

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 100371 Analyst Brandi Barnett Start Date 12/12/18

1. Diagnostic Test (attached) Internal Standard value $\leq 3.00\%$ Yes
1. Voltage Checks
- a. Adjust voltages, if needed
 - i. Lamp (2.6V Maximum)
 - ii. Bias
 - iii. Cooler (2.0V Maximum)
 - iv. Chopper Frequency
 - v. Detector Voltage (-0.100V to 0.100V)
 - b. Set RFI
 - c. Adjust barometer reading to match NIST traceable barometer
 - d. Adjust volume setting, if needed (1.5L +/- 0.1L)
 - e. Print Technician Screen (attached)

2. Print Calibration Factors (attached)

3. Volume Test - Minimum 1.6 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 AG735001 Exp 12/16/19
- iv. 0.100g/210L Mnf Airgas Lot AG805903 Exp 2/28/20
- v. 0.200g/210L Mnf Guth Lot 17340 Exp 10/9/19
 - 1. Simulator S/N DR5298 Date Calibrated 1/24/18
- vi. 0.300g/210L Mnf Guth Lot 17350 Exp 10/11/19
 - 1. Simulator S/N SD1198 Date Calibrated 1/23/18

5. Functional Tests (attached)

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

- i. Acetone - Mnf Guth Lot 18070 Level 0.100 Exp 02/26/20
 - 1. Simulator S/N SD1177 Date Calibrated 1/24/18
- ii. Isopropanol - Mnf Guth Lot 18070 Level 0.100 Exp 02/26/20
 - 1. Simulator S/N SD1199 Date Calibrated 01/24/18
- iii. Negative Control - Mnf Guth Lot 18070 Level 0.100 Exp 02/26/20
 - 1. Simulator S/N SD1088 Date Calibrated 01/24/18

e. RFI

6. Verify stylus is calibrated

7. Reset Options

8. Clear Memory

9. Verification of Calibration

10. Non-Drinking Subject Test (attached)

11. Upload

13. Remove tank prior to shut down

End Date 12/13/18

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100371

Date: 12/12/2018
Time: 09:21:27

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.8°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 48.1°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.83 V PASSED
(1.00 V - 2.34 V)
Cooler Voltage = 1.79 V PASSED
(1.04 V - 2.44 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 550 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 28.9 in

PUMP INFO

Flow Rate = 4.244 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 STANDARD¹ PASSED
Xq = 0.080 0.22% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100371

Date: 12/12/2018
Time: 9:48 AM

Temperatures (°C)
Sample Cell: 48.9°C
Breath Tube: 48.0°C

Current Barometer 28.9 in
Volume (Ltr) 1.48

Settings
Lamp: 1.85 V
Bias: 79 V
Cooler: 1.82 V
Chopper: 535 Hz

Voltages (V)
Flow: 1.05 V
Detector: -0.013 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100371

Date: 09/20/2018
Time: 15:09:09

OPERATOR NAME:
DEREK WALTON
CERTIFICATE #: 9508

Ca = 0.1000
CAL = 0.963456 0.800 <= CAL < 1.200
b1 = 0.0001 0.0000 <= b1 < 0.0040
b2 = 0.0050 0.0010 <= b2 < 0.0100
b3 = 0.0003 0.0000 <= b3 < 0.0040
Xq = 0.0804 0.0500 <= Xq < 0.2000
a21 = 1.174632 1.050 <= a21 < 1.300
a31 = 0.497645 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATA MASTER dmt: 100371

Date: 12/12/2018
Time: 09:50:22

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

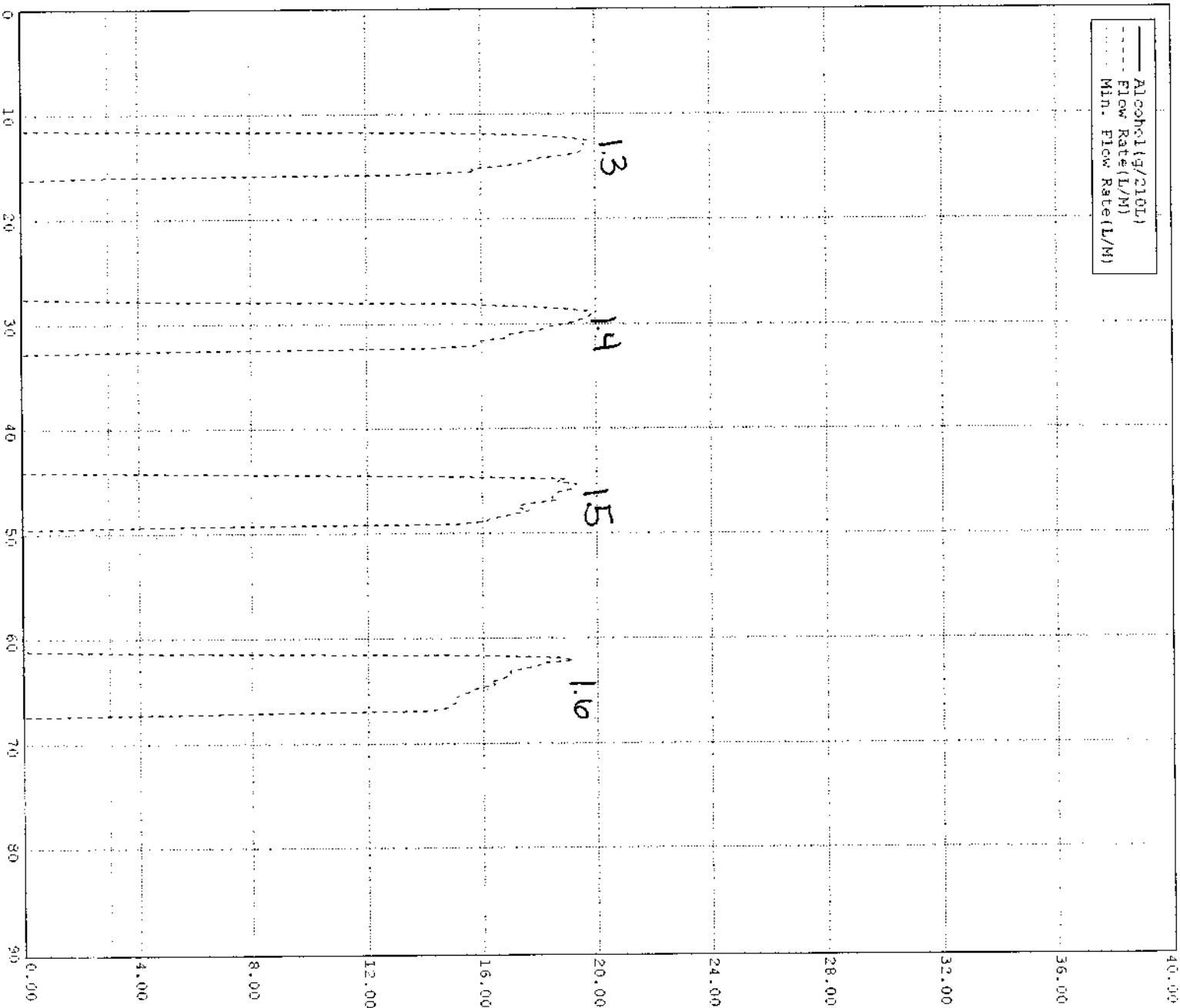
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AF 28.88: 0.077
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	09:52
BLANK TEST	0.000	09:52
INTERNAL STANDARD	VERIFIED	09:52
EXTERNAL STANDARD	0.075	09:53
BLANK TEST	0.000	09:54
SUBJECT SAMPLE (Vol=1.55L)	0.000	09:55
BLANK TEST	0.000	09:56
EXTERNAL STANDARD	0.074	09:56
BLANK TEST	0.000	09:57

