

# 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 100346 Analyst Derek Walter Start Date 08/08/18

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 1.6L L (1.3L to 1.7L)

4. Linearity Test (attached)

a. Levels Used

- i. 0.020g/210L Mnf Airgas Lot AG 805804 Exp 02/27/2020
- ii. 0.040g/210L Mnf Airgas Lot AG 630101 Exp 10/27/2018
- iii. 0.080g/210L Mnf Airgas Lot AG 634001 Exp 12/05/2018
- iv. 0.100g/210L Mnf Airgas Lot AG 629304 Exp 10/19/2018
- v. 0.200g/210L Mnf Autn Lot 17090 Exp 02/24/2019
  - 1. Simulator S/N DS298 Date Calibrated 01/24/2018
- vi. 0.300g/210L Mnf Autn 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 Autn Lot 17280 Level 0.100 Exp 09/11/2019
  - 1. Simulator S/N SD1177 Date Calibrated 01/24/2018
- ii. Isopropanol - Mnf Autn Lot 17280 Level 0.100 Exp 09/11/2019
  - 1. Simulator S/N SD1199 Date Calibrated 01/24/2018
- iii. Negative Control - Mnf Autn Lot 17280 Level 0.100 Exp 09/11/2019
  - 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 08/09/18

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100346  
-----

Date: 08/08/2018  
Time: 08:05:03

VERSIONS

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

TEMPERATURES

Sample Chamber = 49.1°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 48.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.61 V PASSED  
(0.97 V - 2.25 V)  
Cooler Voltage = 1.61 V PASSED  
(0.97 V - 2.25 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 538 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.3 in

PUMP INFO

Flow Rate = 4.439 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

Xq = 0.103 0.42% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100346  
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Date: 08/08/2018  
Time: 8:42 AM

Temperatures (°C)  
Sample Cell: 49.0°C  
Breath Tube: 47.9°C

Current Barometer 29.4 in  
Volume (Ltr) 1.55

Settings  
Lamp: 1.66 V  
Bias: 79 V  
Cooler: 1.61 V  
Chopper: 537 Hz

Voltages (V)  
Flow: 1.05 V  
Detector: -0.039 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100346  
-----

Date: 07/31/2018  
Time: 09:33:11

OPERATOR NAME:  
DEREK WALTON  
CERTIFICATE #: 9508

Ca = 0.1000  
CAL = 0.962482    0.800 <= CAL < 1.200  
b1 = 0.0014    0.0000 <= b1 < 0.0040  
b2 = 0.0064    0.0010 <= b2 < 0.0100  
b3 = 0.0011    0.0000 <= b3 < 0.0040  
Xq = 0.1037    0.0500 <= Xq < 0.2000  
a21 = 1.177531    1.050 <= a21 < 1.300  
a31 = 0.414073    0.300 <= a31 < 0.800

SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100346  
-----

Date: 08/08/2018  
Time: 12:05:51

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

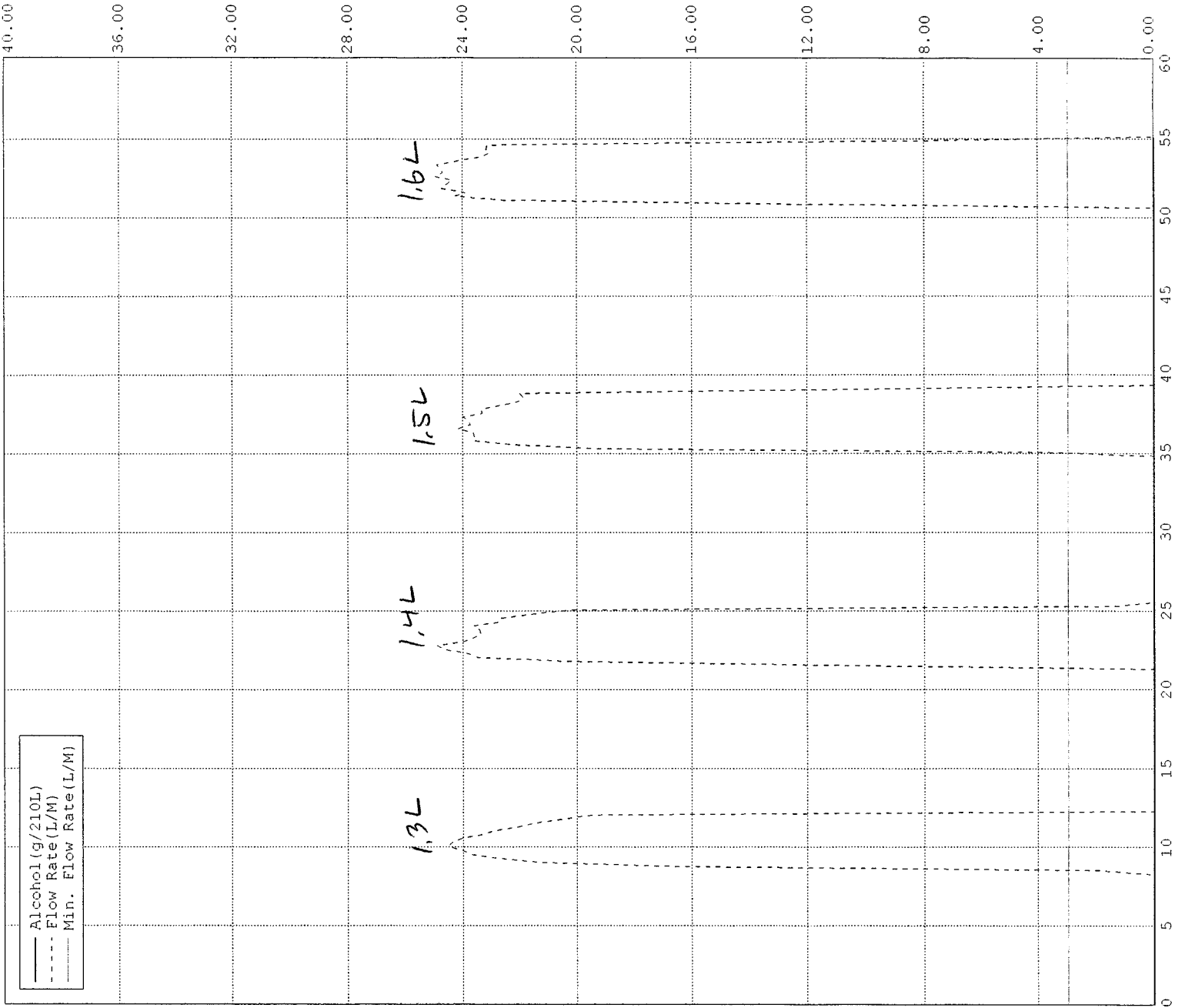

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.39: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	12:06
BLANK TEST	0.000	12:06
INTERNAL STANDARD	VERIFIED	12:07
EXTERNAL STANDARD	0.077	12:07
BLANK TEST	0.000	12:08
SUBJECT SAMPLE (Vol=1.59L)	0.000	12:09
BLANK TEST	0.000	12:10
EXTERNAL STANDARD	0.078	12:10
BLANK TEST	0.000	12:11



LINEARITY CHECK

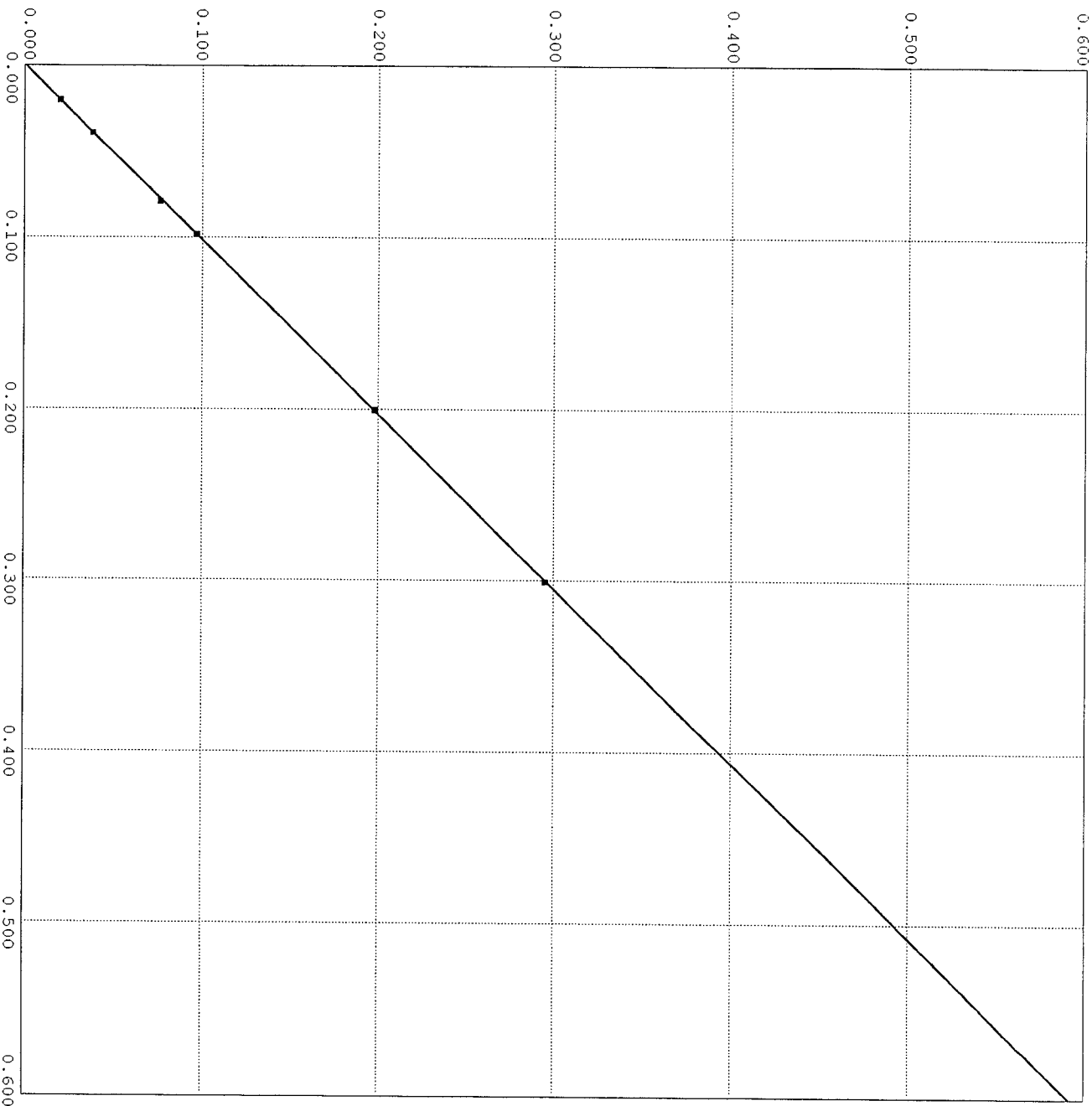
Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 08/08/2018  
Time: 12:13:15

SUPERVISOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0210	0.0000
0.039	0.0396	0.0005
0.079	0.0774	0.0005
0.098	0.0978	0.0004
0.200	0.1988	0.0004
0.300	0.2960	0.0007

SLOPE = 0.984688  
R<sup>2</sup> = 0.999945



3877

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

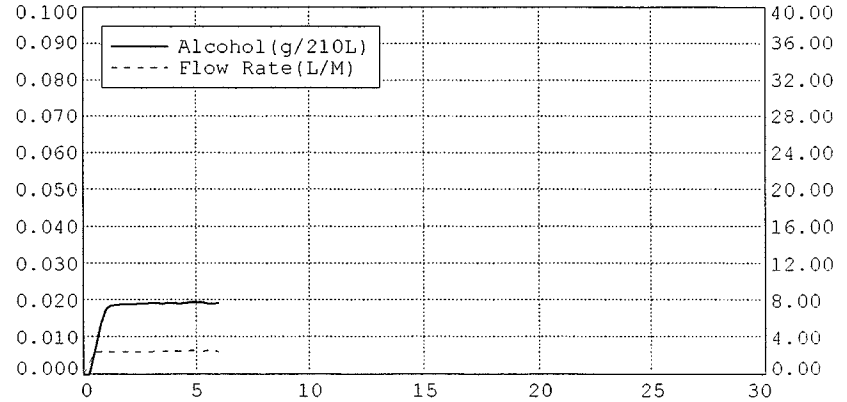
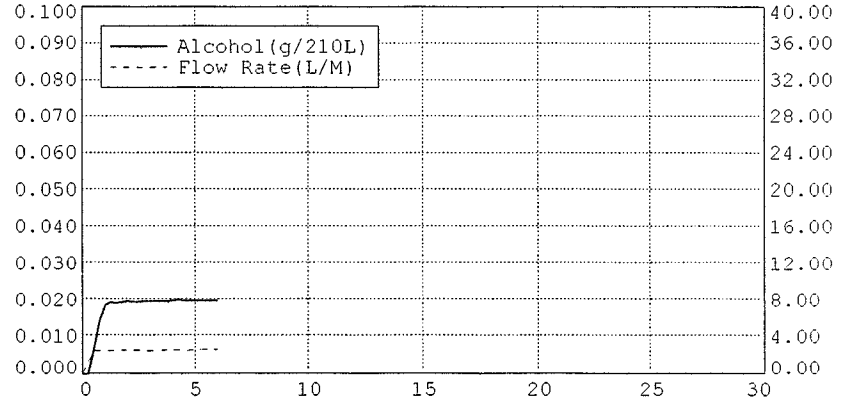
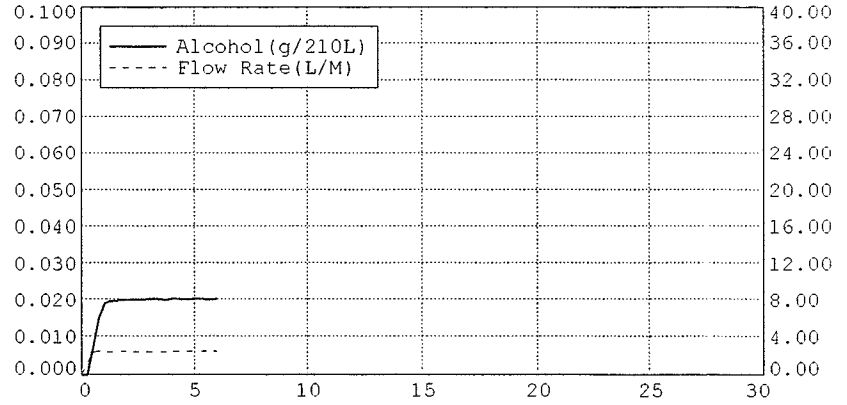
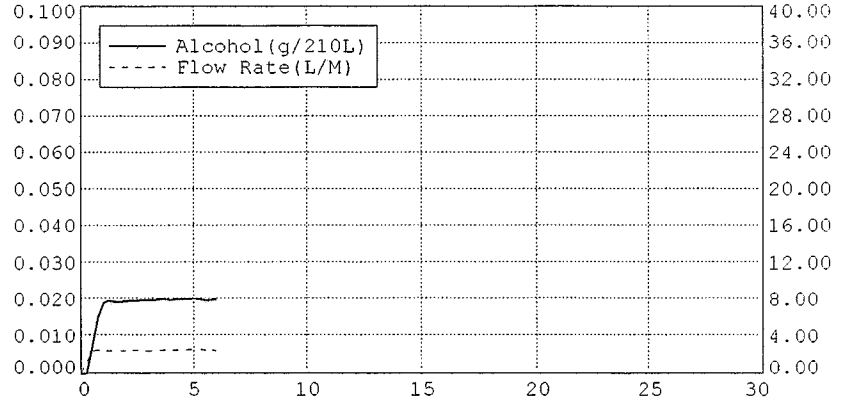
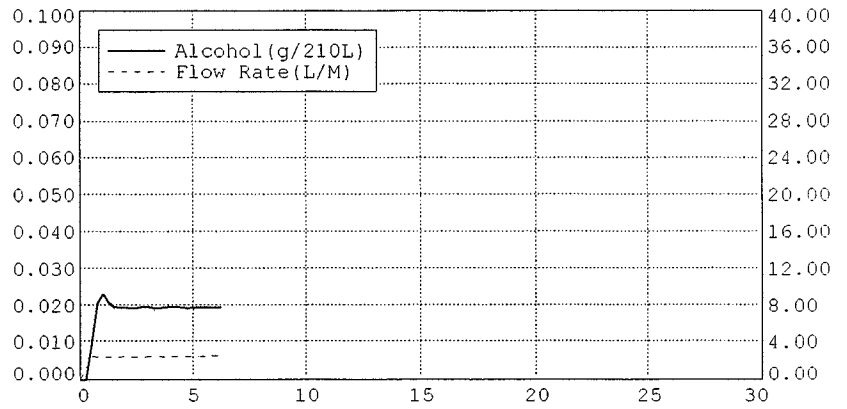
Date: 08/08/2018  
Time: 12:13:16

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
TARGET AT 29.39: 0.020  
LOT #: AG805804  
EXPIRATION: 02/27/2020  
TANK PRESSURE: 1100 psi

BLANK TEST	0.000	12:15
INTERNAL STANDARD	VERIFIED	12:16
EXTERNAL STANDARD	0.021	12:16
BLANK TEST	0.000	12:17
EXTERNAL STANDARD	0.021	12:17
BLANK TEST	0.000	12:18
EXTERNAL STANDARD	0.021	12:18
BLANK TEST	0.000	12:19
EXTERNAL STANDARD	0.021	12:19
BLANK TEST	0.000	12:20
EXTERNAL STANDARD	0.021	12:20
BLANK TEST	0.000	12:21

