

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 100420 Analyst Brandi Barnett Start Date 7/13/17

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 616504 Exp 6/13/18
- ii. 0.040g/210L Mnf Airgas Lot AG 630101 Exp 10/27/18
- iii. 0.080g/210L Mnf Airgas Lot AG 608504 Exp 3/25/18
- iv. 0.100g/210L Mnf Airgas Lot AG 629304 Exp 10/19/18
- v. 0.200g/210L Mnf Guth Lot 16190 Exp 8/15/18
 - 1. Simulator S/N DR5298 Date Calibrated 9/14/16
- vi. 0.300g/210L Mnf Guth Lot 16210 Exp 8/22/18
 - 1. Simulator S/N SD1177 Date Calibrated 9/13/16

5. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
- d. Exceeded attempts

- i. Acetone - Mnf Guth Lot 16160 Level 0.100 Exp 7/19/18 ^{BMS}
 - 1. Simulator S/N SD1199 Date Calibrated 9/13/16
- ii. Isopropanol - Mnf Guth Lot 16160 Level 0.100 Exp 7/19/18 ^{BMS}
 - 1. Simulator S/N SD1088 Date Calibrated 9/13/16
- iii. Negative Control - Mnf Guth Lot 16160 Level 0.100 Exp 7/19/18
 - 1. Simulator S/N DR4161 Date Calibrated 9/14/16

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 7/14/17

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 07/13/2017
Time: 13:09:40

VERSIONS

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

TEMPERATURES

Sample Chamber = 49.5°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 47.7°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.89 V PASSED
(1.10 V - 2.58 V)
Cooler Voltage = 1.66 V PASSED
(1.01 V - 2.35 V)
Bias Voltage = 80 V PASSED
(47 V - 111 V)
Chopper Freq = 544 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.8 in

PUMP INFO

Flow Rate = 4.937 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

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

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD PASSED
Xq = 0.080 0.33% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100420

Date: 07/13/2017

Time: 1:15 PM

Temperatures (°C)

Sample Cell: 48.8°C

Breath Tube: 47.5°C

Current Barometer 29.8 in

Volume (Ltr) 1.57

Settings

Lamp: 1.89 V

Bias: 80 V

Cooler: 1.73 V

Chopper: 536 Hz

Voltages (V)

Flow: 1.05 V

Detector: 0.002 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 05/18/2011
Time: 13:54:20

OPERATOR NAME:
COLLEEN S OBRYANT
CERTIFICATE #: 6237

LOT #: GUTH100
BOTTLE #: 10260
EXPIRATION: 10/25/2010

Ca	=	0.1000		
CAL	=	0.987303	0.800	<= CAL < 1.200
b1	=	0.0000	0.0000	<= b1 < 0.0040
b2	=	0.0034	0.0010	<= b2 < 0.0100
b3	=	0.0000	0.0000	<= b3 < 0.0040
Xq	=	0.0794	0.0500	<= Xq < 0.2000
a21	=	1.113495	1.050	<= a21 < 1.300
a31	=	0.362455	0.300	<= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 07/13/2017
Time: 13:16:10

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

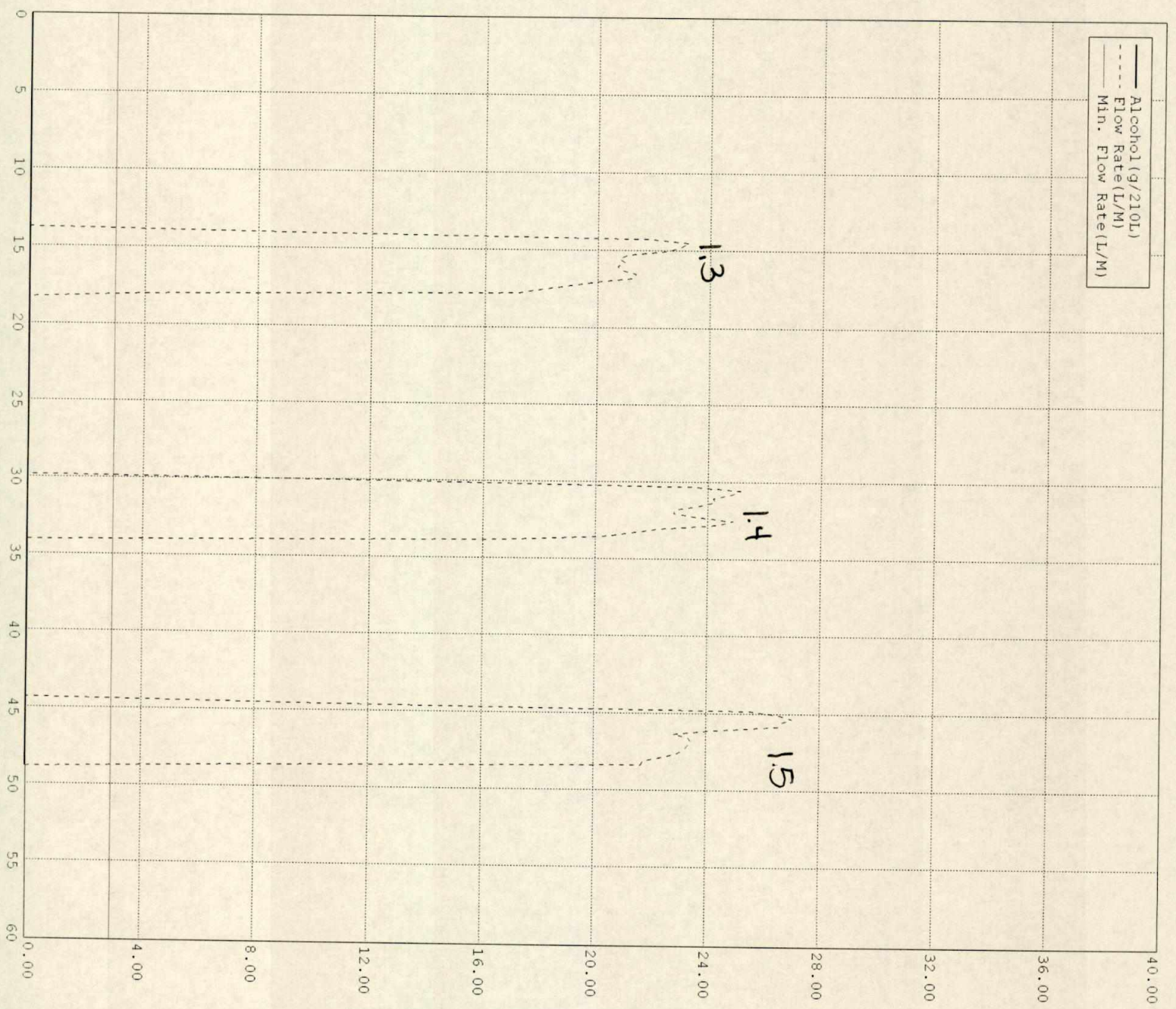
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.80: 0.080
LOT #: AG608504
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:18
INTERNAL STANDARD	0.000	13:18
EXTERNAL STANDARD	0.081	13:18
BLANK TEST	0.000	13:20
SUBJECT SAMPLE (Vol=1.58L)	0.000	13:21
BLANK TEST	0.000	13:22
EXTERNAL STANDARD	0.080	13:22
BLANK TEST	0.000	13:23

Form B



LINEARITY CHECK

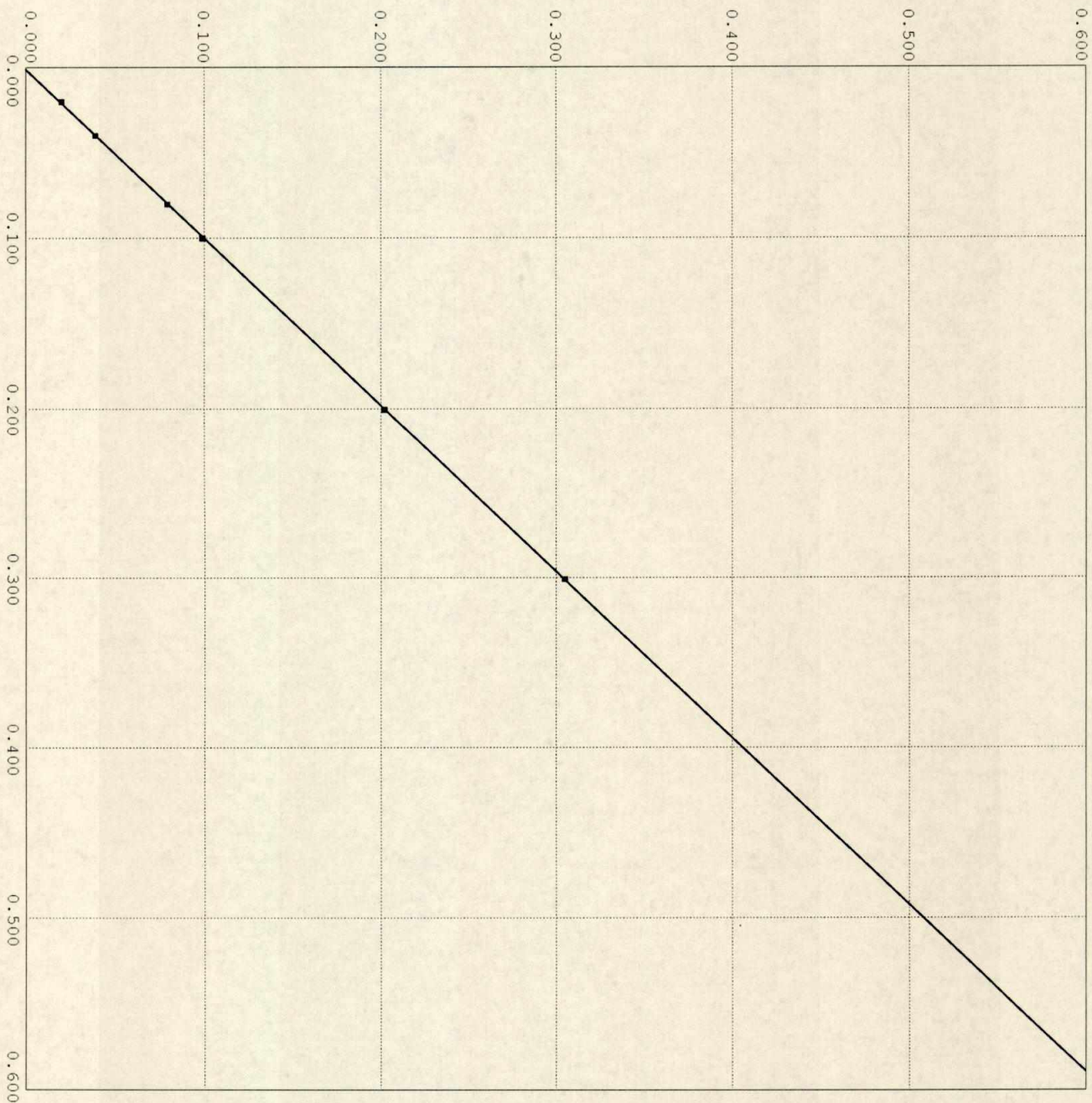
Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 07/13/2017
Time: 13:26:50

SUPERVISOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0206	0.0009
0.040	0.0396	0.0005
0.080	0.0802	0.0004
0.100	0.1000	0.0000
0.200	0.2028	0.0008
0.300	0.3056	0.0005

SLOPE = 1.020420
R² = 0.999949



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100420

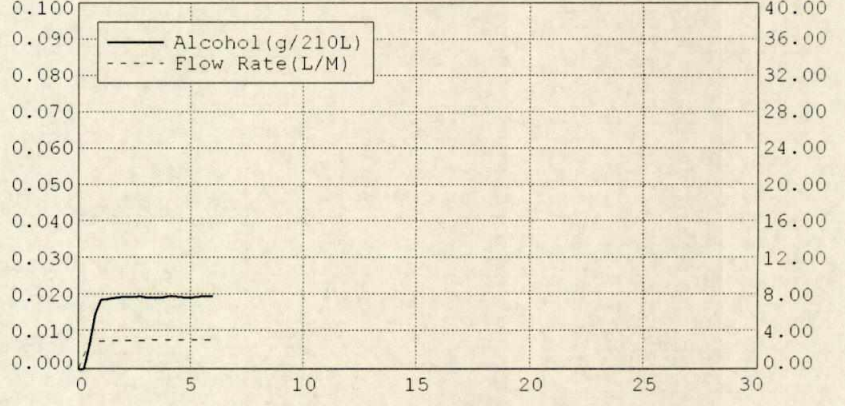
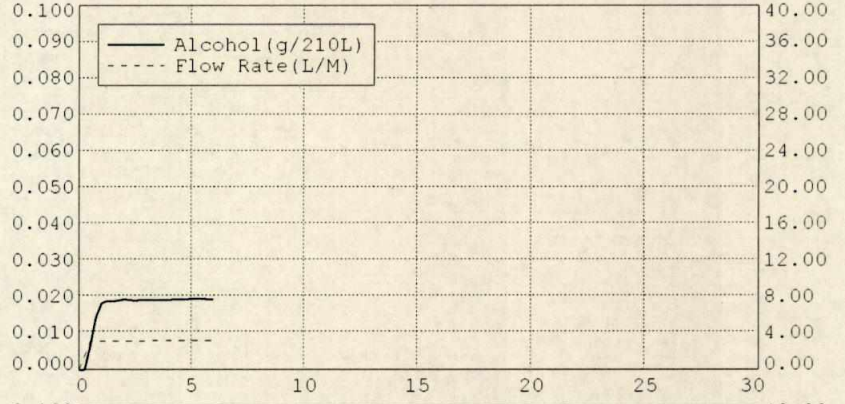
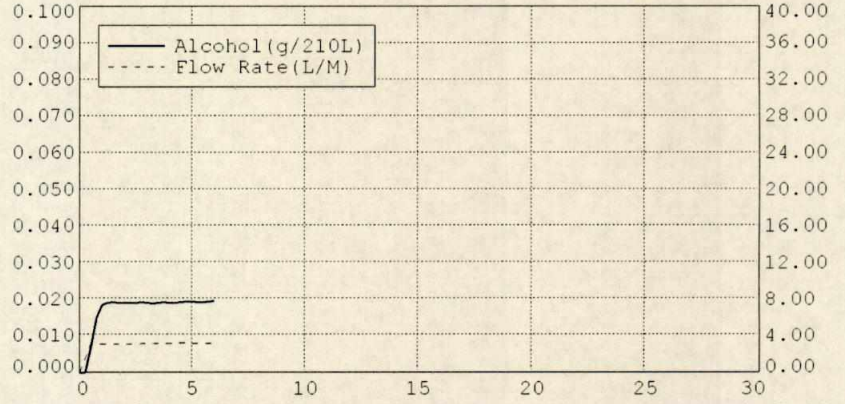
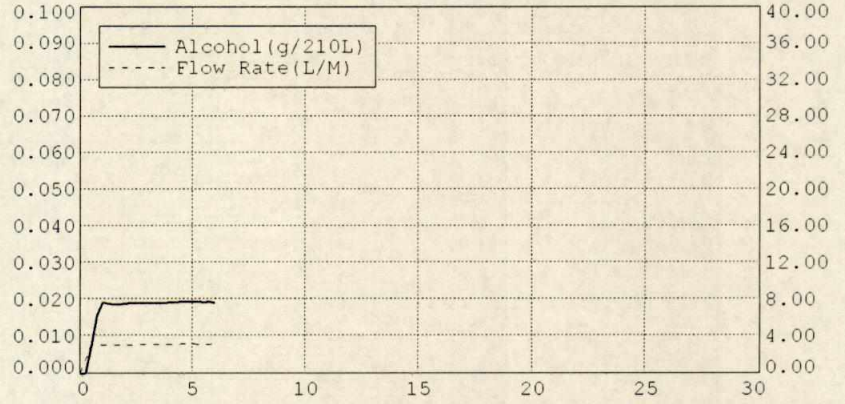
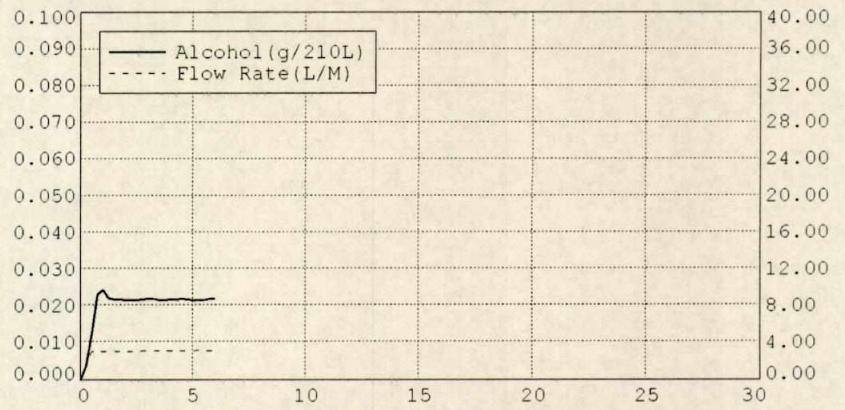
Date: 07/13/2017
 Time: 13:26:51

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.79: 0.020
 LOT #: AG616504
 EXPIRATION: 06/13/2018
 TANK PRESSURE: 809 psi

BLANK TEST	0.000	13:28
INTERNAL STANDARD	VERIFIED	13:28
EXTERNAL STANDARD	0.022	13:28
BLANK TEST	0.000	13:29
EXTERNAL STANDARD	0.020	13:29
BLANK TEST	0.000	13:30
EXTERNAL STANDARD	0.020	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.020	13:31
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.021	13:32
BLANK TEST	0.000	13:33