BMB



LINEARITY CHECK

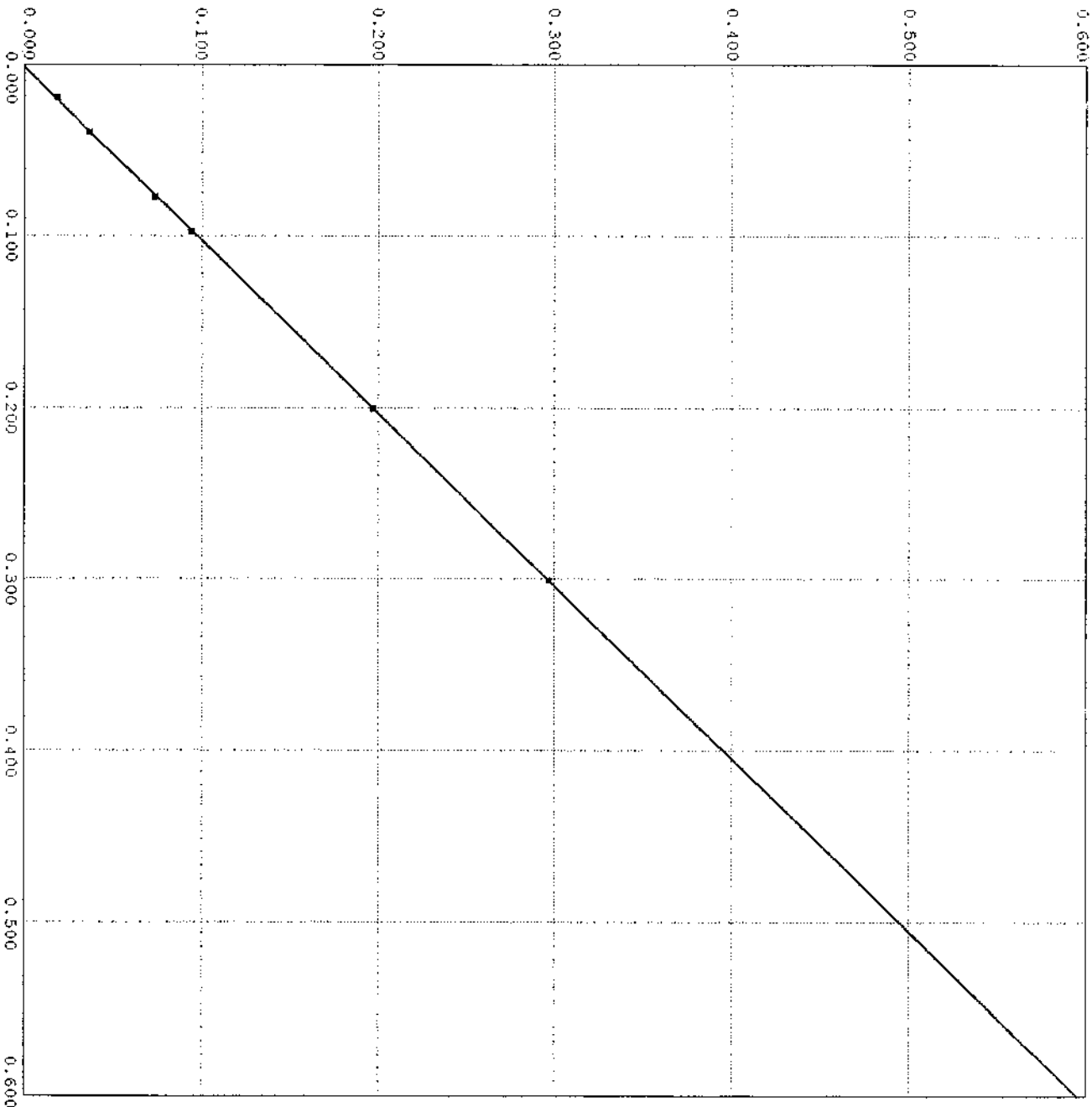
Alaska Department of Public Safety
DATAMASTER dmt: 100371

Date: 12/12/2018
Time: 13:13:55

SUPERVISOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.019	0.0192	0.0004
0.039	0.0376	0.0005
0.077	0.0744	0.0005
0.097	0.0948	0.0004
0.200	0.1978	0.0004
0.300	0.2976	0.0009

SLOPE = 0.994281
R² = 0.999937



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100371

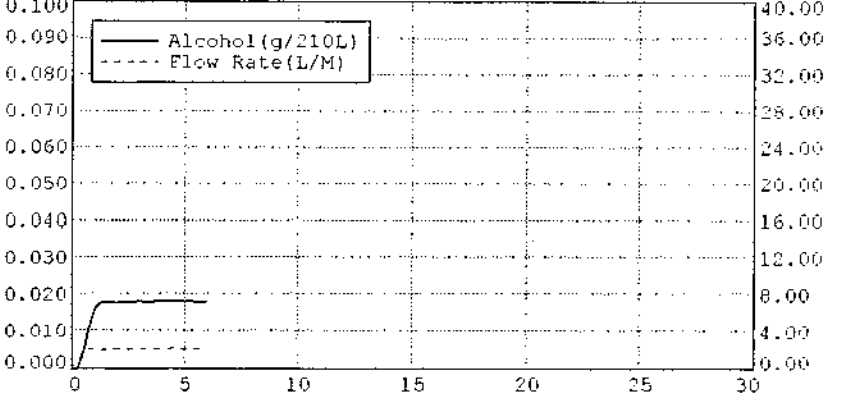
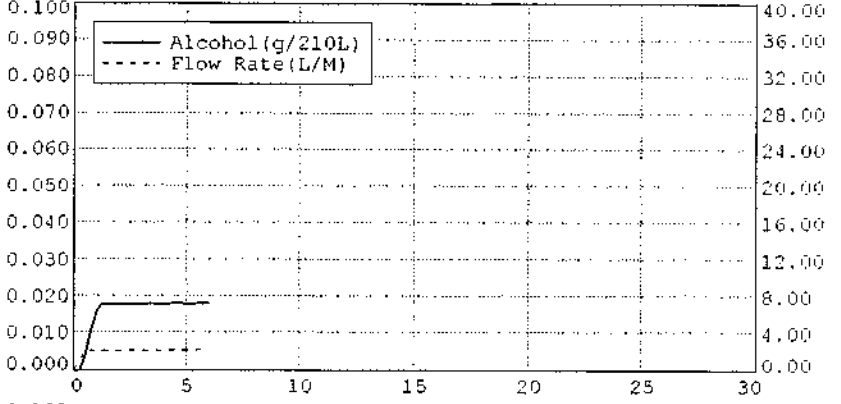
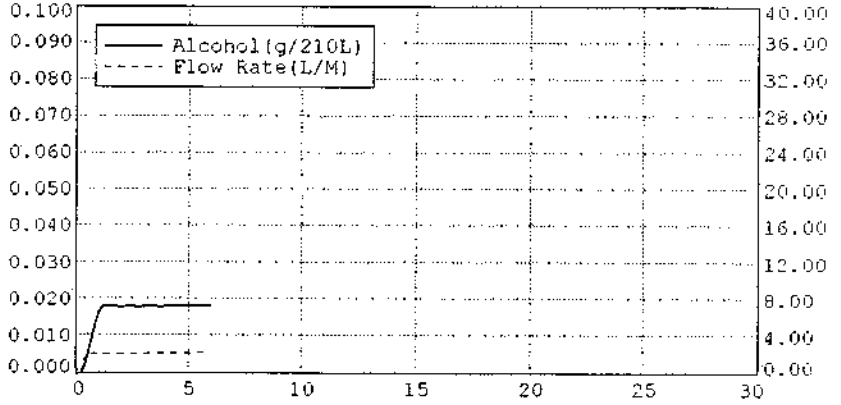
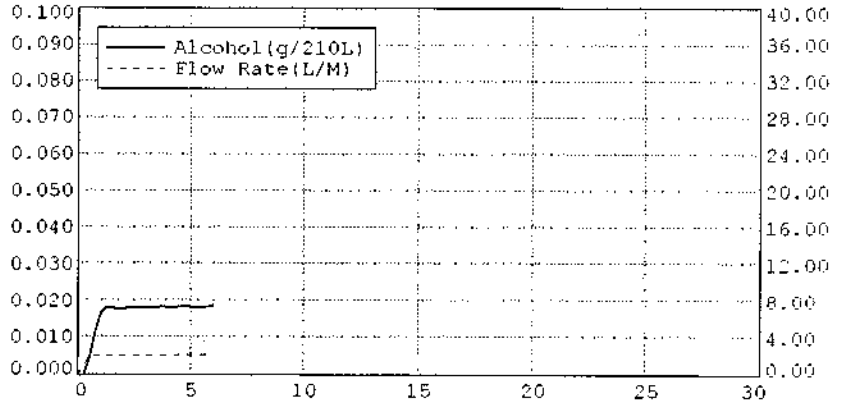
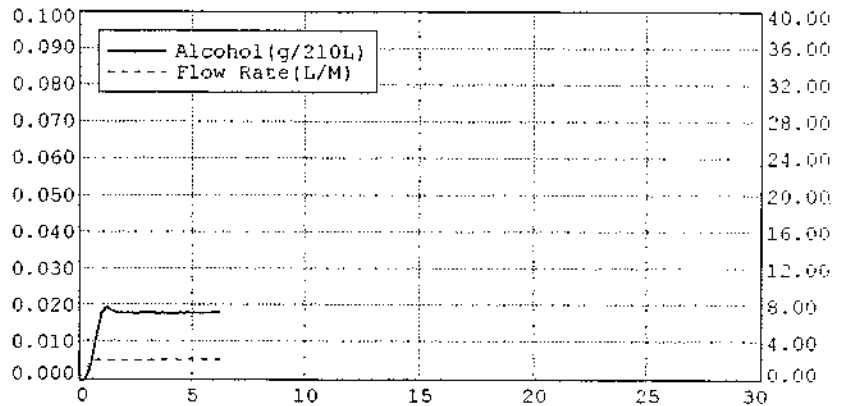
Date: 12/12/2018
 Time: 13:13:57

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 28.92: 0.019
 LOT #: AG805804
 EXPIRATION: 02/27/2020
 TANK PRESSURE: 811 psi

BLANK TEST	0.000	13:14
INTERNAL STANDARD	VERIFIED	13:15
EXTERNAL STANDARD	0.019	13:15
BLANK TEST	0.000	13:16
EXTERNAL STANDARD	0.020	13:16
BLANK TEST	0.000	13:17
EXTERNAL STANDARD	0.019	13:17
BLANK TEST	0.000	13:18
EXTERNAL STANDARD	0.019	13:18
BLANK TEST	0.000	13:19
EXTERNAL STANDARD	0.019	13:19
BLANK TEST	0.000	13:20

