

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 100670 Analyst Dereka Walton Start Date 08/07/20

- 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 A6928203 Exp 10/09/21
- ii. 0.040g/210L Mnf Airgas Lot A6915607 Exp 06/05/21
- iii. 0.080g/210L Mnf Airgas Lot A6826101 Exp 09/18/20
- iv. 0.100g/210L Mnf Airgas Lot A6924701 Exp 09/04/21
- v. 0.200g/210L Mnf Guth Lot 19200 Exp 08/06/21
Simulator S/N SD1200 Date Calibrated 10/08/19
- vi. 0.300g/210L Mnf Guth Lot 19330 Exp 11/13/21
Simulator S/N DR4177 Date Calibrated 10/08/19

Functional Tests (attached)

- Incomplete Invalid
 Interference

- i. Acetone - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/21
Simulator S/N DR4163 Date Calibrated 10/04/19
- ii. Isopropanol - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/21
Simulator S/N DR4162 Date Calibrated 10/07/19
- iii. Negative Control - Mnf Guth Lot 19301 Level 0.100 Exp 10/30/21
Simulator S/N SD1176 Date Calibrated 10/07/19

- 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 08/07/20

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100670

Date: 08/07/2020
Time: 09:00:56

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 = 48.1°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.72 V PASSED
(1.05 V - 2.45 V)
Cooler Voltage = 1.76 V PASSED
(1.01 V - 2.35 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 550 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.2 in

PUMP INFO

Flow Rate = 4.739 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
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD ✓ PASSED
Xq = 0.088 1.08% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100670

Date: 08/07/2020
Time: 9:11 AM

Temperatures (°C)
Sample Cell: 48.9°C
Breath Tube: 48.0°C

Current Barometer 29.3 in
Volume (Ltr) 1.47

Settings
Lamp: 1.77 V
Bias: 79 V
Cooler: 1.71 V
Chopper: 525 Hz

Voltages (V)
Flow: 1.05 V
Detector: 0.035 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100670

Date: 09/21/2011
Time: 14:17:27

Ca = 0.1500
CAL = 0.983698 0.800 <= CAL < 1.200
b1 = 0.0002 0.0000 <= b1 < 0.0040
b2 = 0.0023 0.0010 <= b2 < 0.0100
b3 = 0.0000 0.0000 <= b3 < 0.0040
Xq = 0.0886 0.0500 <= Xq < 0.2000
a21 = 1.179698 1.050 <= a21 < 1.300
a31 = 0.439665 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100670

Date: 08/07/2020
Time: 09:14:52

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

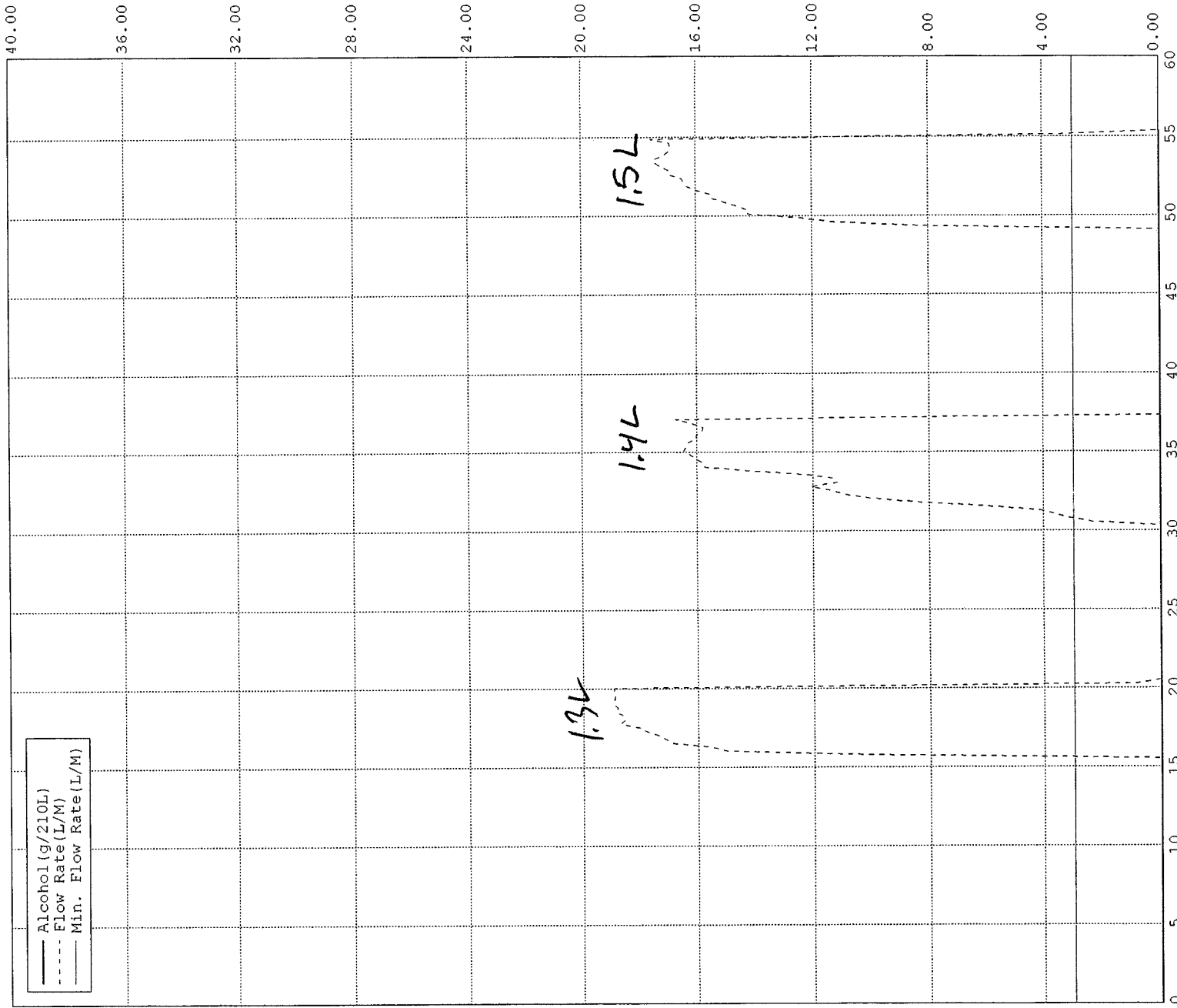
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.26: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	09:16
BLANK TEST	0.000	09:16
INTERNAL STANDARD	VERIFIED	09:16
EXTERNAL STANDARD	0.077	09:16
BLANK TEST	0.000	09:17
SUBJECT SAMPLE (Vol=1.50L)	0.000	09:18
BLANK TEST	0.000	09:19
EXTERNAL STANDARD	0.078	09:19
BLANK TEST	0.000	09:20

DW



LINEARITY CHECK

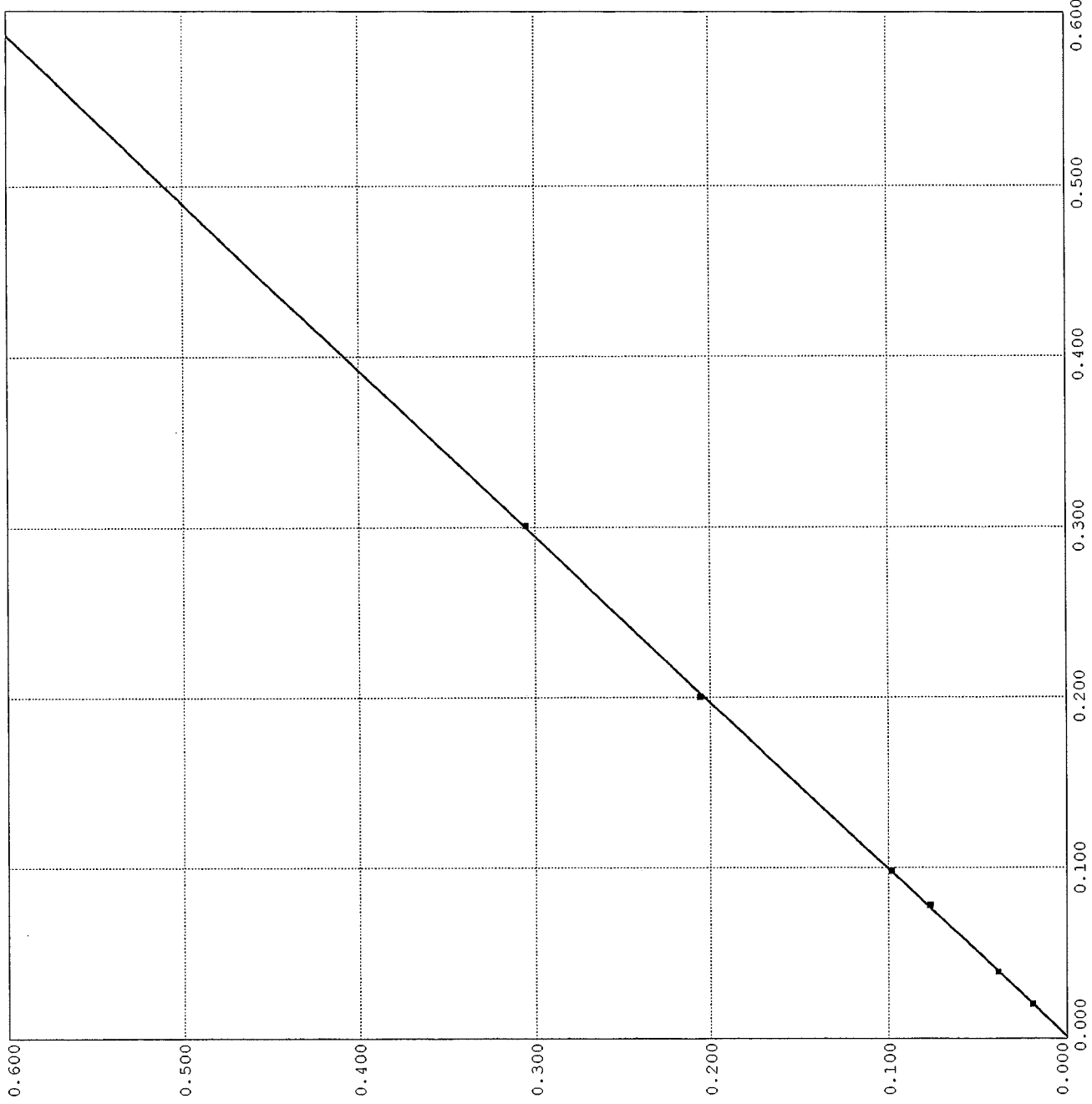
 Alaska Department of Public Safety
 DATAMASTER dmt: 100670