Average = 0.0210  
Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

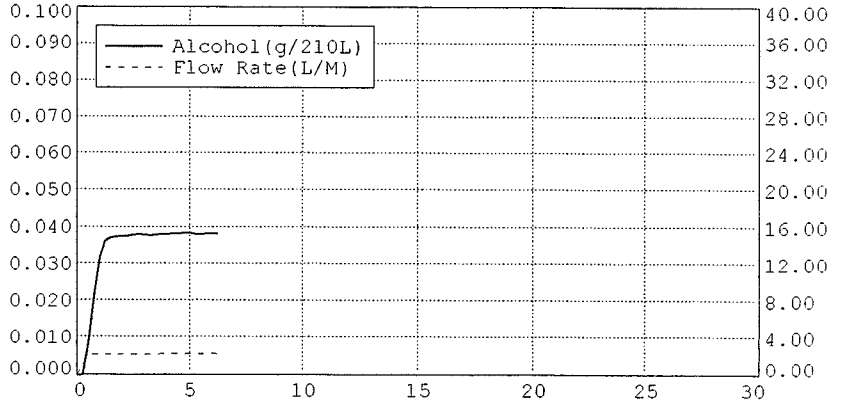
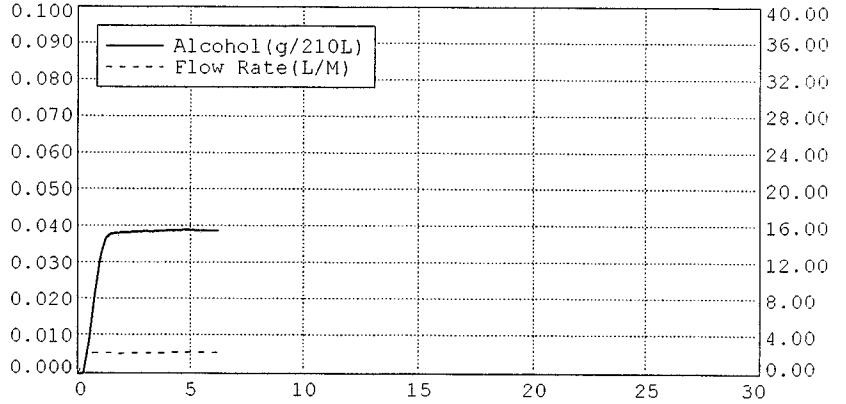
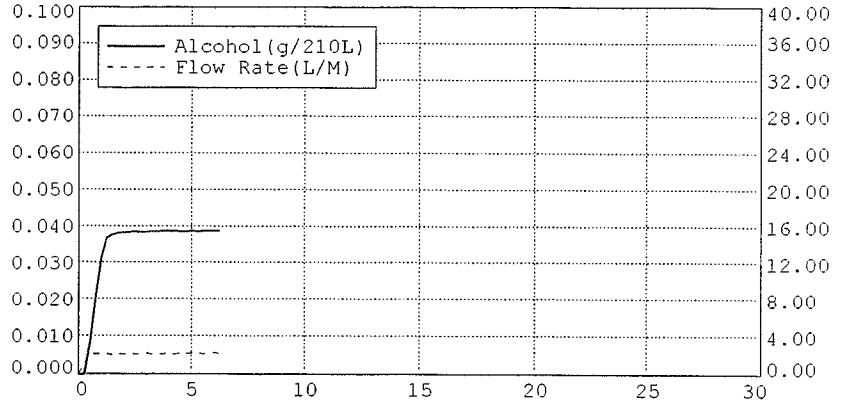
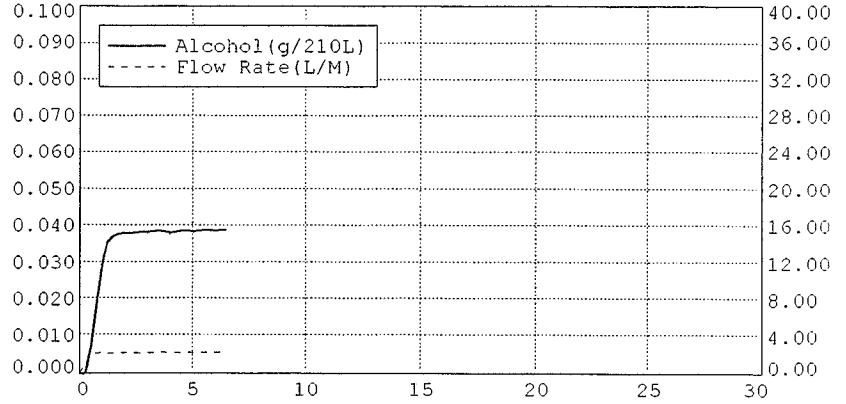
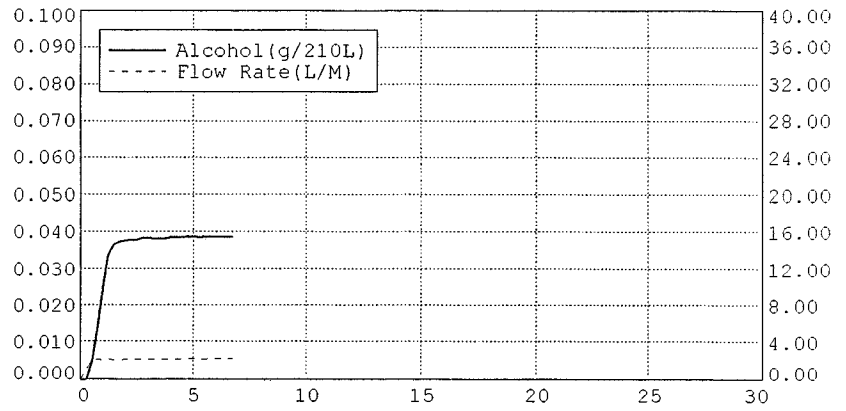
Date: 08/08/2018  
Time: 12:23:26

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
TARGET AT 29.39: 0.039  
LOT #: AG630101  
EXPIRATION: 10/27/2018  
TANK PRESSURE: 249 psi

BLANK TEST	0.000	12:25
INTERNAL STANDARD	VERIFIED	12:25
EXTERNAL STANDARD	0.040	12:25
BLANK TEST	0.000	12:26
EXTERNAL STANDARD	0.039	12:26
BLANK TEST	0.000	12:27
EXTERNAL STANDARD	0.040	12:27
BLANK TEST	0.000	12:28
EXTERNAL STANDARD	0.040	12:28
BLANK TEST	0.000	12:29
EXTERNAL STANDARD	0.039	12:29
BLANK TEST	0.000	12:30

Average = 0.0396  
Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

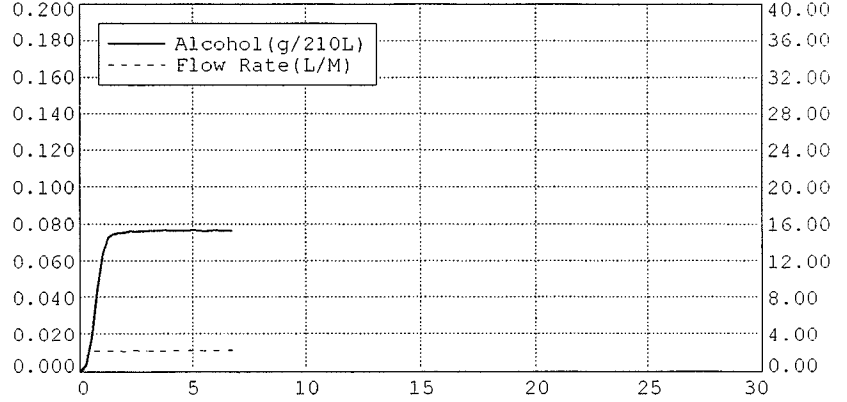
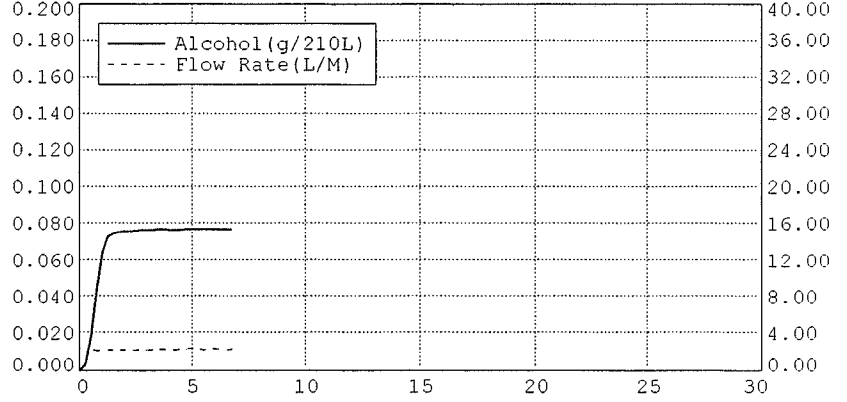
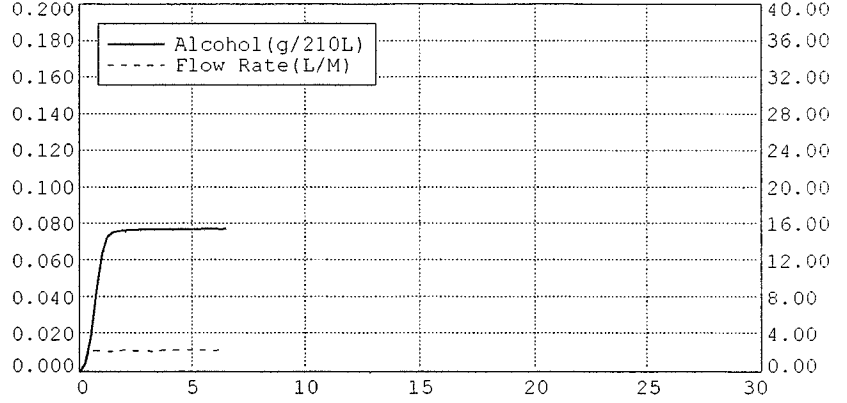
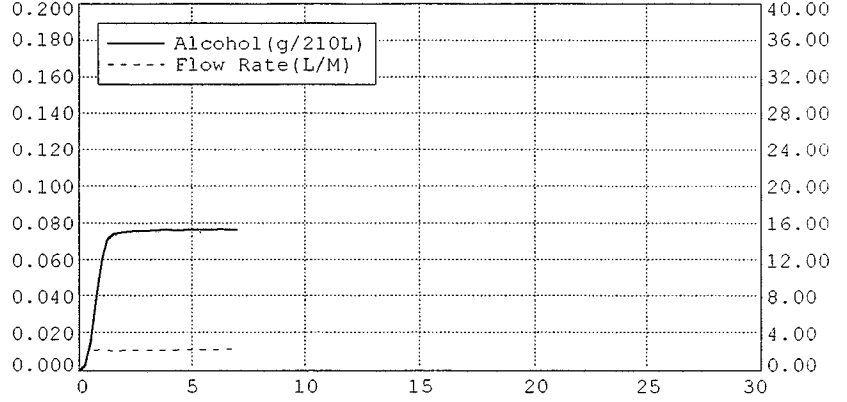
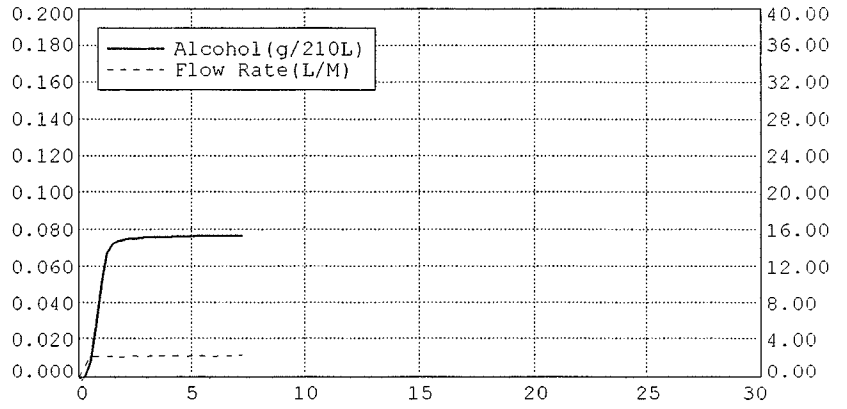
Date: 08/08/2018  
Time: 12:31:36

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.39: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018  
TANK PRESSURE: 297 psi

