

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 100405 Analyst Derek Walton 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)
 - 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 02/27/20
- ii. 0.040g/210L Mnf Airgas Lot AG733403 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 Auth Lot 17340 Exp 10/09/19
 - 1. Simulator S/N SD1177 Date Calibrated 03/05/19
- vi. 0.300g/210L Mnf Auth Lot 19010 Exp 01/03/21
 - 1. Simulator S/N SD1088 Date Calibrated 03/05/19

5. Functional Tests (attached)

- a. Incomplete
 - b. Invalid
 - c. Interference
 - d. Exceeded attempts ^{DM 06/25/19}
- i. Acetone - Mnf Auth Lot 18370 Level 0.100 Exp 03/06/19 ^{DM 06/25/19} 12/05/20
 - 1. Simulator S/N SD1199 Date Calibrated 03/06/19
 - ii. Isopropanol - Mnf Auth Lot 18070 Level 0.100 Exp 02/26/20
 - 1. Simulator S/N DR4161 Date Calibrated 03/07/19
 - iii. Negative Control - Mnf Auth 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

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 06/25/19

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 06/25/2019
Time: 08:14:07

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 = 47.6°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.69 V PASSED
(1.01 V - 2.37 V)
Cooler Voltage = 1.69 V PASSED
(1.01 V - 2.37 V)
Bias Voltage = 81 V PASSED
(49 V - 113 V)
Chopper Freq = 546 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.8 in

PUMP INFO

Flow Rate = 5.011 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.003 V <= 0.010 V)
PUMP OFF PASSED
(0.004 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD PASSED

Xq = 0.088 0.40% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100405

Date: 06/25/2019
Time: 8:58 AM

Temperatures (°C)

Sample Cell: 48.9°C
Breath Tube: 47.5°C

Current Barometer 29.8 in
Volume (Ltr) 1.60

Settings

Lamp: 1.75 V
Bias: 81 V
Cooler: 1.74 V
Chopper: 528 Hz

Voltages (V)

Flow: 1.05 V
Detector: -0.056 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 06/21/2019
Time: 10:40:34

OPERATOR NAME:
DEREK WALTON
CERTIFICATE #: 9508

Ca = 0.1000
CAL = 0.962790 0.800 <= CAL < 1.200
b1 = 0.0002 0.0000 <= b1 < 0.0040
b2 = 0.0029 0.0010 <= b2 < 0.0100
b3 = 0.0004 0.0000 <= b3 < 0.0040
Xq = 0.0880 0.0500 <= Xq < 0.2000
a21 = 1.111730 1.050 <= a21 < 1.300
a31 = 0.484398 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 06/25/2019
Time: 09:00:04

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

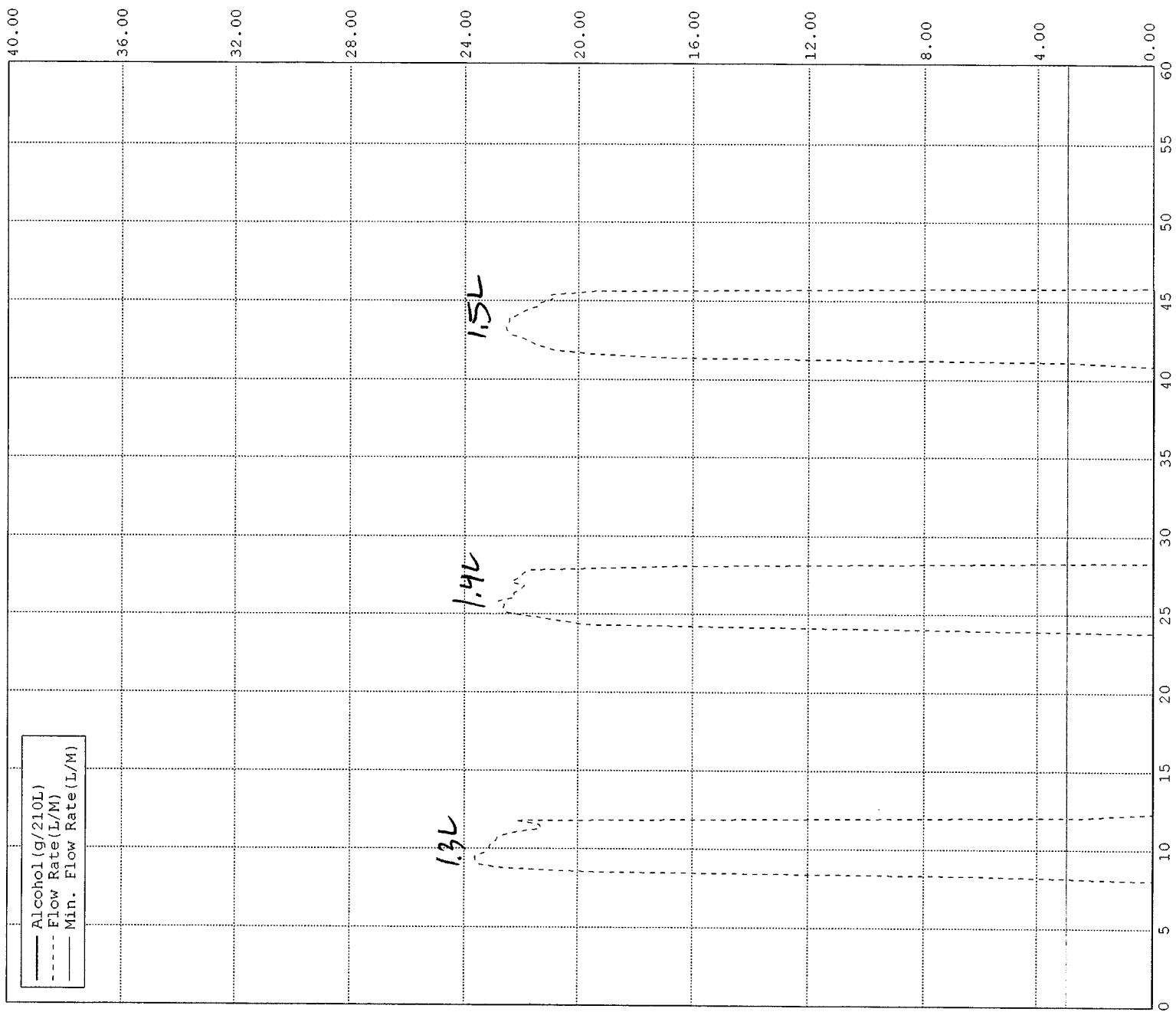
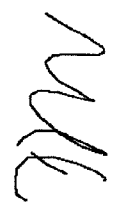
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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	09:02
BLANK TEST	0.000	09:02
INTERNAL STANDARD	VERIFIED	09:03
EXTERNAL STANDARD	0.077	09:03
BLANK TEST	0.000	09:04
SUBJECT SAMPLE (Vol=1.60L)	0.000	09:05
BLANK TEST	0.000	09:06
EXTERNAL STANDARD	0.078	09:06
BLANK TEST	0.000	09:07



LINEARITY CHECK

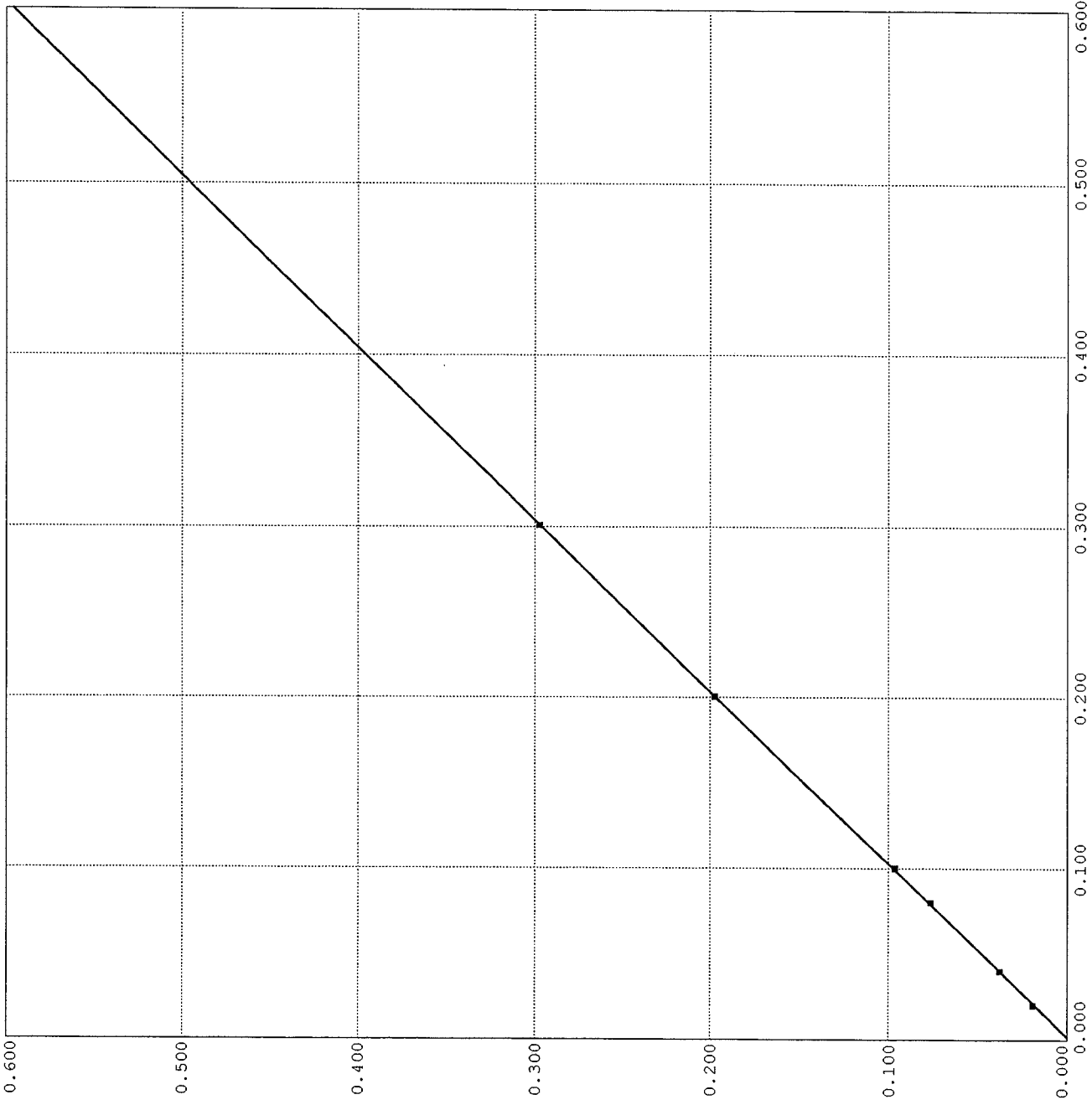
 Alaska Department of Public Safety
 DATAMASTER dmt: 100405

