

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 100356 Analyst Derch Walton Start Date 10/08/20

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 1.6 L (1.3L to 1.7L)

4. Linearity Test (attached)

a. 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 AG923401 Exp 08/22/21
- iv. 0.100g/210L Mnf Airgas Lot AG924701 Exp 09/04/21
- v. 0.200g/210L Mnf Autn Lot 19200 Exp 08/06/21
 - 1. Simulator S/N DR4161 Date Calibrated 05/08/20
- vi. 0.300g/210L Mnf Autn Lot 19330 Exp 11/13/21
 - 1. Simulator S/N DR5298 Date Calibrated 05/08/20

5. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
- d. Exceeded attempts

- i. Acetone - Mnf Autn Lot 19301 Level 0.100 Exp 10/30/21
 - 1. Simulator S/N SD1202 Date Calibrated 05/08/20
- ii. Isopropanol - Mnf Autn Lot 19301 Level 0.100 Exp 10/30/21
 - 1. Simulator S/N SD1177 Date Calibrated 05/07/20
- iii. Negative Control - Mnf Autn Lot 19301 Level 0.100 Exp 10/30/21
 - 1. Simulator S/N SD1088 Date Calibrated 05/08/20

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 10/09/20

Linearity data added JMW 10/09/20

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100356

Date: 10/08/2020
Time: 09:55:01

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 = 45.4°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.61 V PASSED
(0.95 V - 2.21 V)
Cooler Voltage = 1.59 V PASSED
(0.97 V - 2.27 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 534 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.2 in

PUMP INFO

Flow Rate = 4.819 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.001 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 = 0.106 0.08% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100356

Date: 10/08/2020
Time: 10:53 AM

Temperatures (°C)
Sample Cell: 49.2°C
Breath Tube: 44.9°C

Current Barometer 29.2 in
Volume (Ltr) 1.40 ✓

Settings
Lamp: 1.69 V
Bias: 79 V
Cooler: 1.62 V
Chopper: 526 Hz

Voltages (V)
Flow: 1.05 V
Detector: 0.021 V ✓

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100356

Date: 12/13/2011
Time: 08:03:56

Ca = 0.1000
CAL = 0.987816 0.800 <= CAL < 1.200
b1 = 0.0000 0.0000 <= b1 < 0.0040
b2 = 0.0032 0.0010 <= b2 < 0.0100
b3 = 0.0000 0.0000 <= b3 < 0.0040
Xq = 0.1063 0.0500 <= Xq < 0.2000
a21 = 1.207667 1.050 <= a21 < 1.300
a31 = 0.471870 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100356

Date: 10/08/2020
Time: 11:01:20

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

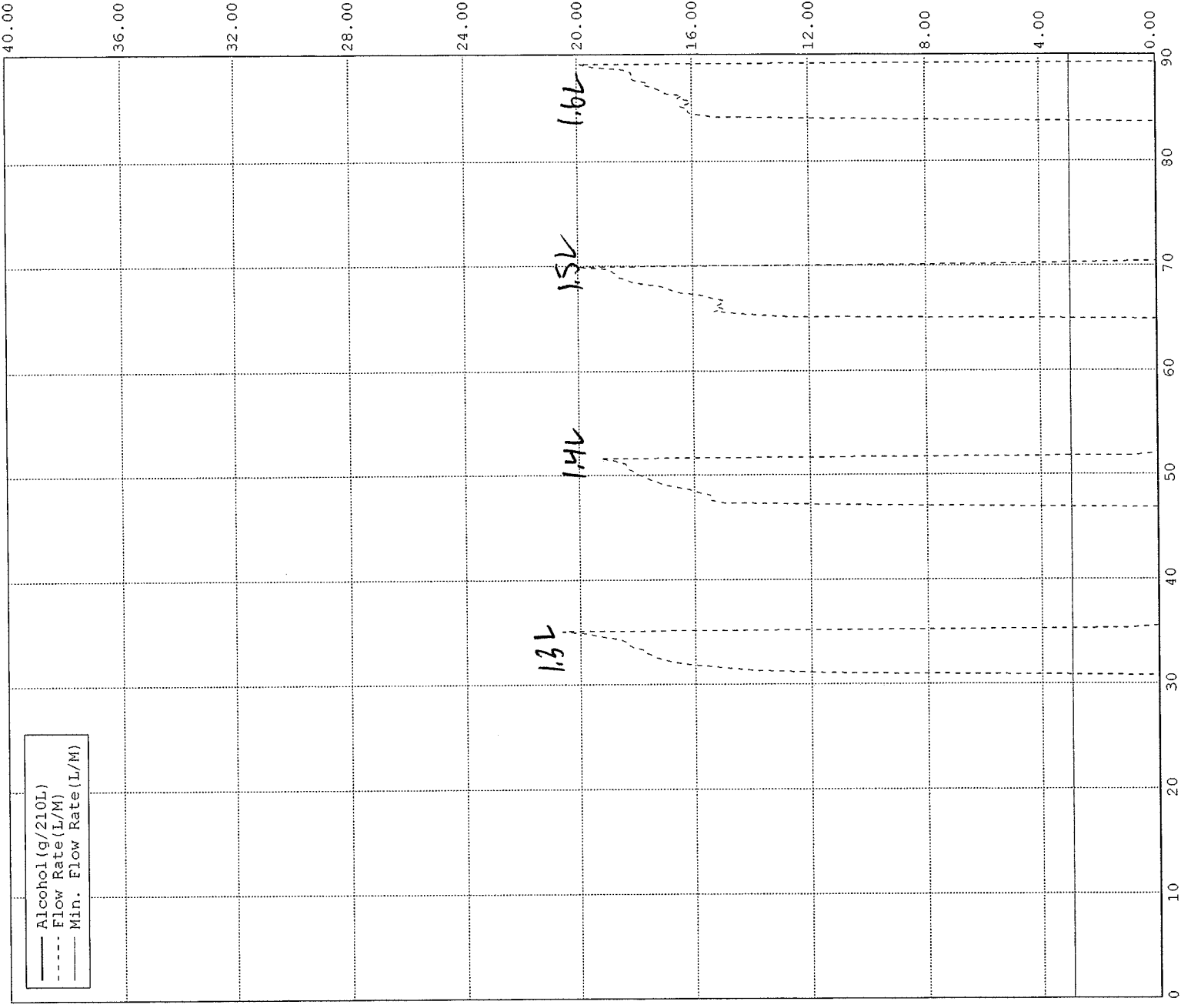
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.22: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK	PASSED	11:02
BLANK TEST	0.000	11:02
INTERNAL STANDARD	VERIFIED	11:02
EXTERNAL STANDARD	0.078	11:02
BLANK TEST	0.000	11:03
SUBJECT SAMPLE (Vol=1.54L)	0.000	11:05
BLANK TEST	0.000	11:06
EXTERNAL STANDARD	0.078	11:06
BLANK TEST	0.000	11:07

DRW



LINEARITY CHECK

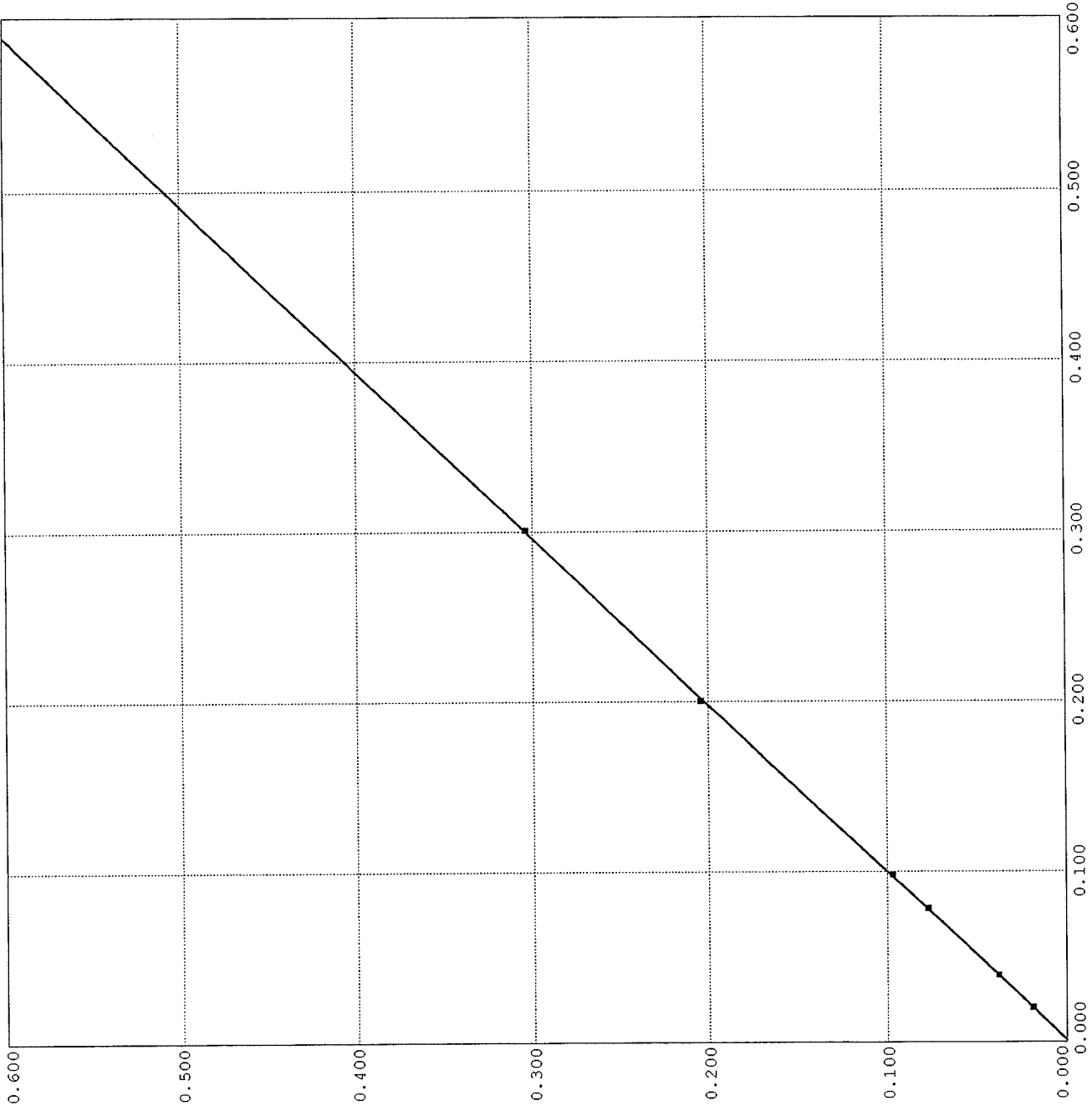
 Alaska Department of Public Safety
 DATAMASTER dmt: 100356