Average = 0.0192
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100371

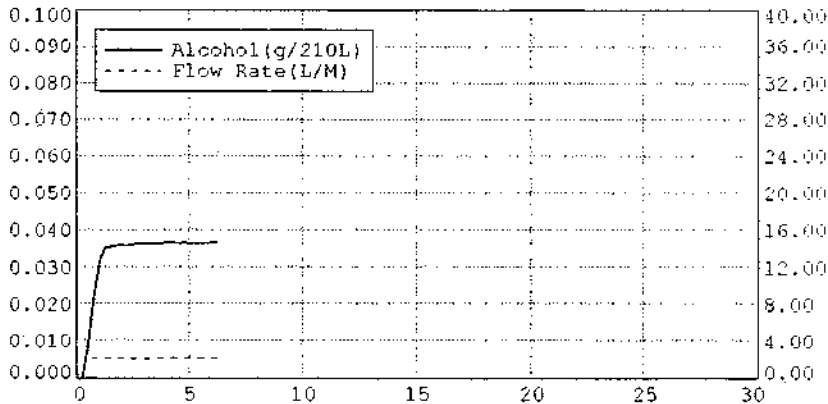
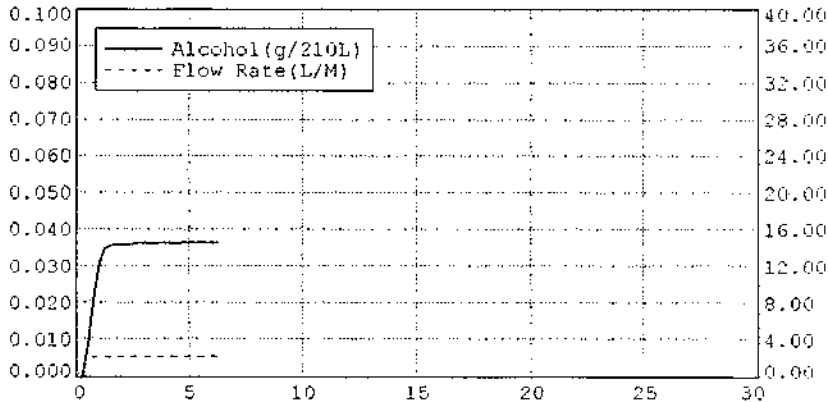
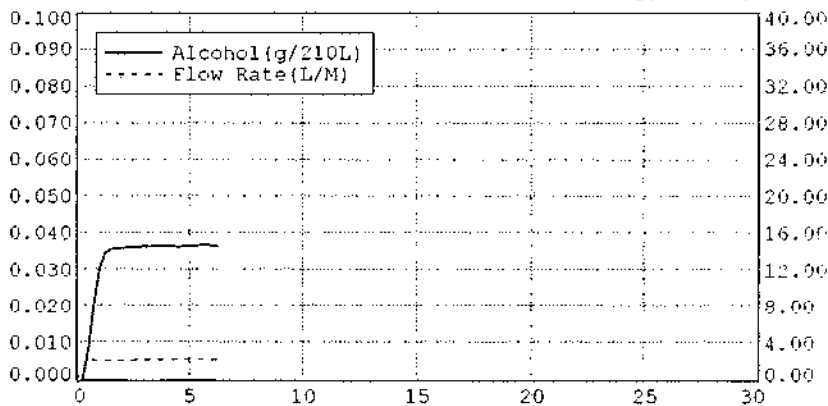
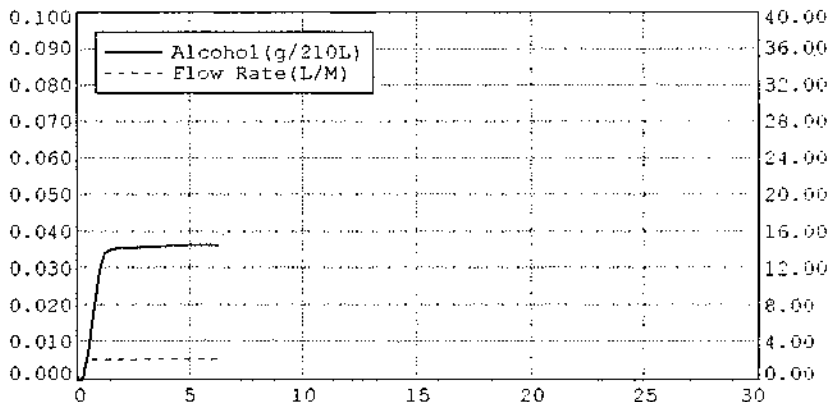
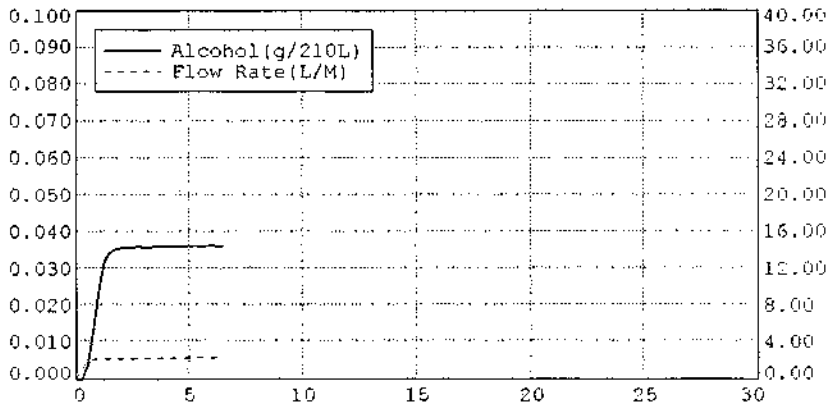
Date: 12/12/2018
 Time: 13:26:01

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 28.92: 0.039
 LOT #: AG733403
 EXPIRATION: 11/30/2019
 TANK PRESSURE: 994 psi

BLANK TEST	0.000	13:29
INTERNAL STANDARD	VERIFIED	13:29
EXTERNAL STANDARD	0.037	13:29
BLANK TEST	0.000	13:30
EXTERNAL STANDARD	0.037	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.038	13:31
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.038	13:33
BLANK TEST	0.000	13:33
EXTERNAL STANDARD	0.038	13:34
BLANK TEST	0.000	13:35

Average = 0.0376
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100371

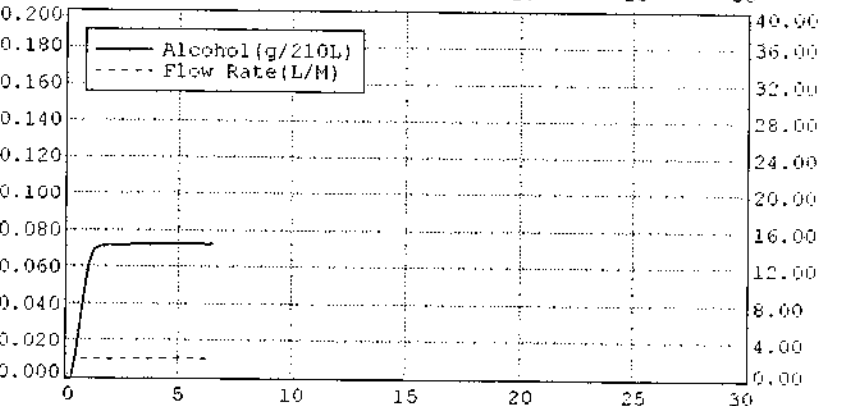
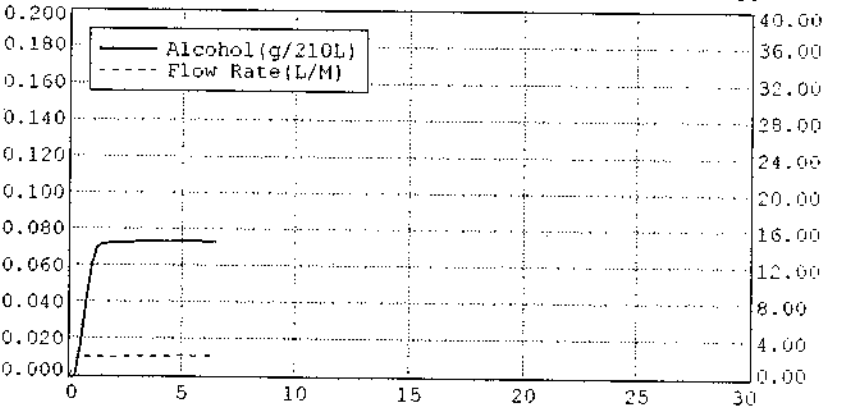
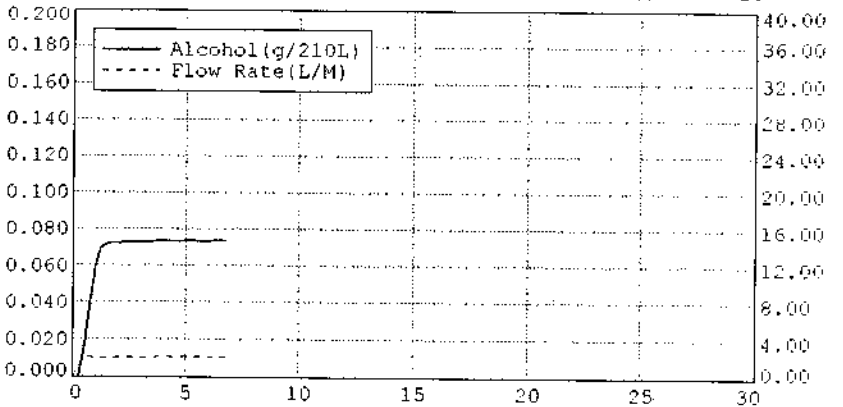
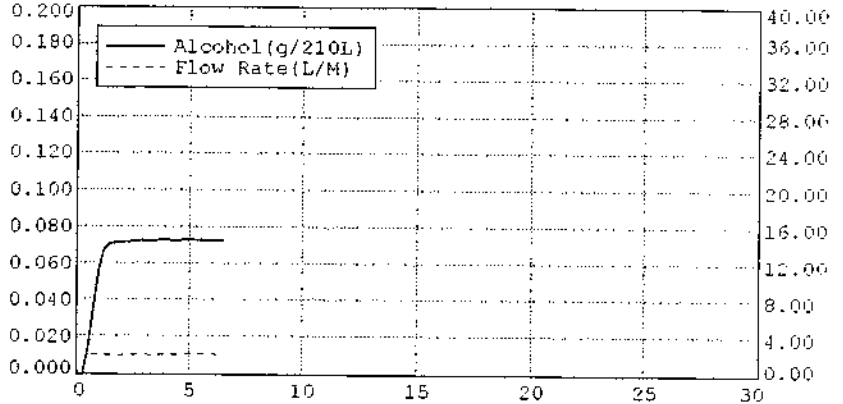
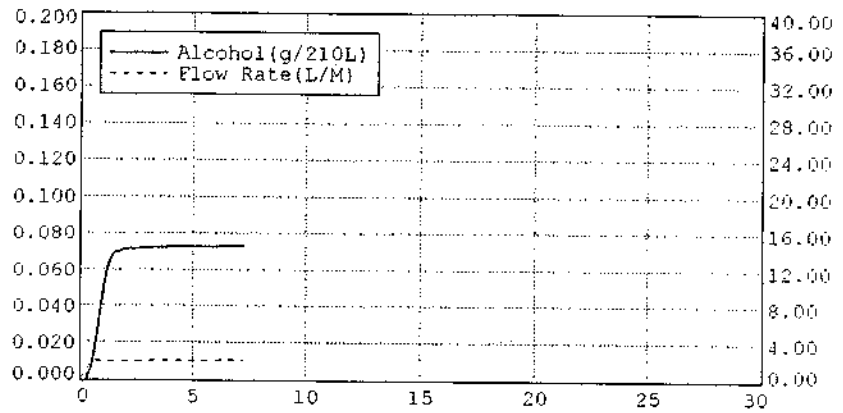
Date: 12/12/2018
 Time: 13:35:28