Date: 06/25/2019
 Time: 09:18:14

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.040	0.0388	0.0004
0.080	0.0774	0.0005
0.100	0.0974	0.0005
0.200	0.1982	0.0008
0.300	0.2980	0.0012

SLOPE = 0.996184
 R² = 0.999929



DM

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100405

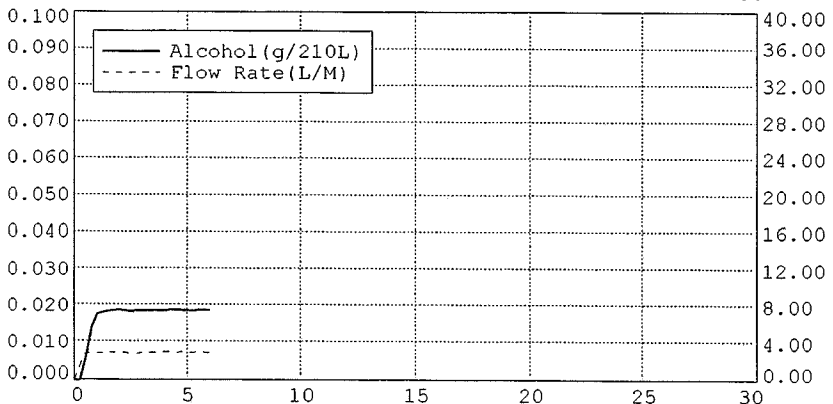
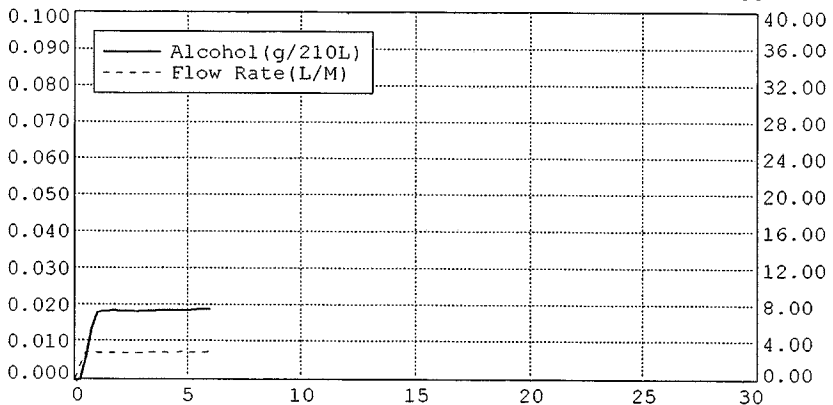
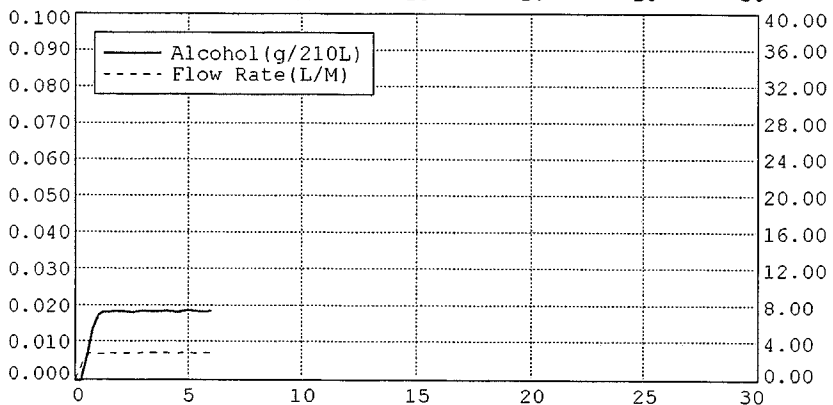
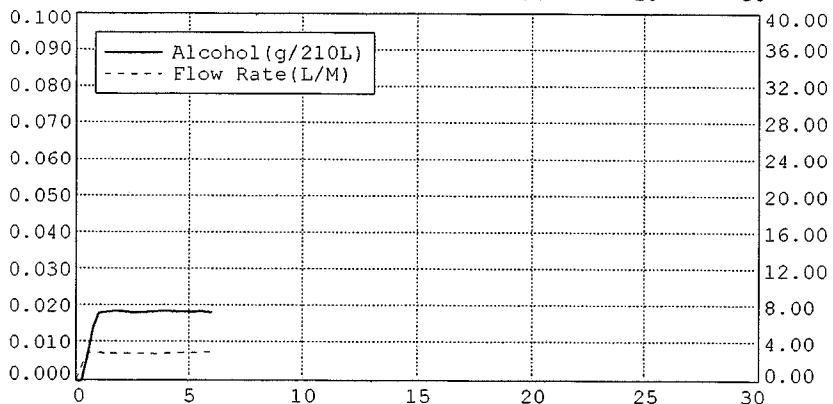
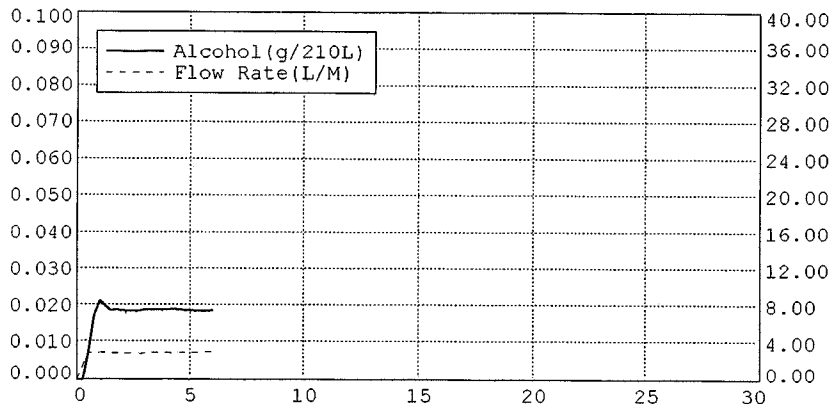
Date: 06/25/2019
 Time: 09:18:16

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.84: 0.020
 LOT #: AG805804
 EXPIRATION: 02/27/2020
 TANK PRESSURE: 601 psi

BLANK TEST	0.000	09:19
INTERNAL STANDARD	VERIFIED	09:19
EXTERNAL STANDARD	0.020	09:19
BLANK TEST	0.000	09:20
EXTERNAL STANDARD	0.020	09:20
BLANK TEST	0.000	09:21
EXTERNAL STANDARD	0.020	09:22
BLANK TEST	0.000	09:22
EXTERNAL STANDARD	0.020	09:23
BLANK TEST	0.000	09:24
EXTERNAL STANDARD	0.020	09:24
BLANK TEST	0.000	09:25

