

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 100400 Analyst Derck Walker Start Date 12/17/19

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 02/27/20

ii. 0.040g/210L Mnf Airgas Lot AG915607 Exp 06/05/21

iii. 0.080g/210L Mnf Airgas Lot AG826101 Exp 09/18/20

iv. 0.100g/210L Mnf Airgas Lot AG805903 Exp 02/28/20

v. 0.200g/210L Mnf Autn Lot 19040 Exp 01/29/21

1. Simulator S/N DR4162 Date Calibrated 10/07/19

vi. 0.300g/210L Mnf Autn Lot 19010 Exp 01/03/21

1. Simulator S/N DR4178 Date Calibrated 10/04/19

5. Functional Tests (attached)

a. Incomplete

b. Invalid

c. Interference

d. Exceeded attempts

i. Acetone - Mnf Autn Lot 18370 Level 0.100 Exp 12/05/20

1. Simulator S/N SD1199 Date Calibrated 03/06/19

ii. Isopropanol - Mnf Autn Lot 18370 Level 0.100 Exp 12/05/20

1. Simulator S/N DR4161 Date Calibrated 03/07/19

iii. Negative Control - Mnf Autn Lot 18370 Level 0.100 Exp 12/05/20

1. Simulator S/N SD1202 Date Calibrated 03/05/19

e. RFI

6. Verify stylus is calibrated

9. Verification of Calibration

7. Reset Options

10. Non-Drinking Subject Test (attached)

8. Clear Memory

11. Upload

13. Remove tank prior to shut down

End Date 12/17/19

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100400

Date: 12/17/2019
Time: 08:53:43

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 = 1.66 V PASSED
(1.00 V - 2.32 V)
Cooler Voltage = 1.67 V PASSED
(1.00 V - 2.34 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 523 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.0 in

PUMP INFO

Flow Rate = 4.847 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 = 0.106 0.99% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100400

Date: 12/17/2019
Time: 9:11 AM

Temperatures (°C)

Sample Cell: 48.7°C
Breath Tube: 47.2°C

Current Barometer 29.1 in
Volume (Ltr) 1.48

Settings

Lamp: 1.71 V
Bias: 79 V
Cooler: 1.67 V
Chopper: 517 Hz

Voltages (V)

Flow: 1.05 V
Detector: -0.067 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100400

Date: 12/16/2019
Time: 10:36:49

OPERATOR NAME:
DEREK WALTON
CERTIFICATE #: 9508

Ca	=	0.1000		
CAL	=	0.968246	0.800	<= CAL < 1.200
b1	=	0.0003	0.0000	<= b1 < 0.0040
b2	=	0.0047	0.0010	<= b2 < 0.0100
b3	=	0.0002	0.0000	<= b3 < 0.0040
Xq	=	0.1066	0.0500	<= Xq < 0.2000
a21	=	1.177357	1.050	<= a21 < 1.300
a31	=	0.464721	0.300	<= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100400

Date: 12/17/2019
Time: 09:24:38

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

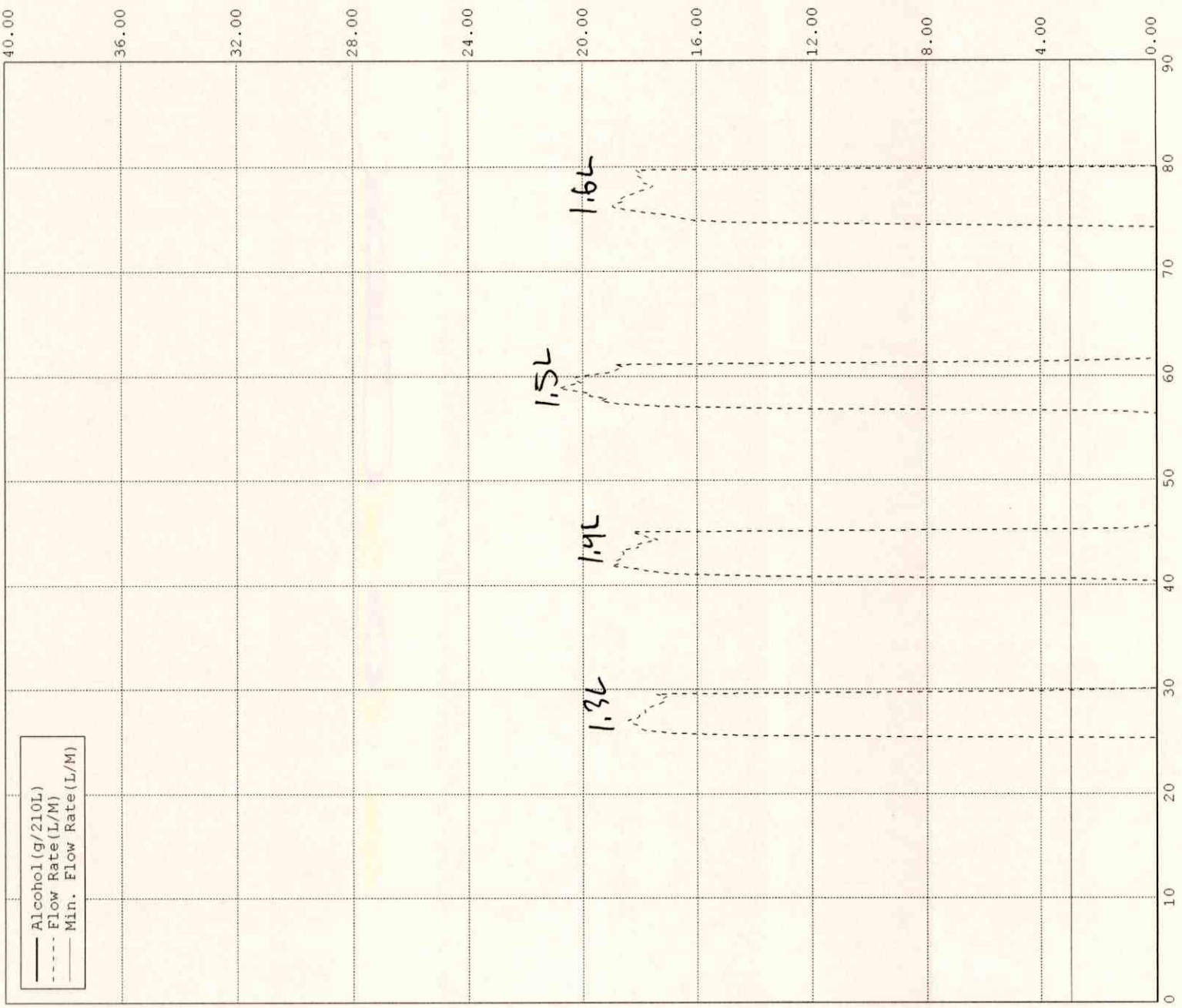
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

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

DIAGNOSTIC CHECK	PASSED	09:27
BLANK TEST	0.000	09:27
INTERNAL STANDARD	VERIFIED	09:27
EXTERNAL STANDARD	0.076	09:27
BLANK TEST	0.000	09:28
SUBJECT SAMPLE (Vol=1.59L)	0.000	09:30
BLANK TEST	0.000	09:31
EXTERNAL STANDARD	0.076	09:31
BLANK TEST	0.000	09:32

DM



LINEARITY CHECK

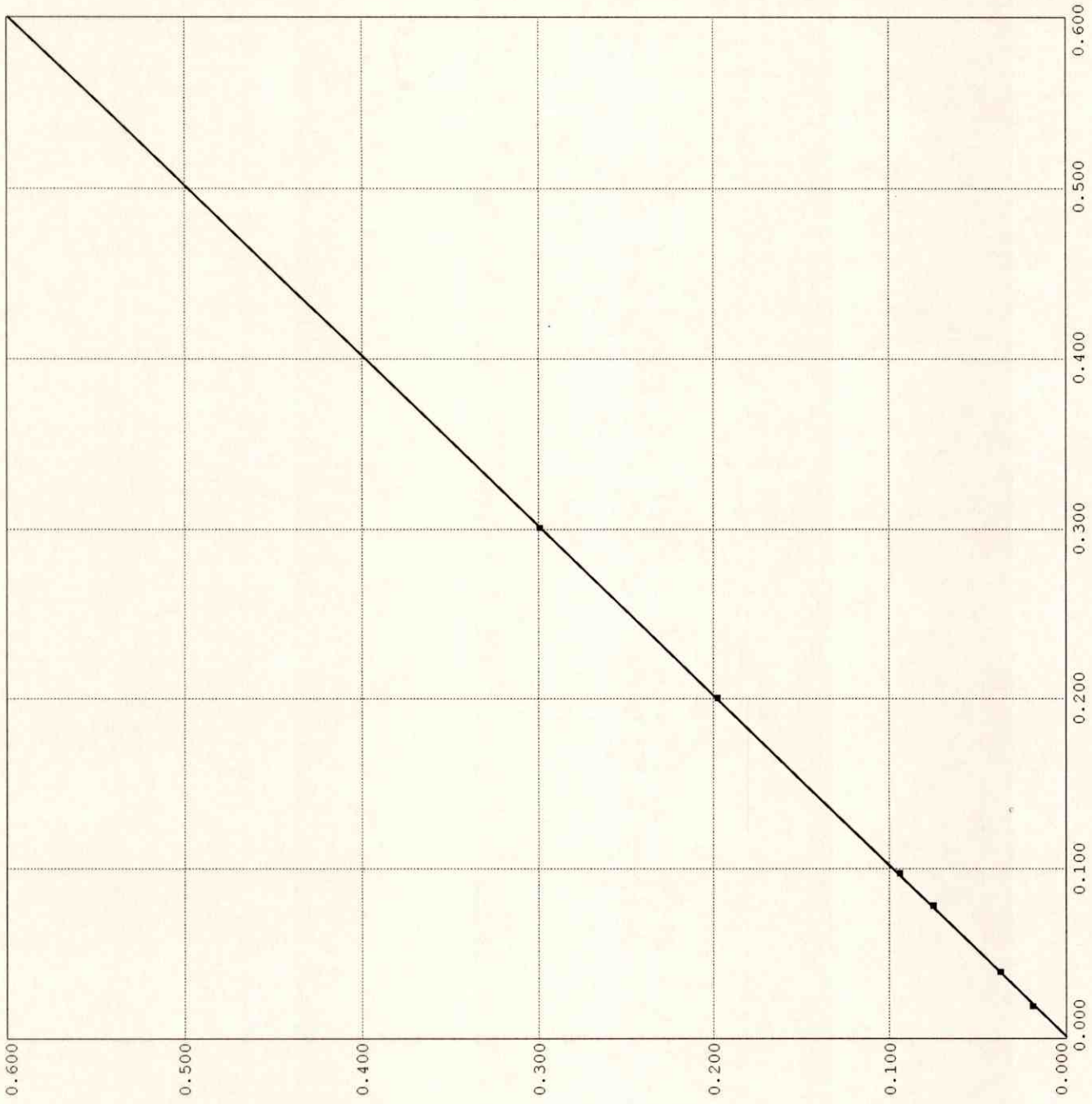
 Alaska Department of Public Safety
 DATAMASTER dmt: 100400