Date: 10/08/2020
 Time: 11:10:44

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0196	0.0005
0.039	0.0390	0.0000
0.078	0.0782	0.0004
0.098	0.0980	0.0000
0.200	0.2050	0.0007
0.300	0.3046	0.0009

SLOPE = 1.021471
 R² = 0.999915



DW

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100356

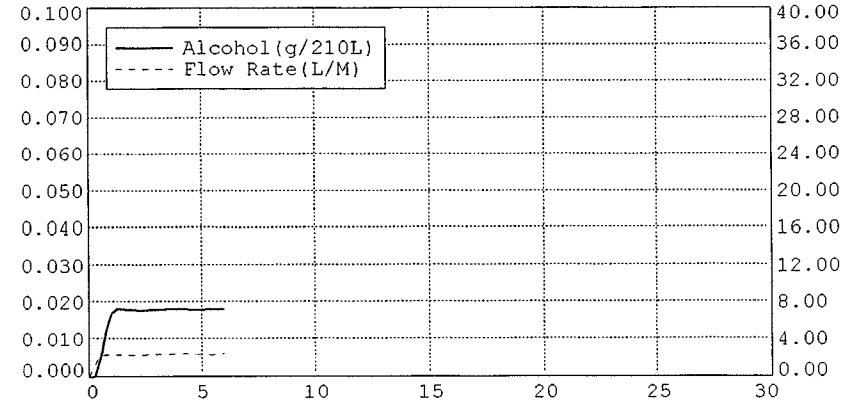
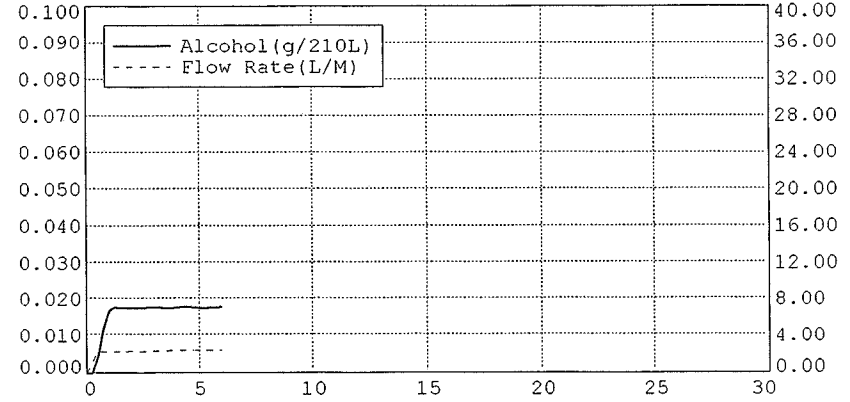
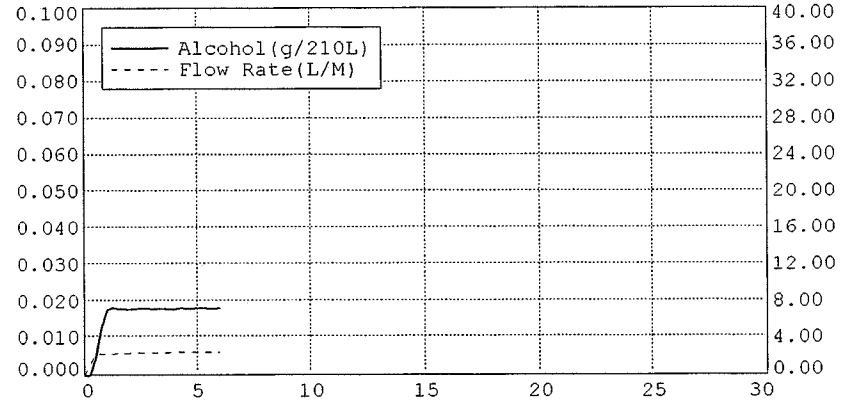
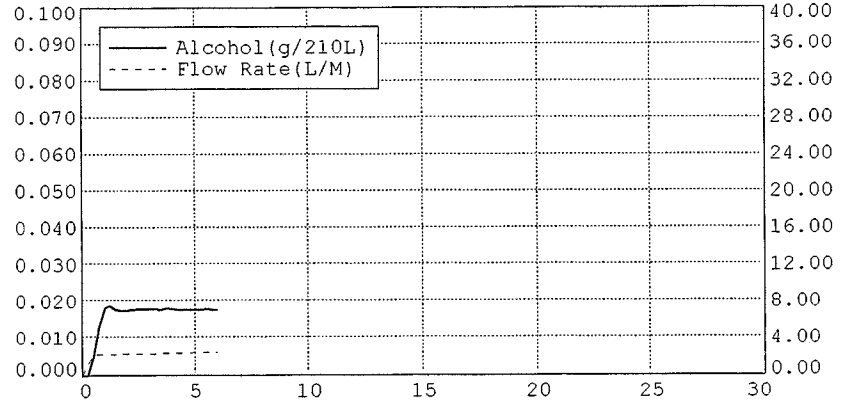
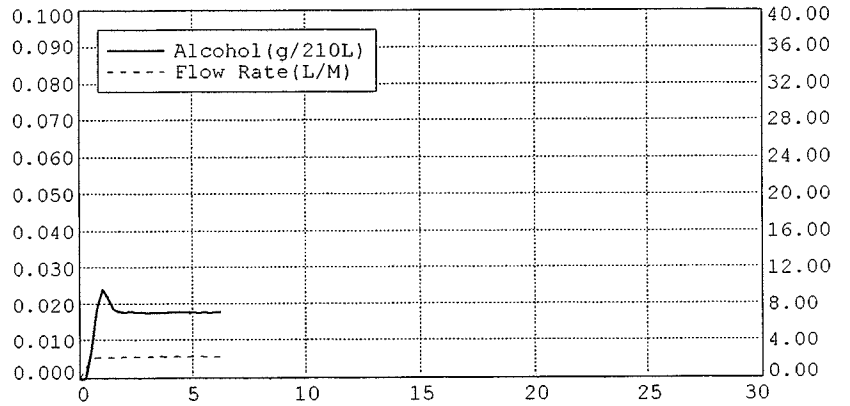
Date: 10/08/2020
 Time: 11:10:46

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.22: 0.020
 LOT #: AG928203
 EXPIRATION: 10/09/2021
 TANK PRESSURE: 728 psi

BLANK TEST	0.000	11:12
INTERNAL STANDARD	VERIFIED	11:12
EXTERNAL STANDARD	0.020	11:12
BLANK TEST	0.000	11:13
EXTERNAL STANDARD	0.019	11:13
BLANK TEST	0.000	11:14
EXTERNAL STANDARD	0.020	11:14
BLANK TEST	0.000	11:15
EXTERNAL STANDARD	0.019	11:15
BLANK TEST	0.000	11:16
EXTERNAL STANDARD	0.020	11:16
BLANK TEST	0.000	11:17

