <= b1 < 0.0040  
b2 = 0.0032    0.0010 <= b2 < 0.0100  
b3 = 0.0001    0.0000 <= b3 < 0.0040  
Xq = 0.0861    0.0500 <= Xq < 0.2000  
a21 = 1.123352    1.050 <= a21 < 1.300  
a31 = 0.462705    0.300 <= a31 < 0.800

SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100411  
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Date: 09/11/2019  
Time: 13:36:42

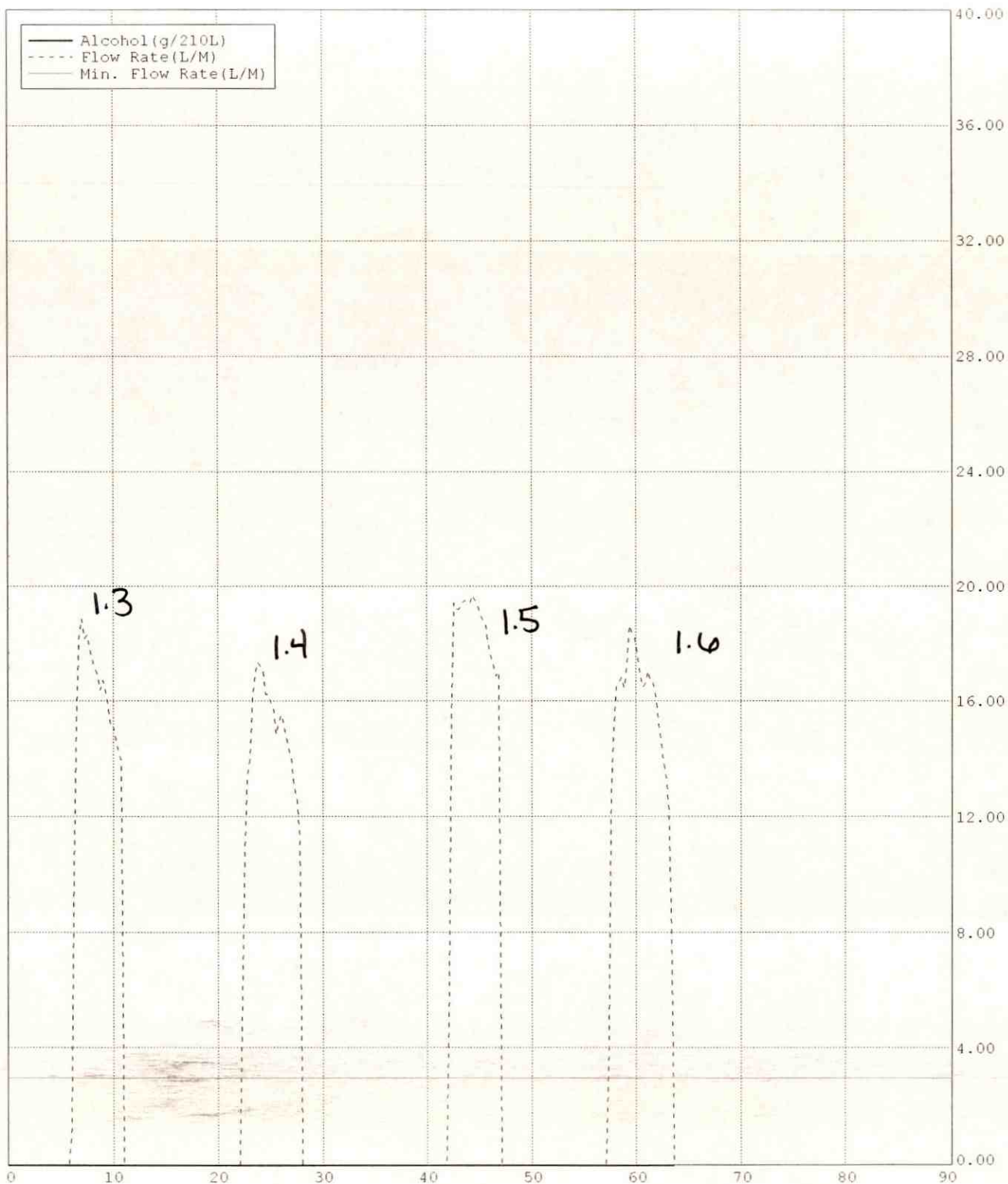
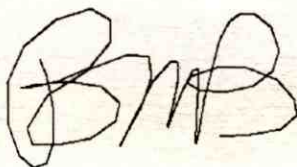
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

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 29.63: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:37
BLANK TEST	0.000	13:37
INTERNAL STANDARD	VERIFIED	13:38
EXTERNAL STANDARD	0.078	13:38
BLANK TEST	0.000	13:39
SUBJECT SAMPLE (Vol=1.59L)	0.000	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.079	13:41
BLANK TEST	0.000	13:42



LINEARITY CHECK

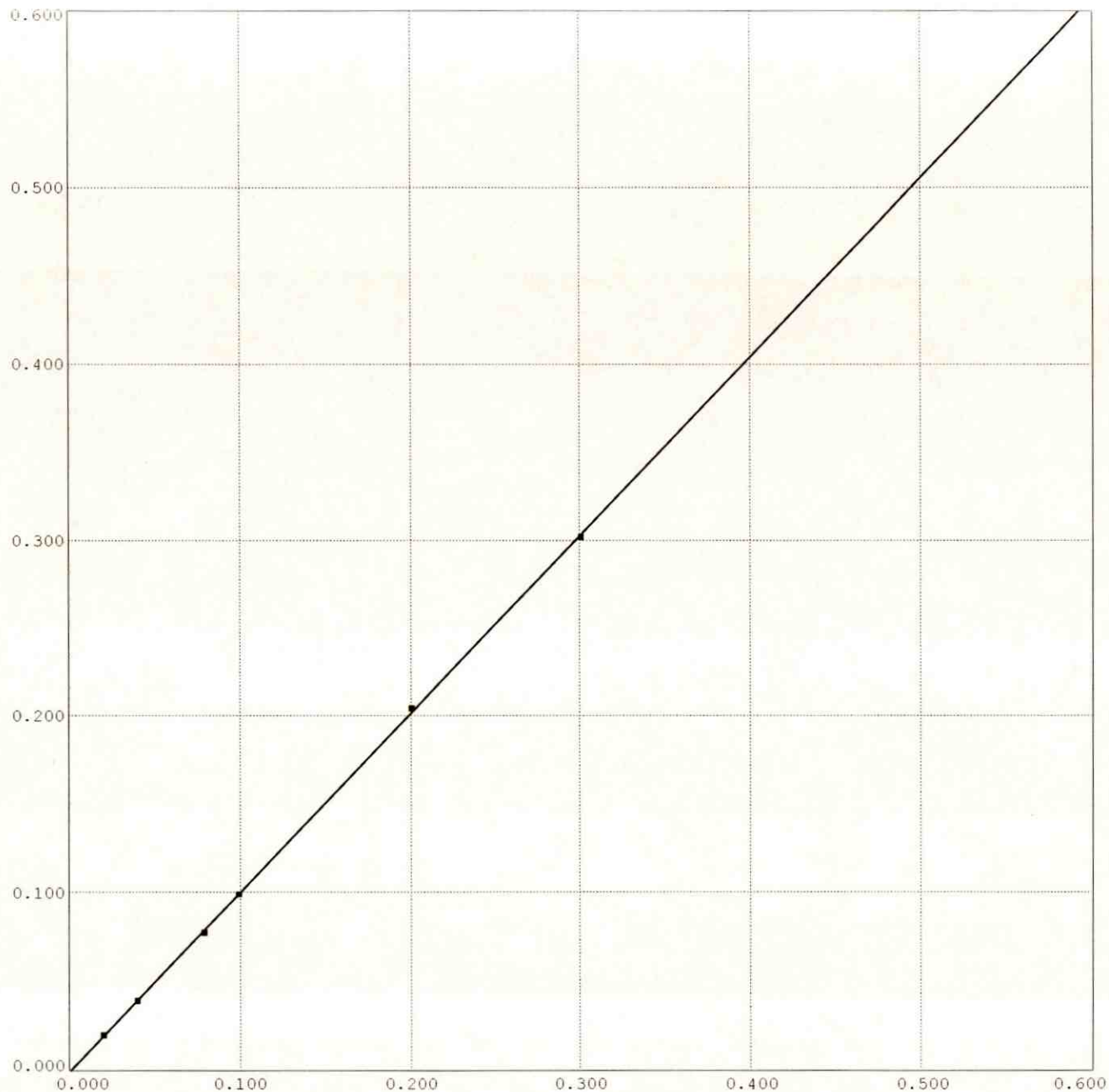
-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100411  
-----

Date: 09/11/2019  
Time: 13:48:10

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0204	0.0005
0.040	0.0398	0.0004
0.079	0.0782	0.0004
0.099	0.0998	0.0004
0.200	0.2050	0.0000
0.300	0.3026	0.0009

SLOPE = 1.014609  
R<sup>2</sup> = 0.999816



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LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100411