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 28.92: 0.077
 LOT #: AG735001
 EXPIRATION: 12/16/2019
 TANK PRESSURE: 790 psi

BLANK TEST	0.000	13:36
INTERNAL STANDARD	VERIFIED	13:36
EXTERNAL STANDARD	0.074	13:37
BLANK TEST	0.000	13:38
EXTERNAL STANDARD	0.074	13:38
BLANK TEST	0.000	13:39
EXTERNAL STANDARD	0.075	13:39
BLANK TEST	0.000	13:40
EXTERNAL STANDARD	0.075	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.074	13:41
BLANK TEST	0.000	13:42

Average = 0.0744
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100371

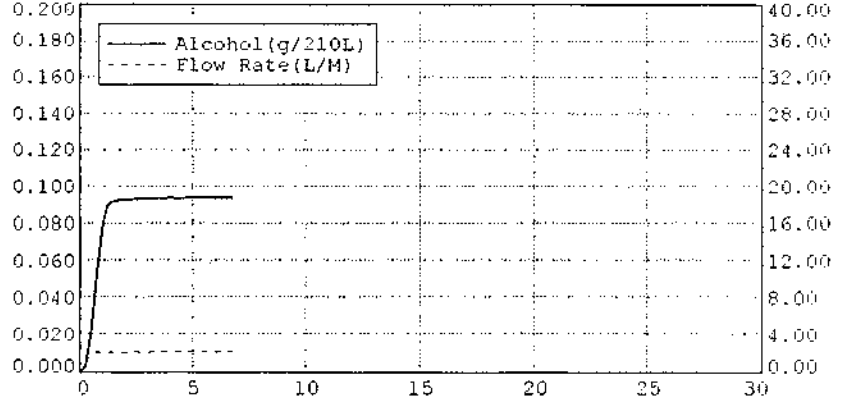
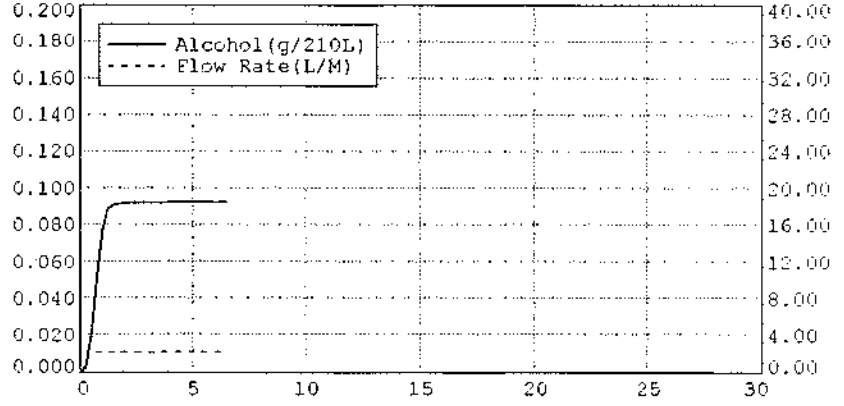
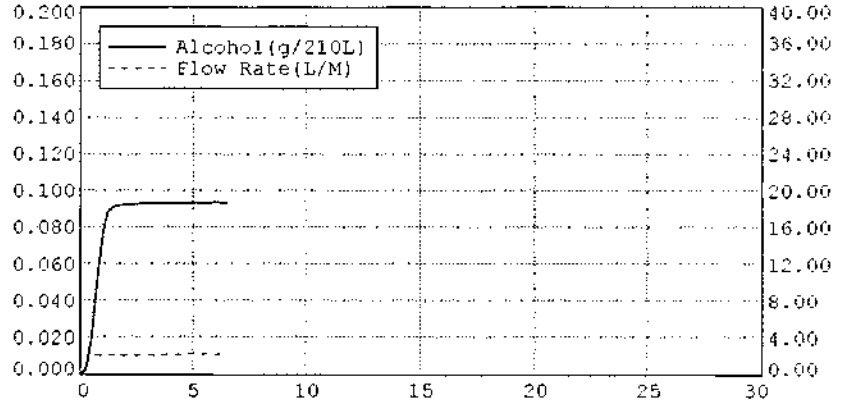
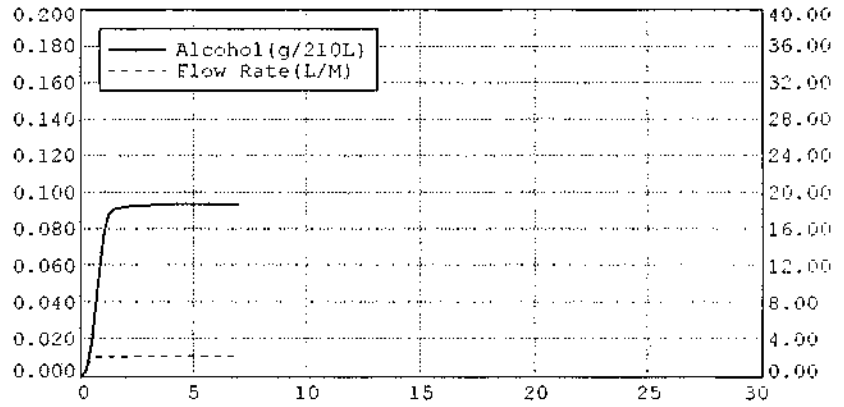
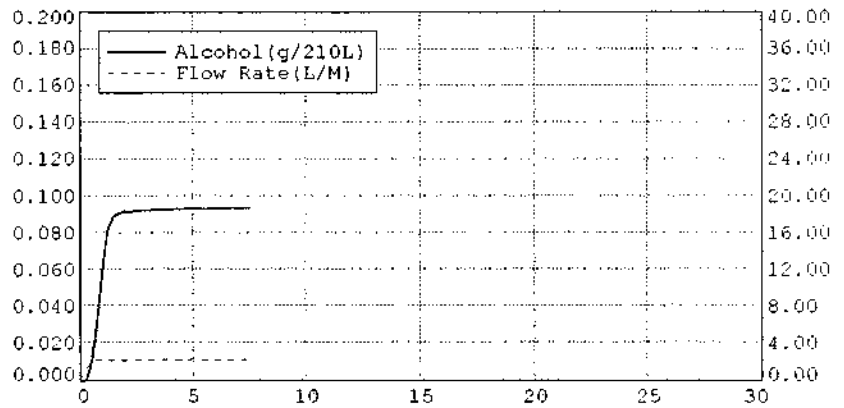
Date: 12/12/2018
 Time: 13:47:35

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 28.93: 0.097
 LOT #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 987 psi

BLANK TEST	0.000	14:07
INTERNAL STANDARD	VERIFIED	14:07
EXTERNAL STANDARD	0.095	14:08
BLANK TEST	0.000	14:09
EXTERNAL STANDARD	0.095	14:09
BLANK TEST	0.000	14:10
EXTERNAL STANDARD	0.095	14:10
BLANK TEST	0.000	14:11
EXTERNAL STANDARD	0.094	14:11
BLANK TEST	0.000	14:12
EXTERNAL STANDARD	0.095	14:12
BLANK TEST	0.000	14:13