Date: 08/07/2020
 Time: 09:35:08

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.039	0.0396	0.0005
0.078	0.0776	0.0005
0.098	0.0992	0.0004
0.200	0.2064	0.0005
0.300	0.3060	0.0000

SLOPE = 1.026042
 R² = 0.999866



DM

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100670

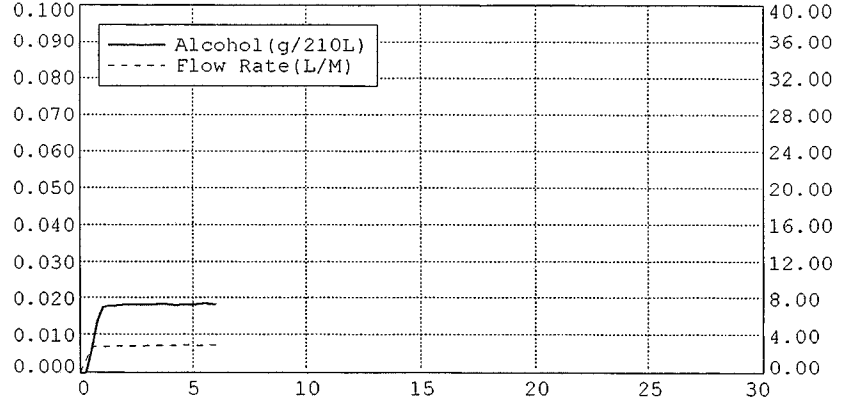
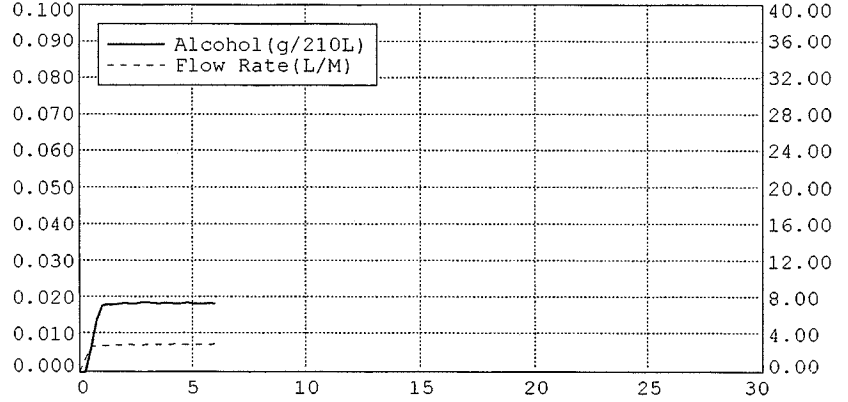
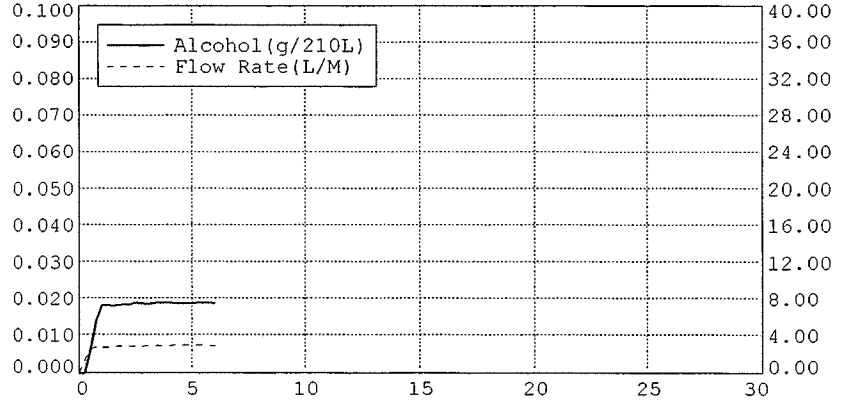
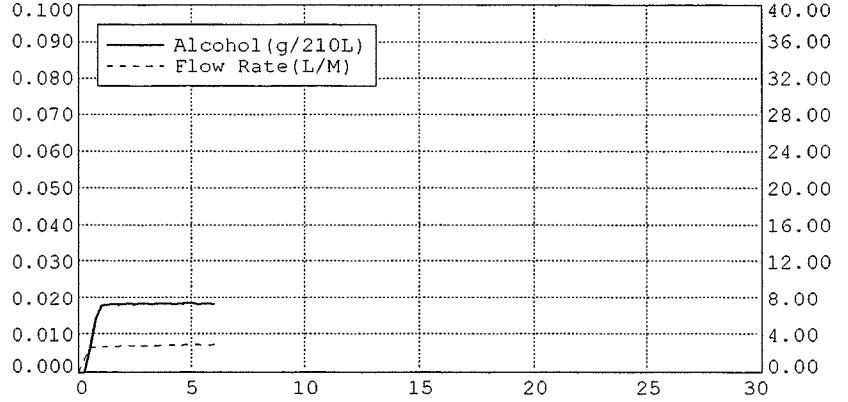
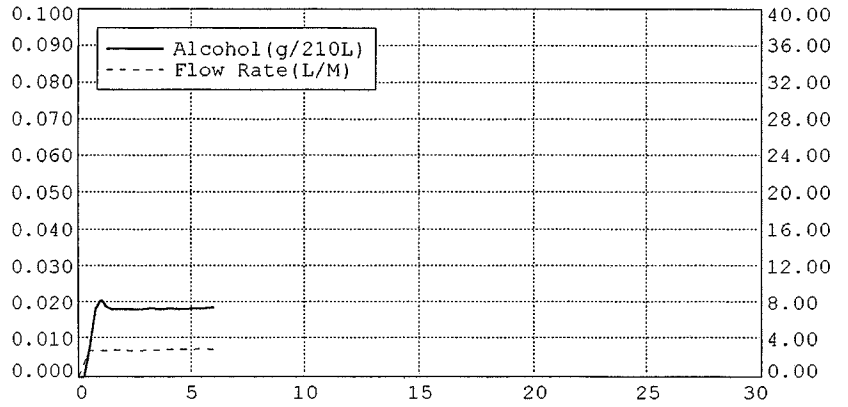
Date: 08/07/2020
Time: 09:35:10

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 29.26: 0.020
LOT #: AG928203
EXPIRATION: 10/09/2021
TANK PRESSURE: 792 psi

BLANK TEST	0.000	09:36
INTERNAL STANDARD	VERIFIED	09:36
EXTERNAL STANDARD	0.020	09:36
BLANK TEST	0.000	09:37
EXTERNAL STANDARD	0.020	09:37
BLANK TEST	0.000	09:38
EXTERNAL STANDARD	0.020	09:38
BLANK TEST	0.000	09:39
EXTERNAL STANDARD	0.020	09:39
BLANK TEST	0.000	09:40
EXTERNAL STANDARD	0.020	09:40
BLANK TEST	0.000	09:41

Average = 0.0200
Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
DATAMASTER dmt: 100670