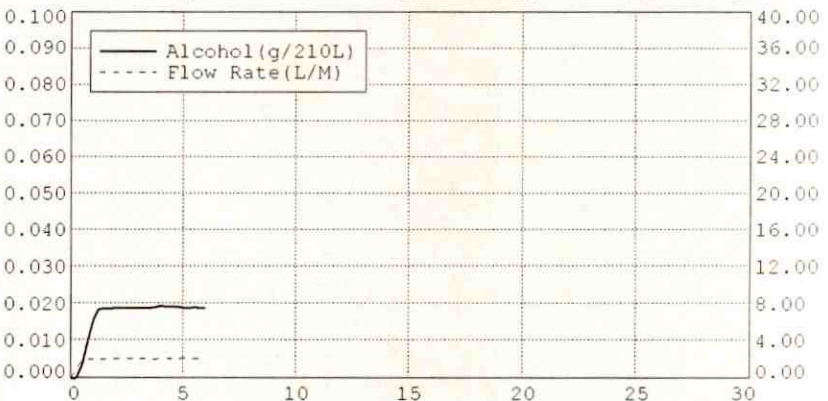
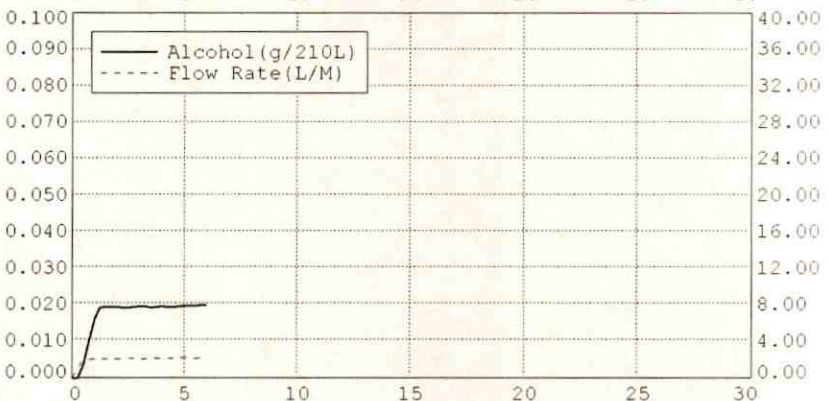
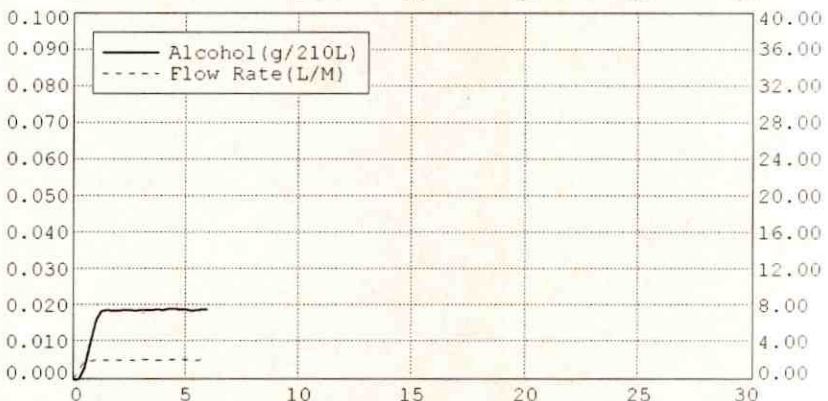
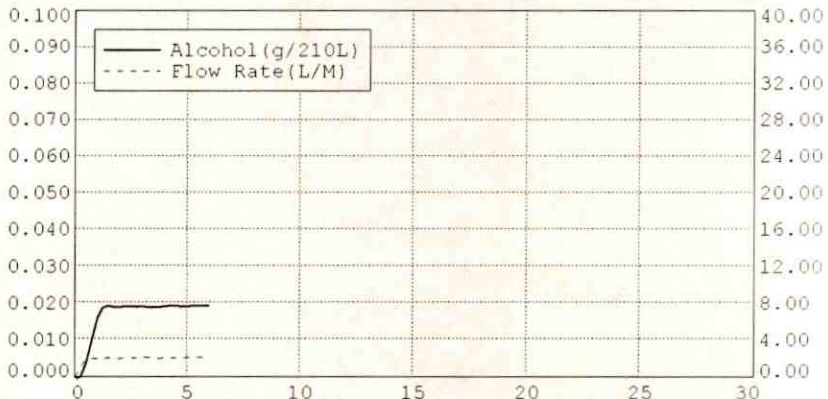
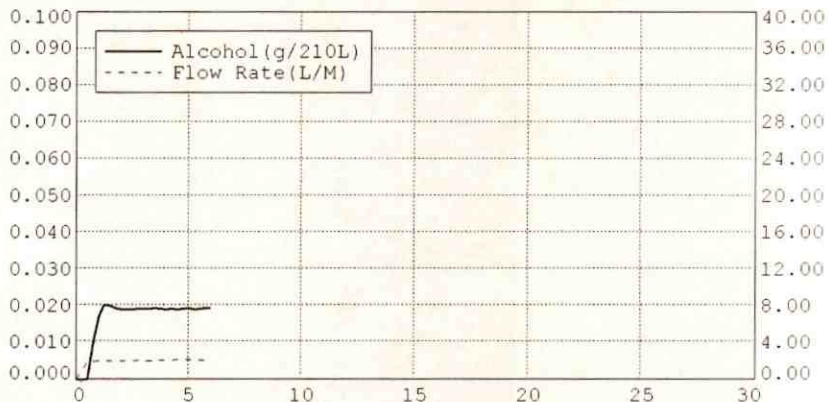
Date: 09/11/2019  
 Time: 13:48:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.64: 0.020  
 LOT #: AG805804  
 EXPIRATION: 02/27/2020  
 TANK PRESSURE: 554 psi

BLANK TEST	0.000	14:04
INTERNAL STANDARD	VERIFIED	14:04
EXTERNAL STANDARD	0.020	14:04
BLANK TEST	0.000	14:05
EXTERNAL STANDARD	0.021	14:05
BLANK TEST	0.000	14:06
EXTERNAL STANDARD	0.020	14:06
BLANK TEST	0.000	14:07
EXTERNAL STANDARD	0.021	14:07
BLANK TEST	0.000	14:08
EXTERNAL STANDARD	0.020	14:09
BLANK TEST	0.000	14:09

Average = 0.0204  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100411

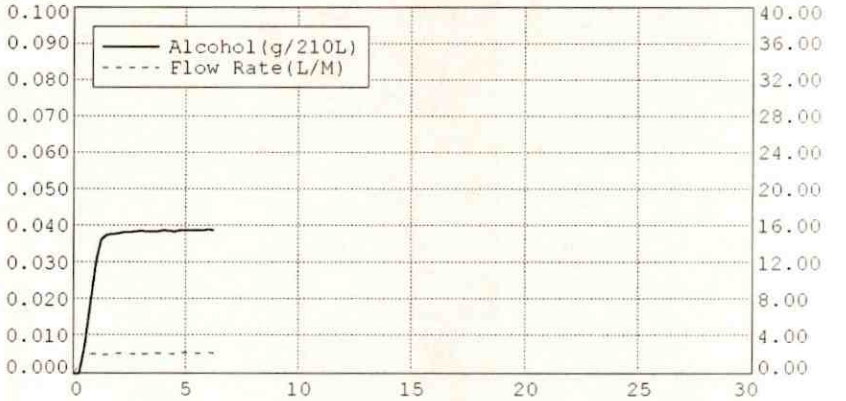
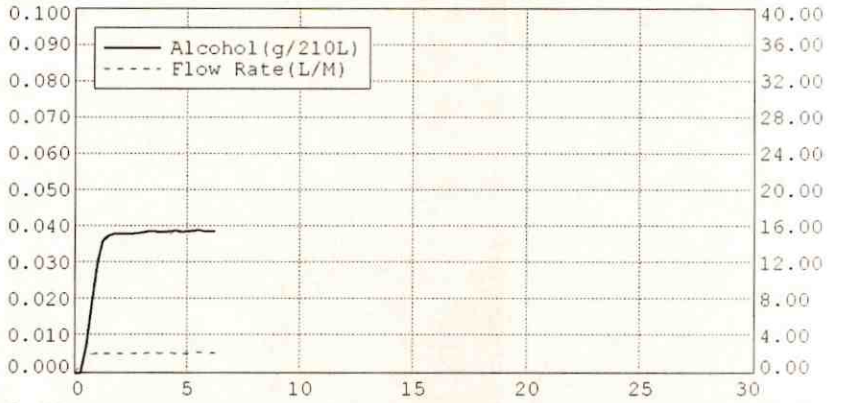
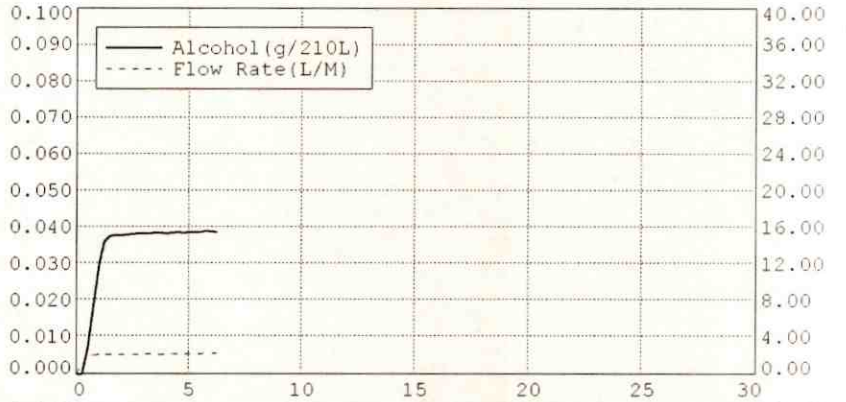
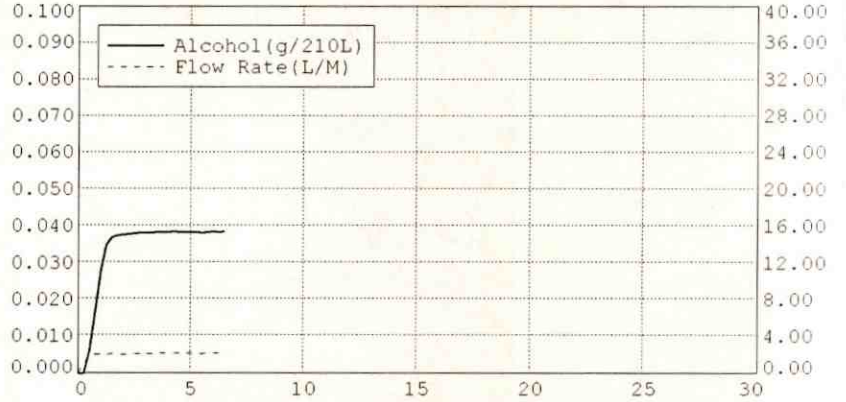
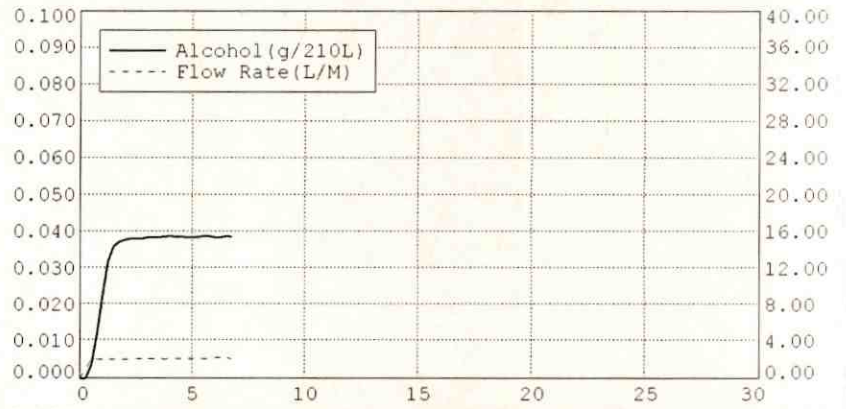
Date: 09/11/2019  
 Time: 14:11:07