Average = 0.0948
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

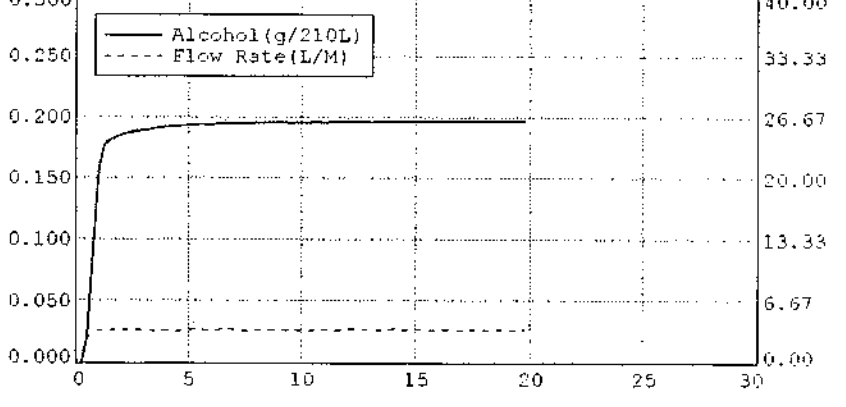
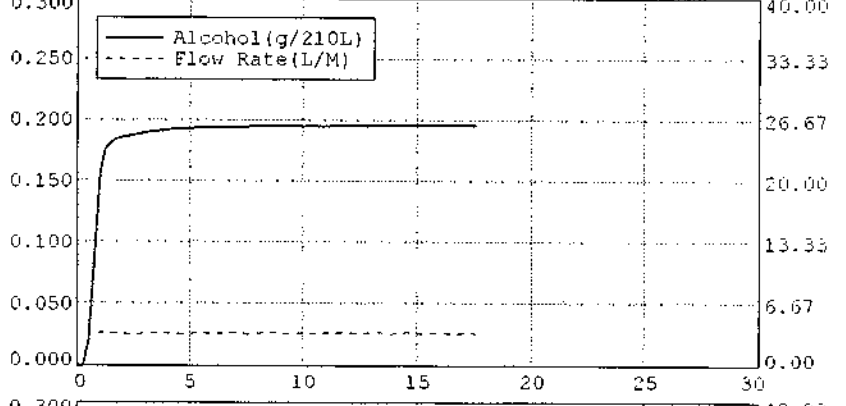
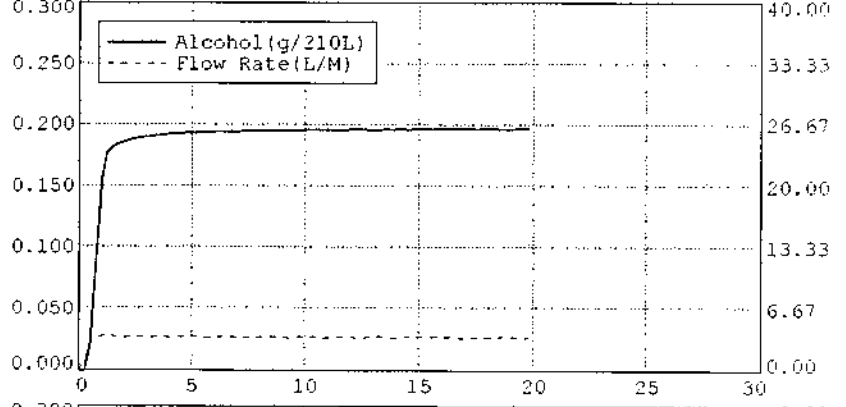
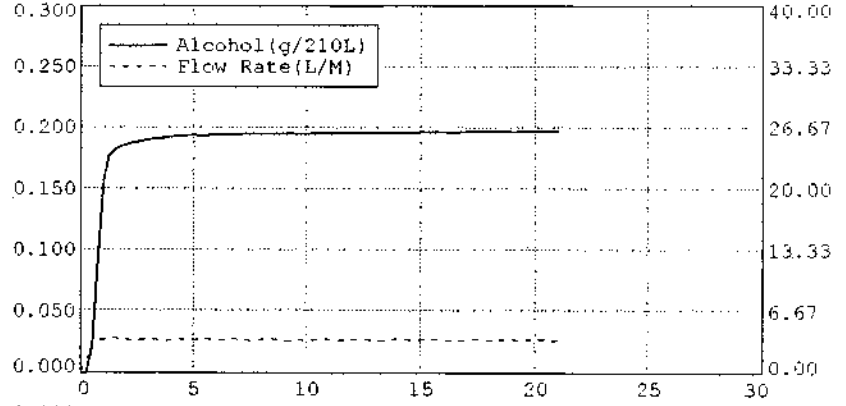
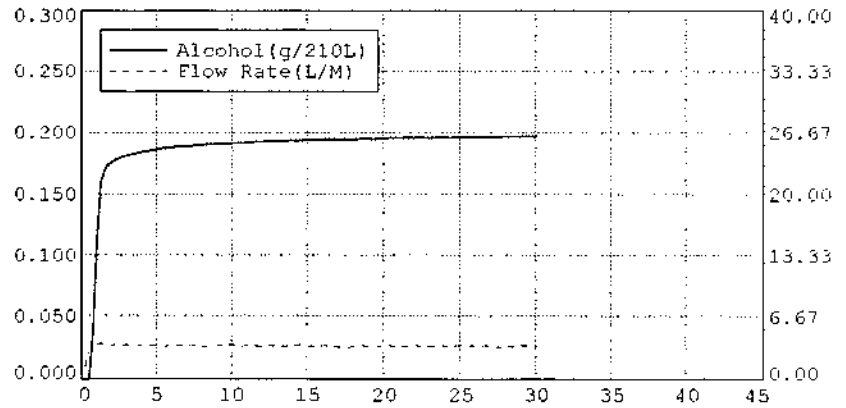
Alaska Department of Public Safety
 DATAMASTER dmt: 100371

Date: 12/12/2018
 Time: 14:20:26

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200
 LOT #: GUTH 17340
 EXPIRATION: 10/09/2019

BLANK TEST	0.000	14:21
INTERNAL STANDARD	VERIFIED	14:21
EXTERNAL STANDARD	0.198	14:22
BLANK TEST	0.000	14:23
EXTERNAL STANDARD	0.198	14:23
BLANK TEST	0.000	14:24
EXTERNAL STANDARD	0.198	14:24
BLANK TEST	0.000	14:25
EXTERNAL STANDARD	0.197	14:26
BLANK TEST	0.000	14:27
EXTERNAL STANDARD	0.198	14:27
BLANK TEST	0.000	14:28

Average = 0.1978
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100371

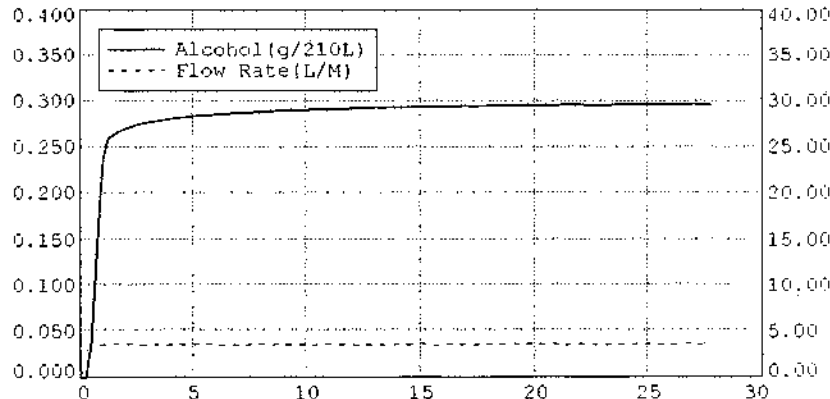
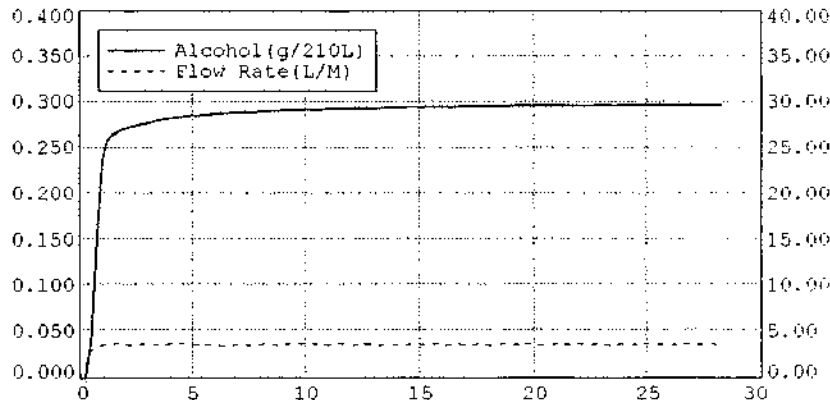
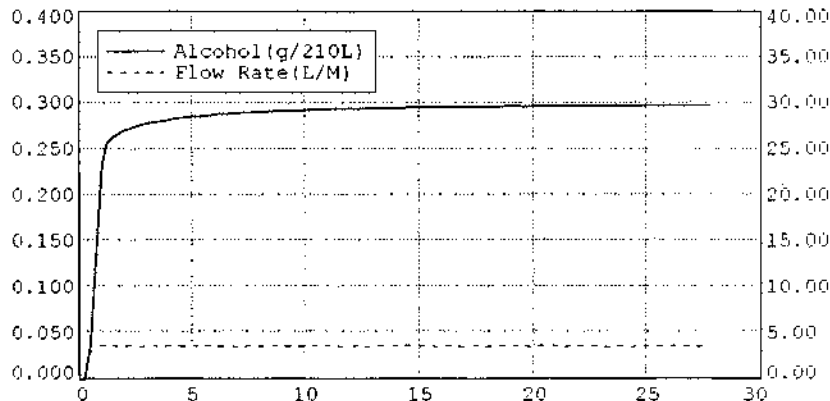
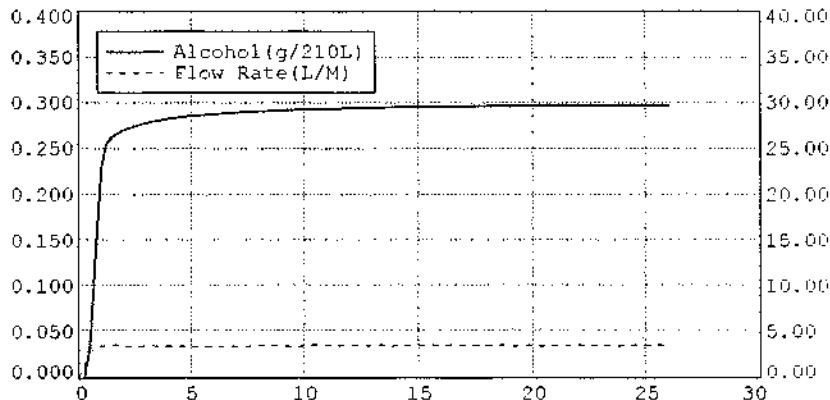
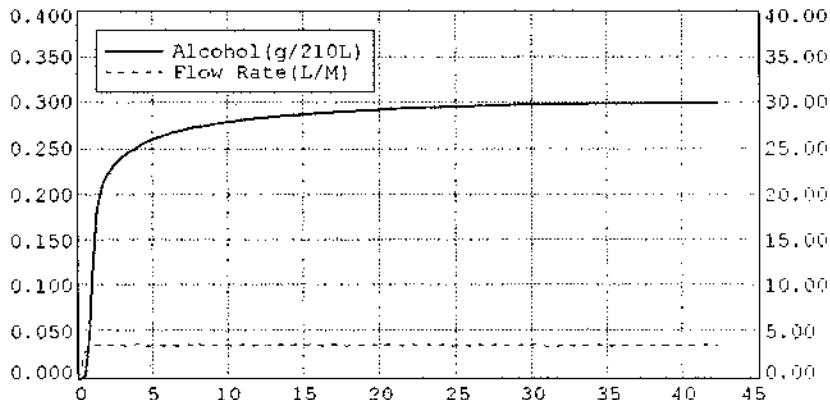
Date: 12/12/2018
 Time: 14:34:05

