

Alaska Scientific Crime Detection Laboratory

DataMaster Certification Form

Issued: 05/15/2020
Effective: 05/15/2020

Version: DMCEF 2020 R0
Status: Active

Instrument S/N 1006E7 Analyst Derek Walton Start Date 05/25/21

- Diagnostic Test (attached) Internal Standard value $\leq 3.00\%$

Voltage Checks

- 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)

- Set RFI
 Adjust barometer reading to match NIST traceable barometer
 Adjust volume setting, if needed (1.5L +/- 0.1L)
 Print Technician Screen (attached)
 Print Calibration Factors (attached)
 Volume Test - Minimum 1.5 L (1.3L to 1.7L)

Linearity Test (attached)

Levels Used

- i. 0.020g/210L Mnf Airgas Lot AG928203 Exp 10/09/21
- ii. 0.040g/210L Mnf Airgas Lot AG915607 Exp 06/05/21
- iii. 0.080g/210L Mnf Airgas Lot AG018102 Exp 06/29/22
- iv. 0.100g/210L Mnf Airgas Lot AG924701 Exp 09/04/21
- v. 0.200g/210L Mnf Wuth Lot 19200 Exp 08/06/21
Simulator S/N DR6267 Date Calibrated 11/17/20
- vi. 0.300g/210L Mnf Wuth Lot 19330 Exp 11/13/21
Simulator S/N DR4177 Date Calibrated 11/17/20

Functional Tests (attached)

- Incomplete Invalid
 Interference

- i. Acetone - Mnf Wuth Lot 19301 Level 0.100 Exp 10/30/21
Simulator S/N DR4178 Date Calibrated 11/18/20
- ii. Isopropanol - Mnf Wuth Lot 19301 Level 0.100 Exp 10/30/21
Simulator S/N DR4176 Date Calibrated 11/18/20
- iii. Negative Control - Mnf Wuth Lot 19301 Level 0.100 Exp 10/30/21
Simulator S/N DR4163 Date Calibrated 11/17/20

- Exceeded Attempts RFI

- Verify stylus is calibrated
- Reset Options
- Clear Memory
- Remove tank prior to shut down
- Verification of Calibration
- Non-Drinking Subject Test (attached)
- Upload
- Add Linearity Data to Spreadsheet

End Date 05/25/21

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100687

Date: 05/25/2021
Time: 08:58:22

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 = 46.4°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.59 V PASSED
(0.95 V - 2.23 V)
Cooler Voltage = 1.61 V PASSED
(0.97 V - 2.25 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 535 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.8 in

PUMP INFO

Flow Rate = 4.388 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 = 0.092 0.94% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100687

Date: 05/25/2021
Time: 9:10 AM

Temperatures (°C)
Sample Cell: 48.8°C
Breath Tube: 46.2°C

Current Barometer 29.8 in
Volume (Ltr) 1.56

Settings
Lamp: 1.59 V
Bias: 80 V
Cooler: 1.61 V
Chopper: 529 Hz

Voltages (V)
Flow: 1.06 V
Detector: -0.087 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100687

Date: 05/19/2021
Time: 12:37:35

OPERATOR NAME:
CARLIE BAILEY
CERTIFICATE #: 10436

Ca = 0.1000
CAL = 0.999508 0.800 <= CAL < 1.200
b1 = 0.0006 0.0000 <= b1 < 0.0040
b2 = 0.0051 0.0010 <= b2 < 0.0100
b3 = 0.0006 0.0000 <= b3 < 0.0040
Xq = 0.0930 0.0500 <= Xq < 0.2000
a21 = 1.153499 1.050 <= a21 < 1.300
a31 = 0.531177 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100687

Date: 05/25/2021
Time: 09:12:08

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

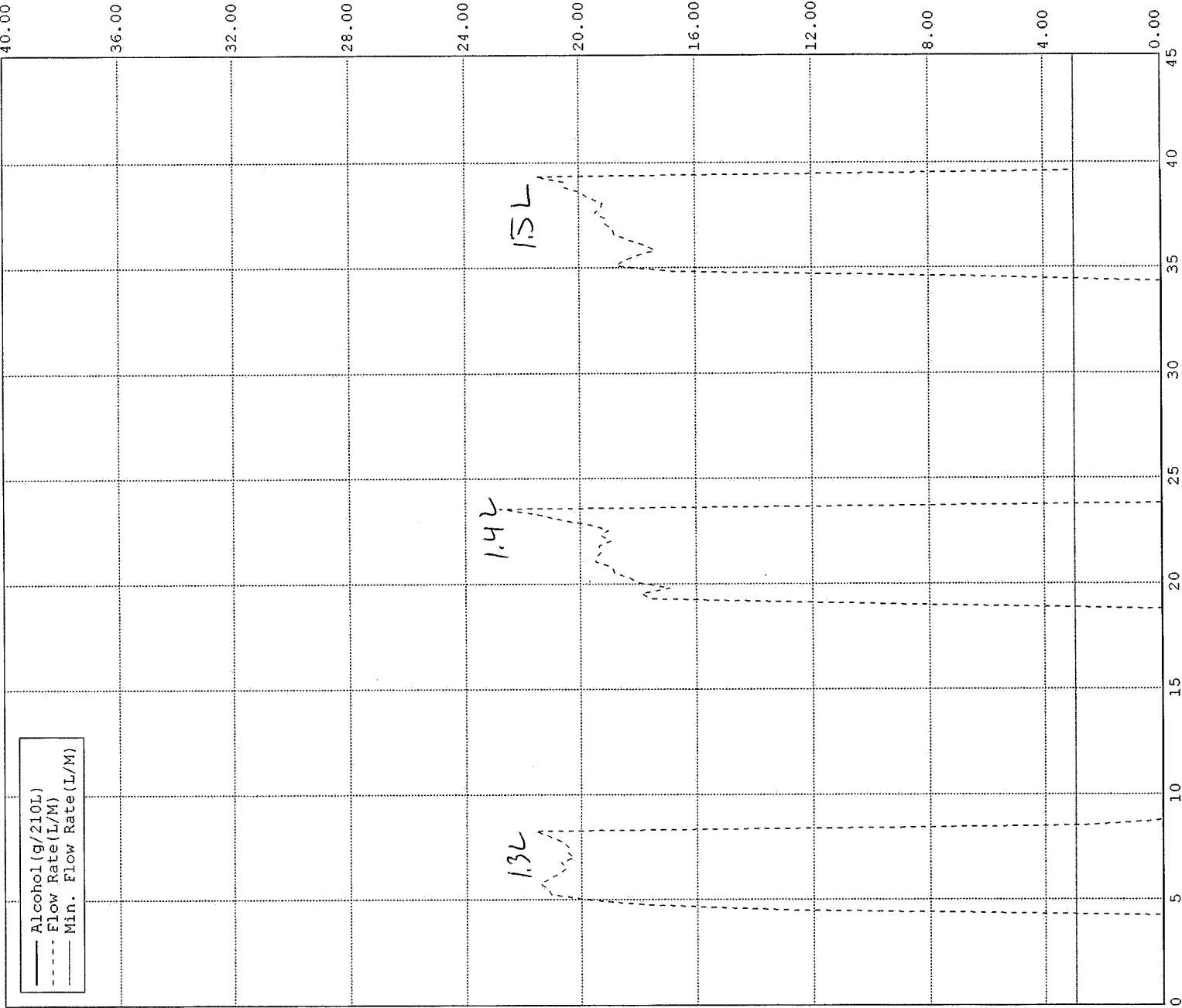
DEPT/AGENCY:
MINIMUM VOLUME
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.80: 0.080
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	09:13
BLANK TEST	0.000	09:13
INTERNAL STANDARD	VERIFIED	09:13
EXTERNAL STANDARD	0.078	09:13
BLANK TEST	0.000	09:14
SUBJECT SAMPLE (Vol=1.54L)	0.000	09:15
BLANK TEST	0.000	09:16
EXTERNAL STANDARD	0.078	09:16
BLANK TEST	0.000	09:17