Average = 0.0206
 Std Dev = 0.0009



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100420

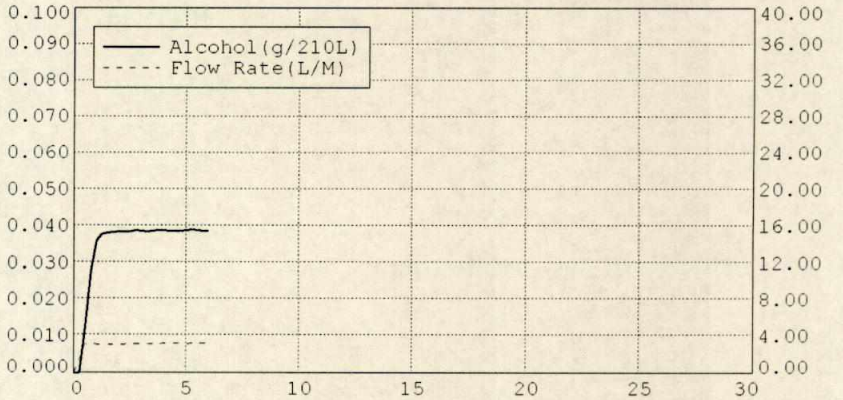
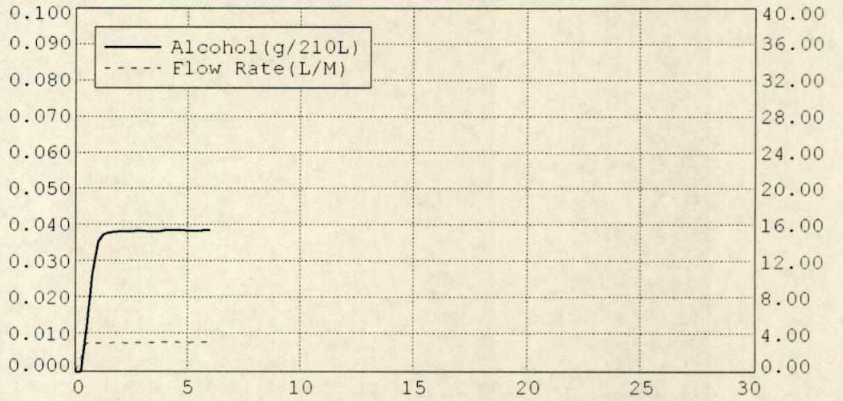
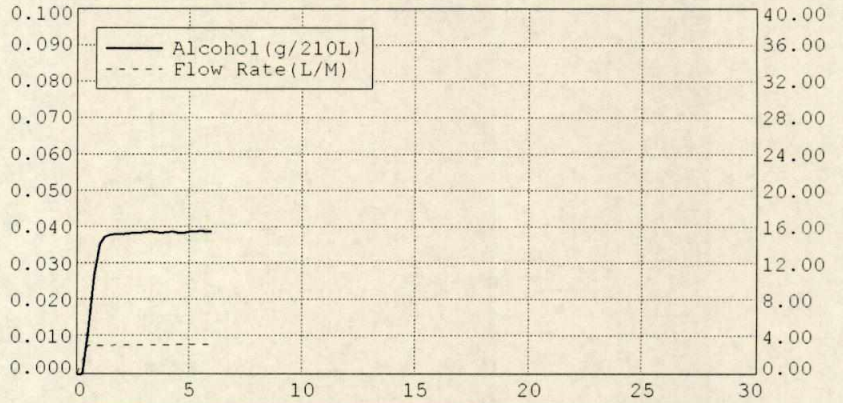
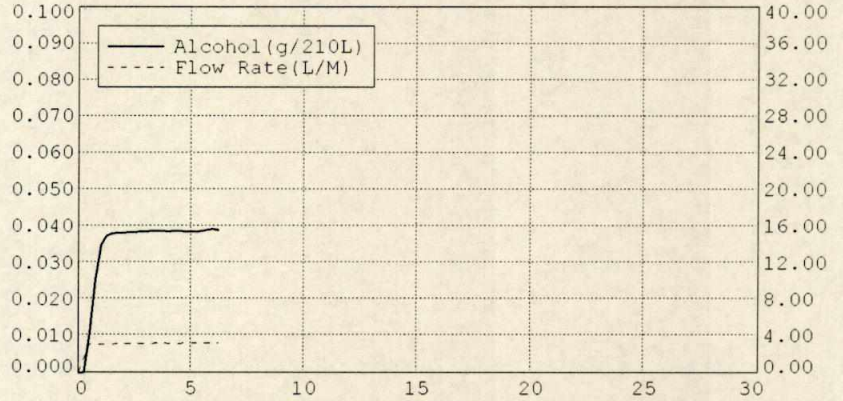
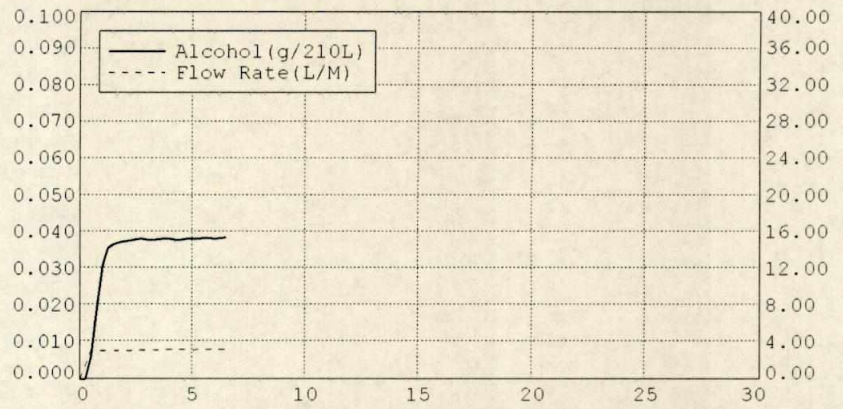
Date: 07/13/2017
 Time: 13:37:52

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.77: 0.040
 LOT #: AG630101
 EXPIRATION: 10/27/2018
 TANK PRESSURE: 804 psi

BLANK TEST	0.000	13:40
INTERNAL STANDARD	VERIFIED	13:40
EXTERNAL STANDARD	0.039	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.040	13:42
BLANK TEST	0.000	13:43
EXTERNAL STANDARD	0.040	13:43
BLANK TEST	0.000	13:44
EXTERNAL STANDARD	0.039	13:44
BLANK TEST	0.000	13:45
EXTERNAL STANDARD	0.040	13:45
BLANK TEST	0.000	13:46

Average = 0.0396
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100420

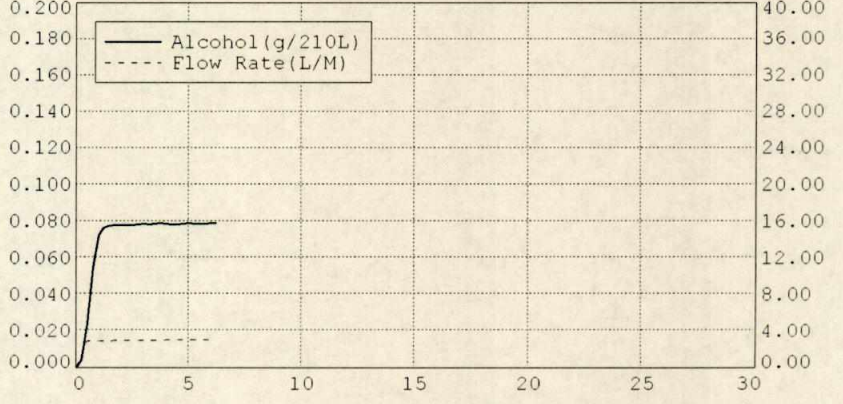
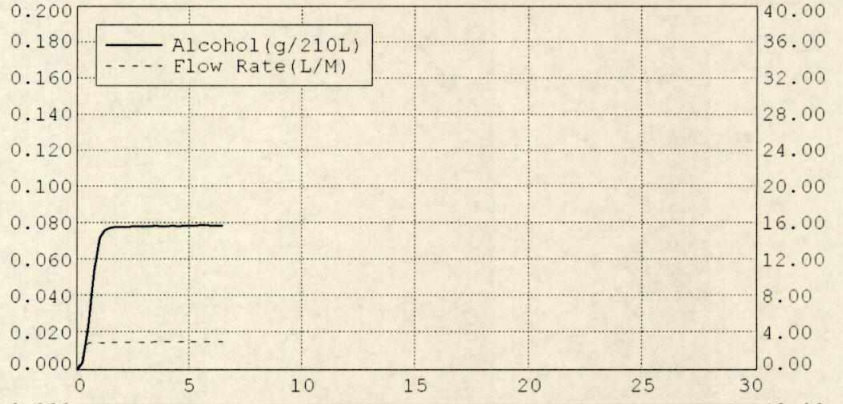
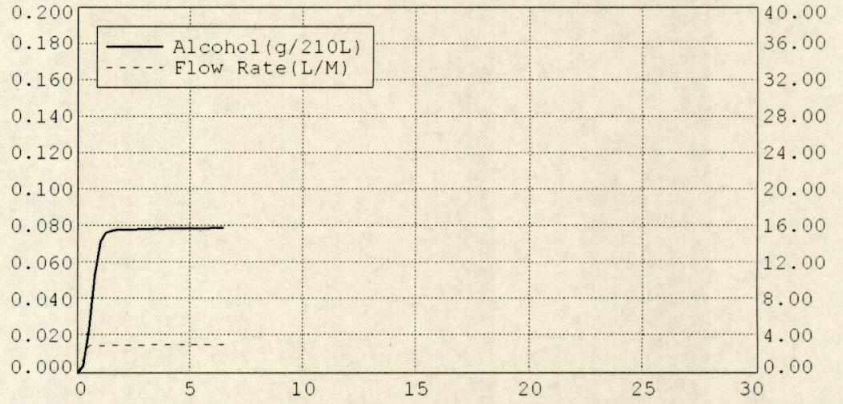
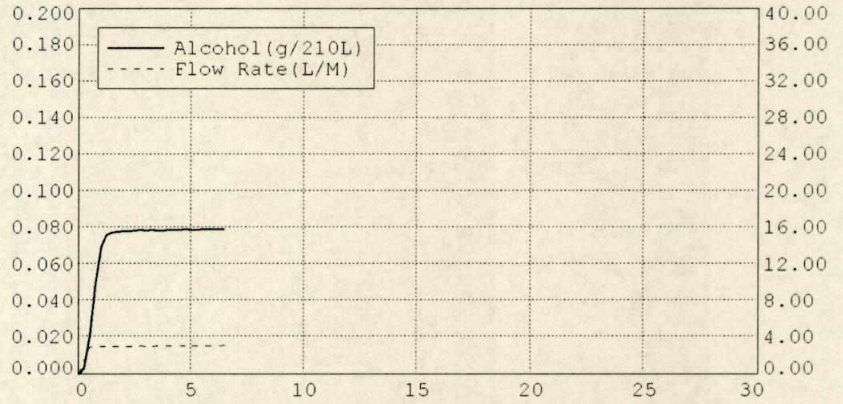
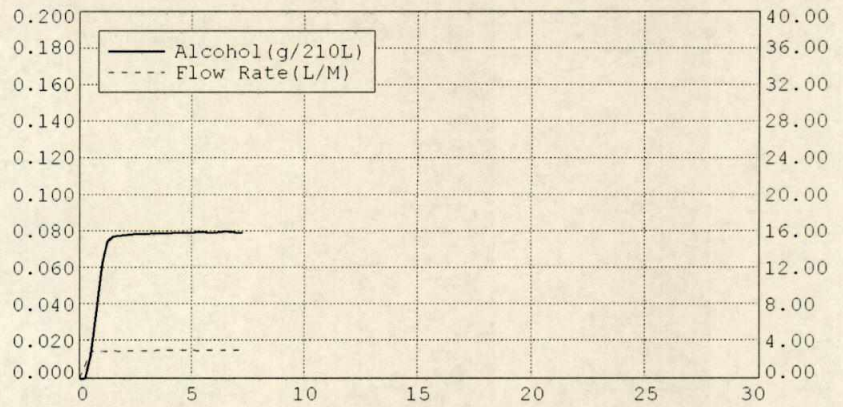
Date: 07/13/2017
 Time: 13:47:29

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.77: 0.080
 LOT #: AG608504
 EXPIRATION: 03/25/2018
 TANK PRESSURE: 564 psi

BLANK TEST	0.000	13:48
INTERNAL STANDARD	VERIFIED	13:48
EXTERNAL STANDARD	0.081	13:48
BLANK TEST	0.000	13:49
EXTERNAL STANDARD	0.080	13:50
BLANK TEST	0.000	13:50
EXTERNAL STANDARD	0.080	13:51
BLANK TEST	0.000	13:52
EXTERNAL STANDARD	0.080	13:52
BLANK TEST	0.000	13:53
EXTERNAL STANDARD	0.080	13:53
BLANK TEST	0.000	13:54