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: GUTH 17350
 EXPIRATION: 10/11/2019

BLANK TEST	0.000	14:35
INTERNAL STANDARD	VERIFIED	14:35
EXTERNAL STANDARD	0.299	14:36
BLANK TEST	0.000	14:37
EXTERNAL STANDARD	0.298	14:37
BLANK TEST	0.000	14:38
EXTERNAL STANDARD	0.297	14:39
BLANK TEST	0.000	14:40
EXTERNAL STANDARD	0.297	14:40
BLANK TEST	0.000	14:41
EXTERNAL STANDARD	0.297	14:42
BLANK TEST	0.000	14:43

Average = 0.2976
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100371

Date: 12/13/2018
Time: 08:08:58

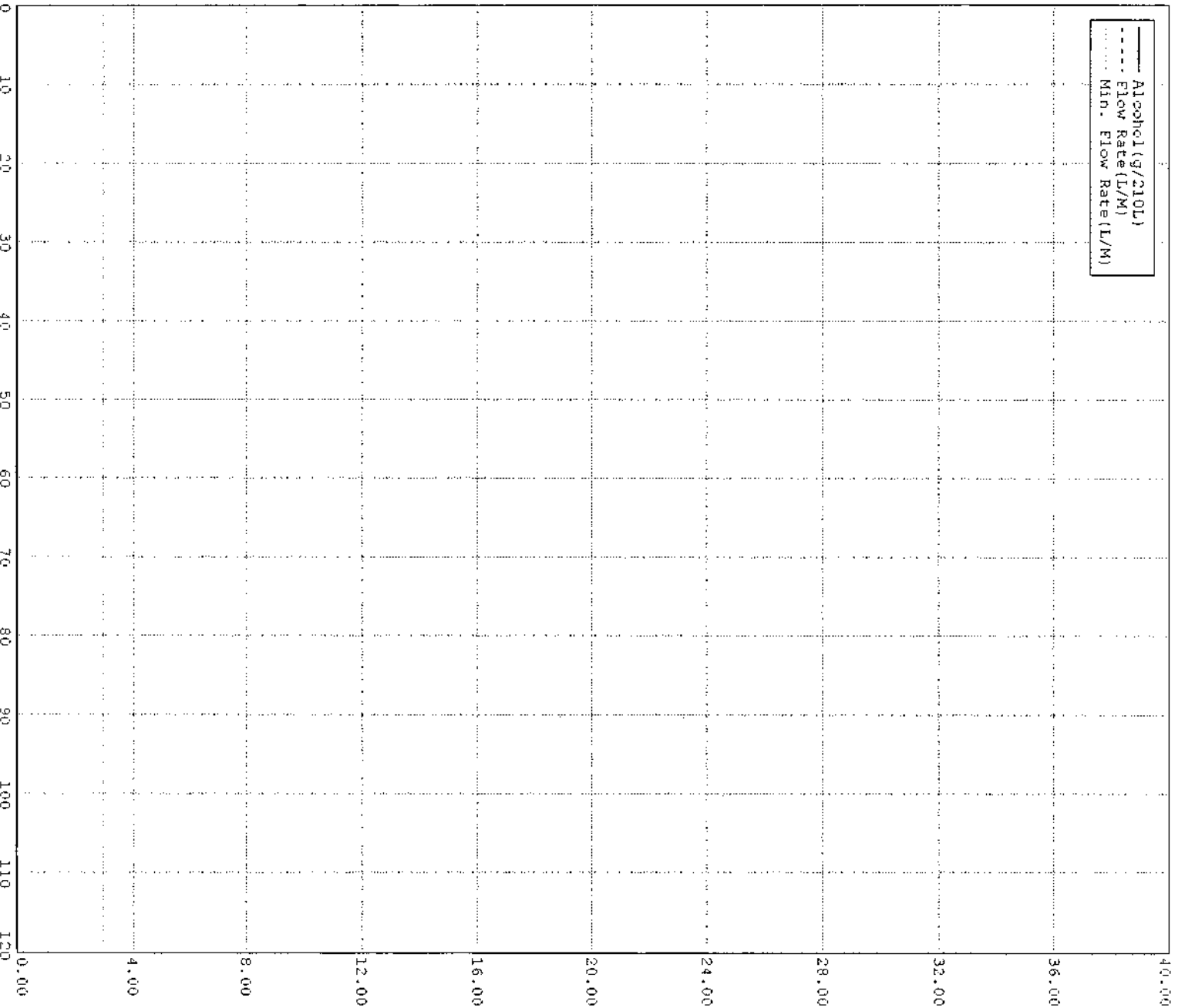
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.02: 0.078
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	08:10
BLANK TEST	0.000	08:10
INTERNAL STANDARD	VERIFIED	08:10
EXTERNAL STANDARD	0.074	08:11
BLANK TEST	0.000	08:12
SUBJECT SAMPLE	INCOMPLETE	08:14

BBMB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100371

Date: 12/13/2018
Time: 08:16:51

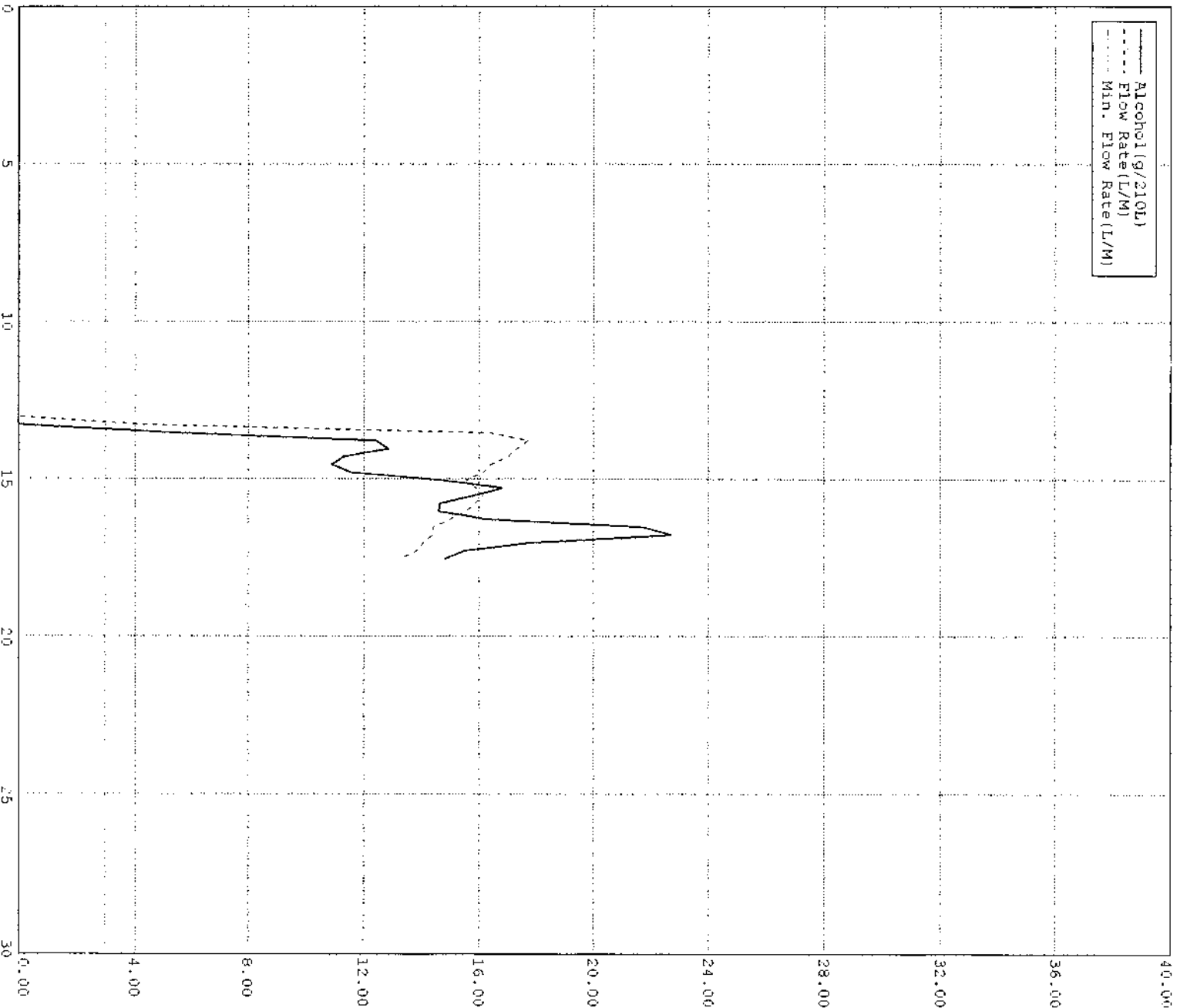
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.02: 0.078
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	08:18
BLANK TEST	0.000	08:18
INTERNAL STANDARD	VERIFIED	08:18
EXTERNAL STANDARD	0.074	08:19
BLANK TEST	0.000	08:20
SUBJECT SAMPLE	INVALID	08:21