Average = 0.0200
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100405

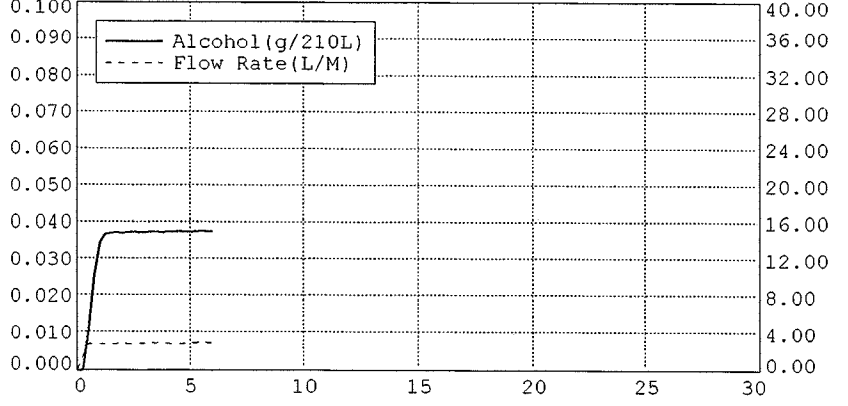
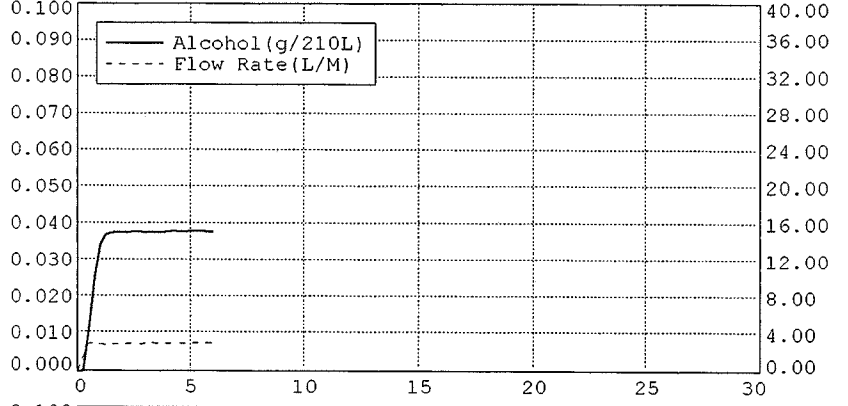
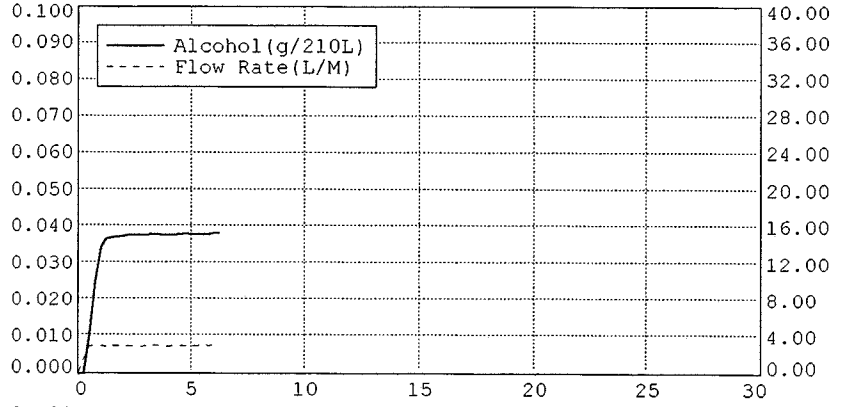
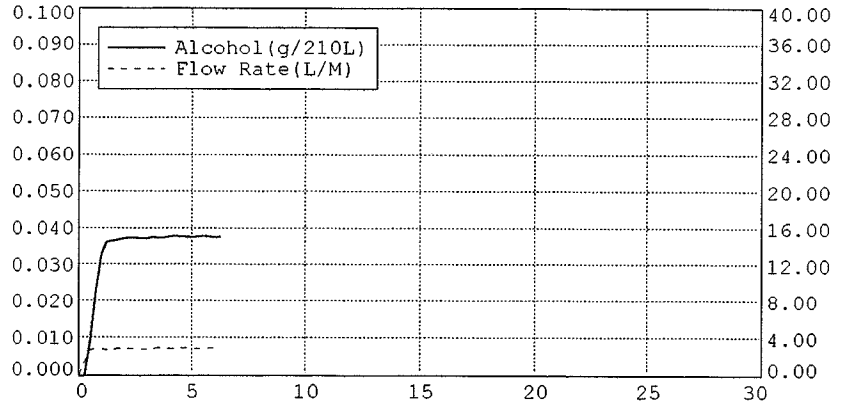
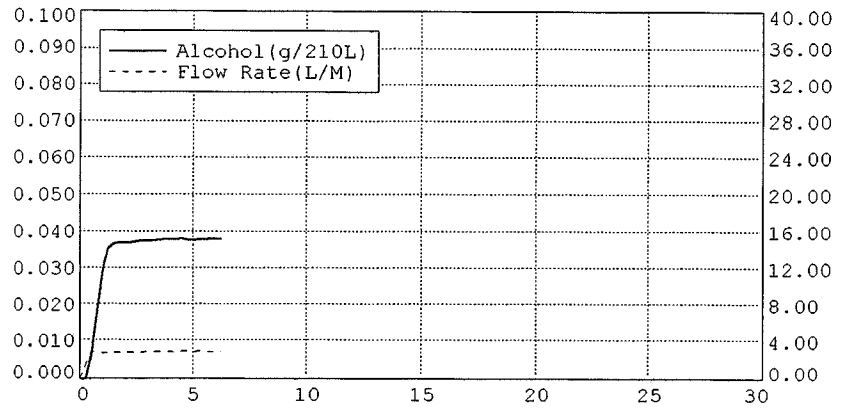
Date: 06/25/2019
 Time: 09:27:56

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.84: 0.040
 LOT #: AG733403
 EXPIRATION: 11/30/2019
 TANK PRESSURE: 588 psi

BLANK TEST	0.000	09:29
INTERNAL STANDARD	VERIFIED	09:29
EXTERNAL STANDARD	0.039	09:29
BLANK TEST	0.000	09:30
EXTERNAL STANDARD	0.039	09:30
BLANK TEST	0.000	09:31
EXTERNAL STANDARD	0.039	09:31
BLANK TEST	0.000	09:32
EXTERNAL STANDARD	0.039	09:32
BLANK TEST	0.000	09:33
EXTERNAL STANDARD	0.038	09:33
BLANK TEST	0.000	09:34

Average = 0.0388
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 3

 Alaska Department of Public Safety
 DATAMASTER dmt: 100405

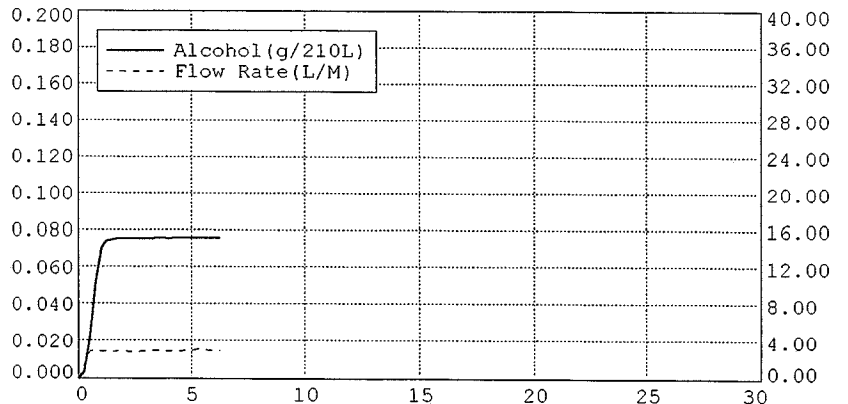
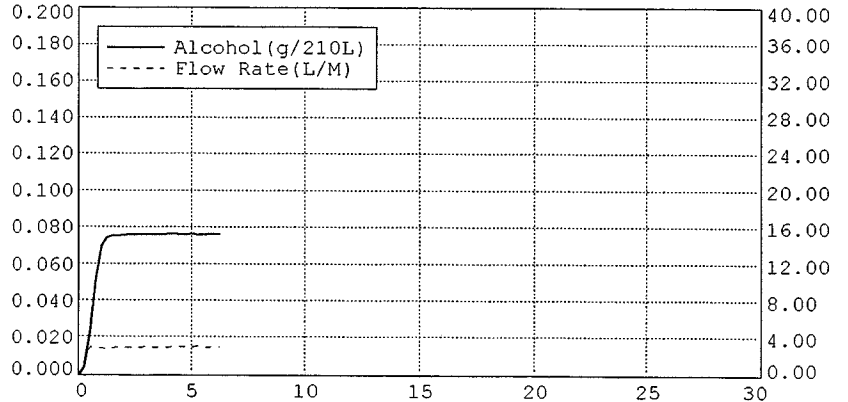
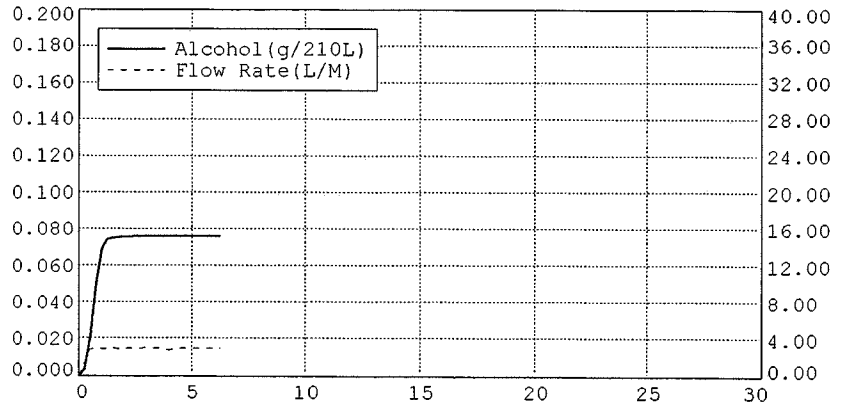
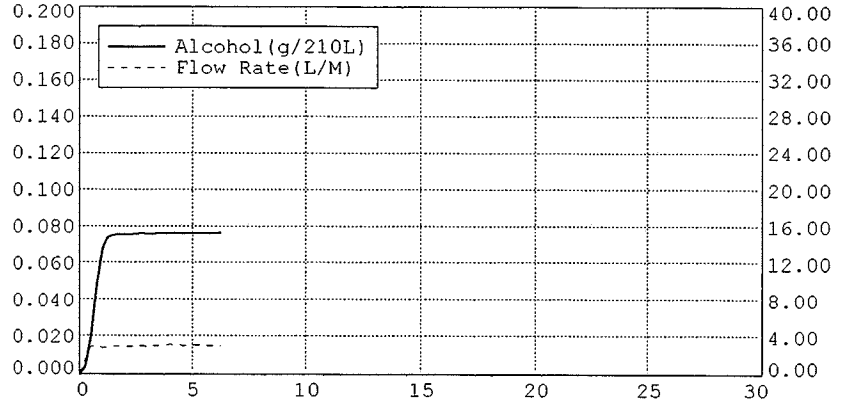
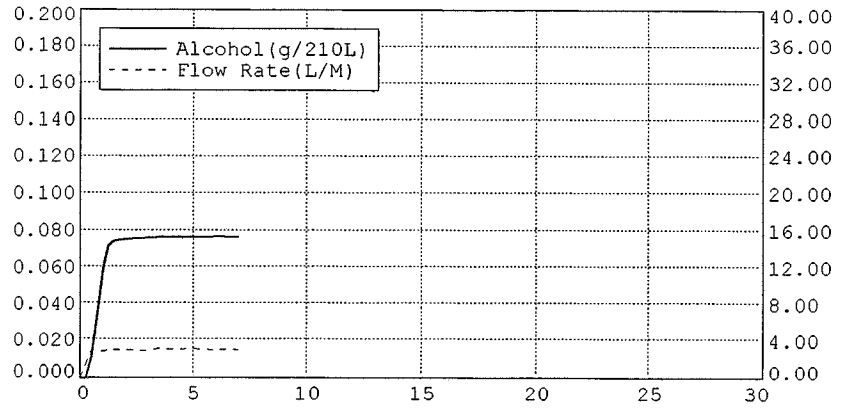
Date: 06/25/2019
 Time: 09:39:10