DW



LINEARITY CHECK

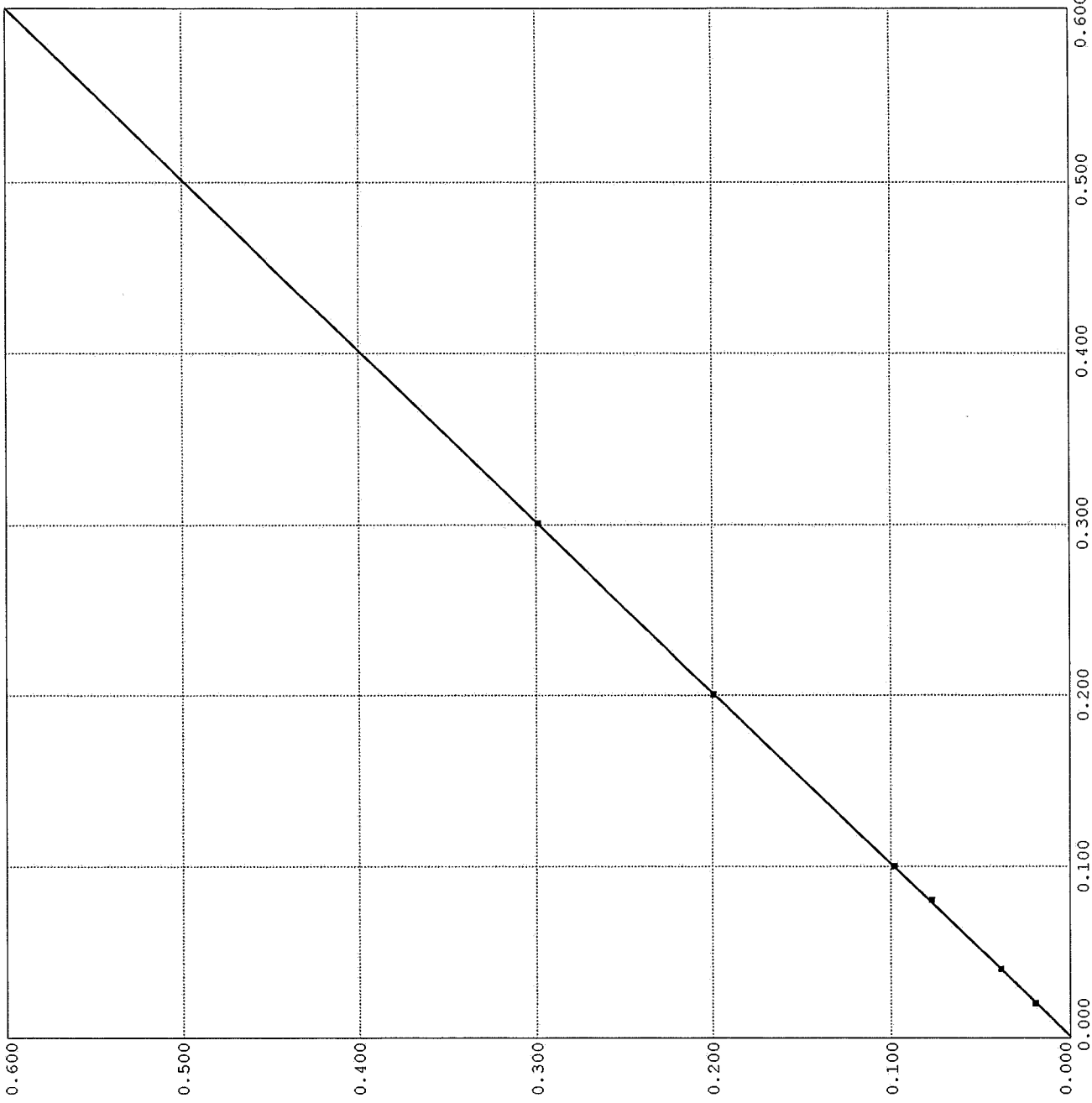
 Alaska Department of Public Safety
 DATAMASTER dmt: 100687

Date: 05/25/2021
 Time: 09:19:27

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.040	0.0396	0.0005
0.080	0.0780	0.0000
0.100	0.0990	0.0000
0.200	0.2002	0.0004
0.300	0.2996	0.0005

SLOPE = 1.001179
 R² = 0.999941



DW

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100687

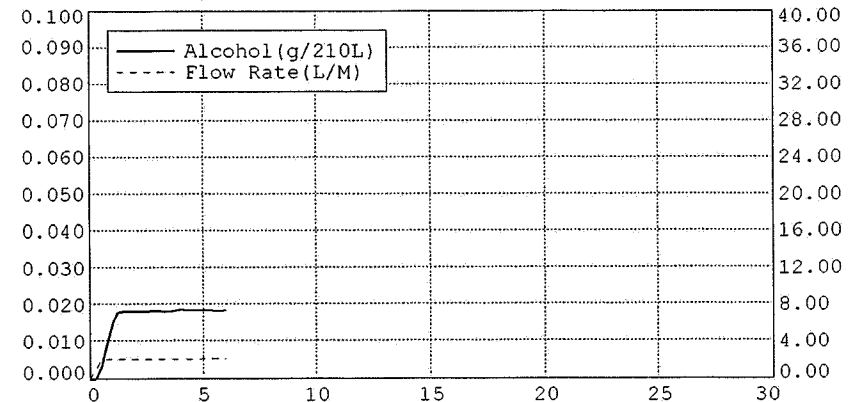
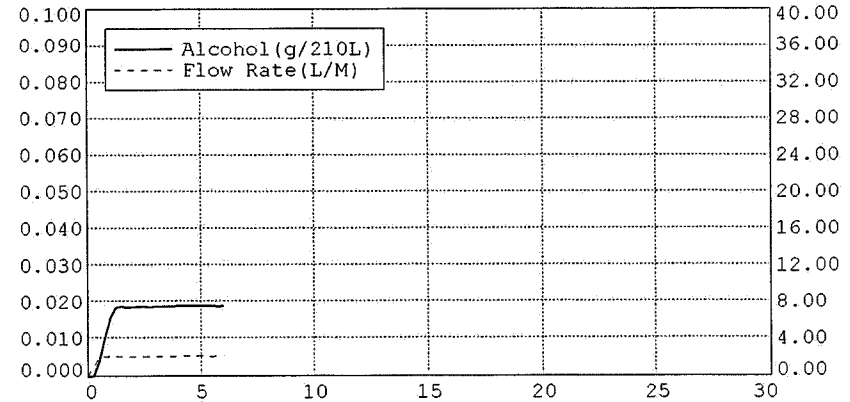
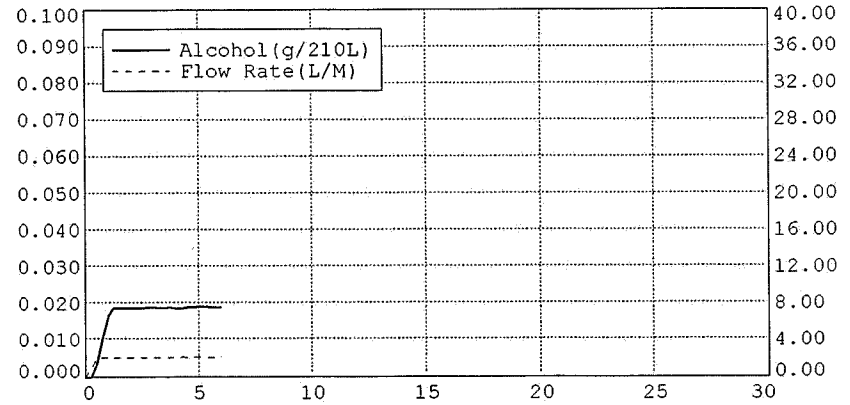
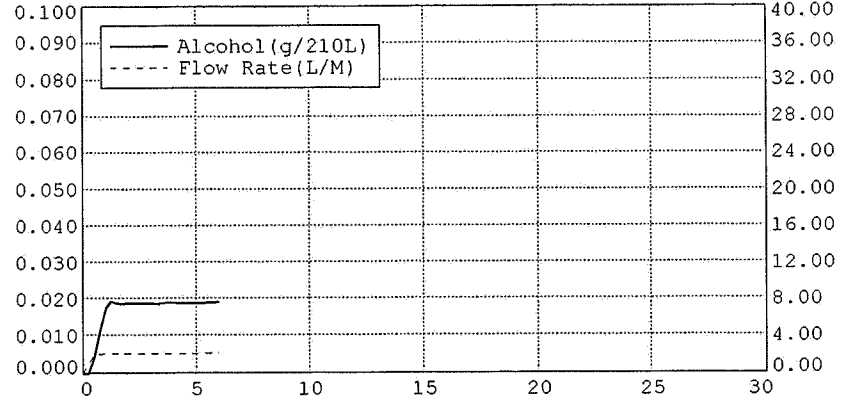
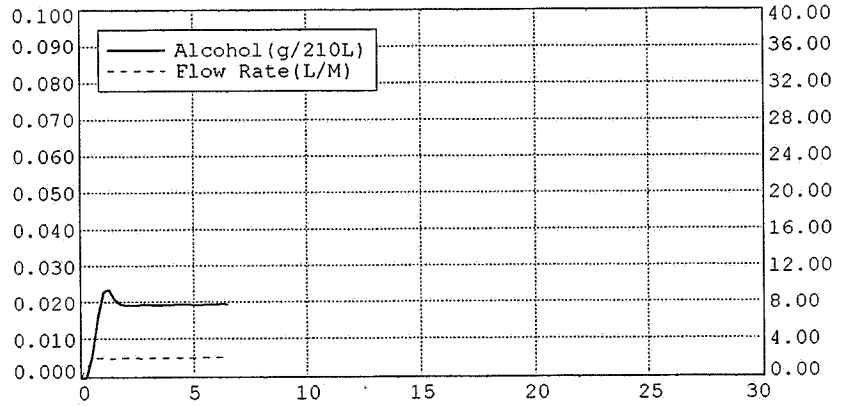
Date: 05/25/2021
 Time: 09:19:29

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.80: 0.020
 LOT #: AG928203
 EXPIRATION: 10/09/2021
 TANK PRESSURE: 526 psi

BLANK TEST	0.000	09:21
INTERNAL STANDARD	VERIFIED	09:21
EXTERNAL STANDARD	0.021	09:21
BLANK TEST	0.000	09:22
EXTERNAL STANDARD	0.020	09:22
BLANK TEST	0.000	09:23
EXTERNAL STANDARD	0.020	09:23
BLANK TEST	0.000	09:24
EXTERNAL STANDARD	0.020	09:24
BLANK TEST	0.000	09:25
EXTERNAL STANDARD	0.020	09:25
BLANK TEST	0.000	09:26

