

# 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 100688 Analyst Derek Watten Start Date 06/25/19

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)

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)

iv. Chopper Frequency

v. Detector Voltage (-0.100V to 0.100V)

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 AG805804 Exp 02/27/20

ii. 0.040g/210L Mnf Airgas Lot A6733403 Exp 11/30/19

iii. 0.080g/210L Mnf Airgas Lot A6826101 Exp 09/18/20

iv. 0.100g/210L Mnf Airgas Lot A6805903 Exp 02/28/20

v. 0.200g/210L Mnf Guth Lot 17340 Exp 10/09/19

1. Simulator S/N SD1177 DR5298 Date Calibrated 03/05/19

vi. 0.300g/210L Mnf Guth Lot 19010 Exp 01/03/22

1. Simulator S/N SD1088 Date Calibrated 03/05/19

5. Functional Tests (attached)

a. Incomplete

b. Invalid

c. Interference

d. Exceeded attempts

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

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

ii. Isopropanol - Mnf Guth Lot 18070 Level 0.100 Exp 02/26/20

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

iii. Negative Control - Mnf Guth 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 06/25/19

⓪ Problem with initial 0.200 Simulator. Changed simulators.  
DW 06/25/19

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100688  
-----

Date: 06/25/2019  
Time: 08:19:43

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

TEMPERATURES

Sample Chamber = 48.8°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 45.7°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.96 V PASSED  
(1.18 V - 2.74 V)  
Cooler Voltage = 1.93 V PASSED  
(1.16 V - 2.70 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 549 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.8 in

PUMP INFO

Flow Rate = 3.876 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 = 0.100 0.88% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100688  
-----

Date: 06/25/2019

Time: 8:45 AM

Temperatures (°C)

Sample Cell: 48.9°C

Breath Tube: 45.7°C

Current Barometer 29.8 in

Volume (Ltr) 1.43

Settings

Lamp: 1.99 V

Bias: 79 V

Cooler: 1.93 V

Chopper: 527 Hz

Voltages (V)

Flow: 1.02 V

Detector: 0.058 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100688  
-----

Date: 06/21/2019  
Time: 10:36:39

OPERATOR NAME:  
DEREK WALTON  
CERTIFICATE #: 9508

Ca = 0.1000  
CAL = 0.962316    0.800 <= CAL < 1.200  
b1 = 0.0004    0.0000 <= b1 < 0.0040  
b2 = 0.0041    0.0010 <= b2 < 0.0100  
b3 = 0.0009    0.0000 <= b3 < 0.0040  
Xq = 0.0995    0.0500 <= Xq < 0.2000  
a21 = 1.138785    1.050 <= a21 < 1.300  
a31 = 0.501704    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100688

Date: 06/25/2019  
Time: 08:51:47

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

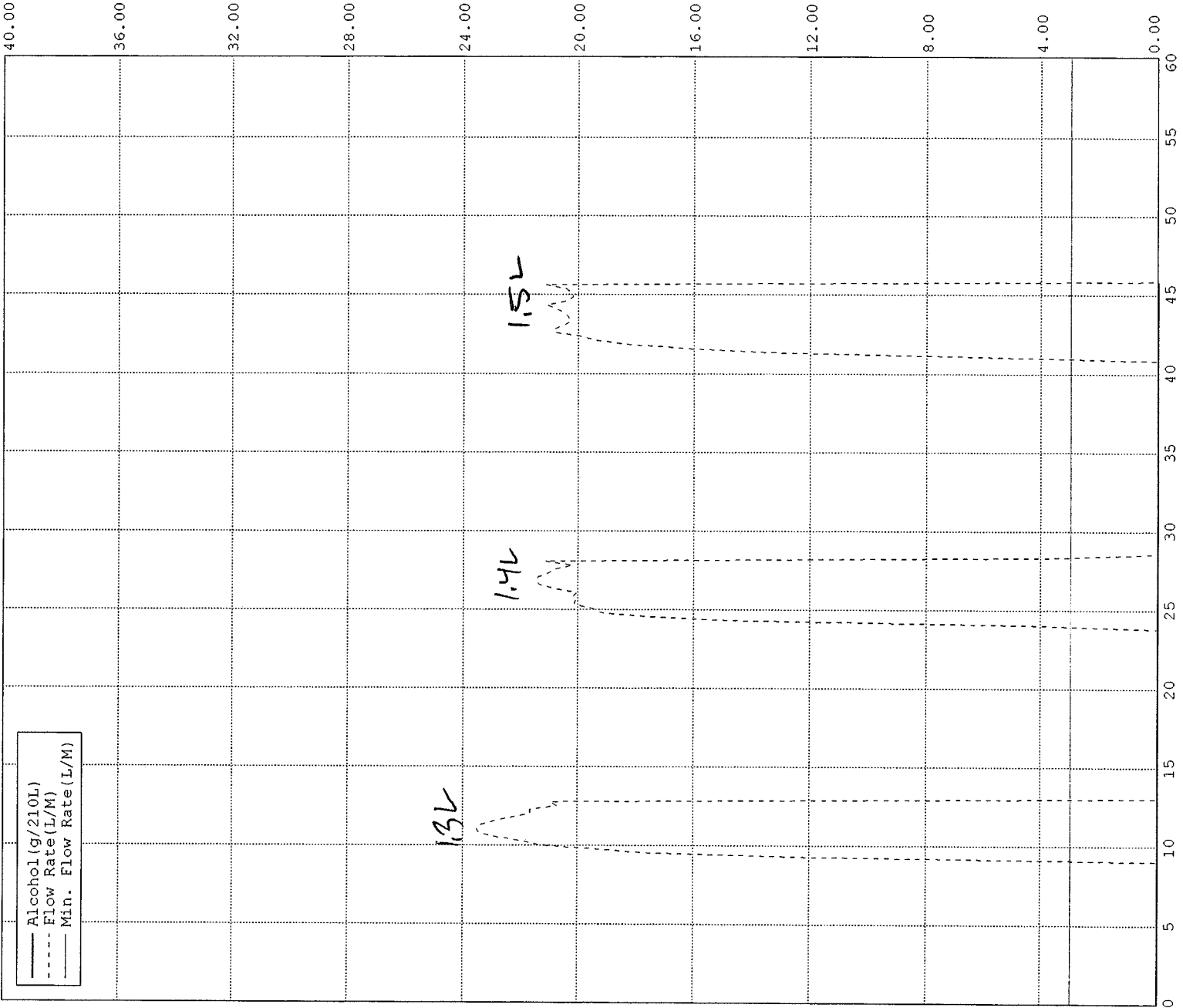
DEPT/AGENCY:  
MINIMUM VOLUME  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.84: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	08:55
INTERNAL STANDARD	0.000	08:55
EXTERNAL STANDARD	0.077	08:55
INTERNAL STANDARD	0.000	08:56
EXTERNAL STANDARD	0.000	08:56
SUBJECT SAMPLE (Vol=1.50L)	0.000	08:57
INTERNAL STANDARD	0.000	08:58
EXTERNAL STANDARD	0.077	08:58
INTERNAL STANDARD	0.000	08:59
EXTERNAL STANDARD	0.000	08:59

*MW*



LINEARITY CHECK

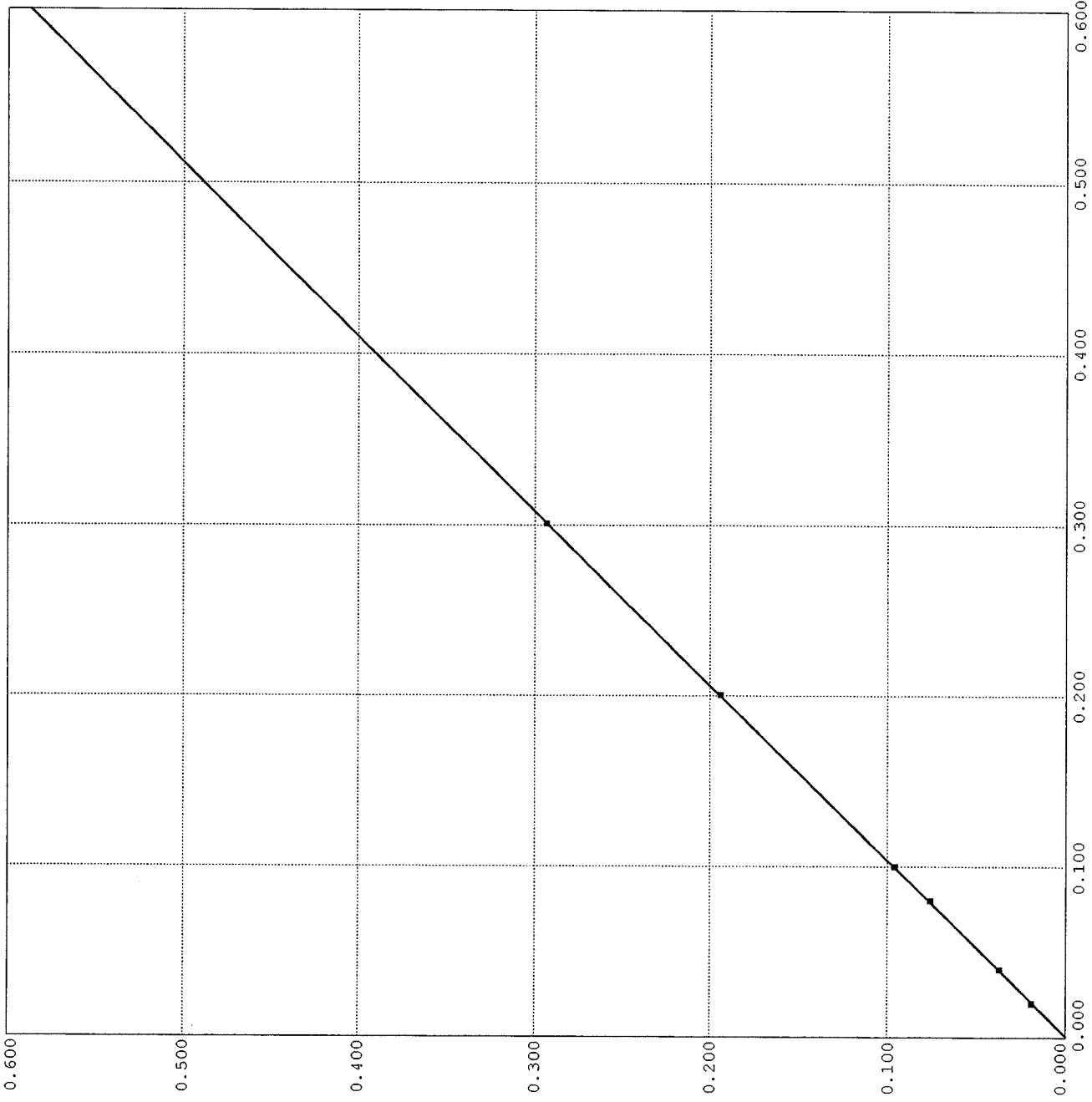
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100688  
 -----