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.83: 0.080
 LOT #: AG826101
 EXPIRATION: 09/18/2020
 TANK PRESSURE: 1153 psi

BLANK TEST	0.000	09:40
INTERNAL STANDARD	VERIFIED	09:40
EXTERNAL STANDARD	0.078	09:40
BLANK TEST	0.000	09:41
EXTERNAL STANDARD	0.078	09:41
BLANK TEST	0.000	09:42
EXTERNAL STANDARD	0.077	09:42
BLANK TEST	0.000	09:43
EXTERNAL STANDARD	0.077	09:44
BLANK TEST	0.000	09:44
EXTERNAL STANDARD	0.077	09:45
BLANK TEST	0.000	09:46

Average = 0.0774
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100405

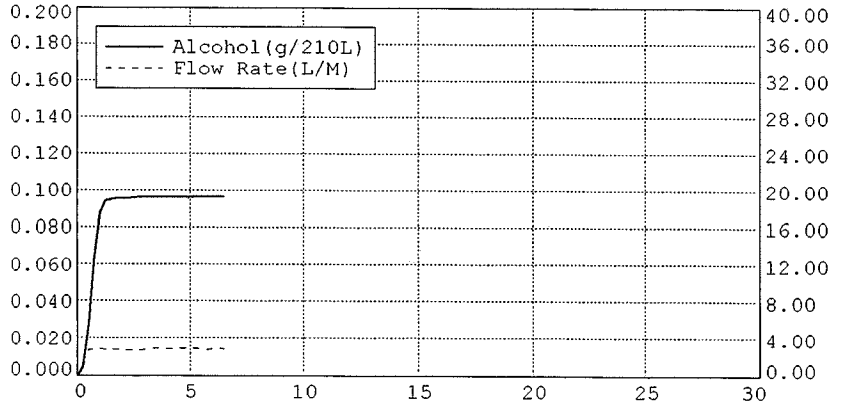
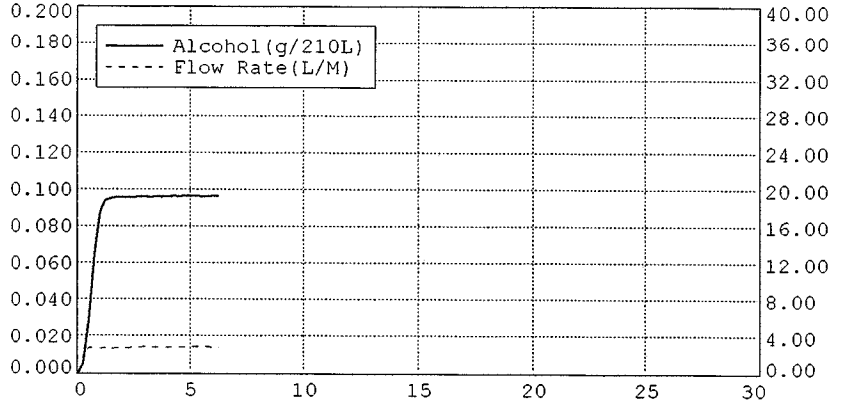
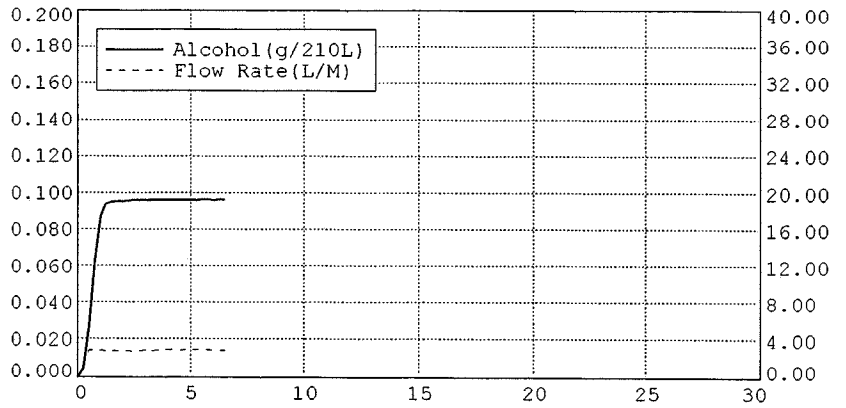
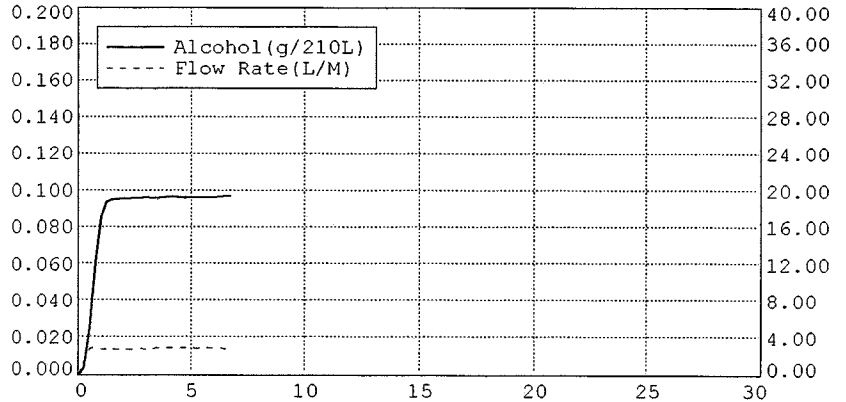
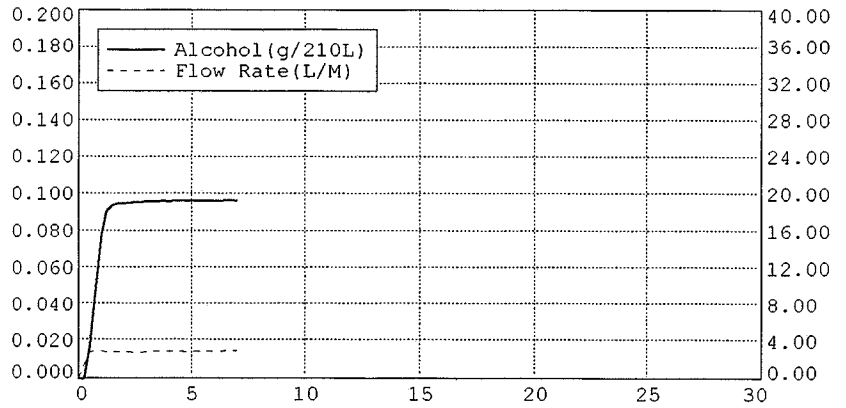
Date: 06/25/2019
 Time: 09:49:23

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.84: 0.100
 LOT #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 533 psi

BLANK TEST	0.000	09:50
INTERNAL STANDARD	VERIFIED	09:50
EXTERNAL STANDARD	0.097	09:51
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.097	09:52
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.098	09:53
BLANK TEST	0.000	09:54
EXTERNAL STANDARD	0.098	09:54
BLANK TEST	0.000	09:55
EXTERNAL STANDARD	0.097	09:55
BLANK TEST	0.000	09:56