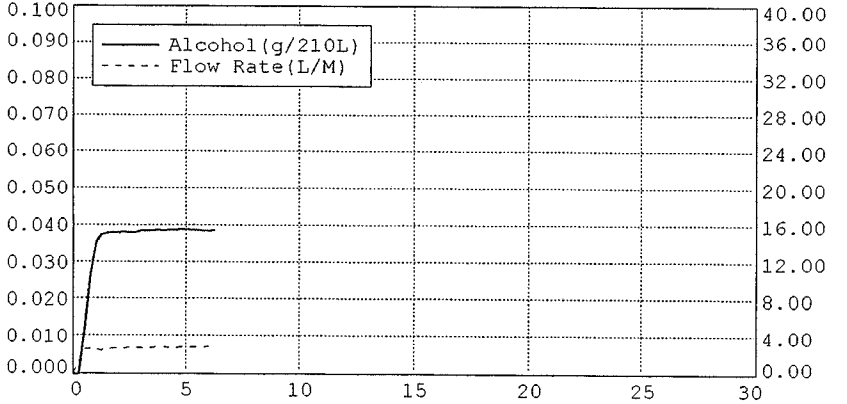
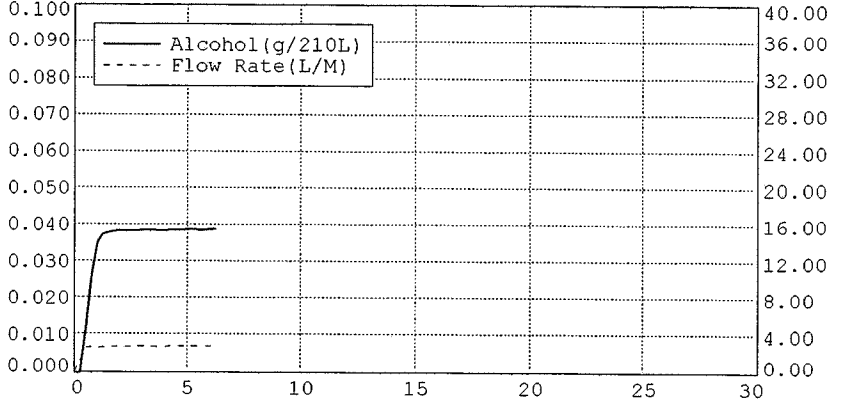
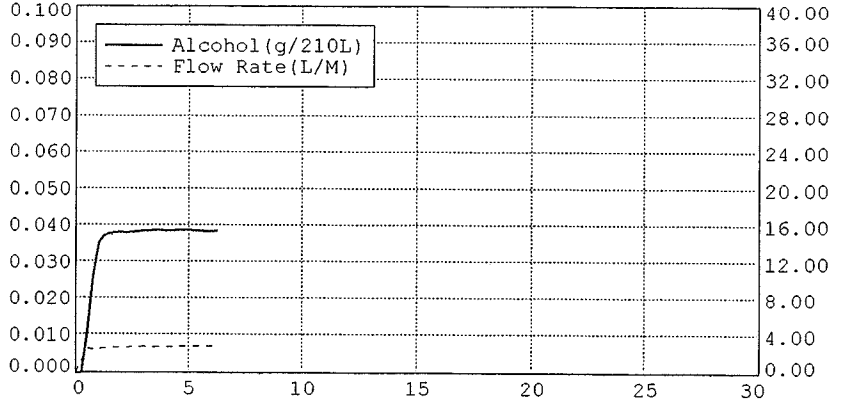
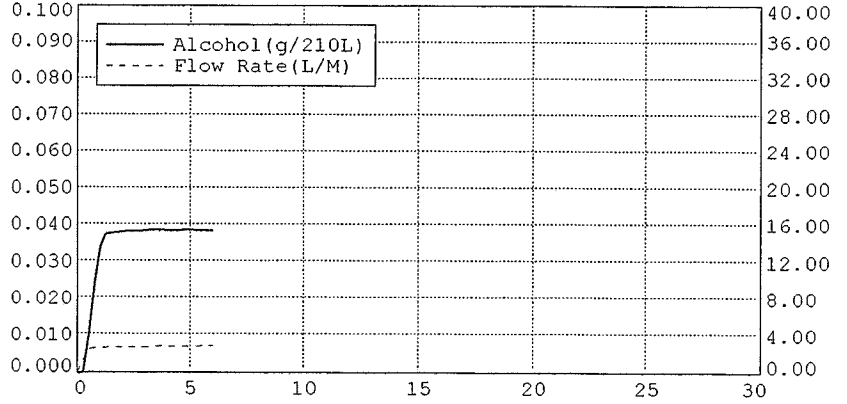
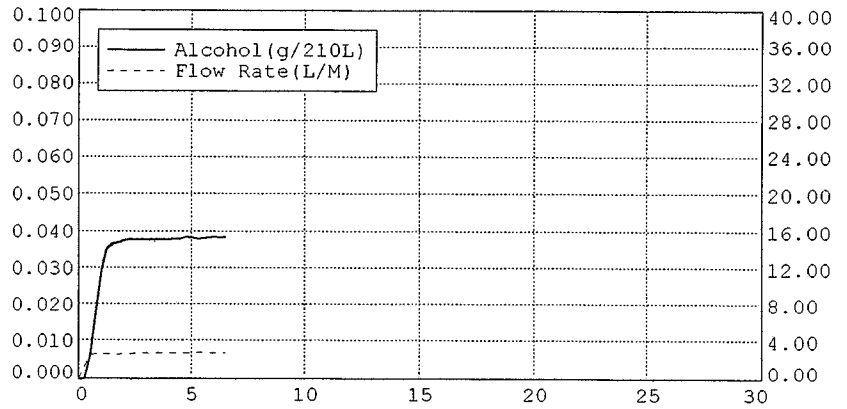
Date: 08/07/2020
Time: 09:44:20

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
TARGET AT 29.27: 0.039
LOT #: AG915607
EXPIRATION: 06/05/2021
TANK PRESSURE: 572 psi

BLANK TEST	0.000	09:45
INTERNAL STANDARD	VERIFIED	09:45
EXTERNAL STANDARD	0.039	09:45
BLANK TEST	0.000	09:46
EXTERNAL STANDARD	0.039	09:46
BLANK TEST	0.000	09:47
EXTERNAL STANDARD	0.040	09:48
BLANK TEST	0.000	09:48
EXTERNAL STANDARD	0.040	09:49
BLANK TEST	0.000	09:50
EXTERNAL STANDARD	0.040	09:50
BLANK TEST	0.000	09:51

Average = 0.0396
Std Dev = 0.0005



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100670

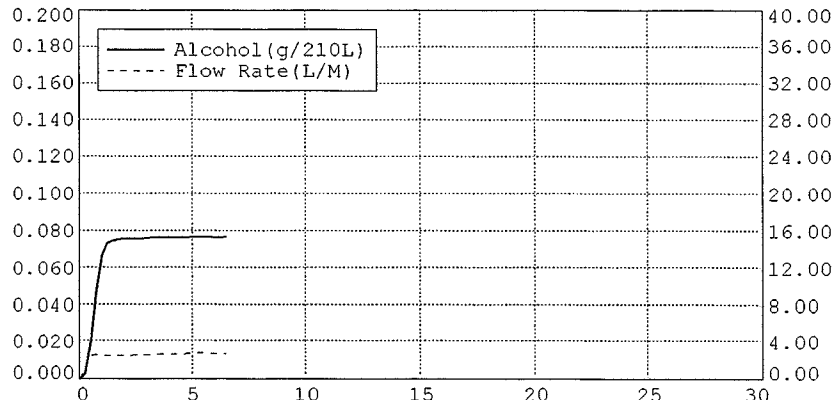
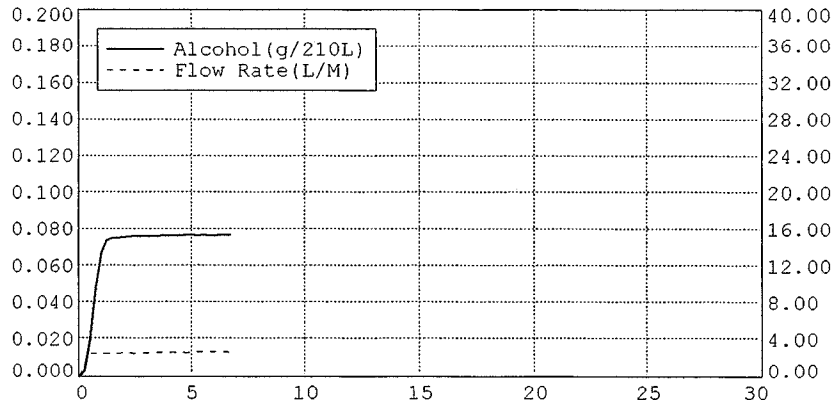
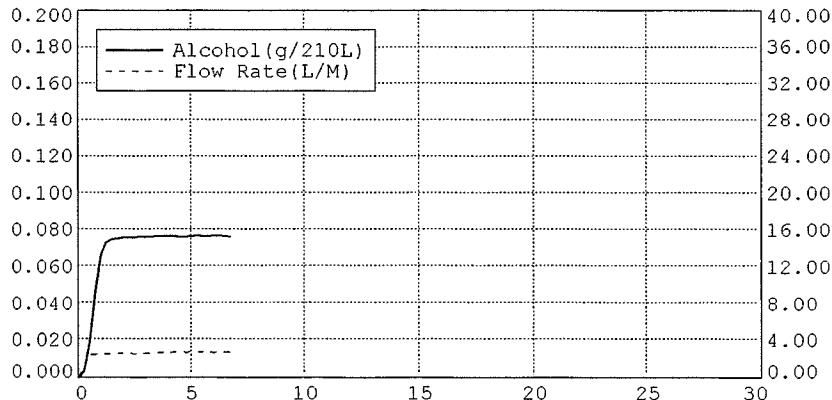
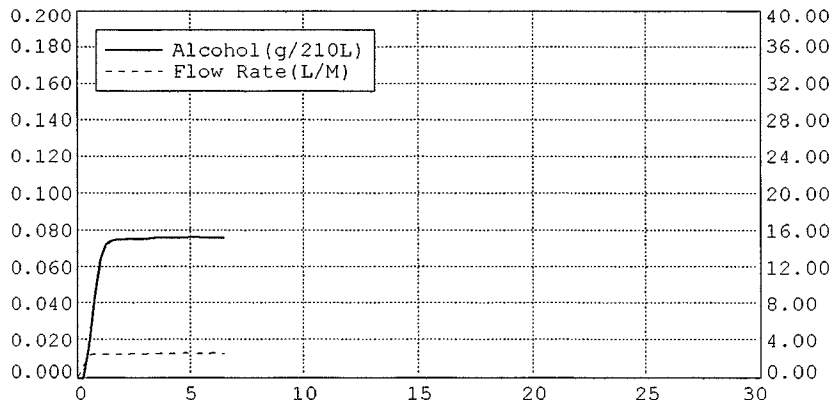
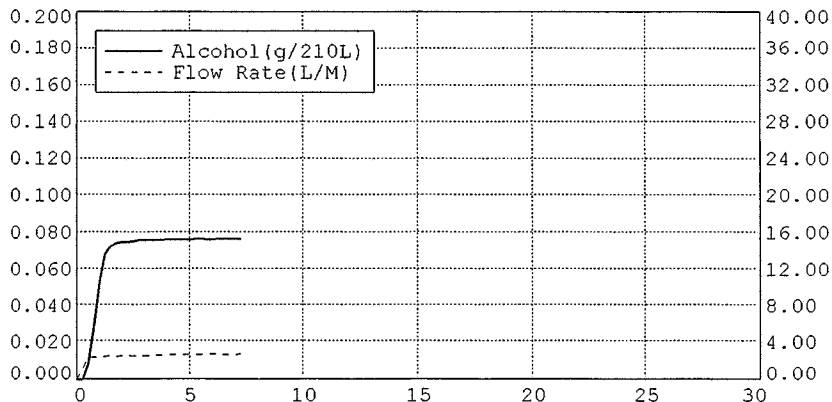
Date: 08/07/2020
 Time: 09:53:54

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.27: 0.078
 LOT #: AG826101
 EXPIRATION: 09/18/2020
 TANK PRESSURE: 293 psi