Average = 0.0196
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100356

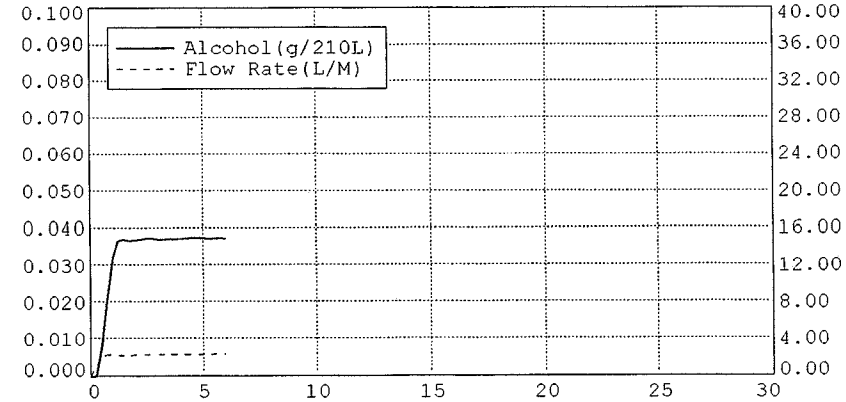
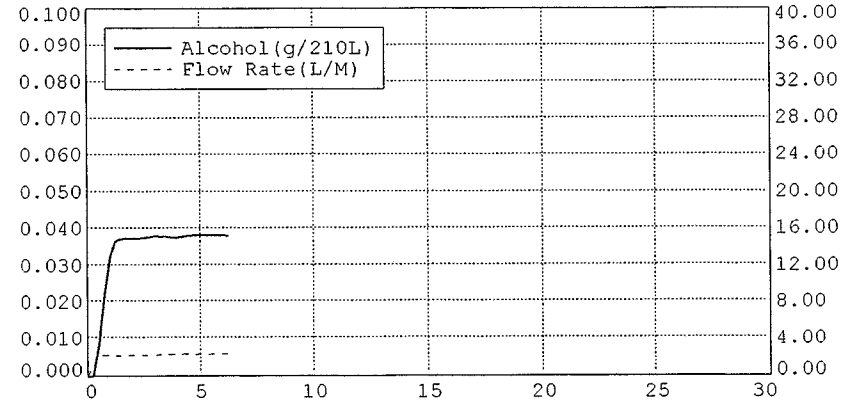
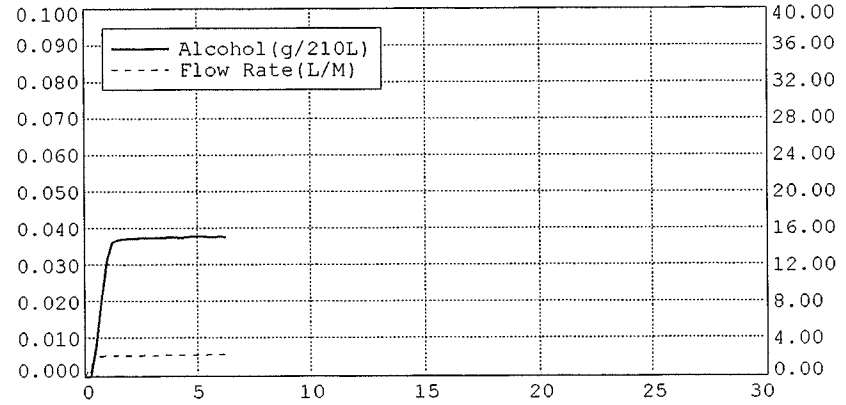
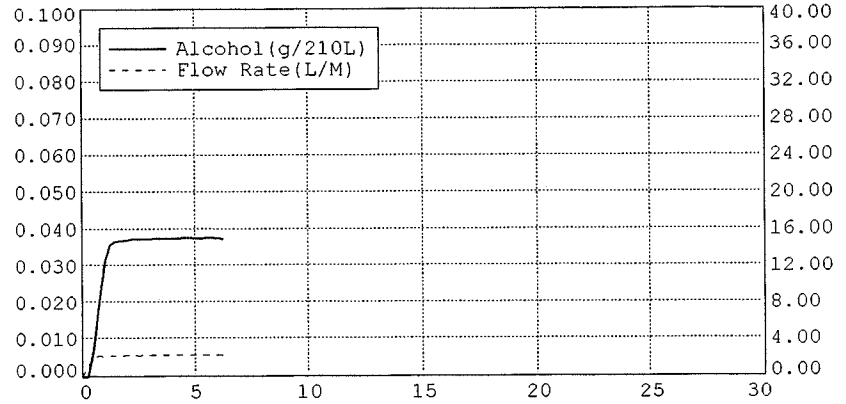
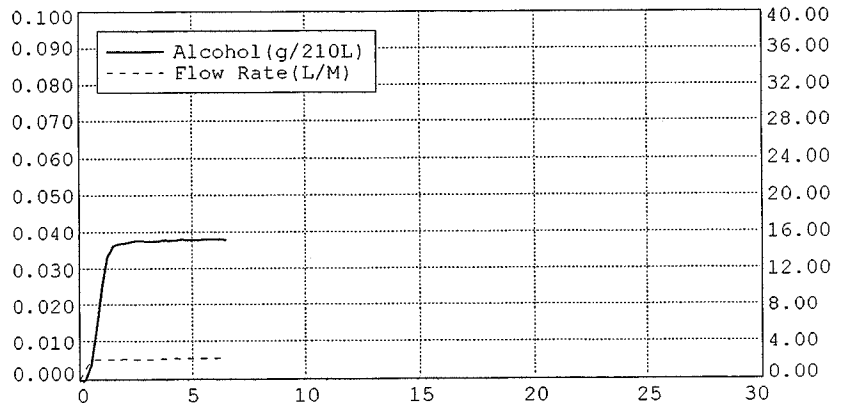
Date: 10/08/2020
 Time: 11:21:00

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.22: 0.039
 LOT #: AG915607
 EXPIRATION: 06/05/2021
 TANK PRESSURE: 478 psi

BLANK TEST	0.000	11:22
INTERNAL STANDARD	VERIFIED	11:22
EXTERNAL STANDARD	0.039	11:22
BLANK TEST	0.000	11:23
EXTERNAL STANDARD	0.039	11:23
BLANK TEST	0.000	11:24
EXTERNAL STANDARD	0.039	11:24
BLANK TEST	0.000	11:25
EXTERNAL STANDARD	0.039	11:25
BLANK TEST	0.000	11:26
EXTERNAL STANDARD	0.039	11:26
BLANK TEST	0.000	11:27

Average = 0.0390
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100356

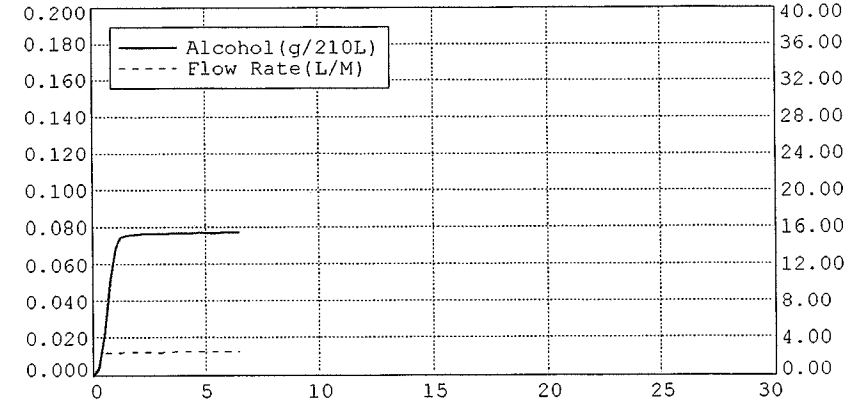
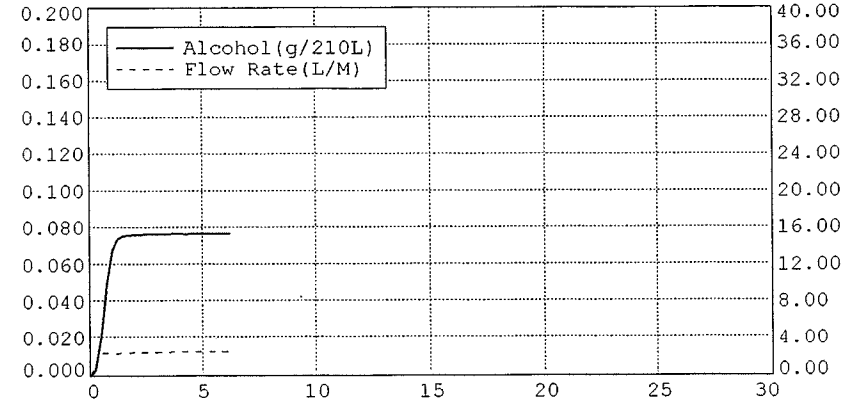
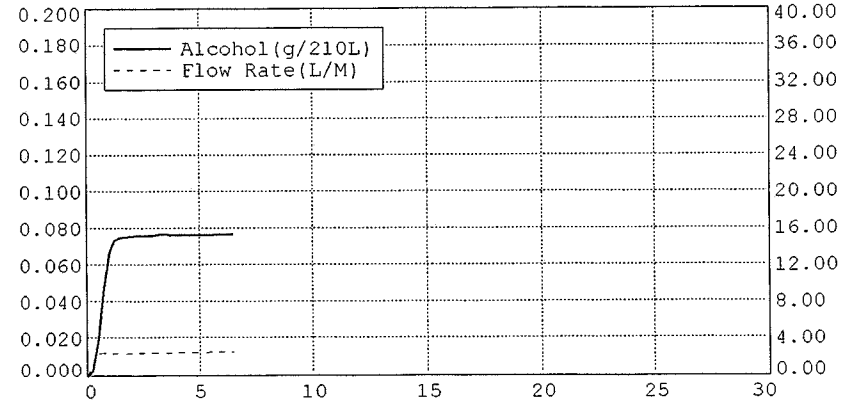
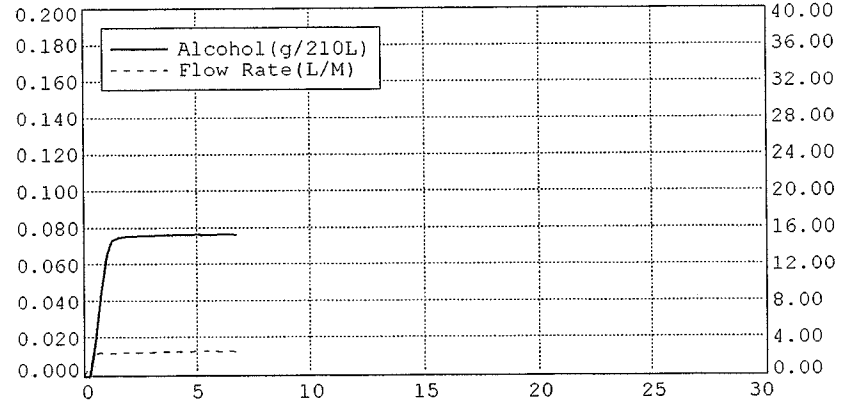
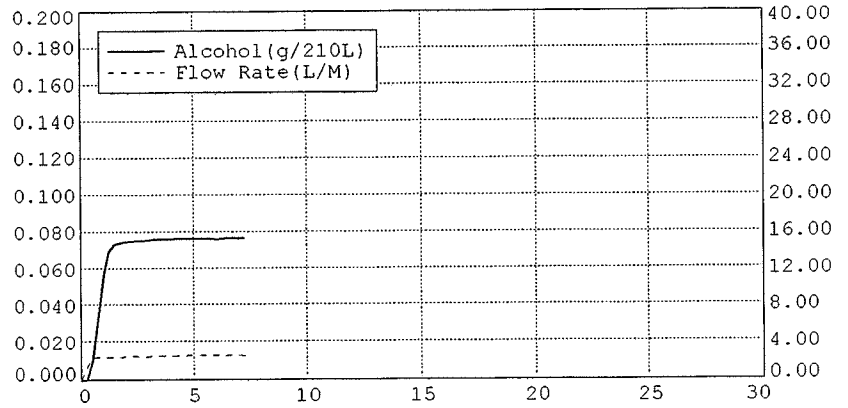
Date: 10/08/2020
 Time: 11:28:32