Date: 12/17/2019
 Time: 09:38:20

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.019	0.0196	0.0005
0.039	0.0380	0.0000
0.078	0.0760	0.0000
0.097	0.0950	0.0000
0.200	0.1984	0.0015
0.300	0.3000	0.0007

SLOPE = 1.000612
 R² = 0.999898



Handwritten signature

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100400

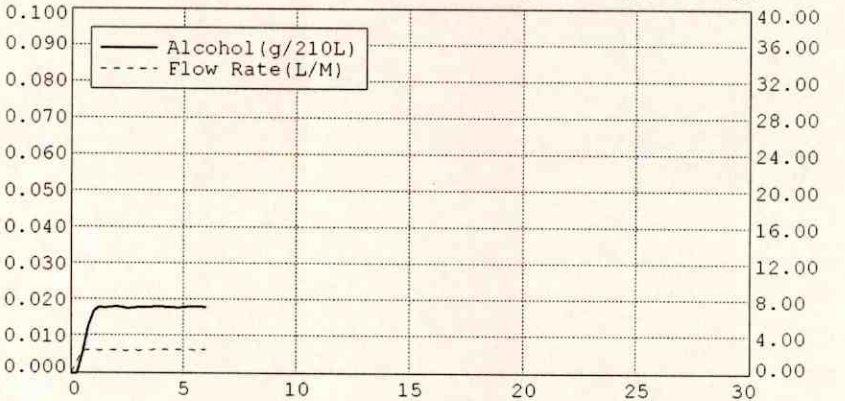
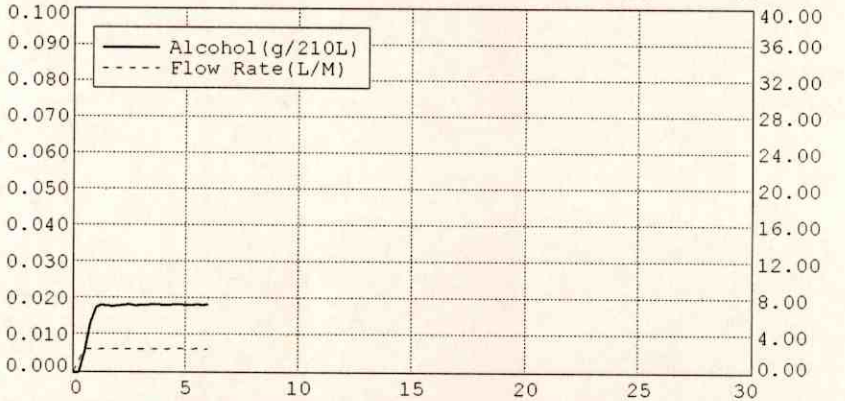
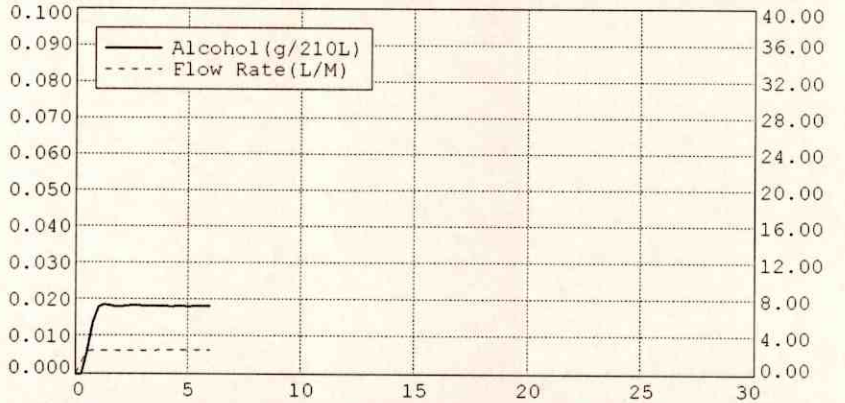
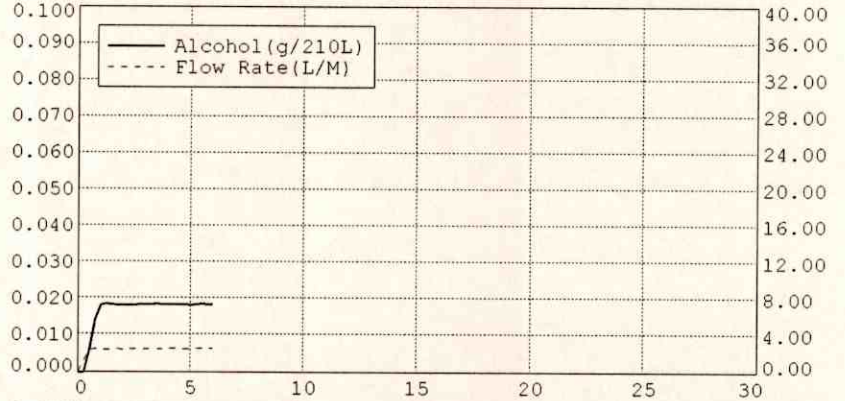
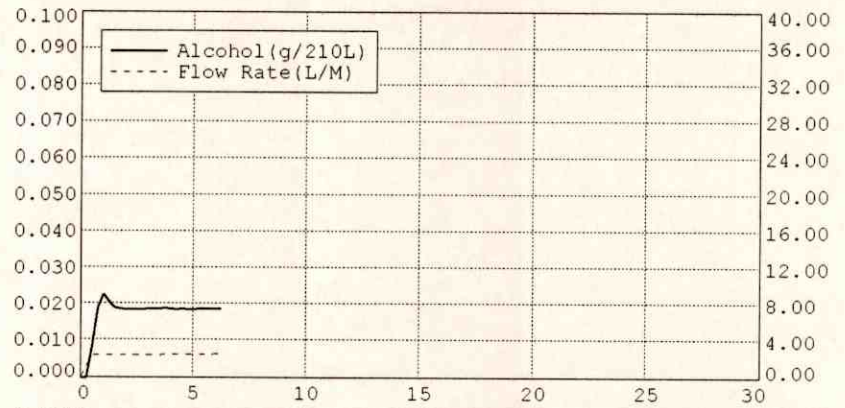
Date: 12/17/2019
 Time: 09:38:22

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.10: 0.019
 LOT #: AG805804
 EXPIRATION: 02/27/2020
 TANK PRESSURE: 260 psi

BLANK TEST	0.000	09:41
INTERNAL STANDARD	VERIFIED	09:41
EXTERNAL STANDARD	0.020	09:41
BLANK TEST	0.000	09:42
EXTERNAL STANDARD	0.020	09:42
BLANK TEST	0.000	09:43
EXTERNAL STANDARD	0.019	09:43
BLANK TEST	0.000	09:44
EXTERNAL STANDARD	0.020	09:44
BLANK TEST	0.000	09:45
EXTERNAL STANDARD	0.019	09:46
BLANK TEST	0.000	09:46