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.64: 0.040  
 LOT #: AG733403  
 EXPIRATION: 11/30/2019  
 TANK PRESSURE: 538 psi

BLANK TEST	0.000	14:12
INTERNAL STANDARD	VERIFIED	14:12
EXTERNAL STANDARD	0.040	14:12
BLANK TEST	0.000	14:13
EXTERNAL STANDARD	0.039	14:13
BLANK TEST	0.000	14:14
EXTERNAL STANDARD	0.040	14:14
BLANK TEST	0.000	14:15
EXTERNAL STANDARD	0.040	14:16
BLANK TEST	0.000	14:16
EXTERNAL STANDARD	0.040	14:17
BLANK TEST	0.000	14:18

Average = 0.0398  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100411

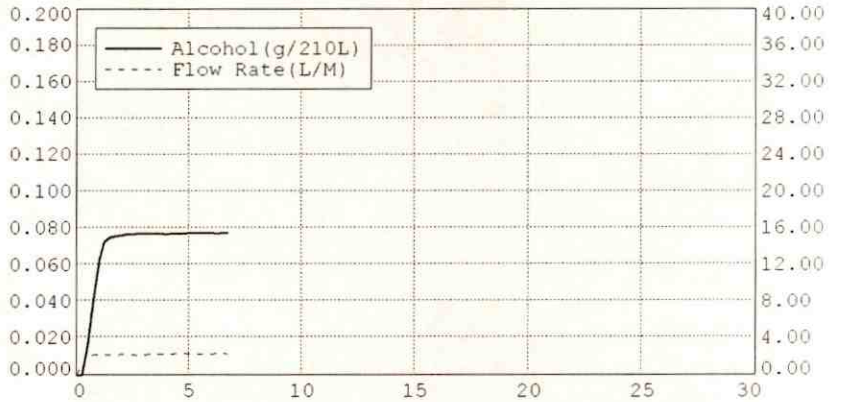
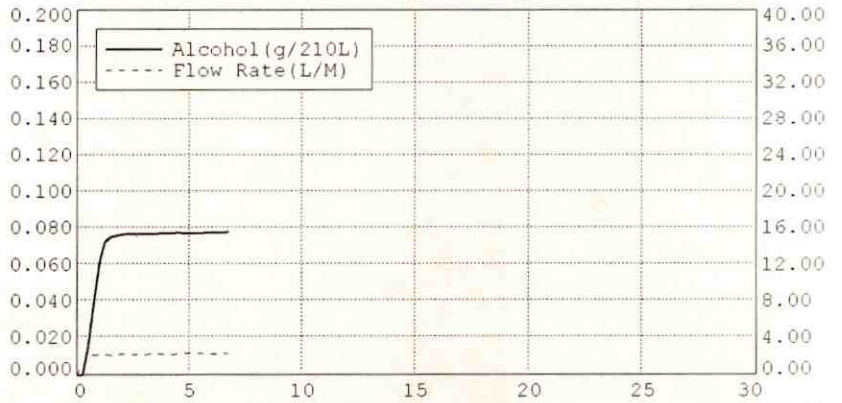
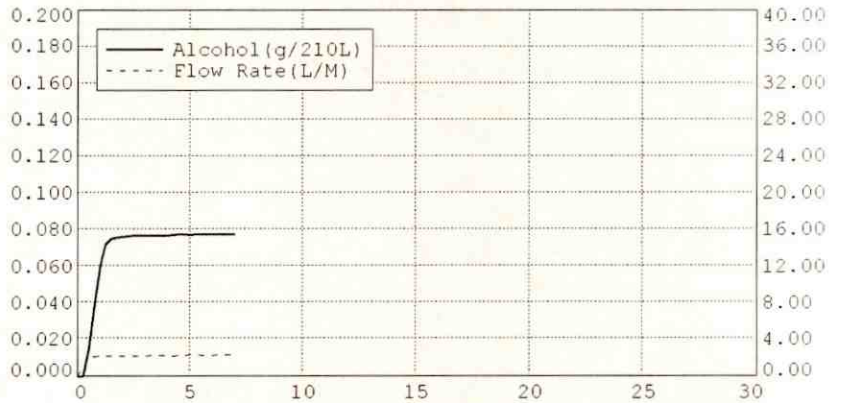
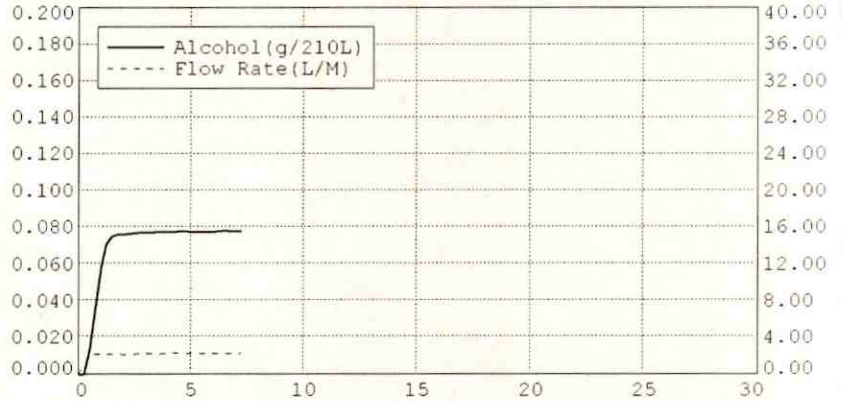
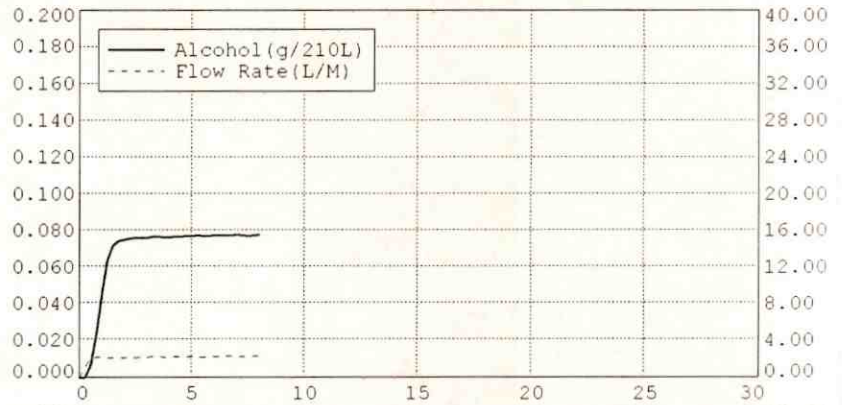
Date: 09/11/2019  
 Time: 14:18:52

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.63: 0.079  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020  
 TANK PRESSURE: 596 psi

BLANK TEST	0.000	14:19
INTERNAL STANDARD	VERIFIED	14:20
EXTERNAL STANDARD	0.078	14:20
BLANK TEST	0.000	14:21
EXTERNAL STANDARD	0.079	14:21
BLANK TEST	0.000	14:22
EXTERNAL STANDARD	0.078	14:22
BLANK TEST	0.000	14:23
EXTERNAL STANDARD	0.078	14:23
BLANK TEST	0.000	14:24
EXTERNAL STANDARD	0.078	14:24
BLANK TEST	0.000	14:25

Average = 0.0782  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
DATAMASTER dmt: 100411