BLANK TEST	0.000	09:55
INTERNAL STANDARD	VERIFIED	09:55
EXTERNAL STANDARD	0.077	09:55
BLANK TEST	0.000	09:56
EXTERNAL STANDARD	0.077	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.078	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.078	09:58
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.078	09:59
BLANK TEST	0.000	10:00

Average = 0.0776
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100670

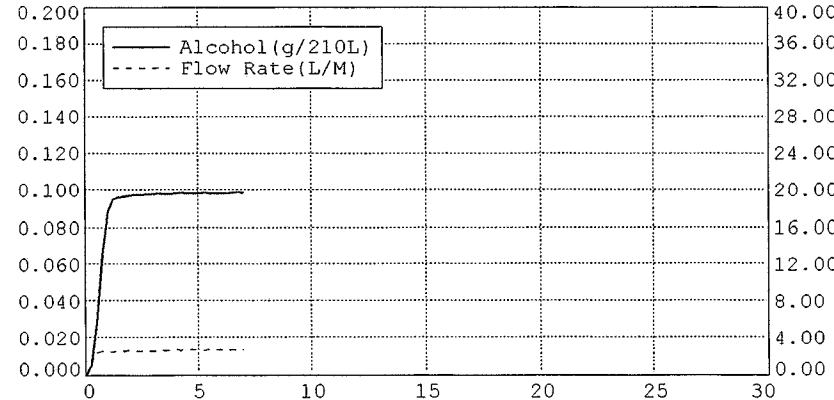
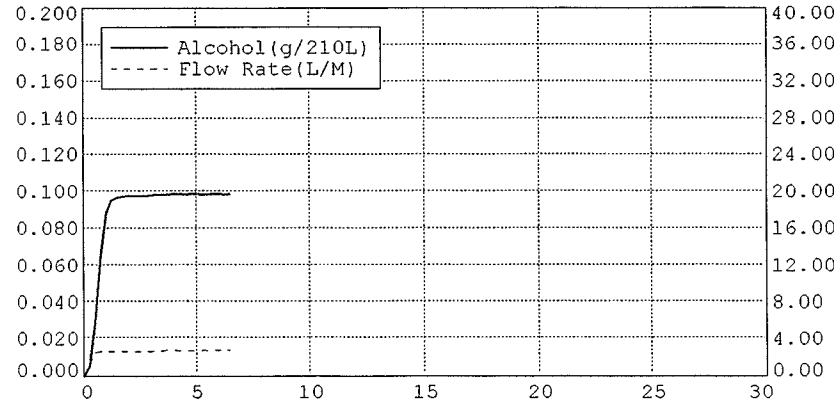
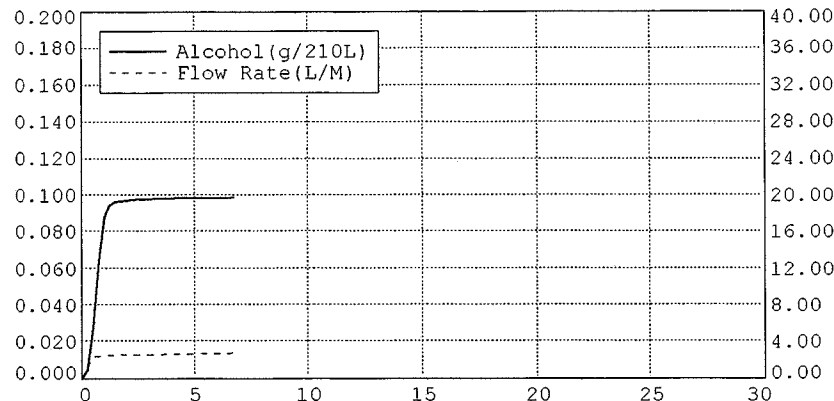
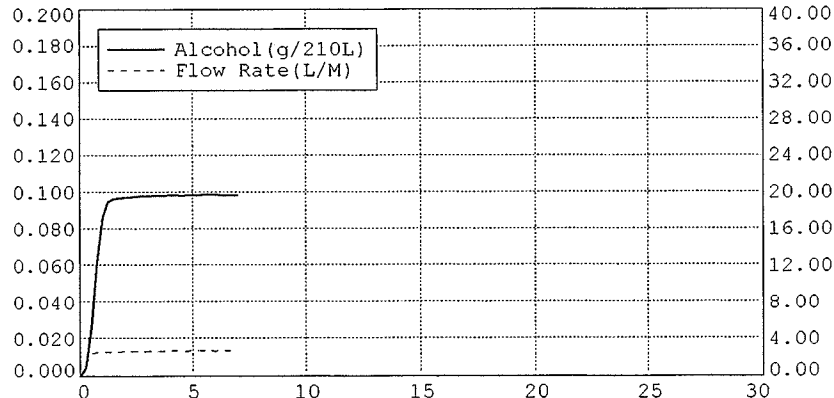
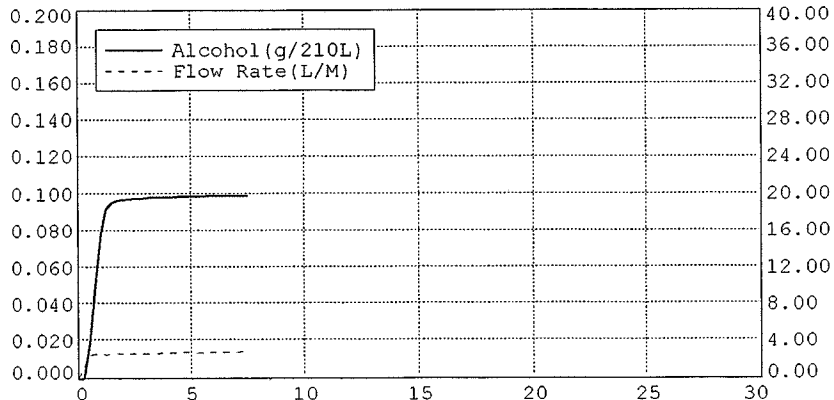
Date: 08/07/2020
 Time: 10:03:00

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.27: 0.098
 LOT #: AG924701
 EXPIRATION: 09/04/2021
 TANK PRESSURE: 374 psi

BLANK TEST	0.000	10:04
INTERNAL STANDARD	VERIFIED	10:04
EXTERNAL STANDARD	0.100	10:04
BLANK TEST	0.000	10:05
EXTERNAL STANDARD	0.099	10:05
BLANK TEST	0.000	10:06
EXTERNAL STANDARD	0.099	10:06
BLANK TEST	0.000	10:07
EXTERNAL STANDARD	0.099	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.099	10:08
BLANK TEST	0.000	10:09

Average = 0.0992
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100670

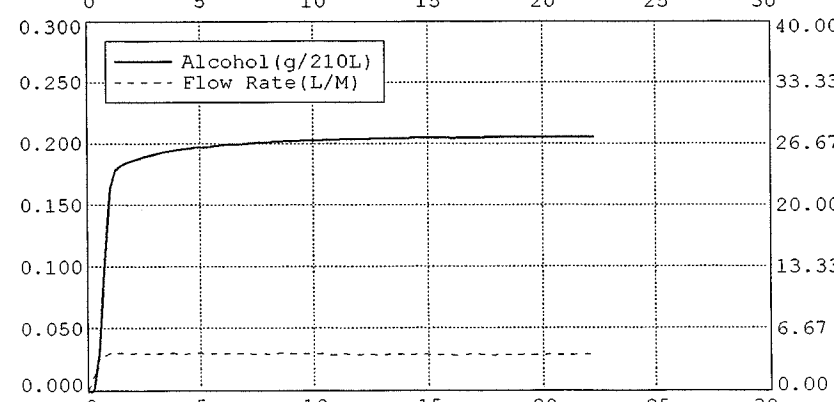
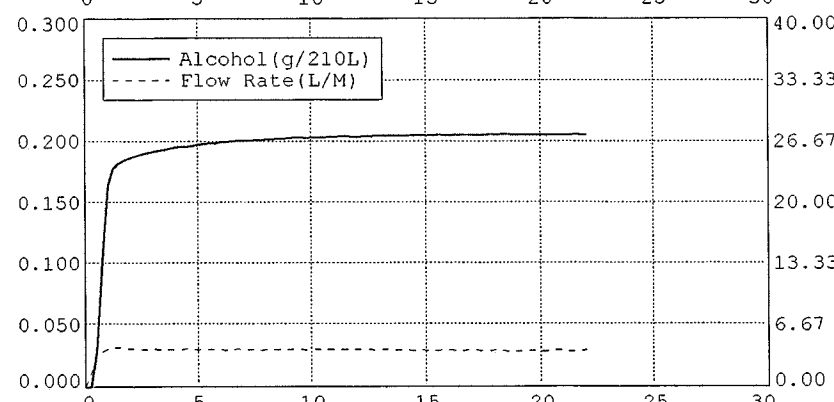
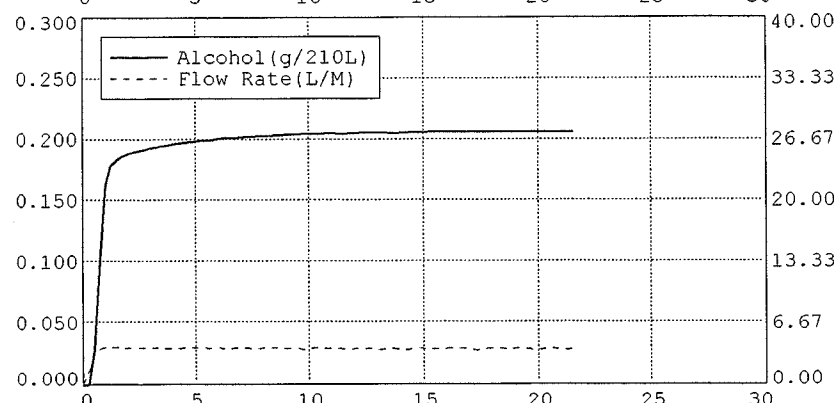
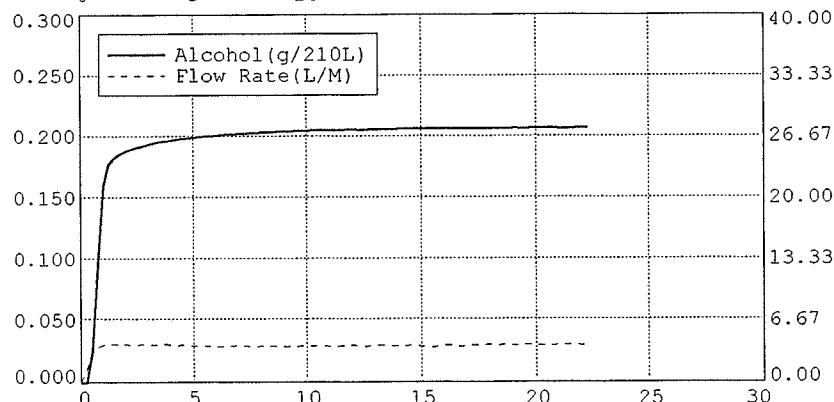
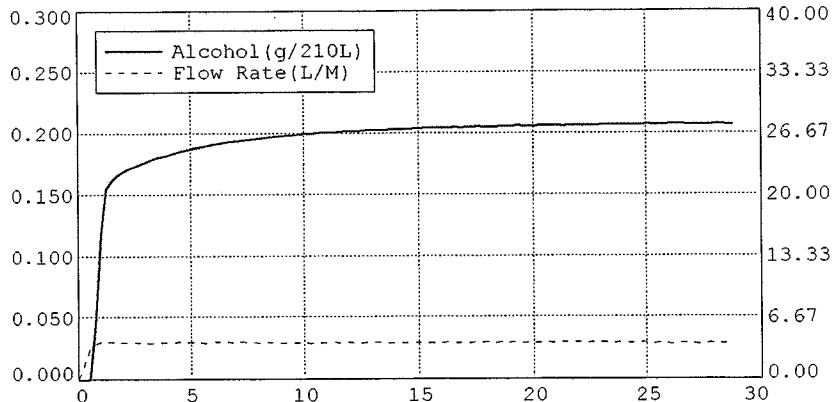
Date: 08/07/2020
 Time: 10:22:47