Average = 0.0196
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100400

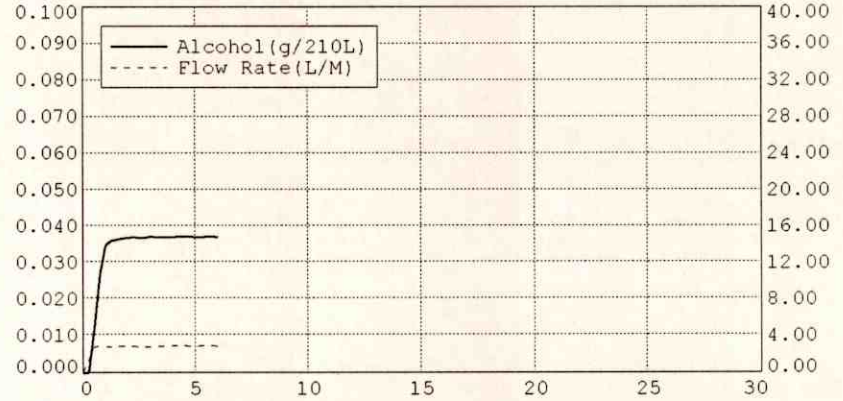
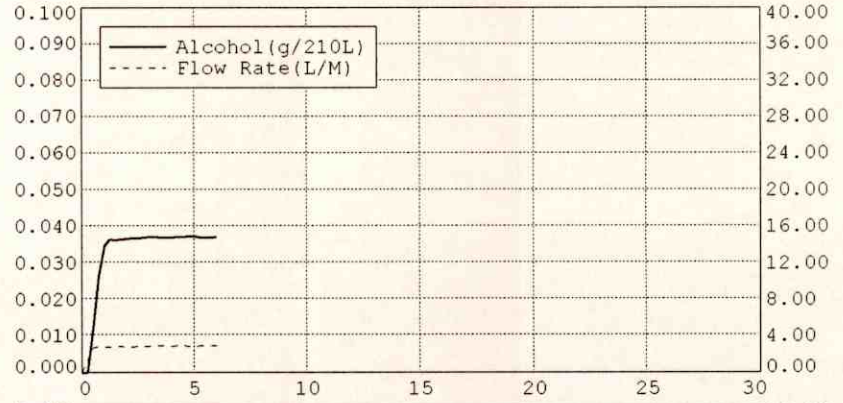
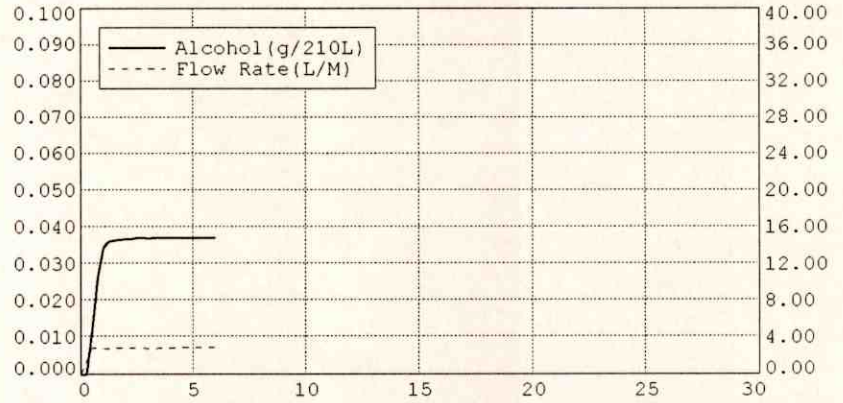
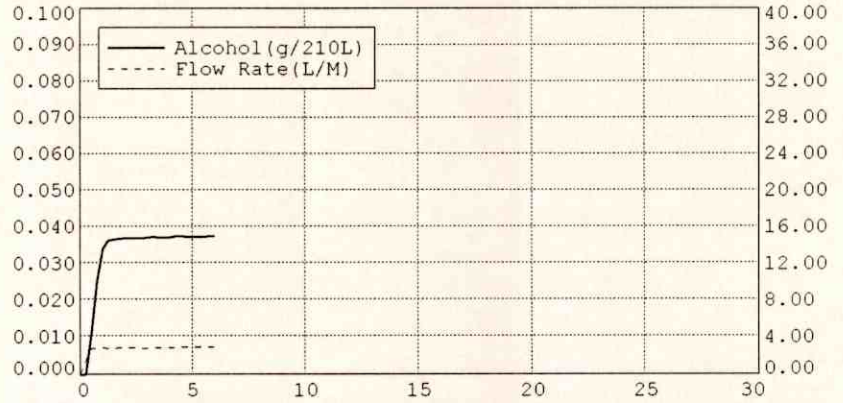
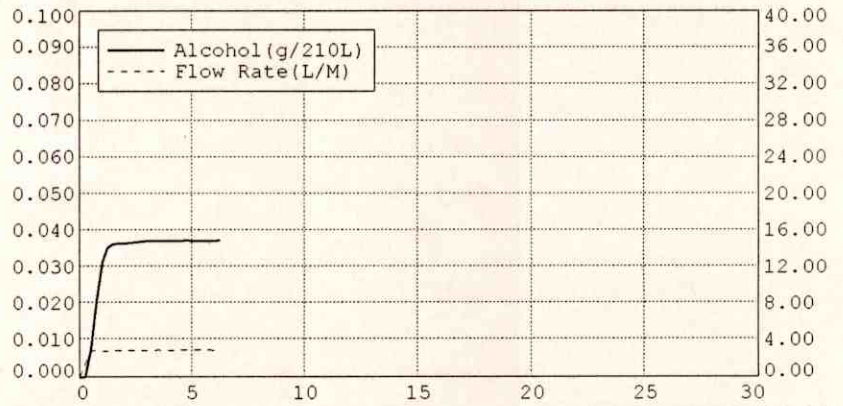
Date: 12/17/2019
 Time: 09:49:49

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.10: 0.039
 LOT #: AG915607
 EXPIRATION: 06/05/2021
 TANK PRESSURE: 1098 psi

BLANK TEST	0.000	09:51
INTERNAL STANDARD	VERIFIED	09:51
EXTERNAL STANDARD	0.038	09:51
BLANK TEST	0.000	09:52
EXTERNAL STANDARD	0.038	09:52
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.038	09:53
BLANK TEST	0.000	09:54
EXTERNAL STANDARD	0.038	09:54
BLANK TEST	0.000	09:55
EXTERNAL STANDARD	0.038	09:55
BLANK TEST	0.000	09:56

Average = 0.0380
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100400

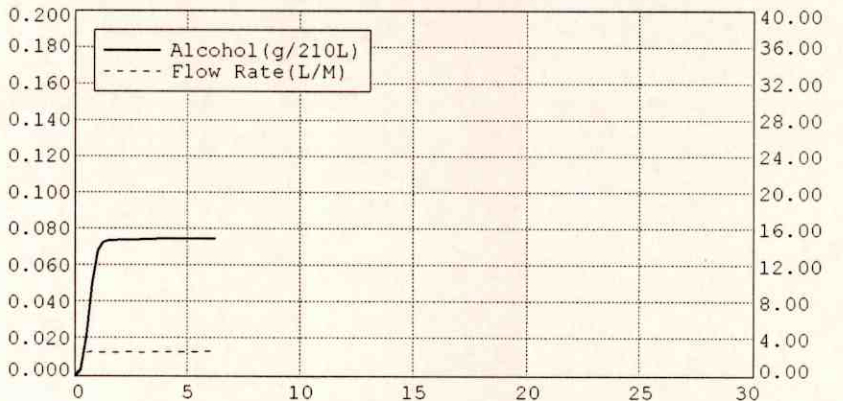
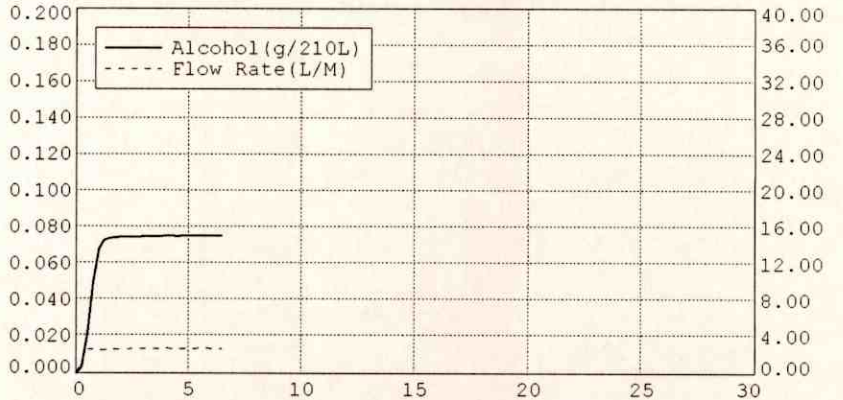
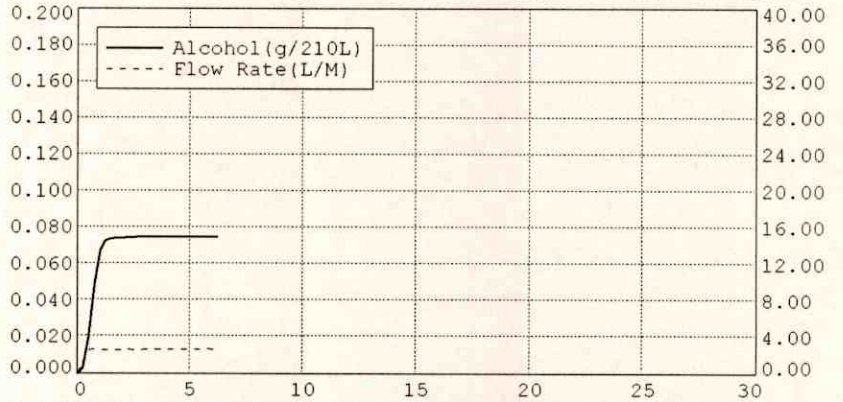
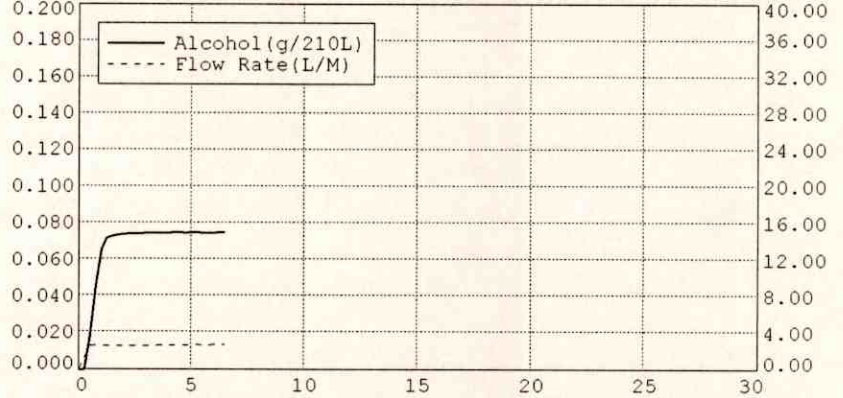
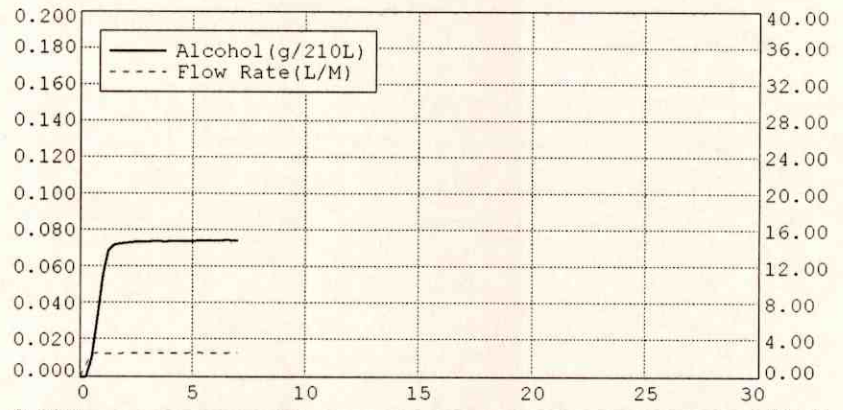
Date: 12/17/2019
 Time: 09:59:55

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.10: 0.078
 LOT #: AG826101
 EXPIRATION: 09/18/2020
 TANK PRESSURE: 455 psi