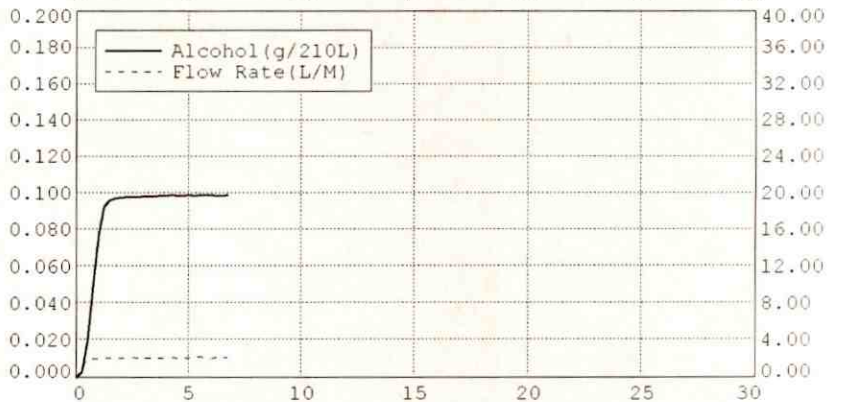
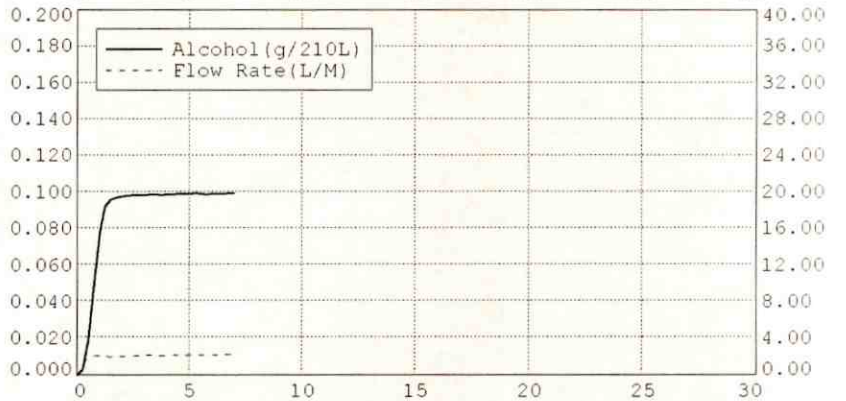
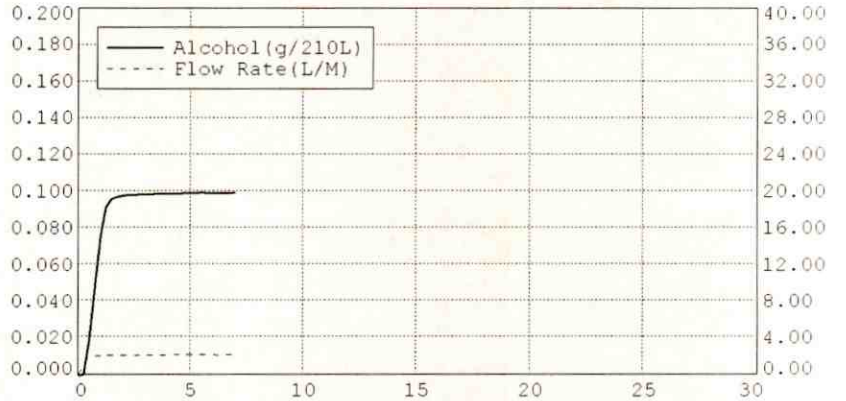
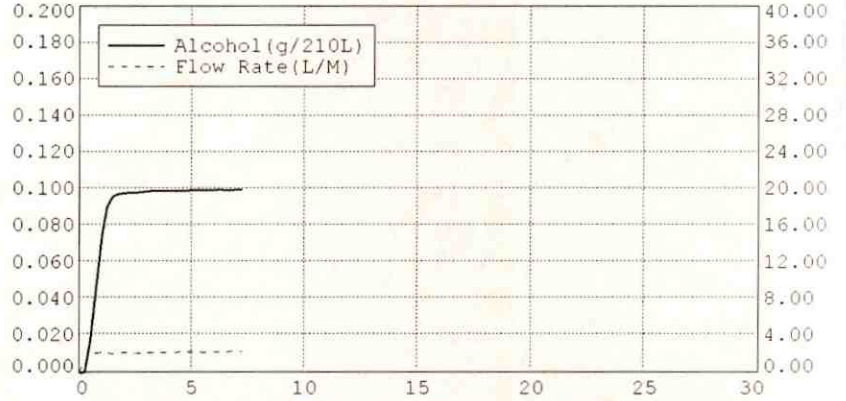
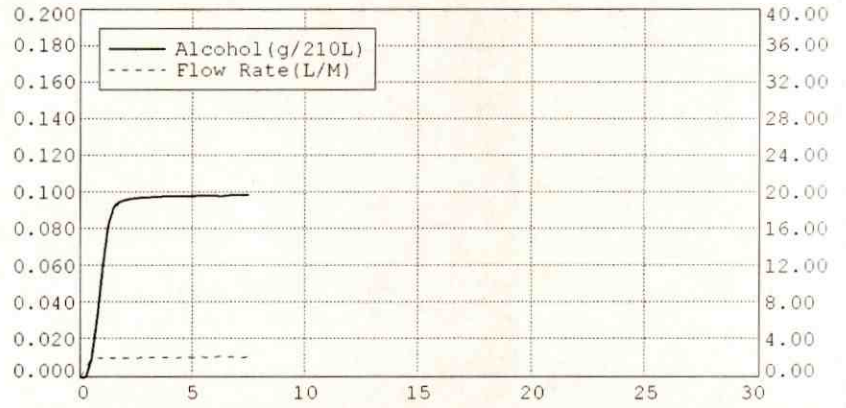
Date: 09/11/2019  
Time: 14:29:22

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
TARGET AT 29.63: 0.099  
LOT #: AG805903  
EXPIRATION: 02/28/2020  
TANK PRESSURE: 434 psi

BLANK TEST	0.000	14:30
INTERNAL STANDARD	VERIFIED	14:30
EXTERNAL STANDARD	0.099	14:30
BLANK TEST	0.000	14:31
EXTERNAL STANDARD	0.100	14:31
BLANK TEST	0.000	14:32
EXTERNAL STANDARD	0.100	14:33
BLANK TEST	0.000	14:34
EXTERNAL STANDARD	0.100	14:34
BLANK TEST	0.000	14:35
EXTERNAL STANDARD	0.100	14:35
BLANK TEST	0.000	14:36

Average = 0.0998  
Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

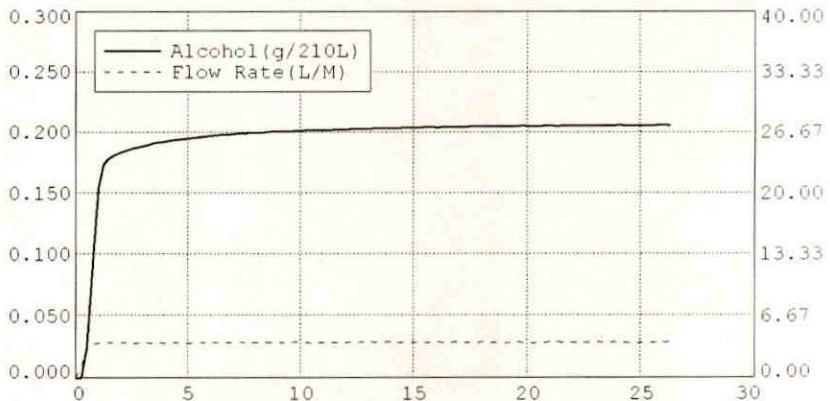
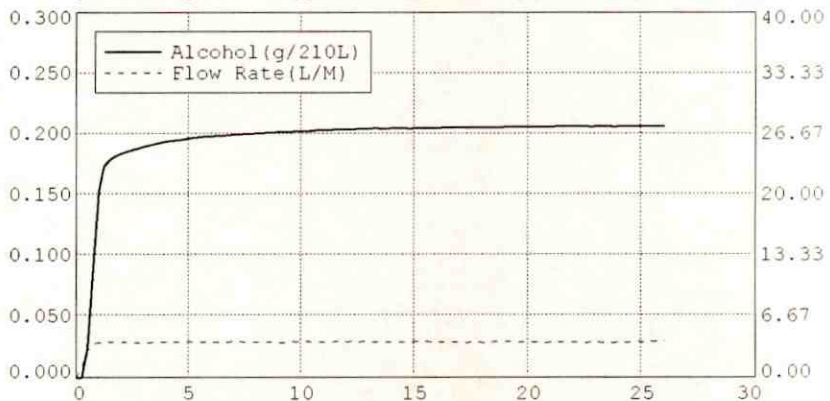
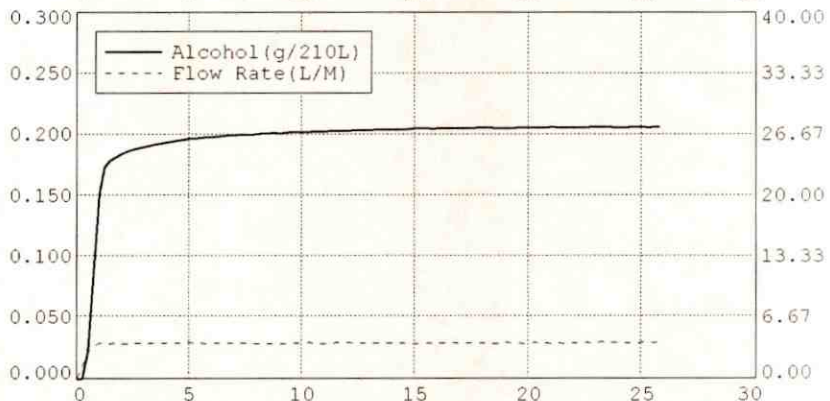
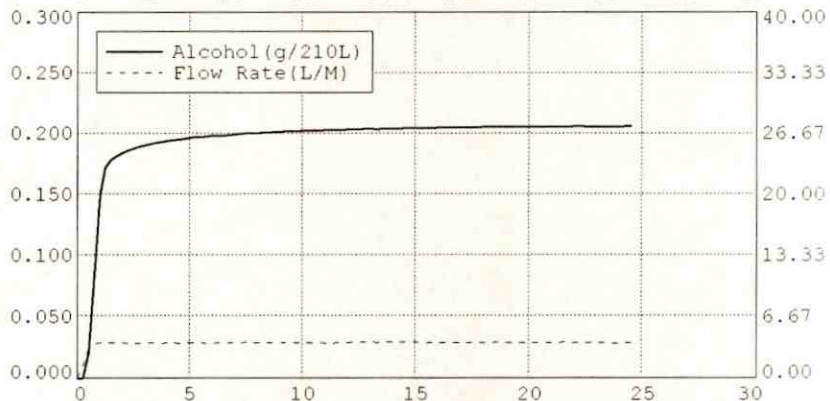
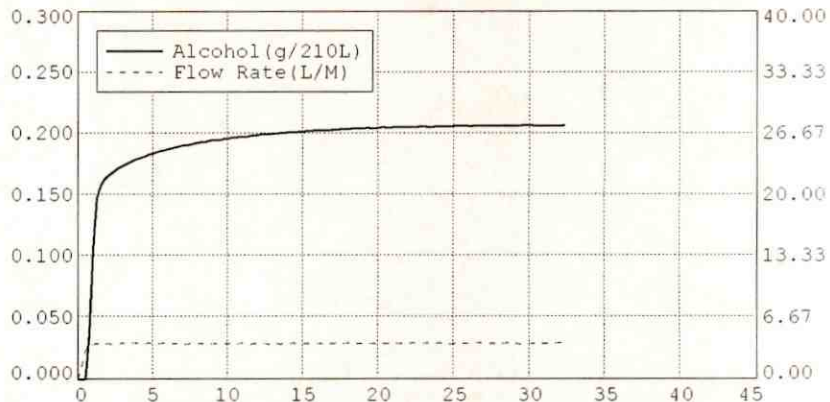
Alaska Department of Public Safety  
 DATAMASTER dmt: 100411