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100371

Date: 12/13/2018
Time: 08:24:47

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 29.03: 0.078
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK PASSED 08:30
BLANK TEST 0.000 08:30
INTERNAL STANDARD VERIFIED 08:30
Xq = 0.081 (0.22%)
EXTERNAL STANDARD 0.075 08:31
X[L] = 0.0746 (-0.0017) (0.0019)
BLANK TEST 0.000 08:32
SUBJECT SAMPLE XXX 08:33
X[1] = 0.1094 (-0.0140) (0.0019)

Interference Detected

Filter 2 Avg: -0.0016
Filter 3 Avg: 0.0023
BMB 12/14/18



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100371

Date: 12/13/2018

Time: 08:39:40

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 29.02: 0.078

LOT #: AG735001

EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK

PASSED 08:41

BLANK TEST

0.000 08:41

INTERNAL STANDARD

VERIFIED 08:41

Xq = 0.080 (0.43%)

EXTERNAL STANDARD

0.074 08:41

X[1] = 0.0744 (-0.0012) (0.0029)

BLANK TEST

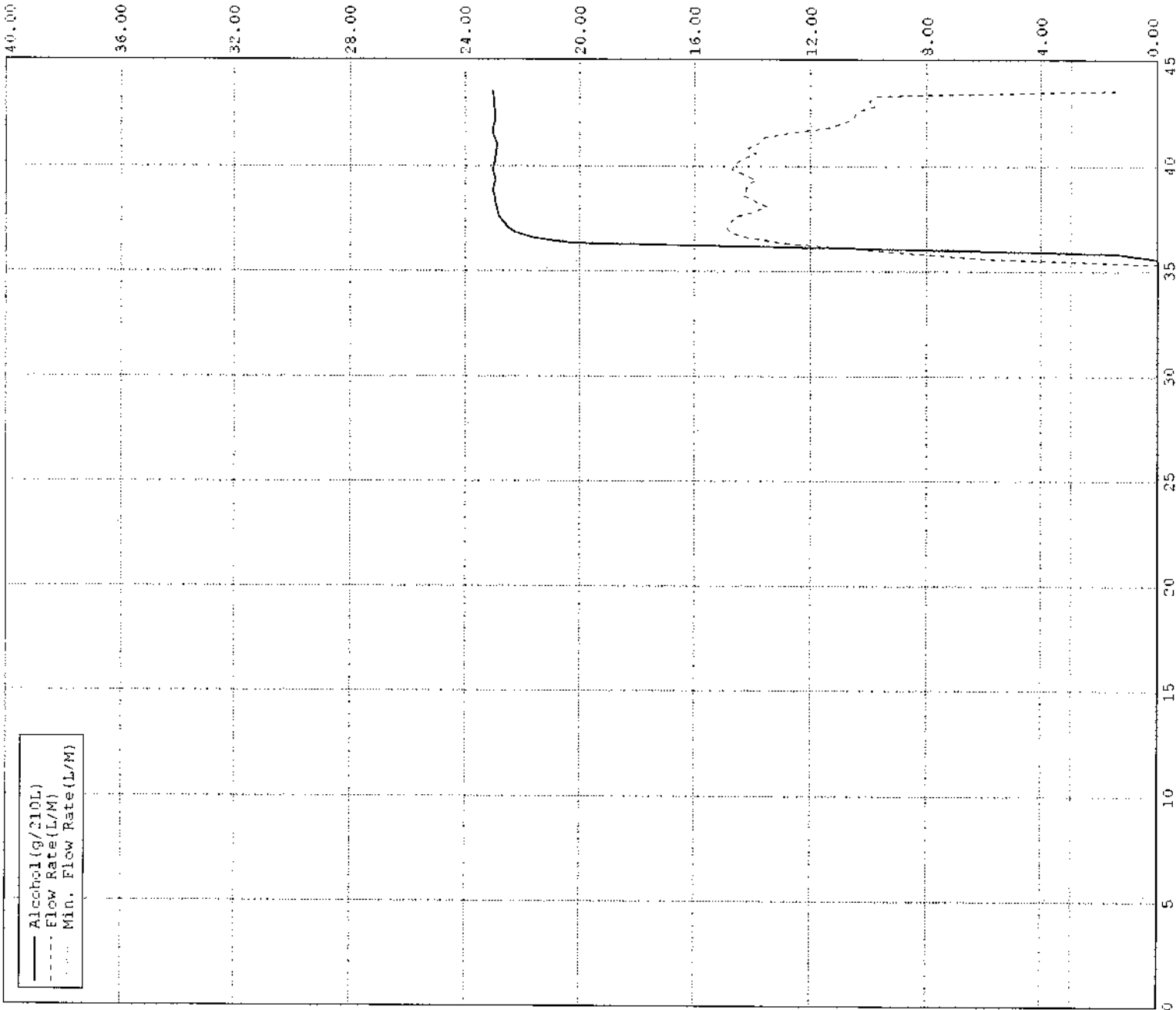
0.000 08:42

SUBJECT SAMPLE

XXX 08:43

X[1] = 0.1161 (-0.0270) (0.0013)

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100371

Date: 12/13/2018
Time: 08:47:43

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

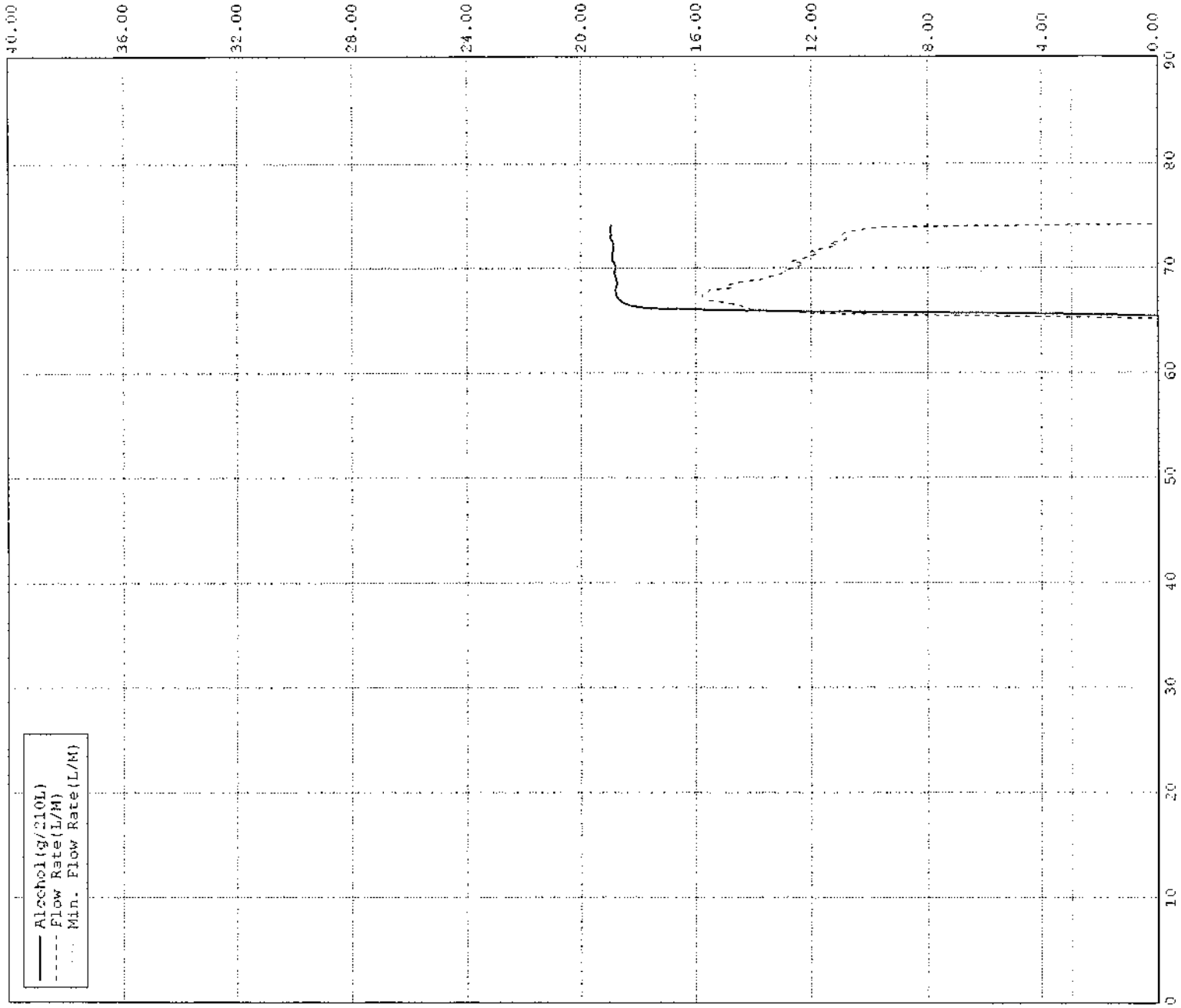
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.03: 0.078
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	08:50
BLANK TEST	0.000	08:50
INTERNAL STANDARD	VERIFIED	08:50
$x_q = 0.080$ (0.54%)		
EXTERNAL STANDARD	0.075	08:50
$x[1] = 0.0746$ (-0.0019) (0.0023)		
BLANK TEST	0.000	08:51
SUBJECT SAMPLE (Vol=1.86L)	0.095	08:52
$x[1] = 0.0957$ (-0.0006) (0.0011)		
BLANK TEST	0.000	08:53
EXTERNAL STANDARD	0.074	08:54
$x[1] = 0.0741$ (-0.0017) (0.0019)		
BLANK TEST	0.000	08:55

