

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 100685 Analyst Derek Walter Start Date 10/26/18

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 1.5 L (1.3L to 1.7L)
 4. Linearity Test (attached)
 - a. Levels Used
 - i. 0.020g/210L Mnf Airgas Lot A6805804 Exp 02/27/2020
 - ii. 0.040g/210L Mnf Airgas Lot A6630101 Exp 10/27/2018
 - iii. 0.080g/210L Mnf Airgas Lot A6634001 Exp 12/05/2018
 - iv. 0.100g/210L Mnf Airgas Lot A6805903 Exp 02/28/2020
 - v. 0.200g/210L Mnf Wuth Lot 17340 Exp 10/09/2019
 1. Simulator S/N DR5298 Date Calibrated 01/24/2018
 - vi. 0.300g/210L Mnf Wuth Lot 17350 Exp 10/11/2019
 1. Simulator S/N SD1198 Date Calibrated 01/23/2018
 5. Functional Tests (attached)
 - a. Incomplete
 - b. Invalid
 - c. Interference
 - d. Exceeded attempts
 - i. Acetone - Mnf Wuth Lot 18070 Level 0.100 Exp 02/26/2020
 1. Simulator S/N SD1177 Date Calibrated 01/24/2018
 - ii. Isopropanol - Mnf Wuth Lot 18070 Level 0.100 Exp 02/26/2020
 1. Simulator S/N SD1199 Date Calibrated 01/24/2018
 - iii. Negative Control - Mnf Wuth Lot 18070 Level 0.100 Exp 02/26/2020
 1. Simulator S/N SD1088 Date Calibrated 01/24/2018
 - 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 10/26/18

All printed copies are uncontrolled.

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 08:04:18

VERSIONS
DMT: 3.02
PIC: 3.03
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.9°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 46.9°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.71 V PASSED
(0.98 V - 2.30 V)
Cooler Voltage = 1.65 V PASSED
(0.96 V - 2.24 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 553 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.1 in

PUMP INFO

Flow Rate = 5.408 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
(0.001 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD PASSED

Xq = 0.079 1.45% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 8:22 AM

Temperatures (°C)
Sample Cell: 48.9°C
Breath Tube: 47.5°C

Current Barometer 29.1 in
Volume (Ltr) 1.58 ✓

Settings
Lamp: 1.76 V
Bias: 79 V
Cooler: 1.65 V
Chopper: 553 Hz

Voltages (V)
Flow: 1.06 V
Detector: -0.041 V ✓

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/24/2011
Time: 07:27:49

Ca = 0.1000
CAL = 0.998718 0.800 <= CAL < 1.200
b1 = 0.0009 0.0000 <= b1 < 0.0040
b2 = 0.0053 0.0010 <= b2 < 0.0100
b3 = 0.0003 0.0000 <= b3 < 0.0040
Xq = 0.0781 0.0500 <= Xq < 0.2000
a21 = 1.161762 1.050 <= a21 < 1.300
a31 = 0.498372 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 08:55:32

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

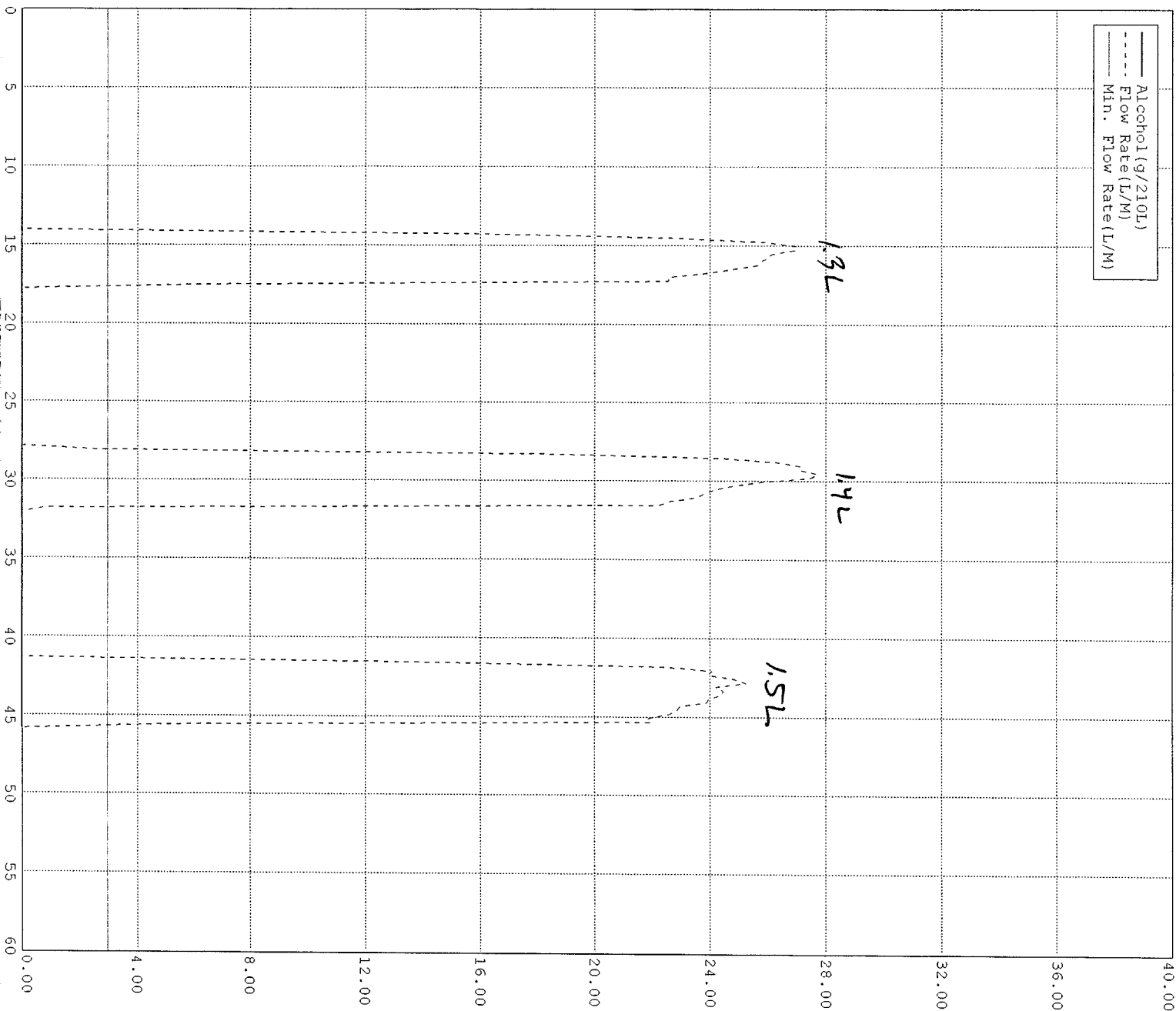
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.06: 0.078
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	08:58
BLANK TEST	0.000	08:58
INTERNAL STANDARD	VERIFIED	08:58
EXTERNAL STANDARD	0.077	08:58
BLANK TEST	0.000	08:59
SUBJECT SAMPLE (Vol=1.55L)	0.000	09:00
BLANK TEST	0.000	09:01
EXTERNAL STANDARD	0.077	09:01
BLANK TEST	0.000	09:02

DMW



LINEARITY CHECK

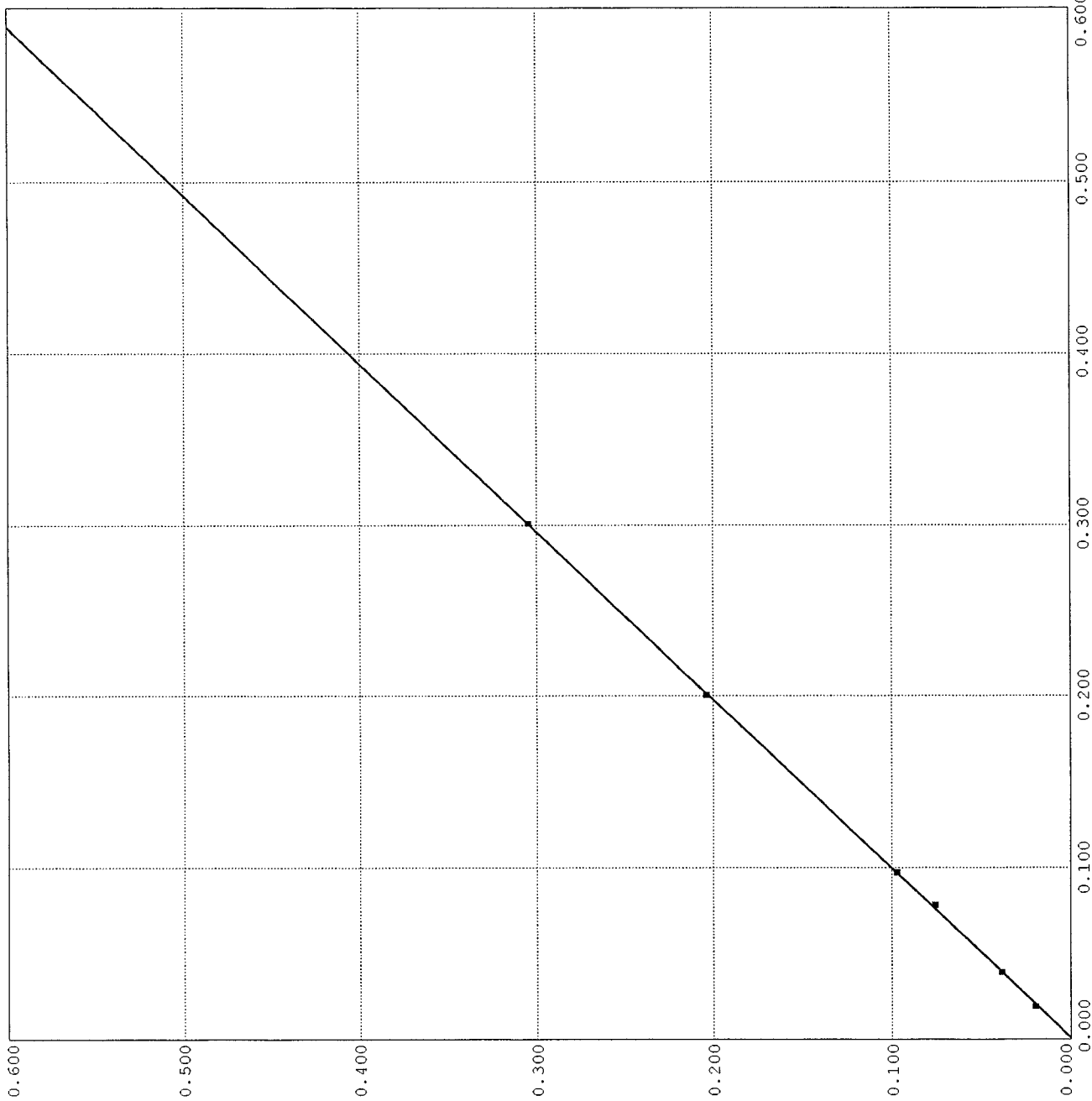
 Alaska Department of Public Safety
 DATAMASTER dmt: 100685