Date: 06/25/2019  
 Time: 09:03:25

SUPERVISOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.040	0.0382	0.0004
0.080	0.0770	0.0000
0.100	0.0970	0.0000
0.200	0.1948	0.0004
0.300	0.2940	0.0010

SLOPE = 0.980595  
 R<sup>2</sup> = 0.999953



*DW*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100688

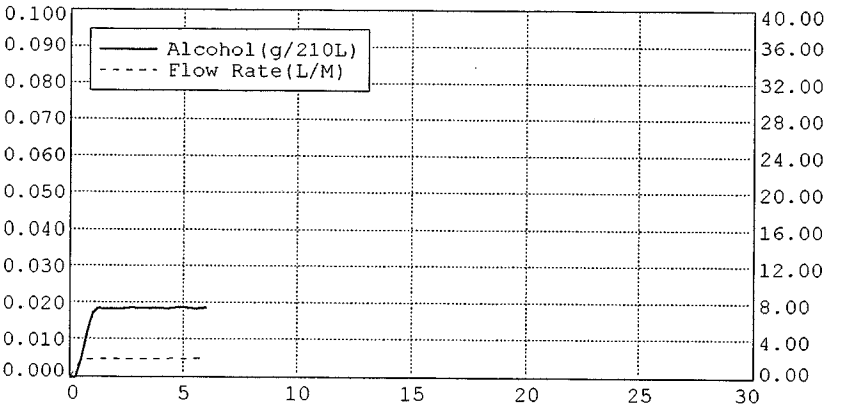
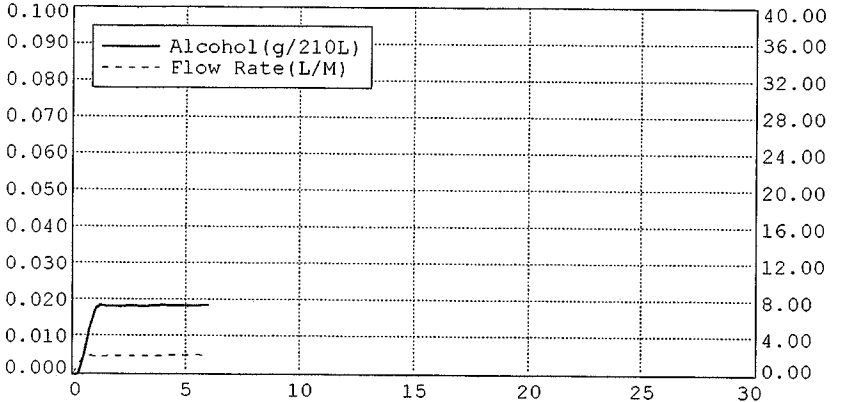
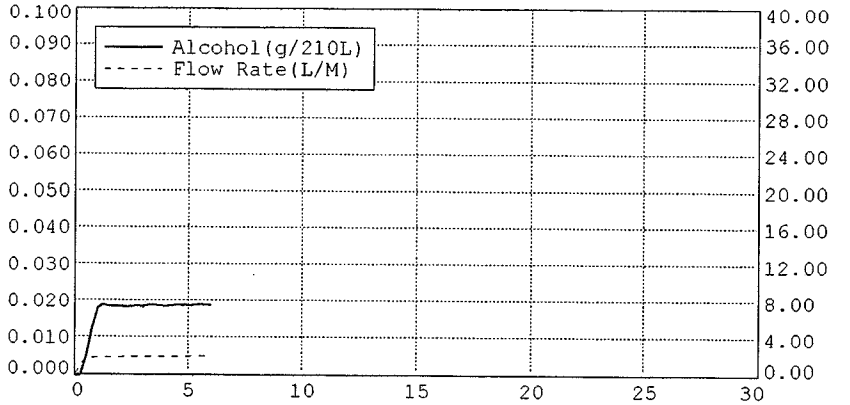
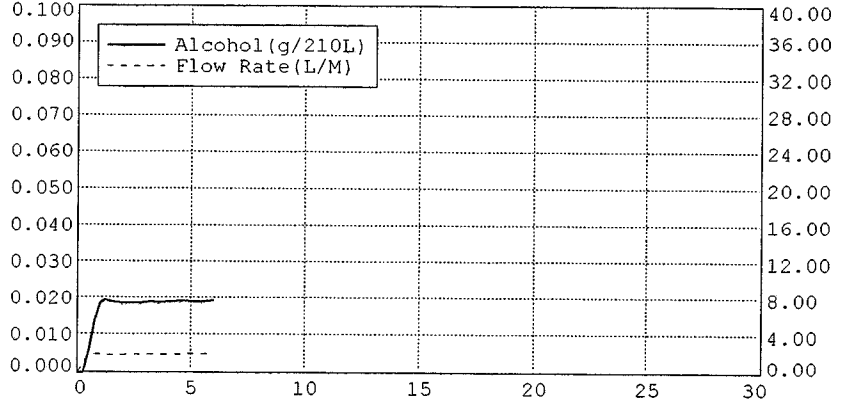
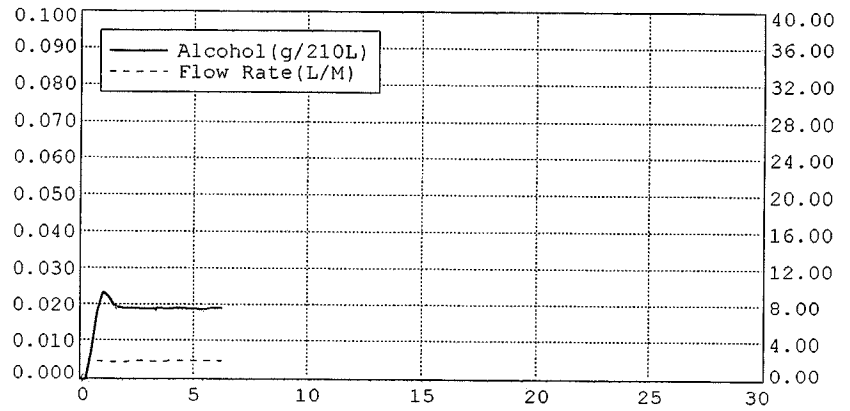
Date: 06/25/2019  
 Time: 09:03:28

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.83: 0.020  
 LOT #: AG805804  
 EXPIRATION: 02/27/2020  
 TANK PRESSURE: 632 psi

BLANK TEST	0.000	09:04
INTERNAL STANDARD	VERIFIED	09:05
EXTERNAL STANDARD	0.020	09:05
BLANK TEST	0.000	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	0.020	09:08
BLANK TEST	0.000	09:09
EXTERNAL STANDARD	0.020	09:09
BLANK TEST	0.000	09:10