Average = 0.0802
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100420

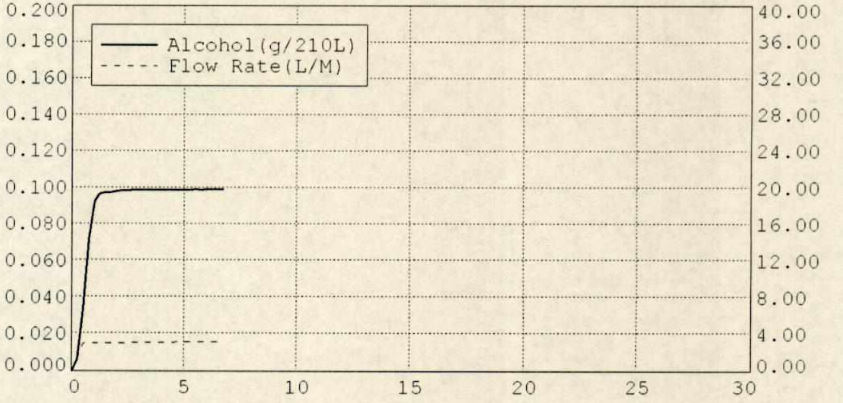
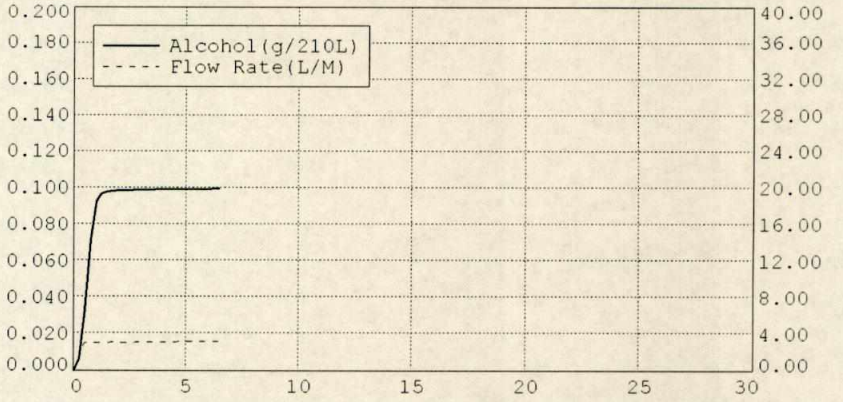
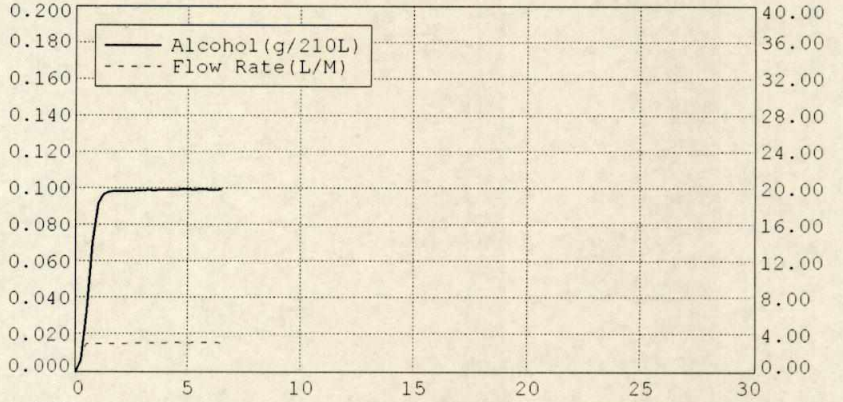
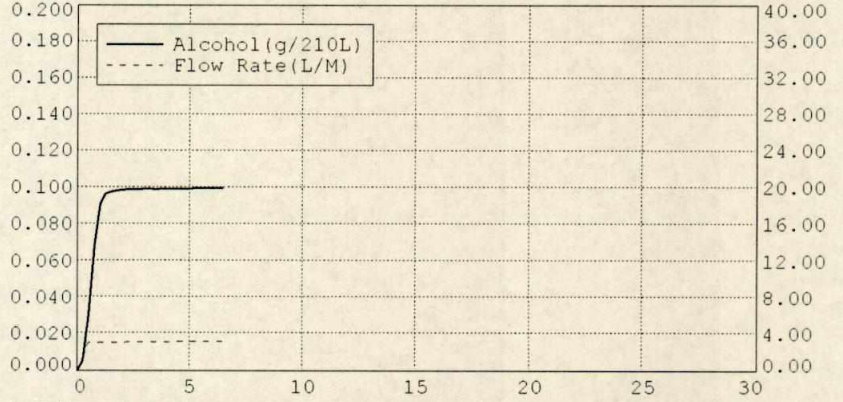
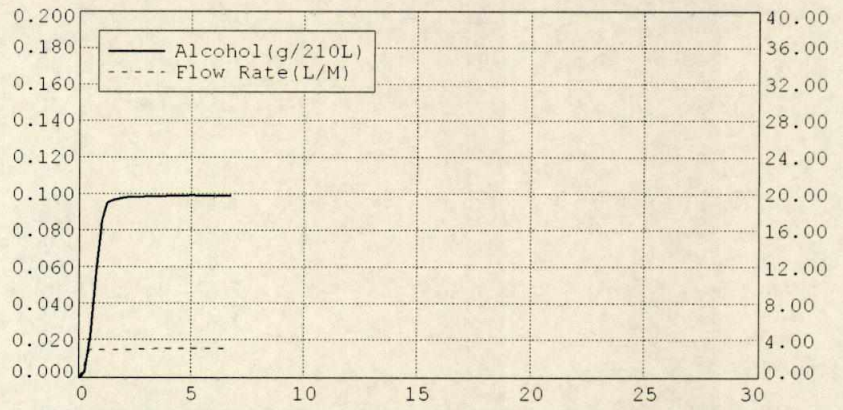
Date: 07/13/2017
 Time: 13:55:56

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.77: 0.100
 LOT #: AG629304
 EXPIRATION: 10/19/2018
 TANK PRESSURE: 738 psi

BLANK TEST	0.000	13:57
INTERNAL STANDARD	VERIFIED	13:57
EXTERNAL STANDARD	0.100	13:57
BLANK TEST	0.000	13:58
EXTERNAL STANDARD	0.100	13:58
BLANK TEST	0.000	13:59
EXTERNAL STANDARD	0.100	14:00
BLANK TEST	0.000	14:00
EXTERNAL STANDARD	0.100	14:01
BLANK TEST	0.000	14:02
EXTERNAL STANDARD	0.100	14:02
BLANK TEST	0.000	14:03

Average = 0.1000
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

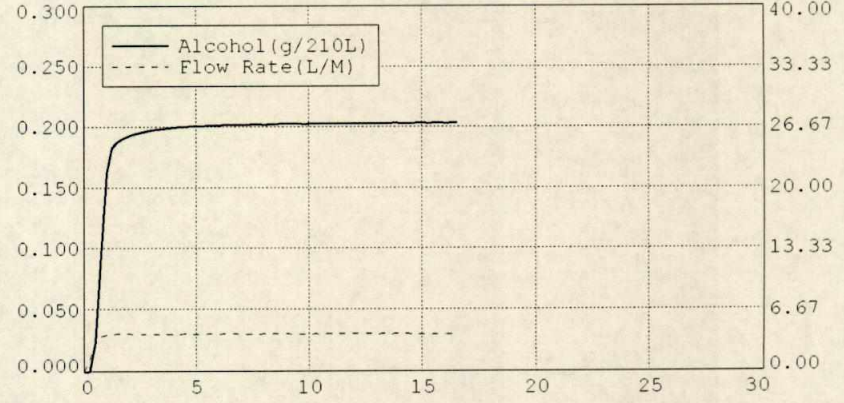
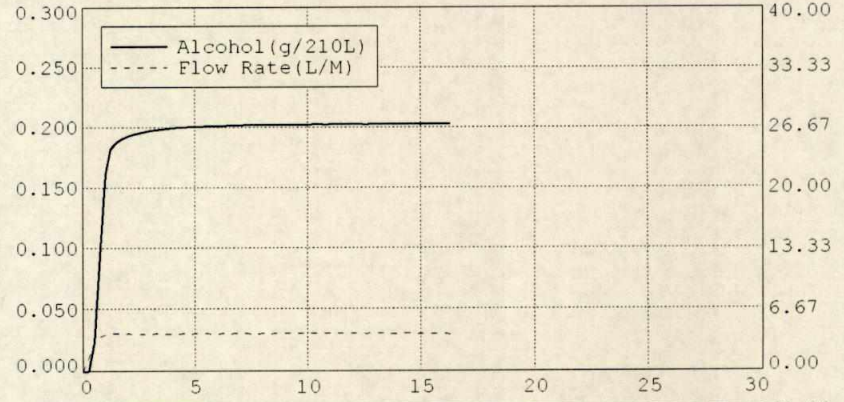
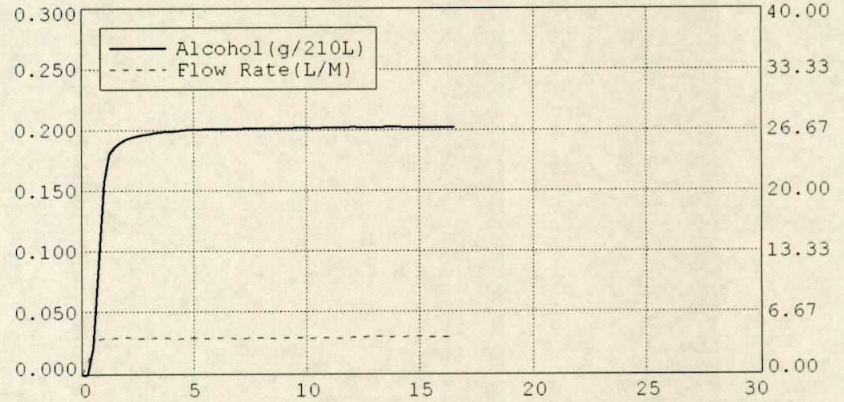
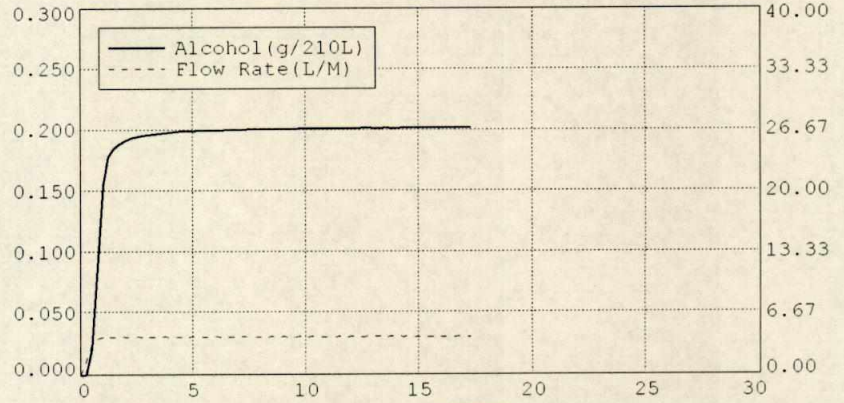
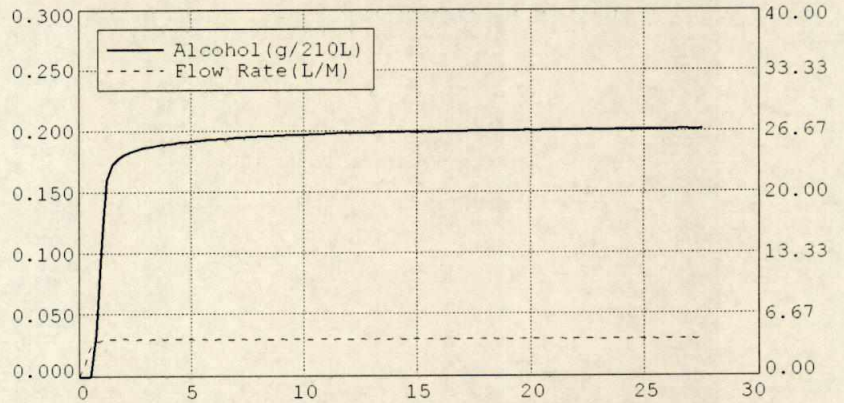
Alaska Department of Public Safety
 DATAMASTER dmt: 100420