BLANK TEST	0.000	10:01
INTERNAL STANDARD	VERIFIED	10:01
EXTERNAL STANDARD	0.076	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.076	10:02
BLANK TEST	0.000	10:03
EXTERNAL STANDARD	0.076	10:03
BLANK TEST	0.000	10:04
EXTERNAL STANDARD	0.076	10:04
BLANK TEST	0.000	10:05
EXTERNAL STANDARD	0.076	10:05
BLANK TEST	0.000	10:06

Average = 0.0760
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100400

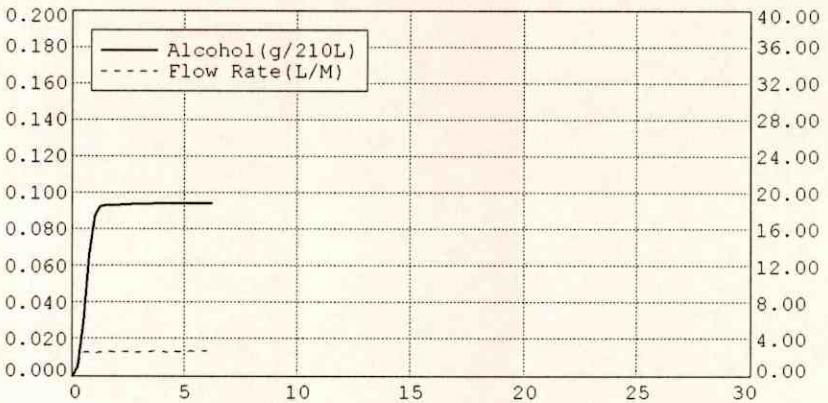
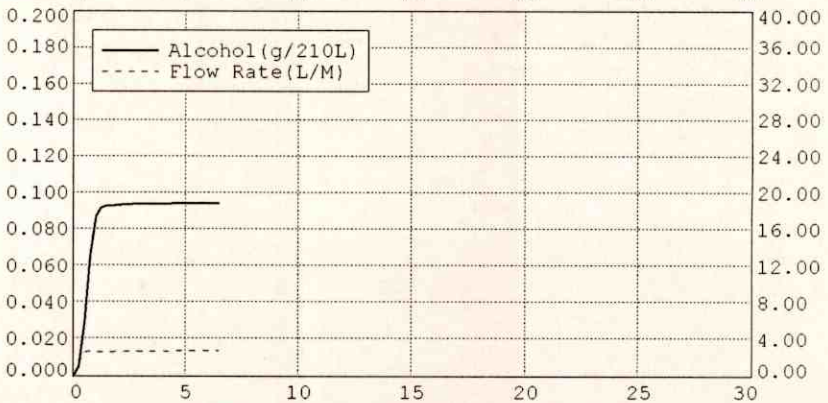
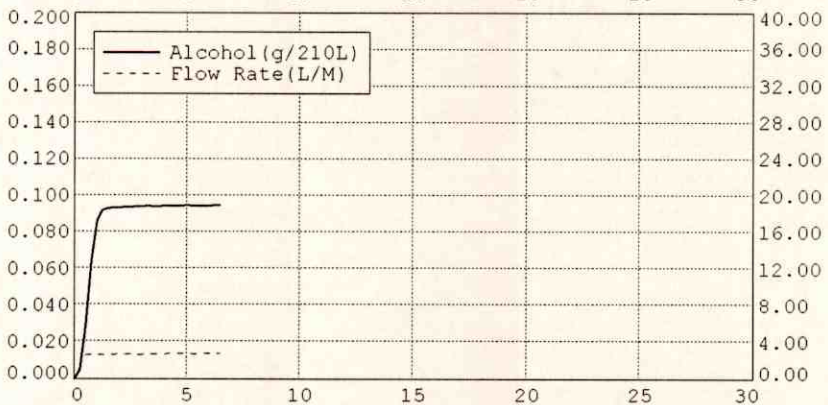
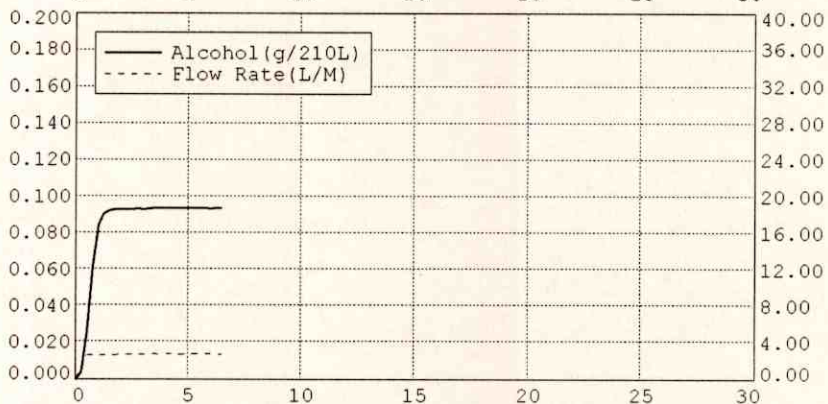
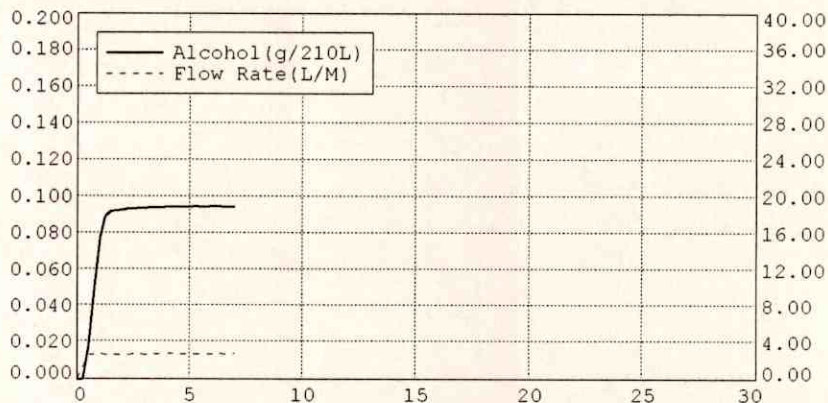
Date: 12/17/2019
 Time: 10:10:58

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.09: 0.097
 LOT #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 622 psi

BLANK TEST	0.000	10:13
INTERNAL STANDARD	VERIFIED	10:13
EXTERNAL STANDARD	0.095	10:13
BLANK TEST	0.000	10:14
EXTERNAL STANDARD	0.095	10:14
BLANK TEST	0.000	10:15
EXTERNAL STANDARD	0.095	10:15
BLANK TEST	0.000	10:16
EXTERNAL STANDARD	0.095	10:16
BLANK TEST	0.000	10:17
EXTERNAL STANDARD	0.095	10:17
BLANK TEST	0.000	10:18

Average = 0.0950
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100400

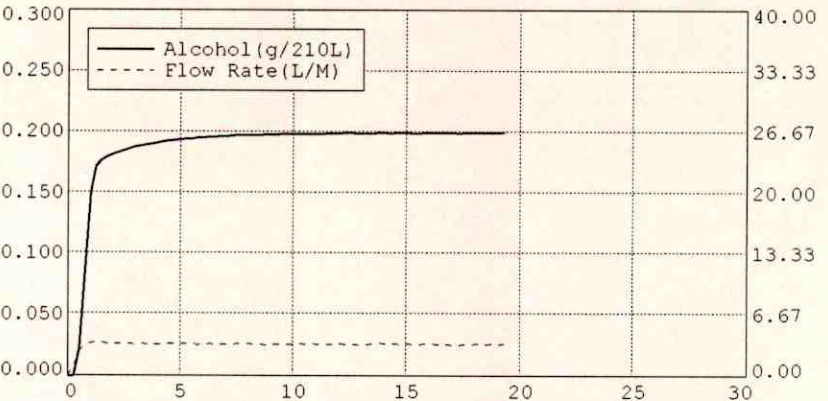
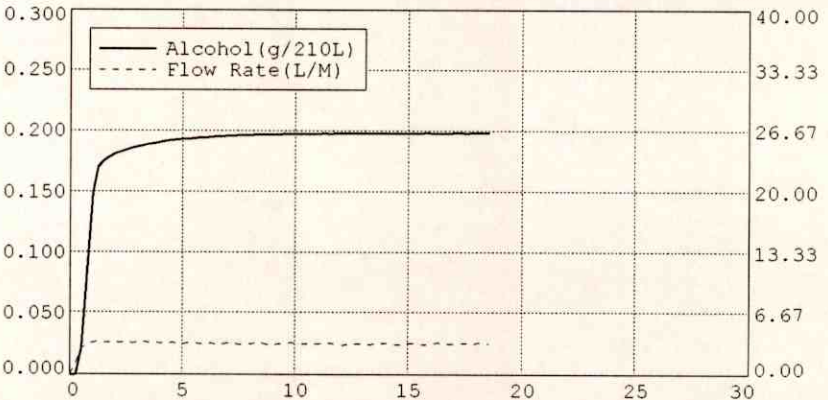
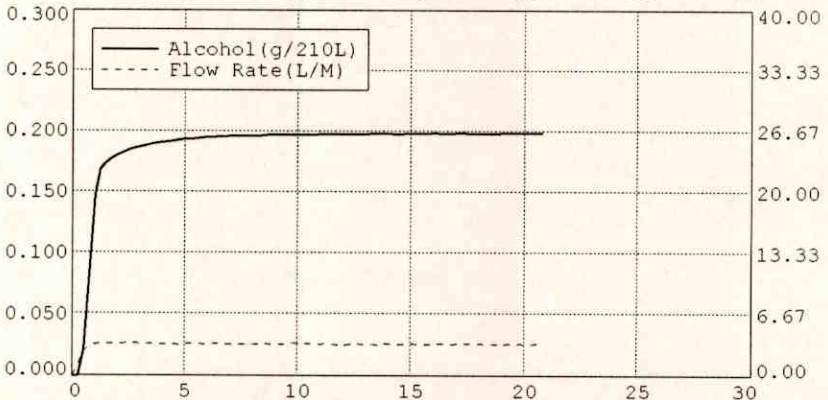
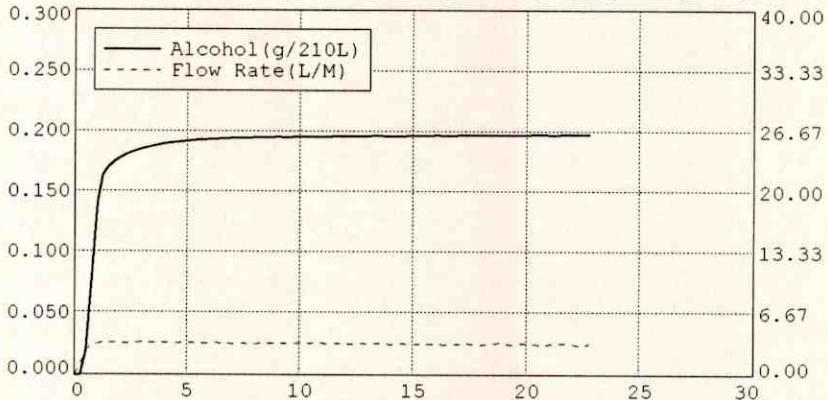
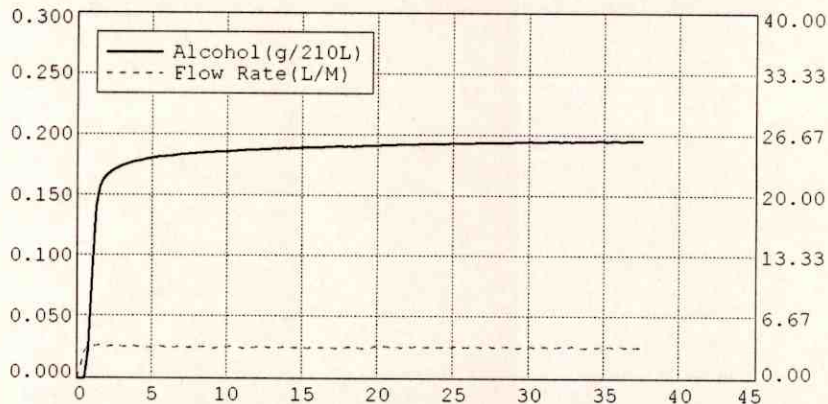
Date: 12/17/2019
 Time: 10:20:28