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100688

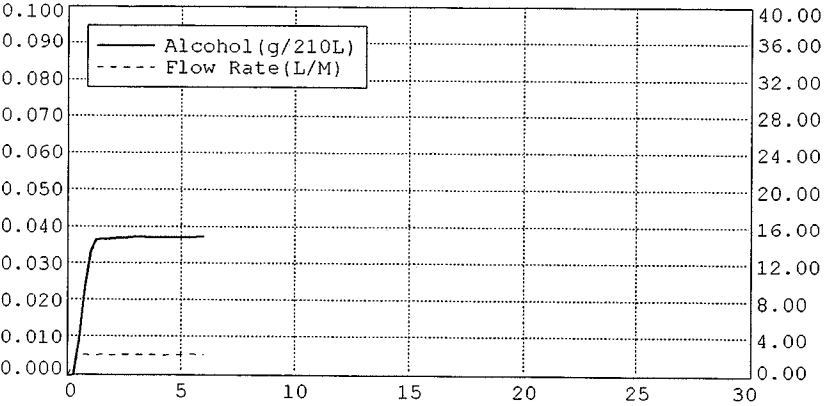
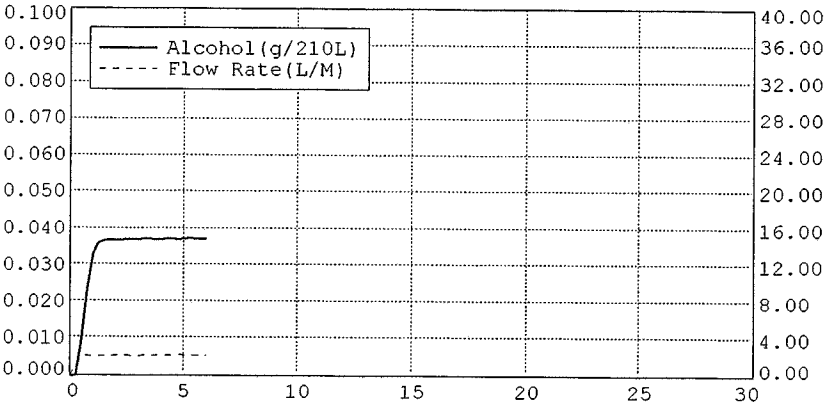
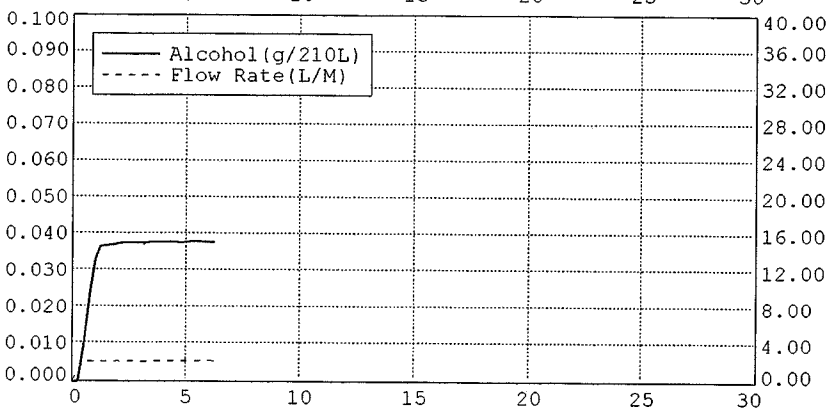
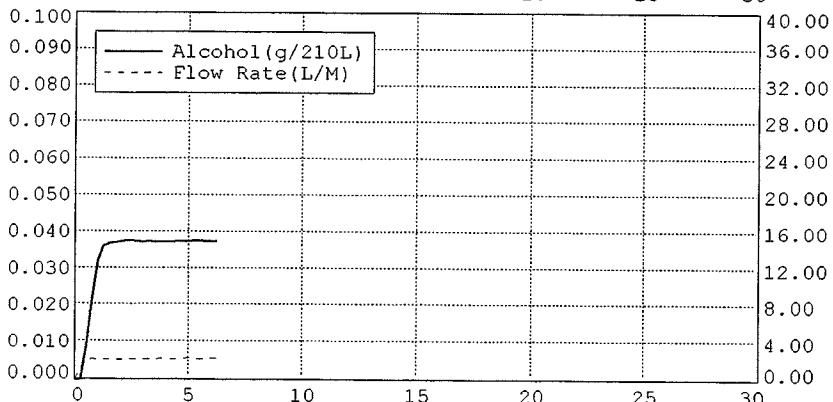
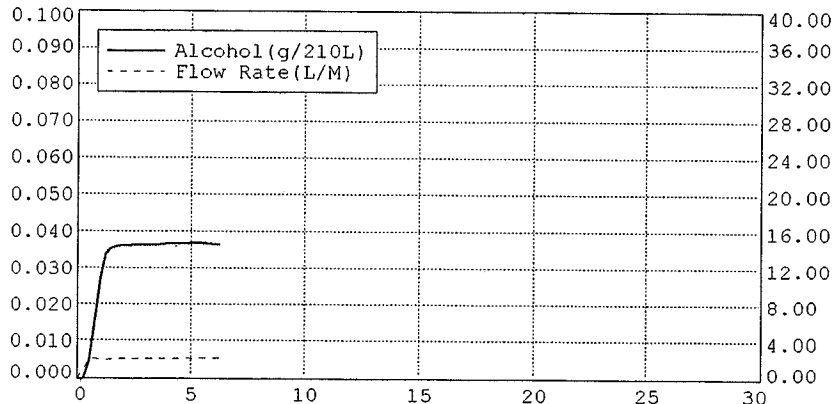
Date: 06/25/2019  
 Time: 09:13:34

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.84: 0.040  
 LOT #: AG733403  
 EXPIRATION: 11/30/2019  
 TANK PRESSURE: 1051 psi

BLANK TEST	0.000	09:14
INTERNAL STANDARD	VERIFIED	09:15
EXTERNAL STANDARD	0.038	09:15
BLANK TEST	0.000	09:16
EXTERNAL STANDARD	0.038	09:16
BLANK TEST	0.000	09:17
EXTERNAL STANDARD	0.039	09:17
BLANK TEST	0.000	09:18
EXTERNAL STANDARD	0.038	09:18
BLANK TEST	0.000	09:19
EXTERNAL STANDARD	0.038	09:19
BLANK TEST	0.000	09:20

Average = 0.0382  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100688  
 -----

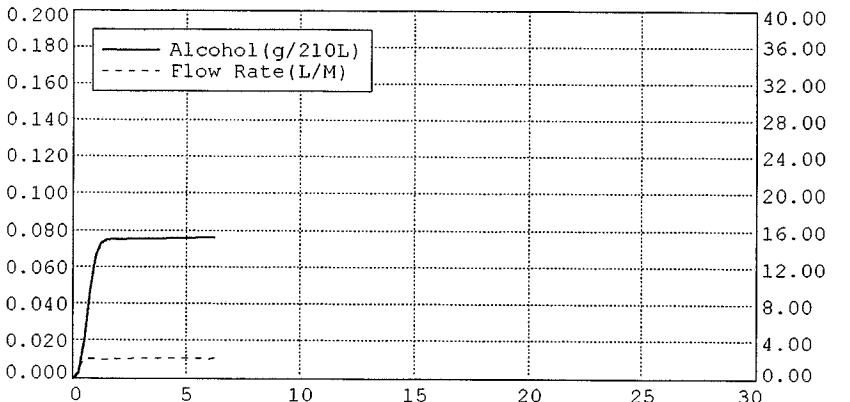
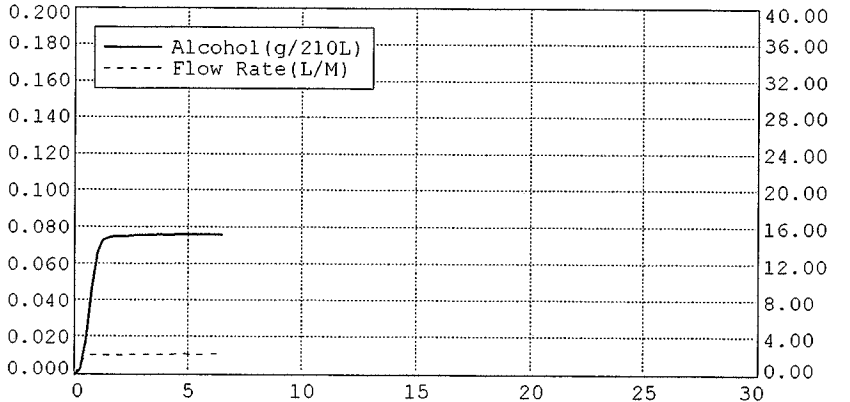
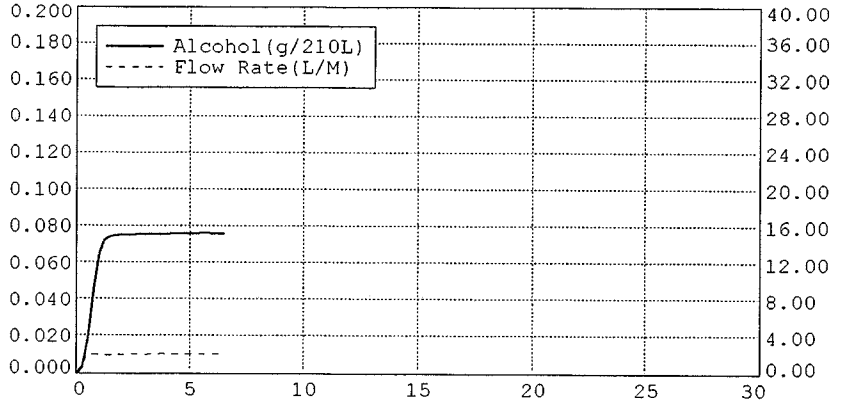
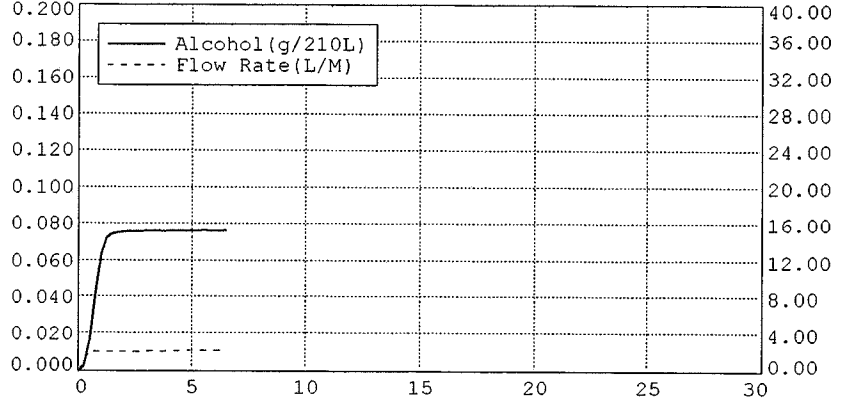
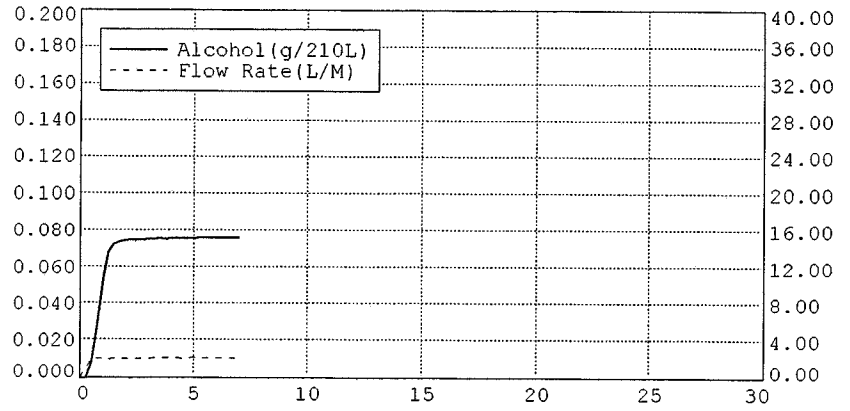
Date: 06/25/2019  
 Time: 09:23:58

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.83: 0.080  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020  
 TANK PRESSURE: 1172 psi

BLANK TEST	0.000	09:25
INTERNAL STANDARD	VERIFIED	09:25
EXTERNAL STANDARD	0.077	09:25
BLANK TEST	0.000	09:26
EXTERNAL STANDARD	0.077	09:26
BLANK TEST	0.000	09:27
EXTERNAL STANDARD	0.077	09:27
BLANK TEST	0.000	09:28
EXTERNAL STANDARD	0.077	09:28
BLANK TEST	0.000	09:29
EXTERNAL STANDARD	0.077	09:30
BLANK TEST	0.000	09:30