Average = 0.0202
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100687

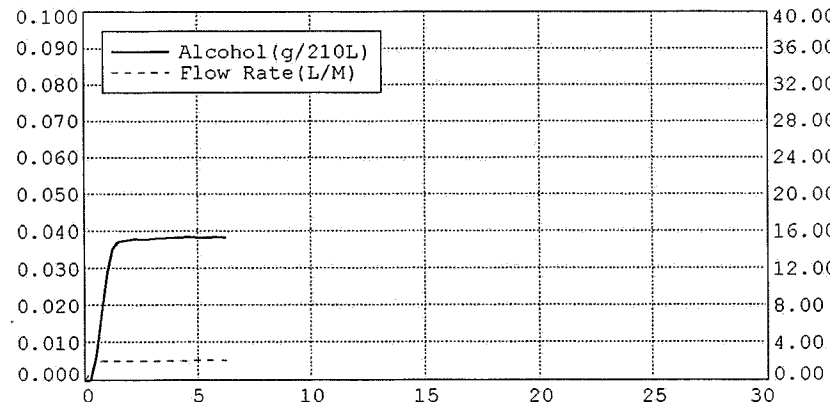
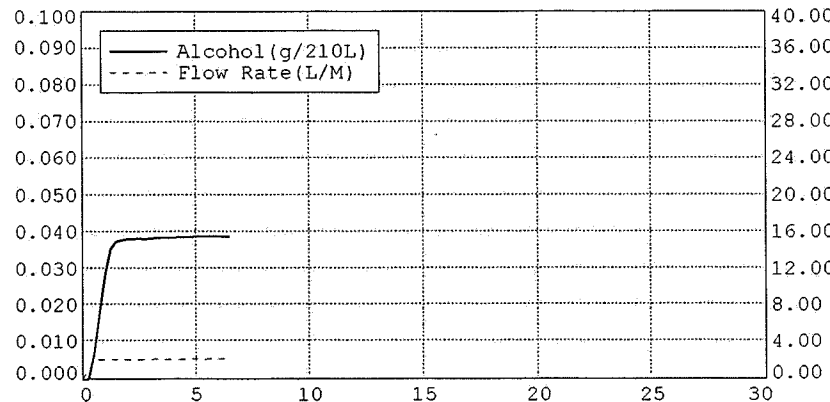
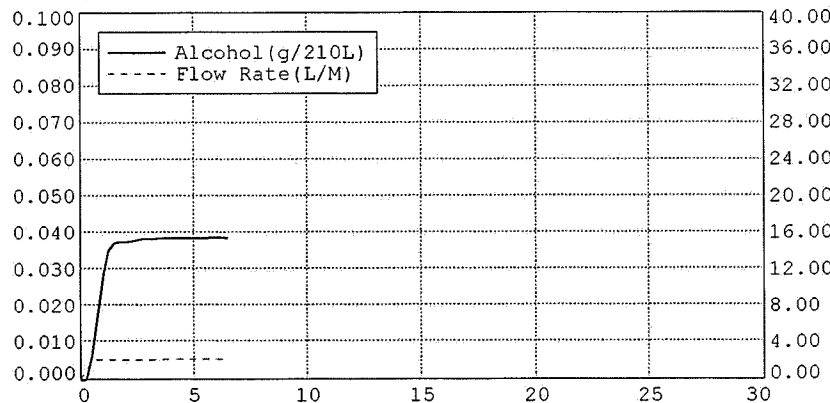
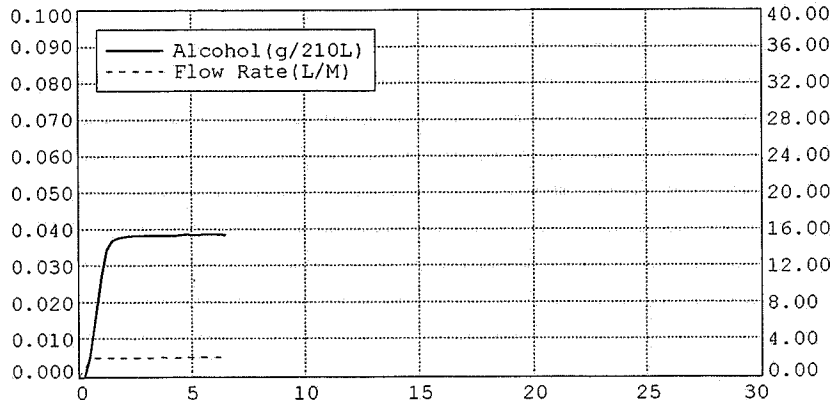
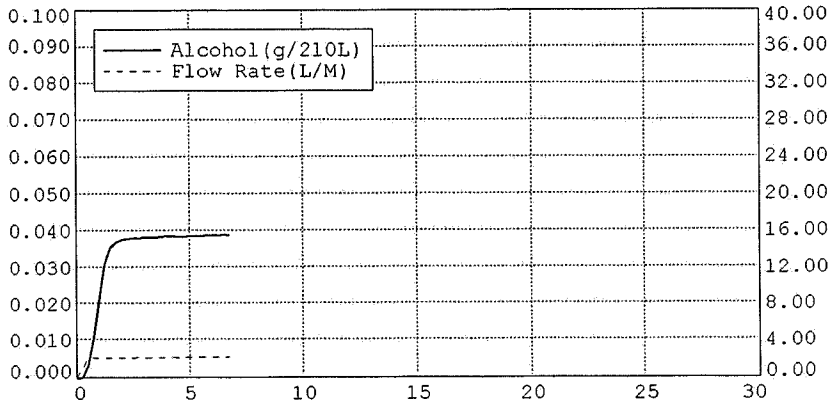
Date: 05/25/2021
 Time: 09:28:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.80: 0.040
 LOT #: AG915607
 EXPIRATION: 06/05/2021
 TANK PRESSURE: 506 psi

BLANK TEST	0.000	09:29
INTERNAL STANDARD	VERIFIED	09:29
EXTERNAL STANDARD	0.040	09:29
BLANK TEST	0.000	09:30
EXTERNAL STANDARD	0.040	09:30
BLANK TEST	0.000	09:31
EXTERNAL STANDARD	0.039	09:31
BLANK TEST	0.000	09:32
EXTERNAL STANDARD	0.040	09:32
BLANK TEST	0.000	09:33
EXTERNAL STANDARD	0.039	09:34
BLANK TEST	0.000	09:34

Average = 0.0396
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
DATAMASTER dmt: 100687

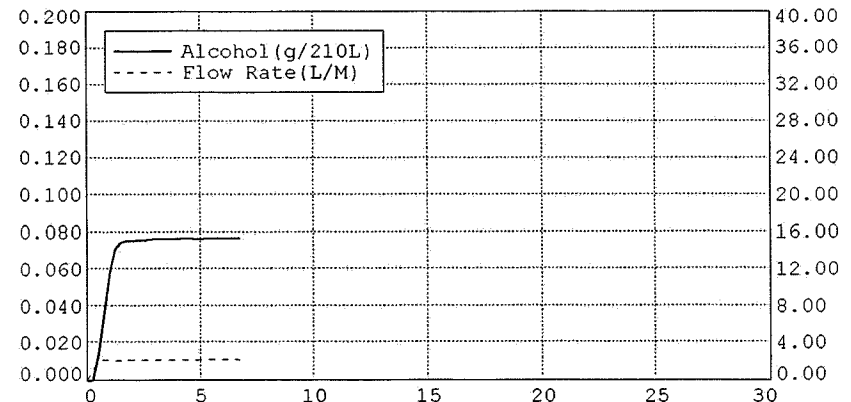
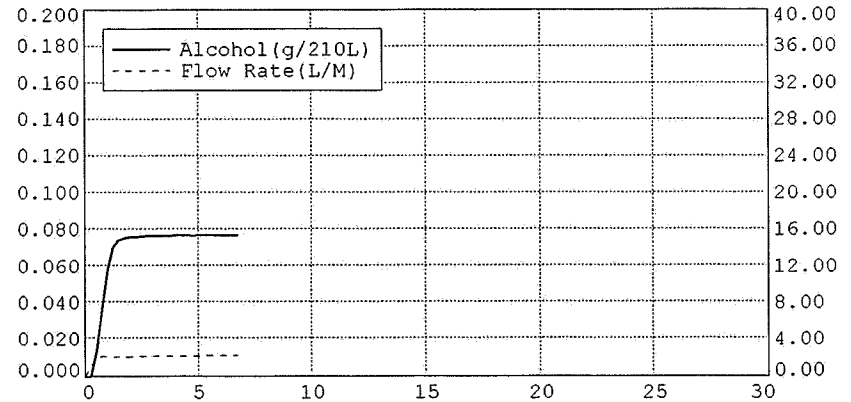
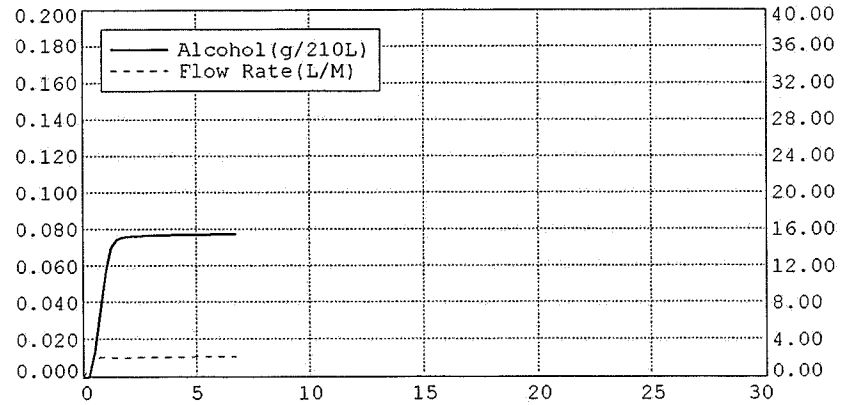
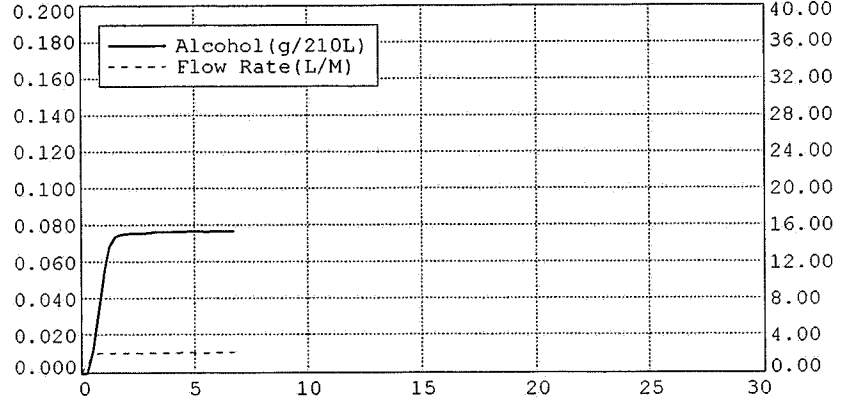
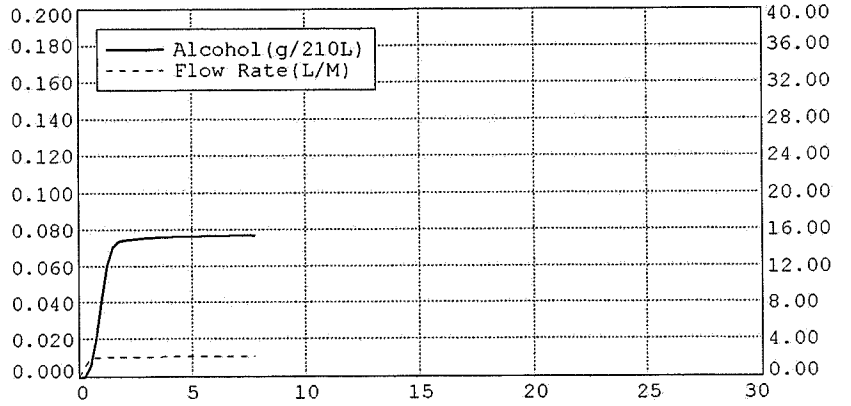
Date: 05/25/2021
Time: 09:35:23