Date: 10/26/2018
 Time: 09:04:57

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.019	0.0204	0.0005
0.039	0.0394	0.0005
0.078	0.0766	0.0005
0.097	0.0982	0.0004
0.200	0.2046	0.0005
0.300	0.3054	0.0005

SLOPE = 1.020272
 R² = 0.999840



DW

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100685

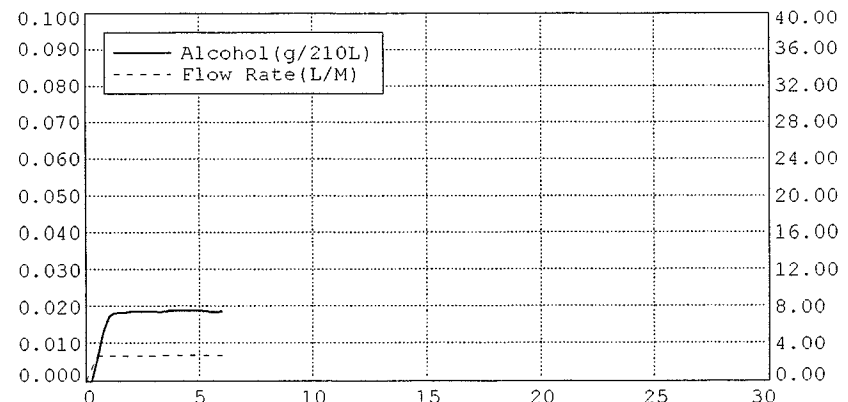
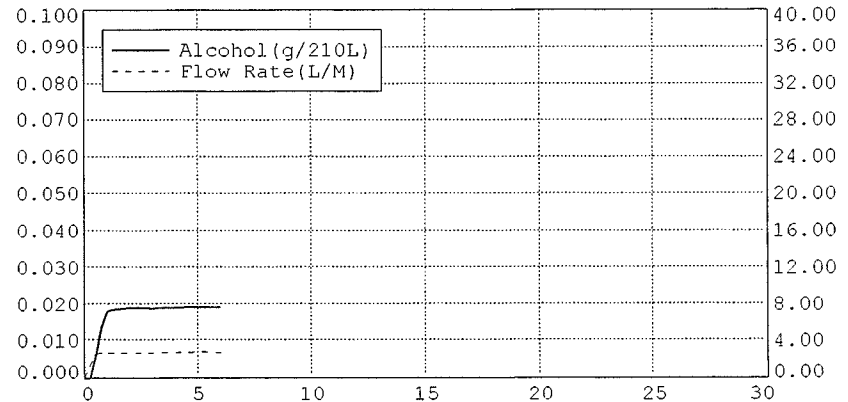
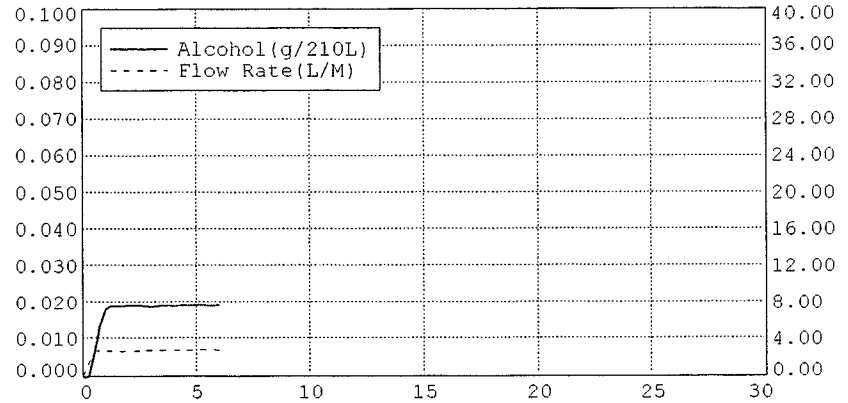
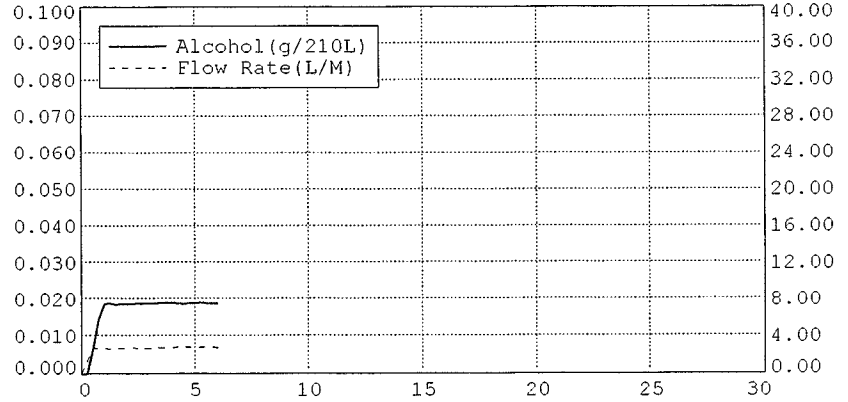
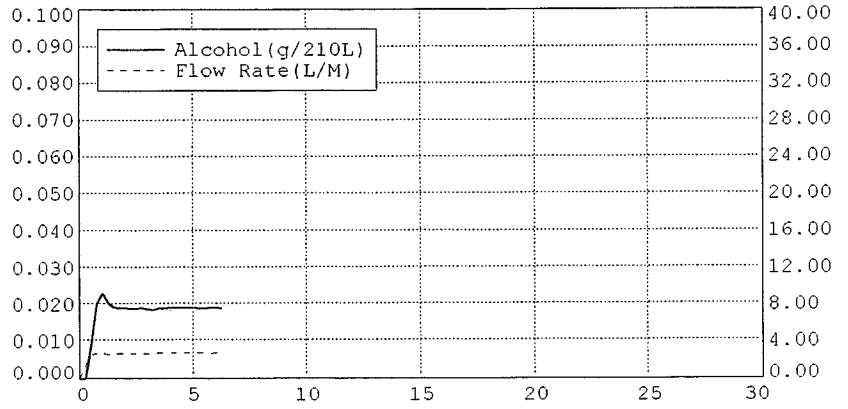
Date: 10/26/2018
Time: 09:04:58

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 29.07: 0.019
LOT #: AG805804
EXPIRATION: 02/27/2020
TANK PRESSURE: 1001 psi

BLANK TEST	0.000	09:06
INTERNAL STANDARD	VERIFIED	09:06
EXTERNAL STANDARD	0.020	09:06
BLANK TEST	0.000	09:07
EXTERNAL STANDARD	0.020	09:07
BLANK TEST	0.000	09:08
EXTERNAL STANDARD	0.021	09:09
BLANK TEST	0.000	09:09
EXTERNAL STANDARD	0.021	09:10
BLANK TEST	0.000	09:11
EXTERNAL STANDARD	0.020	09:11
BLANK TEST	0.000	09:12