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:21
INTERNAL STANDARD	VERIFIED	10:21
EXTERNAL STANDARD	0.196	10:22
BLANK TEST	0.000	10:23
EXTERNAL STANDARD	0.198	10:23
BLANK TEST	0.000	10:24
EXTERNAL STANDARD	0.199	10:25
BLANK TEST	0.000	10:26
EXTERNAL STANDARD	0.199	10:26
BLANK TEST	0.000	10:27
EXTERNAL STANDARD	0.200	10:28
BLANK TEST	0.000	10:28

Average = 0.1984
 Std Dev = 0.0015



LINEARITY CHECK: Control Test 6

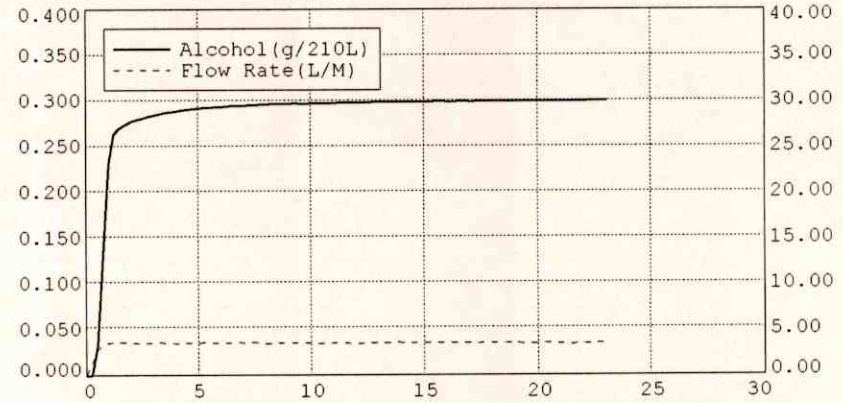
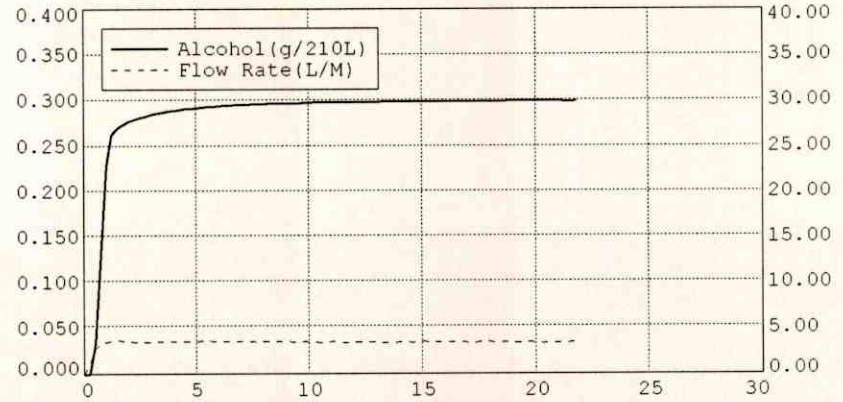
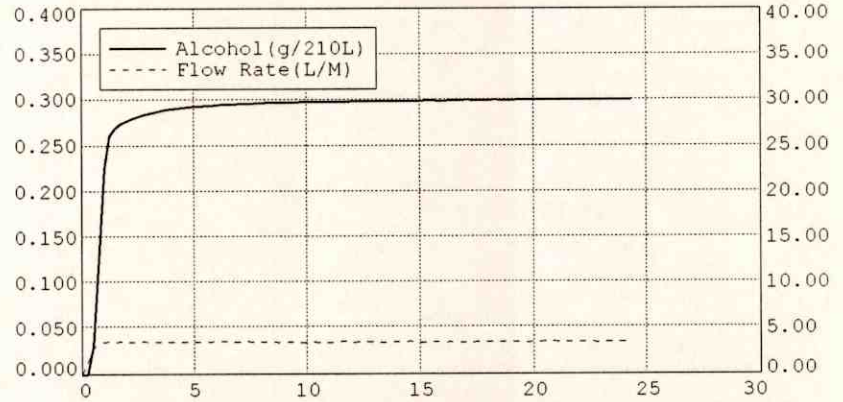
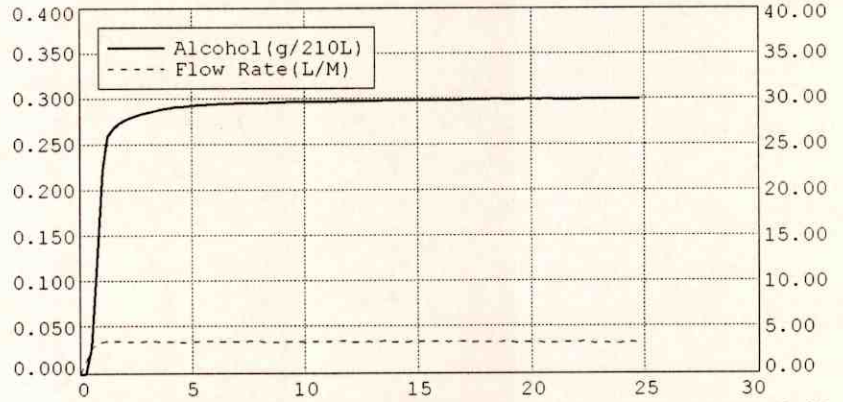
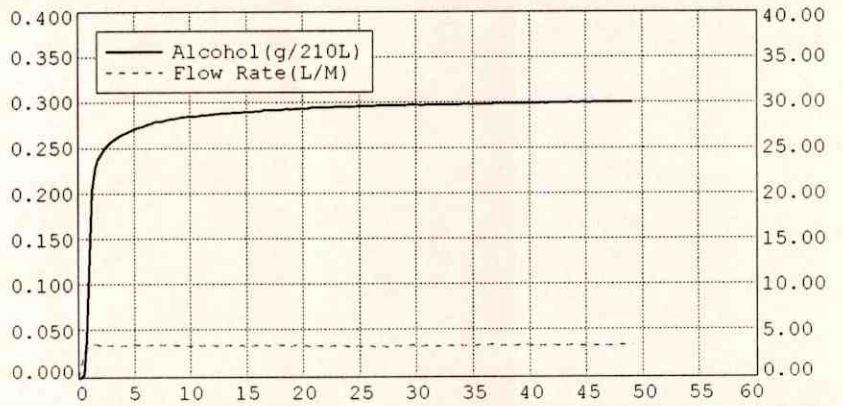
Alaska Department of Public Safety
 DATAMASTER dmt: 100400

Date: 12/17/2019
 Time: 10:33:42

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

BLANK TEST	0.000	10:34
INTERNAL STANDARD	VERIFIED	10:35
EXTERNAL STANDARD	0.301	10:35
BLANK TEST	0.000	10:36
EXTERNAL STANDARD	0.300	10:37
BLANK TEST	0.000	10:38
EXTERNAL STANDARD	0.300	10:38
BLANK TEST	0.000	10:39
EXTERNAL STANDARD	0.299	10:40
BLANK TEST	0.000	10:41
EXTERNAL STANDARD	0.300	10:41
BLANK TEST	0.000	10:42

