

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 05/15/2020  
Effective: 05/15/2020

Version: DMCEF 2020 R0  
Status: Active

Instrument S/N 100365 Analyst Brandi Barnett Start Date 7/29/21

Diagnostic Test (attached)

Internal Standard value  $\leq 3.00\%$

### Voltage Checks

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)

Set RFI

Adjust barometer reading to match NIST traceable barometer

Adjust volume setting, if needed (1.5L +/- 0.1L)

Print Technician Screen (attached)

Print Calibration Factors (attached)

Volume Test - Minimum 1.4 L (1.3L to 1.7L)

### Linearity Test (attached)

#### Levels Used

- i. 0.020g/210L Mnf Airgas Lot AG928203 Exp 10/09/21  
ii. 0.040g/210L Mnf Airgas Lot AG111710 Exp 04/27/23  
iii. 0.080g/210L Mnf Airgas Lot AG018102 Exp 06/29/22  
iv. 0.100g/210L Mnf Airgas Lot AG924701 Exp 09/04/21  
v. 0.200g/210L Mnf Guth Lot 19200 Exp 08/06/21

Simulator S/N DR4161 Date Calibrated 06/16/21

- vi. 0.300g/210L Mnf Guth Lot 19330 Exp 11/13/21

Simulator S/N SD1202 Date Calibrated 06/15/21

### Functional Tests (attached)

Incomplete

Invalid

Interference

- i. Acetone - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/2021  
Simulator S/N DR4178 Date Calibrated 11/18/2020  
ii. Isopropanol - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/2021  
Simulator S/N DR4176 Date Calibrated 11/18/2020  
iii. Negative Control - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/2021  
Simulator S/N DR4163 Date Calibrated 11/17/2020

Exceeded Attempts

RFI

Verify stylus is calibrated

Reset Options

Clear Memory

Remove tank prior to shut down

Verification of Calibration

Non-Drinking Subject Test (attached)

Upload

Add Linearity Data to Spreadsheet

End Date 7/30/21

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100365  
-----

Date: 07/29/2021  
Time: 09:11:16

VERSIONS

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

TEMPERATURES

Sample Chamber = 49.0°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 46.4°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.83 V PASSED  
(1.10 V - 2.56 V)  
Cooler Voltage = 1.84 V PASSED  
(1.10 V - 2.58 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 527 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 30.0 in

PUMP INFO

Flow Rate = 4.554 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  
(0.001 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.104 0.34% PASSED  
(0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100365  
-----

Date: 07/29/2021  
Time: 9:21 AM

Temperatures (°C)

Sample Cell: 49.0°C  
Breath Tube: 46.3°C

Current Barometer 30.0 in  
Volume (Ltr) 1.59

Settings

Lamp: 1.83 V  
Bias: 80 V  
Cooler: 1.84 V  
Chopper: 527 Hz

Voltages (V)

Flow: 1.04 V  
Detector: -0.008 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100365  
-----

Date: 07/26/2021  
Time: 14:54:30

OPERATOR NAME:  
BRANDI BARNETT  
CERTIFICATE #: 7038

Ca	=	0.1000		
CAL	=	0.978144	0.800	<= CAL < 1.200
b1	=	0.0004	0.0000	<= b1 < 0.0040
b2	=	0.0043	0.0010	<= b2 < 0.0100
b3	=	0.0004	0.0000	<= b3 < 0.0040
Xq	=	0.1045	0.0500	<= Xq < 0.2000
a21	=	1.169193	1.050	<= a21 < 1.300
a31	=	0.460815	0.300	<= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 07/29/2021  
Time: 09:22:19

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

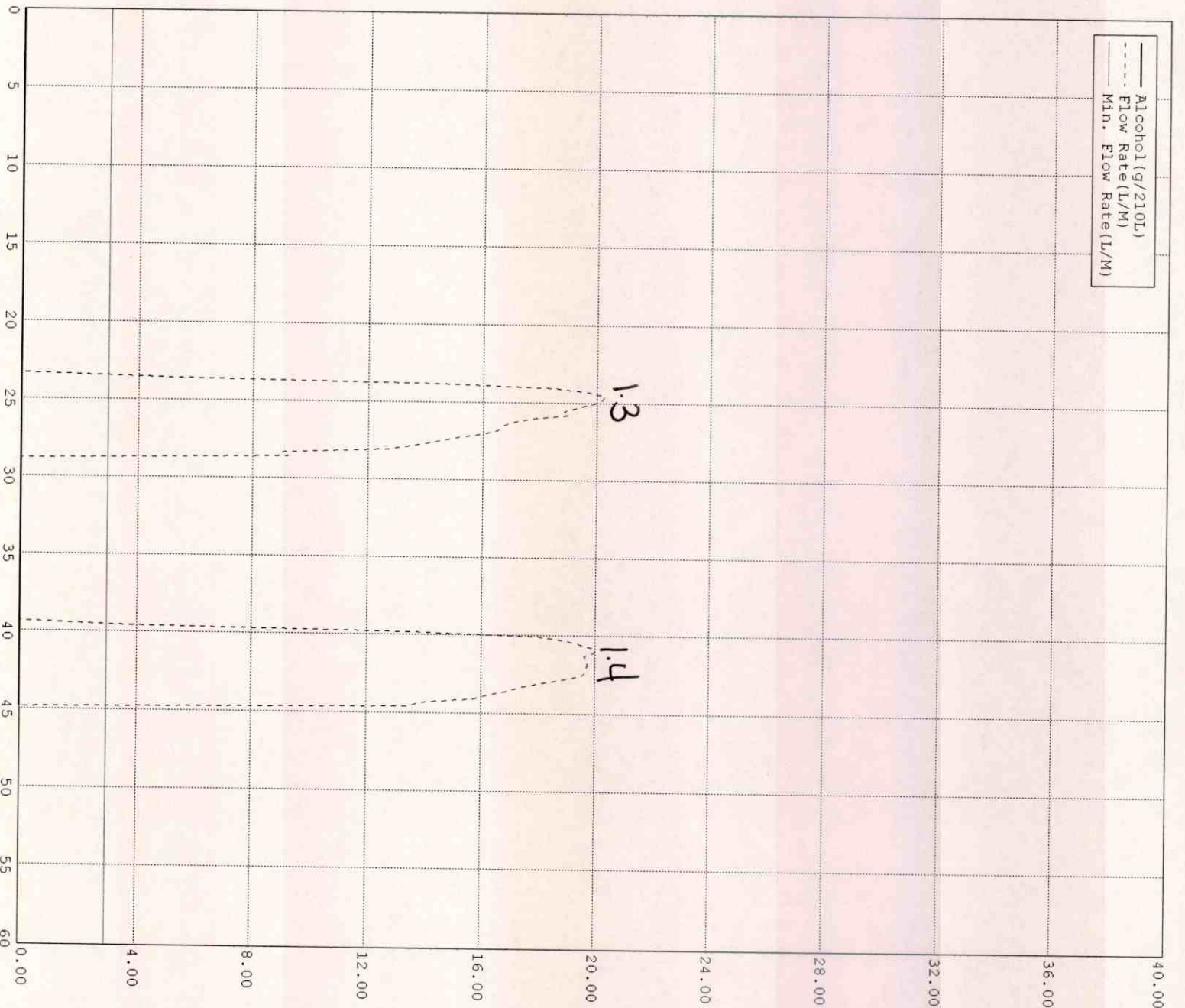
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.01: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	09:24
BLANK TEST	0.000	09:24
INTERNAL STANDARD	VERIFIED	09:24
EXTERNAL STANDARD	0.078	09:24
BLANK TEST	0.000	09:25
SUBJECT SAMPLE (Vol=1.51L)	0.000	09:26
BLANK TEST	0.000	09:27
EXTERNAL STANDARD	0.078	09:27
BLANK TEST	0.000	09:28