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.79: 0.080
LOT #: AG018102
EXPIRATION: 06/29/2022
TANK PRESSURE: 628 psi

BLANK TEST	0.000	09:36
INTERNAL STANDARD	VERIFIED	09:36
EXTERNAL STANDARD	0.078	09:36
BLANK TEST	0.000	09:37
EXTERNAL STANDARD	0.078	09:38
BLANK TEST	0.000	09:38
EXTERNAL STANDARD	0.078	09:39
BLANK TEST	0.000	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

Average = 0.0780
Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100687

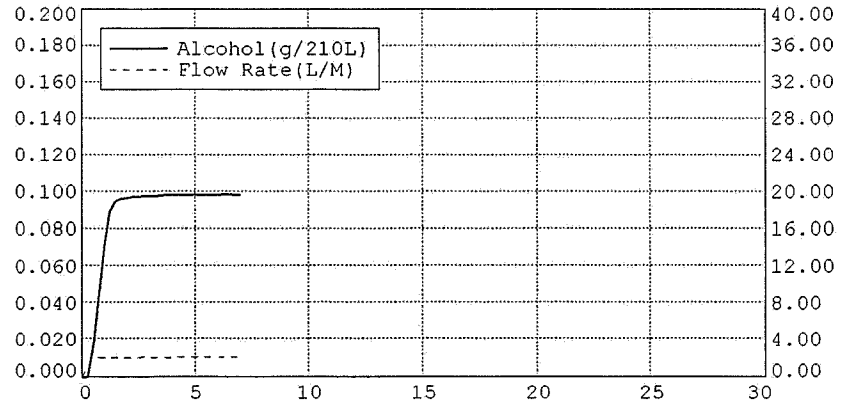
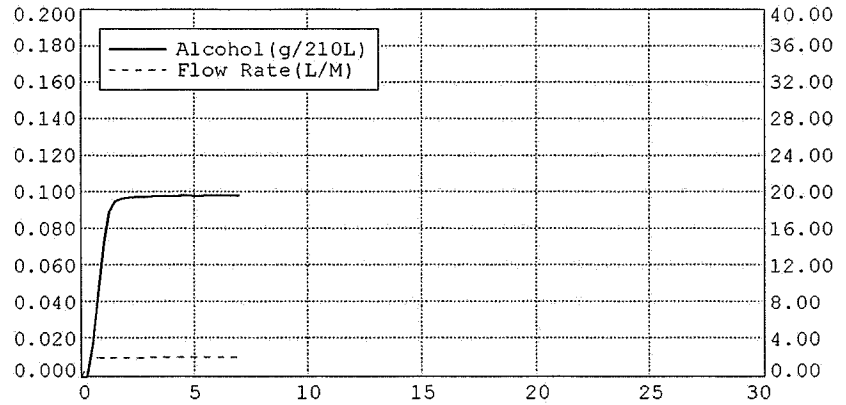
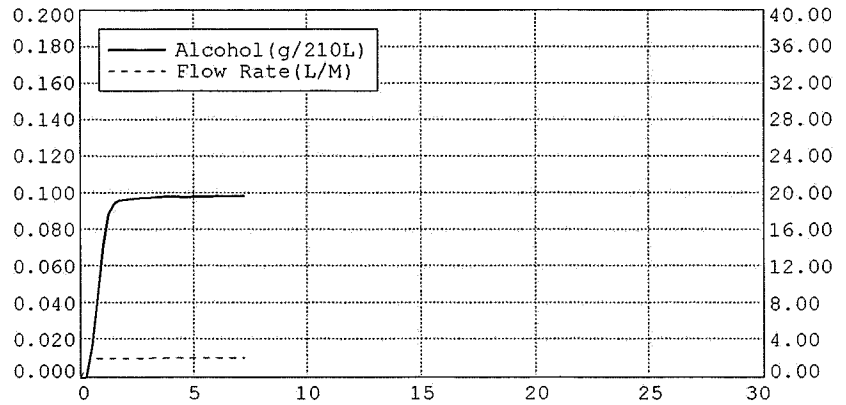
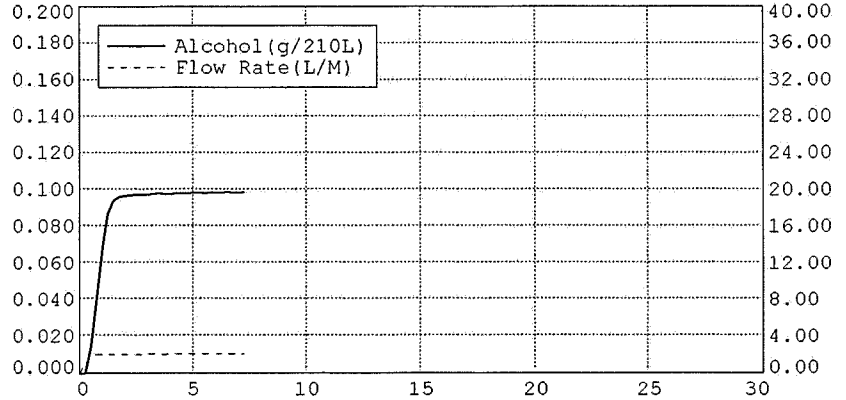
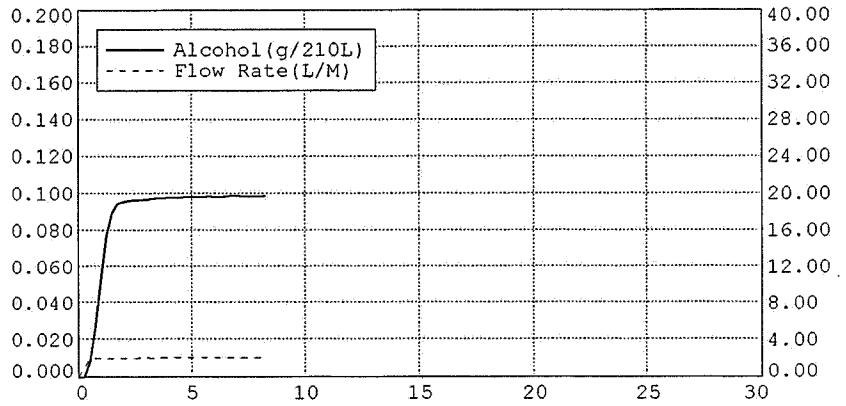
Date: 05/25/2021
 Time: 09:42:48

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.79: 0.100
 LOT #: AG924701
 EXPIRATION: 09/04/2021
 TANK PRESSURE: 482 psi

BLANK TEST	0.000	09:48
INTERNAL STANDARD	VERIFIED	09:48
EXTERNAL STANDARD	0.099	09:48
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.099	09:49
BLANK TEST	0.000	09:50
EXTERNAL STANDARD	0.099	09:50
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.099	09:51
BLANK TEST	0.000	09:52
EXTERNAL STANDARD	0.099	09:53
BLANK TEST	0.000	09:53