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200
 LOT #: 19200
 EXPIRATION: 08/06/2021

BLANK TEST	0.000	10:26
INTERNAL STANDARD	VERIFIED	10:27
EXTERNAL STANDARD	0.207	10:27
BLANK TEST	0.000	10:28
EXTERNAL STANDARD	0.207	10:29
BLANK TEST	0.000	10:30
EXTERNAL STANDARD	0.206	10:30
BLANK TEST	0.000	10:31
EXTERNAL STANDARD	0.206	10:31
BLANK TEST	0.000	10:32
EXTERNAL STANDARD	0.206	10:33
BLANK TEST	0.000	10:34

Average = 0.2064
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

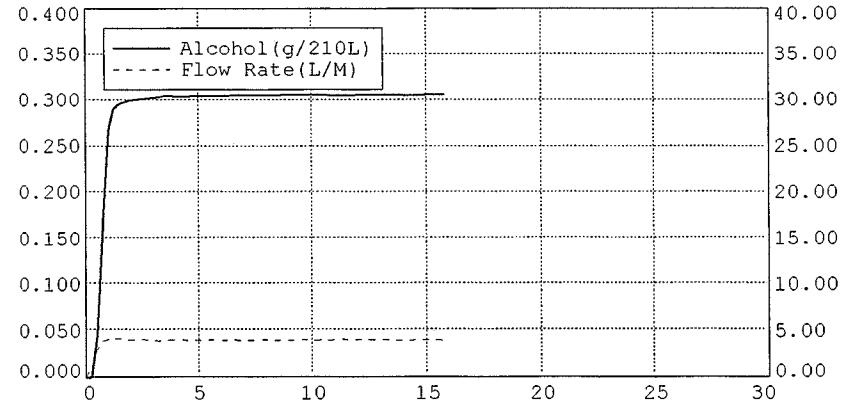
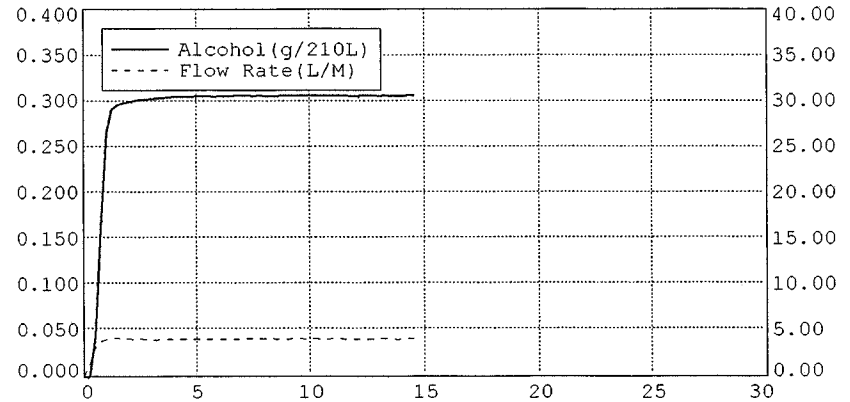
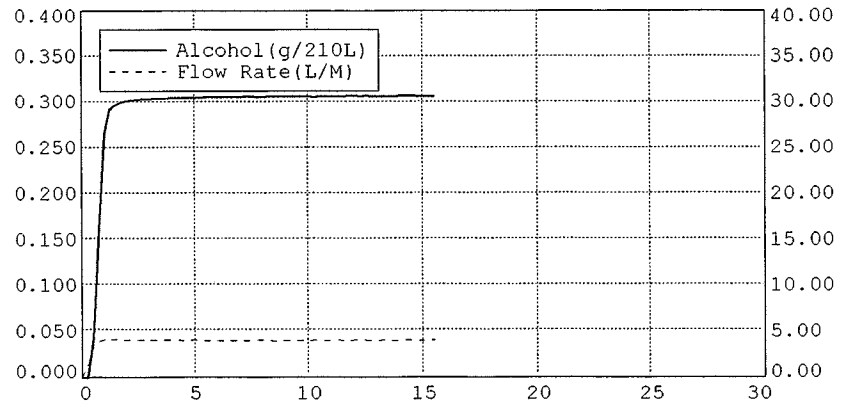
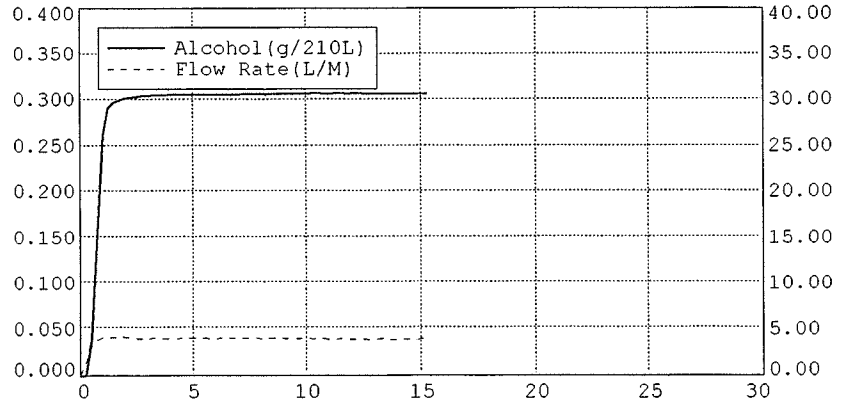
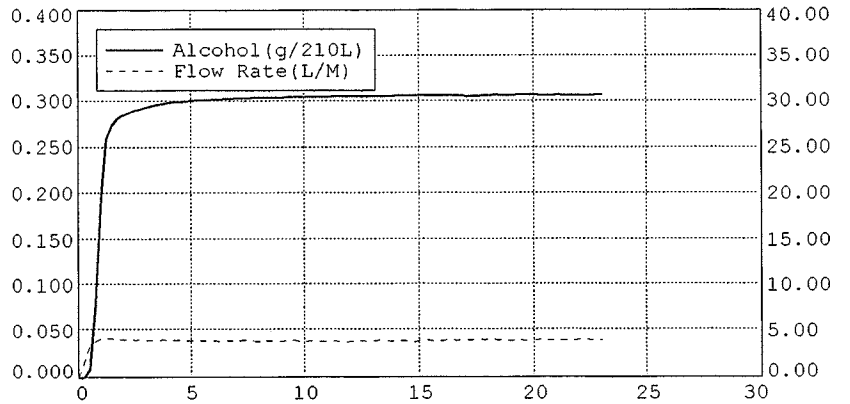
Alaska Department of Public Safety
 DATAMASTER dmt: 100670

Date: 08/07/2020
 Time: 10:35:48

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

BLANK TEST	0.000	10:37
INTERNAL STANDARD	VERIFIED	10:37
EXTERNAL STANDARD	0.306	10:37
BLANK TEST	0.000	10:38
EXTERNAL STANDARD	0.306	10:39
BLANK TEST	0.000	10:40
EXTERNAL STANDARD	0.306	10:40
BLANK TEST	0.000	10:41
EXTERNAL STANDARD	0.306	10:41
BLANK TEST	0.000	10:42
EXTERNAL STANDARD	0.306	10:43
BLANK TEST	0.000	10:44