Average = 0.0204
Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100685

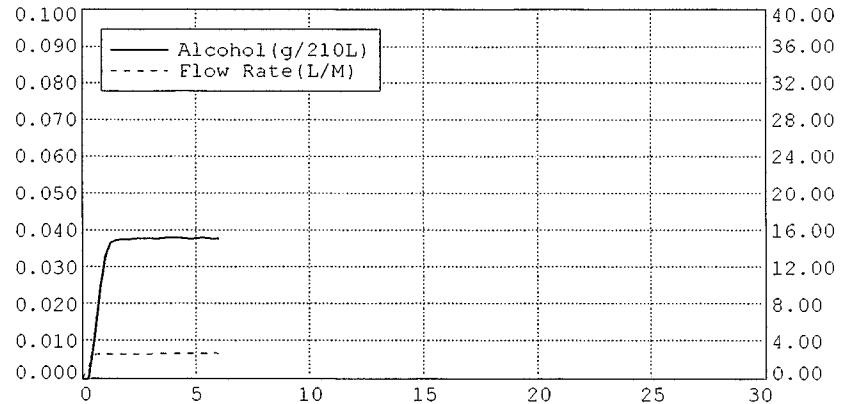
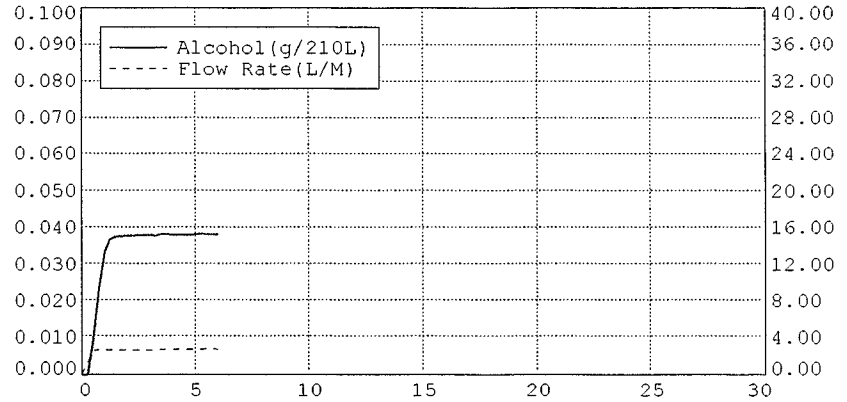
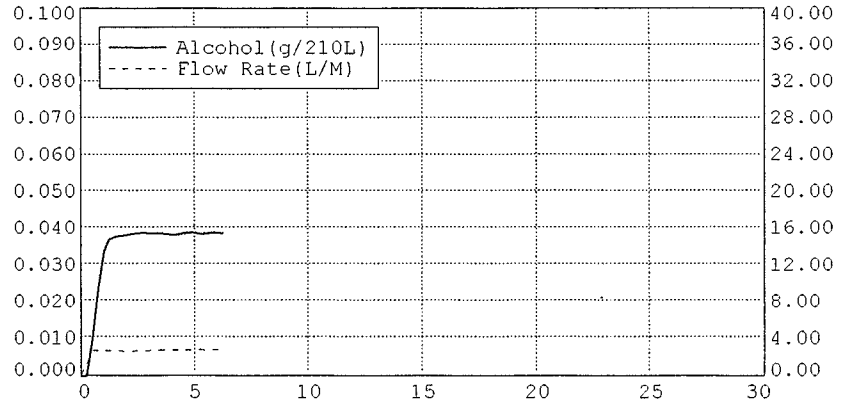
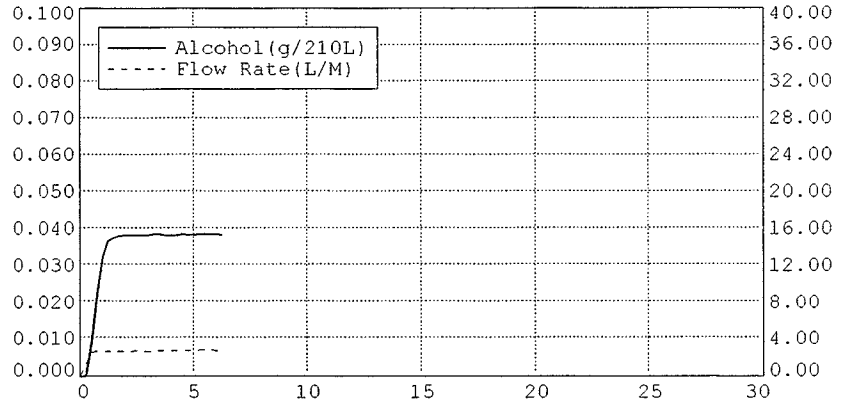
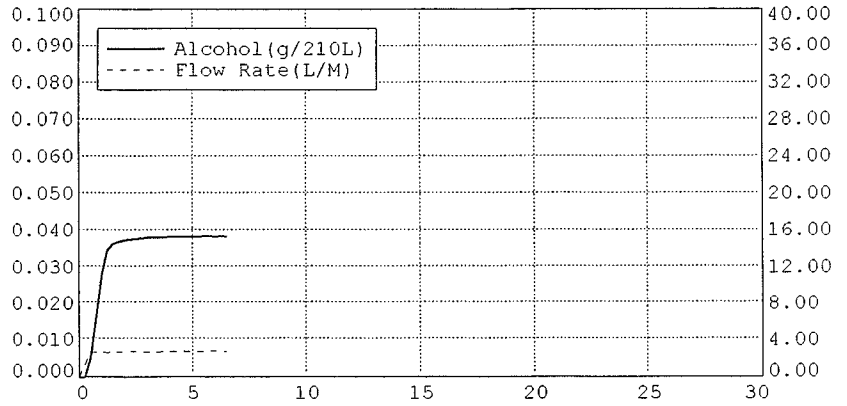
Date: 10/26/2018
 Time: 09:12:41

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.08: 0.039
 LOT #: AG630101
 EXPIRATION: 10/27/2018
 TANK PRESSURE: 806 psi

BLANK TEST	0.000	09:14
INTERNAL STANDARD	VERIFIED	09:14
EXTERNAL STANDARD	0.039	09:14
BLANK TEST	0.000	09:15
EXTERNAL STANDARD	0.040	09:16
BLANK TEST	0.000	09:16
EXTERNAL STANDARD	0.040	09:17
BLANK TEST	0.000	09:18
EXTERNAL STANDARD	0.039	09:18
BLANK TEST	0.000	09:19
EXTERNAL STANDARD	0.039	09:19
BLANK TEST	0.000	09:20

Average = 0.0394
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100685

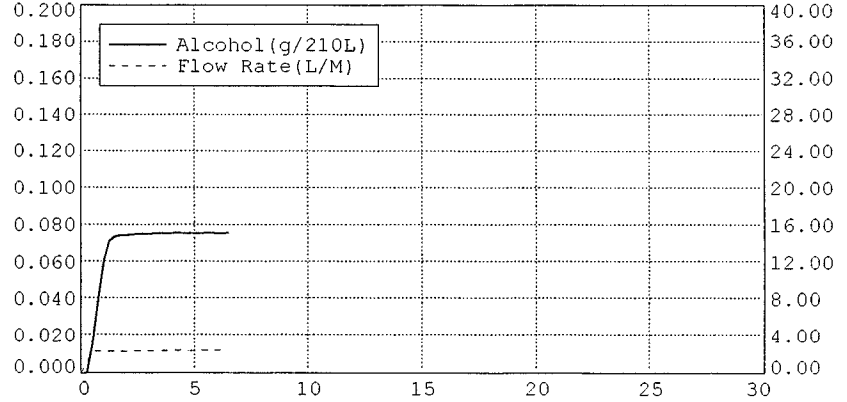
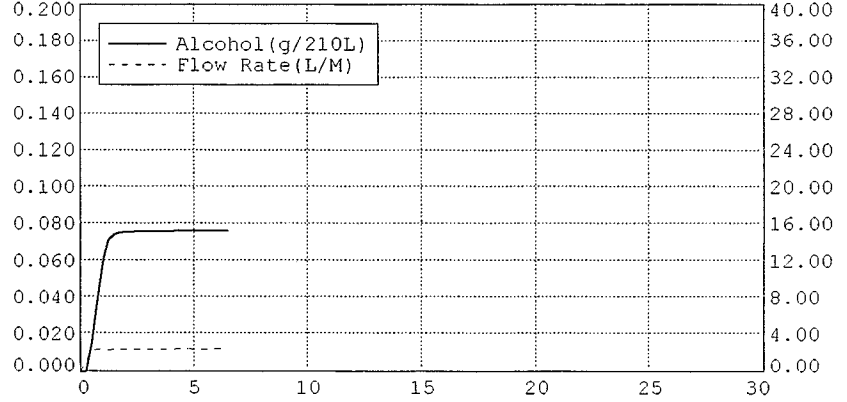
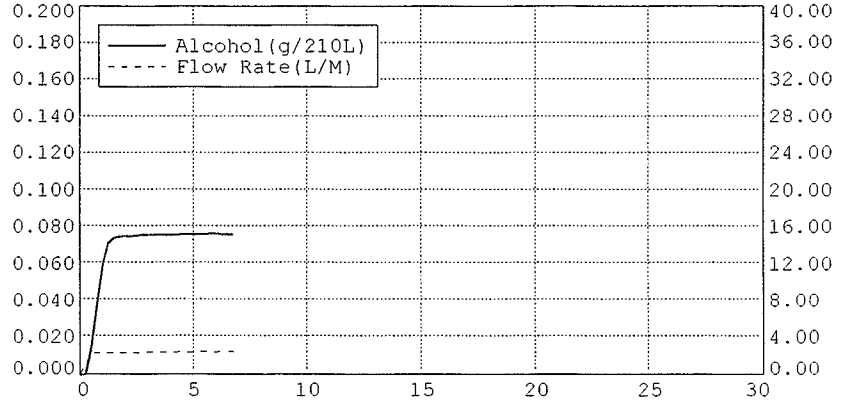
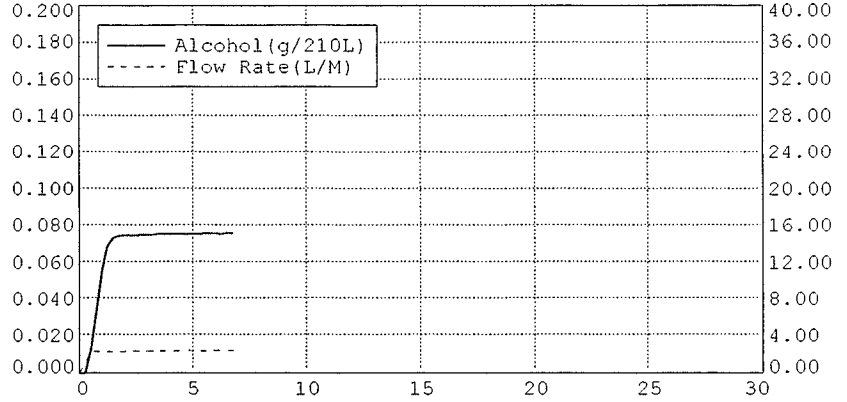
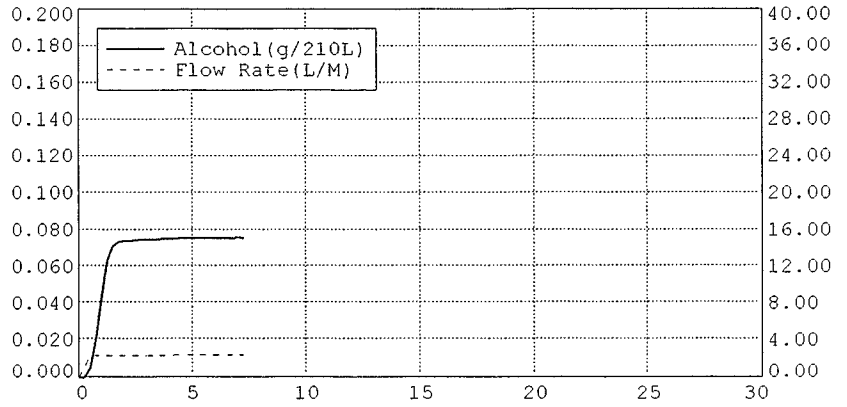
Date: 10/26/2018
 Time: 09:28:29