Average = 0.3000
 Std Dev = 0.0007



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100400

Date: 12/17/2019
Time: 10:59:25

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

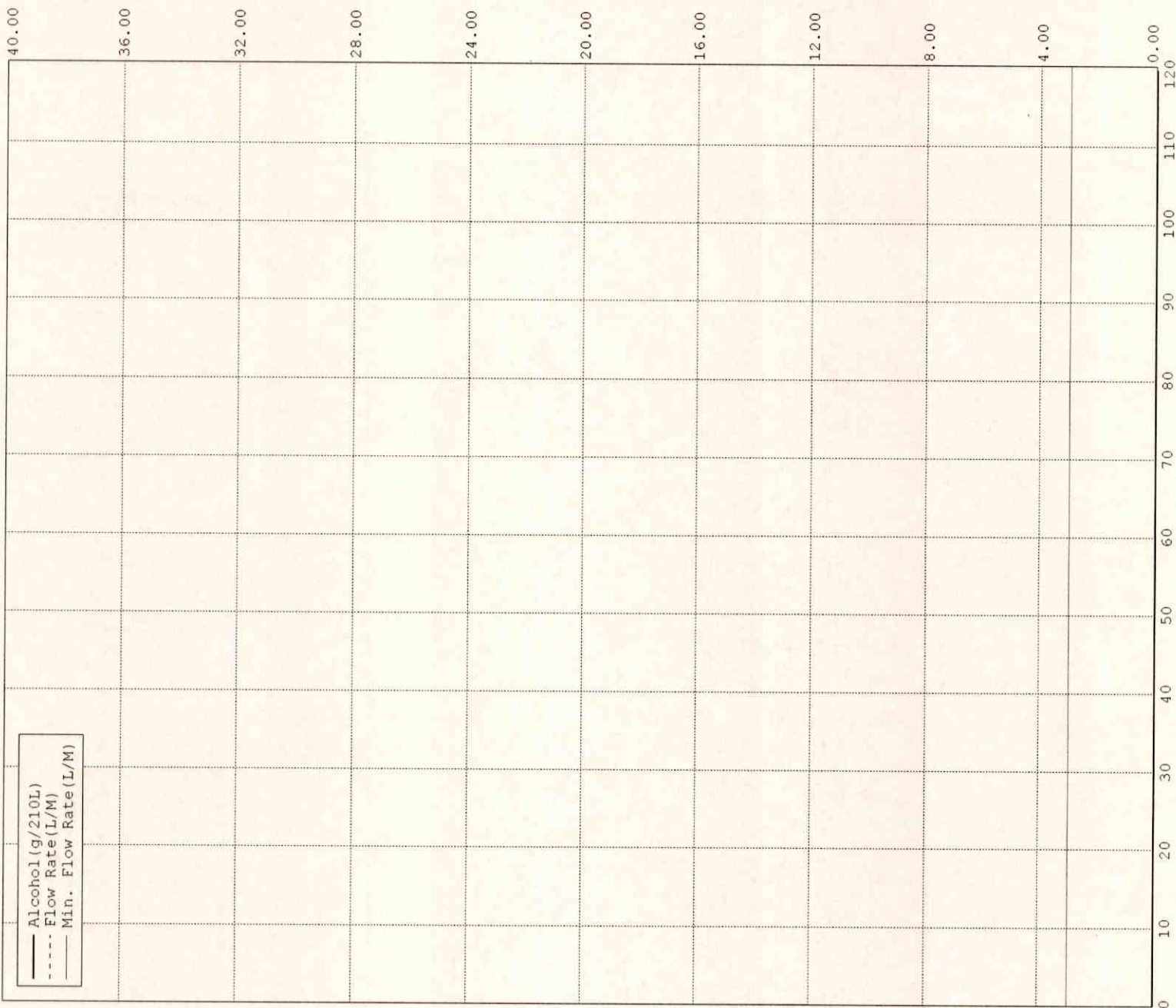
DEPT/AGENCY:
INCOMPLETE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK PASSED 11:00
BLANK TEST 0.000 11:00
INTERNAL STANDARD VERIFIED 11:00
EXTERNAL STANDARD 0.075 11:01
BLANK TEST 0.000 11:02
SUBJECT SAMPLE INCOMPLETE 11:04

MM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100400

Date: 12/17/2019
Time: 13:35:06

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

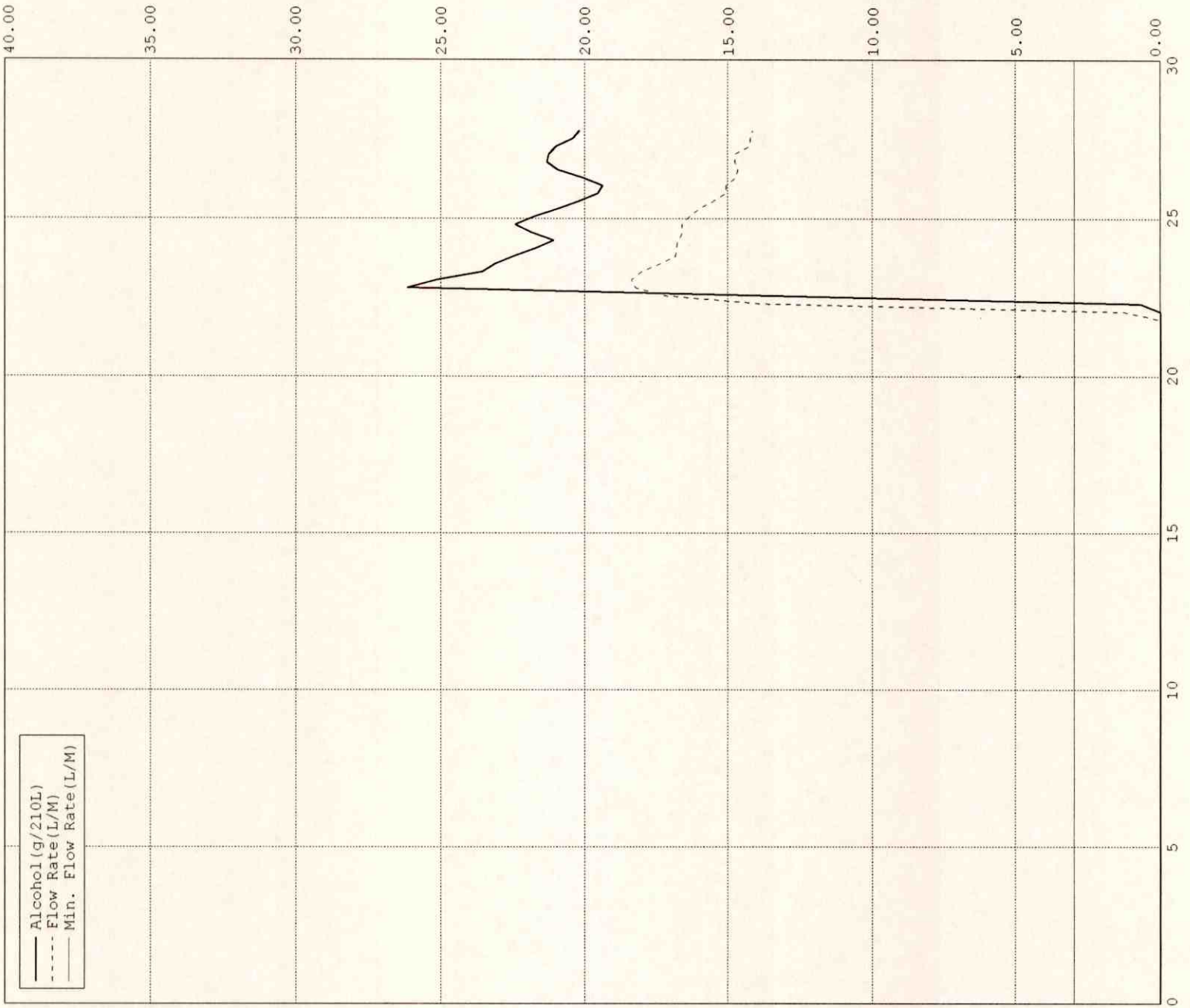
DEPT/AGENCY:
INVALID
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.06: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:53
BLANK TEST 0.000 13:53
INTERNAL STANDARD VERIFIED 13:53
EXTERNAL STANDARD 0.076 13:53
BLANK TEST 0.000 13:54
SUBJECT SAMPLE INVALID 13:55

DMW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100400

Date: 12/17/2019
Time: 11:25:35

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

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

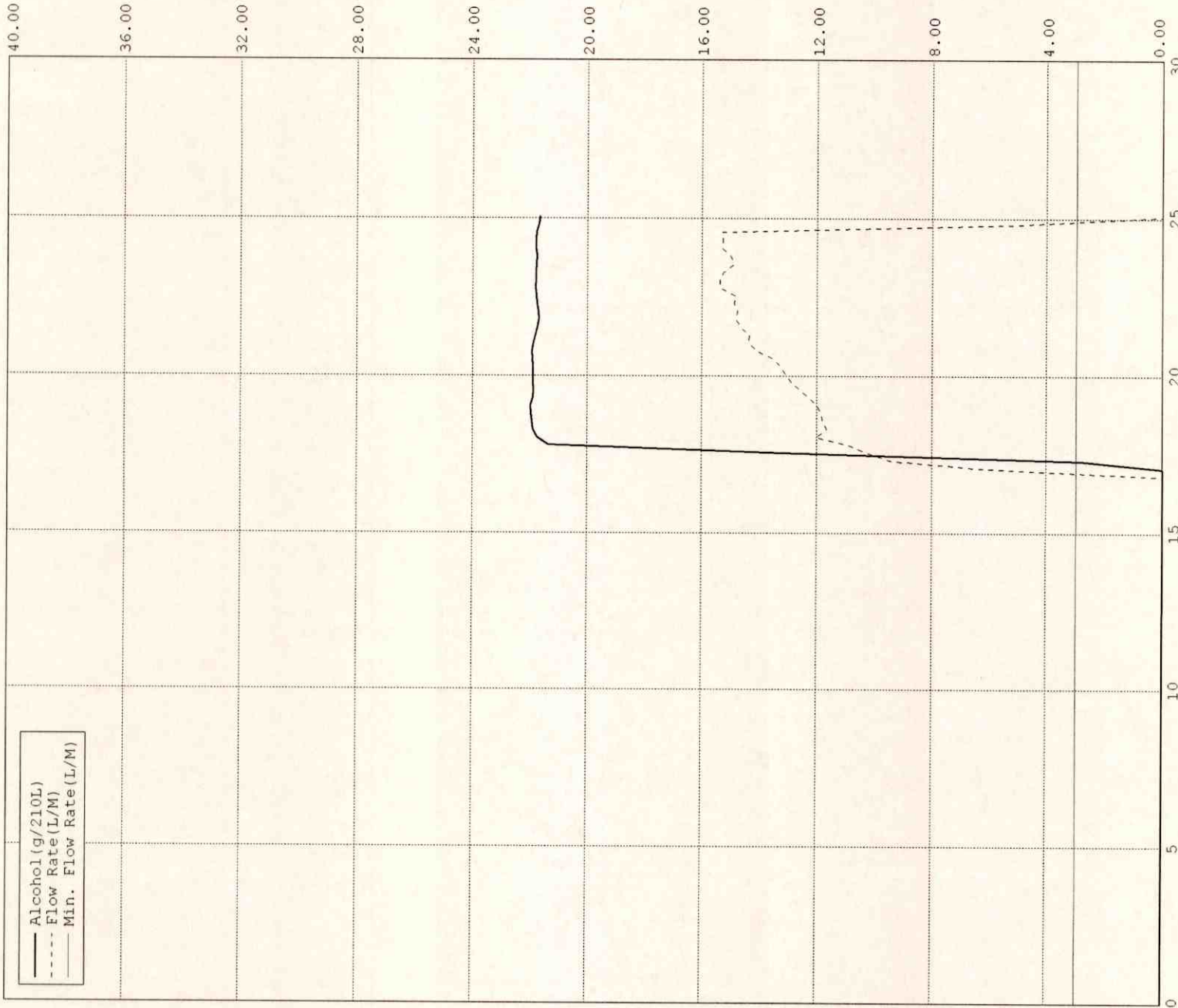
DIAGNOSTIC CHECK PASSED 11:26
BLANK TEST 0.000 11:26
INTERNAL STANDARD VERIFIED 11:26
Xg = 0.106 (0.41%)
EXTERNAL STANDARD 0.076 11:27
X[1] = 0.0755 (-0.0010) (0.0036)
BLANK TEST 0.000 11:28
SUBJECT SAMPLE XXX 11:28
X[1] = 0.1088 (-0.0221) (0.0014)