Average = 0.0990
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

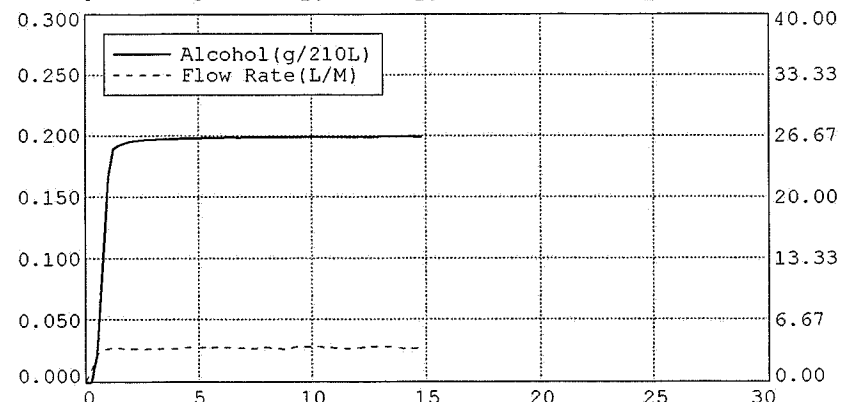
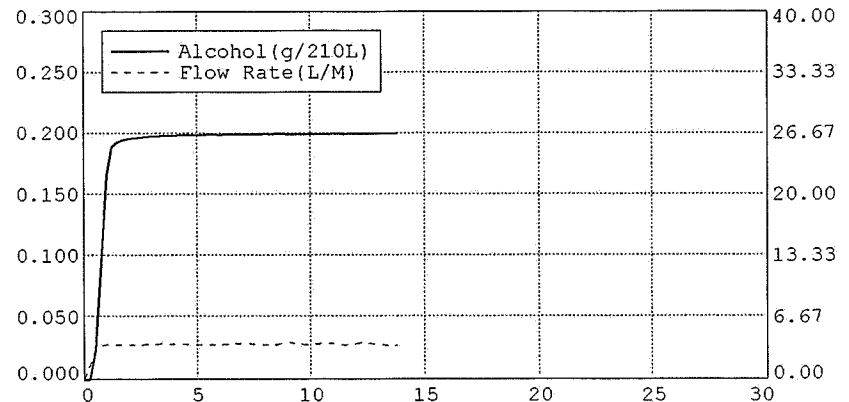
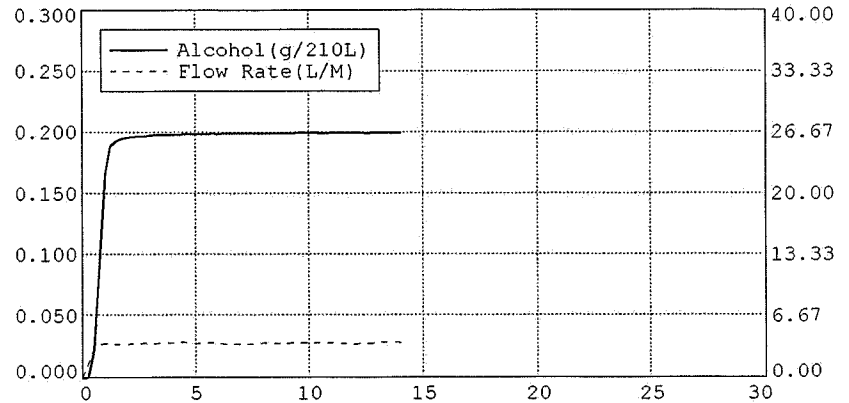
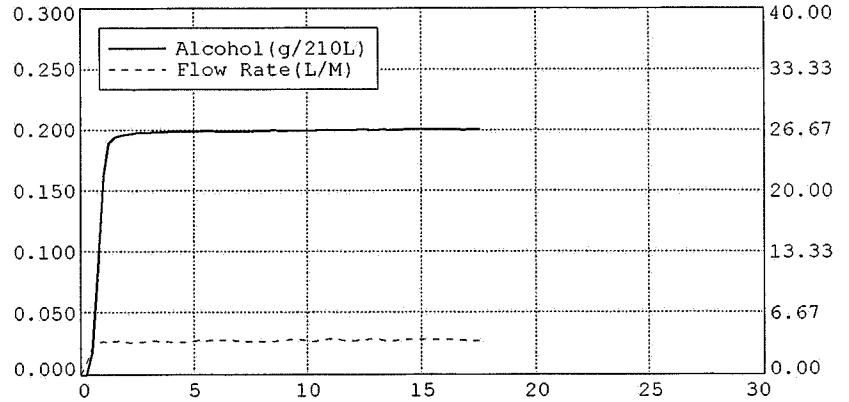
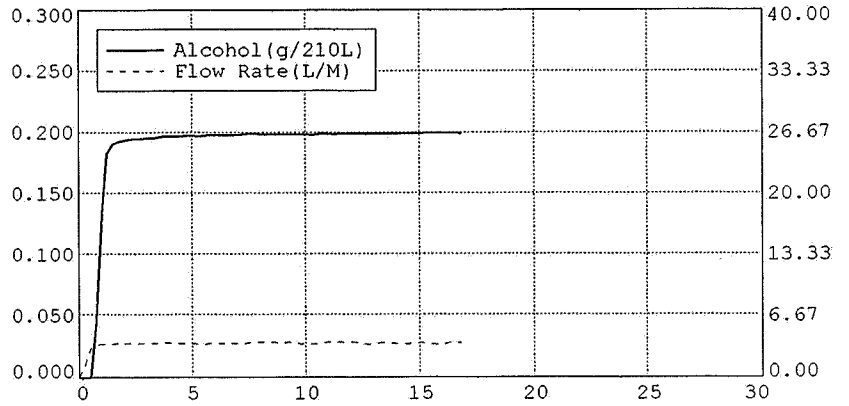
Alaska Department of Public Safety
 DATAMASTER dmt: 100687

Date: 05/25/2021
 Time: 09:54:23

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200
 LOT #: 19200
 EXPIRATION: 08/06/2021

BLANK TEST	0.000	09:56
INTERNAL STANDARD	VERIFIED	09:56
EXTERNAL STANDARD	0.200	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.201	09:58
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.200	09:59
BLANK TEST	0.000	10:00
EXTERNAL STANDARD	0.200	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.200	10:01
BLANK TEST	0.000	10:02

Average = 0.2002
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

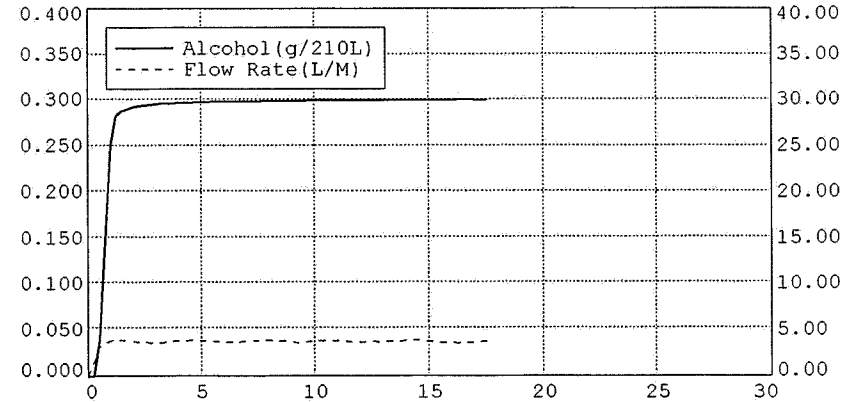
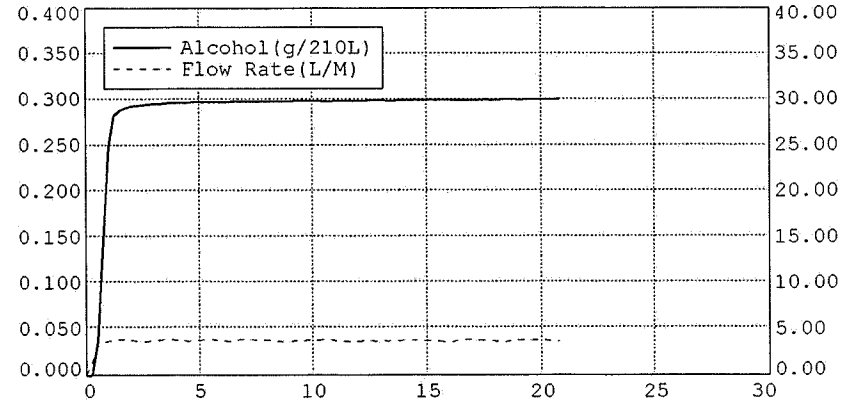
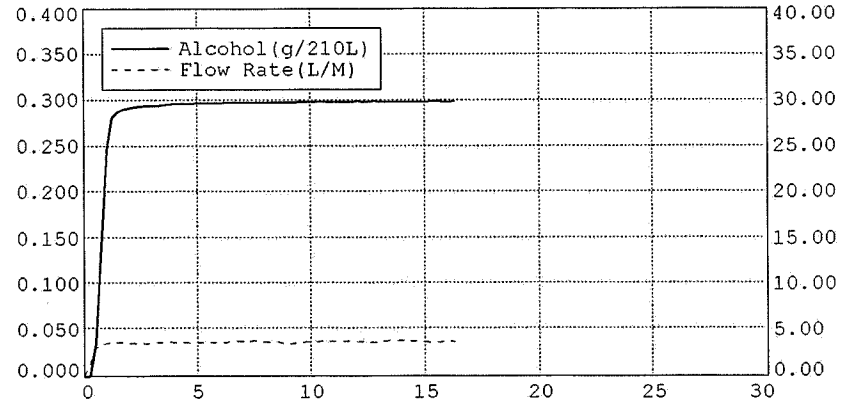
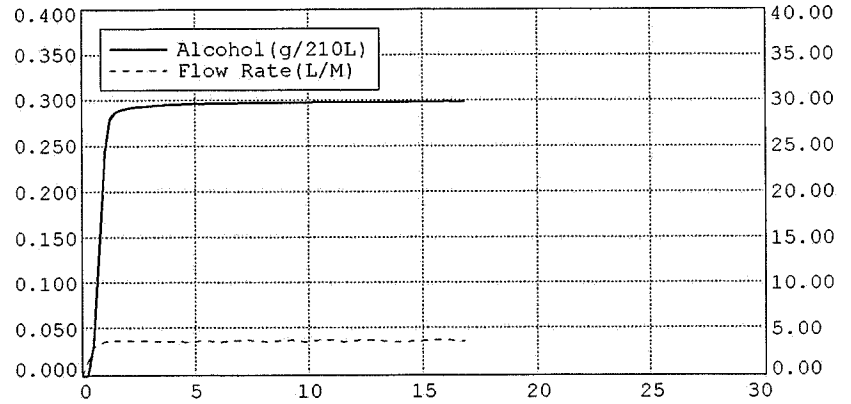
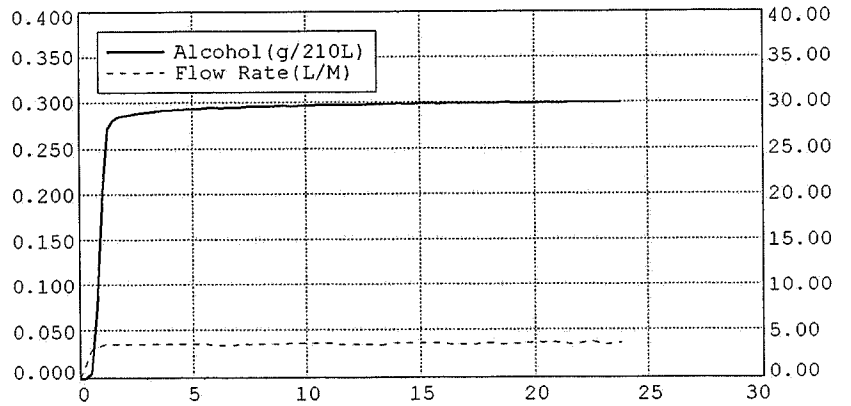
Alaska Department of Public Safety
 DATAMASTER dmt: 100687