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.09: 0.078
 LOT #: AG634001
 EXPIRATION: 12/05/2018
 TANK PRESSURE: 315 psi

BLANK TEST	0.000	09:29
INTERNAL STANDARD	VERIFIED	09:30
EXTERNAL STANDARD	0.076	09:30
BLANK TEST	0.000	09:31
EXTERNAL STANDARD	0.076	09:31
BLANK TEST	0.000	09:32
EXTERNAL STANDARD	0.077	09:32
BLANK TEST	0.000	09:33
EXTERNAL STANDARD	0.077	09:33
BLANK TEST	0.000	09:34
EXTERNAL STANDARD	0.077	09:34
BLANK TEST	0.000	09:35

Average = 0.0766
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100685

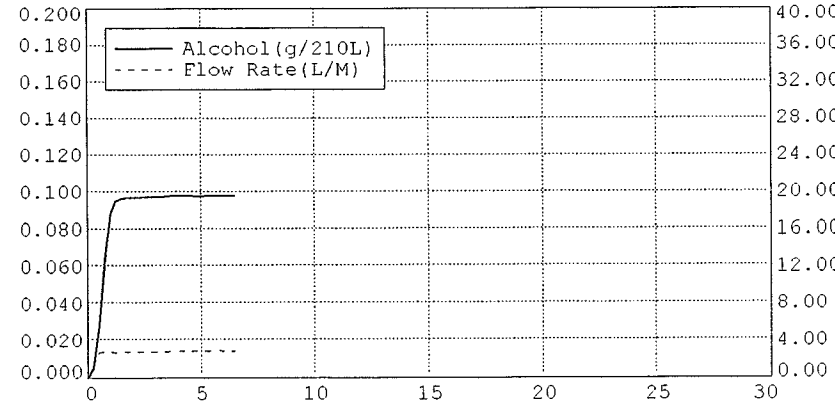
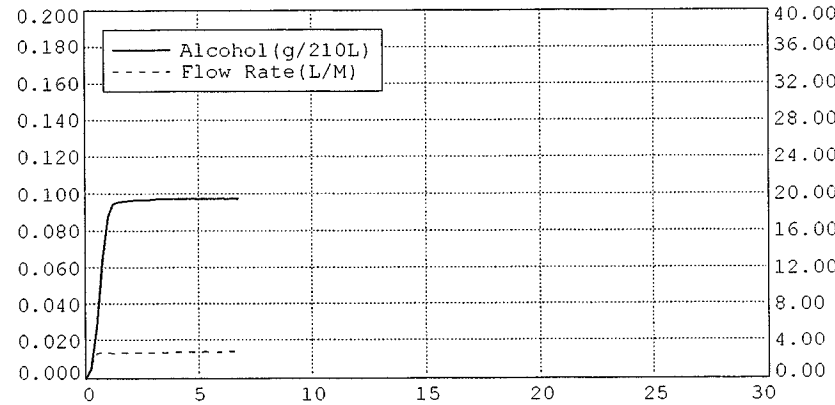
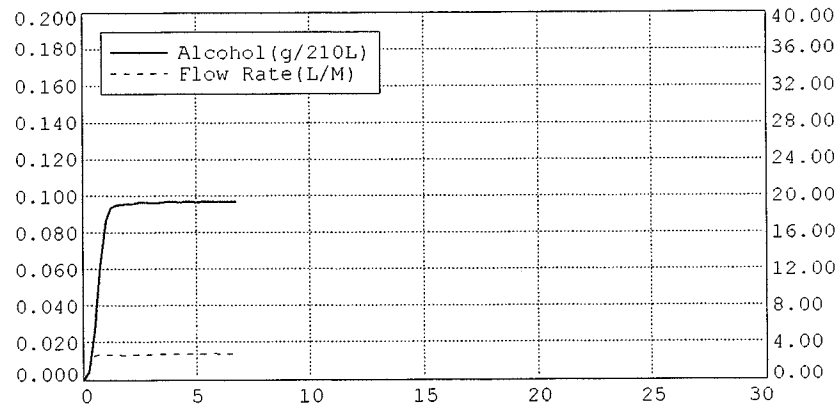
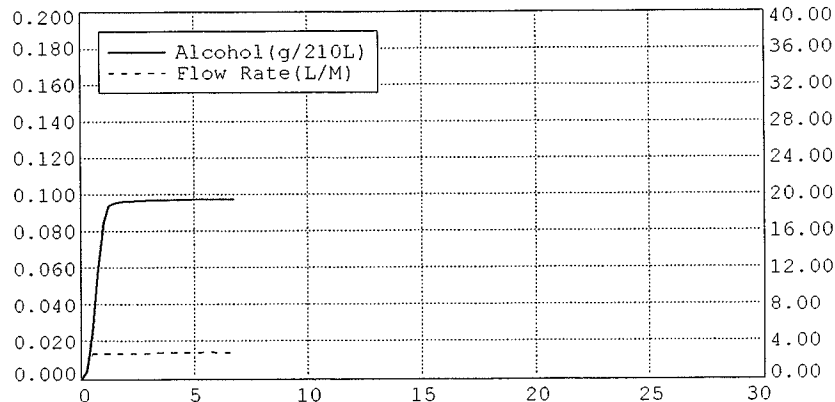
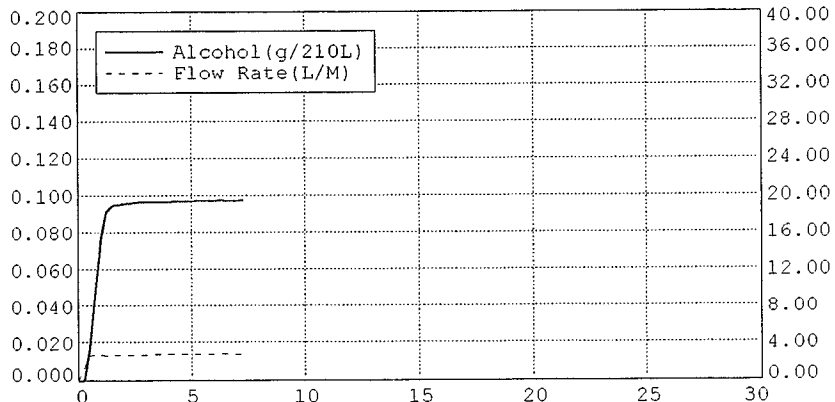
Date: 10/26/2018
 Time: 09:36:56

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.09: 0.097
 LOT #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 1123 psi

BLANK TEST	0.000	09:38
INTERNAL STANDARD	VERIFIED	09:38
EXTERNAL STANDARD	0.098	09:38
BLANK TEST	0.000	09:39
EXTERNAL STANDARD	0.098	09:39
BLANK TEST	0.000	09:40
EXTERNAL STANDARD	0.098	09:40
BLANK TEST	0.000	09:41
EXTERNAL STANDARD	0.098	09:42
BLANK TEST	0.000	09:42
EXTERNAL STANDARD	0.099	09:43
BLANK TEST	0.000	09:44