Average = 0.3060
 Std Dev = 0.0000



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100670

Date: 08/07/2020
Time: 10:49:37

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

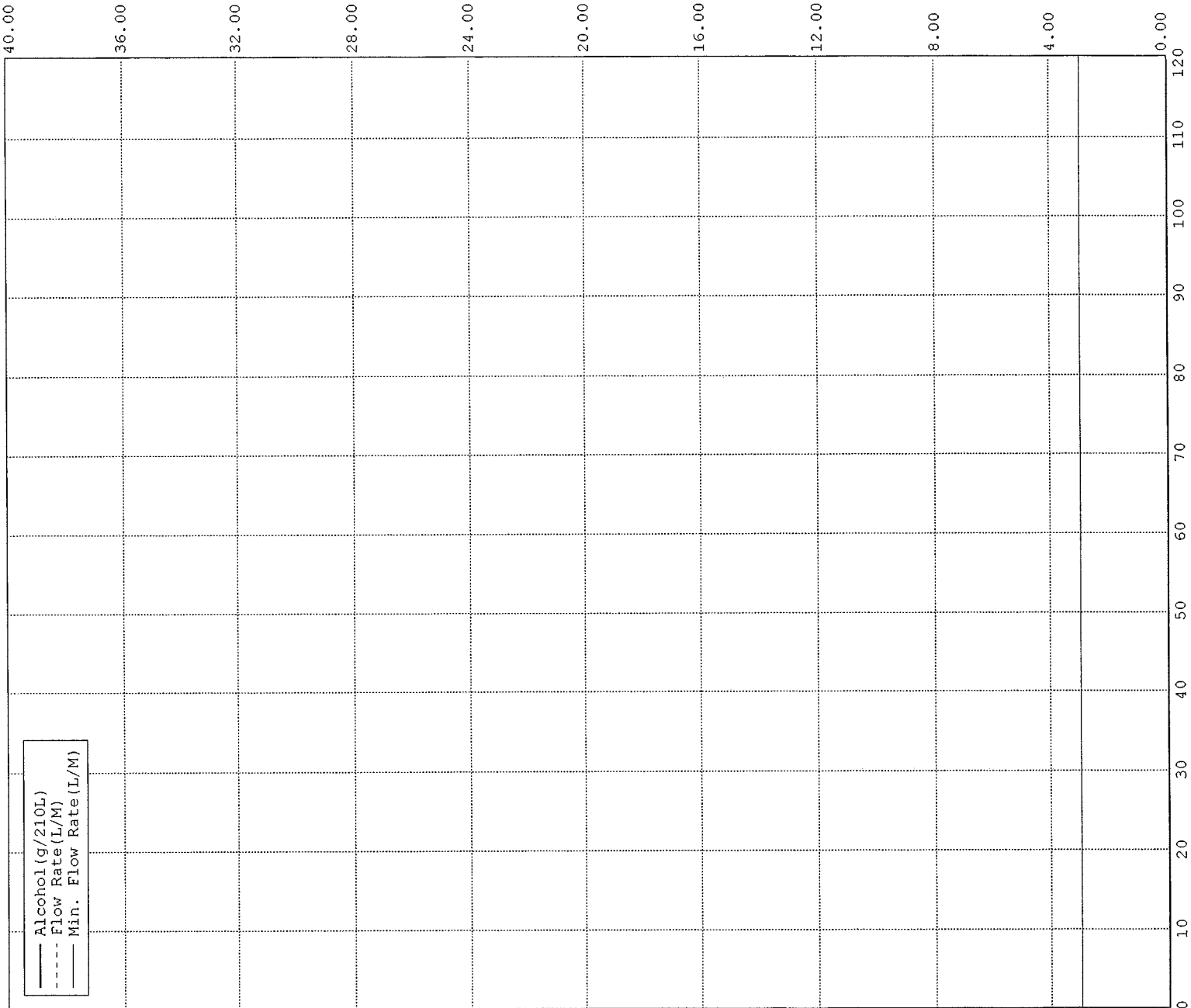
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.27: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 10:50
BLANK TEST 0.000 10:50
INTERNAL STANDARD VERIFIED 10:50
EXTERNAL STANDARD 0.076 10:51
BLANK TEST 0.000 10:52
SUBJECT SAMPLE INCOMPLETE 10:54

mw



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100670

Date: 08/07/2020
Time: 11:55:38

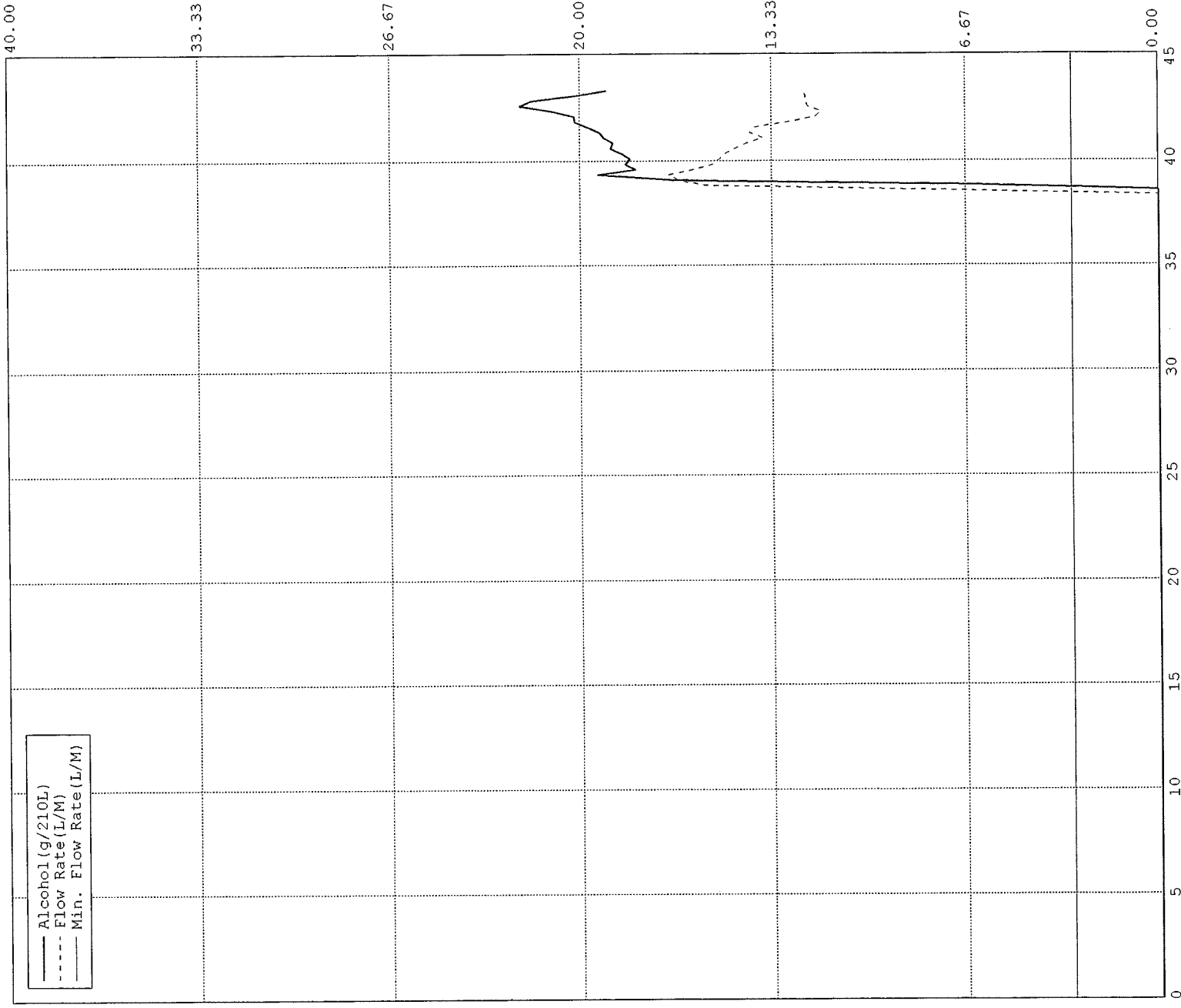
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.31: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 11:57
BLANK TEST 0.000 11:57
INTERNAL STANDARD VERIFIED 11:57
EXTERNAL STANDARD 0.077 11:57
BLANK TEST 0.000 11:58
SUBJECT SAMPLE INVALID 11:59



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100670

Date: 08/07/2020
Time: 11:13:47

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 29.28: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

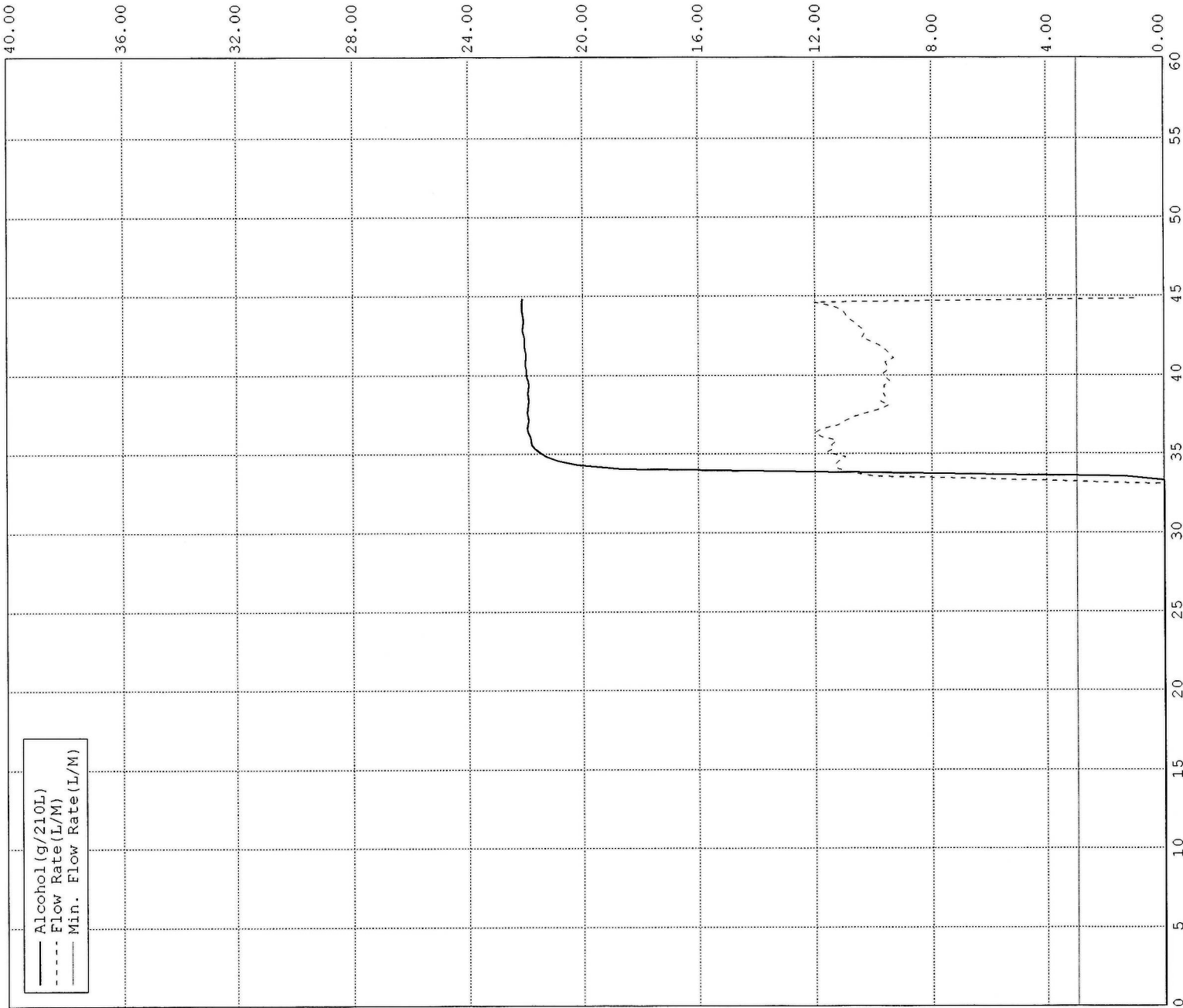
DIAGNOSTIC CHECK PASSED 11:15
BLANK TEST 0.000 11:15
INTERNAL STANDARD VERIFIED 11:15
Xq = 0.089 (0.10%)
EXTERNAL STANDARD 0.077 11:15
X[1] = 0.0773 (0.0018) (0.0028)
BLANK TEST 0.000 11:16
SUBJECT SAMPLE XXX 11:17
X[1] = 0.1110 (-0.0175) (0.0001)