Date: 05/25/2021
 Time: 10:11:38

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.300
 LOT #: 19330
 EXPIRATION: 11/13/2021

BLANK TEST	0.000	10:16
INTERNAL STANDARD	VERIFIED	10:16
EXTERNAL STANDARD	0.300	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.299	10:18
BLANK TEST	0.000	10:19
EXTERNAL STANDARD	0.299	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.300	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.300	10:22
BLANK TEST	0.000	10:23

Average = 0.2996
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100687

Date: 05/25/2021
Time: 10:29:21

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

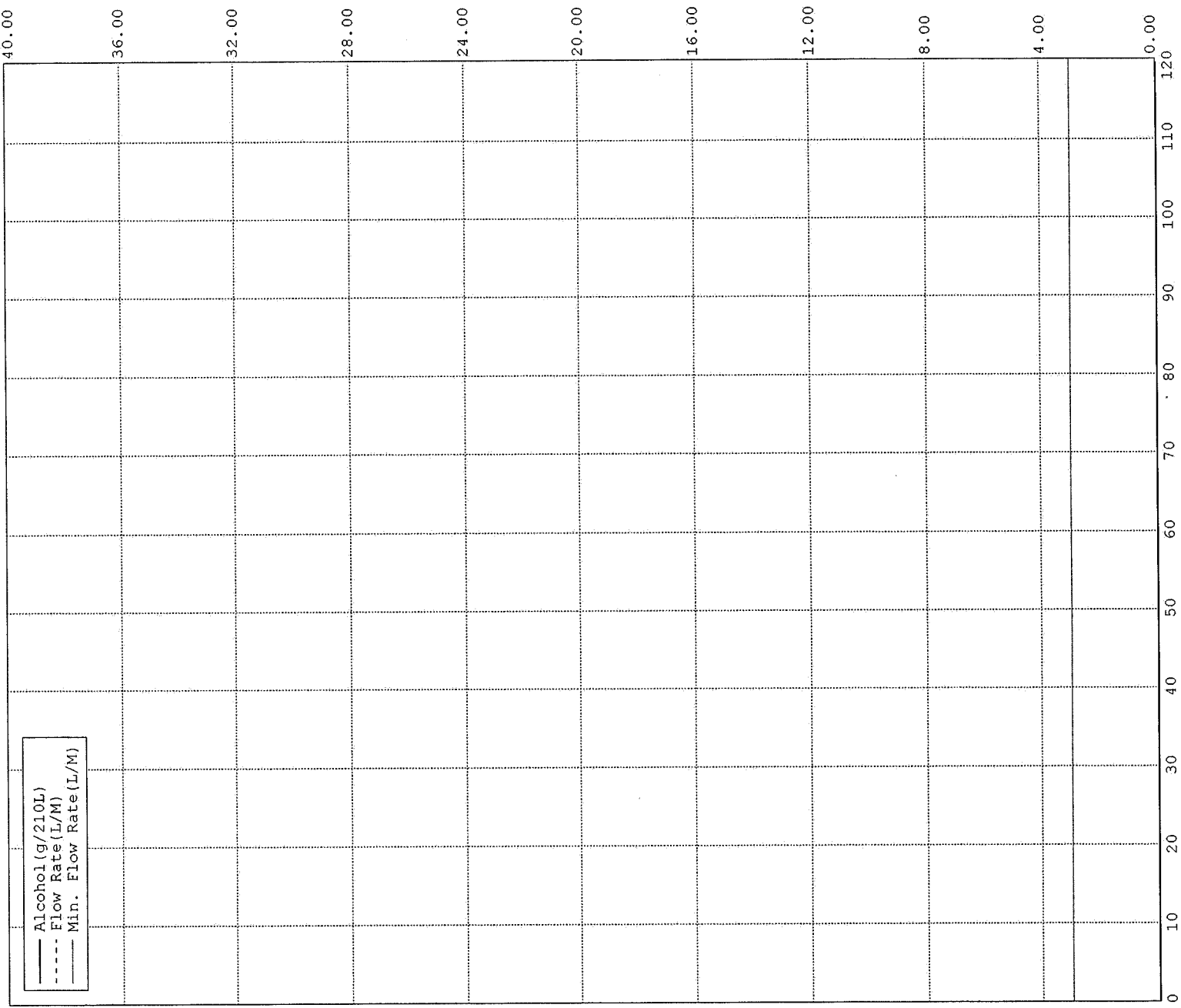
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.79: 0.080
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 10:30
BLANK TEST 0.000 10:30
INTERNAL STANDARD VERIFIED 10:30
EXTERNAL STANDARD 0.077 10:31
BLANK TEST 0.000 10:32
SUBJECT SAMPLE INCOMPLETE 10:34



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100687

Date: 05/25/2021
Time: 12:30:49

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

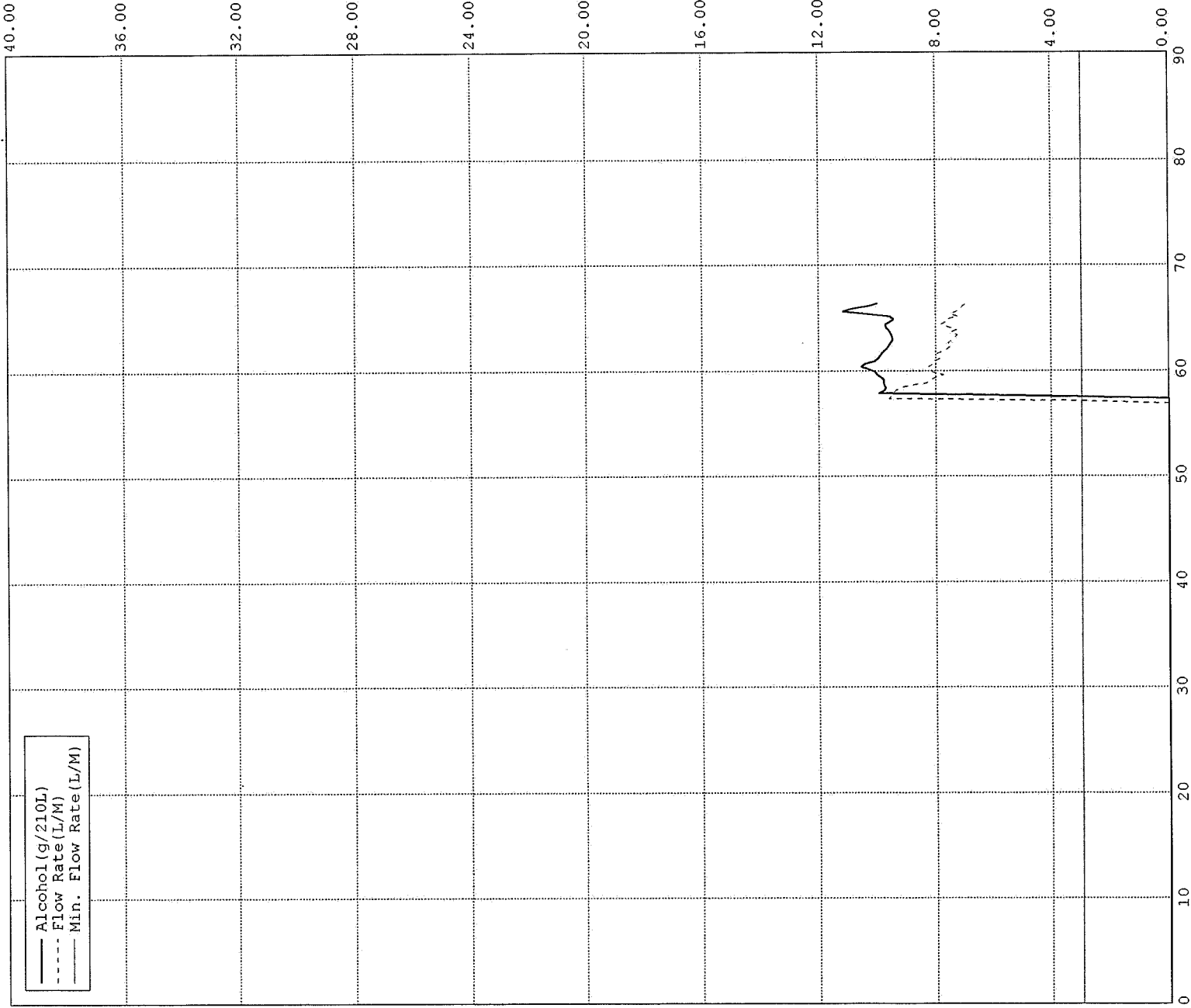
DEPT/AGENCY:
INVALID
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.75: 0.080
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 12:33
BLANK TEST 0.000 12:33
INTERNAL STANDARD VERIFIED 12:33
EXTERNAL STANDARD 0.077 12:33
BLANK TEST 0.000 12:34
SUBJECT SAMPLE INVALID 12:35