BMB



LINEARITY CHECK

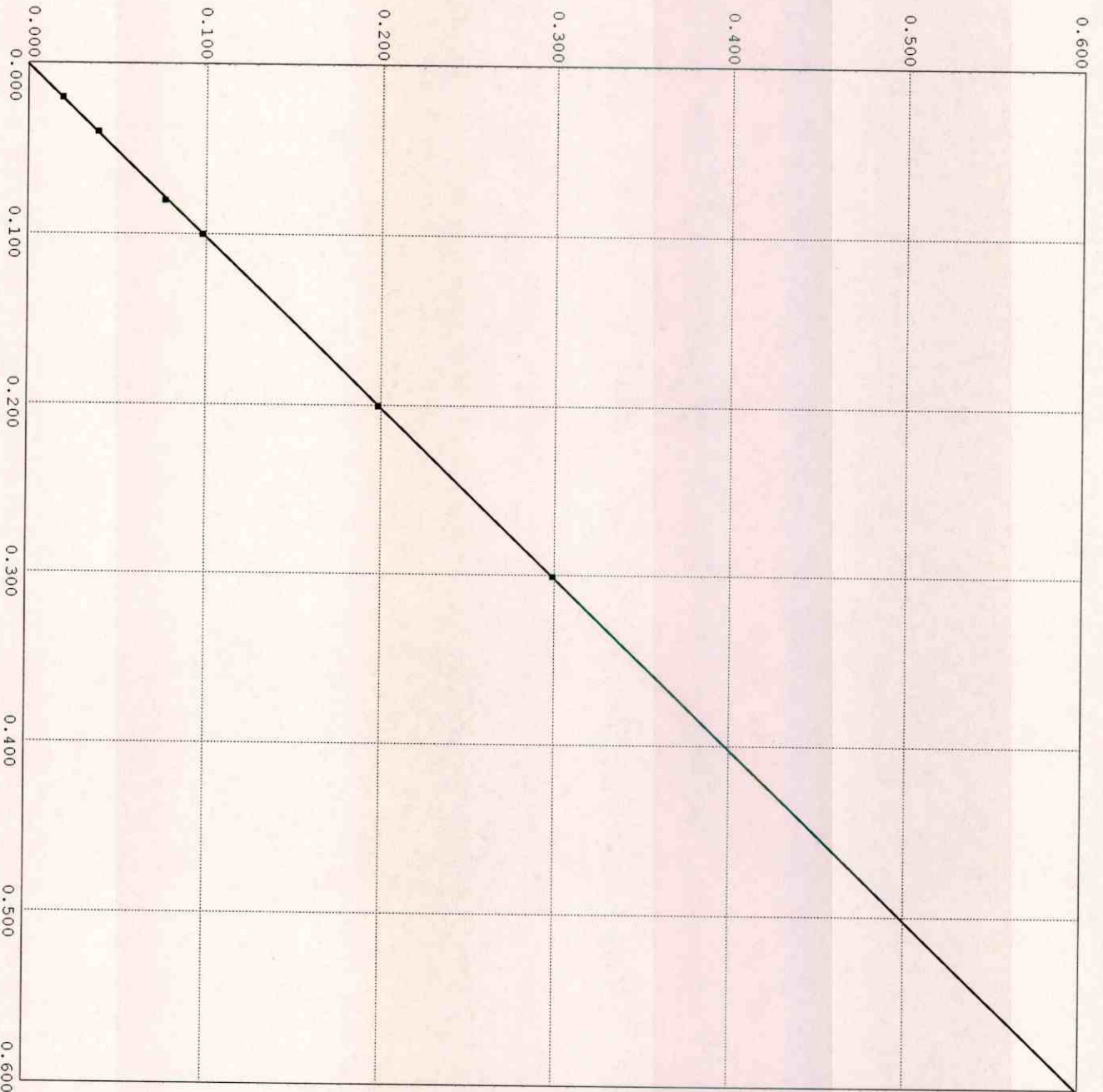
Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 07/29/2021  
Time: 11:24:59

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.040	0.0400	0.0000
0.080	0.0778	0.0004
0.100	0.0990	0.0000
0.200	0.1990	0.0000
0.300	0.2996	0.0009

SLOPE = 0.999498  
R<sup>2</sup> = 0.999939



EBNB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

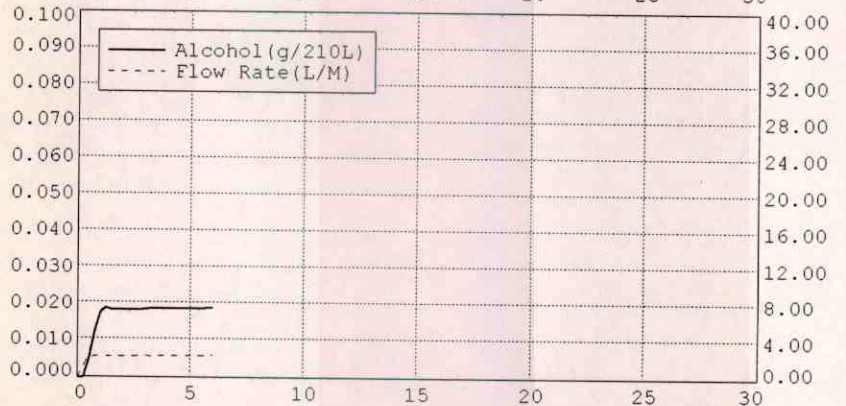
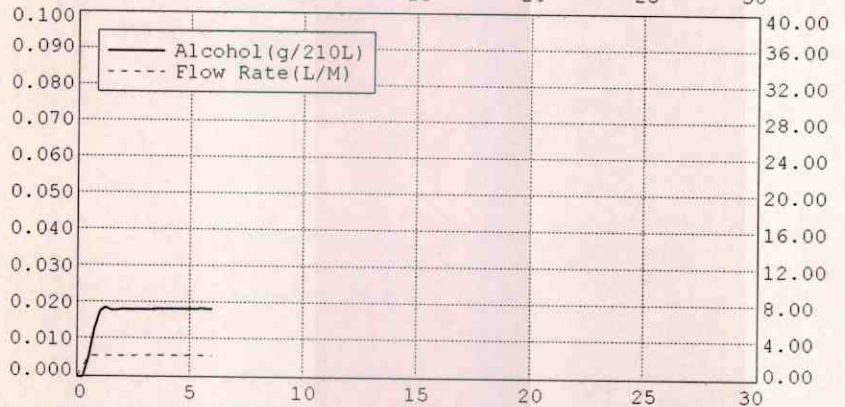
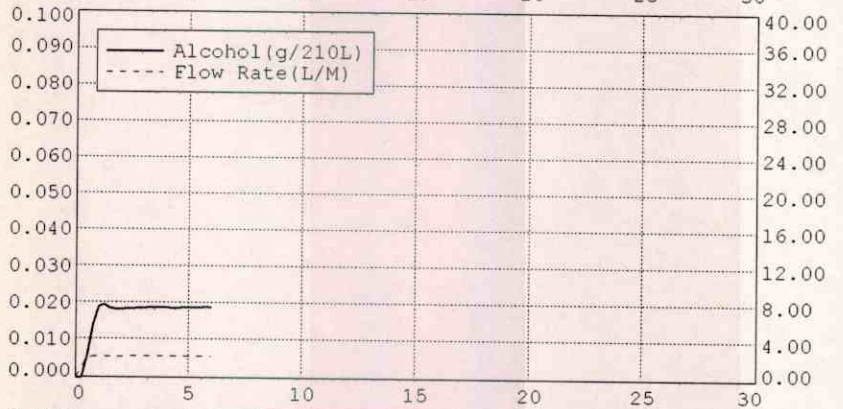
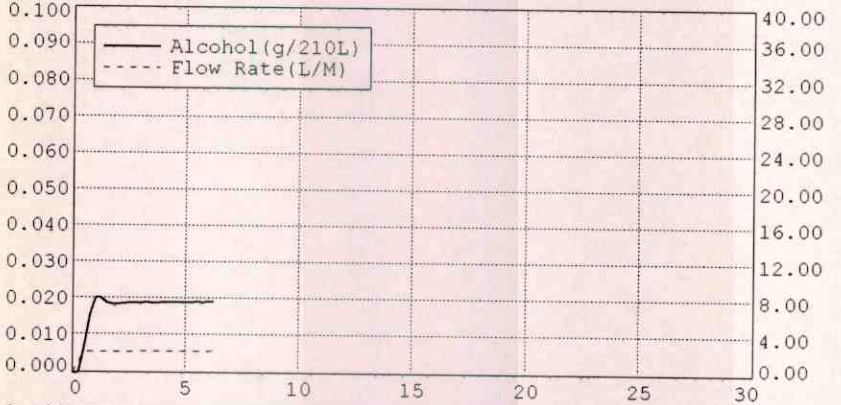
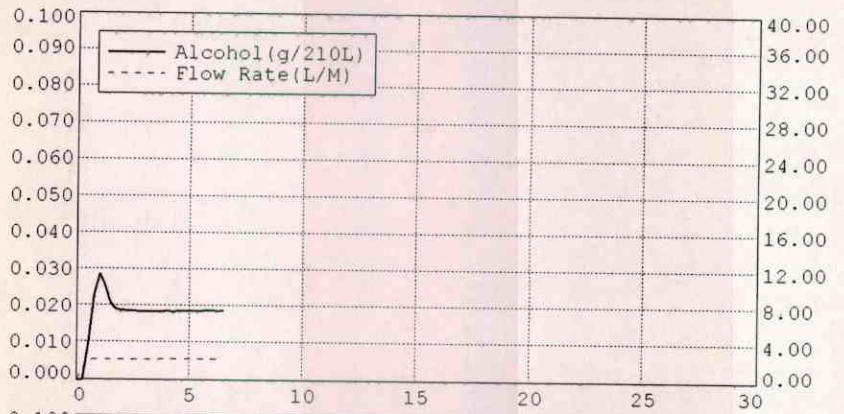
Date: 07/29/2021  
 Time: 11:25:02

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 30.00: 0.020  
 LOT #: AG928203  
 EXPIRATION: 10/09/2021  
 TANK PRESSURE: 392 psi

BLANK TEST	0.000	11:26
INTERNAL STANDARD	VERIFIED	11:26
EXTERNAL STANDARD	0.020	11:26
BLANK TEST	0.000	11:27
EXTERNAL STANDARD	0.020	11:27
BLANK TEST	0.000	11:28
EXTERNAL STANDARD	0.020	11:28
BLANK TEST	0.000	11:29
EXTERNAL STANDARD	0.020	11:29
BLANK TEST	0.000	11:30
EXTERNAL STANDARD	0.020	11:31
BLANK TEST	0.000	11:31