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.22: 0.078
 LOT #: AG923401
 EXPIRATION: 08/22/2021
 TANK PRESSURE: 1160 psi

BLANK TEST	0.000	11:29
INTERNAL STANDARD	VERIFIED	11:29
EXTERNAL STANDARD	0.078	11:30
BLANK TEST	0.000	11:30
EXTERNAL STANDARD	0.078	11:31
BLANK TEST	0.000	11:32
EXTERNAL STANDARD	0.078	11:32
BLANK TEST	0.000	11:33
EXTERNAL STANDARD	0.078	11:33
BLANK TEST	0.000	11:34
EXTERNAL STANDARD	0.079	11:34
BLANK TEST	0.000	11:35

Average = 0.0782
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
DATAMASTER dmt: 100356

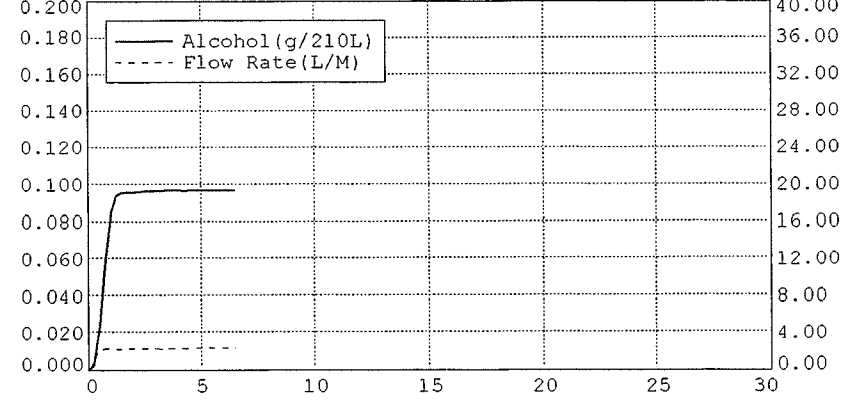
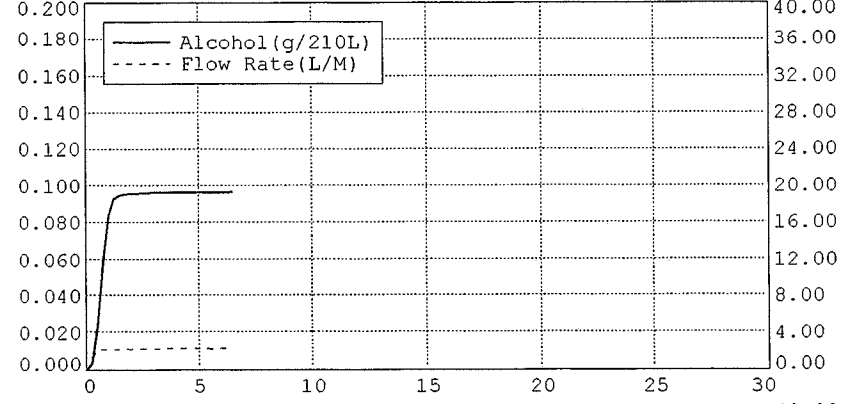
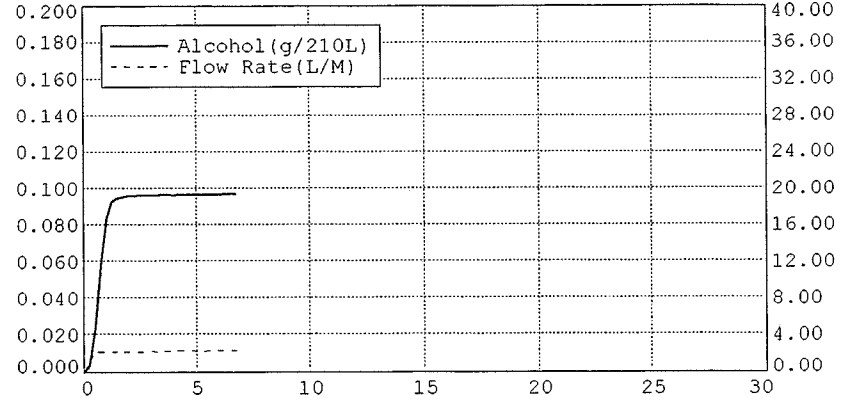
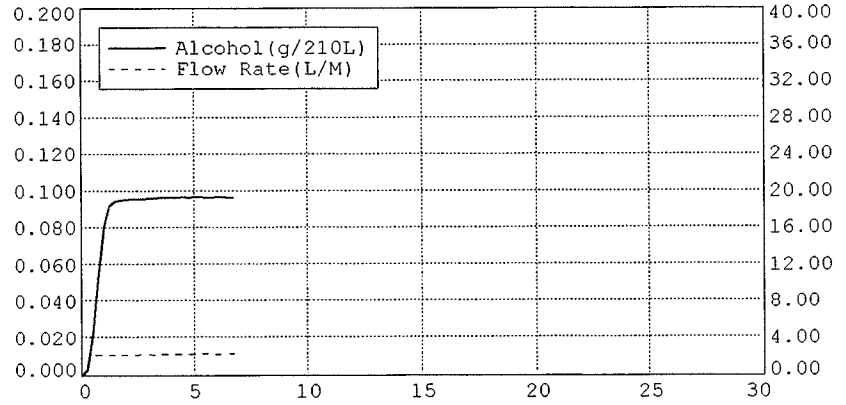
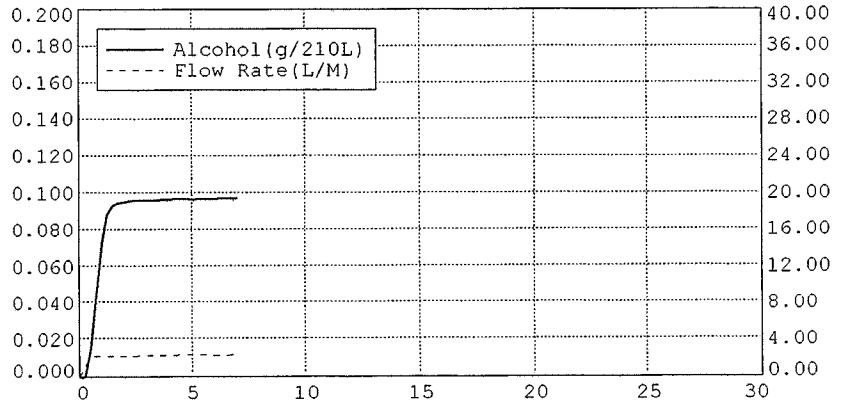
Date: 10/08/2020
Time: 11:36:22

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
TARGET AT 29.22: 0.098
LOT #: AG924701
EXPIRATION: 09/04/2021
TANK PRESSURE: 781 psi

BLANK TEST	0.000	11:37
INTERNAL STANDARD	VERIFIED	11:37
EXTERNAL STANDARD	0.098	11:38
BLANK TEST	0.000	11:38
EXTERNAL STANDARD	0.098	11:39
BLANK TEST	0.000	11:40
EXTERNAL STANDARD	0.098	11:40
BLANK TEST	0.000	11:41
EXTERNAL STANDARD	0.098	11:41
BLANK TEST	0.000	11:42
EXTERNAL STANDARD	0.098	11:42
BLANK TEST	0.000	11:43