Interference Detected

Filter 2 Avg: -0.0013

Filter 3 Avg: 0.0030

DW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100400

Date: 12/17/2019
Time: 11:31:38

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

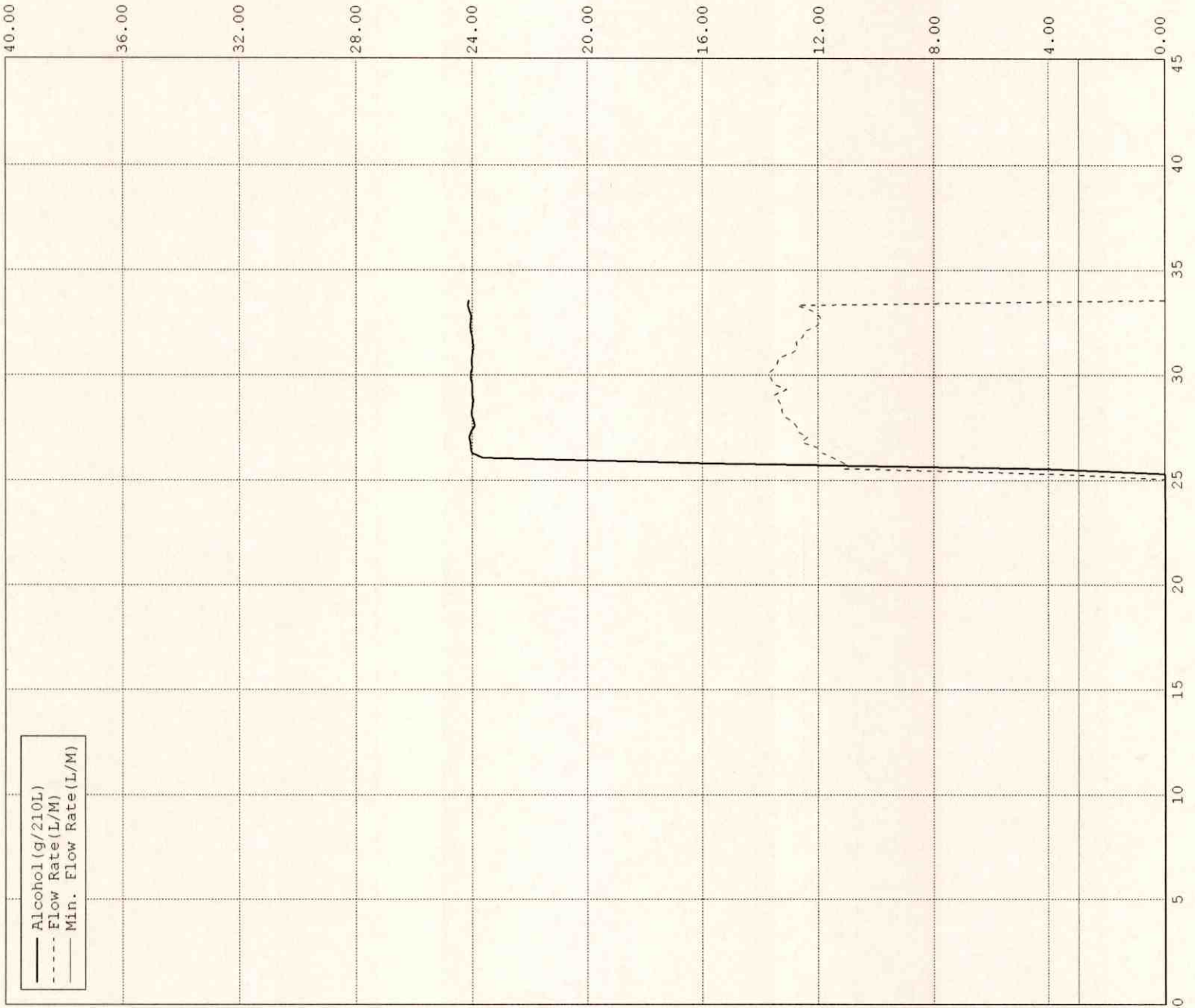
DEPT/AGENCY:
INTERFERENCE ISOPROPANOL
CASE/REPORT: XXXX
TEST TYPE: TEST

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

DIAGNOSTIC CHECK PASSED 11:32
BLANK TEST 0.000 11:32
INTERNAL STANDARD VERIFIED 11:32
Xq = 0.106 (0.17%)
EXTERNAL STANDARD 0.076 11:33
X[1] = 0.0760 (-0.0011) (0.0035)
BLANK TEST 0.000 11:34
SUBJECT SAMPLE XXX 11:34
X[1] = 0.1210 (-0.0279) (0.0021)

Interference Detected

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100400

Date: 12/17/2019
Time: 11:39:16

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

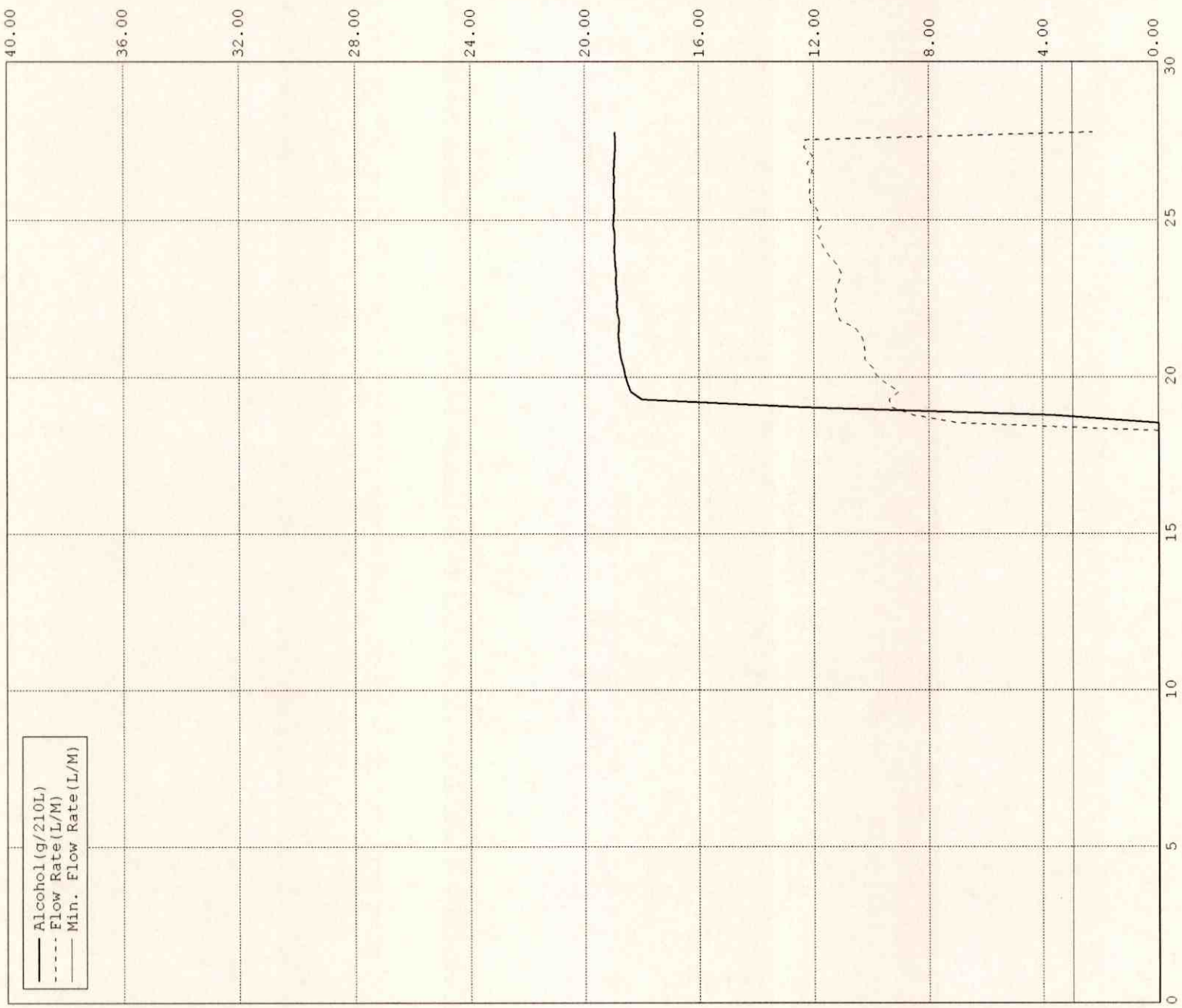
DEPT/AGENCY:
INTERFERENCE NEGATIVE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK	PASSED	11:42
BLANK TEST	0.000	11:42
INTERNAL STANDARD	VERIFIED	11:42
Xq = 0.106 (0.25%)		
EXTERNAL STANDARD	0.076	11:43
X[1] = 0.0759 (-0.0013)	(0.0025)	
BLANK TEST	0.000	11:44
SUBJECT SAMPLE (Vol=1.69L)	0.095	11:44
X[1] = 0.0955 (-0.0004)	(0.0006)	
BLANK TEST	0.000	11:45
EXTERNAL STANDARD	0.075	11:45
X[1] = 0.0754 (-0.0018)	(0.0024)	
BLANK TEST	0.000	11:46