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

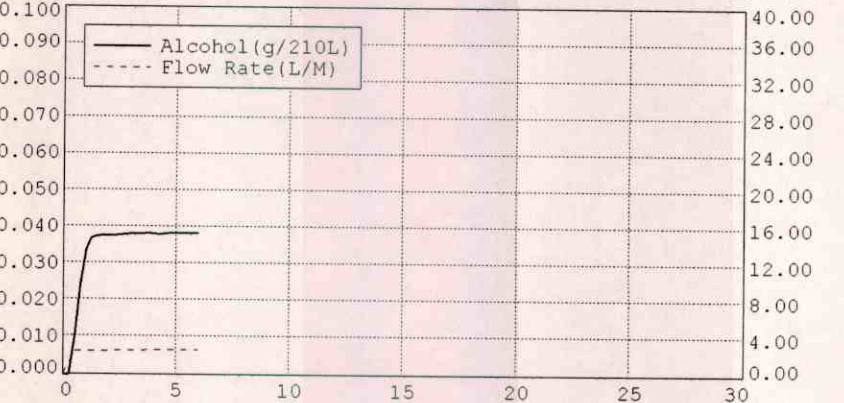
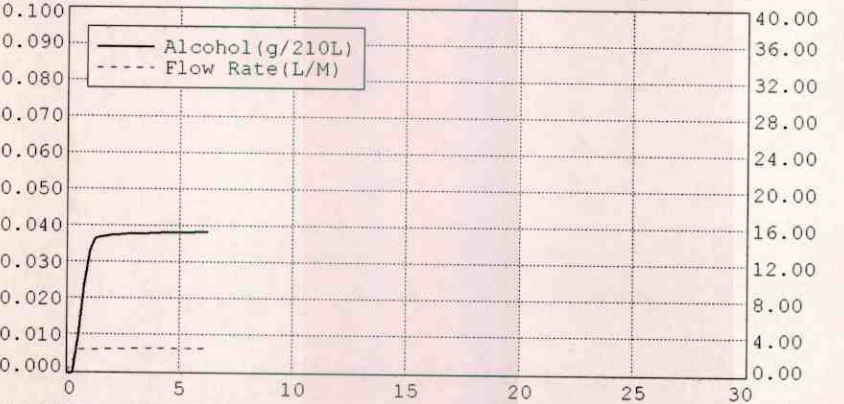
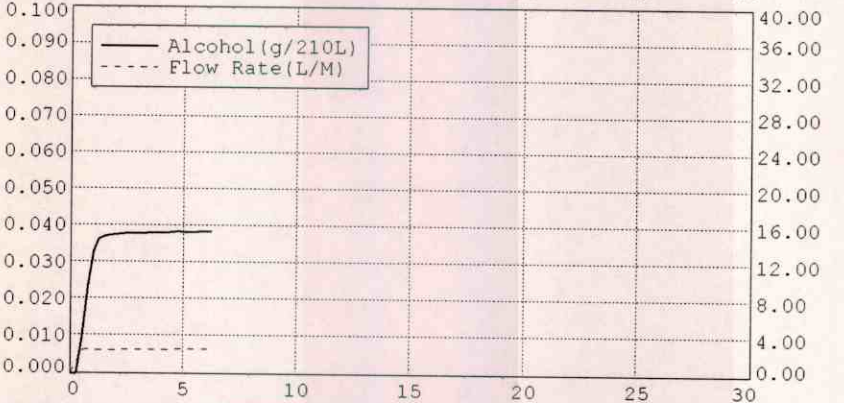
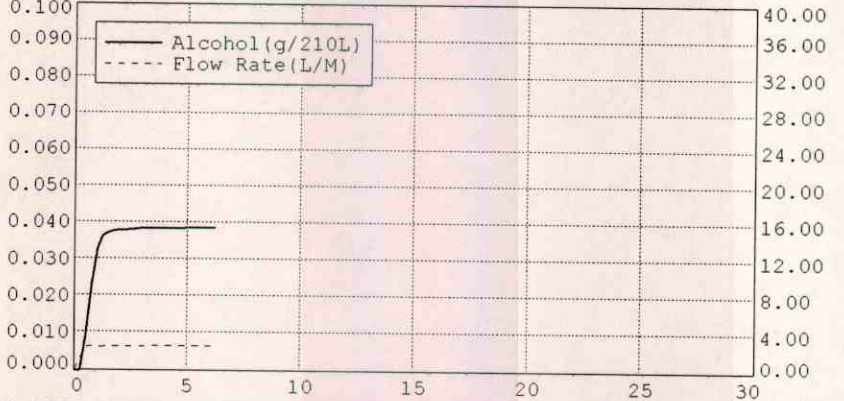
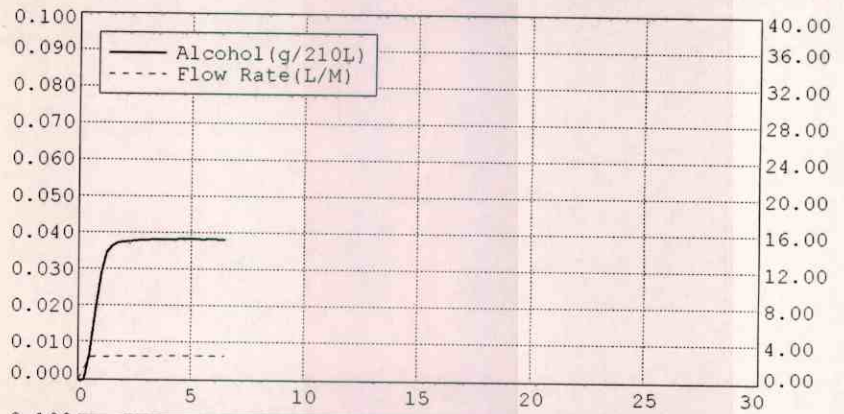
Date: 07/29/2021  
 Time: 11:33:40

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 30.00: 0.040  
 LOT #: AG111710  
 EXPIRATION: 04/27/2023  
 TANK PRESSURE: 983 psi

BLANK TEST	0.000	11:34
INTERNAL STANDARD	VERIFIED	11:34
EXTERNAL STANDARD	0.040	11:35
BLANK TEST	0.000	11:36
EXTERNAL STANDARD	0.040	11:36
BLANK TEST	0.000	11:37
EXTERNAL STANDARD	0.040	11:37
BLANK TEST	0.000	11:38
EXTERNAL STANDARD	0.040	11:38
BLANK TEST	0.000	11:39
EXTERNAL STANDARD	0.040	11:39
BLANK TEST	0.000	11:40

Average = 0.0400  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

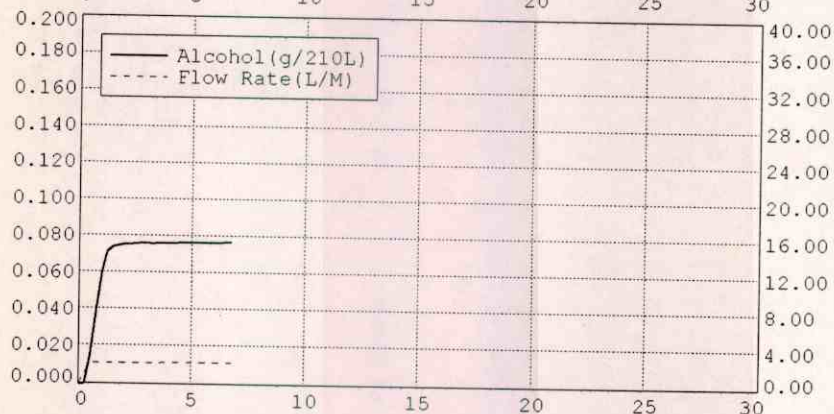
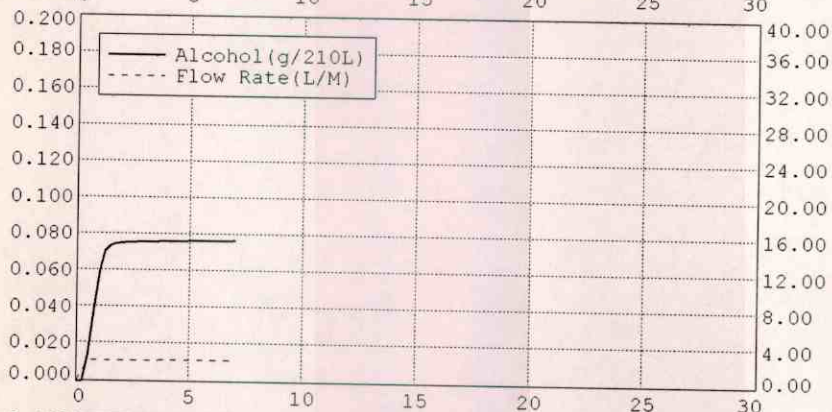
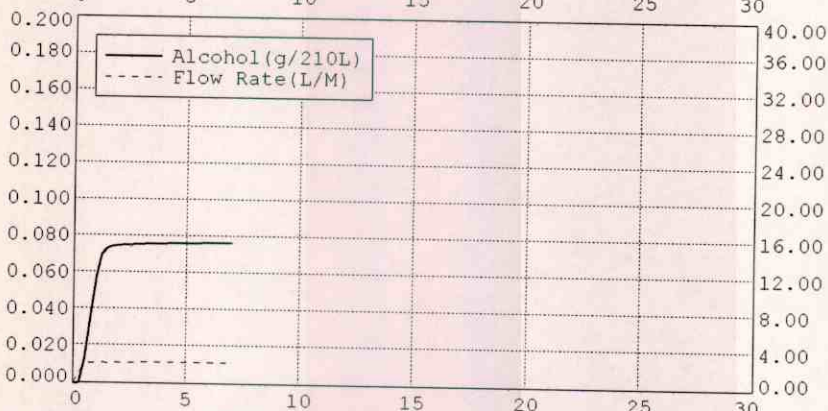
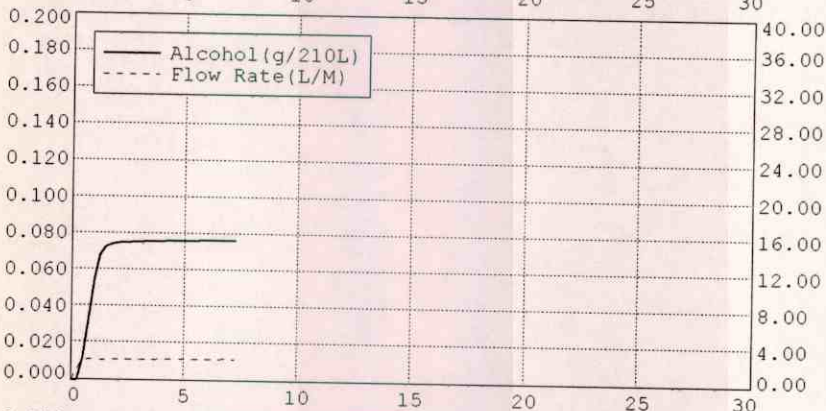
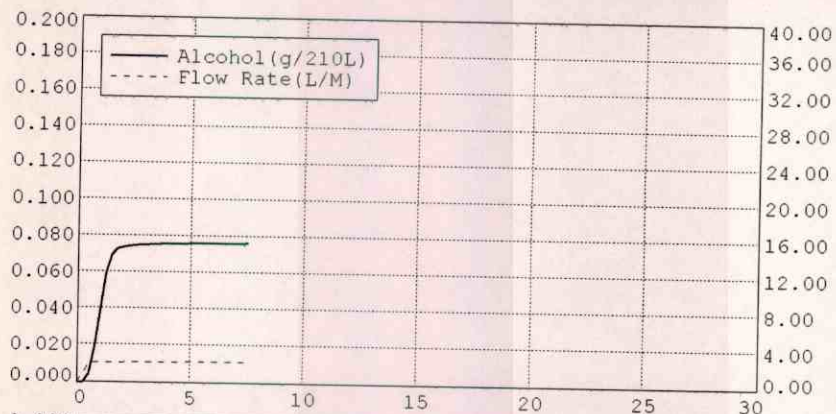
Date: 07/29/2021  
 Time: 12:36:34