Average = 0.0770  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100688

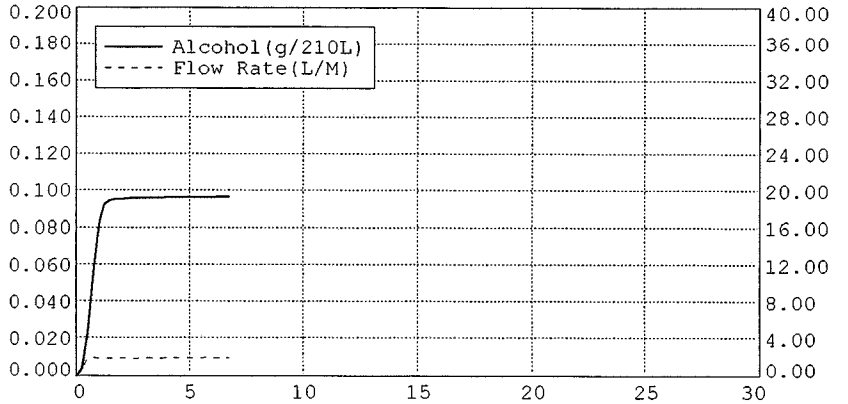
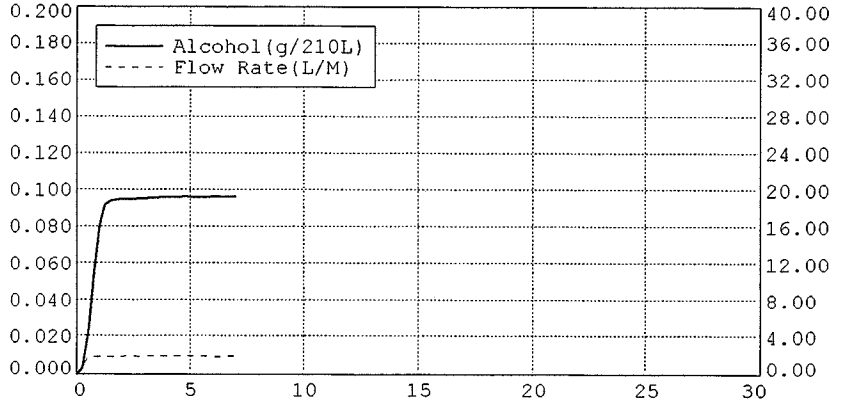
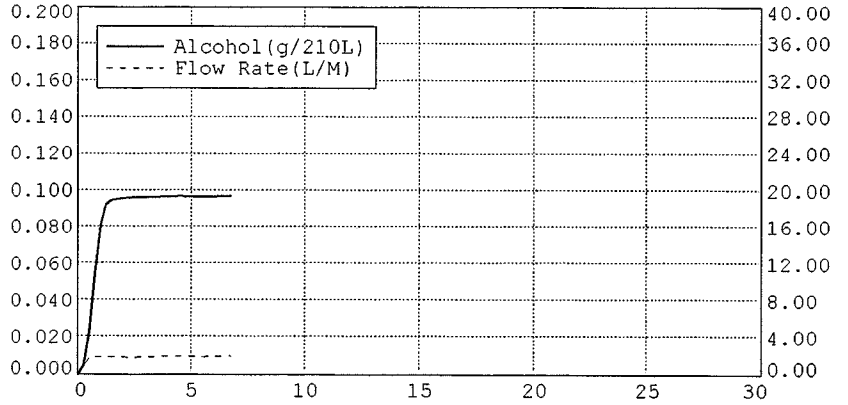
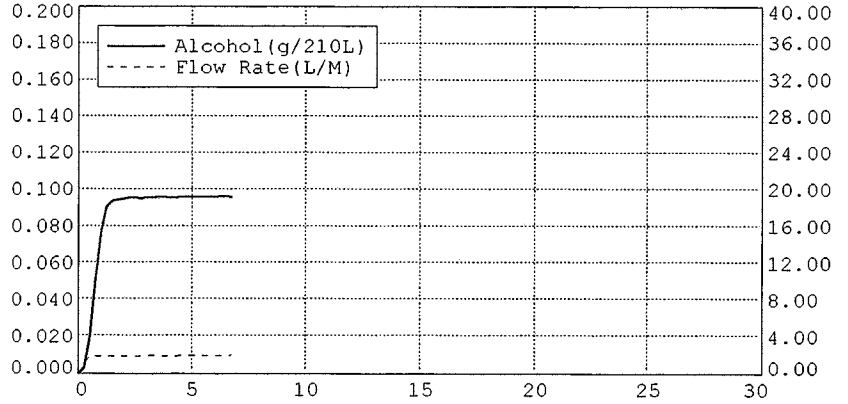
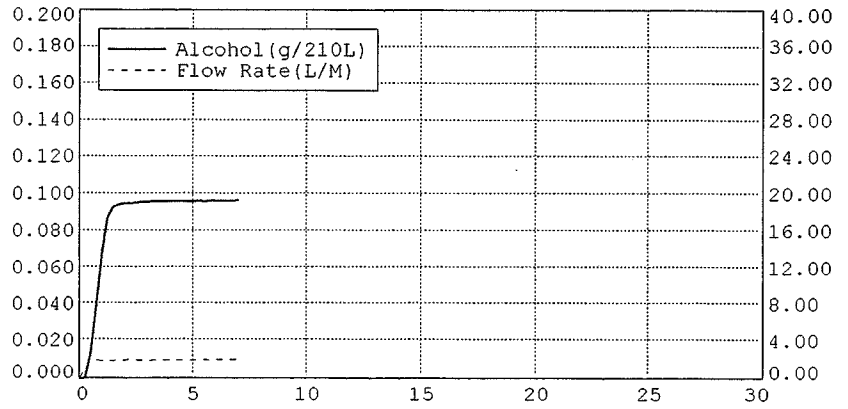
Date: 06/25/2019  
 Time: 09:32:47

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.84: 0.100  
 LOT #: AG805903  
 EXPIRATION: 02/28/2020  
 TANK PRESSURE: 571 psi

BLANK TEST	0.000	09:34
INTERNAL STANDARD	VERIFIED	09:34
EXTERNAL STANDARD	0.097	09:34
BLANK TEST	0.000	09:35
EXTERNAL STANDARD	0.097	09:35
BLANK TEST	0.000	09:36
EXTERNAL STANDARD	0.097	09:36
BLANK TEST	0.000	09:37
EXTERNAL STANDARD	0.097	09:38
BLANK TEST	0.000	09:39
EXTERNAL STANDARD	0.097	09:39
BLANK TEST	0.000	09:40

Average = 0.0970  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100688

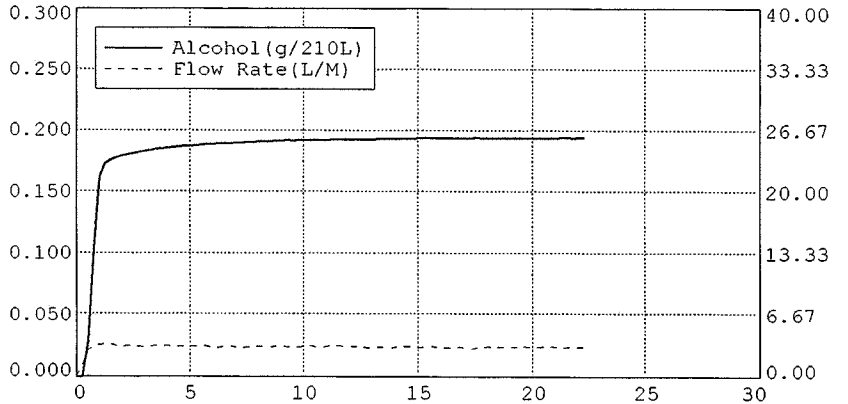
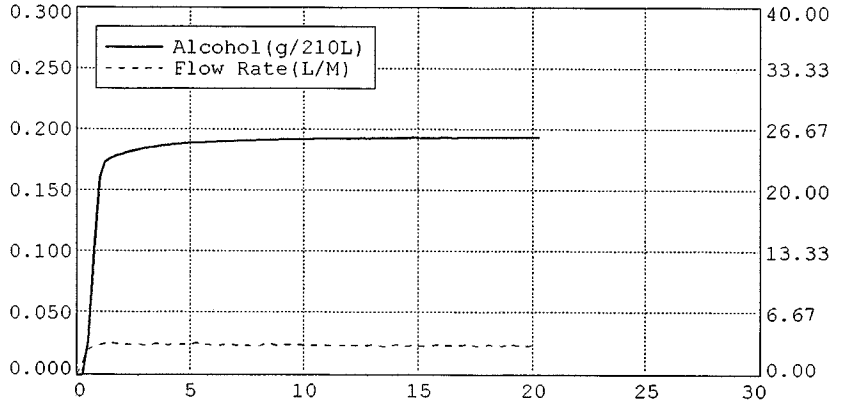
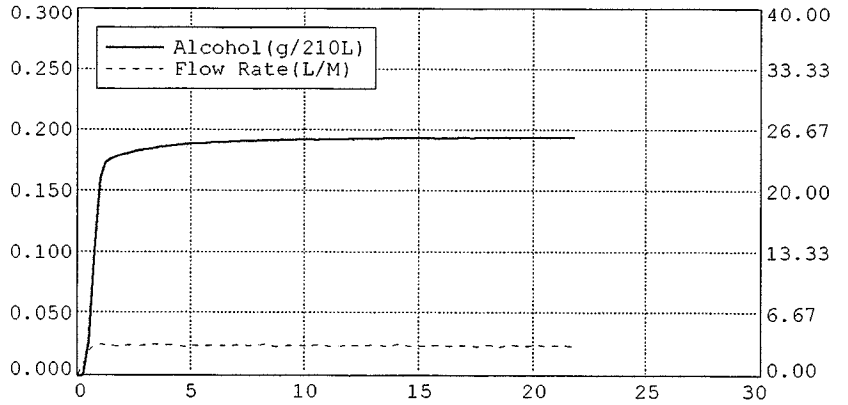
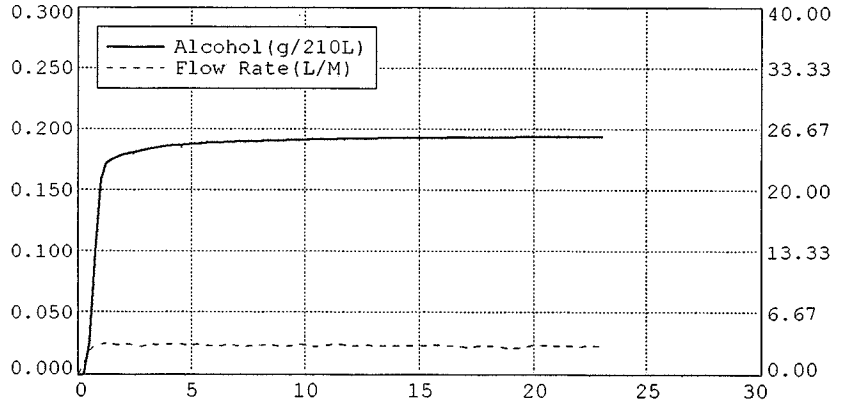
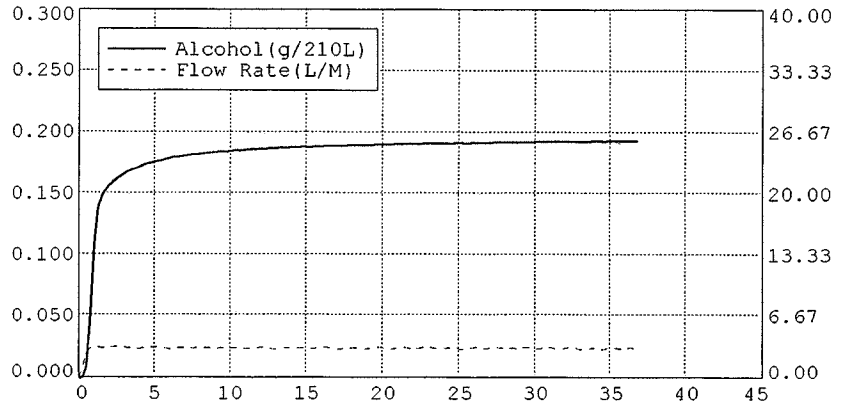
Date: 06/25/2019  
 Time: 10:35:47