Date: 09/11/2019  
 Time: 14:37:49

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

BLANK TEST	0.000	14:39
INTERNAL STANDARD	VERIFIED	14:39
EXTERNAL STANDARD	0.205	14:40
BLANK TEST	0.000	14:41
EXTERNAL STANDARD	0.205	14:41
BLANK TEST	0.000	14:42
EXTERNAL STANDARD	0.205	14:43
BLANK TEST	0.000	14:43
EXTERNAL STANDARD	0.205	14:44
BLANK TEST	0.000	14:45
EXTERNAL STANDARD	0.205	14:45
BLANK TEST	0.000	14:46

Average = 0.2050  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 6

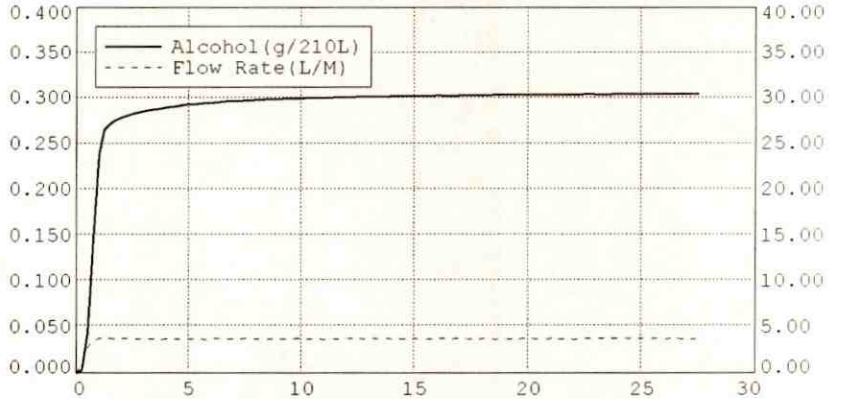
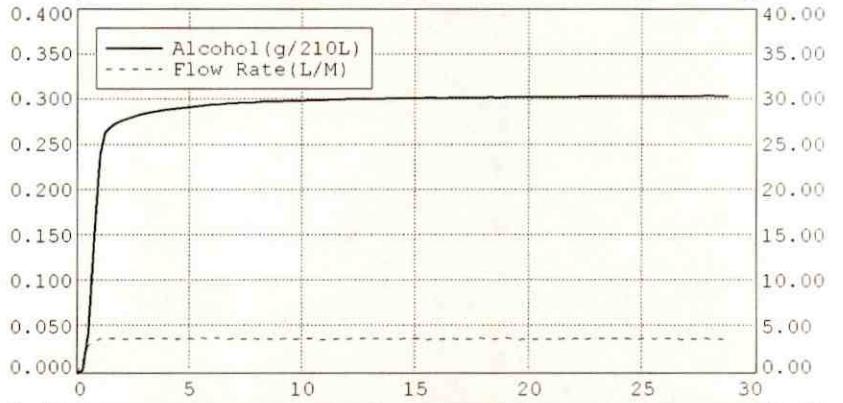
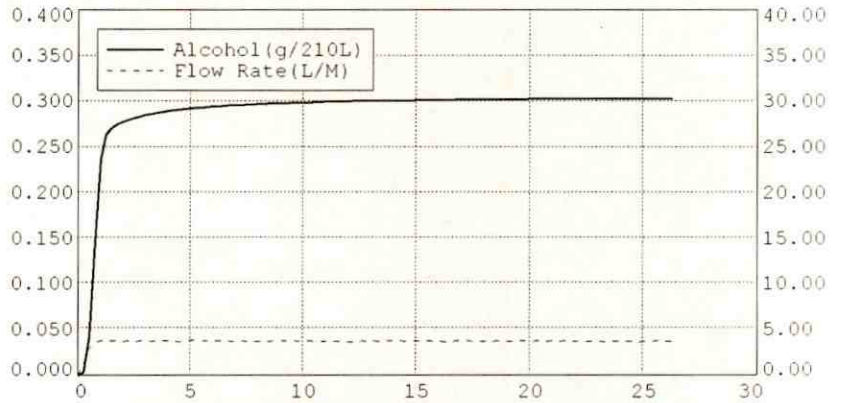
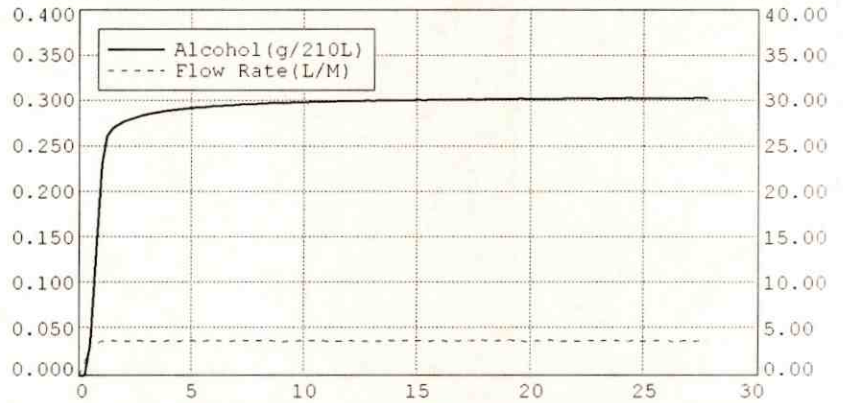
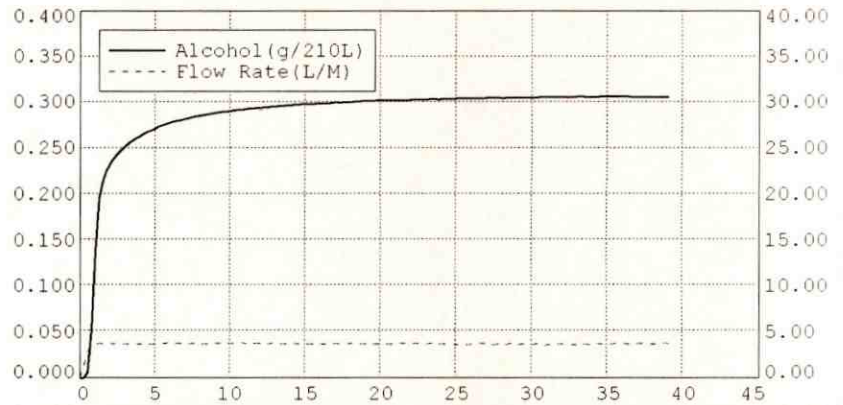
Alaska Department of Public Safety  
 DATAMASTER dmt: 100411

Date: 09/11/2019  
 Time: 14:49:17

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

BLANK TEST	0.000	14:50
INTERNAL STANDARD	VERIFIED	14:50
EXTERNAL STANDARD	0.304	14:51
BLANK TEST	0.000	14:52
EXTERNAL STANDARD	0.302	14:52
BLANK TEST	0.000	14:53
EXTERNAL STANDARD	0.302	14:54
BLANK TEST	0.000	14:55
EXTERNAL STANDARD	0.302	14:55
BLANK TEST	0.000	14:56
EXTERNAL STANDARD	0.303	14:57
BLANK TEST	0.000	14:58