Average = 0.0982
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100685

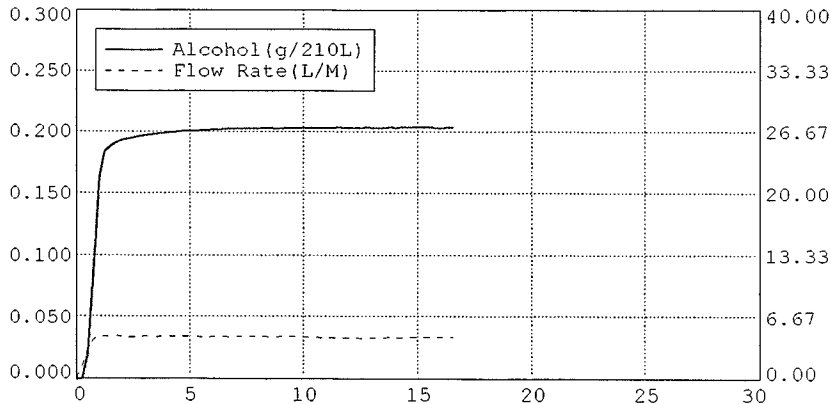
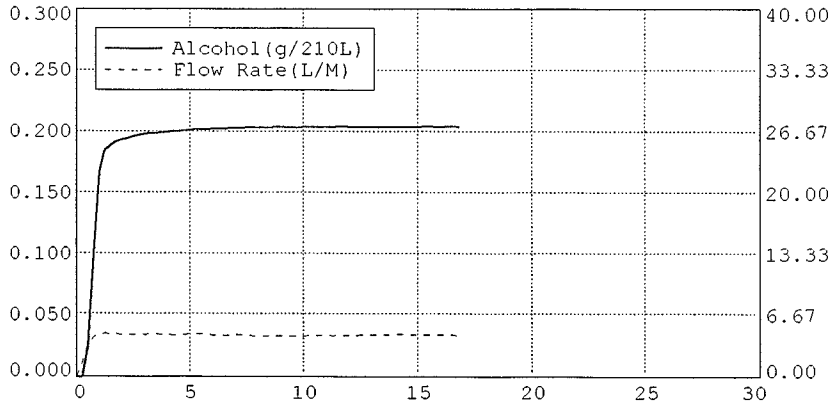
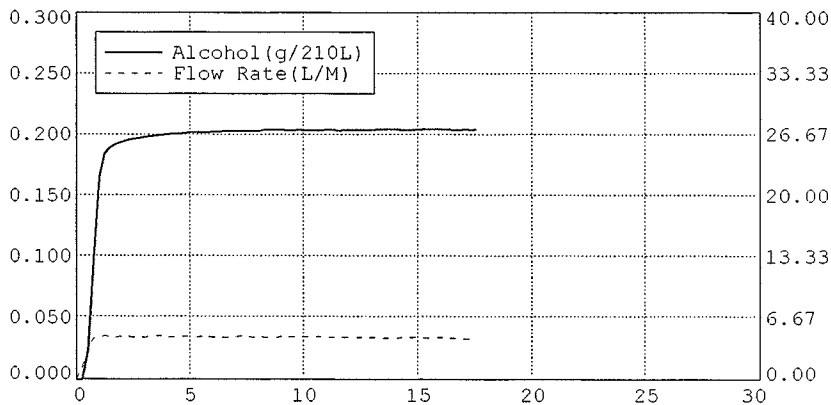
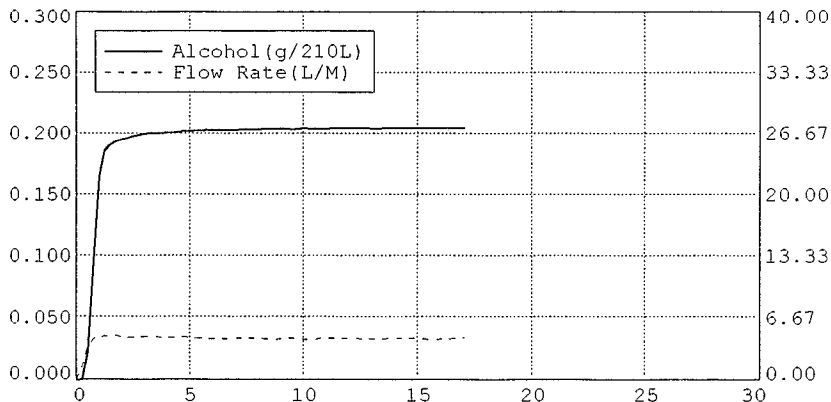
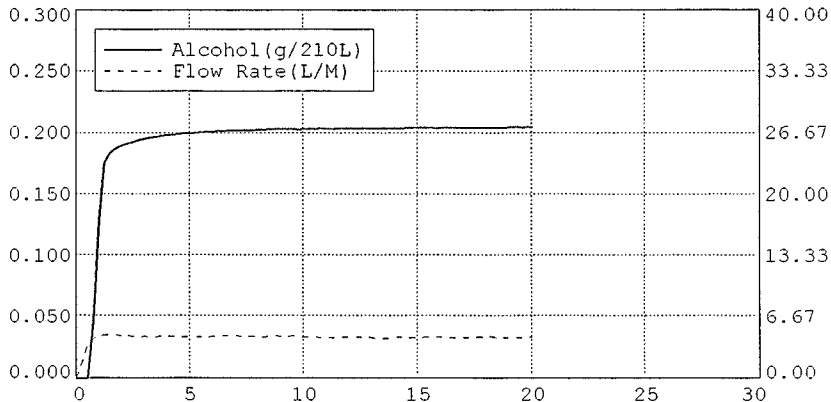
Date: 10/26/2018
 Time: 10:00:13

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200
 LOT #: 17340
 EXPIRATION: 10/09/2019

BLANK TEST	0.000	10:05
INTERNAL STANDARD	VERIFIED	10:05
EXTERNAL STANDARD	0.205	10:06
BLANK TEST	0.000	10:07
EXTERNAL STANDARD	0.205	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.205	10:09
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.204	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.204	10:11
BLANK TEST	0.000	10:12

Average = 0.2046
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

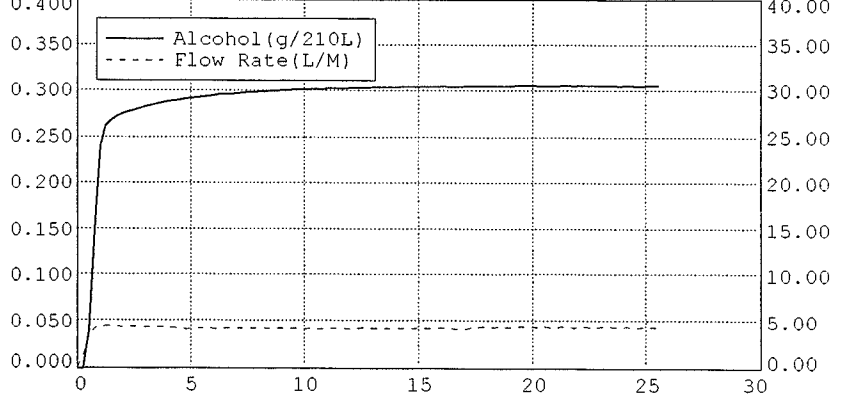
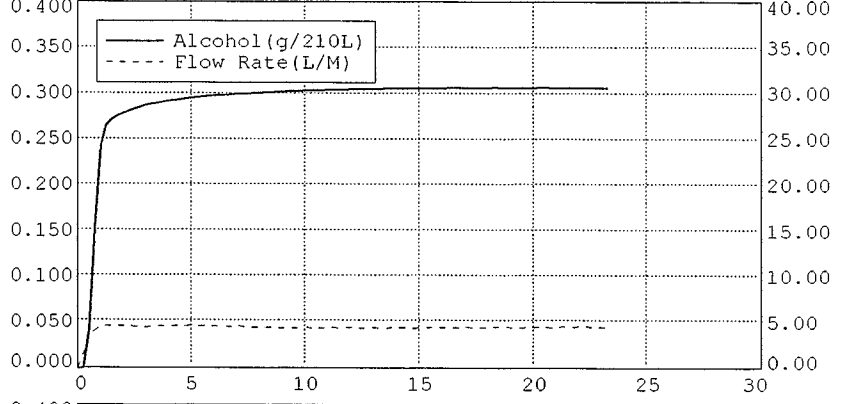
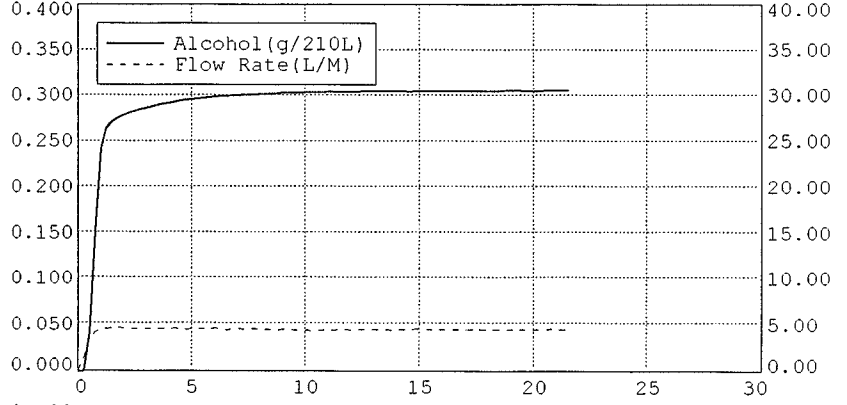
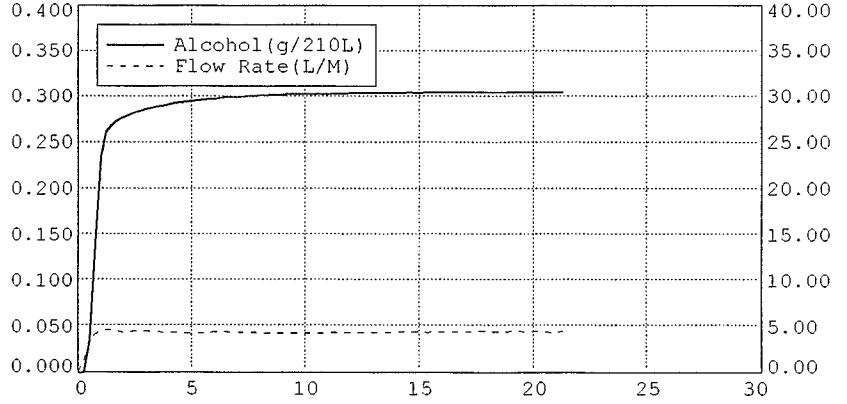
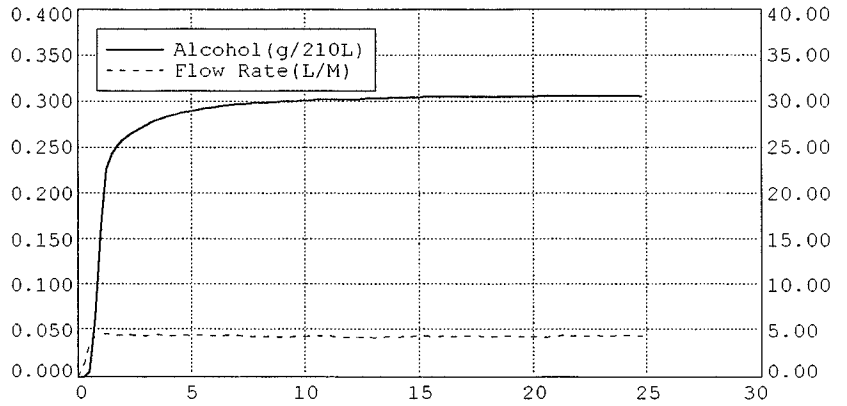
Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 10:13:54

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.300
LOT #: 17350
EXPIRATION: 10/11/2019

BLANK TEST	0.000	10:16
INTERNAL STANDARD	VERIFIED	10:16
EXTERNAL STANDARD	0.305	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.305	10:18
BLANK TEST	0.000	10:19
EXTERNAL STANDARD	0.305	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.306	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.306	10:22
BLANK TEST	0.000	10:23

Average = 0.3054
Std. Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 10:30:22