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:36
INTERNAL STANDARD	VERIFIED	10:37
EXTERNAL STANDARD	0.194	10:37
BLANK TEST	0.000	10:38
EXTERNAL STANDARD	0.195	10:39
BLANK TEST	0.000	10:40
EXTERNAL STANDARD	0.195	10:40
BLANK TEST	0.000	10:41
EXTERNAL STANDARD	0.195	10:41
BLANK TEST	0.000	10:42
EXTERNAL STANDARD	0.195	10:43
BLANK TEST	0.000	10:44

Average = 0.1948  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100688

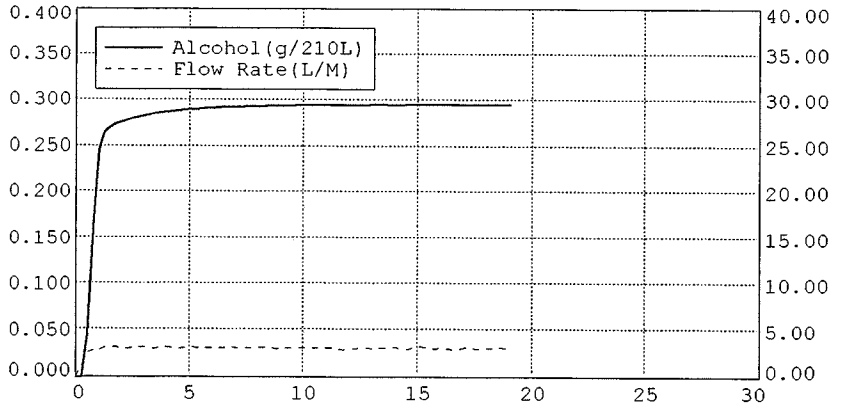
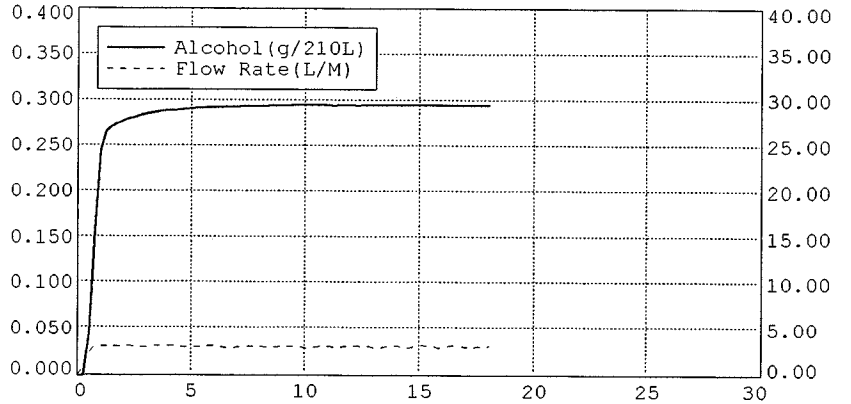
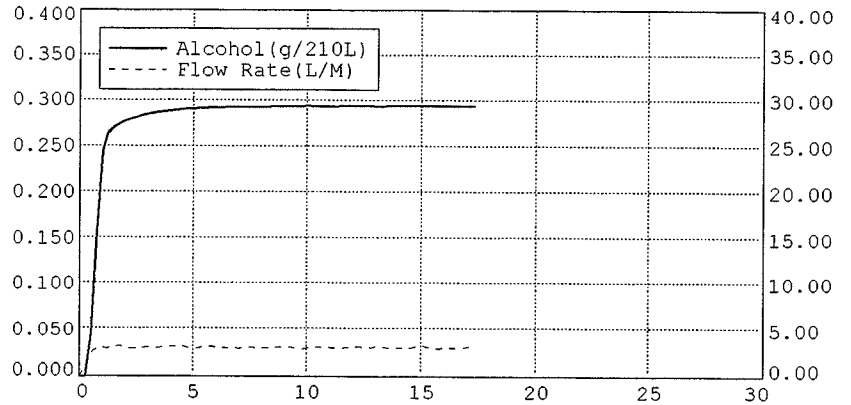
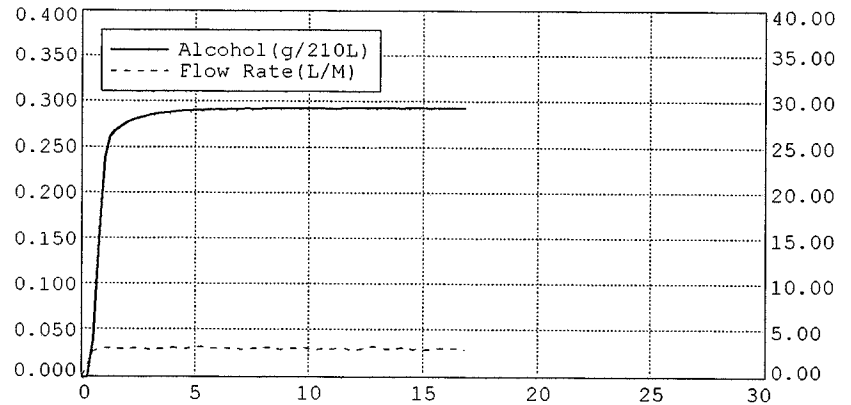
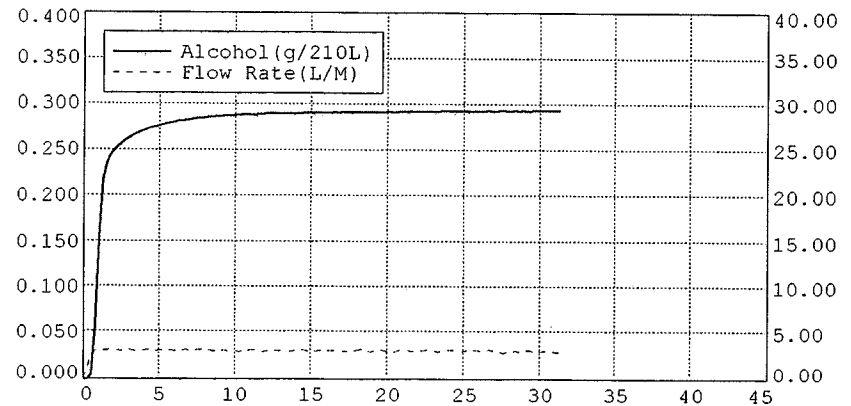
Date: 06/25/2019  
 Time: 10:48:18

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 19010  
 EXPIRATION: 01/03/2021

BLANK TEST	0.000	10:49
INTERNAL STANDARD	VERIFIED	10:49
EXTERNAL STANDARD	0.293	10:50
BLANK TEST	0.000	10:51
EXTERNAL STANDARD	0.293	10:51
BLANK TEST	0.000	10:52
EXTERNAL STANDARD	0.294	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.295	10:54
BLANK TEST	0.000	10:55
EXTERNAL STANDARD	0.295	10:55
BLANK TEST	0.000	10:56