Average = 0.0974
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

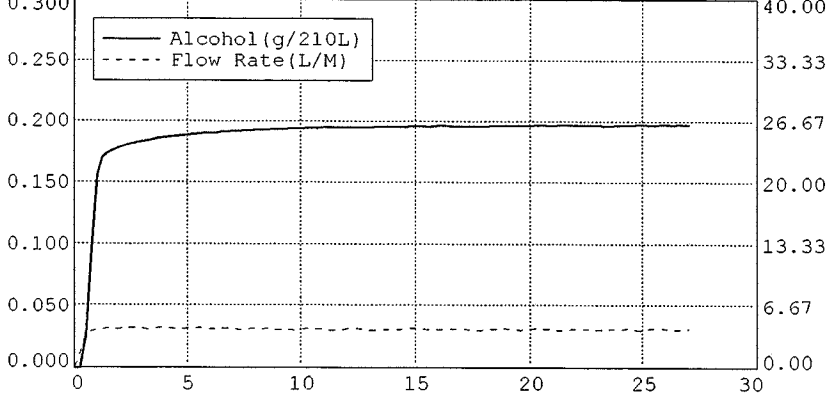
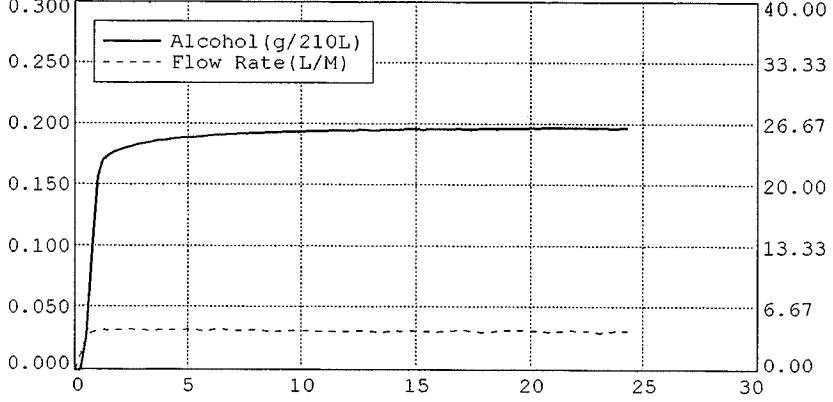
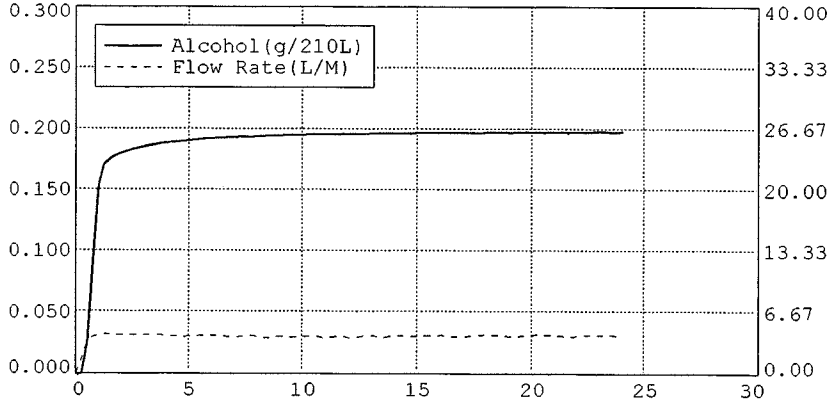
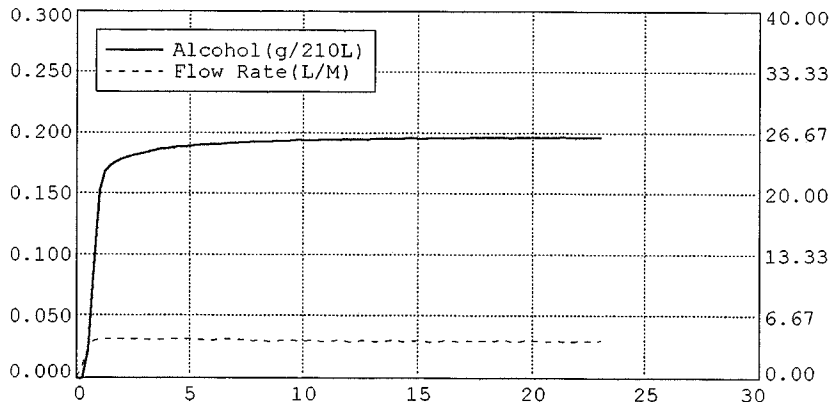
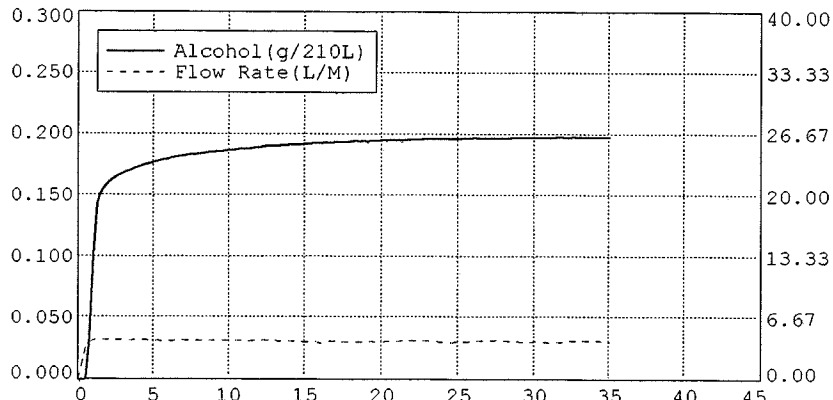
Alaska Department of Public Safety
 DATAMASTER dmt: 100405

Date: 06/25/2019
 Time: 11:13:23

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

BLANK TEST	0.000	11:14
INTERNAL STANDARD	VERIFIED	11:14
EXTERNAL STANDARD	0.199	11:15
BLANK TEST	0.000	11:16
EXTERNAL STANDARD	0.197	11:16
BLANK TEST	0.000	11:17
EXTERNAL STANDARD	0.199	11:18
BLANK TEST	0.000	11:19
EXTERNAL STANDARD	0.198	11:19
BLANK TEST	0.000	11:20
EXTERNAL STANDARD	0.198	11:21
BLANK TEST	0.000	11:22

Average = 0.1982
 Std Dev = 0.0008



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100405

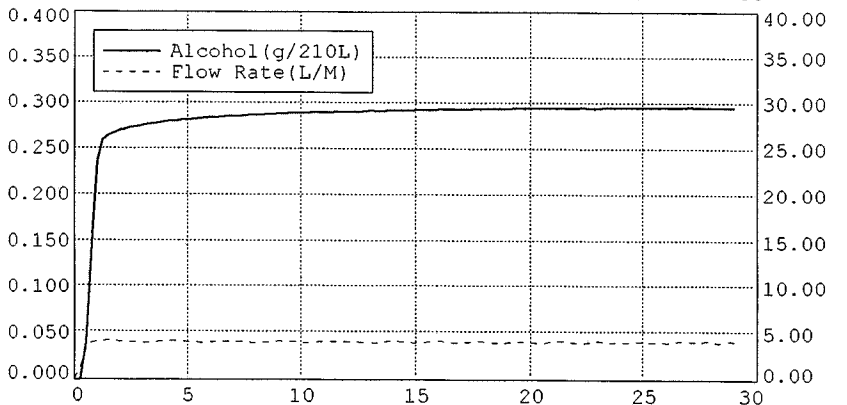
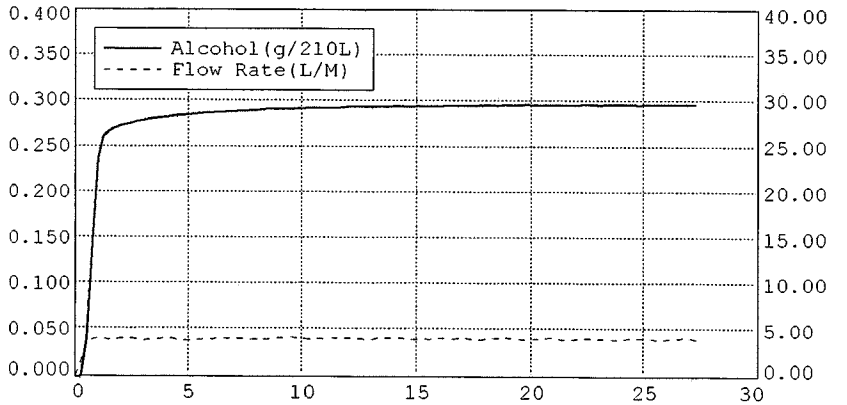
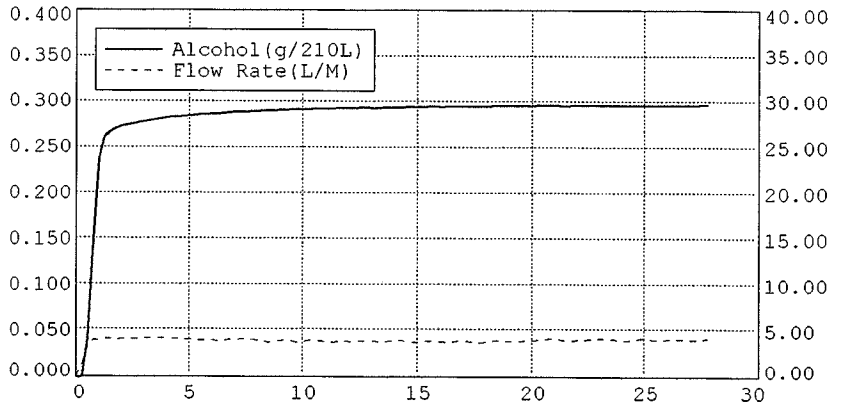
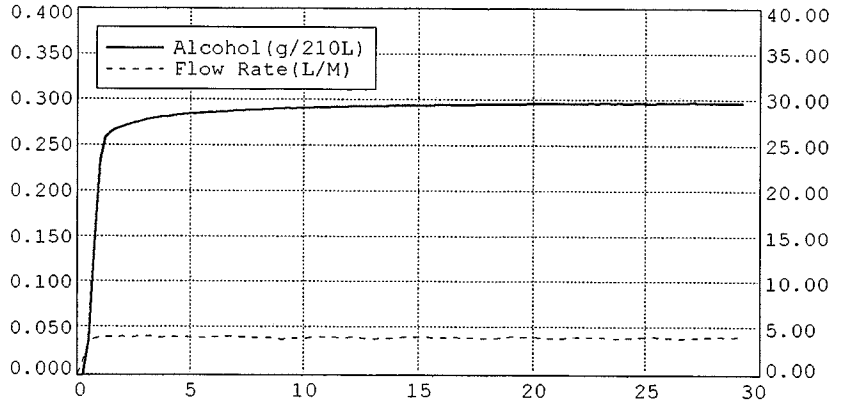
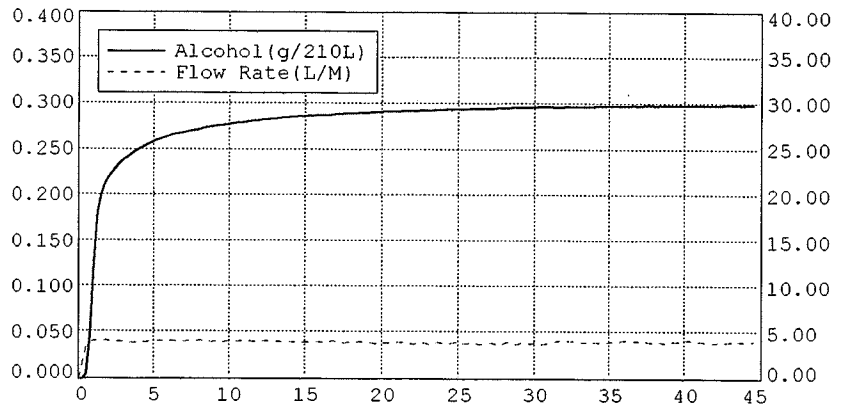
Date: 06/25/2019
 Time: 11:26:03