Date: 07/13/2017
 Time: 14:05:19

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200
 LOT #: GUTH 16190
 EXPIRATION: 08/15/2018

BLANK TEST	0.000	14:06
INTERNAL STANDARD	VERIFIED	14:06
EXTERNAL STANDARD	0.202	14:07
BLANK TEST	0.000	14:08
EXTERNAL STANDARD	0.202	14:08
BLANK TEST	0.000	14:09
EXTERNAL STANDARD	0.203	14:09
BLANK TEST	0.000	14:10
EXTERNAL STANDARD	0.203	14:11
BLANK TEST	0.000	14:12
EXTERNAL STANDARD	0.204	14:12
BLANK TEST	0.000	14:13

Average = 0.2028
 Std Dev = 0.0008



LINEARITY CHECK: Control Test 6

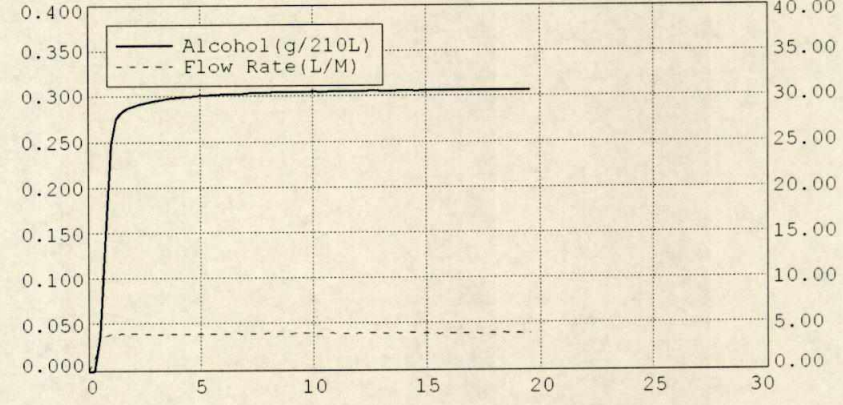
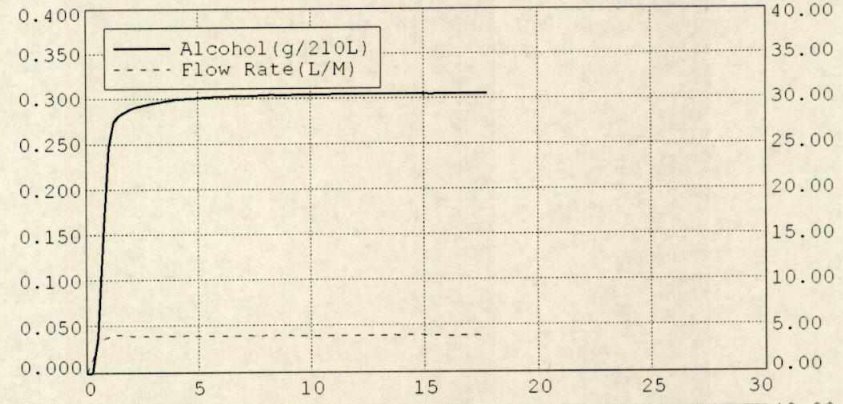
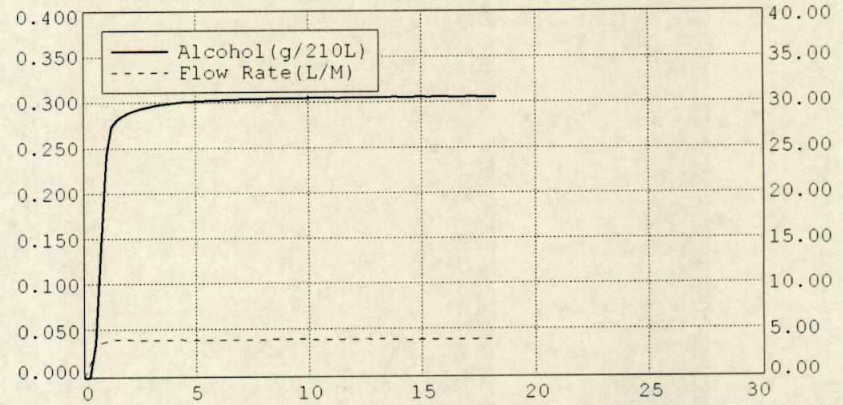
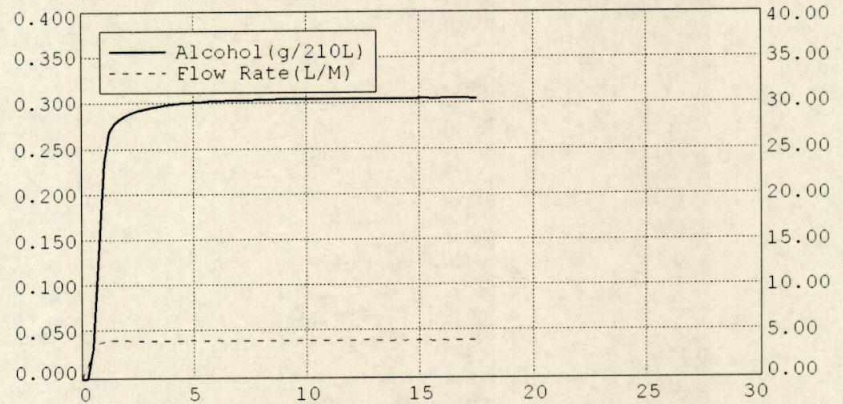
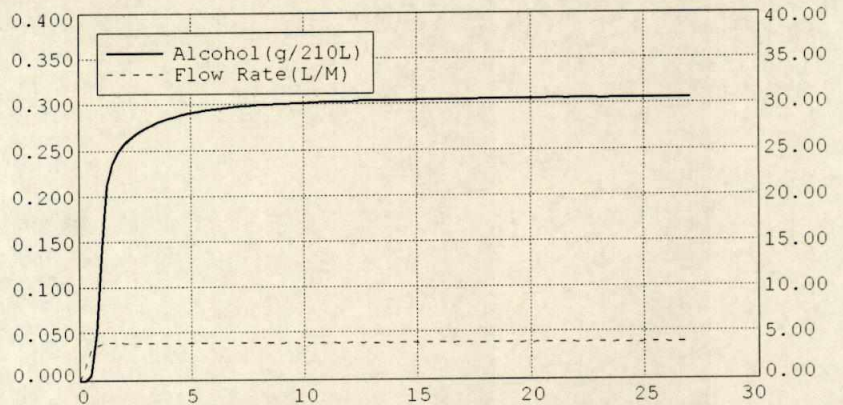
Alaska Department of Public Safety
 DATAMASTER dmt: 100420

Date: 07/13/2017
 Time: 14:14:38

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.300
 LOT #: GUTH 16210
 EXPIRATION: 08/22/2018

BLANK TEST	0.000	14:15
INTERNAL STANDARD	VERIFIED	14:15
EXTERNAL STANDARD	0.306	14:16
BLANK TEST	0.000	14:17
EXTERNAL STANDARD	0.305	14:17
BLANK TEST	0.000	14:18
EXTERNAL STANDARD	0.306	14:19
BLANK TEST	0.000	14:20
EXTERNAL STANDARD	0.305	14:20
BLANK TEST	0.000	14:21
EXTERNAL STANDARD	0.306	14:21
BLANK TEST	0.000	14:22

Average = 0.3056
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 07/14/2017
Time: 12:02:47