TEST TYPE	CONCENTRATION	TIME
BLANK TEST	0.000	12:32
INTERNAL STANDARD	VERIFIED	12:32
EXTERNAL STANDARD	0.077	12:33
BLANK TEST	0.000	12:34
EXTERNAL STANDARD	0.077	12:34
BLANK TEST	0.000	12:35
EXTERNAL STANDARD	0.078	12:35
BLANK TEST	0.000	12:36
EXTERNAL STANDARD	0.078	12:36
BLANK TEST	0.000	12:37
EXTERNAL STANDARD	0.077	12:37
BLANK TEST	0.000	12:38

Average = 0.0774  
Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

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 Alaska Department of Public Safety  
 DATAMASTER dmt: 100346  
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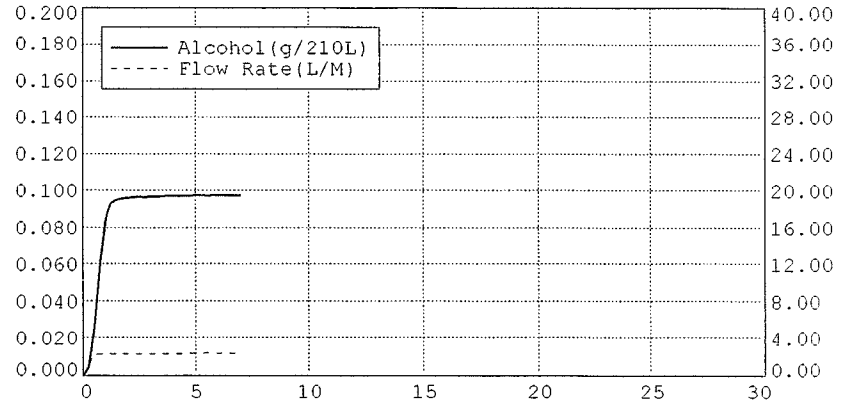
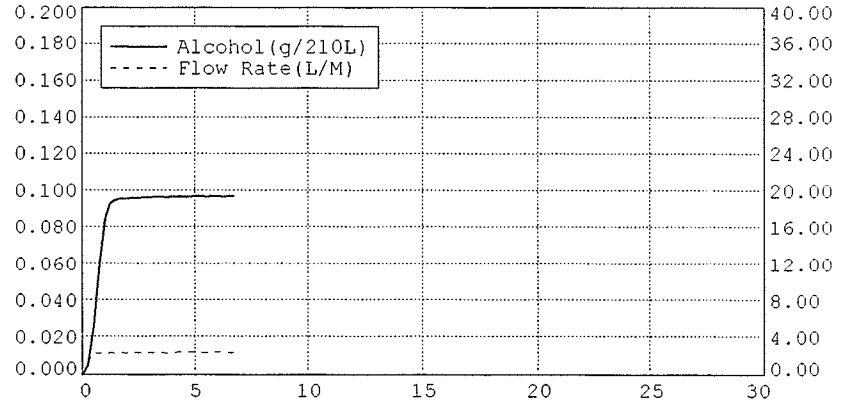
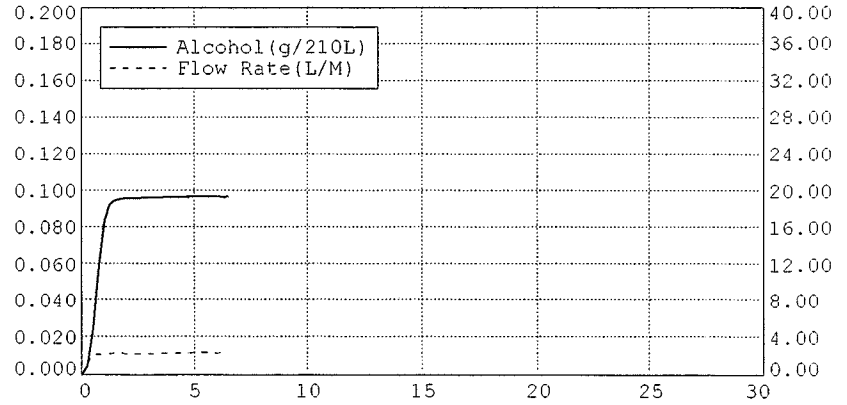
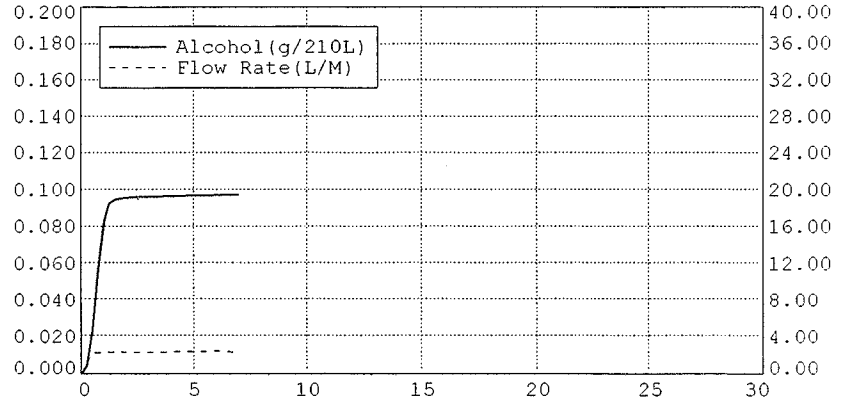
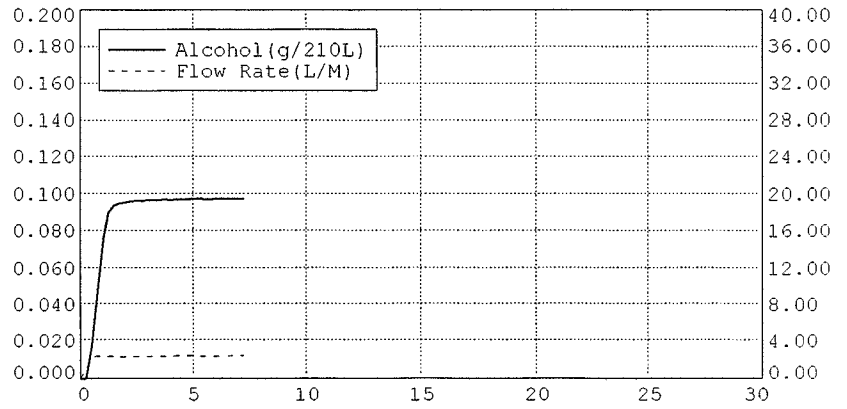
Date: 08/08/2018  
 Time: 12:39:22

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.38: 0.098  
 LOT #: AG629304  
 EXPIRATION: 10/19/2018  
 TANK PRESSURE: 462 psi

BLANK TEST	0.000	12:40
INTERNAL STANDARD	VERIFIED	12:40
EXTERNAL STANDARD	0.098	12:40
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.097	12:42
BLANK TEST	0.000	12:43
EXTERNAL STANDARD	0.098	12:43
BLANK TEST	0.000	12:44
EXTERNAL STANDARD	0.098	12:44
BLANK TEST	0.000	12:45
EXTERNAL STANDARD	0.098	12:45
BLANK TEST	0.000	12:46

Average = 0.0978  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100346

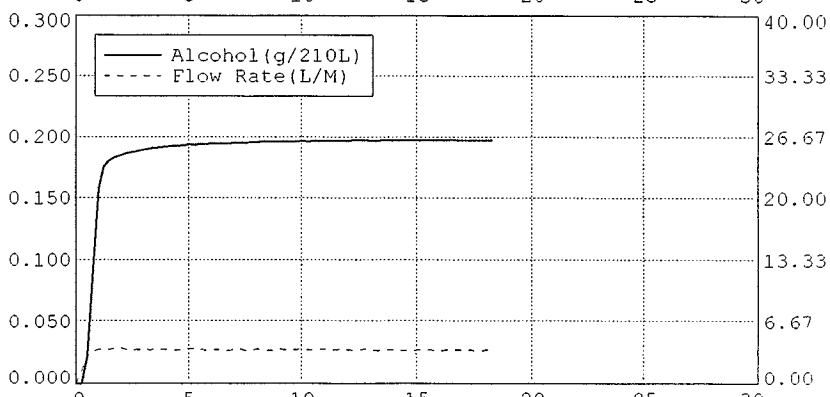
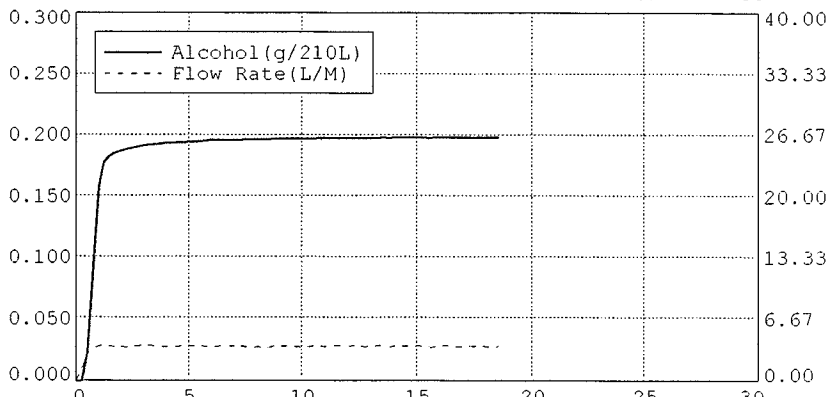
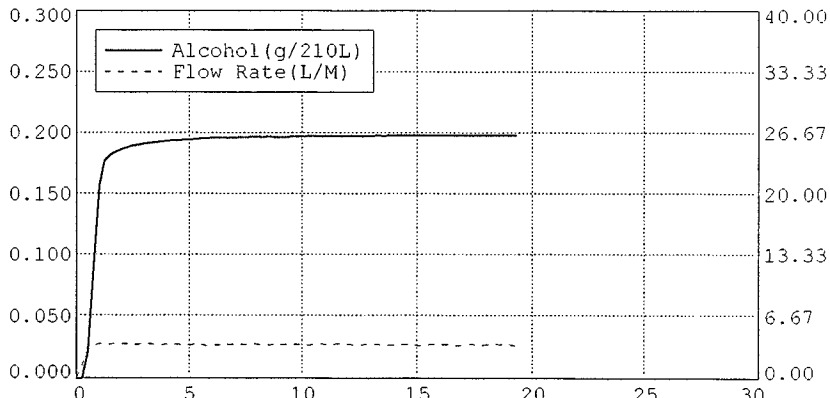
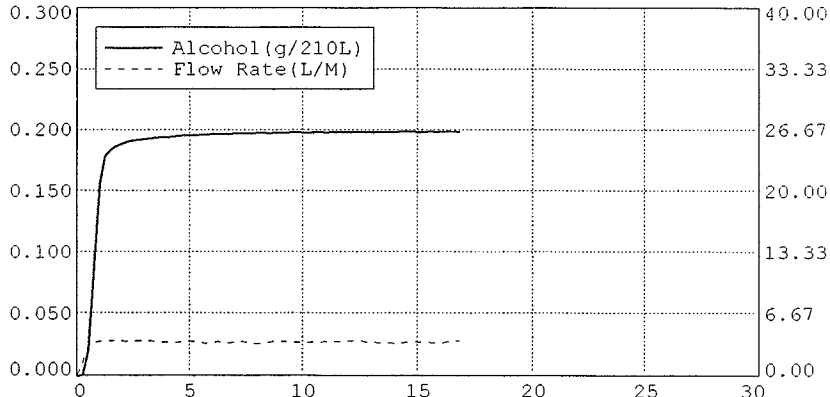
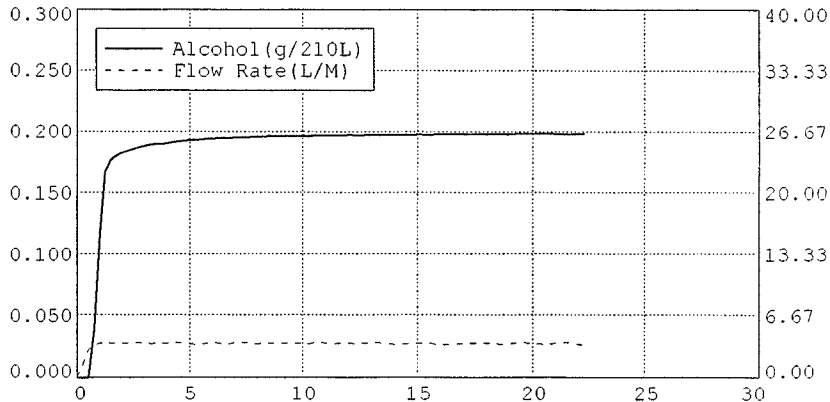
Date: 08/08/2018  
 Time: 12:56:16