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

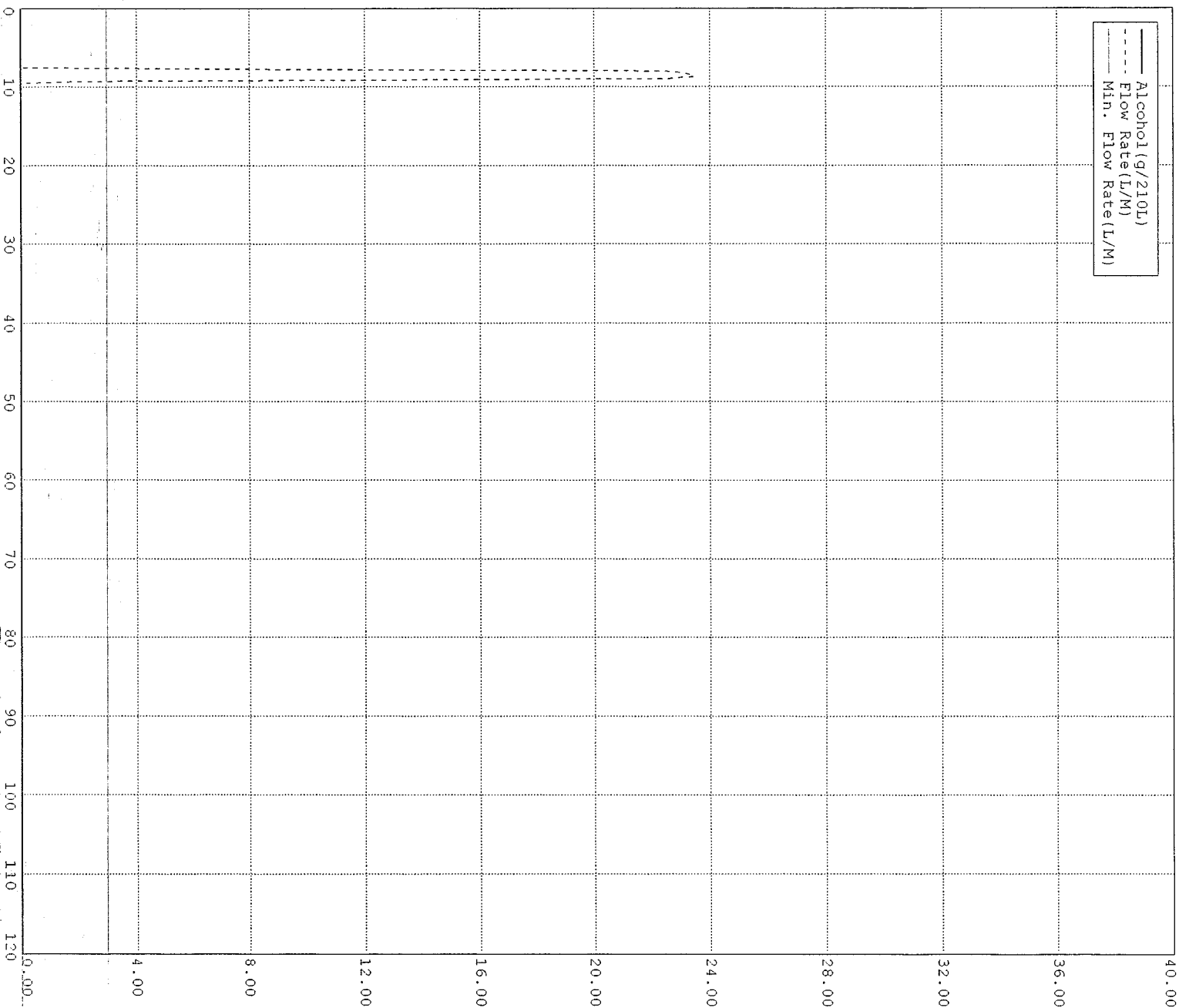
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.10: 0.078
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	10:31
BLANK TEST	0.000	10:32
INTERNAL STANDARD	VERIFIED	10:32
EXTERNAL STANDARD	0.076	10:32
BLANK TEST	0.000	10:33
SUBJECT SAMPLE	INCOMPLETE	10:35

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



DM

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 10:55:28

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

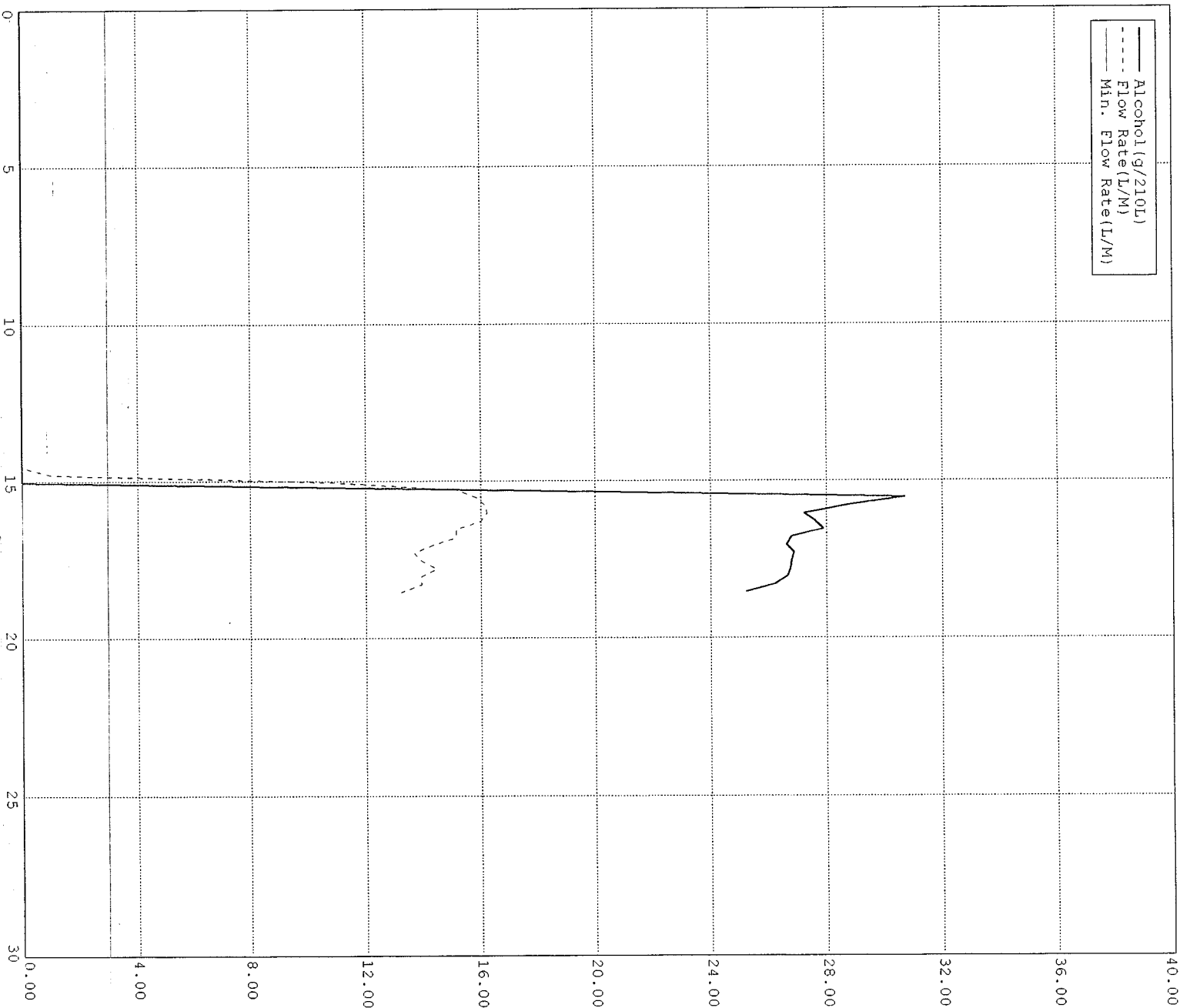
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.10: 0.078
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	10:56
BLANK TEST	0.000	10:56
INTERNAL STANDARD	VERIFIED	10:56
EXTERNAL STANDARD	0.077	10:57
BLANK TEST	0.000	10:58
SUBJECT SAMPLE	INVALID	10:58