Average = 0.2940  
 Std Dev = 0.0010



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100688  
-----

Date: 06/25/2019  
Time: 11:04:23

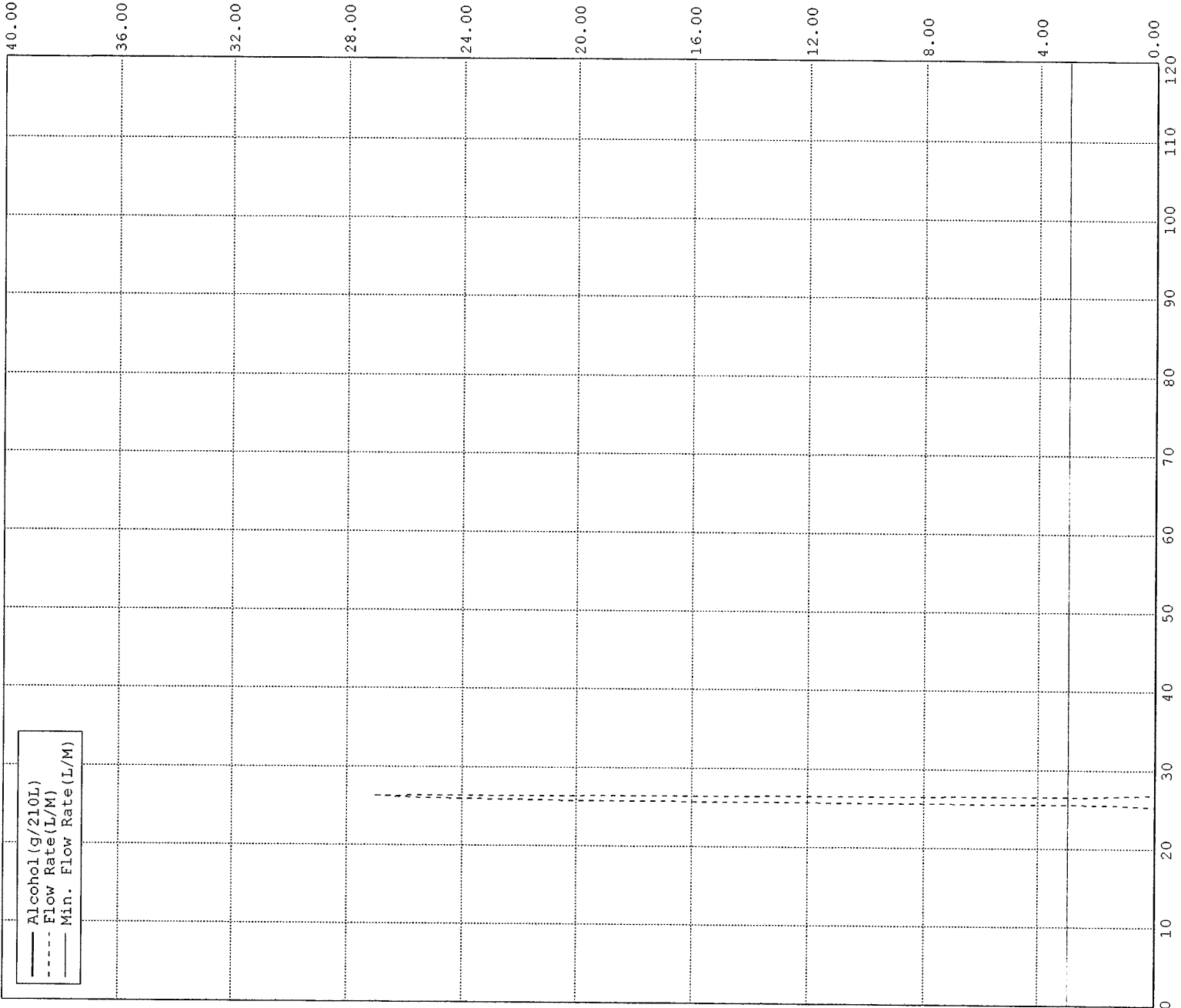
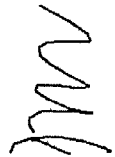
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.84: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 11:07  
BLANK TEST 0.000 11:07  
INTERNAL STANDARD VERIFIED 11:07  
EXTERNAL STANDARD 0.077 11:07  
BLANK TEST 0.000 11:08  
SUBJECT SAMPLE INCOMPLETE 11:10



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100688  
-----

Date: 06/25/2019  
Time: 12:33:10

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

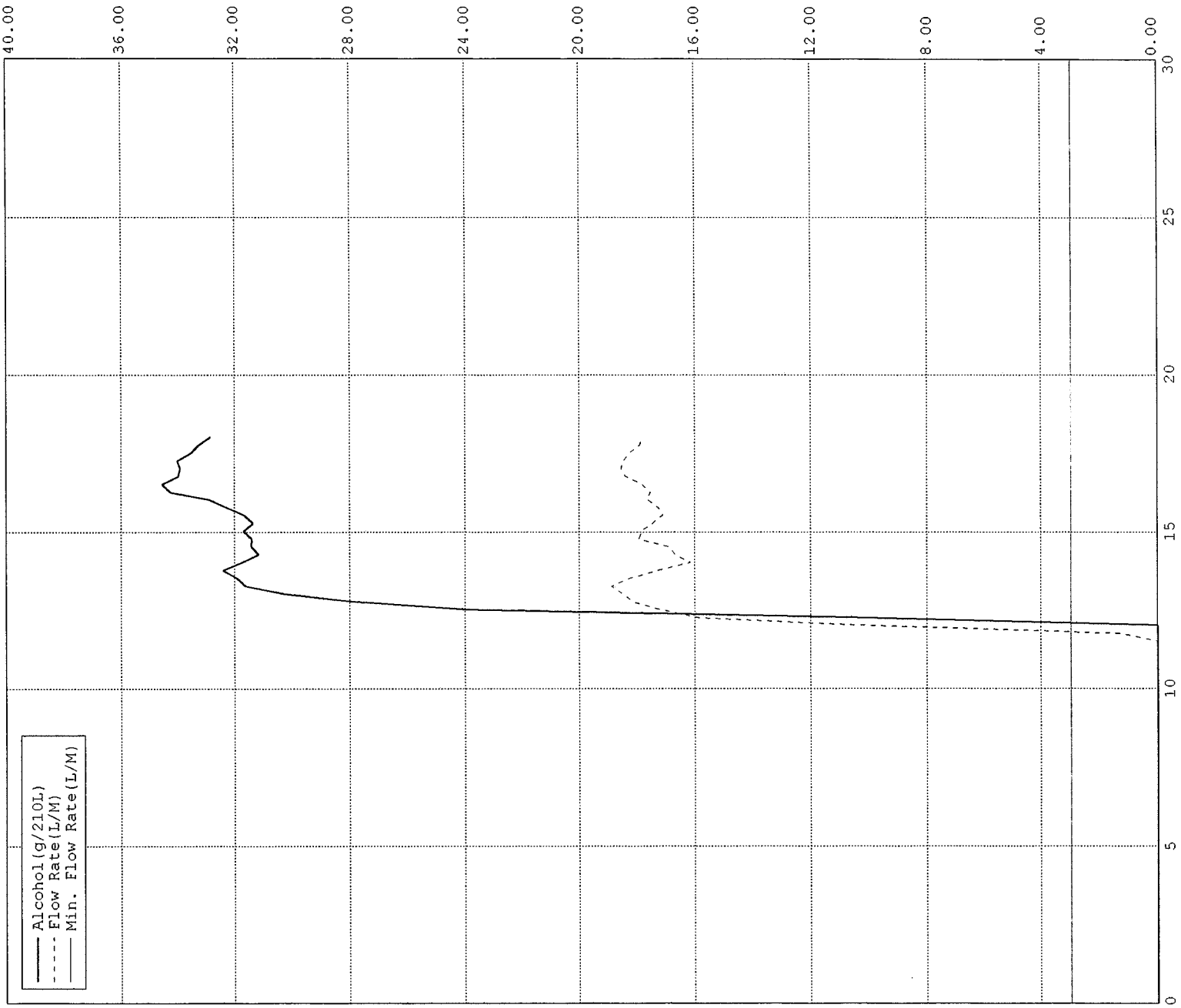
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.83: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 12:34  
BLANK TEST 0.000 12:34  
INTERNAL STANDARD VERIFIED 12:34  
EXTERNAL STANDARD 0.077 12:34  
BLANK TEST 0.000 12:35  
SUBJECT SAMPLE INVALID 12:35

*ME*



SUBJECT TEST

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100688  
 -----  
 Date: 06/25/2019  
 Time: 13:03:17