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

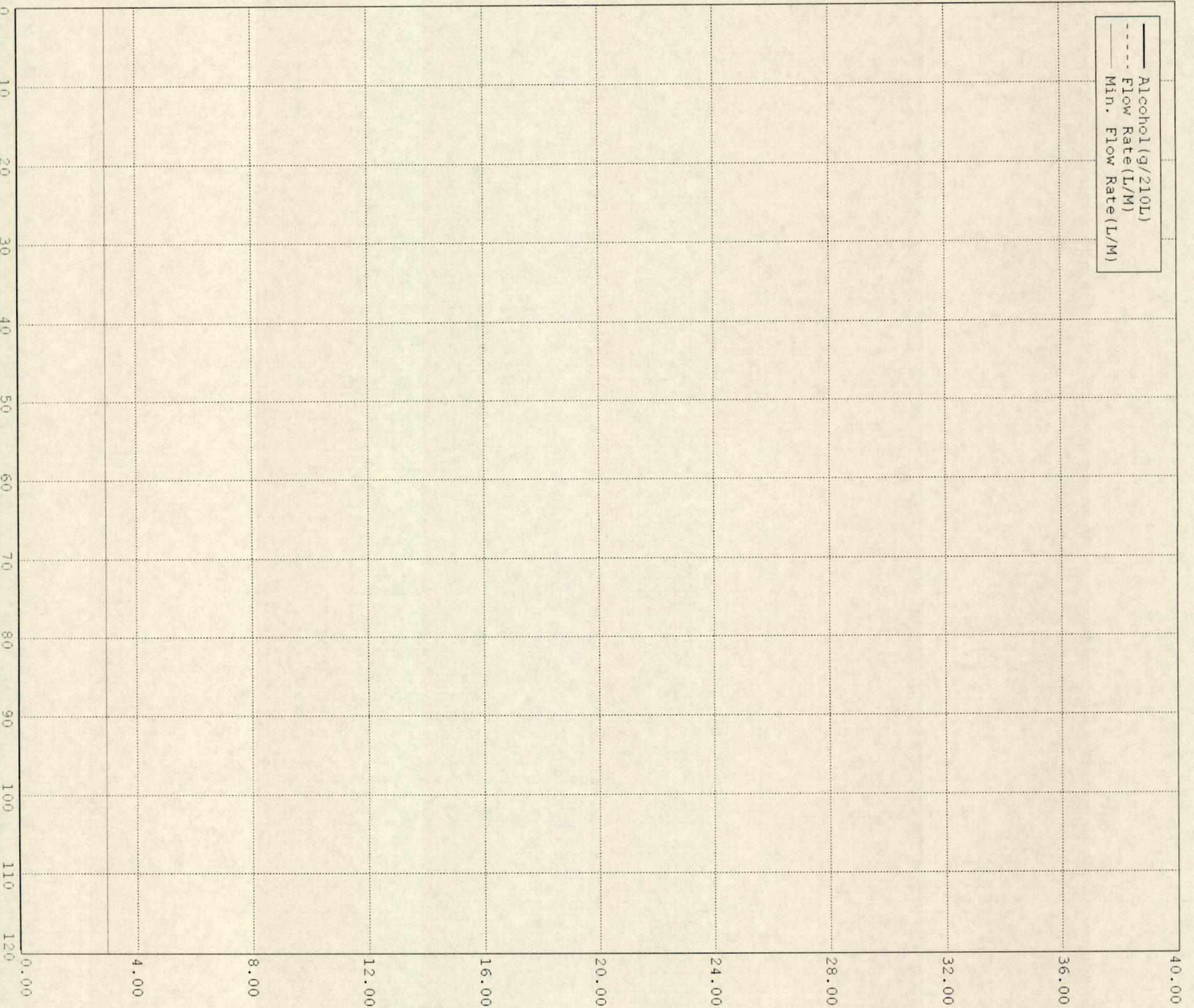
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG608504
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	12:04
BLANK TEST	0.000	12:04
INTERNAL STANDARD	VERIFIED	12:04
EXTERNAL STANDARD	0.080	12:04
BLANK TEST	0.000	12:05
SUBJECT SAMPLE	INCOMPLETE	12:07

86MB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 07/14/2017
Time: 12:10:10

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

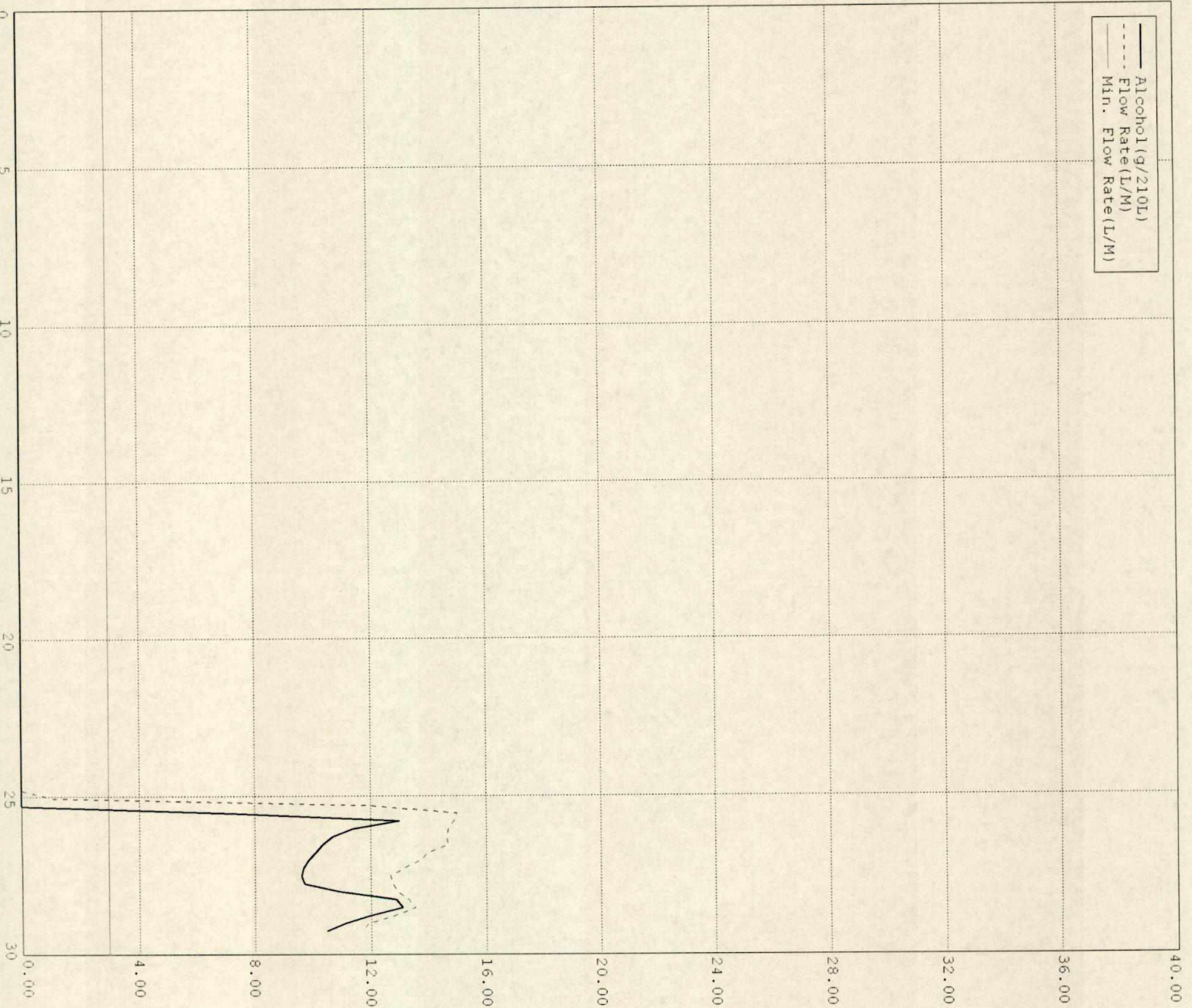
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG608504
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	12:11
BLANK TEST	0.000	12:11
INTERNAL STANDARD	VERIFIED	12:11
EXTERNAL STANDARD	0.079	12:11
BLANK TEST	0.000	12:12
SUBJECT SAMPLE	INVALID	12:13

BBMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 07/14/2017
Time: 12:27:35

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

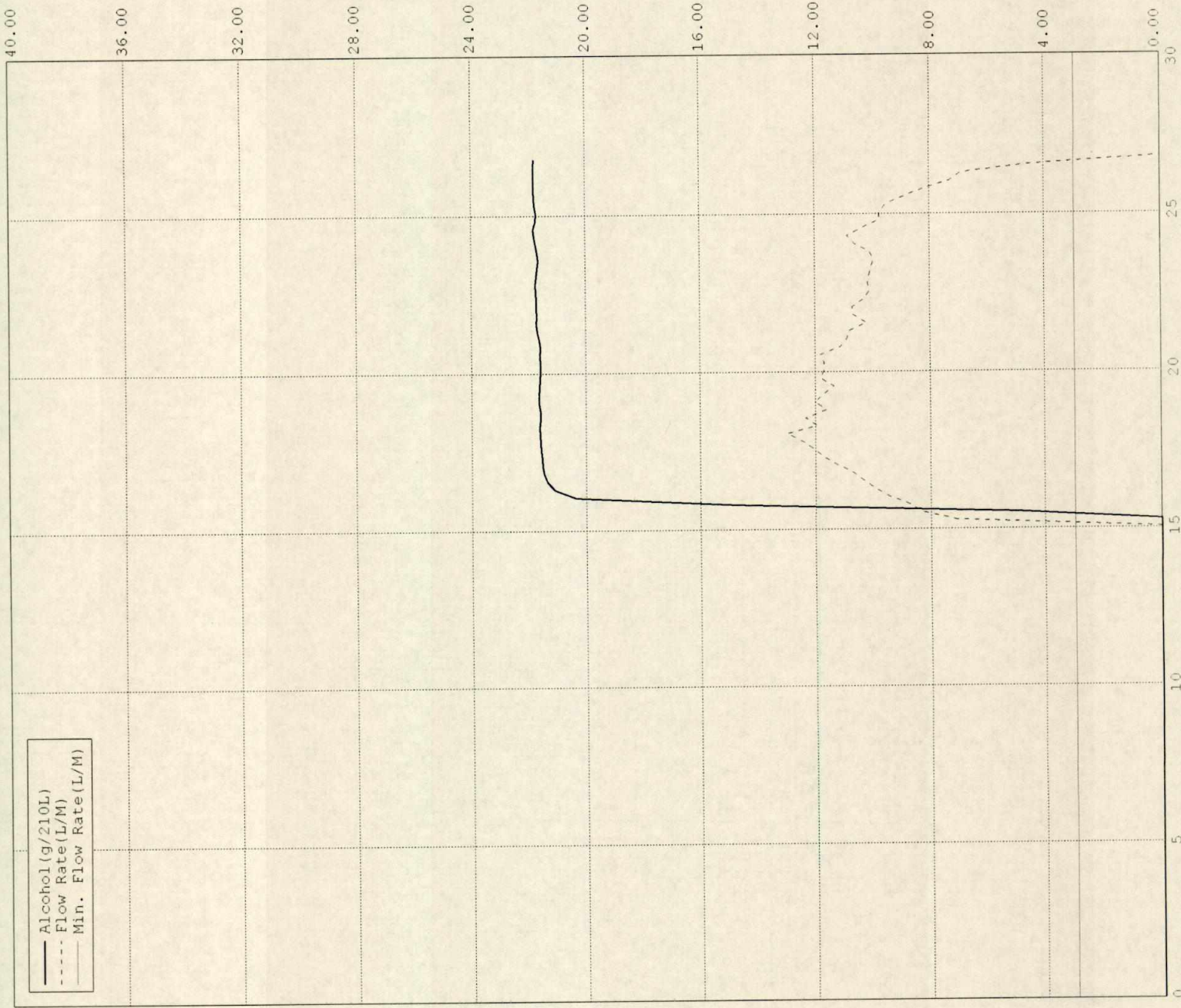
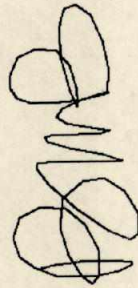
DEPT/AGENCY:
INTERFERENCE ACETONE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.80: 0.080
LOT #: AG608504
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	12:28
BLANK TEST	0.000	12:28
INTERNAL STANDARD	VERIFIED	12:29
Xq = 0.079 (0.22%)		
EXTERNAL STANDARD	0.081	12:29
X[1] = 0.0805 (0.0014) (0.0015)		
BLANK TEST	0.000	12:30
SUBJECT SAMPLE	XXX	12:30
X[1] = 0.1096 (-0.0198) (0.0003)		