mm



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 11:44:02

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

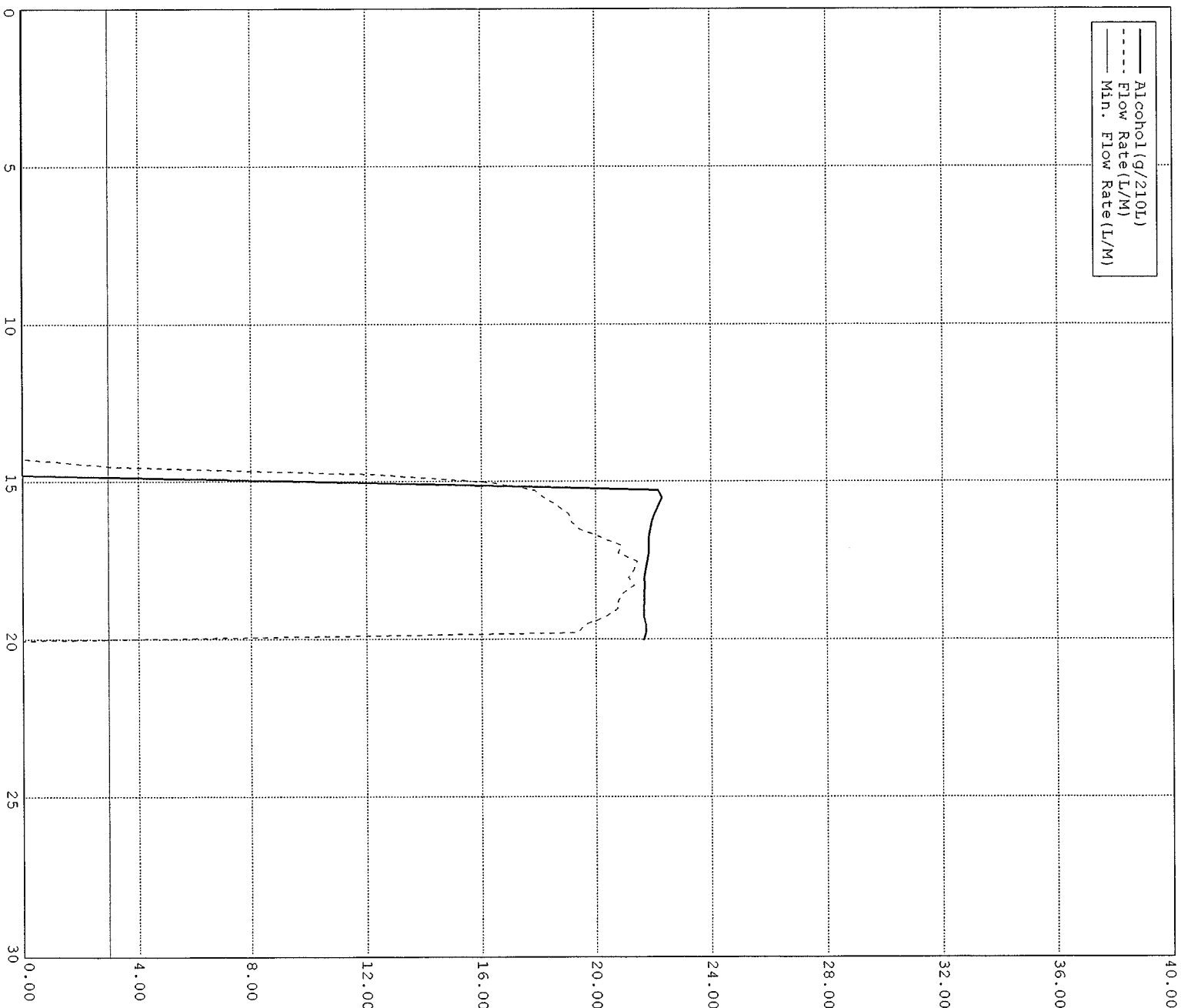
DEPT/AGENCY:
INTERFERENCE ACETONE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.12: 0.078
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	11:45
BLANK TEST	0.000	11:45
INTERNAL STANDARD	VERIFIED	11:45
Xq = 0.080 (3.00%)		
EXTERNAL STANDARD	0.077	11:45
X[1] = 0.0768 (-0.0003)	(0.0039)	
BLANK TEST	0.000	11:46
SUBJECT SAMPLE	XXX	11:46
X[1] = 0.1085 (-0.0194)	(0.0018)	

Interference Detected

Handwritten signature



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 11:50:37

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

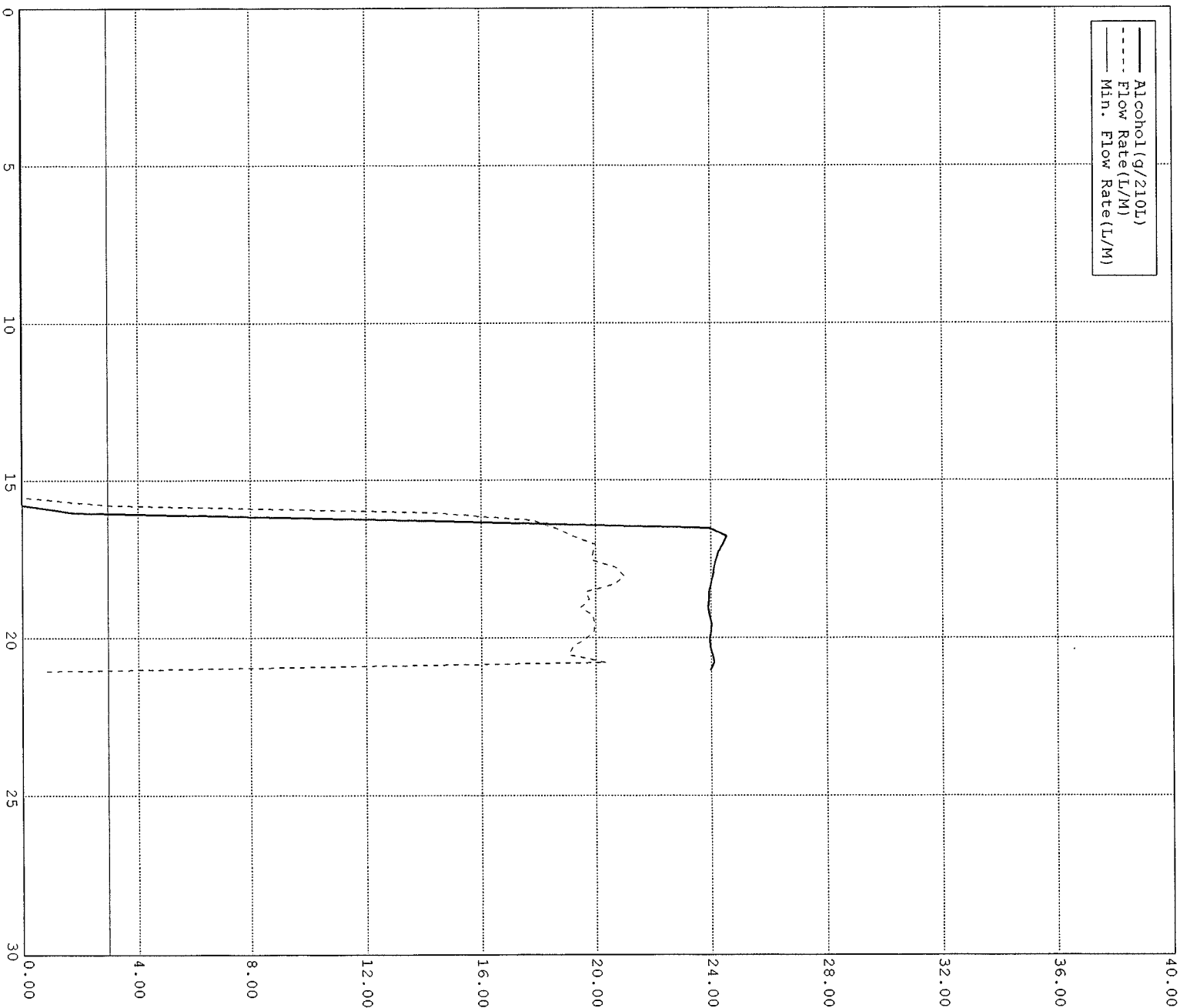
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.12: 0.078
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	11:51
BLANK TEST	0.000	11:51
INTERNAL STANDARD	VERIFIED	11:52
Xq = 0.080 (2.67%)		
EXTERNAL STANDARD	0.077	11:52
X[1] = 0.0768 (-0.0003)	(0.0039)	
BLANK TEST	0.000	11:53
SUBJECT SAMPLE	XXX	11:53
X[1] = 0.1194 (-0.0224)	(0.0028)	

Interference Detected

78W



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 11:58:13

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

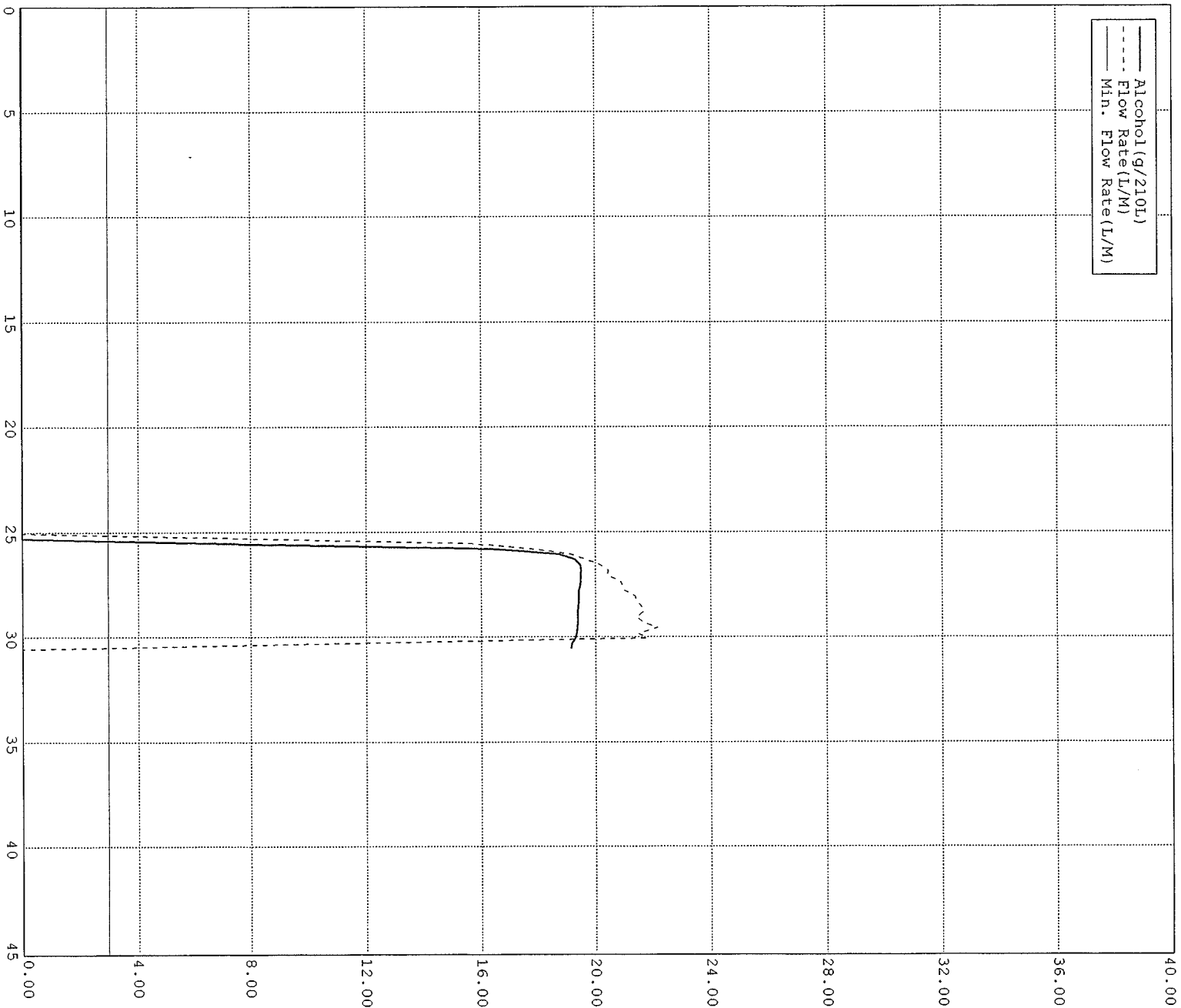
EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.12: 0.078
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	11:59
INTERNAL STANDARD	0.000	11:59
INTERNAL STANDARD	VERIFIED	11:59
Xq = 0.080 (2.89%)		
EXTERNAL STANDARD	0.077	11:59
X[1] = 0.0774 (0.0003) (0.0042)		
BLANK TEST	0.000	12:00
SUBJECT SAMPLE (Vol=1.71L)	0.095	12:01
X[1] = 0.0959 (-0.0007) (0.0019)		
BLANK TEST	0.000	12:02
EXTERNAL STANDARD	0.077	12:02
X[1] = 0.0770 (-0.0001) (0.0037)		
BLANK TEST	0.000	12:03