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 30.00: 0.080  
 LOT #: AG018102  
 EXPIRATION: 06/29/2022  
 TANK PRESSURE: 440 psi

BLANK TEST	0.000	12:37
INTERNAL STANDARD	VERIFIED	12:37
EXTERNAL STANDARD	0.077	12:38
BLANK TEST	0.000	12:38
EXTERNAL STANDARD	0.078	12:39
BLANK TEST	0.000	12:40
EXTERNAL STANDARD	0.078	12:40
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.078	12:41
BLANK TEST	0.000	12:42
EXTERNAL STANDARD	0.078	12:42
BLANK TEST	0.000	12:43

Average = 0.0778  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

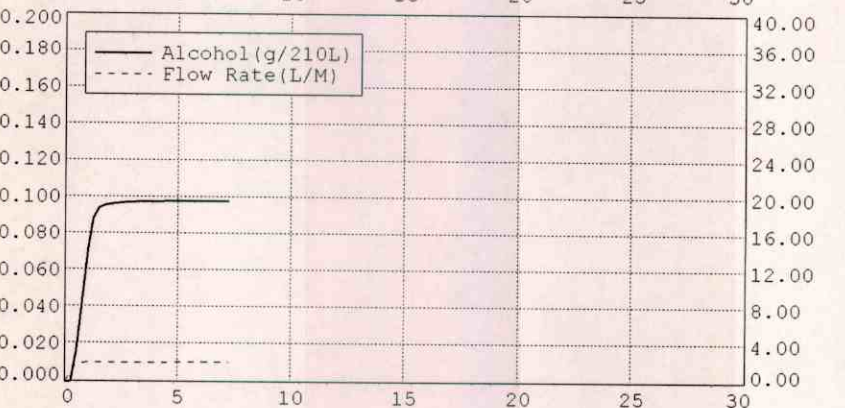
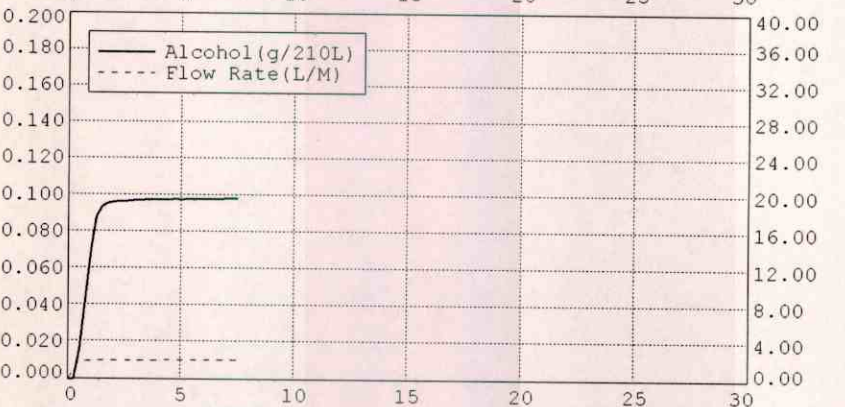
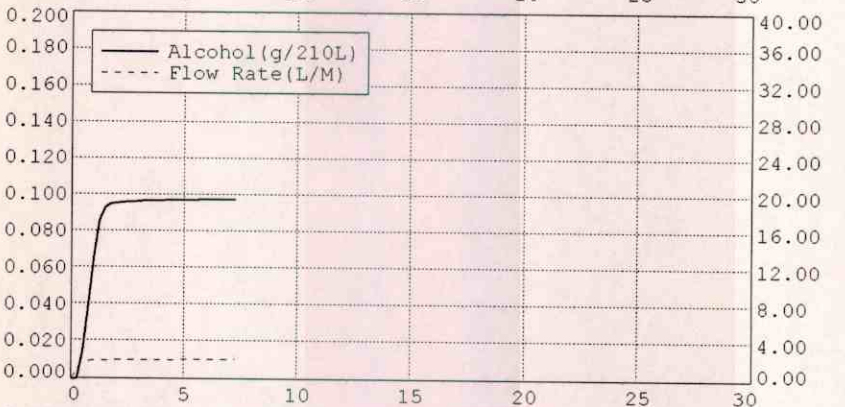
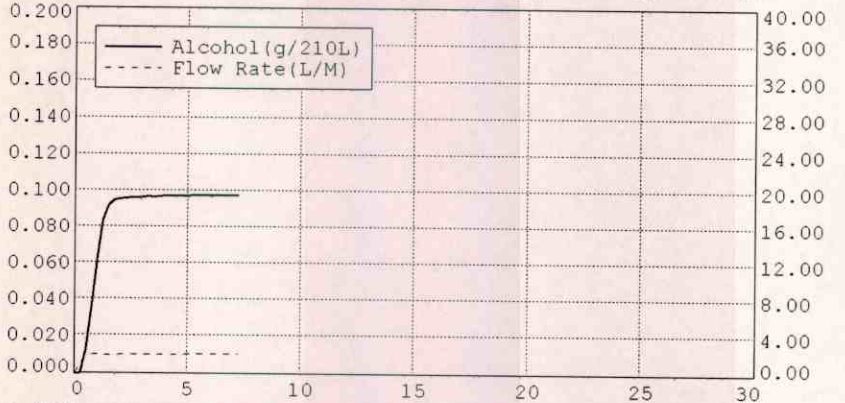
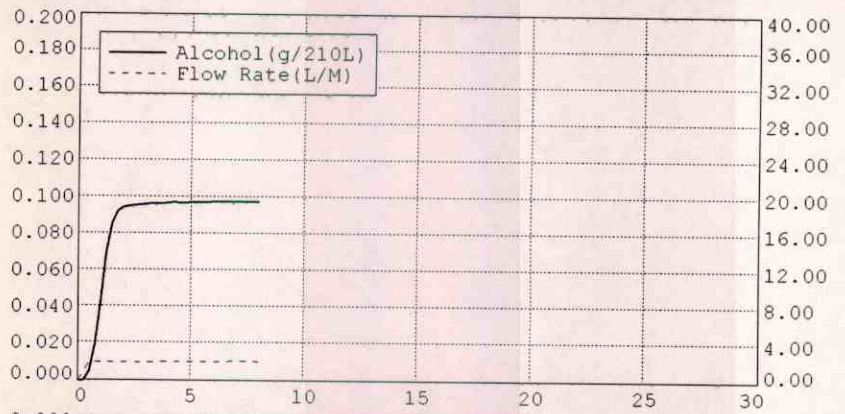
Date: 07/29/2021  
 Time: 13:35:57

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 30.00: 0.100  
 LOT #: AG924701  
 EXPIRATION: 09/04/2021  
 TANK PRESSURE: 214 psi

BLANK TEST	0.000	13:37
INTERNAL STANDARD	VERIFIED	13:37
EXTERNAL STANDARD	0.099	13:37
BLANK TEST	0.000	13:38
EXTERNAL STANDARD	0.099	13:38
BLANK TEST	0.000	13:39
EXTERNAL STANDARD	0.099	13:39
BLANK TEST	0.000	13:40
EXTERNAL STANDARD	0.099	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.099	13:42
BLANK TEST	0.000	13:42