Average = 0.0980
Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

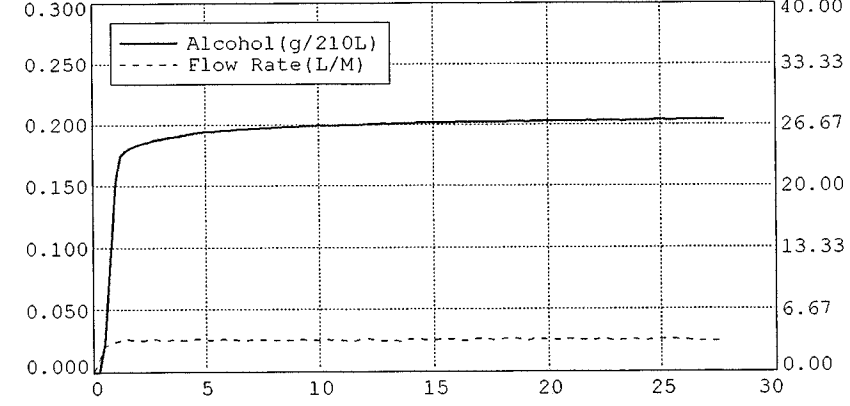
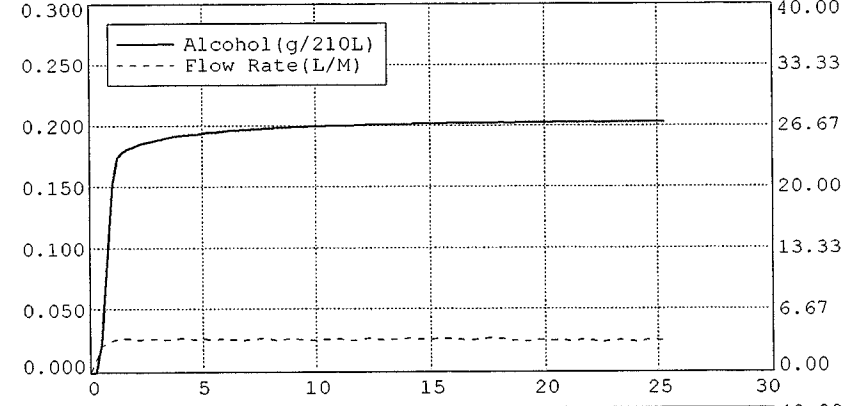
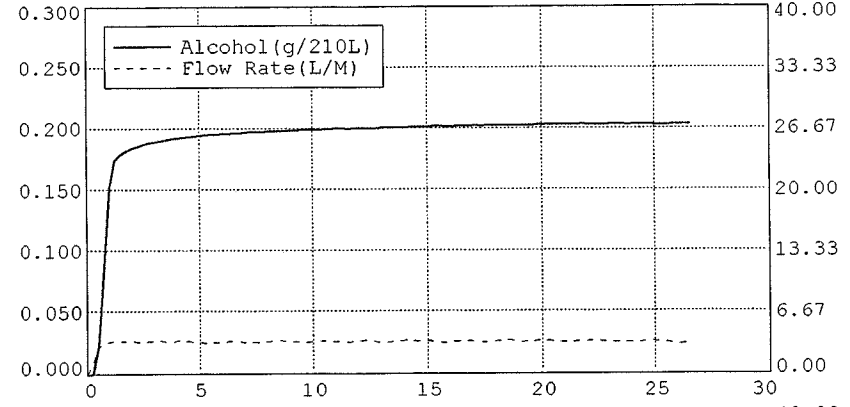
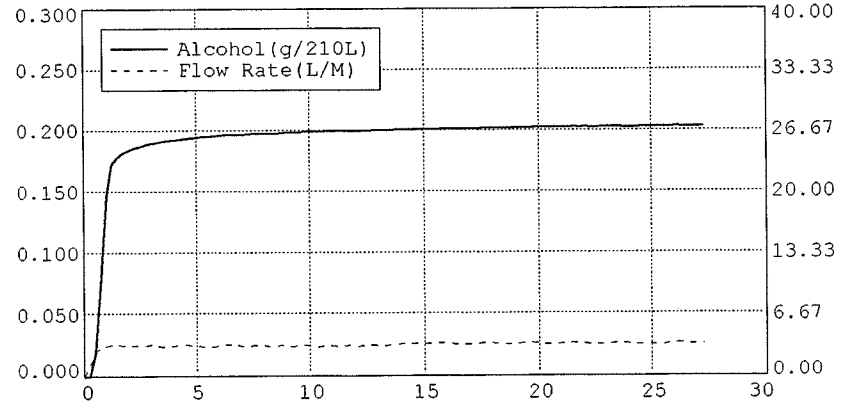
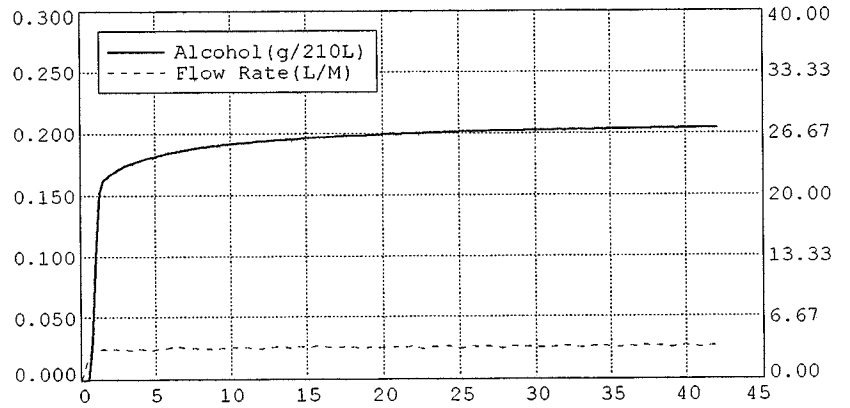
Alaska Department of Public Safety
 DATAMASTER dmt: 100356

Date: 10/08/2020
 Time: 11:50:44

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

BLANK TEST	0.000	11:52
INTERNAL STANDARD	VERIFIED	11:52
EXTERNAL STANDARD	0.206	11:53
BLANK TEST	0.000	11:54
EXTERNAL STANDARD	0.204	11:54
BLANK TEST	0.000	11:55
EXTERNAL STANDARD	0.205	11:56
BLANK TEST	0.000	11:57
EXTERNAL STANDARD	0.205	11:57
BLANK TEST	0.000	11:58
EXTERNAL STANDARD	0.205	11:59
BLANK TEST	0.000	12:00

Average = 0.2050
 Std Dev = 0.0007



LINEARITY CHECK: Control Test 6

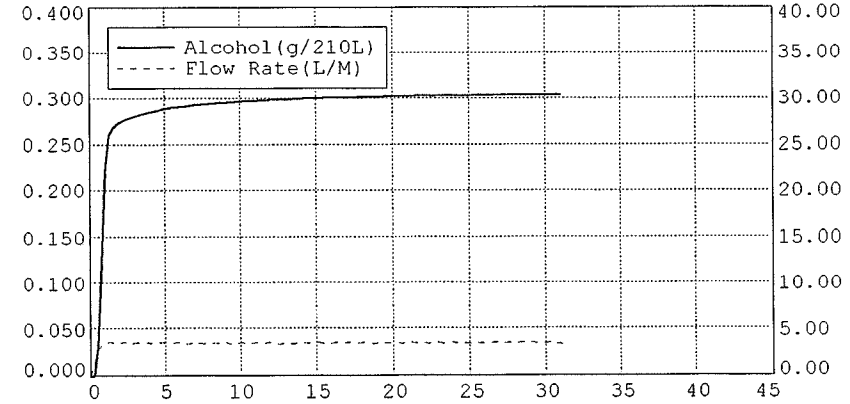
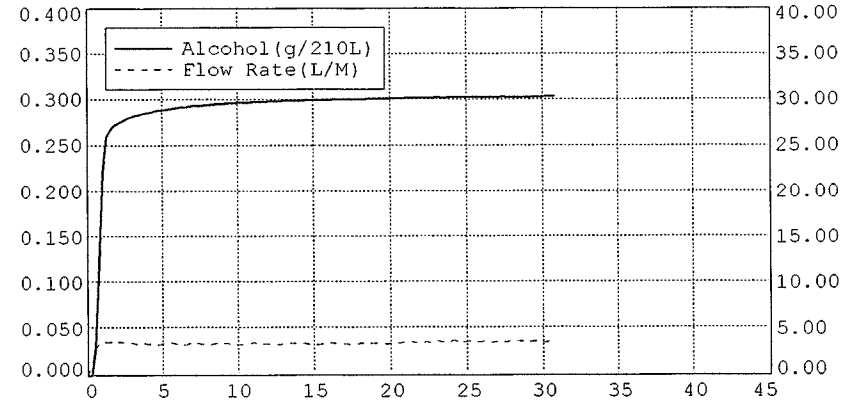
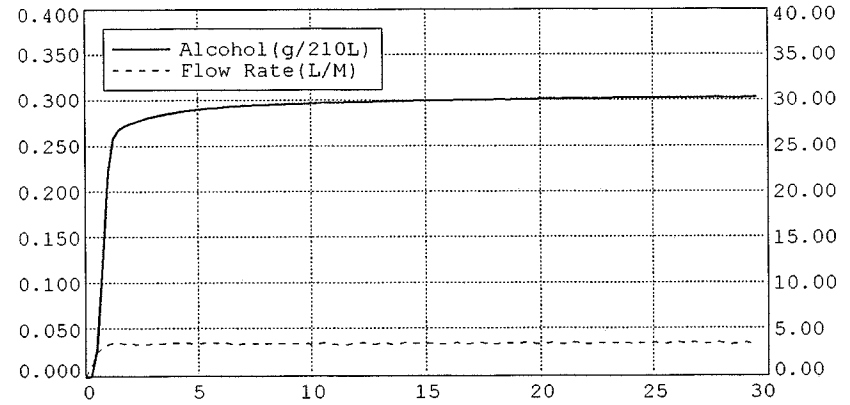
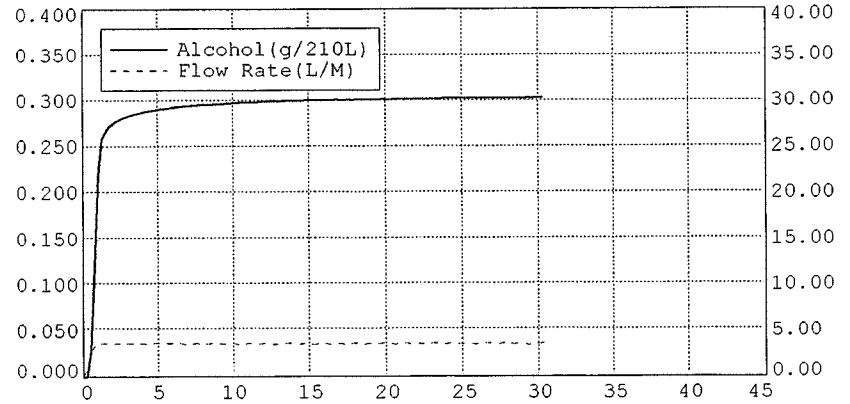
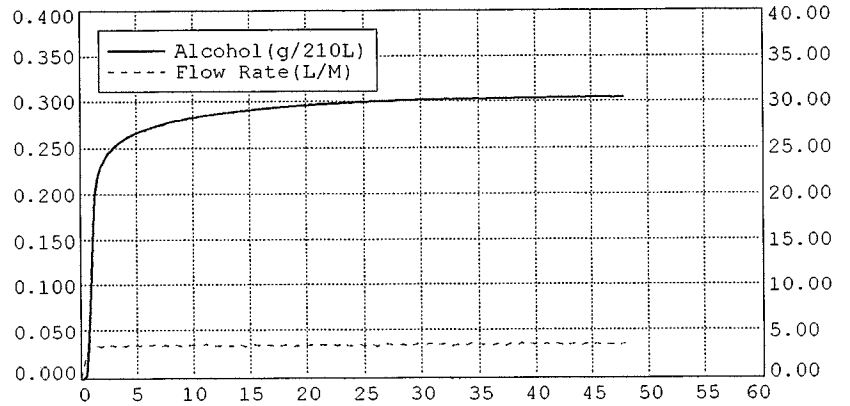
Alaska Department of Public Safety
 DATAMASTER dmt: 100356