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 17090  
 EXPIRATION: 02/24/2019

BLANK TEST	0.000	12:57
INTERNAL STANDARD	VERIFIED	12:57
EXTERNAL STANDARD	0.199	12:58
BLANK TEST	0.000	12:59
EXTERNAL STANDARD	0.199	12:59
BLANK TEST	0.000	13:00
EXTERNAL STANDARD	0.199	13:00
BLANK TEST	0.000	13:01
EXTERNAL STANDARD	0.199	13:02
BLANK TEST	0.000	13:02
EXTERNAL STANDARD	0.198	13:03
BLANK TEST	0.000	13:04

Average = 0.1988  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

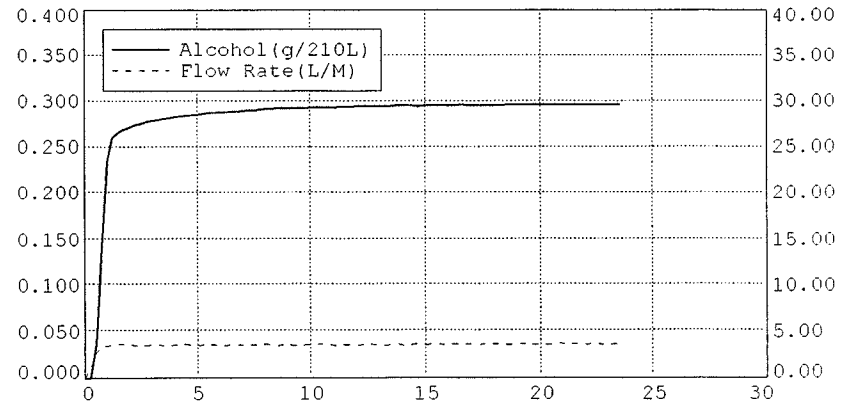
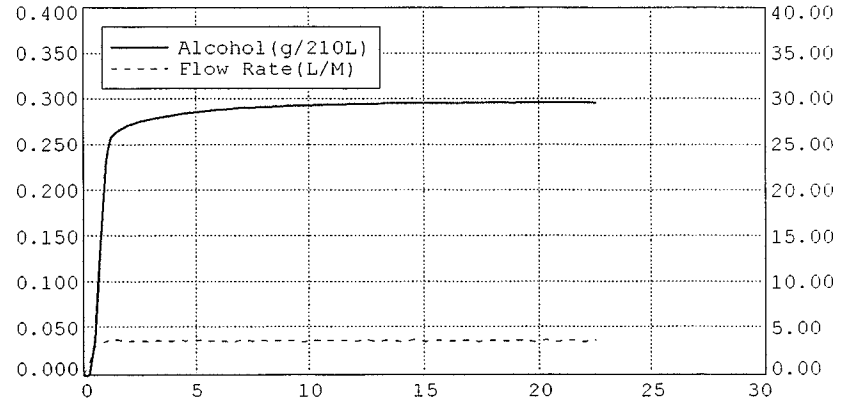
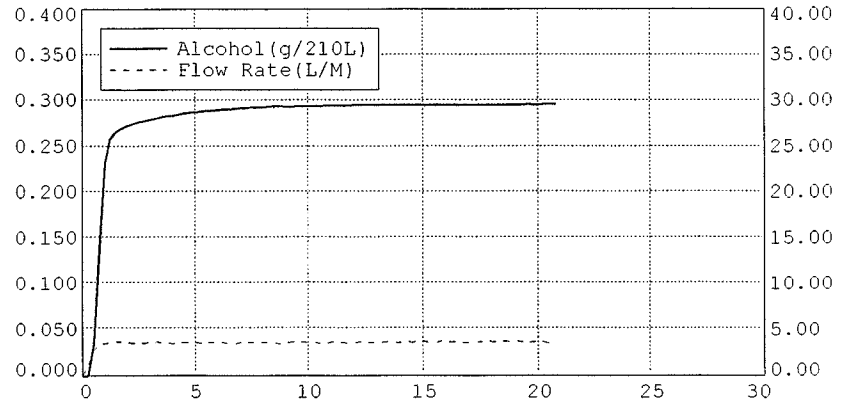
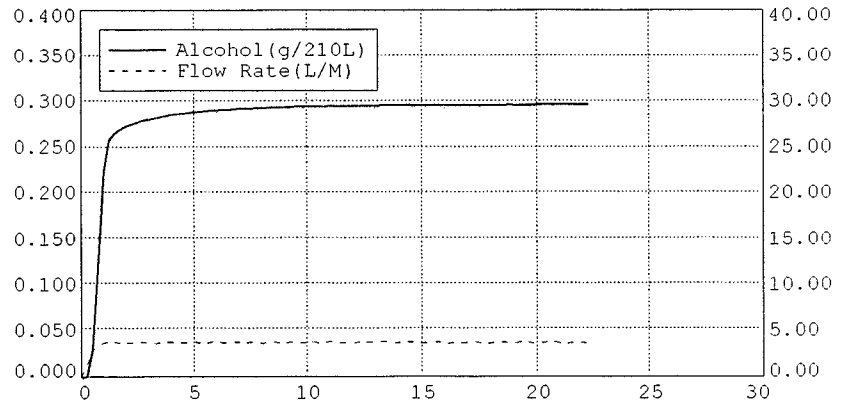
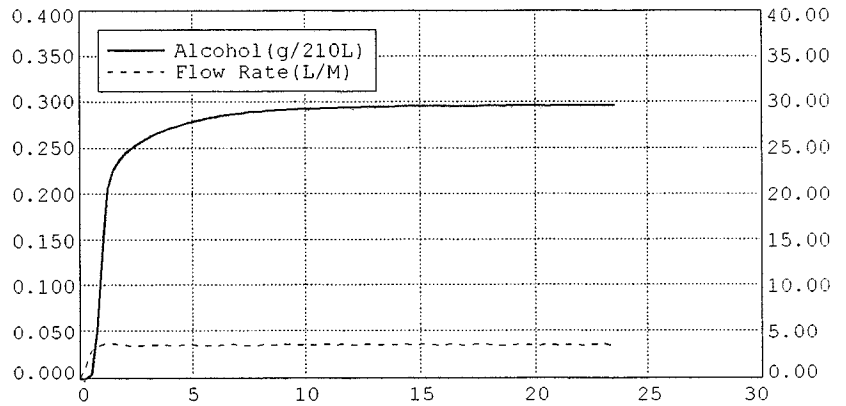
Alaska Department of Public Safety  
 DATAMASTER dmt: 100346

Date: 08/08/2018  
 Time: 13:06:07

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

BLANK TEST	0.000	13:07
INTERNAL STANDARD	VERIFIED	13:07
EXTERNAL STANDARD	0.296	13:07
BLANK TEST	0.000	13:08
EXTERNAL STANDARD	0.296	13:09
BLANK TEST	0.000	13:10
EXTERNAL STANDARD	0.295	13:10
BLANK TEST	0.000	13:11
EXTERNAL STANDARD	0.296	13:12
BLANK TEST	0.000	13:12
EXTERNAL STANDARD	0.297	13:13
BLANK TEST	0.000	13:14

Average = 0.2960  
 Std Dev = 0.0007



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 08/08/2018  
Time: 13:22:04