Average = 0.0990  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

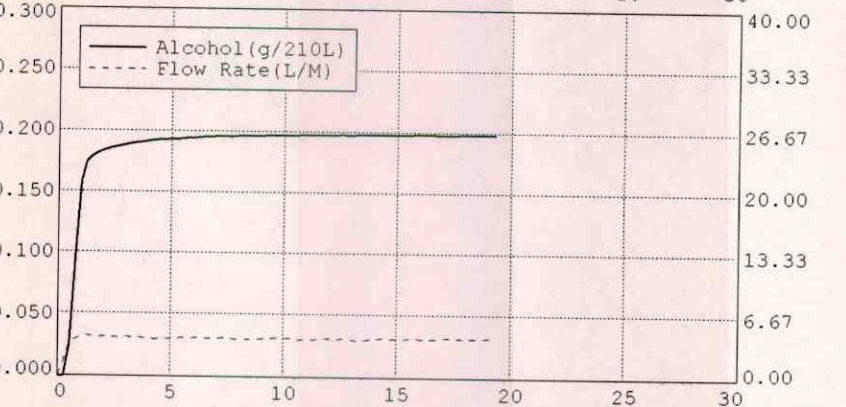
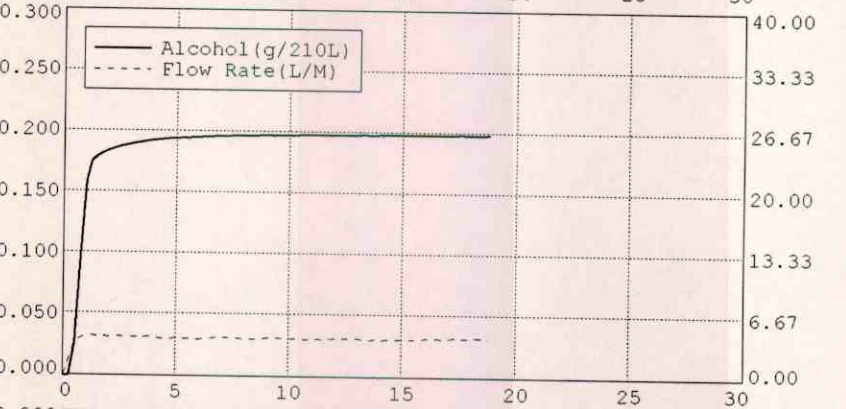
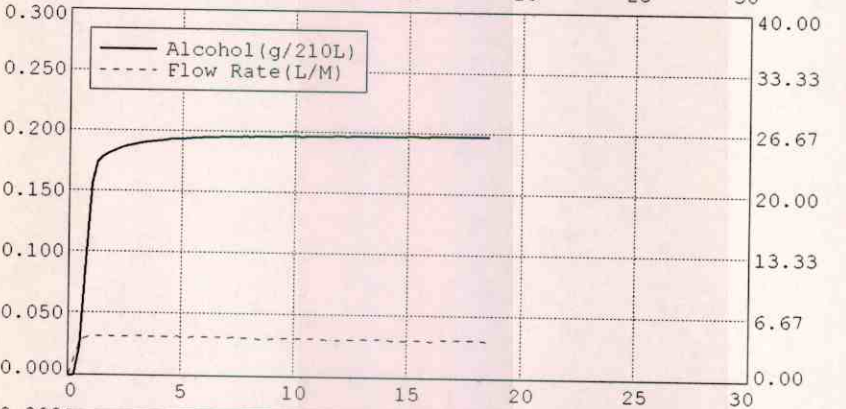
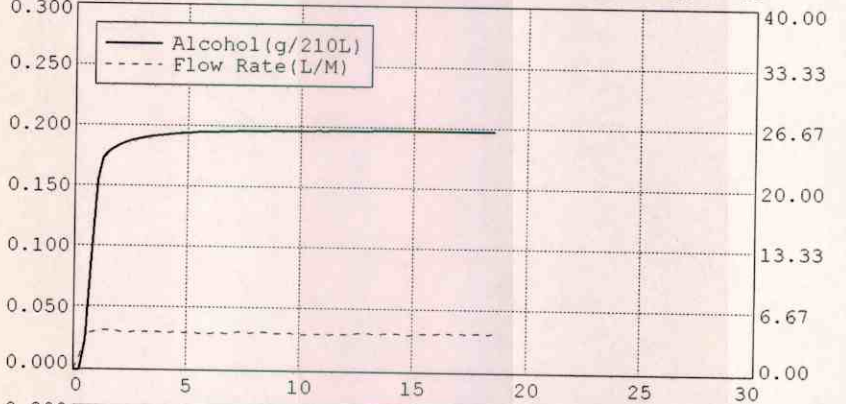
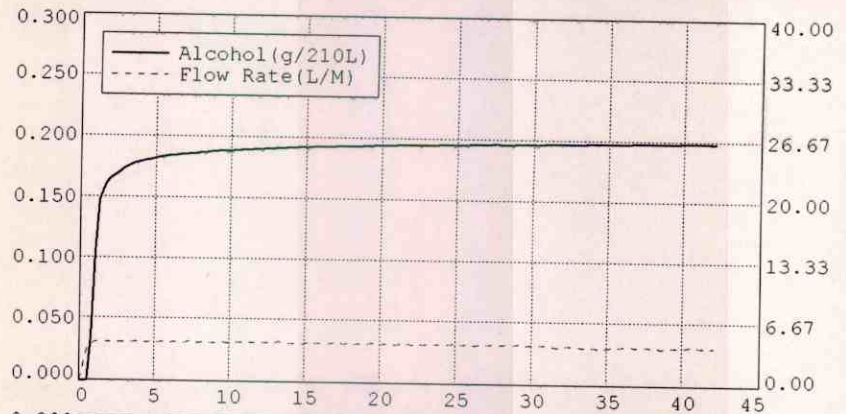
Date: 07/29/2021  
 Time: 13:54:43

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: GUTH 19200  
 EXPIRATION: 08/06/2021

BLANK TEST	0.000	13:55
INTERNAL STANDARD	VERIFIED	13:55
EXTERNAL STANDARD	0.199	13:56
BLANK TEST	0.000	13:57
EXTERNAL STANDARD	0.199	13:58
BLANK TEST	0.000	13:59
EXTERNAL STANDARD	0.199	13:59
BLANK TEST	0.000	14:00
EXTERNAL STANDARD	0.199	14:00
BLANK TEST	0.000	14:01
EXTERNAL STANDARD	0.199	14:02
BLANK TEST	0.000	14:03

Average = 0.1990  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

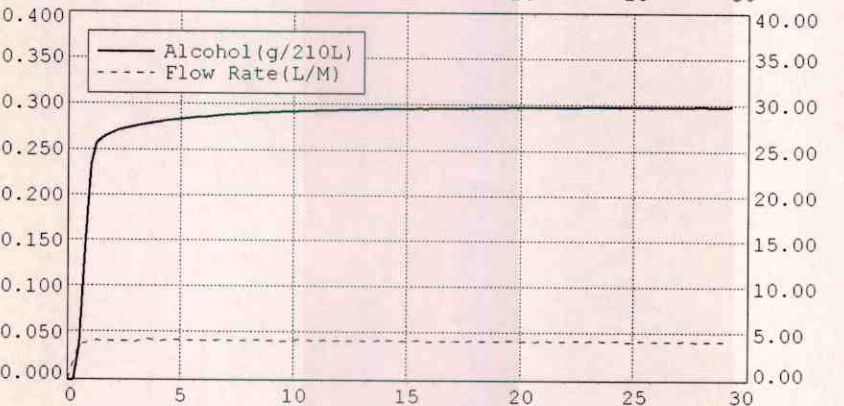
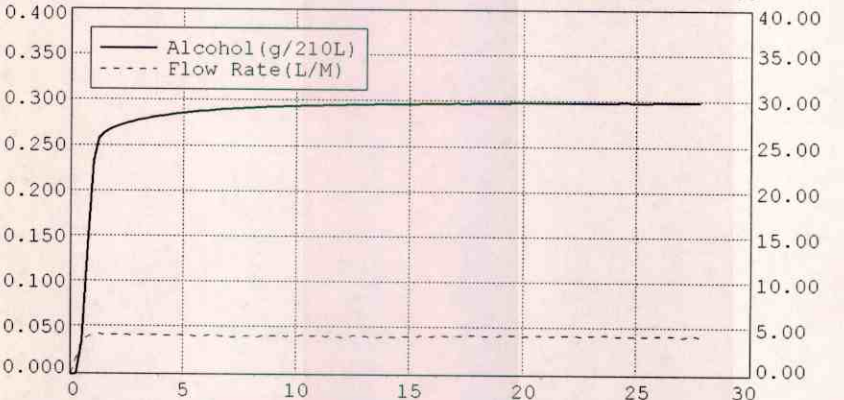
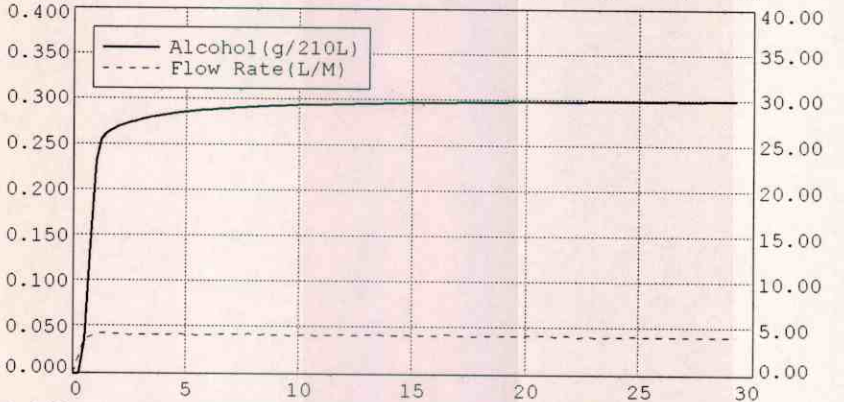
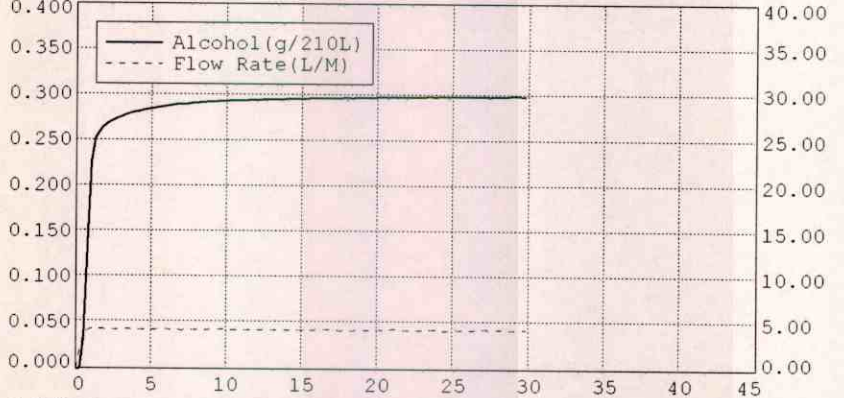
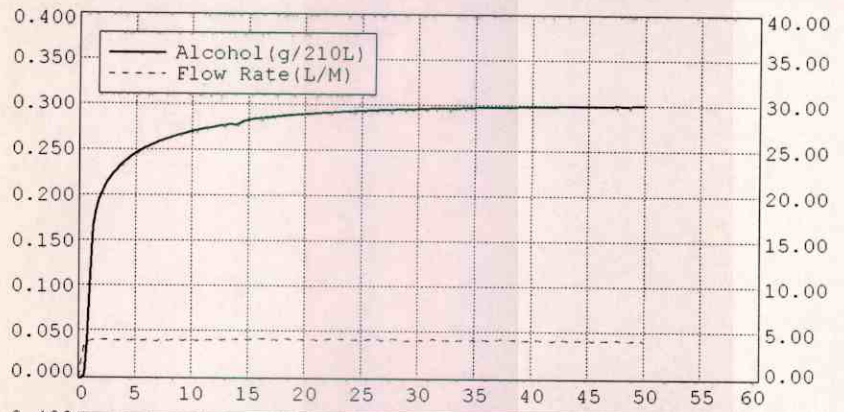
Date: 07/29/2021  
 Time: 14:08:46