Date: 10/08/2020
 Time: 12:05:37

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

BLANK TEST	0.000	12:06
INTERNAL STANDARD	VERIFIED	12:06
EXTERNAL STANDARD	0.306	12:07
BLANK TEST	0.000	12:08
EXTERNAL STANDARD	0.304	12:09
BLANK TEST	0.000	12:10
EXTERNAL STANDARD	0.304	12:10
BLANK TEST	0.000	12:11
EXTERNAL STANDARD	0.304	12:12
BLANK TEST	0.000	12:13
EXTERNAL STANDARD	0.305	12:13
BLANK TEST	0.000	12:14

Average = 0.3046
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100356

Date: 10/08/2020
Time: 14:40:38

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

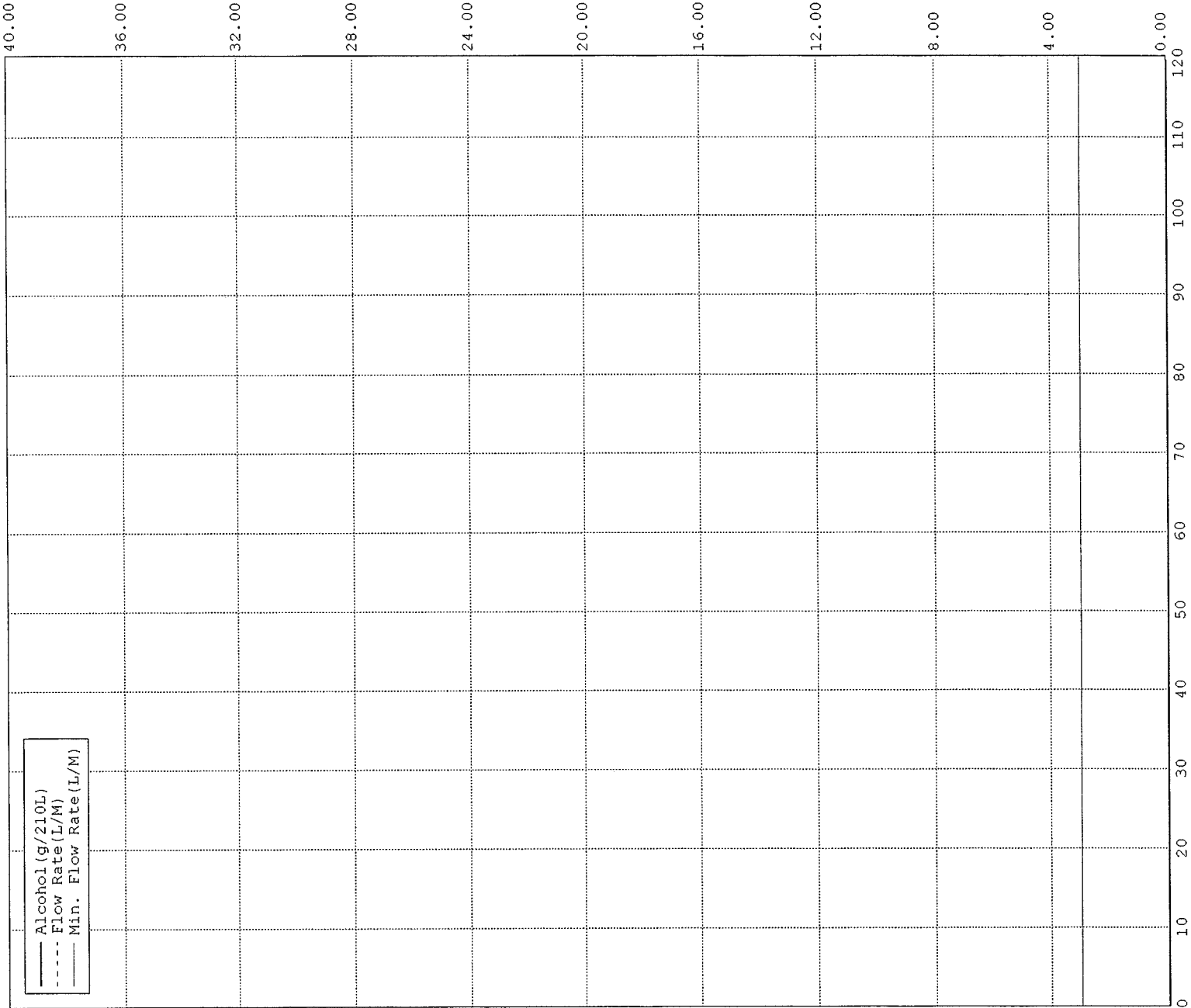
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.16: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 14:41
BLANK TEST 0.000 14:41
INTERNAL STANDARD VERIFIED 14:41
EXTERNAL STANDARD 0.078 14:42
BLANK TEST 0.000 14:43
SUBJECT SAMPLE INCOMPLETE 14:45

DM



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100356

Date: 10/08/2020
Time: 14:22:49

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

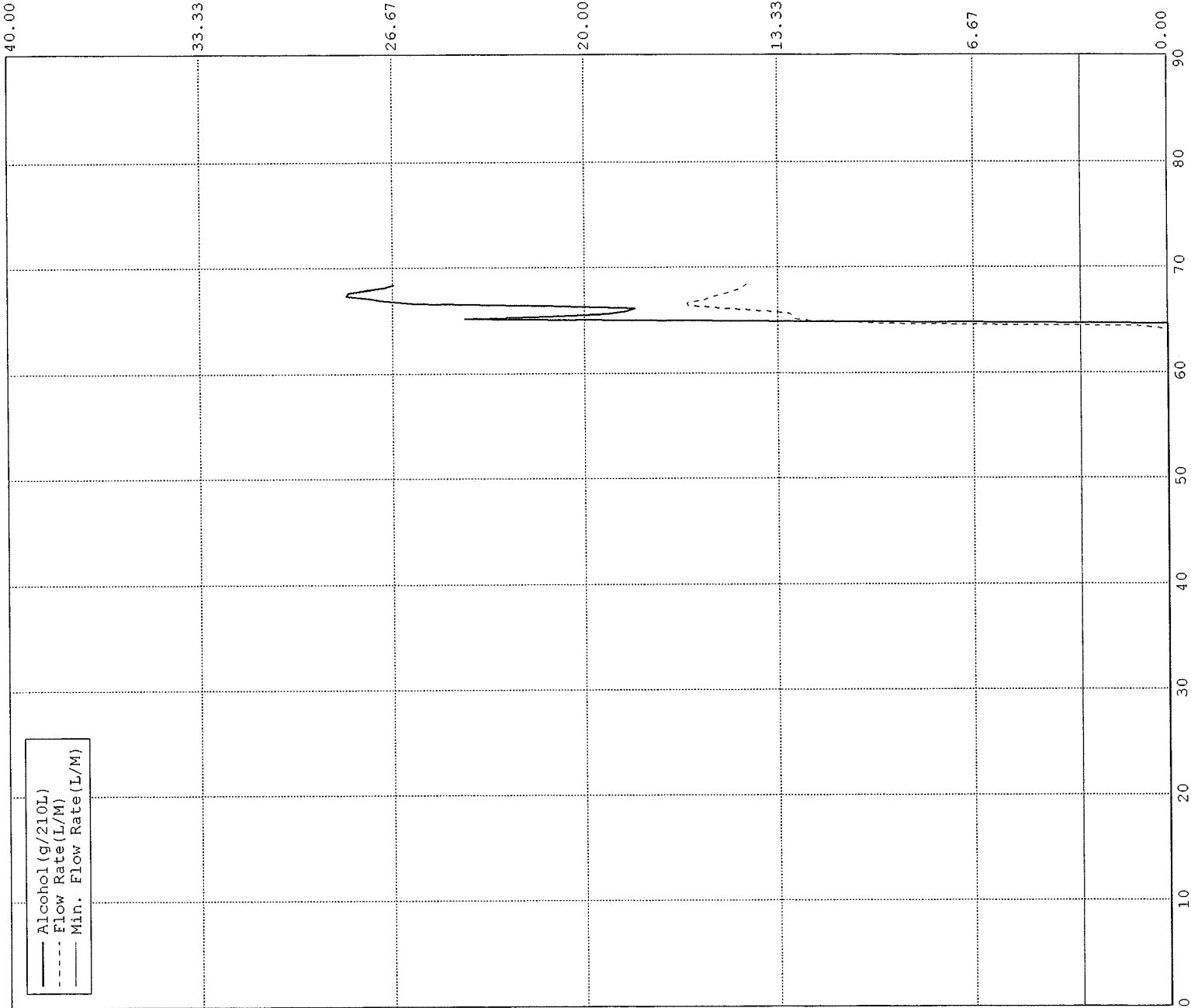
DEPT/AGENCY:
INVALID
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.17: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK	PASSED	14:24
BLANK TEST	0.000	14:24
INTERNAL STANDARD	VERIFIED	14:24
EXTERNAL STANDARD	0.078	14:24
BLANK TEST	0.000	14:25
SUBJECT SAMPLE	INVALID	14:26