GHK 2 Avg = -0.0001

GHK 3 Avg = 0.0039

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 10:38:07

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

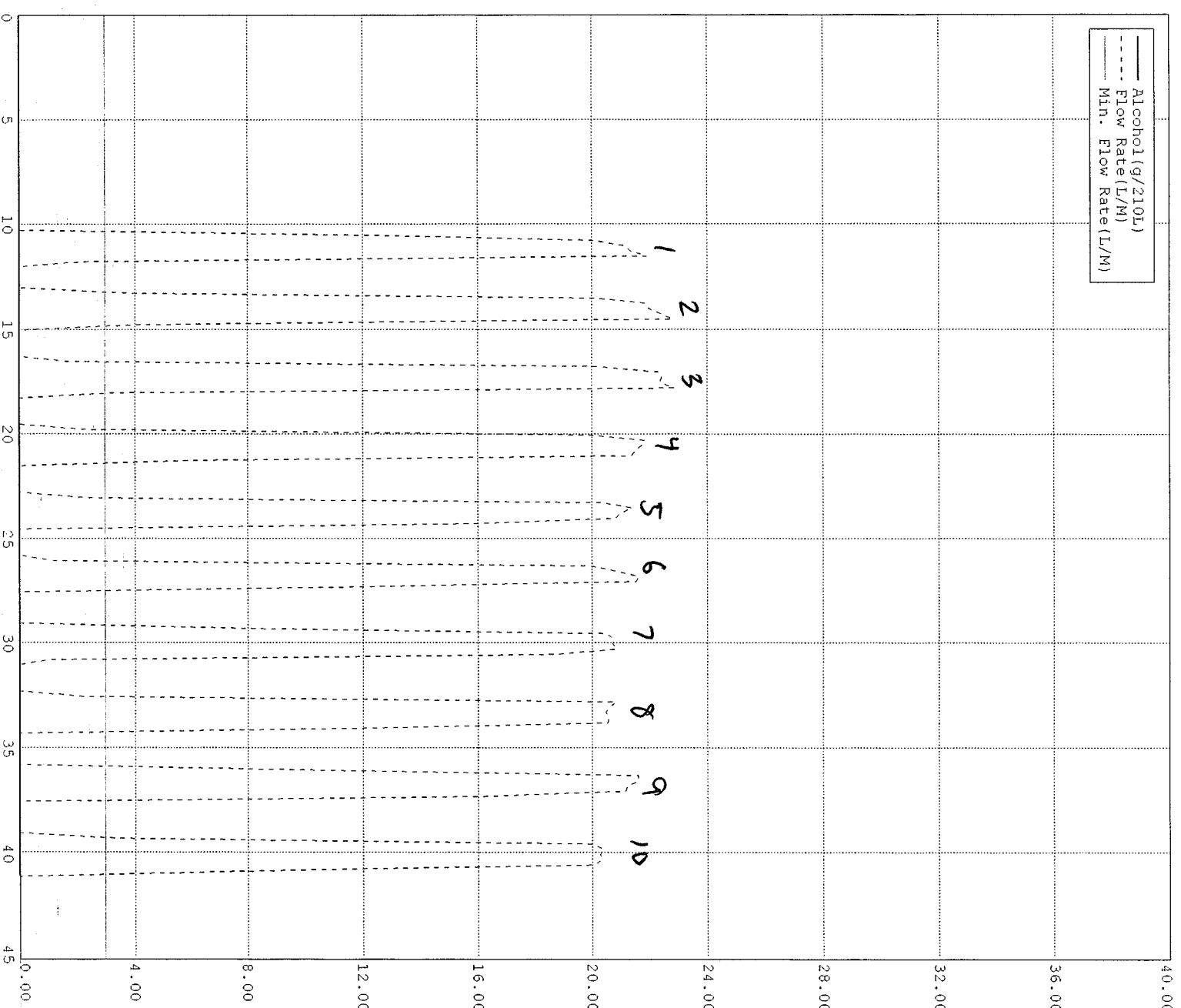
DEPT/AGENCY:
MAXIMUM ATTEMPTS
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.10: 0.078
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	10:39
BLANK TEST	0.000	10:39
INTERNAL STANDARD	VERIFIED	10:39
EXTERNAL STANDARD	0.077	10:39
BLANK TEST	0.000	10:40
SUBJECT SAMPLE	XXX	10:41

Maximum Attempts Exceeded

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 11:03:46

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

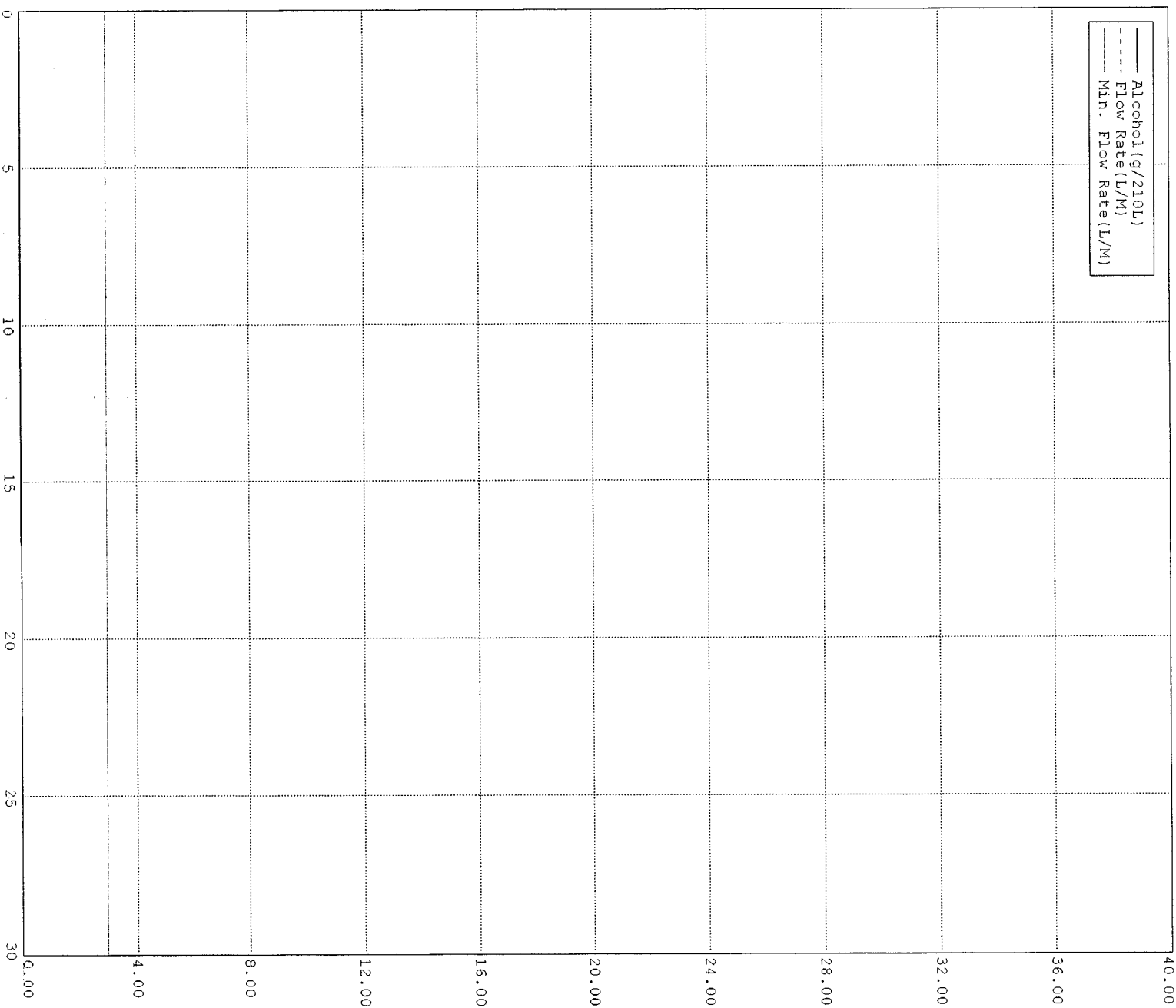
DEPT/AGENCY:
RFI
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.10: 0.078
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK
BLANK TEST PASSED 11:04
INTERNAL STANDARD VERIFIED 11:05
EXTERNAL STANDARD 0.077 11:05
BLANK TEST 0.000 11:06

RFI DETECTED

300



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100685

Date: 10/26/2018
Time: 12:21:00

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 29.11: 0.078
LOT #: AG634001
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	12:22
BLANK TEST	0.000	12:22
INTERNAL STANDARD	VERIFIED	12:22
EXTERNAL STANDARD	0.077	12:22
BLANK TEST	0.000	12:23
SUBJECT SAMPLE (Vol=3.11L)	0.000	12:23
BLANK TEST	0.000	12:24
EXTERNAL STANDARD	0.077	12:24
BLANK TEST	0.000	12:25

DM