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: XXXX

OPERATOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

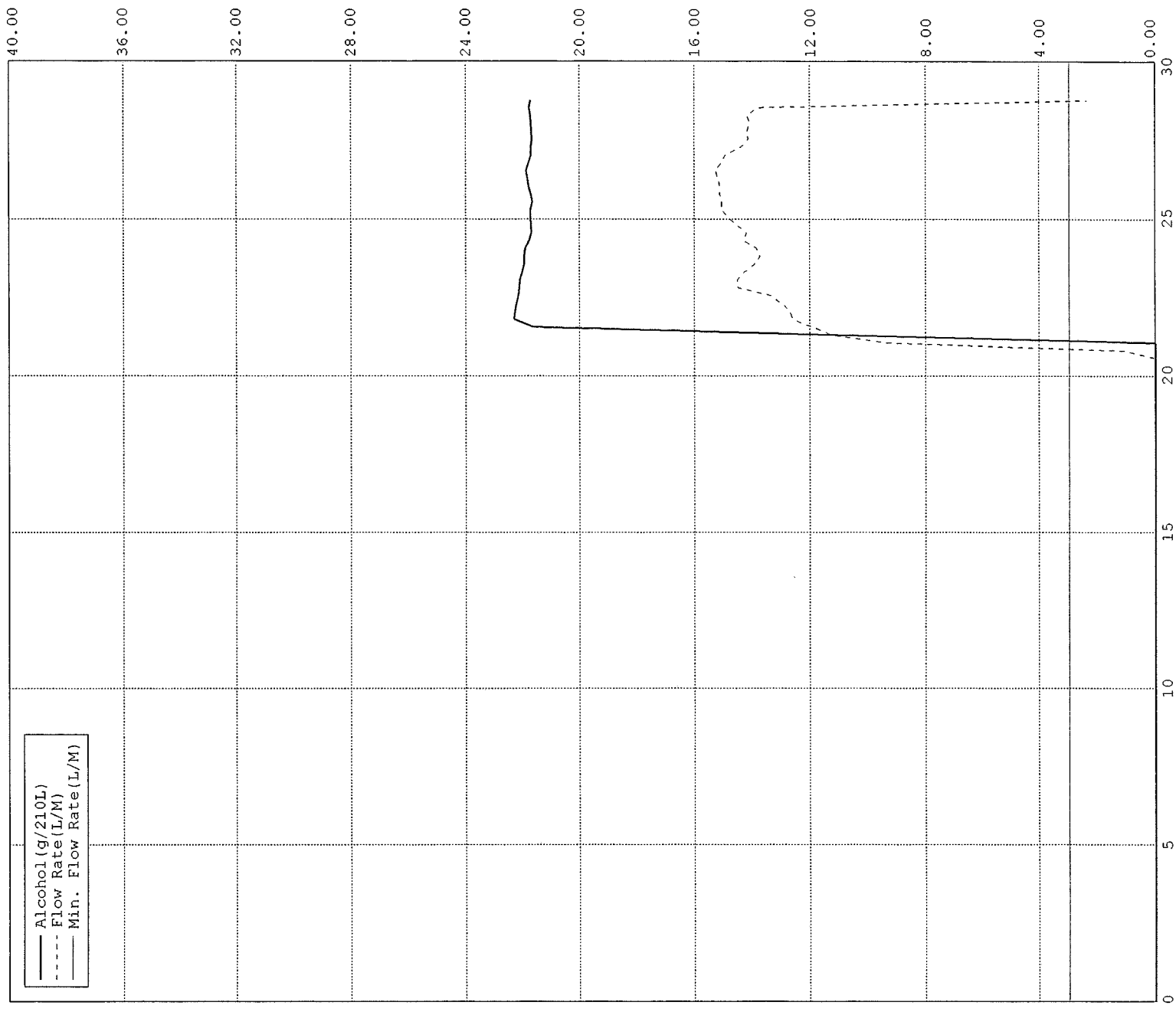
DEPT/AGENCY:  
 INTERFERENCE ACETONE  
 CASE/REPORT: XXXX  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.84: 0.080  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:04
BLANK TEST	0.000	13:04
INTERNAL STANDARD	VERIFIED	13:04
Xq = 0.101 (1.23%)		
EXTERNAL STANDARD	0.077	13:04
X[1] = 0.0774 (0.0005) (0.0025)		
BLANK TEST	0.000	13:05
SUBJECT SAMPLE	XXX	13:06
X[1] = 0.1094 (-0.0148) (0.0034)		

Interference Detected

Filter 2 Avg = 0.0006  
 Filter 3 Avg = 0.0019  
 DW 06/26/19  
 DW



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100688  
-----

Date: 06/25/2019  
Time: 13:09:06

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

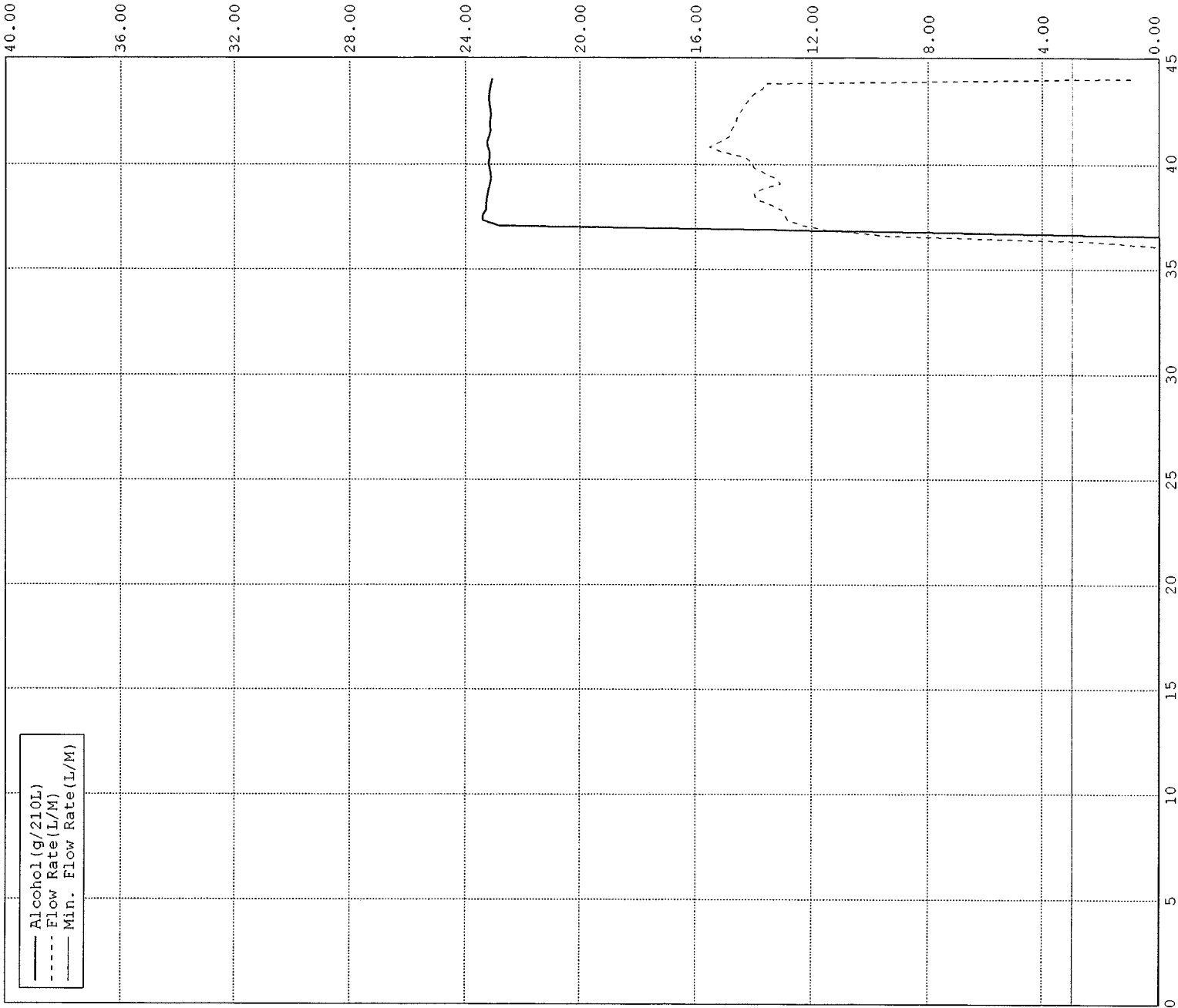
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.84: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:11  
BLANK TEST 0.000 13:11  
INTERNAL STANDARD VERIFIED 13:11  
Xq = 0.100 (0.79%)  
EXTERNAL STANDARD 0.077 13:11  
X[1] = 0.0774 (0.0005) (0.0015)  
BLANK TEST 0.000 13:12  
SUBJECT SAMPLE XXX 13:13  
X[1] = 0.1163 (-0.0230) (0.0007)

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100688

Date: 06/25/2019  
Time: 13:19:01

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

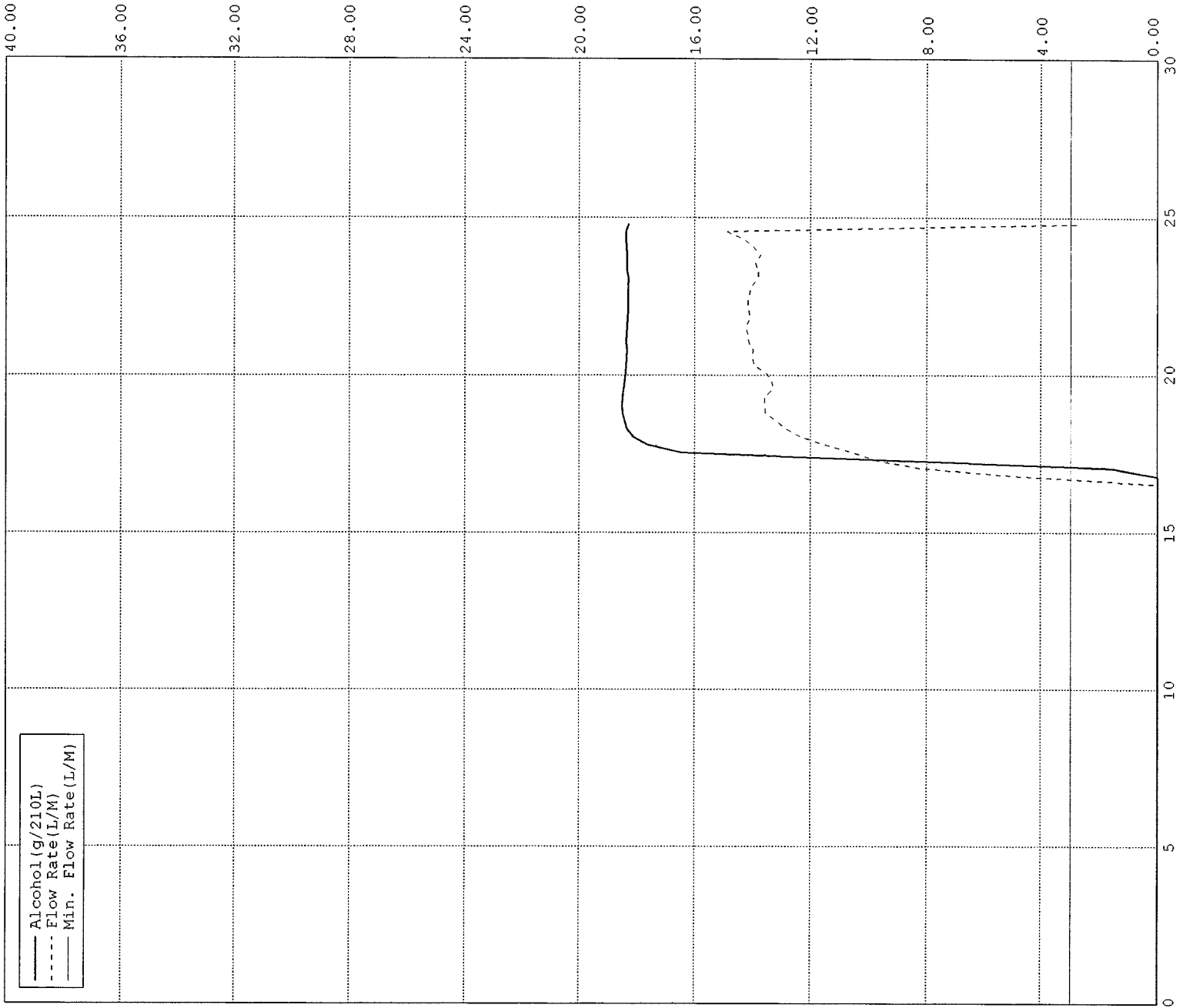
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.83: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 13:22  
BLANK TEST 0.000 13:22  
INTERNAL STANDARD VERIFIED 13:22  
Xq = 0.100 (0.79%)  
EXTERNAL STANDARD 0.078 13:22  
X[1] = 0.0776 (0.0008) (0.0023)  
BLANK TEST 0.000 13:23  
SUBJECT SAMPLE (Vol=1.74L) 0.092 13:24  
X[1] = 0.0923 (0.0003) (0.0014)  
BLANK TEST 0.000 13:25  
EXTERNAL STANDARD 0.077 13:25  
X[1] = 0.0767 (0.0004) (0.0013)  
BLANK TEST 0.000 13:26