Interference Detected

Filter 2 average: 0.0023

Filter 3 average: 0.0022

DW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100670

Date: 08/07/2020
Time: 11:22:08

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

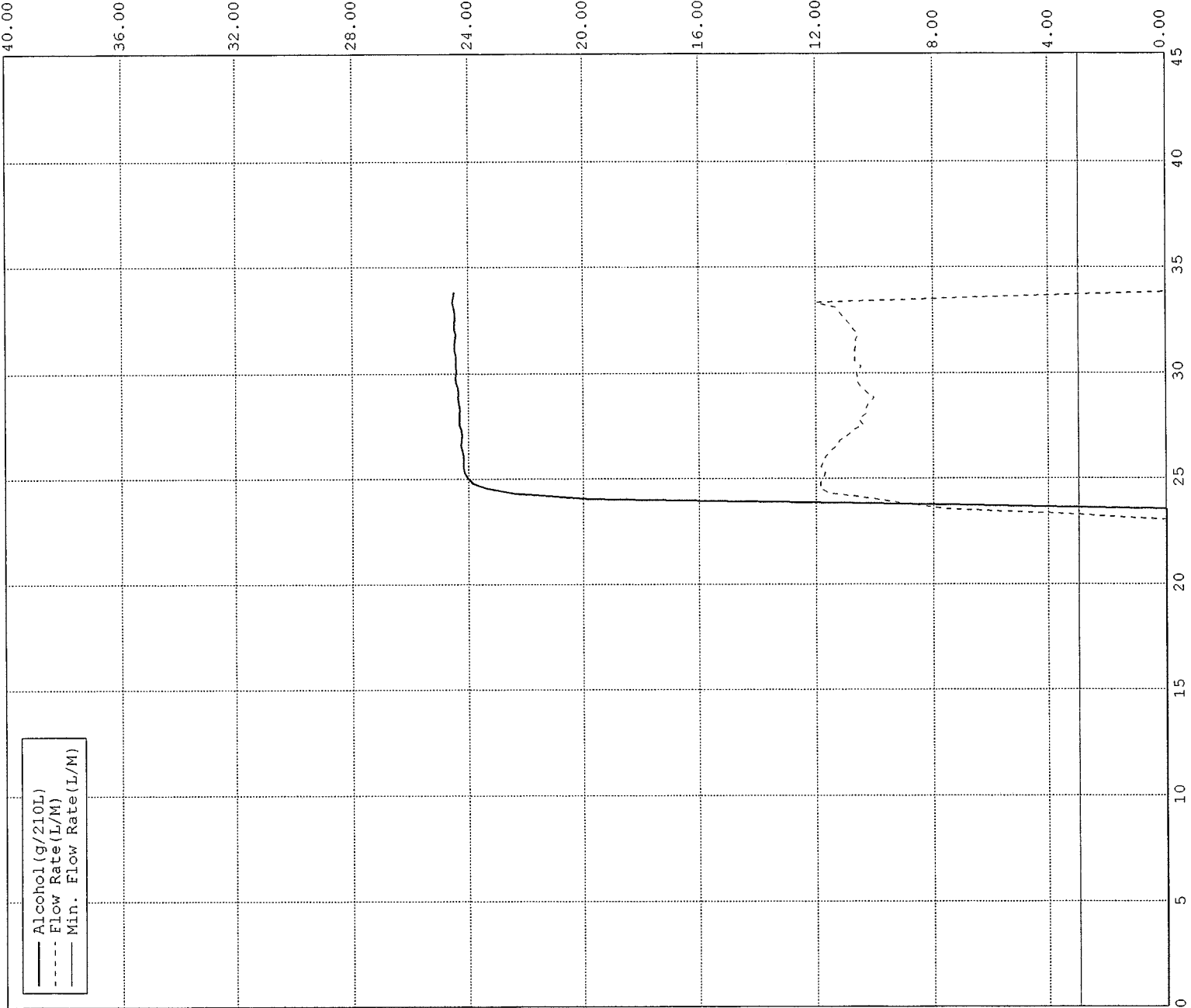
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.29: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 11:24
BLANK TEST 0.000 11:24
INTERNAL STANDARD VERIFIED 11:24
Xq = 0.088 (0.30%)
EXTERNAL STANDARD 0.078 11:25
X[1] = 0.0776 (0.0020) (0.0018)
BLANK TEST 0.000 11:26
SUBJECT SAMPLE XXX 11:26
X[1] = 0.1225 (-0.0283) (0.0007)

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100670

Date: 08/07/2020
 Time: 11:33:04

SUBJECT NAME:
 TEST TEST
 LICENSE #: XXXX

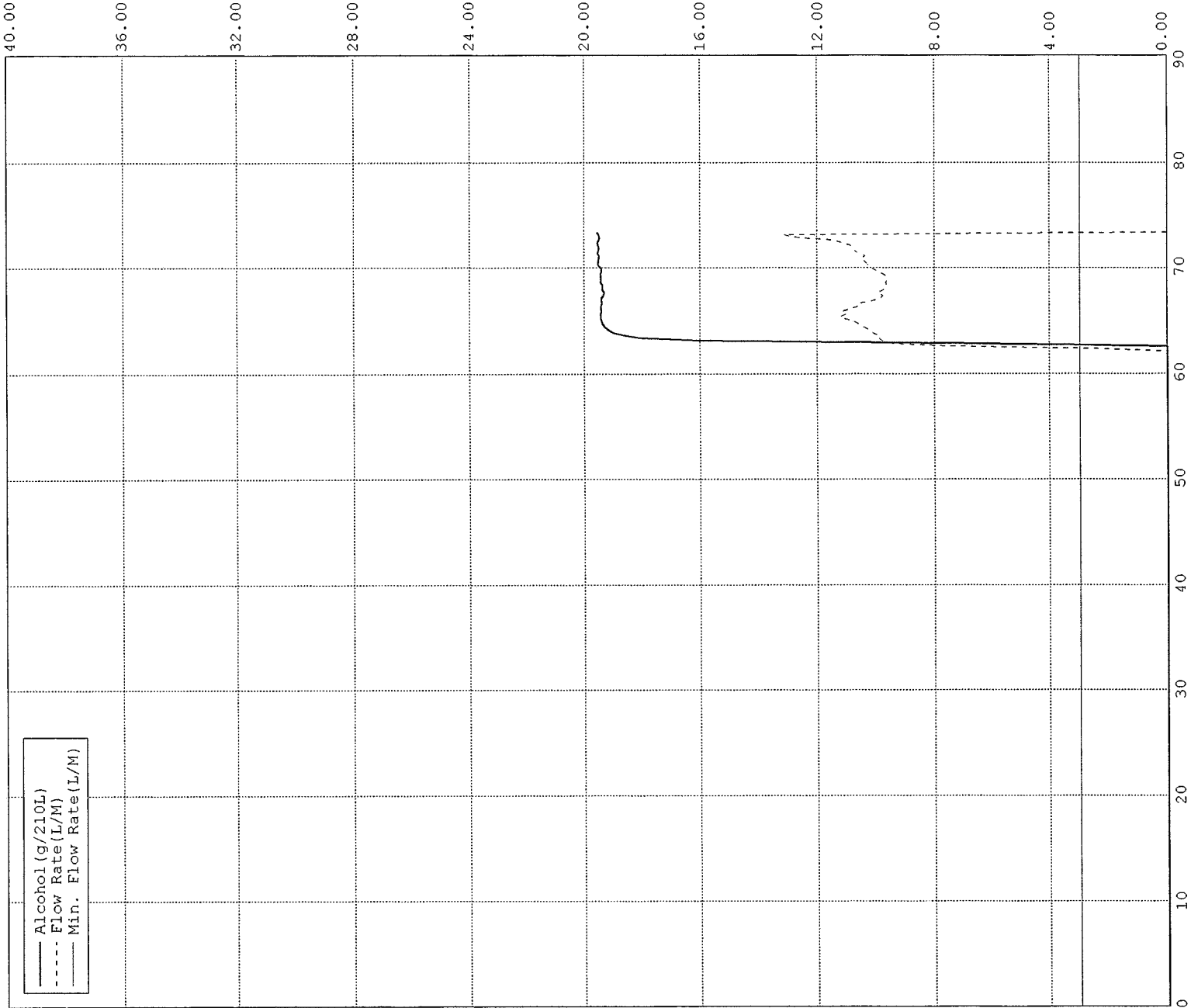
OPERATOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.080
 TARGET AT 29.29: 0.078
 LOT #: AG826101
 EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	11:34
BLANK TEST	0.000	11:34
INTERNAL STANDARD	VERIFIED	11:34
Xq = 0.088 (0.59%)		
EXTERNAL STANDARD	0.077	11:34
X[1] = 0.0774 (0.0026)	(0.0028)	
BLANK TEST	0.000	11:35
SUBJECT SAMPLE (Vol=1.86L)	0.097	11:36
X[1] = 0.0979 (-0.0011)	(0.0002)	
BLANK TEST	0.000	11:37
EXTERNAL STANDARD	0.077	11:37
X[1] = 0.0773 (0.0029)	(0.0012)	
BLANK TEST	0.000	11:38