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

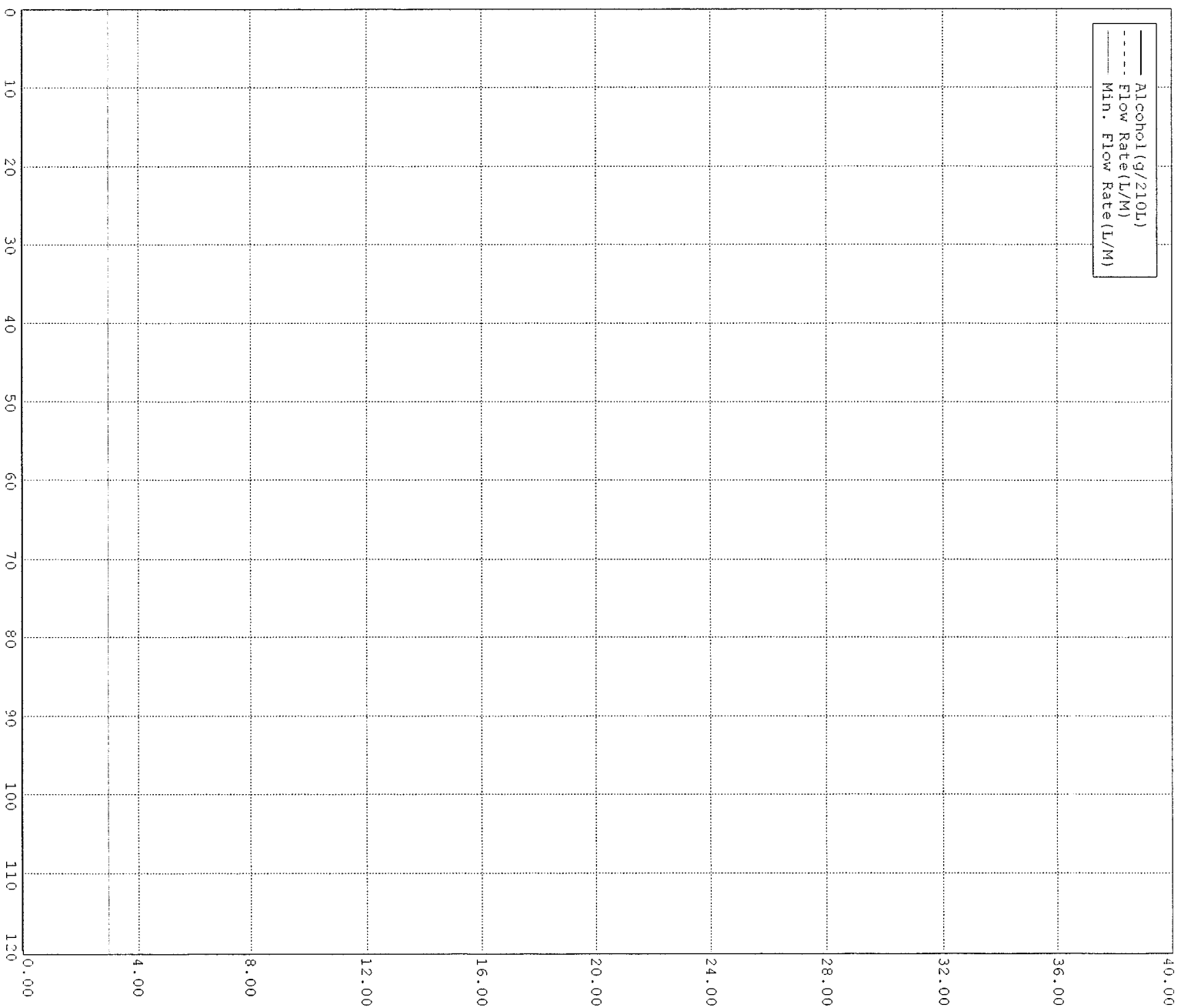
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.39: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	13:24
BLANK TEST	0.000	13:24
INTERNAL STANDARD	VERIFIED	13:24
EXTERNAL STANDARD	0.078	13:24
BLANK TEST	0.000	13:25
SUBJECT SAMPLE	INCOMPLETE	13:27

*DM*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 08/08/2018  
Time: 13:32:34

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

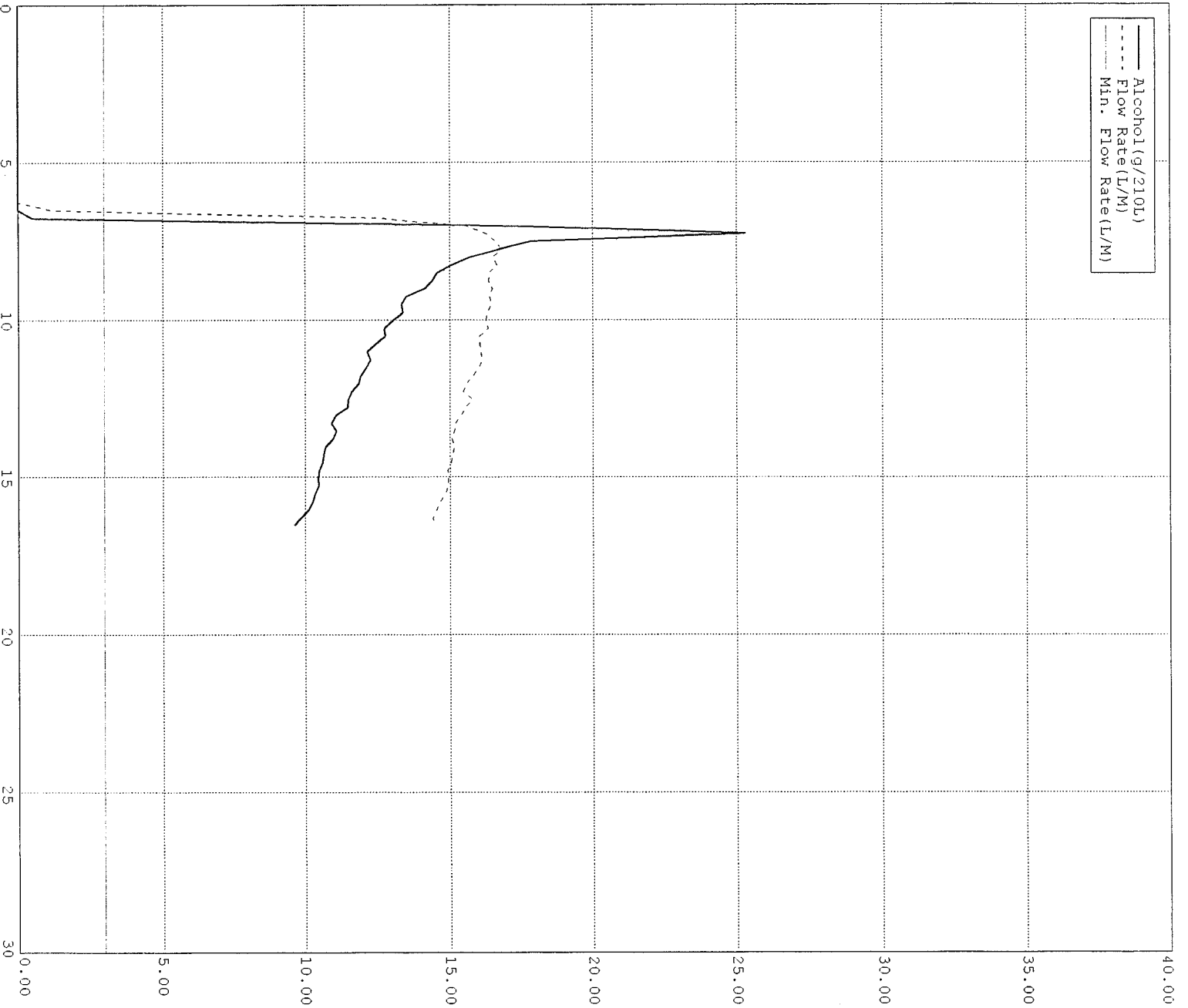
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.40: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	13:36
BLANK TEST	0.000	13:36
INTERNAL STANDARD	VERIFIED	13:37
EXTERNAL STANDARD	0.078	13:37
BLANK TEST	0.000	13:38
SUBJECT SAMPLE	INVALID	13:38

*DM*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 08/08/2018  
Time: 13:45:40

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 29.39: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