Average = 0.3026  
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100411

Date: 09/12/2019  
Time: 07:33:26

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

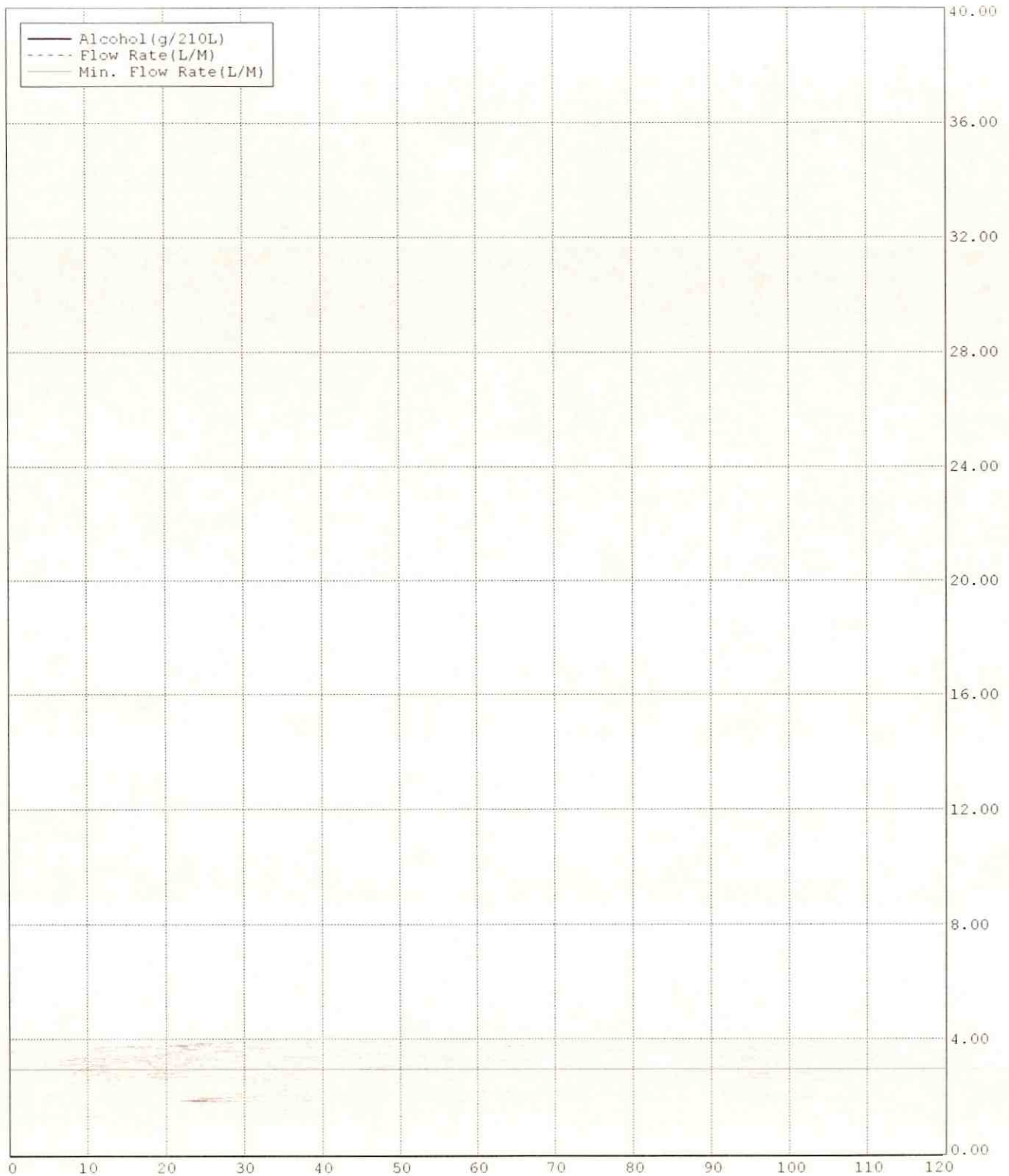
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	07:35
BLANK TEST	0.000	07:35
INTERNAL STANDARD	VERIFIED	07:35
EXTERNAL STANDARD	0.078	07:35
BLANK TEST	0.000	07:36
SUBJECT SAMPLE	INCOMPLETE	07:38

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SUBJECT TEST

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Alaska Department of Public Safety  
DATAMASTER dmt: 100411  
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Date: 09/12/2019  
Time: 07:40:33

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

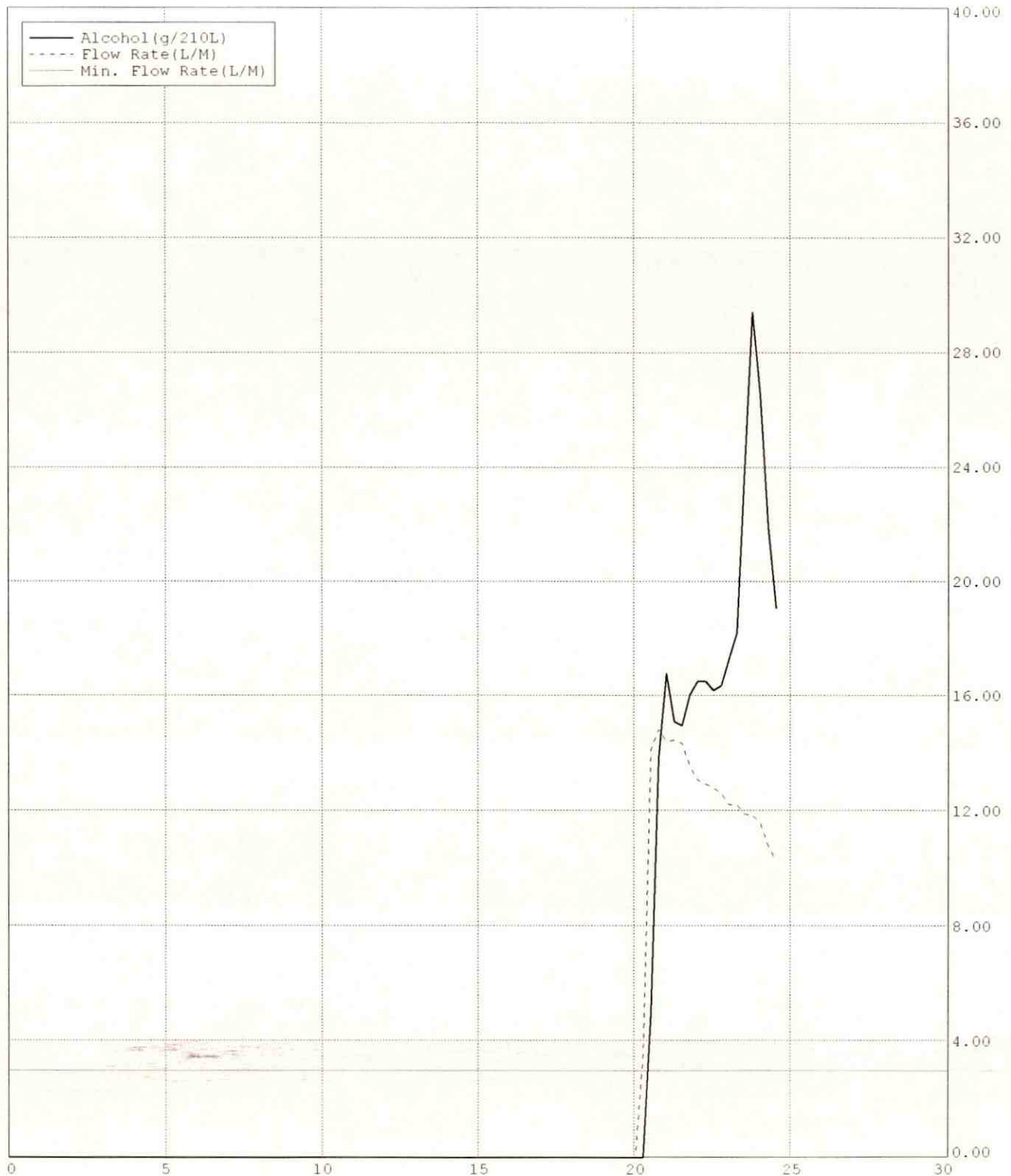
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	07:41
BLANK TEST	0.000	07:41
INTERNAL STANDARD	VERIFIED	07:41
EXTERNAL STANDARD	0.077	07:42
BLANK TEST	0.000	07:43
SUBJECT SAMPLE	INVALID	07:44

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SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100411

Date: 09/12/2019  
Time: 07:46:02

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

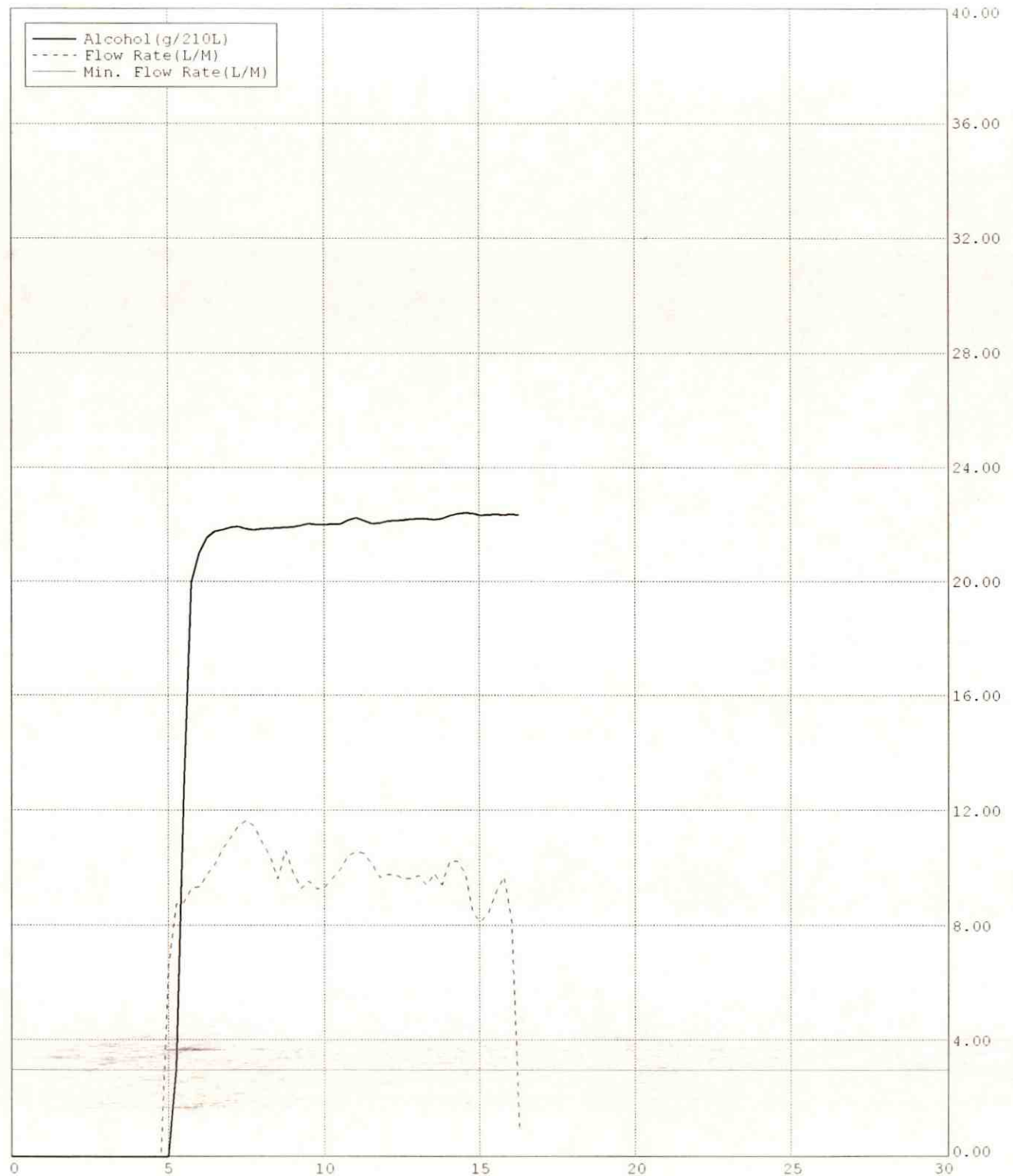
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	07:48
BLANK TEST	0.000	07:48
INTERNAL STANDARD	VERIFIED	07:48
Xq = 0.086 (0.51%)		
EXTERNAL STANDARD	0.077	07:48
X[1] = 0.0773 (-0.0005) (0.0006)		
BLANK TEST	0.000	07:49
SUBJECT SAMPLE	XXX	07:49
X[1] = 0.1130 (-0.0207) (-0.0010)		