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: GUTH 19330  
 EXPIRATION: 11/13/2021

BLANK TEST	0.000	14:09
INTERNAL STANDARD	VERIFIED	14:10
EXTERNAL STANDARD	0.301	14:11
BLANK TEST	0.000	14:12
EXTERNAL STANDARD	0.299	14:12
BLANK TEST	0.000	14:13
EXTERNAL STANDARD	0.300	14:14
BLANK TEST	0.000	14:15
EXTERNAL STANDARD	0.299	14:15
BLANK TEST	0.000	14:16
EXTERNAL STANDARD	0.299	14:17
BLANK TEST	0.000	14:18

Average = 0.2996  
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100365

Date: 07/29/2021  
Time: 14:31:49

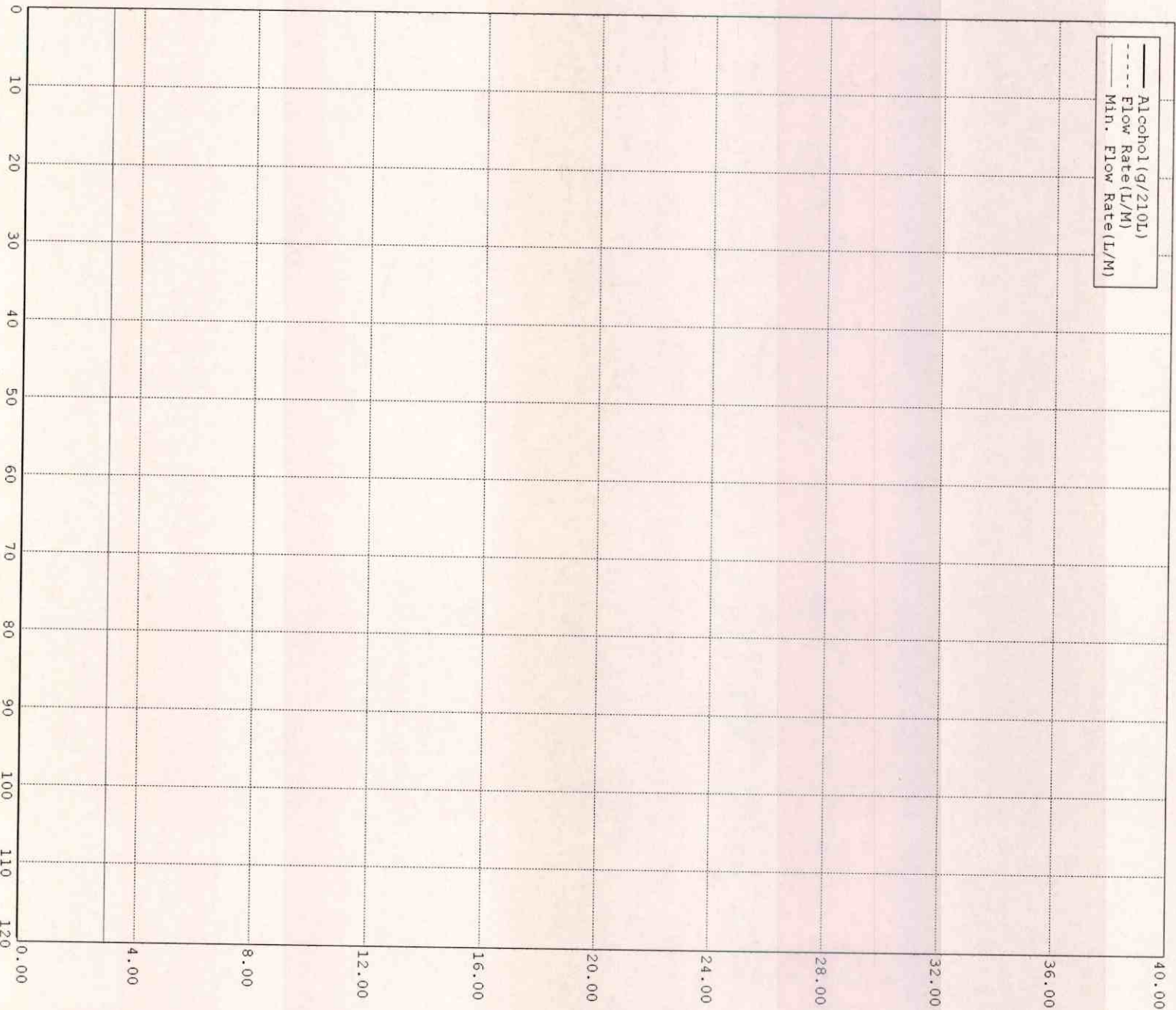
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.00: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	14:33
BLANK TEST	0.000	14:33
INTERNAL STANDARD	VERIFIED	14:33
EXTERNAL STANDARD	0.078	14:33
BLANK TEST	0.000	14:34
SUBJECT SAMPLE	INCOMPLETE	14:36



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 07/30/2021  
Time: 10:56:38

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

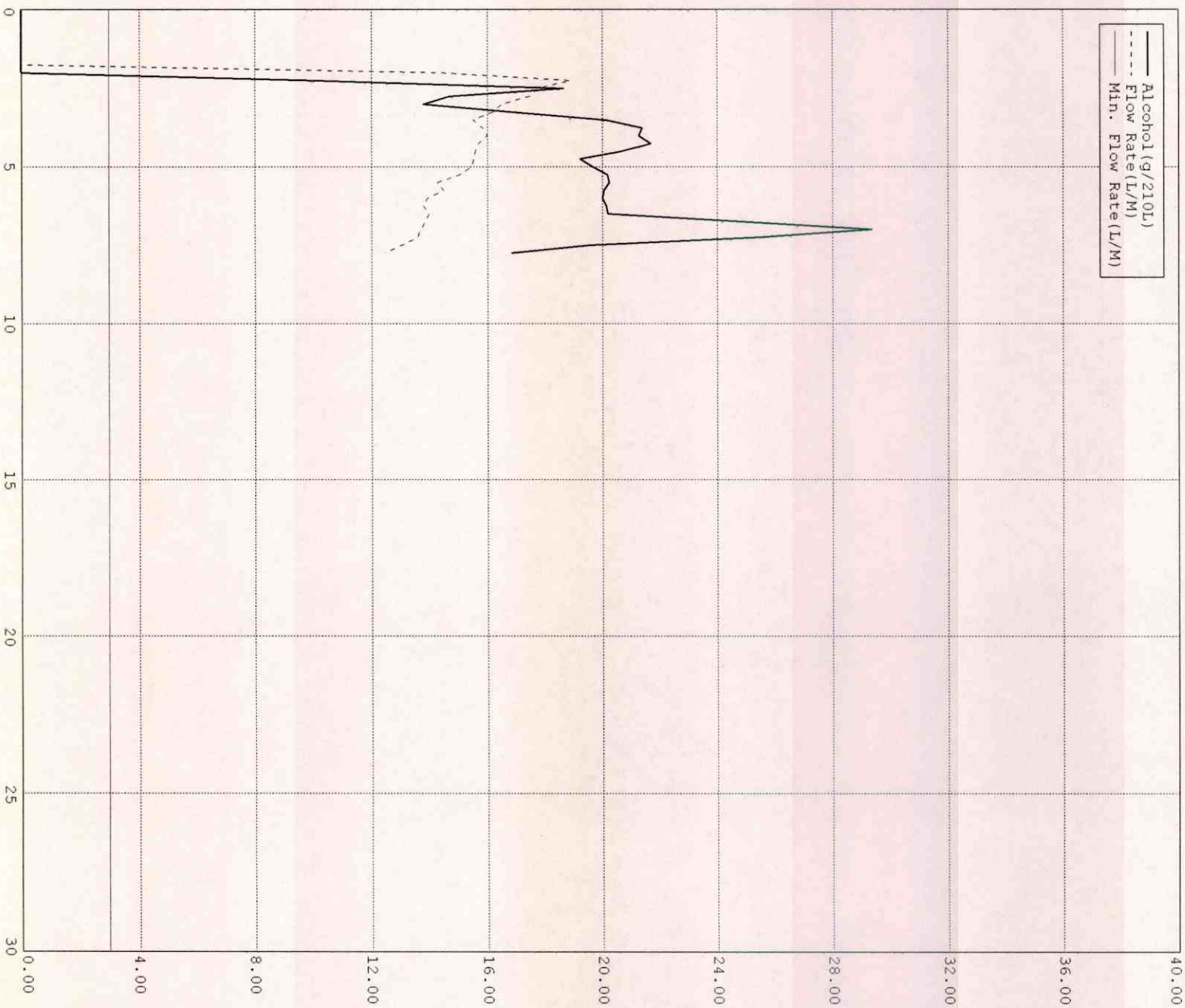
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.95: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	10:57
BLANK TEST	0.000	10:57
INTERNAL STANDARD	VERIFIED	10:57
EXTERNAL STANDARD	0.077	10:58
BLANK TEST	0.000	10:59
SUBJECT SAMPLE	INVALID	10:59