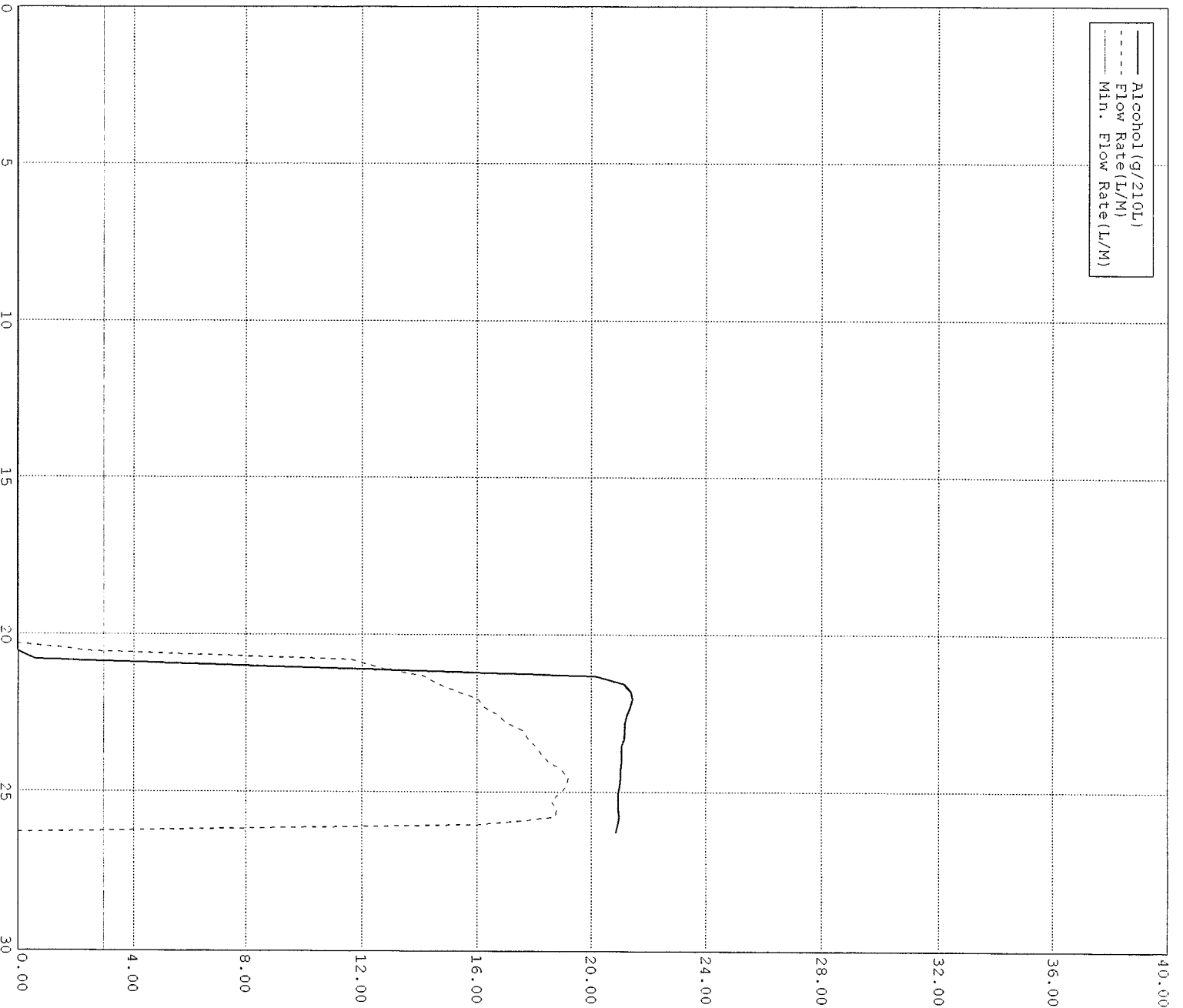
DIAGNOSTIC CHECK	PASSED	13:49
BLANK TEST	0.000	13:49
INTERNAL STANDARD	VERIFIED	13:49
Xq = 0.104 (0.25%)		
EXTERNAL STANDARD	0.078	13:49
X[1] = 0.0783 (0.0001)	(0.0020)	
BLANK TEST	0.000	13:50
SUBJECT SAMPLE	XXX	13:51
X[1] = 0.1049 (-0.0191)	(0.0005)	

Interference Detected

Filter 2 Avg: -0.0002  
Filter 3 Avg: 0.0019

QW 08109118

DMV



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 08/08/2018  
Time: 13:53:46

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

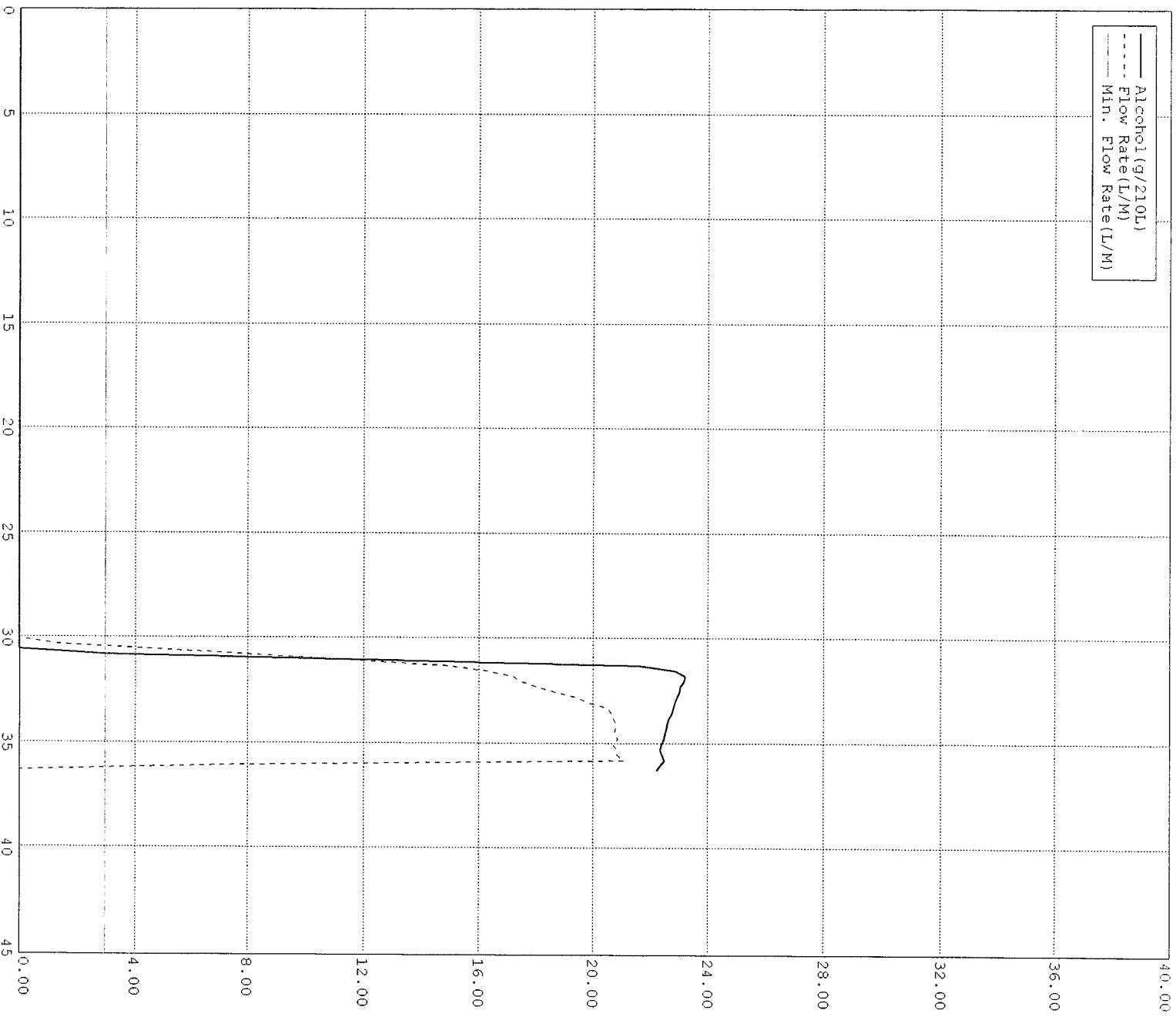
DEPT/AGENCY:  
INTERFERENCE IPA  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.39: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK PASSED 13:58  
BLANK TEST 0.000 13:58  
INTERNAL STANDARD VERIFIED 13:58  
Xq = 0.104 (0.25%)  
EXTERNAL STANDARD 0.078 13:58  
X[1] = 0.0780 (0.0001) (0.0017)  
BLANK TEST 0.000 13:59  
SUBJECT SAMPLE XXX 14:00  
X[1] = 0.1114 (-0.0265) (0.0016)

Interference Detected

*DM*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 08/08/2018  
Time: 14:03:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

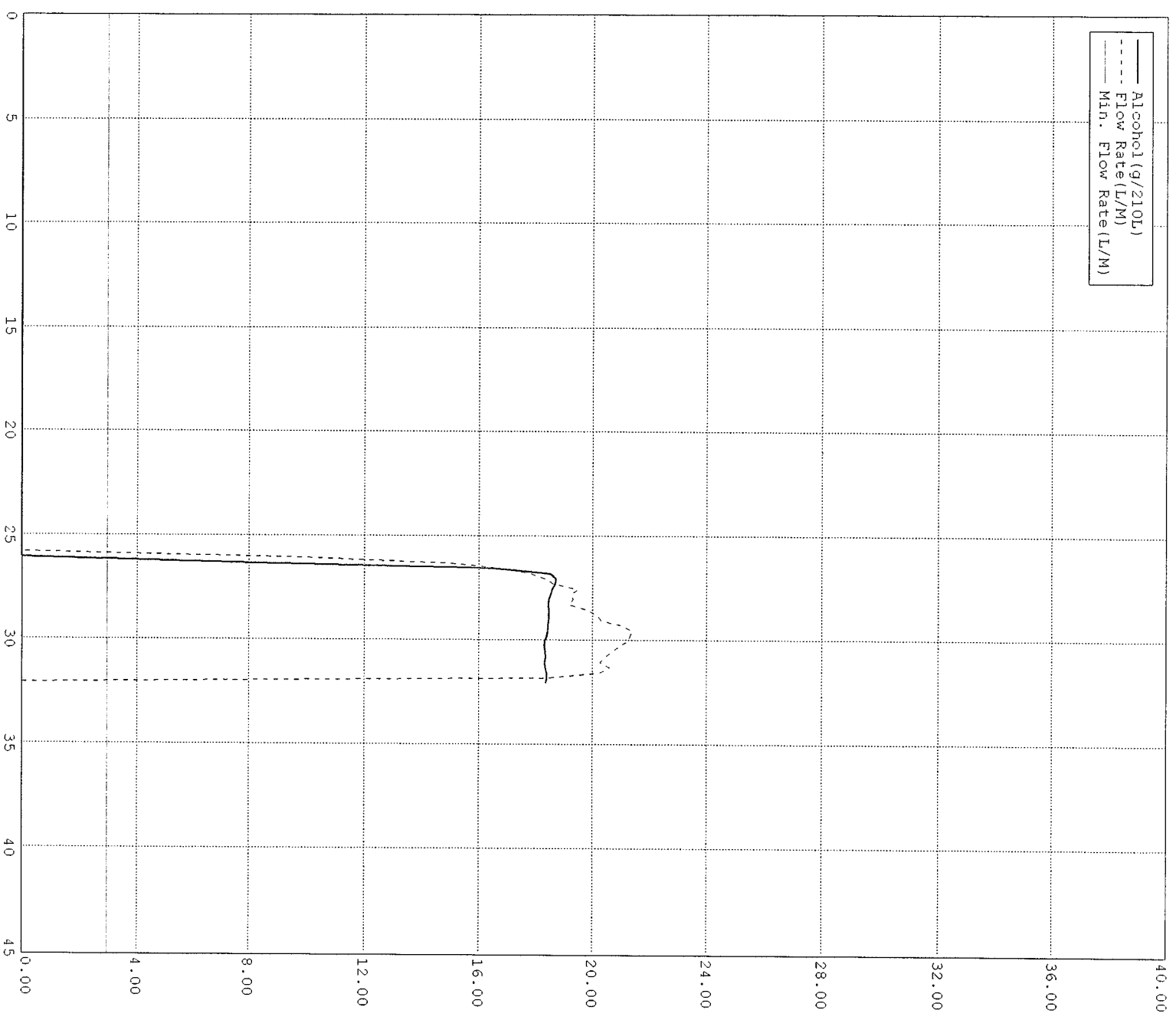
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.39: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	14:06
BLANK TEST	0.000	14:06
INTERNAL STANDARD	VERIFIED	14:06
Xq = 0.104 (0.17%)		
EXTERNAL STANDARD	0.078	14:06
X[1] = 0.0776 (-0.0004)	(0.0024)	
BLANK TEST	0.000	14:07
SUBJECT SAMPLE (Vol=1.92L)	0.091	14:08
X[1] = 0.0918 (-0.0008)	(0.0016)	
BLANK TEST	0.000	14:09
EXTERNAL STANDARD	0.077	14:09
X[1] = 0.0770 (-0.0005)	(0.0013)	
BLANK TEST	0.000	14:10