Interference Detected

Filter 2 Avg: -0.0001  
Filter 3 Avg: 0.0008  
BMB 9/12/19

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100411

Date: 09/12/2019  
Time: 07:53:20

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

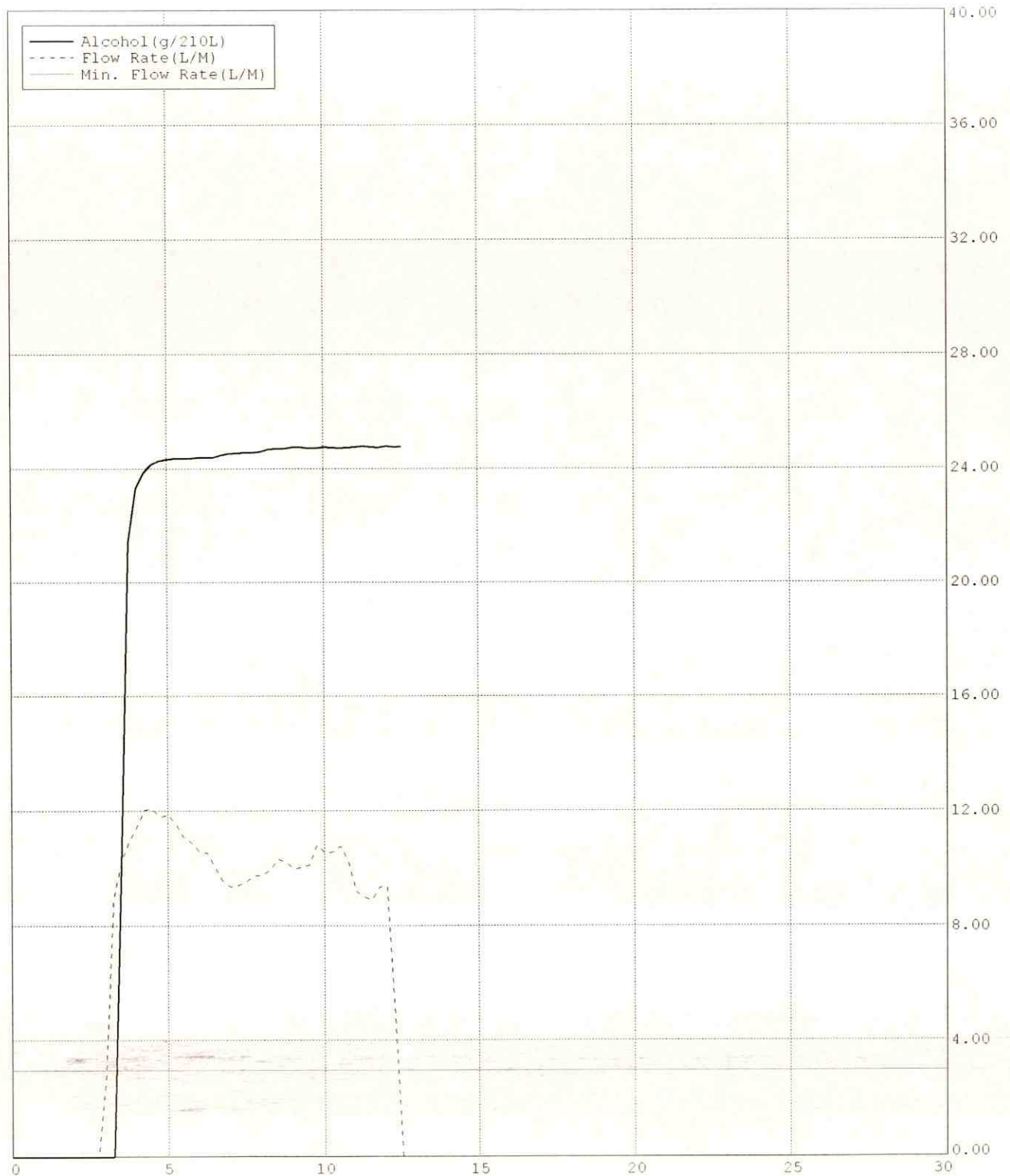
DEPT/AGENCY:  
INTERFERE ISOPROPANOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	07:54
BLANK TEST	0.000	07:54
INTERNAL STANDARD	VERIFIED	07:54
Xq = 0.086 (0.10%)		
EXTERNAL STANDARD	0.077	07:54
X[1] = 0.0771 (-0.0006) (0.0009)		
BLANK TEST	0.000	07:55
SUBJECT SAMPLE	XXX	07:56
X[1] = 0.1244 (-0.0231) (-0.0015)		

Interference Detected

*BMB*





SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100411  
-----

Date: 09/12/2019  
Time: 07:59:19

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

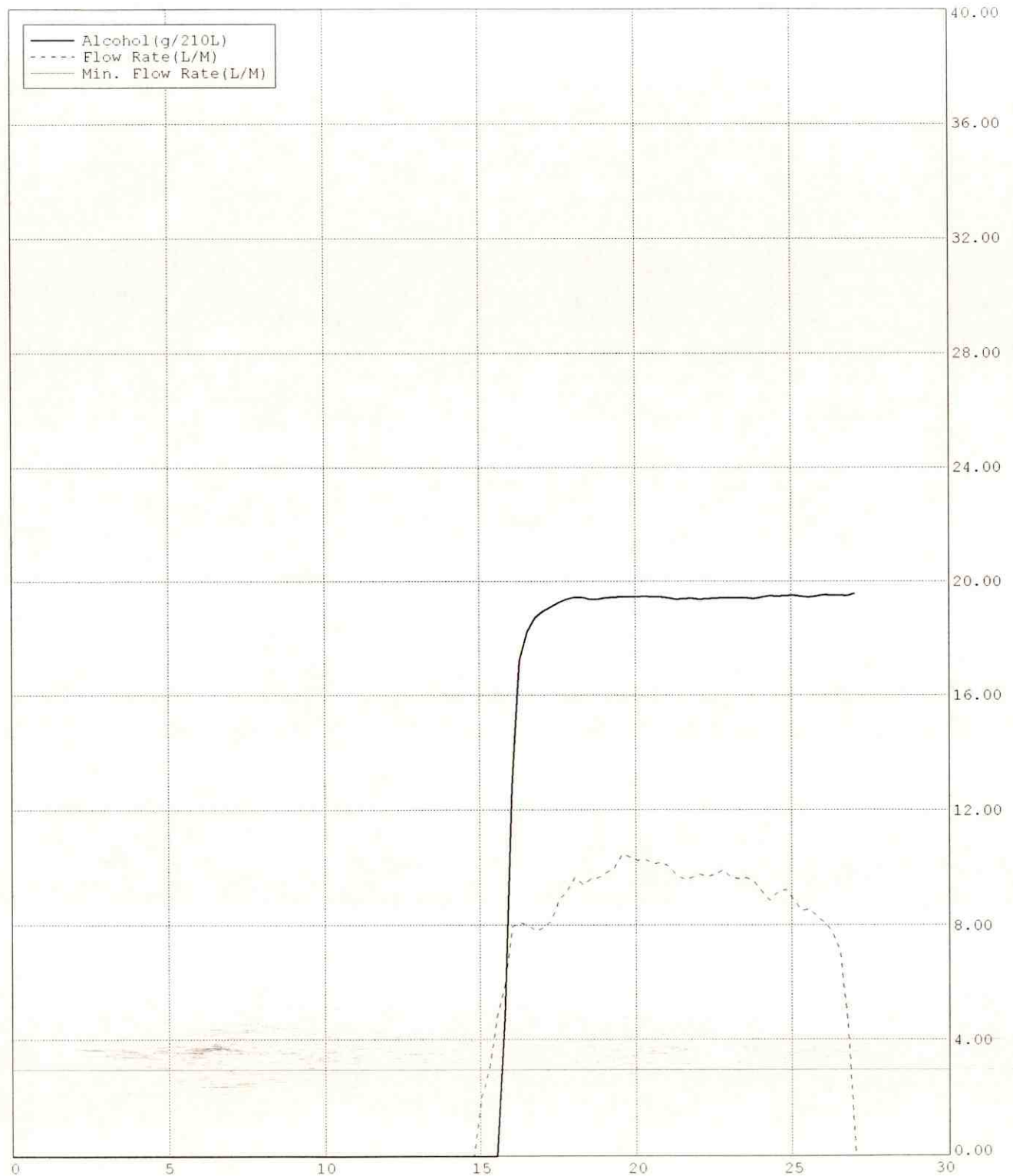
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	08:00
BLANK TEST	0.000	08:00
INTERNAL STANDARD	VERIFIED	08:00
Xq = 0.085 (0.81%)		
EXTERNAL STANDARD	0.077	08:00
X[1] = 0.0769 (0.0007) (0.0012)		
BLANK TEST	0.000	08:01
SUBJECT SAMPLE (Vol=1.73L)	0.098	08:02
X[1] = 0.0986 (0.0009) (-0.0018)		
BLANK TEST	0.000	08:03
EXTERNAL STANDARD	0.077	08:03
X[1] = 0.0767 (0.0002) (0.0006)		
BLANK TEST	0.000	08:04