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	11:27
INTERNAL STANDARD	VERIFIED	11:27
EXTERNAL STANDARD	0.300	11:28
BLANK TEST	0.000	11:29
EXTERNAL STANDARD	0.298	11:29
BLANK TEST	0.000	11:30
EXTERNAL STANDARD	0.297	11:31
BLANK TEST	0.000	11:32
EXTERNAL STANDARD	0.298	11:32
BLANK TEST	0.000	11:33
EXTERNAL STANDARD	0.297	11:34
BLANK TEST	0.000	11:35

Average = 0.2980
 Std Dev = 0.0012



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 06/25/2019
Time: 11:47:13

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

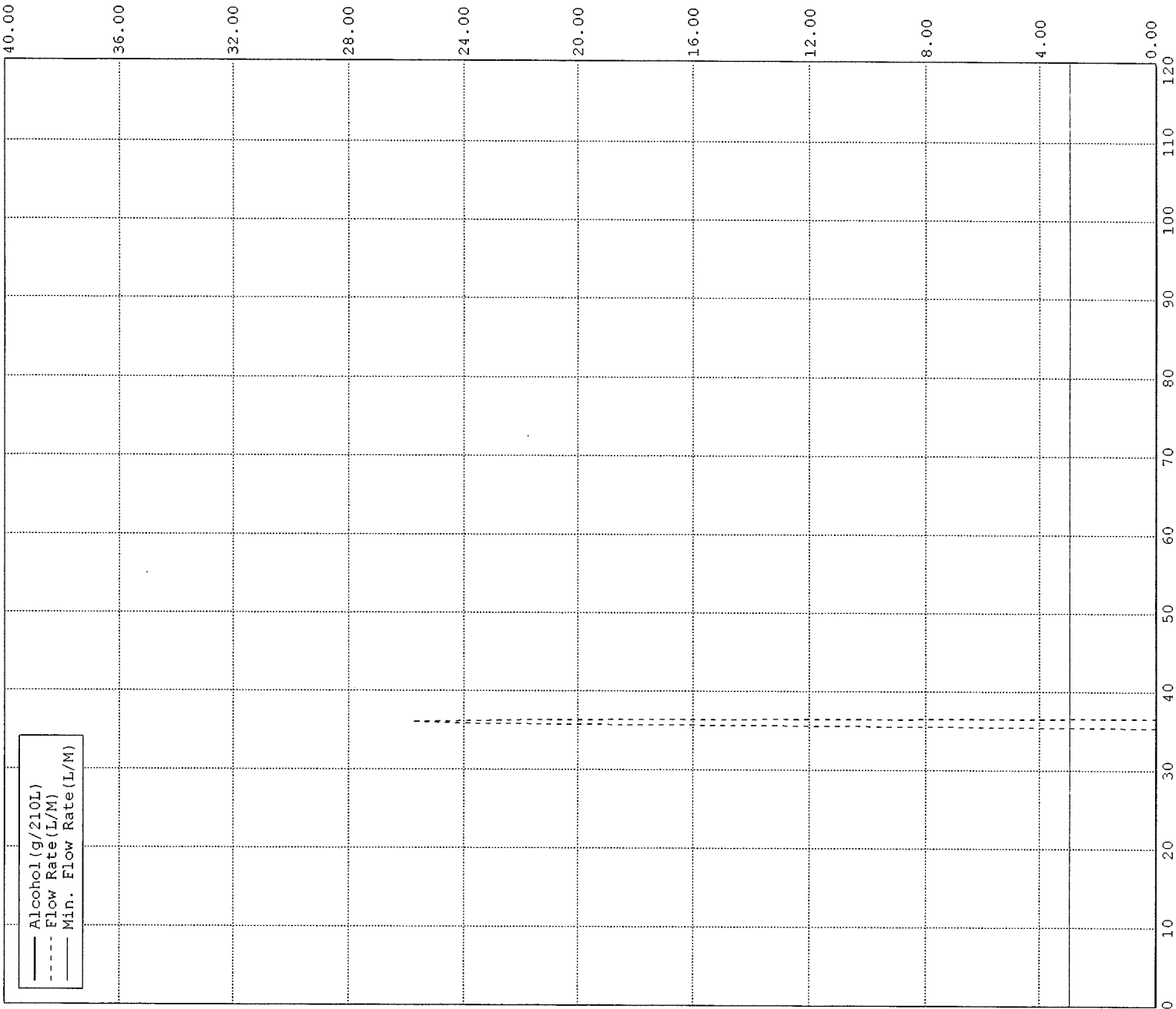
DEPT/AGENCY:
INCOMPLETE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK PASSED 11:51
BLANK TEST 0.000 11:51
INTERNAL STANDARD VERIFIED 11:52
EXTERNAL STANDARD 0.077 11:52
BLANK TEST 0.000 11:53
SUBJECT SAMPLE INCOMPLETE 11:55

DMN



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 06/25/2019
Time: 12:27:35

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

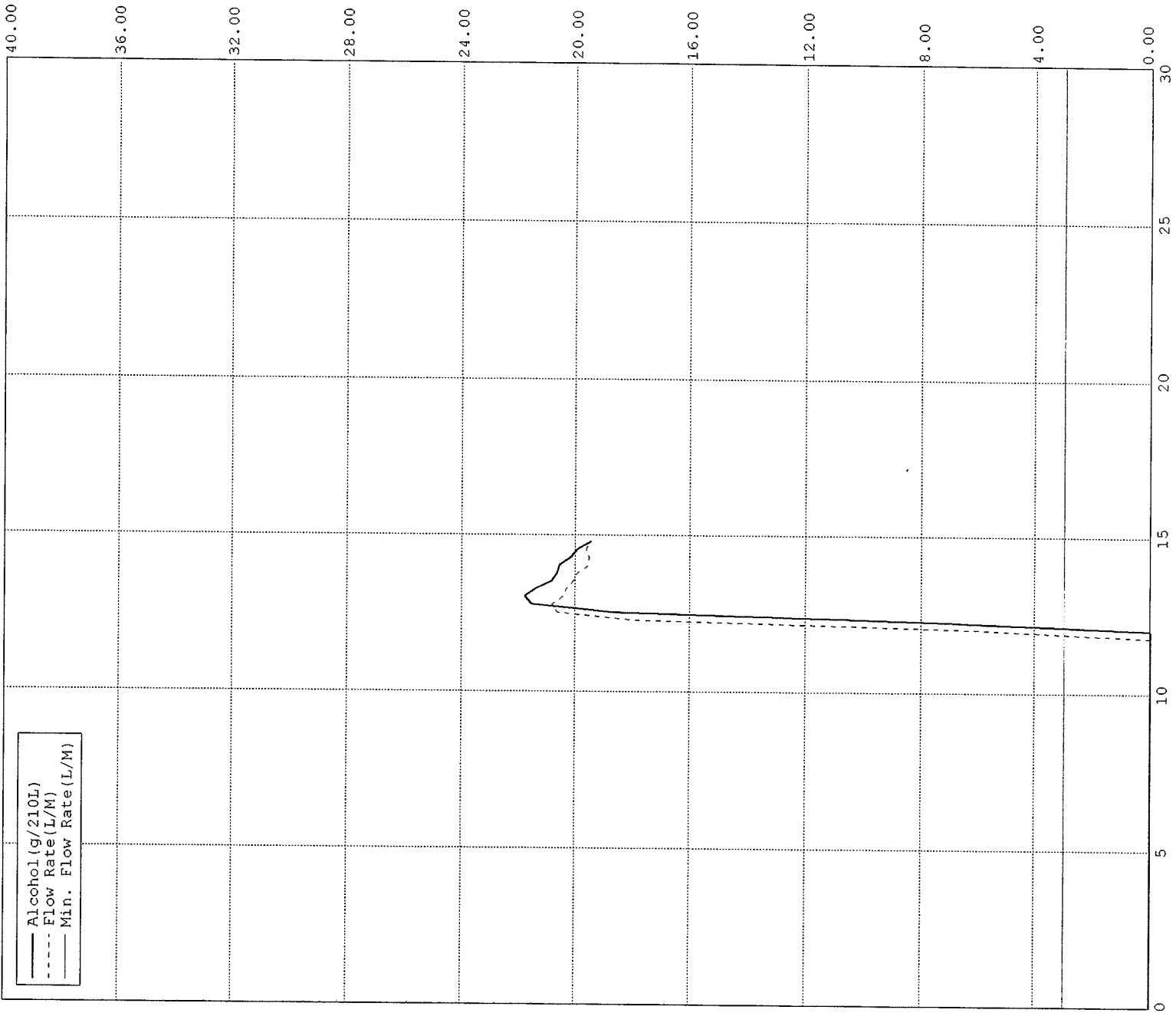
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