*JM*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100346

Date: 08/08/2018  
Time: 14:16:35

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

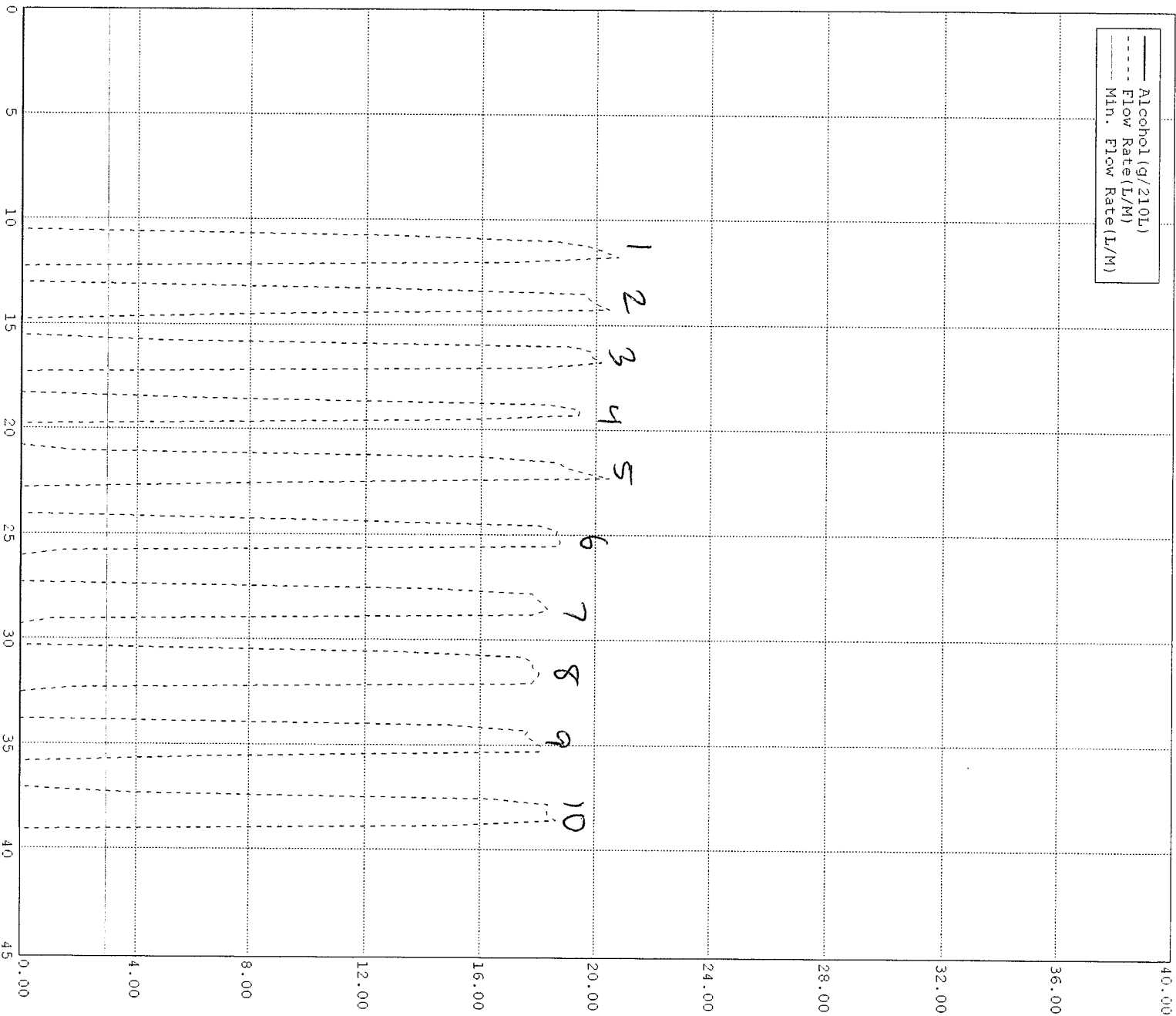
DEPT/AGENCY:  
MAXIMUM ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.39: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	14:19
BLANK TEST	0.000	14:19
INTERNAL STANDARD	VERIFIED	14:19
EXTERNAL STANDARD	0.078	14:19
BLANK TEST	0.000	14:20
SUBJECT SAMPLE	XXX	14:21

Maximum Attempts Exceeded

*DM*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 08/08/2018  
Time: 14:25:38

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

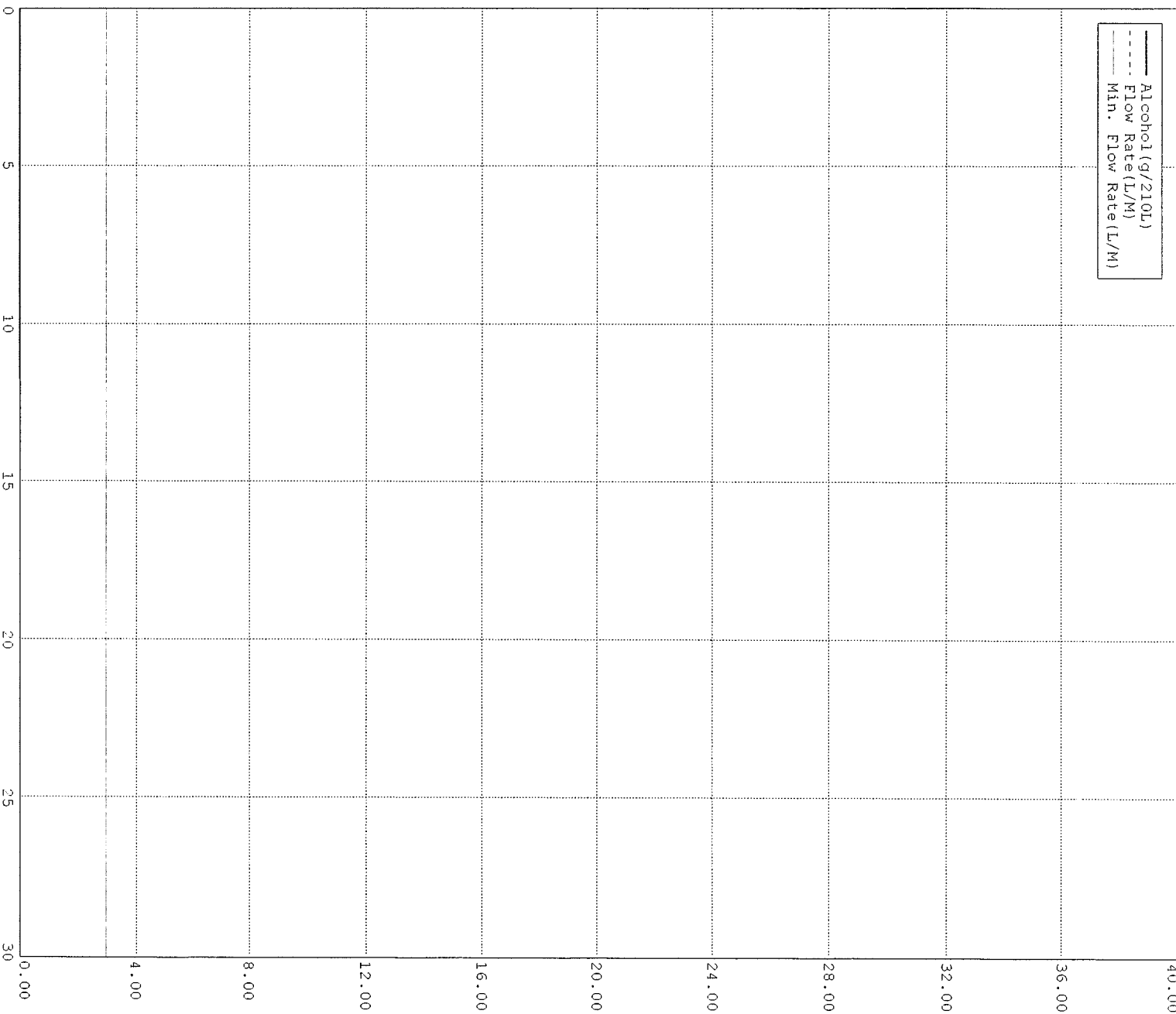
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.39: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	14:30
BLANK TEST	0.000	14:30
INTERNAL STANDARD	VERIFIED	14:31
EXTERNAL STANDARD	0.078	14:31
BLANK TEST	0.000	14:32

RFI DETECTED

*DM*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 08/09/2018  
Time: 09:54:34

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 29.45: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	09:55
BLANK TEST	0.000	09:55
INTERNAL STANDARD	VERIFIED	09:55
EXTERNAL STANDARD	0.078	09:56
BLANK TEST	0.000	09:56
SUBJECT SAMPLE (Vol=2.91L)	0.000	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.078	09:58
BLANK TEST	0.000	09:59

*DW*