Handwritten signature



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100356

Date: 10/09/2020
Time: 09:25:18

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

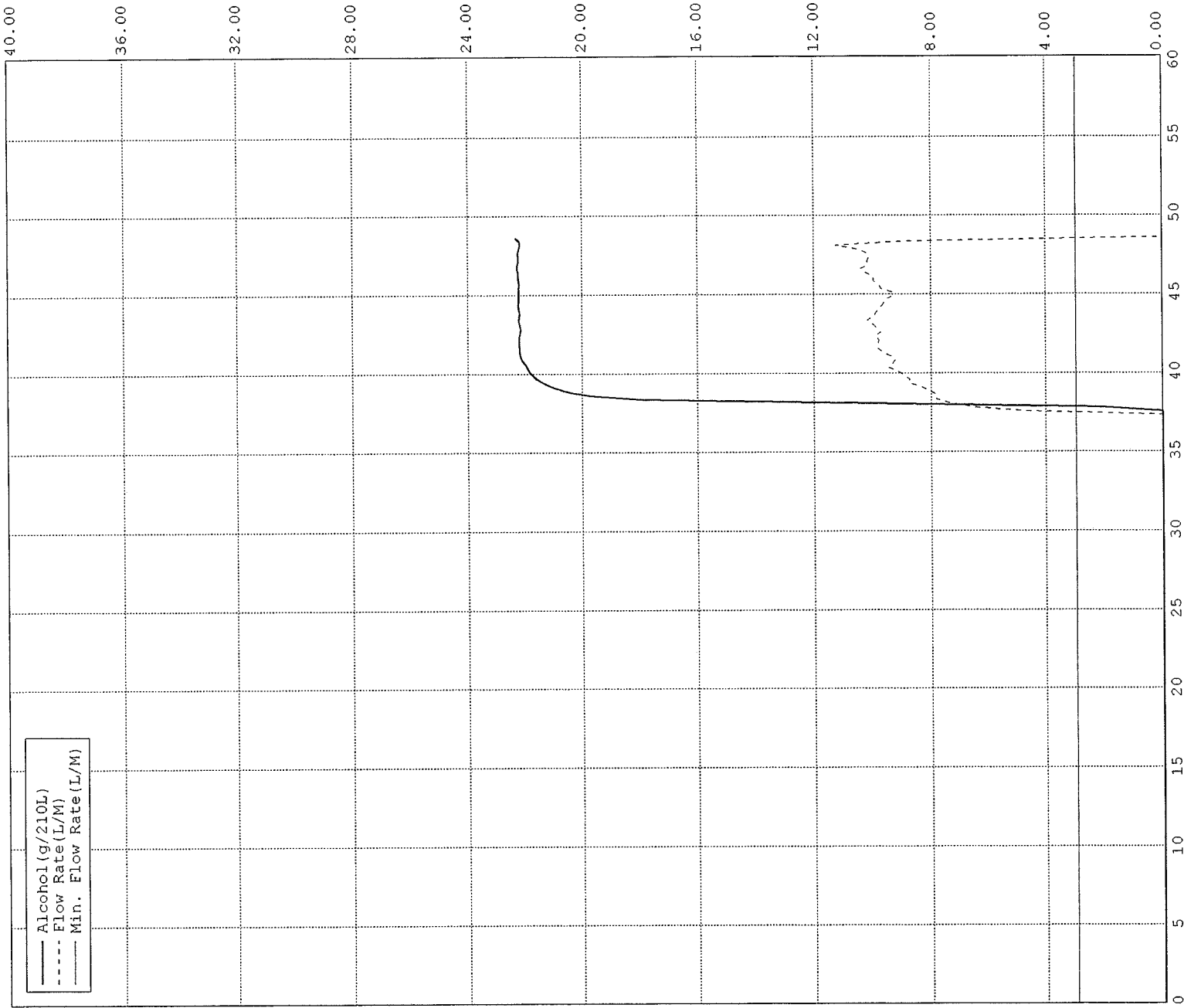
EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 28.99: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 09:26
BLANK TEST 0.000 09:26
INTERNAL STANDARD VERIFIED 09:26
Xq = 0.107 (0.58%)
EXTERNAL STANDARD 0.078 09:26
X[1] = 0.0775 (0.0016) (0.0011)
BLANK TEST 0.000 09:27
SUBJECT SAMPLE XXXX 09:28
X[1] = 0.1124 (-0.0201) (-0.0011)

Interference Detected

Filter 2 average: 0.0015
Filter 3 average: 0.0016

DW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100356

Date: 10/09/2020
Time: 09:19:51

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

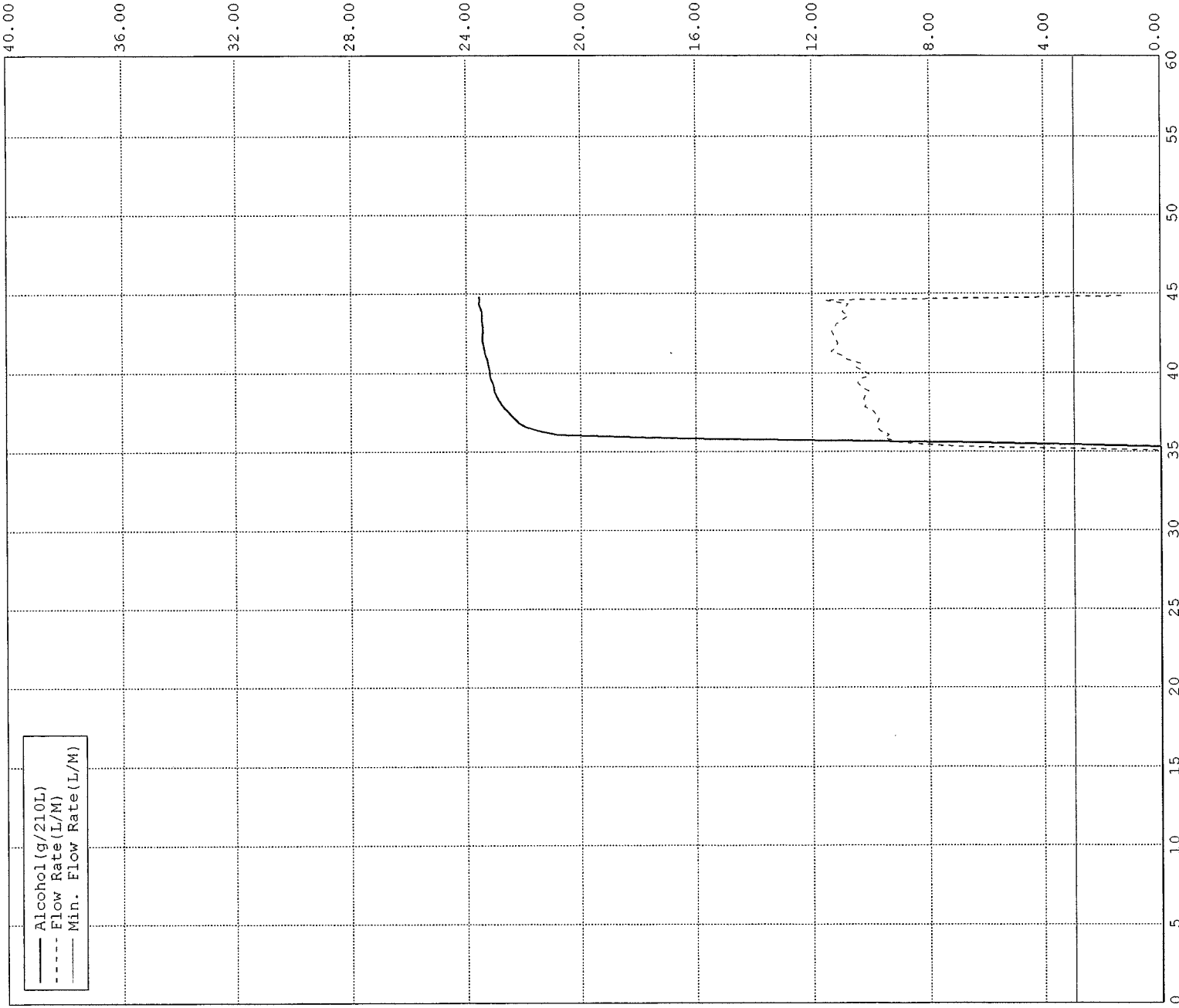
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 28.99: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 09:20
BLANK TEST 0.000 09:20
INTERNAL STANDARD VERIFIED 09:21
Xq = 0.107 (0.83%)
EXTERNAL STANDARD 0.077 09:21
X[1] = 0.0775 (0.0015) (0.0014)
BLANK TEST 0.000 09:22
SUBJECT SAMPLE XXX 09:23
X[1] = 0.1188 (-0.0258) (0.0002)