DW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100400

Date: 12/17/2019
Time: 11:08:35

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

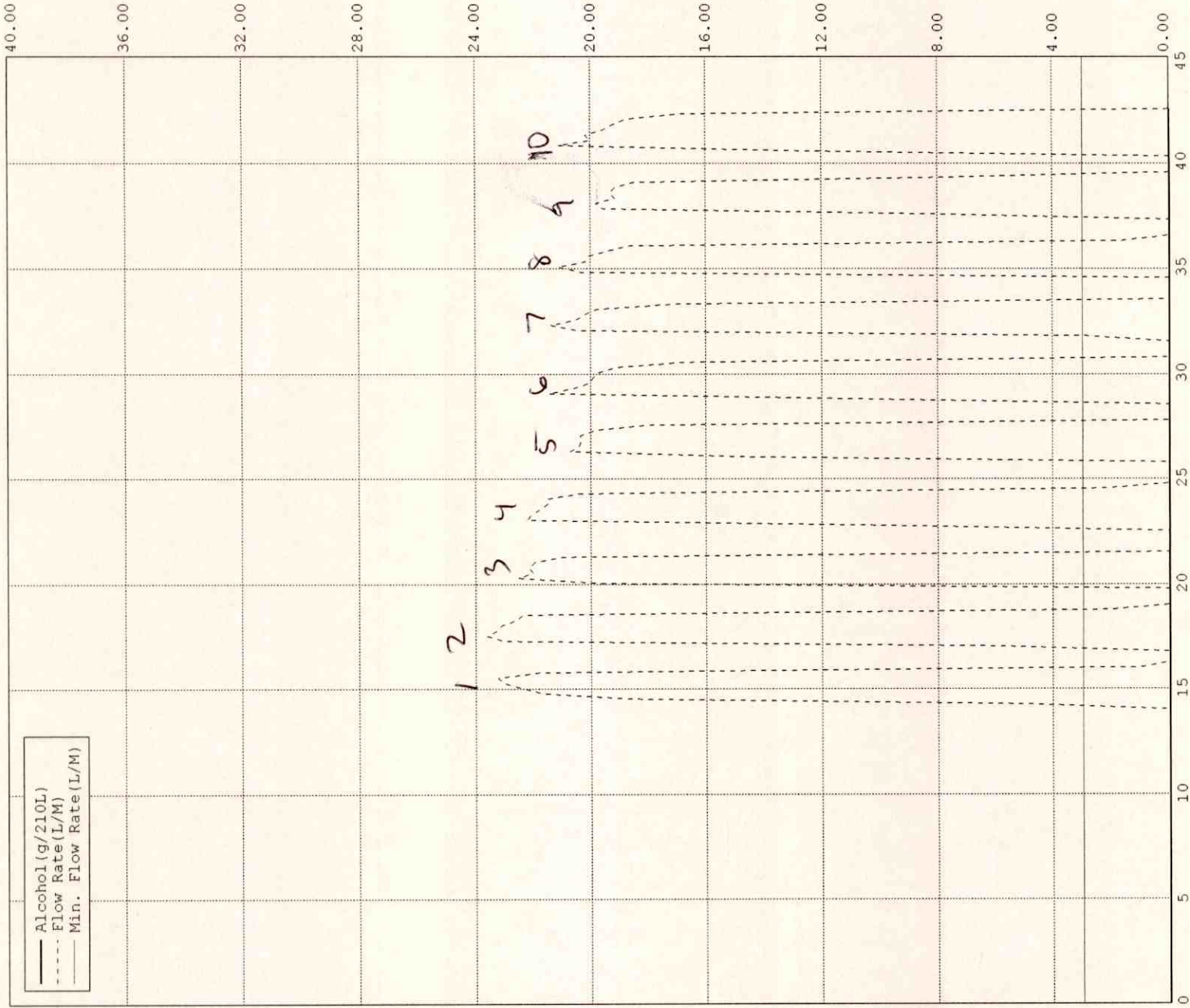
DEPT/AGENCY:
MAXIMUM ATTEMPTS
CASE/REPORT: XXXX
TEST TYPE: TEST

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

DIAGNOSTIC CHECK
BLANK TEST PASSED 11:10
INTERNAL STANDARD VERIFIED 11:10
EXTERNAL STANDARD 0.076 11:10
BLANK TEST 0.000 11:11
SUBJECT SAMPLE XXX 11:12

Maximum Attempts Exceeded

DW



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100400

Date: 12/17/2019

Time: 13:57:29

SUBJECT NAME:

TEST TEST

LICENSE #: XXXX

OPERATOR NAME:

DEREK WALTON

OPERATOR'S #: 9508

DEPT/AGENCY:

RADIO FREQUENCY

CASE/REPORT: XXXX

TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080

TARGET AT 29.06: 0.078

LOT #: AG826101

EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK

BLANK TEST

INTERNAL STANDARD

EXTERNAL STANDARD

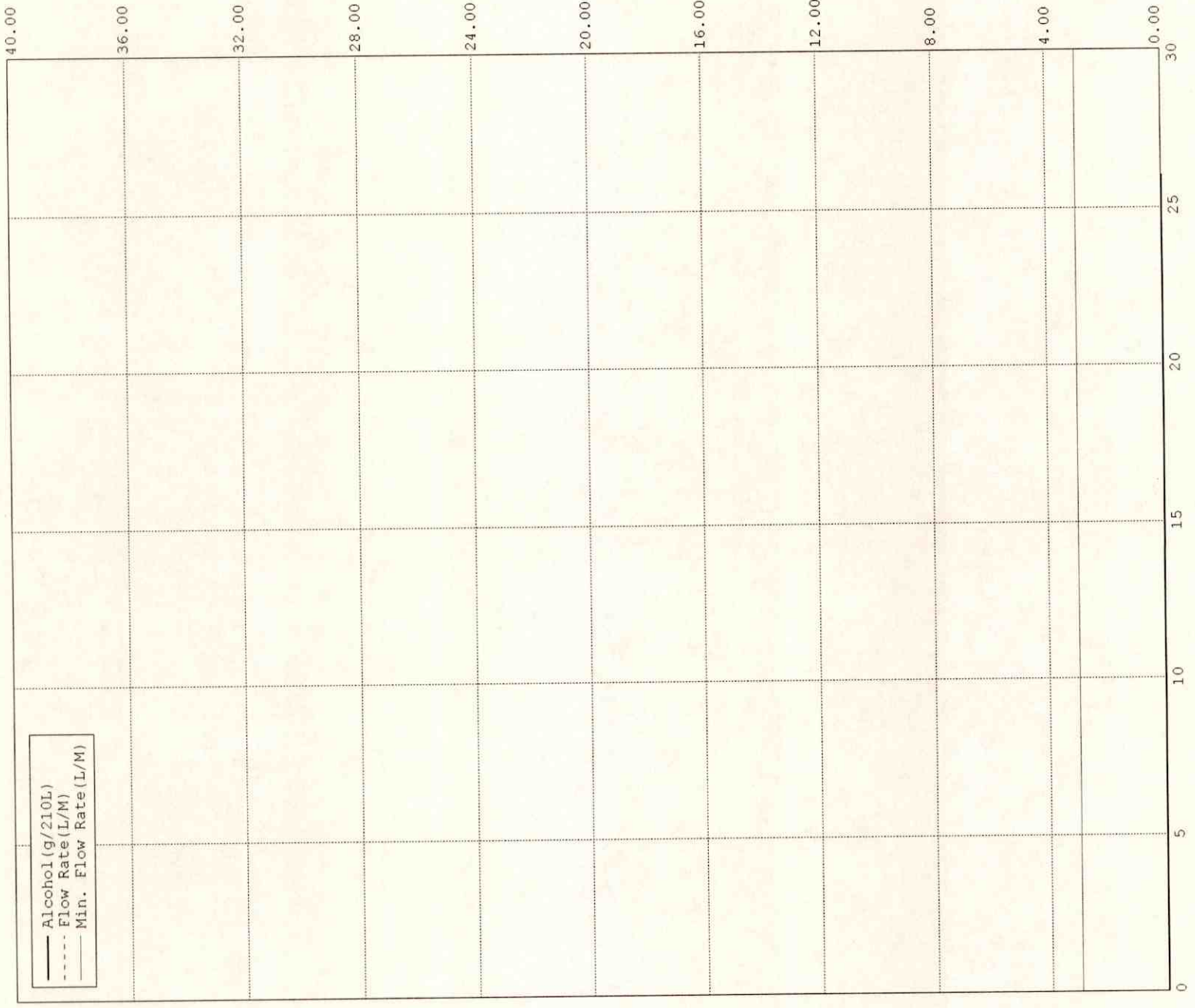
BLANK TEST

PASSED 14:00
0.000 14:00
VERIFIED 14:00
0.075 14:00
0.000 14:01

RFI DETECTED

DM

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



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100400

Date: 12/17/2019
Time: 15:00:01

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.05: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	15:01
BLANK TEST	0.000	15:01
INTERNAL STANDARD	VERIFIED	15:01
EXTERNAL STANDARD	0.076	15:02
BLANK TEST	0.000	15:02
SUBJECT SAMPLE (Vol=2.56L)	0.000	15:03
BLANK TEST	0.000	15:04
EXTERNAL STANDARD	0.077	15:04
BLANK TEST	0.000	15:05