BMB



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100411  
-----

Date: 09/12/2019  
Time: 08:19:12

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

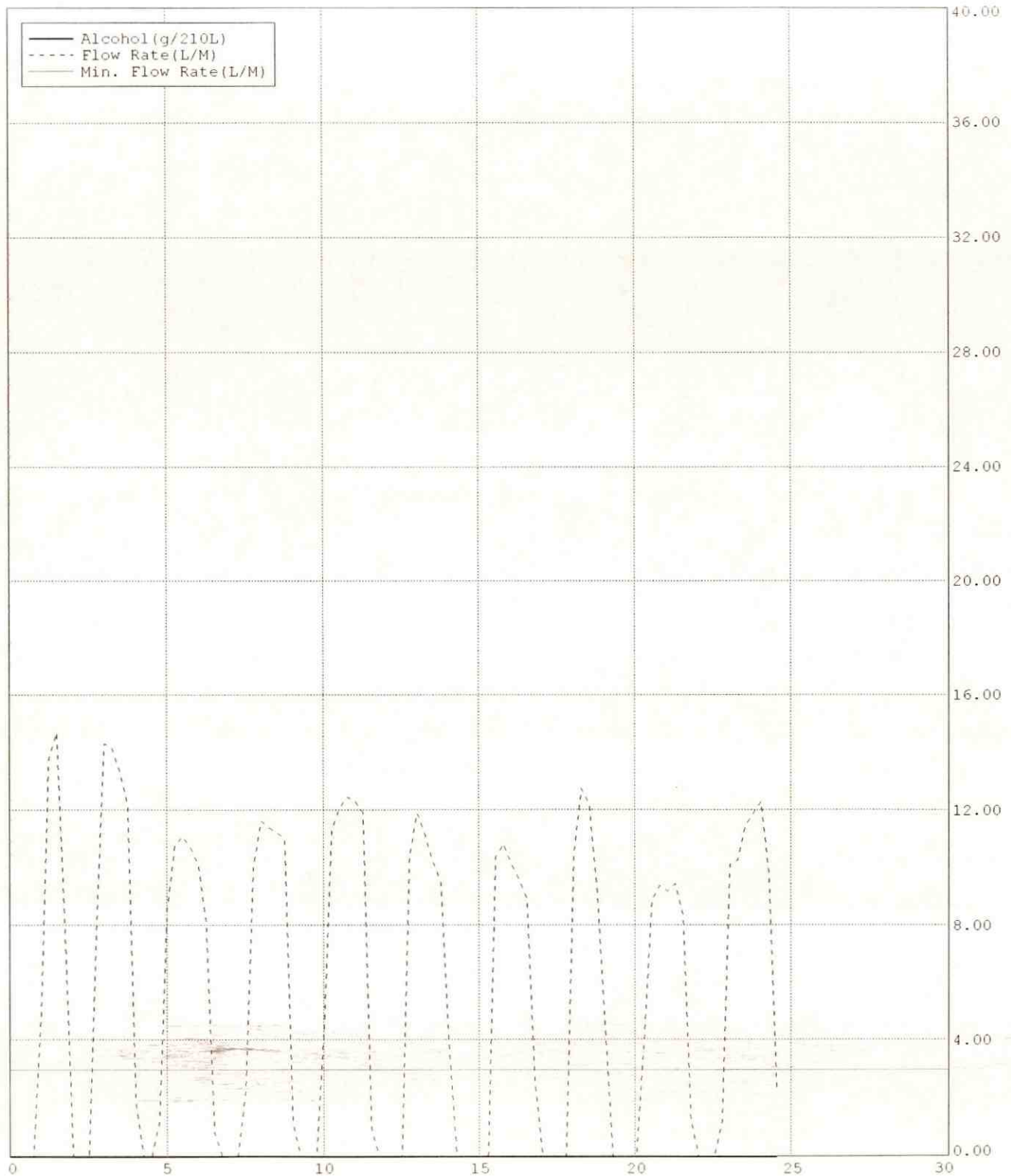
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	08:20
BLANK TEST	0.000	08:20
INTERNAL STANDARD	VERIFIED	08:20
EXTERNAL STANDARD	0.077	08:20
BLANK TEST	0.000	08:21
SUBJECT SAMPLE	XXX	08:22

Maximum Attempts Exceeded



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100411  
-----

Date: 09/12/2019  
Time: 08:25:25

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

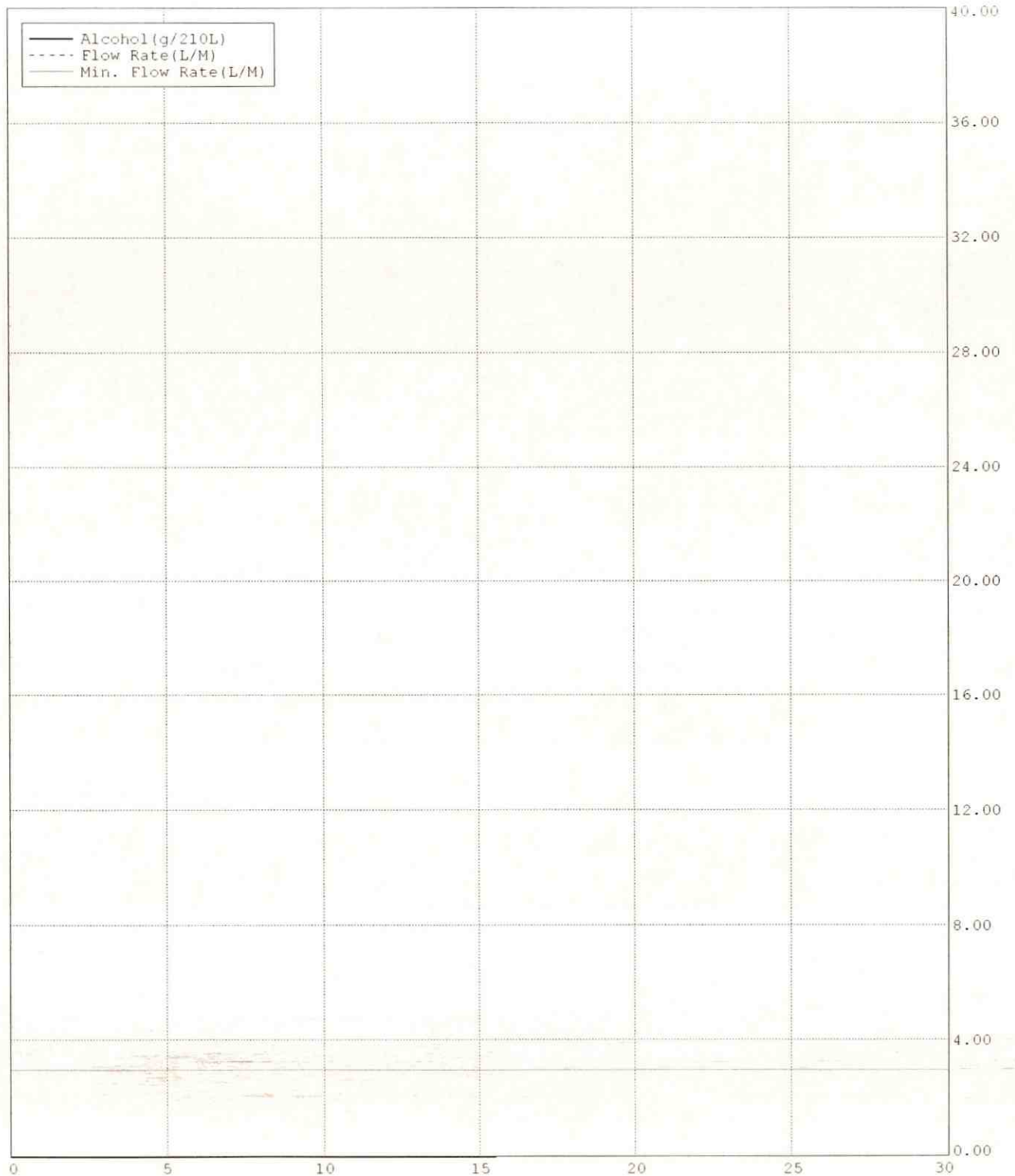
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	08:26
BLANK TEST	0.000	08:26
INTERNAL STANDARD	VERIFIED	08:26
EXTERNAL STANDARD	0.077	08:27
BLANK TEST	0.000	08:28

RFI DETECTED

*Handwritten signature: BNB*



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100411  
-----

Date: 09/12/2019  
Time: 08:45:02

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
NON DRINKING SUBJECT TEST  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.29: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	08:46
BLANK TEST	0.000	08:46
INTERNAL STANDARD	VERIFIED	08:46
EXTERNAL STANDARD	0.078	08:46
BLANK TEST	0.000	08:47
SUBJECT SAMPLE (Vol=1.82L)	0.000	08:48
BLANK TEST	0.000	08:49
EXTERNAL STANDARD	0.078	08:49
BLANK TEST	0.000	08:50

*Handwritten signature: BMB*