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100356

Date: 10/08/2020
Time: 14:30:23

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 29.17: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK	PASSED	14:31
BLANK TEST	0.000	14:31
INTERNAL STANDARD	VERIFIED	14:31
$X_q = 0.107$ (0.83%)		
EXTERNAL STANDARD	0.078	14:32
$X[1] = 0.0782$ (0.0015)	(0.0022)	
BLANK TEST	0.000	14:33
SUBJECT SAMPLE (Vol=1.73L)	0.097	14:33
$X[1] = 0.0972$ (0.0000)	(-0.0007)	
BLANK TEST	0.000	14:34
EXTERNAL STANDARD	0.078	14:35
$X[1] = 0.0777$ (0.0014)	(0.0017)	
BLANK TEST	0.000	14:35



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100356

Date: 10/08/2020
Time: 14:54:11

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

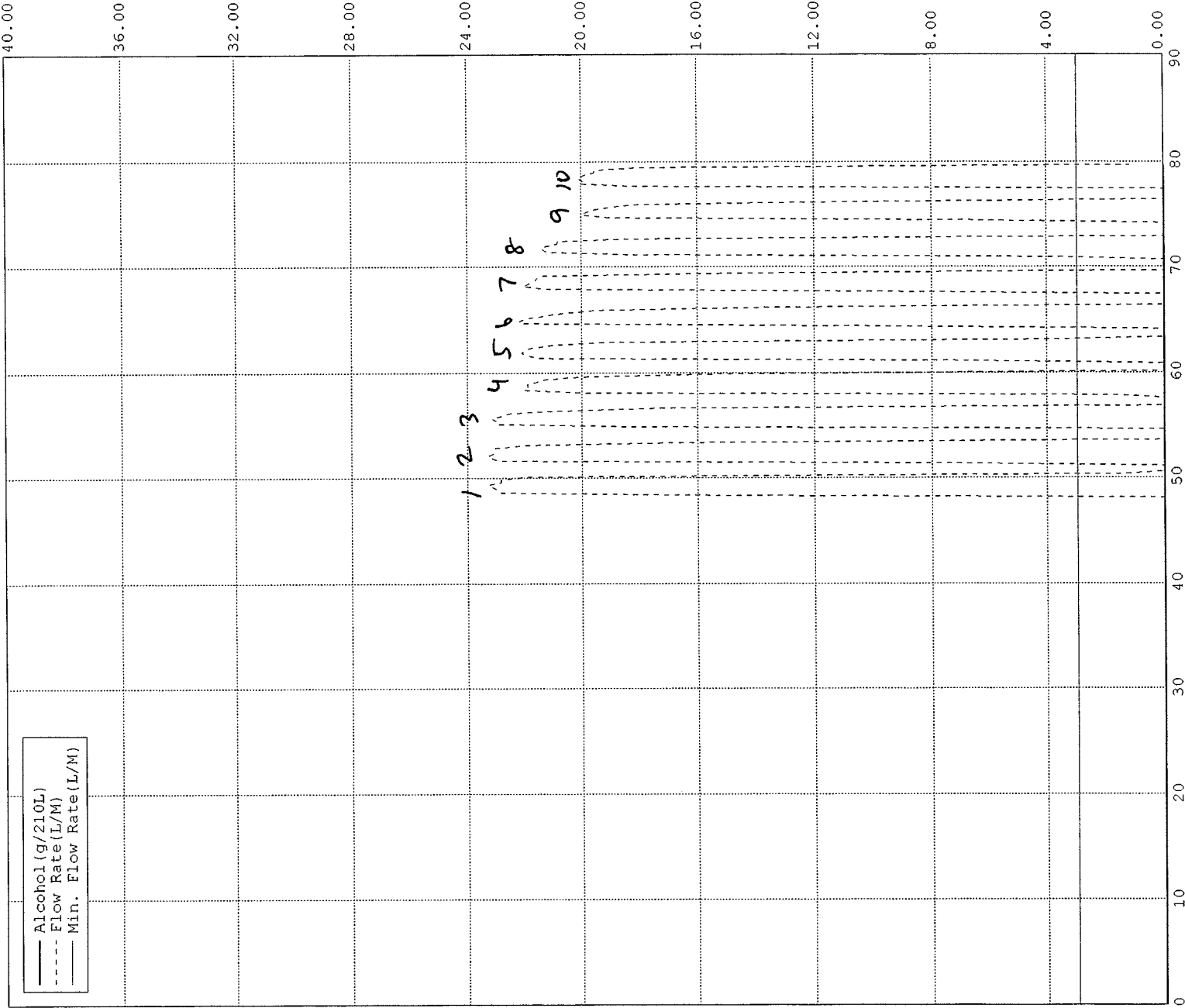
DEPT/AGENCY:
MAXIMUM ATTEMPTS
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.16: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 14:55
BLANK TEST 0.000 14:55
INTERNAL STANDARD VERIFIED 14:55
EXTERNAL STANDARD 0.078 14:55
BLANK TEST 0.000 14:56
SUBJECT SAMPLE XXX 14:57

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100356

Date: 10/08/2020
Time: 14:03:54

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

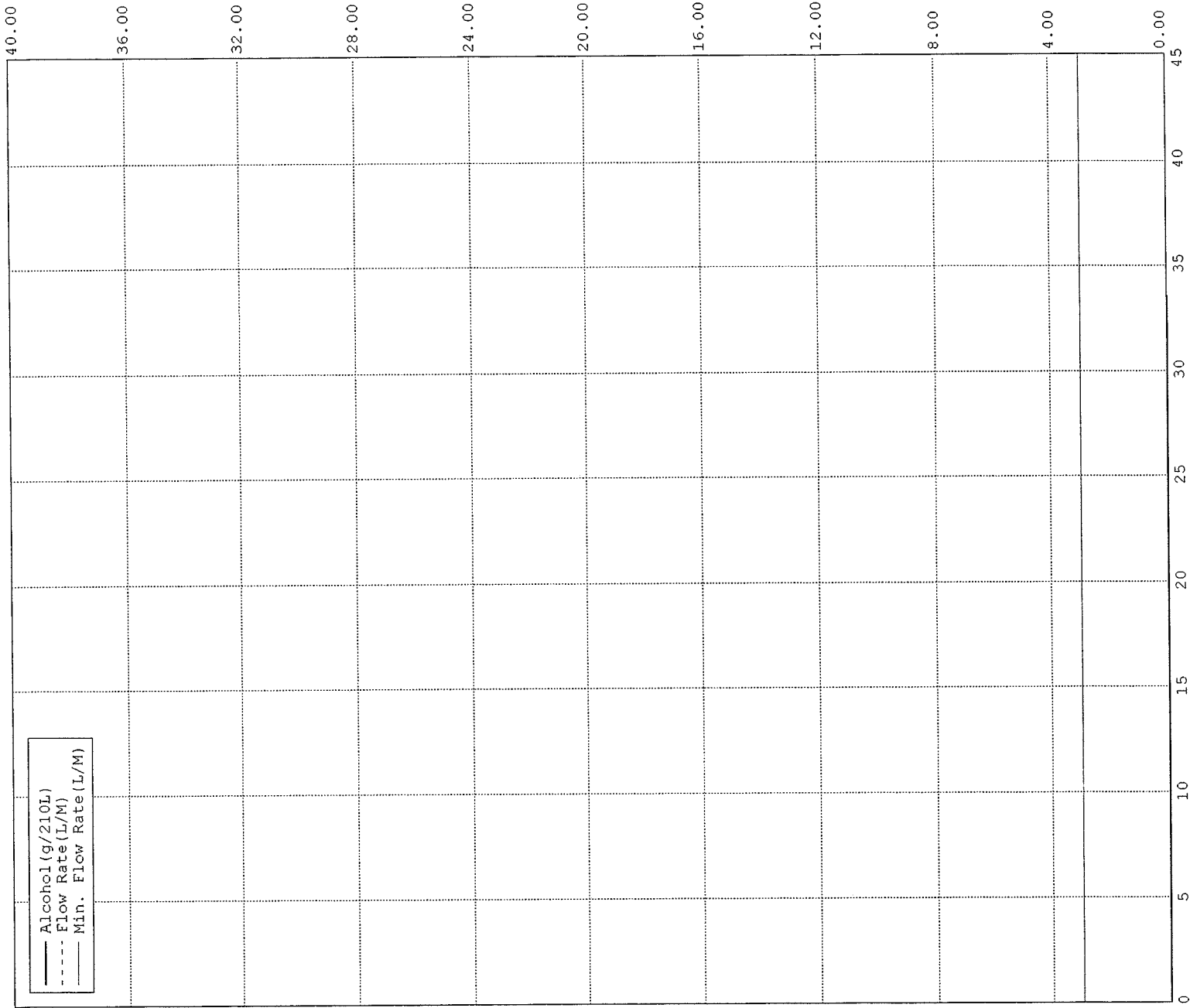
DEPT/AGENCY:
RADIO FREQUENCY
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.18: 0.078
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK PASSED 14:06
BLANK TEST 0.000 14:06
INTERNAL STANDARD VERIFIED 14:06
EXTERNAL STANDARD 0.078 14:07
BLANK TEST 0.000 14:08

RFI DETECTED

DW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100356

Date: 10/09/2020
Time: 10:30:01

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 28.98: 0.077
LOT #: AG923401
EXPIRATION: 08/22/2021

DIAGNOSTIC CHECK	PASSED	10:33
BLANK TEST	0.000	10:33
INTERNAL STANDARD	VERIFIED	10:33
EXTERNAL STANDARD	0.078	10:34
BLANK TEST	0.000	10:34
SUBJECT SAMPLE (Vol=3.08L)	0.000	10:35
BLANK TEST	0.000	10:36
EXTERNAL STANDARD	0.078	10:36
BLANK TEST	0.000	10:37

DWM