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100687

Date: 05/25/2021
Time: 12:15:16

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 29.75: 0.080
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 12:16
BLANK TEST 0.000 12:16
INTERNAL STANDARD VERIFIED 12:16
Xq = 0.093 (0.38%)
EXTERNAL STANDARD 0.078 12:16
X[1] = 0.0778 (-0.0013) (0.0025)
BLANK TEST 0.000 12:17
SUBJECT SAMPLE XXX 12:18
X[1] = 0.1101 (-0.0230) (0.0001)

Interference Detected

Filter 2 average: -0.0012

Filter 3 average: 0.0023



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100687

Date: 05/25/2021
Time: 12:09:23

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

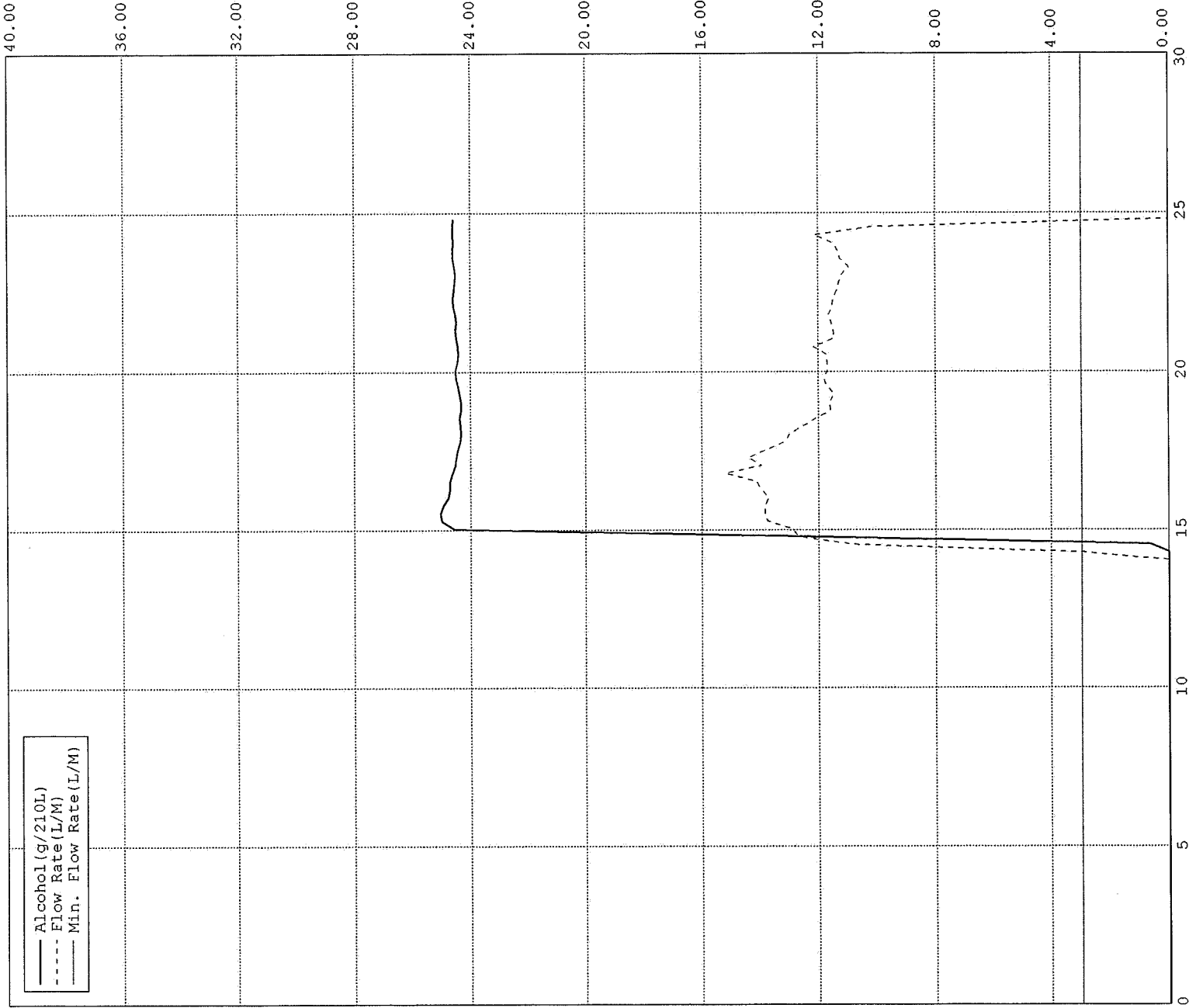
DEPT/AGENCY:
INTERFERENCE ISOPROPANOL
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.75: 0.080
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 12:10
BLANK TEST 0.000 12:10
INTERNAL STANDARD VERIFIED 12:11
Xq = 0.093 (0.28%)
EXTERNAL STANDARD 0.078 12:11
X[1] = 0.0777 (-0.0010) (0.0021)
BLANK TEST 0.000 12:12
SUBJECT SAMPLE XXX 12:12
X[1] = 0.1228 (-0.0234) (0.0014)

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100687

Date: 05/25/2021
 Time: 12:20:54

SUBJECT NAME:
 TEST TEST
 LICENSE #: XXXX

OPERATOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

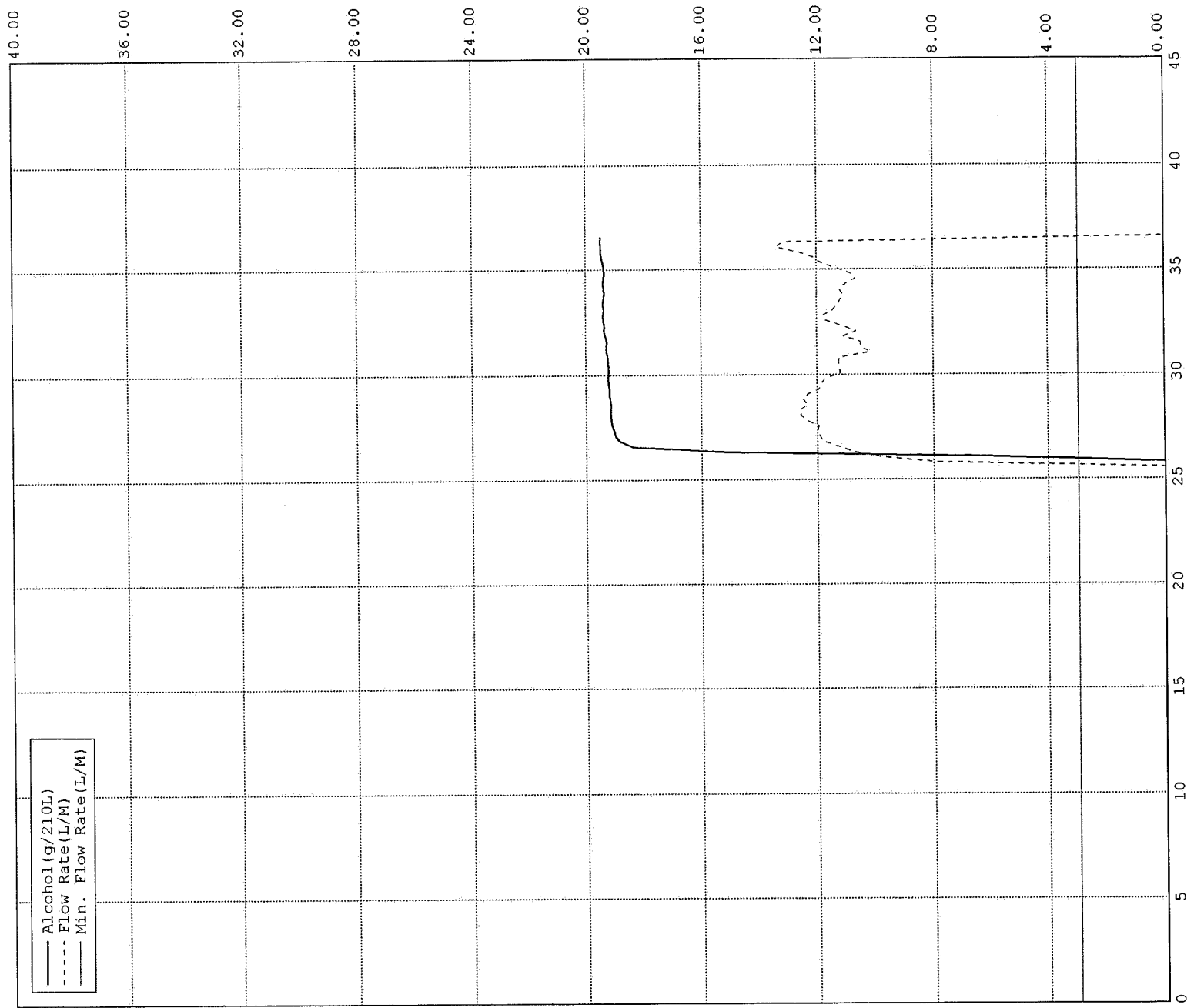
DEPT/AGENCY:
 INTERFERENCE NEGATIVE
 CASE/REPORT: XXXX
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.75: 0.080
 LOT #: AG018102
 EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK	PASSED	12:21
BLANK TEST	0.000	12:22
INTERNAL STANDARD	VERIFIED	12:22
Xq = 0.093 (0.00%)		
EXTERNAL STANDARD	0.078	12:22
X[1] = 0.0776 (-0.0014)	(0.0026)	
BLANK TEST	0.000	12:23
SUBJECT SAMPLE (Vol=2.06L)	0.097	12:24
X[1] = 0.0971 (-0.0002)	(0.0009)	
BLANK TEST	0.000	12:25
EXTERNAL STANDARD	0.077	12:25
X[1] = 0.0766 (-0.0012)	(0.0019)	
BLANK TEST	0.000	12:26