*Handwritten signature*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100688

Date: 06/25/2019  
Time: 11:34:45

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

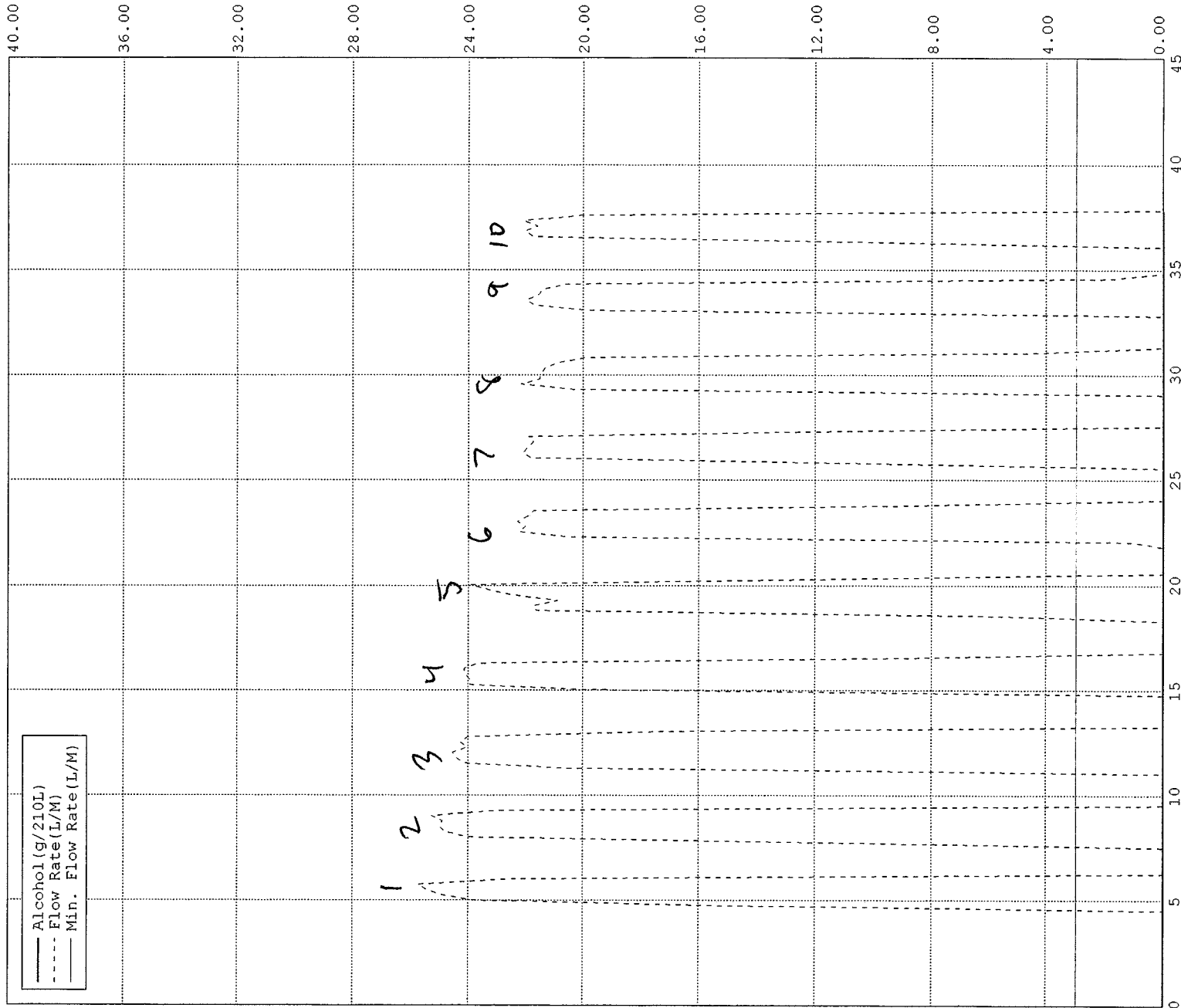
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.84: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 11:35  
BLANK TEST 0.000 11:35  
INTERNAL STANDARD VERIFIED 11:35  
EXTERNAL STANDARD 0.077 11:36  
BLANK TEST 0.000 11:37  
SUBJECT SAMPLE XXX 11:37

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100688

Date: 06/25/2019  
Time: 12:41:15

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

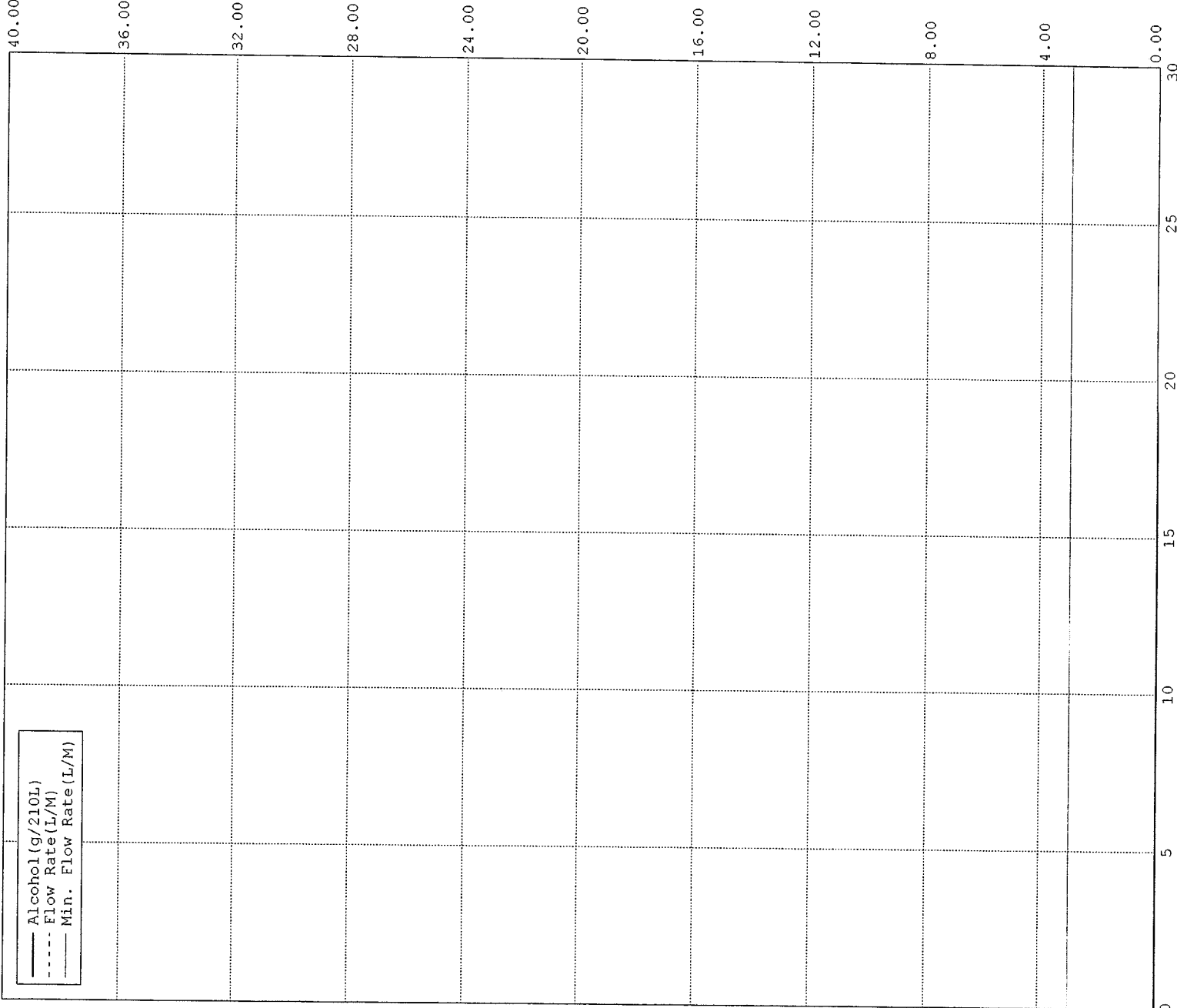
DEPT/AGENCY:  
RADIO FREQUENCY  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.84: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 12:56  
BLANK TEST 0.000 12:56  
INTERNAL STANDARD VERIFIED 12:56  
EXTERNAL STANDARD 0.078 12:56  
BLANK TEST 0.000 12:57

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100688

Date: 06/25/2019  
Time: 14:06:45

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 29.84: 0.080  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 14:11  
BLANK TEST 0.000 14:11  
INTERNAL STANDARD VERIFIED 14:11  
EXTERNAL STANDARD 0.078 14:12  
BLANK TEST 0.000 14:12  
SUBJECT SAMPLE (Vol=3.32L) 0.000 14:13  
BLANK TEST 0.000 14:14  
EXTERNAL STANDARD 0.077 14:14  
BLANK TEST 0.000 14:15

*DW*