Interference Detected

Filter 2 Avg: -0.0002
Filter 3 Avg: 0.0010
BMB 7/14/17



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 07/14/2017
Time: 12:34:32

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

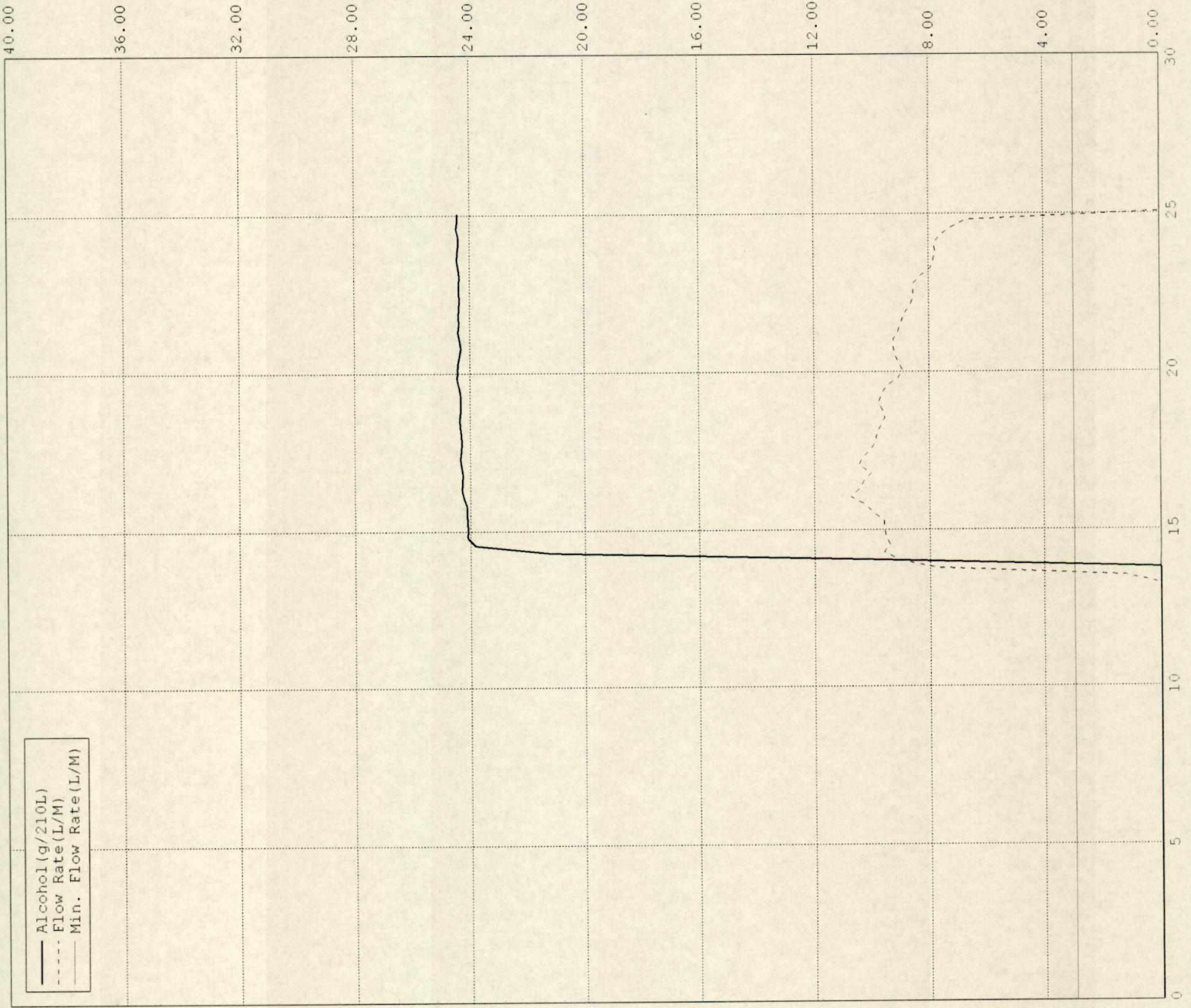
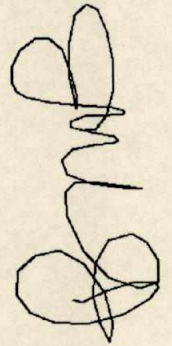
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG608504
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	12:35
BLANK TEST	0.000	12:35
INTERNAL STANDARD	VERIFIED	12:35
Xq = 0.077 (2.73%)	0.079	12:36
EXTERNAL STANDARD	X[1] = 0.0785 (-0.0029)	(-0.0002)
BLANK TEST	0.000	12:37
SUBJECT SAMPLE	XXX	12:37
X[1] = 0.1225 (-0.0195)	(0.0017)	

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100420

Date: 07/14/2017

Time: 12:42:31

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 29.81: 0.080

LOT #: AG608504

EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK

PASSED 12:43

BLANK TEST 0.000 12:43

INTERNAL STANDARD

VERIFIED 12:44

Xq = 0.079 (0.00%)

EXTERNAL STANDARD

0.081 12:44

X[1] = 0.0808 (0.0017) (0.0018)

BLANK TEST 0.000 12:45

SUBJECT SAMPLE (Vol=2.06L) 0.096 12:45

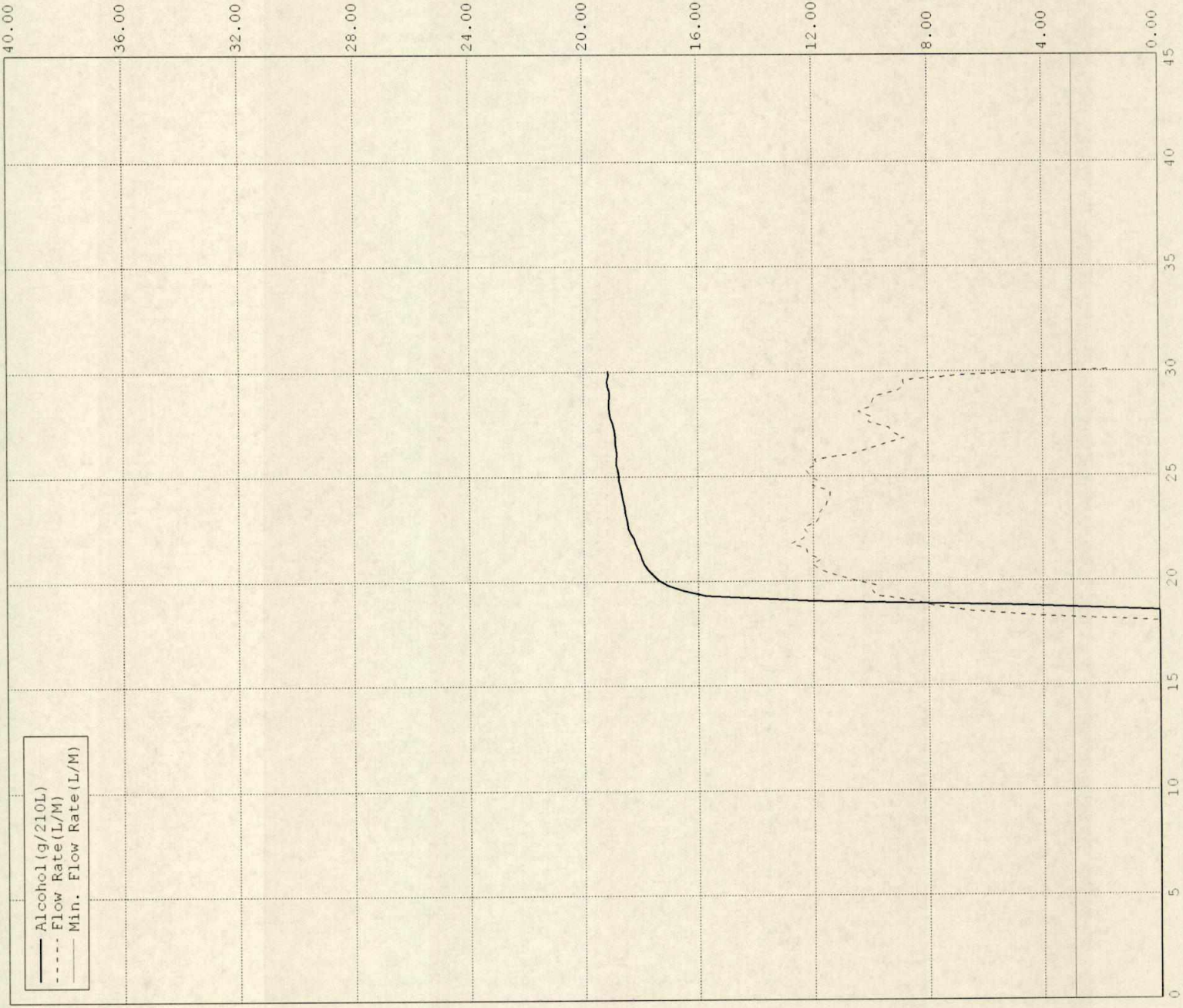
X[1] = 0.0964 (0.0001) (-0.0003)