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

DIAGNOSTIC CHECK PASSED 12:29
BLANK TEST 0.000 12:30
INTERNAL STANDARD VERIFIED 12:30
EXTERNAL STANDARD 0.077 12:30
BLANK TEST 0.000 12:31
SUBJECT SAMPLE INVALID 12:31

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 06/25/2019
Time: 13:14:11

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

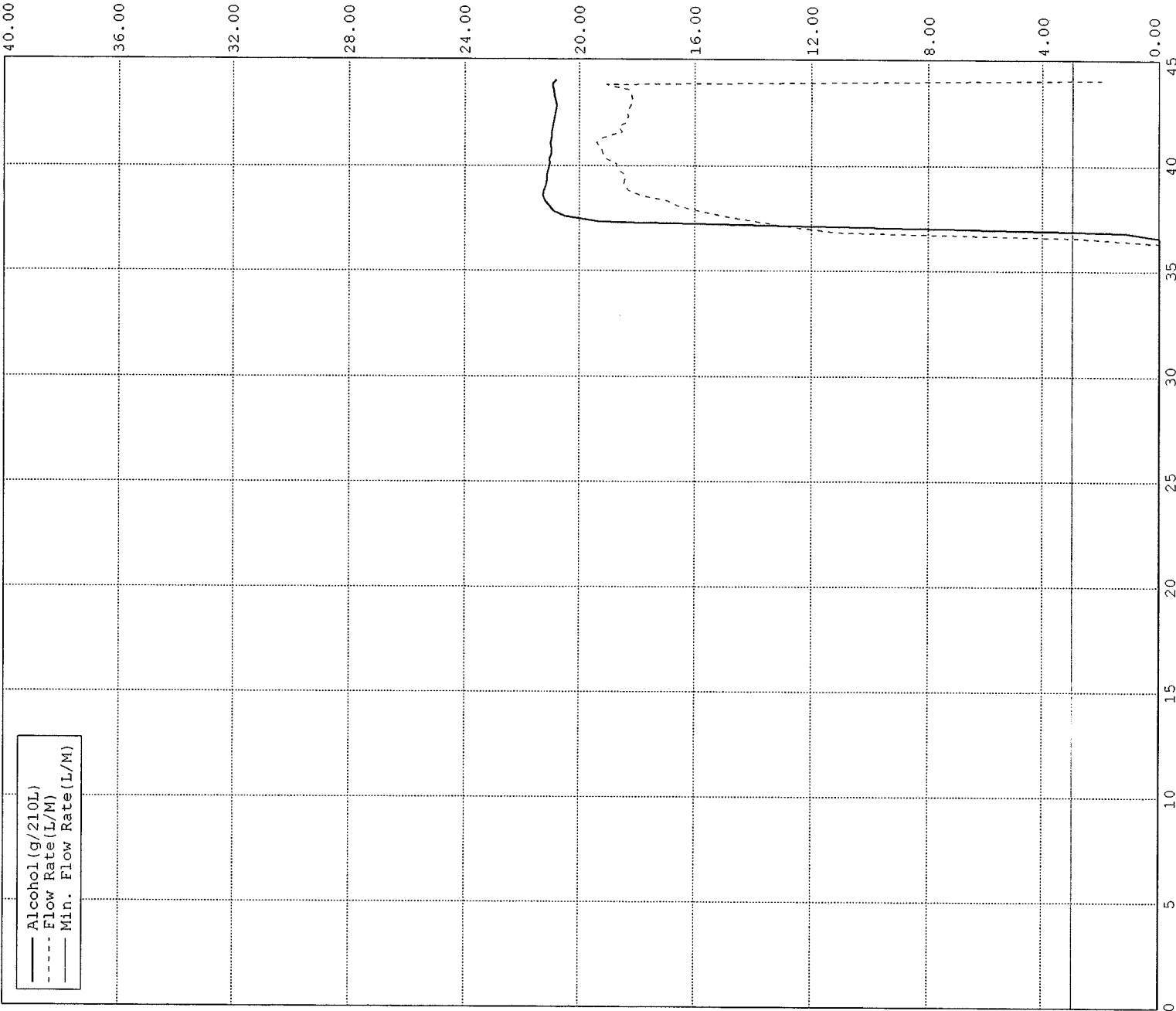
DIAGNOSTIC CHECK PASSED 13:15
BLANK TEST 0.000 13:15
INTERNAL STANDARD VERIFIED 13:15
Xq = 0.089 (0.79%)
EXTERNAL STANDARD 0.078 13:15
X[1] = 0.0776 (0.0012) (0.0023)
BLANK TEST 0.000 13:16
SUBJECT SAMPLE XXX 13:17
X[1] = 0.1040 (-0.0182) (0.0009)

Interference Detected

Filter 2 Avg: 0.0010

Filter 3 Avg: 0.0022
JW 06/26/19

JW



SUBJECT TEST

 Alaska Department of Public Safety
 DATAMASTER dmt: 100405

 Date: 06/25/2019
 Time: 13:21:31

SUBJECT NAME:
 TEST TEST
 LICENSE #: XXXX

OPERATOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

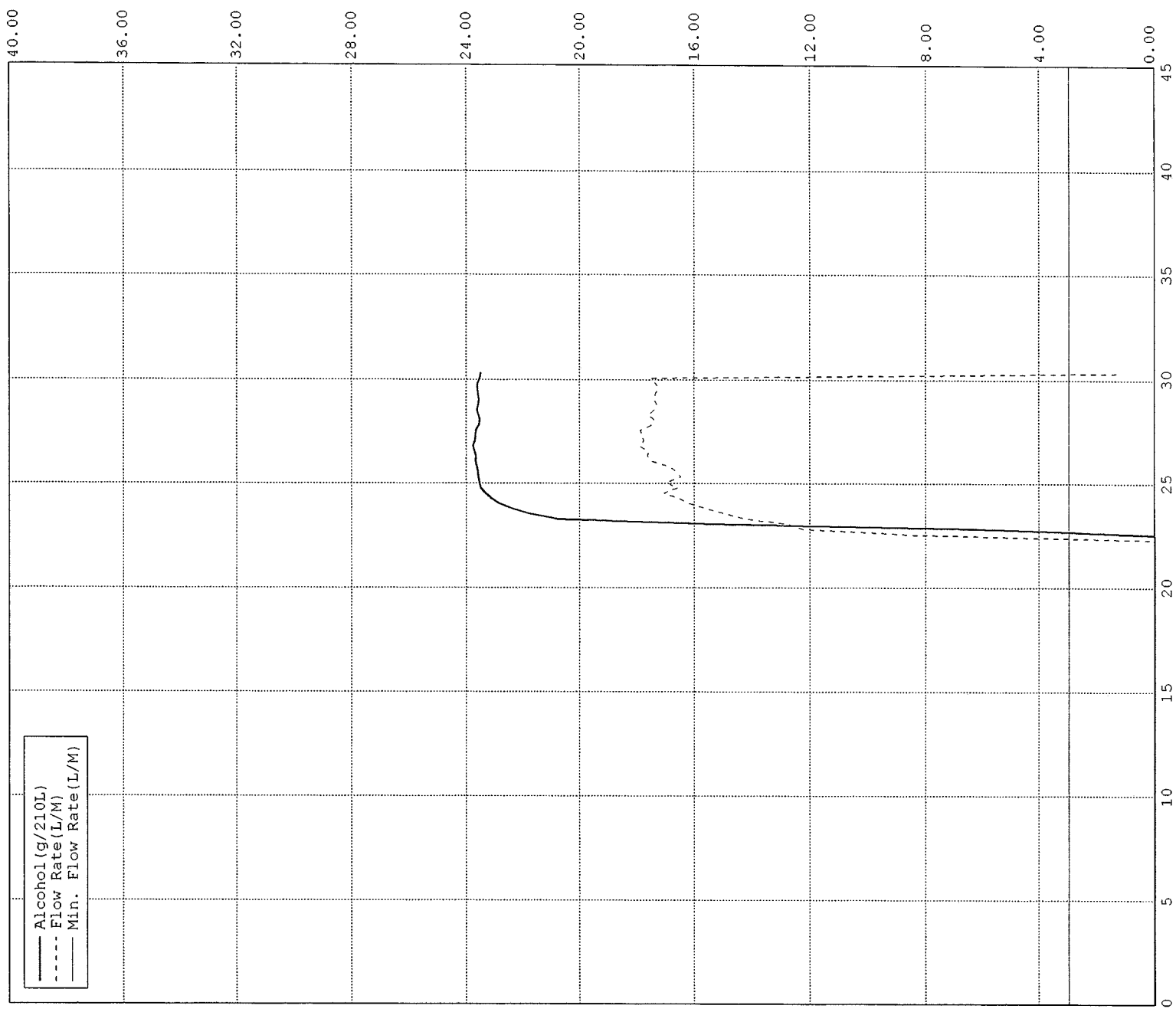
DEPT/AGENCY:
 INTERFERENCE ISOPROPANOL
 CASE/REPORT: XXXX
 TEST TYPE: TEST

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

DIAGNOSTIC CHECK PASSED 13:22
 BLANK TEST 0.000 13:22
 INTERNAL STANDARD VERIFIED 13:22
 $Xq = 0.089 (0.99\%)$
 EXTERNAL STANDARD 0.078 13:22
 $X[1] = 0.0781 (0.0011) (0.0023)$
 BLANK TEST 0.000 13:23
 SUBJECT SAMPLE XXXX 13:24
 $X[1] = 0.1179 (-0.0184) (0.0015)$