MK



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100687

Date: 05/25/2021
Time: 10:36:45

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

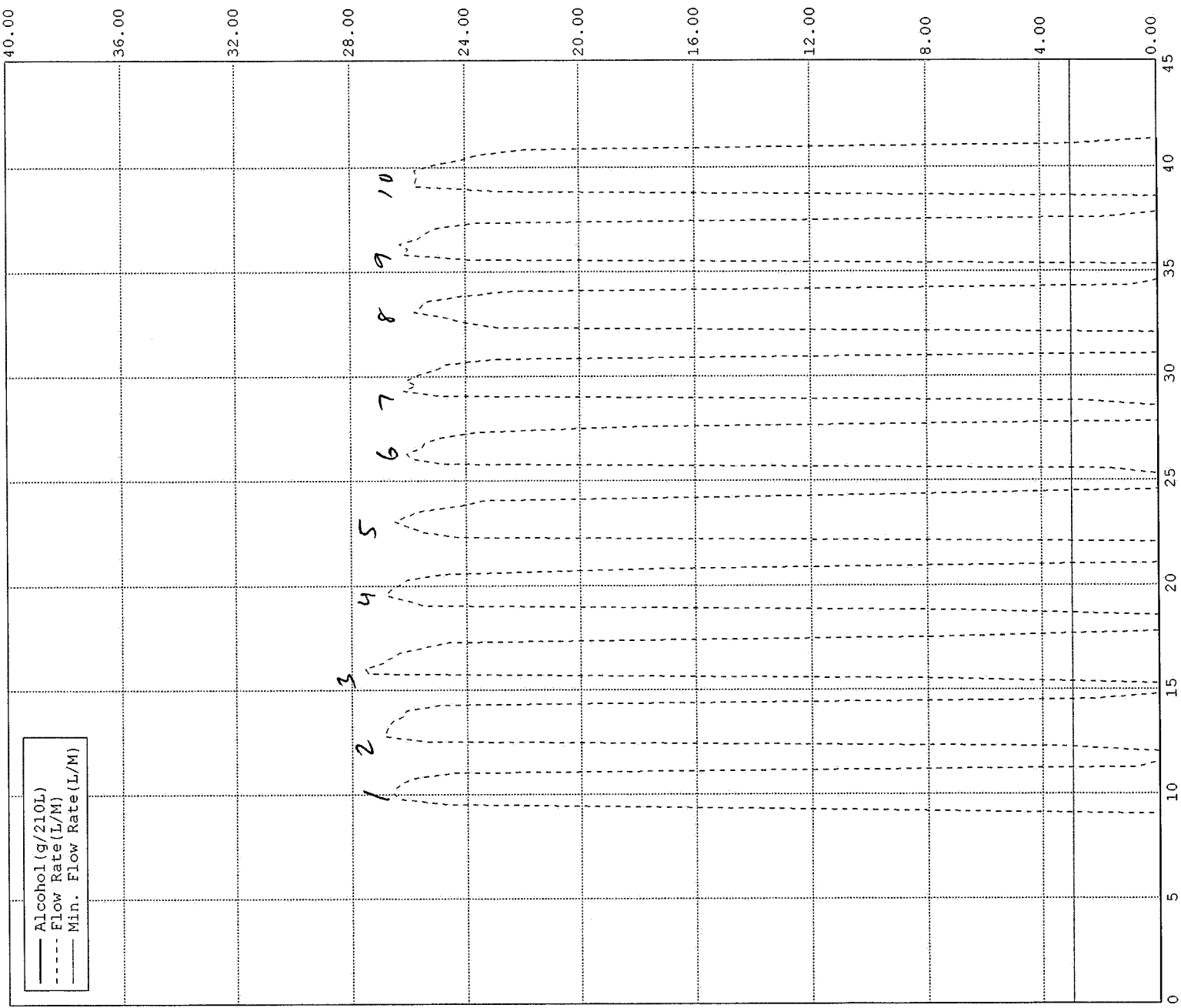
DEPT/AGENCY:
MAXIMUM ATTEMPTS
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.79: 0.080
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 10:38
BLANK TEST 0.000 10:38
INTERNAL STANDARD VERIFIED 10:38
EXTERNAL STANDARD 0.078 10:38
BLANK TEST 0.000 10:39
SUBJECT SAMPLE XXX 10:40

Maximum Attempts Exceeded

DN



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100687

Date: 05/25/2021
Time: 12:38:04

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

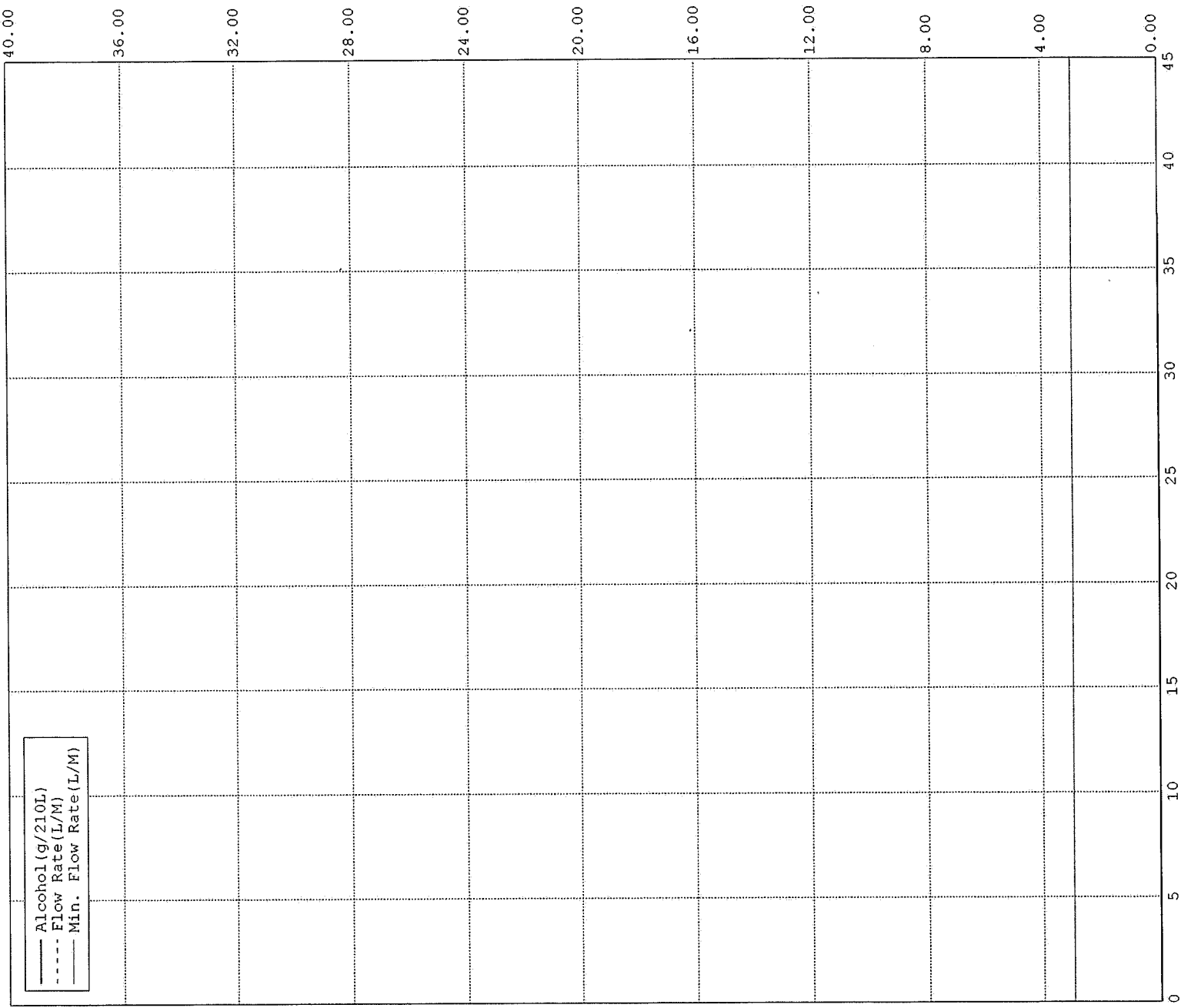
DEPT/AGENCY:
RADIO FREQUENCY
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.75: 0.080
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 12:40
BLANK TEST 0.000 12:40
INTERNAL STANDARD VERIFIED 12:40
EXTERNAL STANDARD 0.077 12:41
BLANK TEST 0.000 12:42

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100687

Date: 05/25/2021
Time: 13:04:15

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 29.75: 0.080
LOT #: AG018102
EXPIRATION: 06/29/2022

DIAGNOSTIC CHECK PASSED 13:05
BLANK TEST 0.000 13:05
INTERNAL STANDARD VERIFIED 13:05
EXTERNAL STANDARD 0.077 13:05
BLANK TEST 0.000 13:06
SUBJECT SAMPLE (Vol=2.65L) 0.000 13:07
BLANK TEST 0.000 13:08
EXTERNAL STANDARD 0.078 13:08
BLANK TEST 0.000 13:09