DW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100670

Date: 08/07/2020
Time: 11:00:55

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

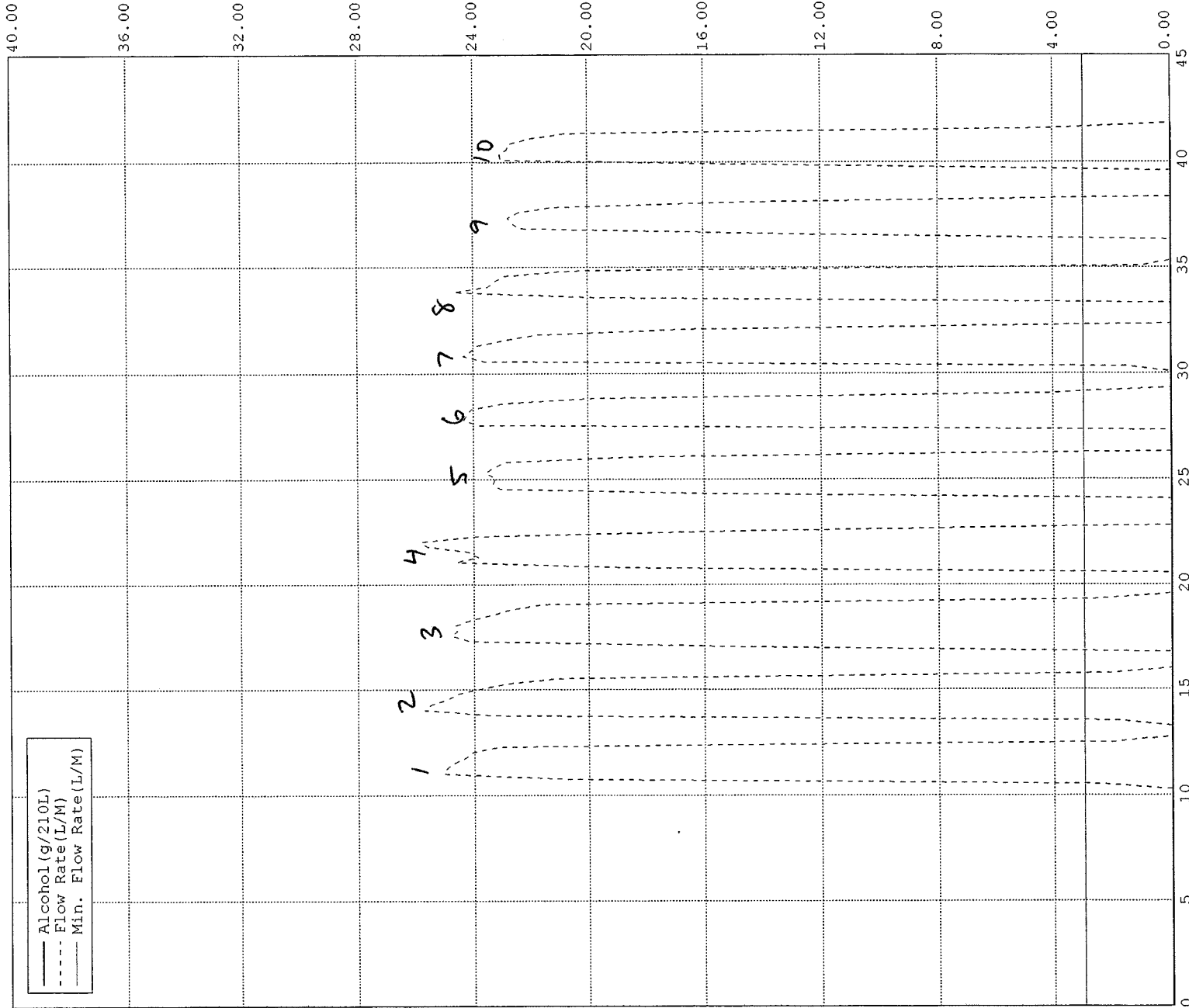
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.28: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 11:02
BLANK TEST 0.000 11:02
INTERNAL STANDARD VERIFIED 11:02
EXTERNAL STANDARD 0.077 11:02
BLANK TEST 0.000 11:03
SUBJECT SAMPLE XXX 11:04

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100670

Date: 08/07/2020
Time: 11:47:49

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

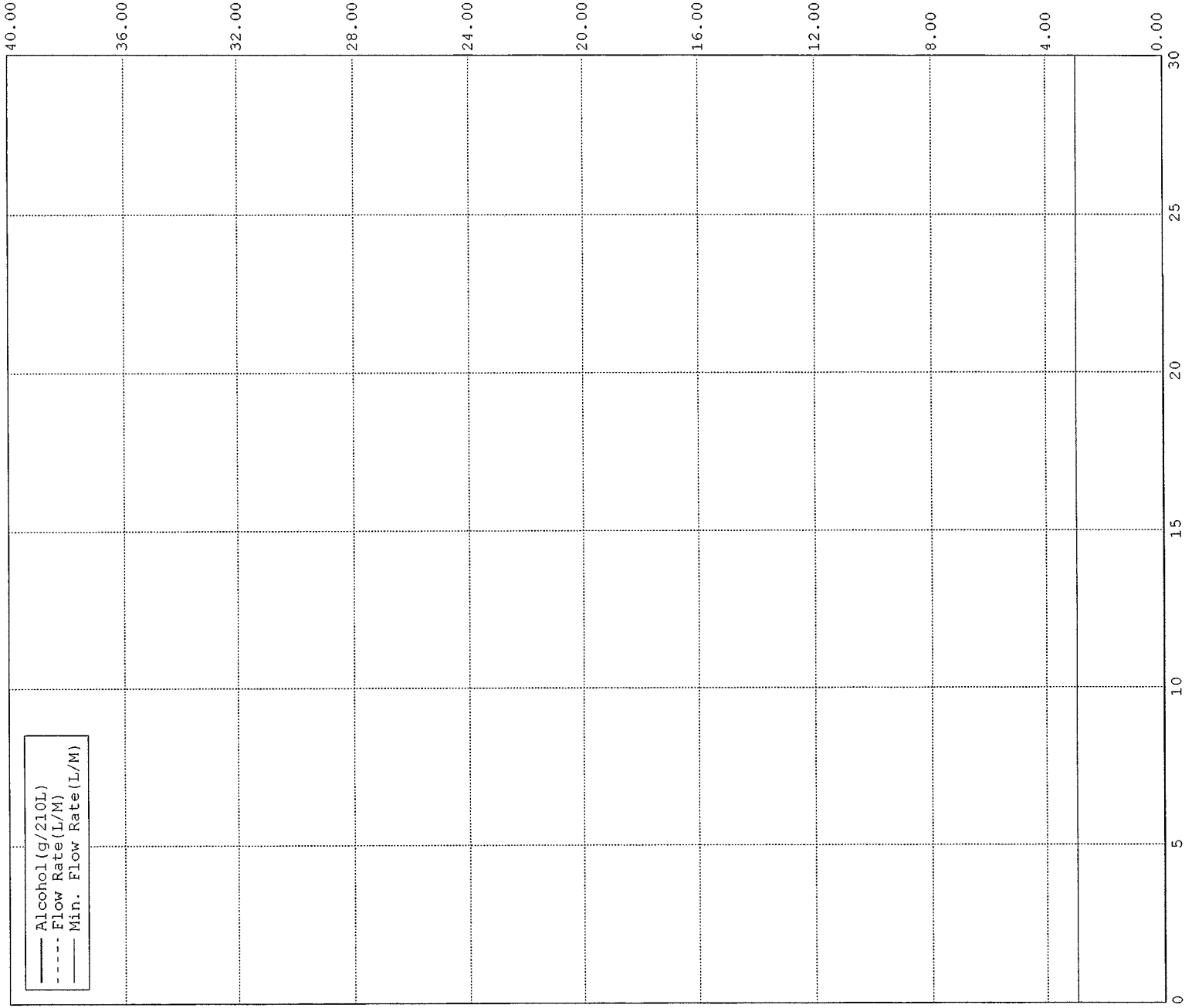
DEPT/AGENCY:
RADIO FREQUENCY
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.31: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 11:49
BLANK TEST 0.000 11:49
INTERNAL STANDARD VERIFIED 11:49
EXTERNAL STANDARD 0.077 11:49
BLANK TEST 0.000 11:50

RFI DETECTED

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100670

Date: 08/07/2020
Time: 14:06:52

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 29.31: 0.078
LOT #: AG826101
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 14:09
BLANK TEST 0.000 14:09
INTERNAL STANDARD VERIFIED 14:09
INTERNAL STANDARD 0.077 14:09
BLANK TEST 0.000 14:10
SUBJECT SAMPLE (Vol=2.36L) 0.000 14:10
BLANK TEST 0.000 14:11
EXTERNAL STANDARD 0.078 14:12
BLANK TEST 0.000 14:12

DW