BMB



SUBJECT TEST

Alaska Department of Public Safety
DATA MASTER dmt: 100371

Date: 12/13/2018
Time: 09:50:40

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

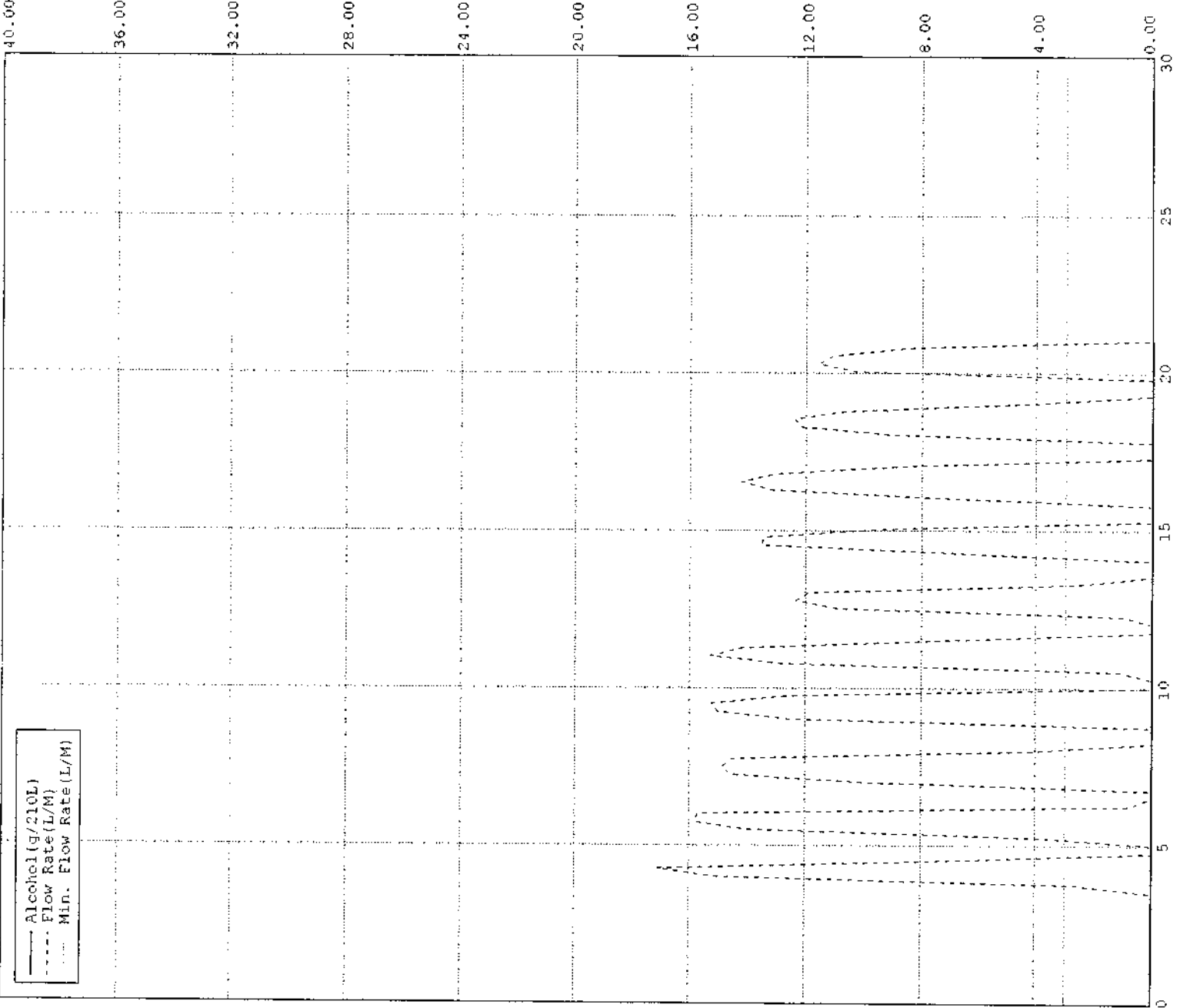
OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.03: 0.078
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK PASSED 09:51
BLANK TEST 0.000 09:51
INTERNAL STANDARD VERIFIED 09:52
EXTERNAL STANDARD 0.075 09:52
BLANK TEST 0.000 09:53
SUBJECT SAMPLE XXX 09:53

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100371

Date: 12/13/2018
Time: 09:55:16

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
BRANDI BARNETT
OPERATOR'S #: 7038

DEPT/AGENCY:
RFI

CASE/REPORT: XXXX
TEST TYPE: TEST

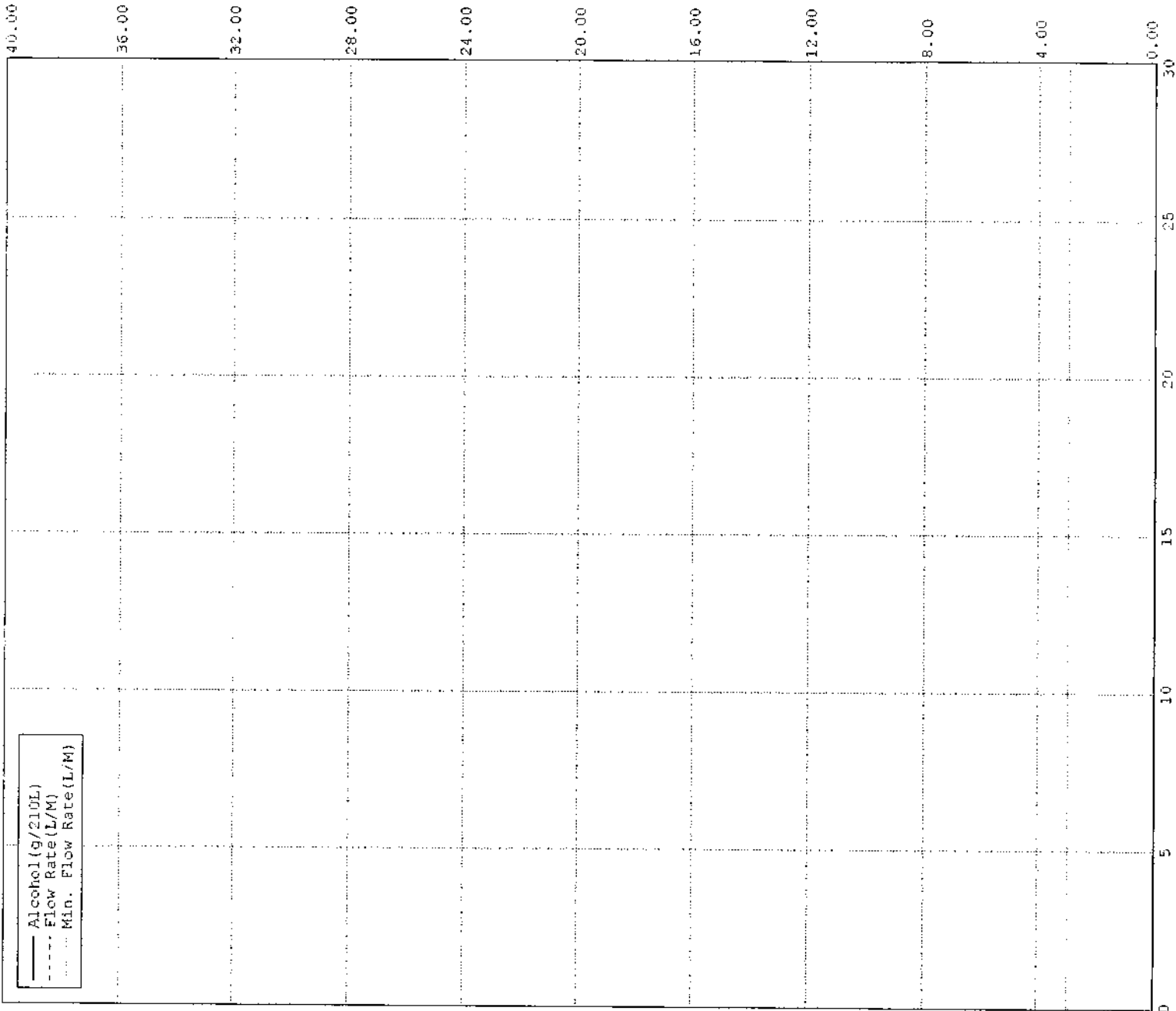
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.04: 0.078
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK PASSED 09:56
BLANK TEST 0.000 09:56
INTERNAL STANDARD VERIFIED 09:56
EXTERNAL STANDARD 0.074 09:56
BLANK TEST 0.000 09:57

RFI DETECTED

Alcohol (g/210L)
Flow Rate (L/M)
Min. Flow Rate (L/M)



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100371

Date: 12/13/2018
Time: 10:15:01

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 29.04: 0.078
LOT #: AG735001
EXPIRATION: 12/16/2019

DIAGNOSTIC CHECK	PASSED	10:16
BLANK TEST	0.000	10:16
INTERNAL STANDARD	VERIFIED	10:16
EXTERNAL STANDARD	0.075	10:16
BLANK TEST	0.000	10:17
SUBJECT SAMPLE (Vol=2.01L)	0.000	10:18
BLANK TEST	0.000	10:19
EXTERNAL STANDARD	0.075	10:19
BLANK TEST	0.000	10:20