*BBB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 07/30/2021  
Time: 11:19:17

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

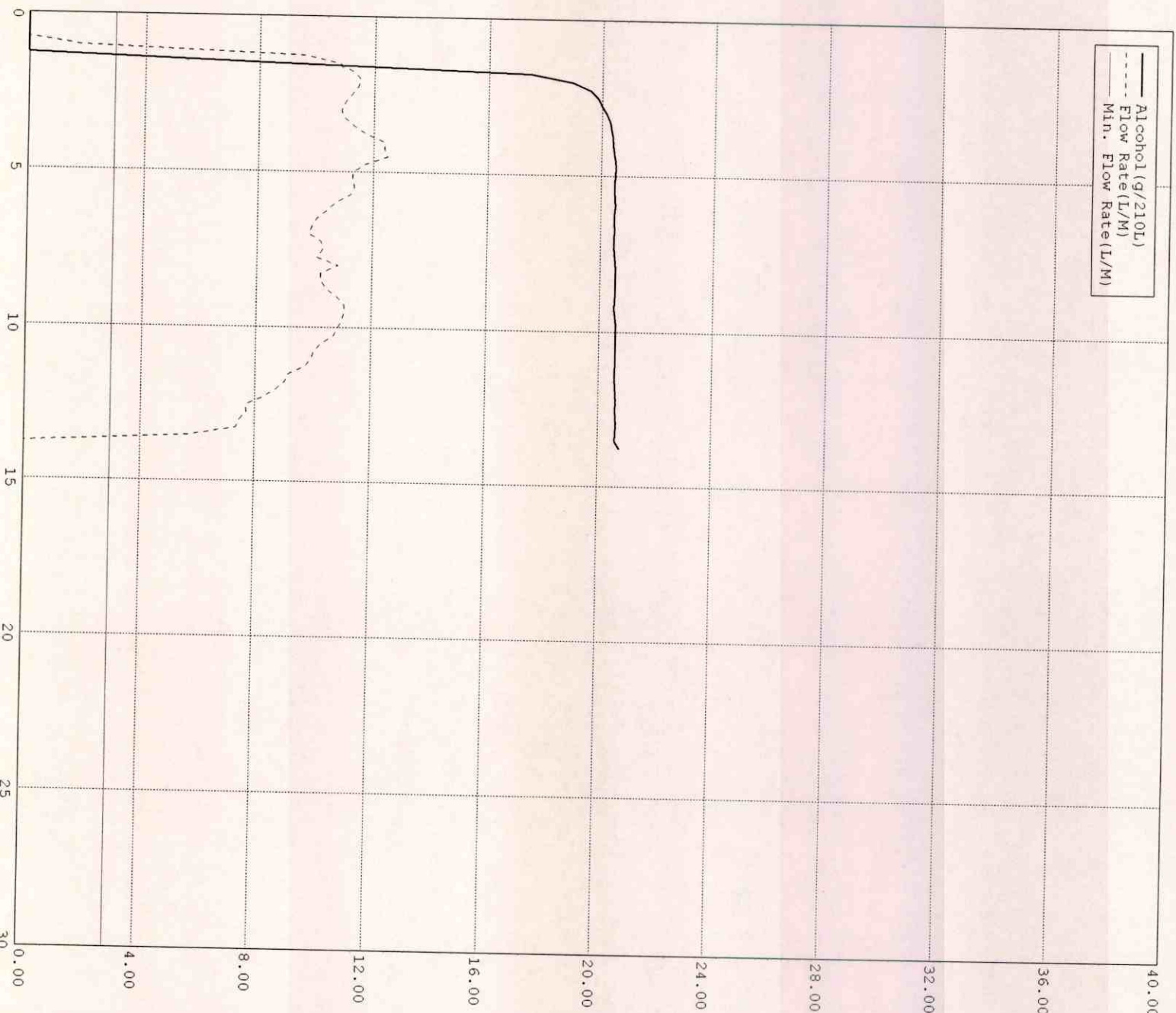
DEPT/AGENCY:  
INTERFERENCE ACETONE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.95: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:21
BLANK TEST	0.000	11:21
INTERNAL STANDARD	VERIFIED	11:21
Xq = 0.106 (0.93%)		
EXTERNAL STANDARD	0.078	11:22
X[1] = 0.0782 (0.0006)	(0.0025)	
BLANK TEST	0.000	11:22
SUBJECT SAMPLE	XXX	11:23
X[1] = 0.1052 (-0.0164)	(0.0014)	

Interference Detected

Filter 2Avg: 0.0005  
Filter 3Avg: 0.0027  
BMB 7/30/21



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 07/30/2021  
Time: 11:26:48

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

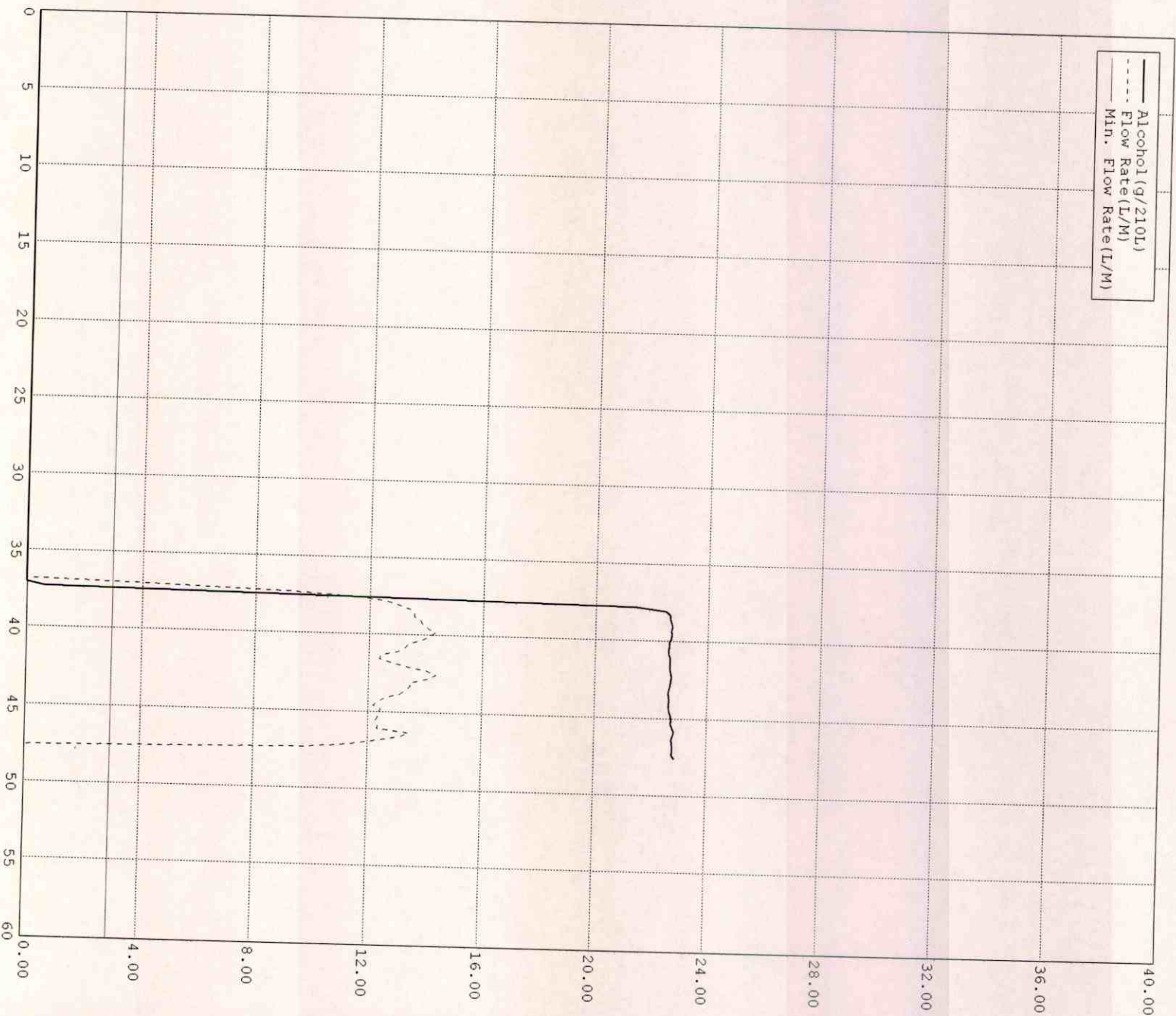
DEPT/AGENCY:  
INTERFERENCE ISOPROPANOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.95: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:27
BLANK TEST	0.000	11:28
INTERNAL STANDARD	VERIFIED	11:28
Xq = 0.105 (0.50%)		
EXTERNAL STANDARD	0.078	11:28
X[1] = 0.0777 (0.0004)	(0.0029)	
BLANK TEST	0.000	11:29
SUBJECT SAMPLE	XXX	11:30
X[1] = 0.1158 (-0.0252)	(0.0025)	