Interference Detected

DMC



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 06/25/2019
Time: 13:01:17

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

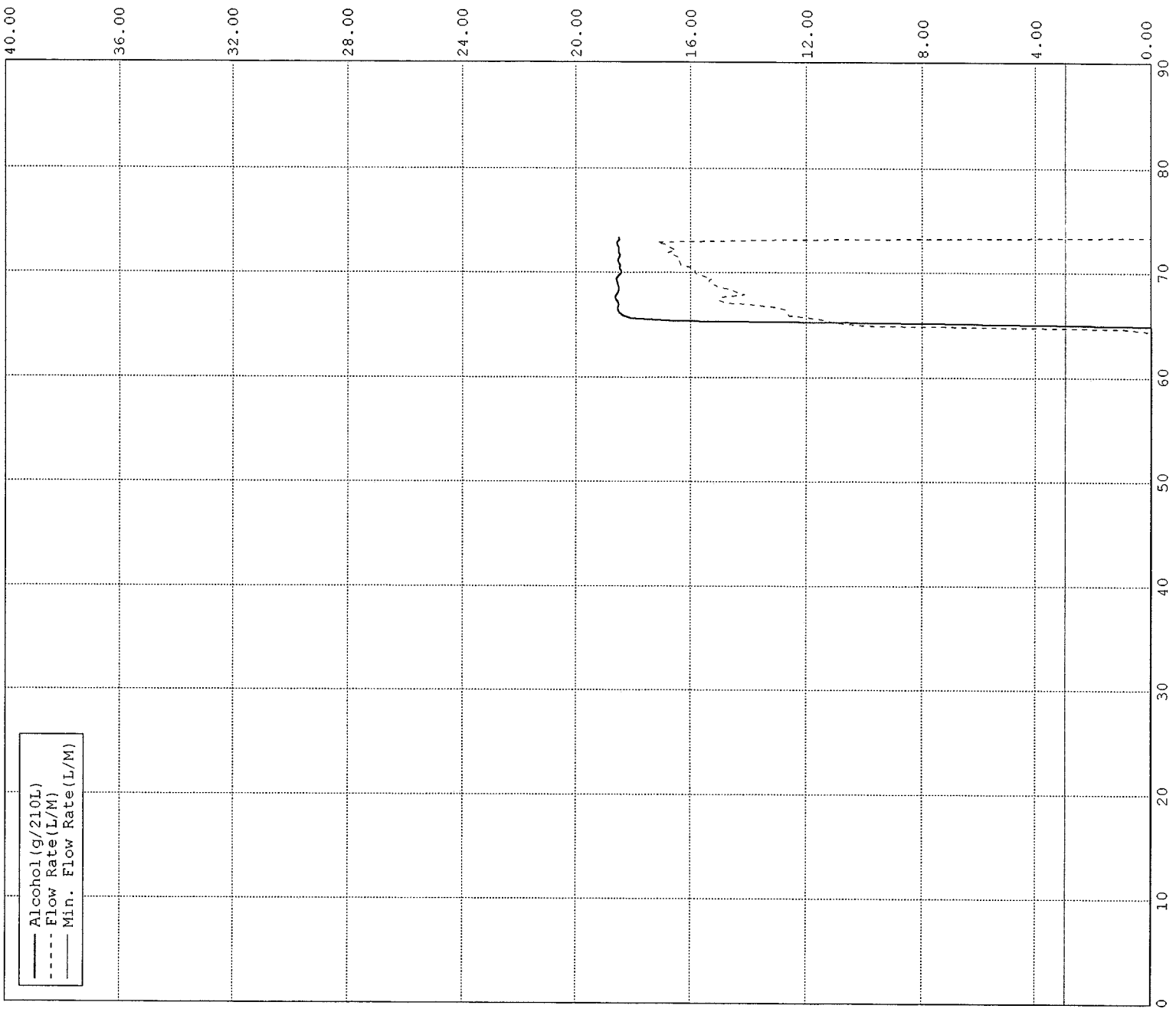
DEPT/AGENCY:
INTERFERENCE NEGATIVE
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.85: 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 = 0.089 (0.59%)		
EXTERNAL STANDARD	0.078	13:04
X[1] = 0.0776 (0.0007)	(0.0022)	
BLANK TEST	0.000	13:05
SUBJECT SAMPLE (Vol=2.08L)	0.093	13:06
X[1] = 0.0930 (-0.0001)	(0.00004)	
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.077	13:08
X[1] = 0.0775 (0.0011)	(0.0021)	
BLANK TEST	0.000	13:08

DW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100405

Date: 06/25/2019
Time: 12:53:41

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

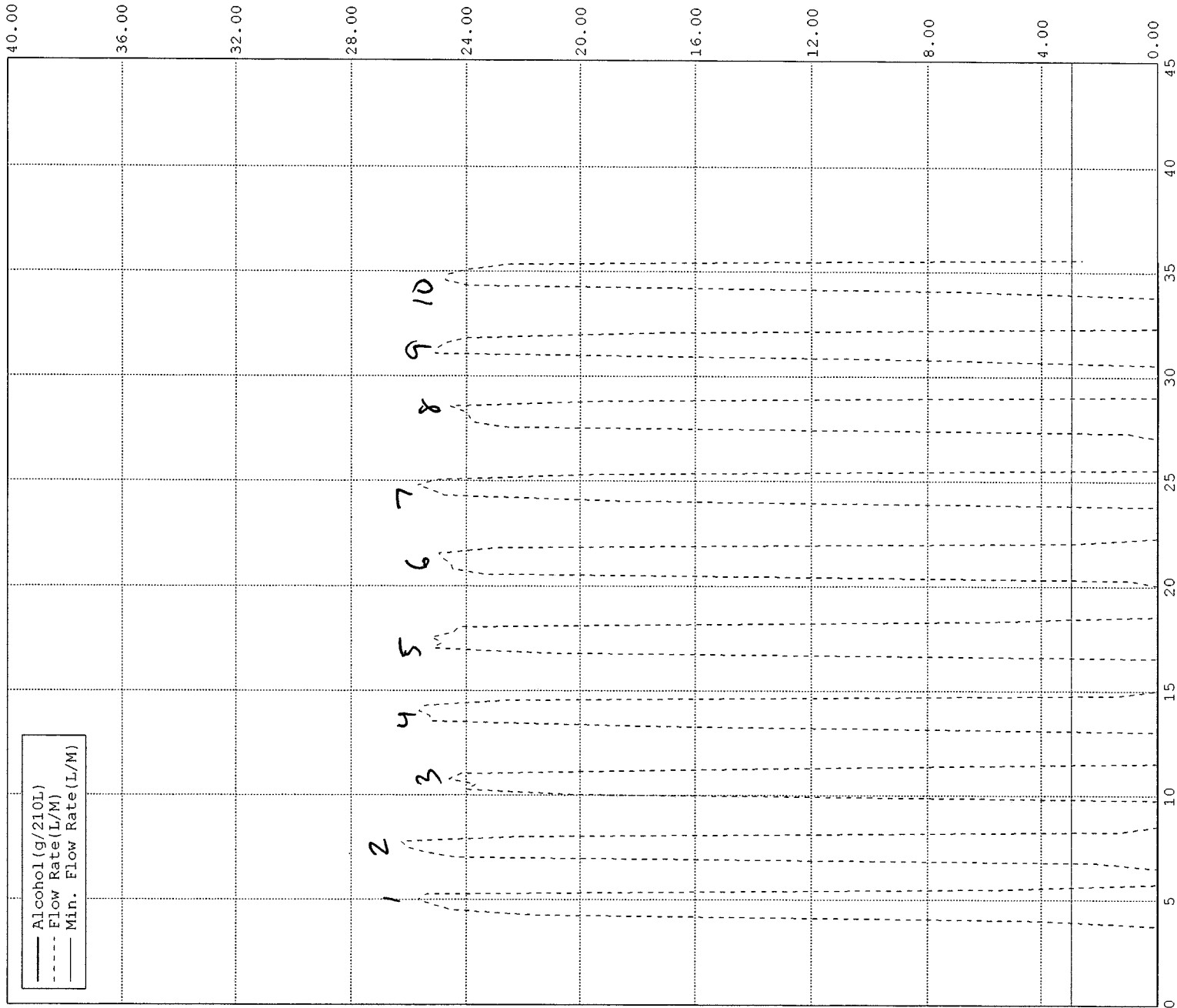
DEPT/AGENCY:
MAXIMUM ATTEMPTS
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK PASSED 12:55
BLANK TEST 0.000 12:55
INTERNAL STANDARD VERIFIED 12:55
EXTERNAL STANDARD 0.078 12:55
BLANK TEST 0.000 12:56
SUBJECT SAMPLE XXX 12:57

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100405

Date: 06/25/2019
 Time: 12:36:23

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 29.83: 0.080
 LOT #: AG826101
 EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 12:49
 BLANK TEST 0.000 12:49
 INTERNAL STANDARD VERIFIED 12:49
 EXTERNAL STANDARD 0.078 12:49
 BLANK TEST 0.000 12:50

RFI DETECTED

DMC

Alcohol (g/210L)	Flow Rate (L/M)	Min. Flow Rate (L/M)
40.00		
36.00		
32.00		
28.00		
24.00		
20.00		
16.00		
12.00		
8.00		
4.00		
0.00		

SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100405

Date: 06/25/2019

Time: 13:55:06

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 29.83: 0.080
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:56
BLANK TEST	0.000	13:56
INTERNAL STANDARD	VERIFIED	13:56
EXTERNAL STANDARD	0.078	13:56
BLANK TEST	0.000	13:57
SUBJECT SAMPLE (Vol=3.71L)	0.000	13:58
BLANK TEST	0.000	13:58
EXTERNAL STANDARD	0.078	13:59
BLANK TEST	0.000	14:00