BLANK TEST 0.000 12:46

EXTERNAL STANDARD 0.079 12:47

X[1] = 0.0791 (-0.0008) (0.0008)

BLANK TEST 0.000 12:48



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100420

Date: 07/14/2017
Time: 12:21:09

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

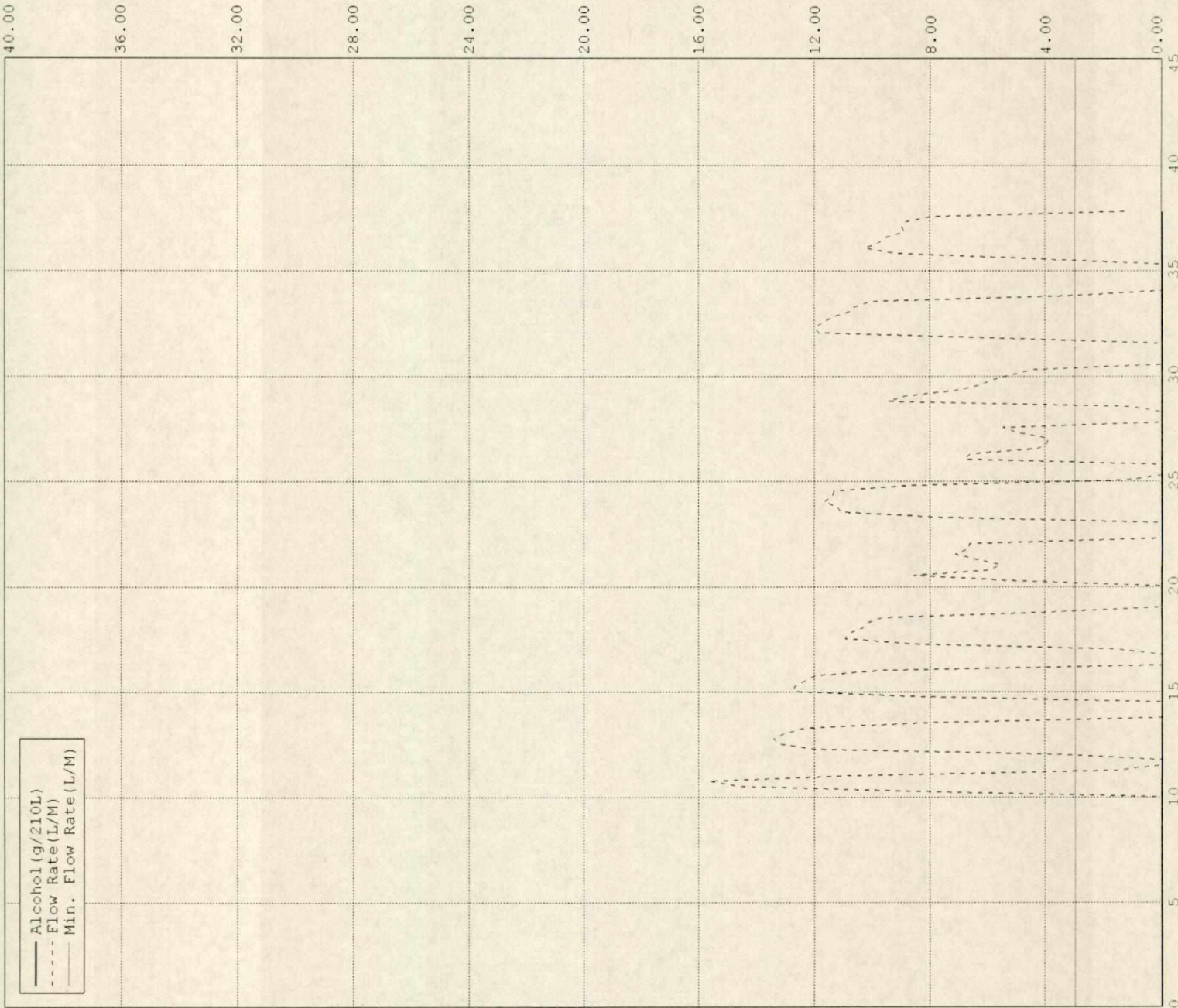
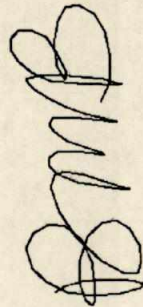
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.81: 0.080
LOT #: AG608504
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 12:22
BLANK TEST 0.000 12:22
INTERNAL STANDARD VERIFIED 12:22
EXTERNAL STANDARD 0.080 12:22
BLANK TEST 0.000 12:23
SUBJECT SAMPLE XXX 12:24

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100420

Date: 07/14/2017

Time: 12:14:31

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 29.81: 0.080

LOT #: AG608504

EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK

BLANK TEST

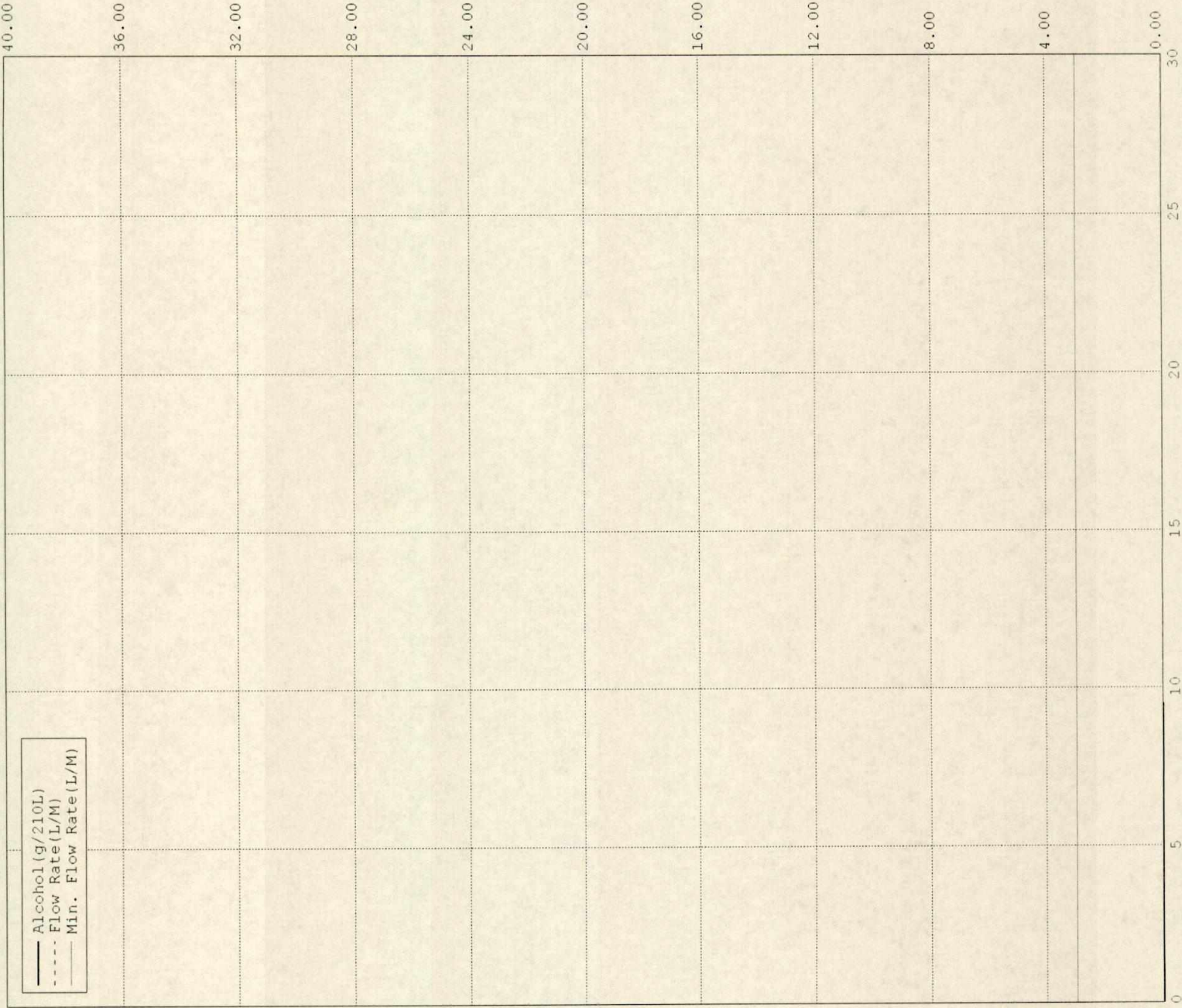
INTERNAL STANDARD

EXTERNAL STANDARD

BLANK TEST

PASSED 12:15
0.000 12:15
VERIFIED 12:15
0.080 12:16
0.000 12:17

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100420

Date: 07/14/2017

Time: 13:35:36

SUBJECT NAME:

TEST TEST

LICENSE #: XXXX

OPERATOR NAME:

BRANDI BARNETT

OPERATOR'S #: XXXX

DEPT/AGENCY:

NON DRINKING SUBJECT

CASE/REPORT: XXXX

TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080

TARGET AT 29.81: 0.080

LOT #: AG608504

EXPIRATION: 03/25/2018

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	13:37
BLANK TEST	0.000	13:37
INTERNAL STANDARD	VERIFIED	13:37
EXTERNAL STANDARD	0.079	13:37
BLANK TEST	0.000	13:38
SUBJECT SAMPLE (Vol=2.17L)	0.000	13:38
BLANK TEST	0.000	13:39
EXTERNAL STANDARD	0.080	13:40
BLANK TEST	0.000	13:40