Interference Detected

BMB





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 07/30/2021  
Time: 11:33:07

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

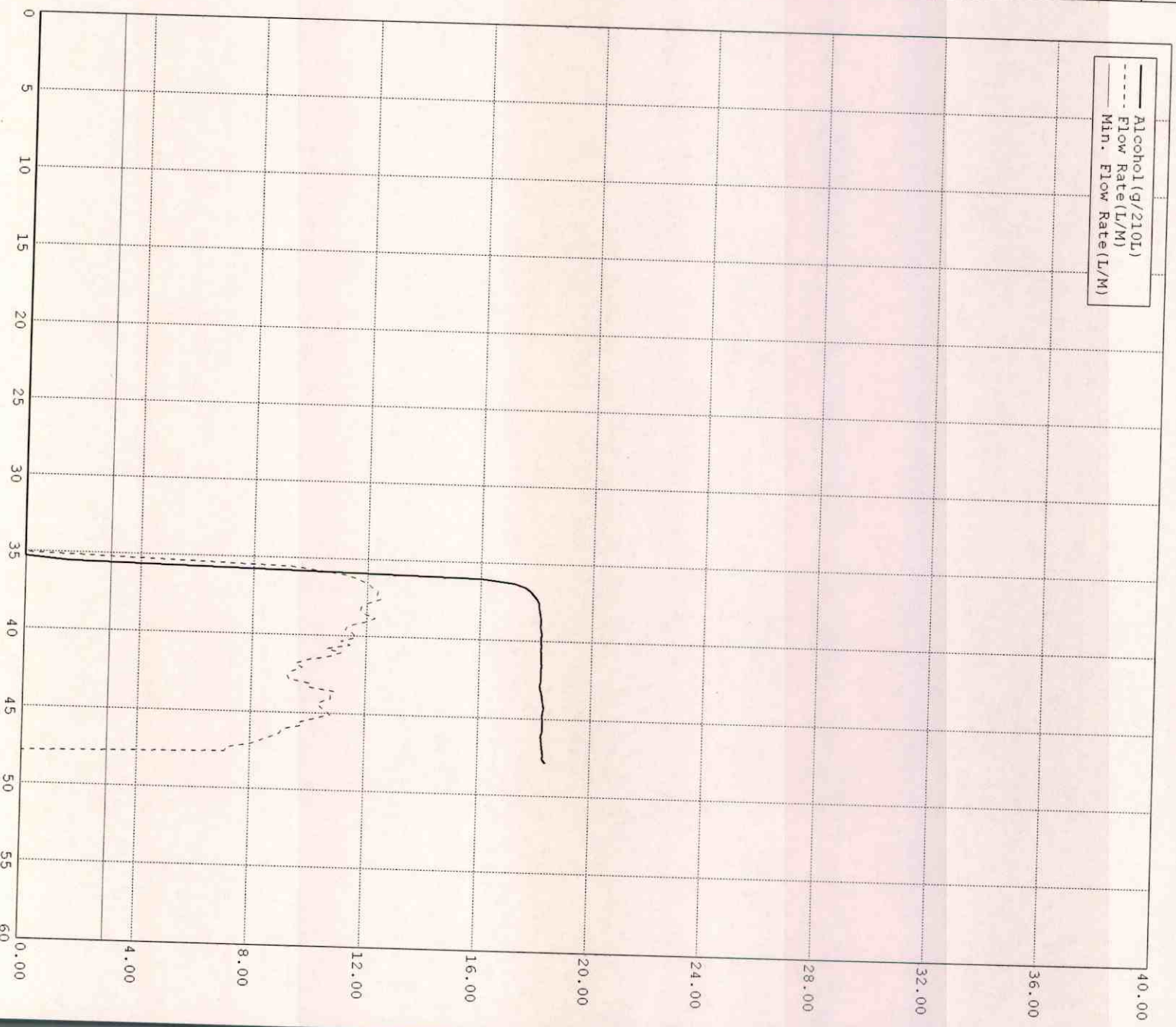
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.95: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:34
BLANK TEST	0.000	11:34
INTERNAL STANDARD	VERIFIED	11:34
Xq = 0.105 (0.34%)		
EXTERNAL STANDARD	0.078	11:34
X[1] = 0.0776 (0.0006)	(0.0029)	
BLANK TEST	0.000	11:35
SUBJECT SAMPLE (Vol=2.18L)	0.093	11:36
X[1] = 0.0937 (0.0000)	(0.0015)	
BLANK TEST	0.000	11:37
EXTERNAL STANDARD	0.078	11:37
X[1] = 0.0775 (0.0005)	(0.0023)	
BLANK TEST	0.000	11:38

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 07/30/2021  
Time: 11:08:41

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

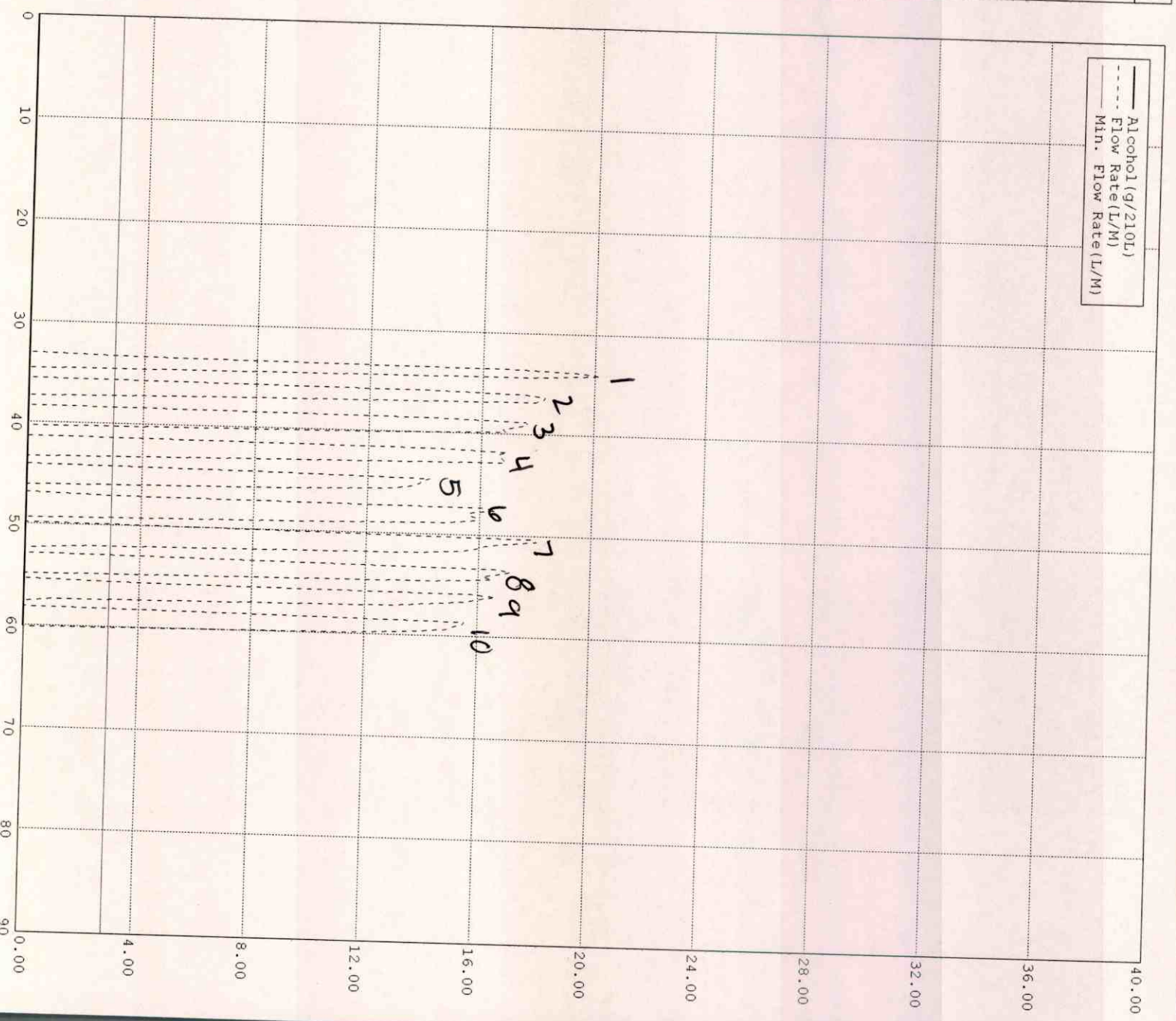
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.95: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:09
BLANK TEST	0.000	11:09
INTERNAL STANDARD	VERIFIED	11:09
EXTERNAL STANDARD	0.077	11:10
BLANK TEST	0.000	11:11
SUBJECT SAMPLE	XXX	11:12

Maximum Attempts Exceeded

*BBMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 07/30/2021  
Time: 11:01:26

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 29.95: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	11:02
BLANK TEST	0.000	11:03
INTERNAL STANDARD	VERIFIED	11:03
EXTERNAL STANDARD	0.077	11:03
BLANK TEST	0.000	11:04

RFI DETECTED

*RFMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 07/30/2021  
Time: 12:12:07

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 29.95: 0.080  
LOT #: AG018102  
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	12:13
BLANK TEST	0.000	12:13
INTERNAL STANDARD	VERIFIED	12:13
EXTERNAL STANDARD	0.077	12:14
BLANK TEST	0.000	12:15
SUBJECT SAMPLE (Vol=2.63L)	0.000	12:15
BLANK TEST	0.000	12:16
EXTERNAL STANDARD	0.079	12:16
BLANK TEST	0.000	12:17

BRB

