

# 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 100346 Analyst Derek Walton Start Date 03/20/20

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)   \* Re-printed after resetting RFI DM 03/23/20

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 AG928203 Exp 10/09/21
- ii. 0.040g/210L Mnf Airgas Lot AG915607 Exp 06/05/21
- iii. 0.080g/210L Mnf Airgas Lot AG826101 Exp 09/18/20
- iv. 0.100g/210L Mnf Airgas Lot AG924701 Exp 09/04/21
- v. 0.200g/210L Mnf Coeln Lot 19200 Exp 08/06/21
  - 1. Simulator S/N DR4176 Date Calibrated 10/07/19
- vi. 0.300g/210L Mnf Coeln Lot 19330 Exp 11/13/21
  - 1. Simulator S/N DR4178 Date Calibrated 10/04/19

5. Functional Tests (attached)

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

i. Acetone - Mnf Coeln Lot 19301 Level 0.100 Exp 10/30/21

1. Simulator S/N DR4162 Date Calibrated 10/07/19

ii. Isopropanol - Mnf Coeln Lot 19301 Level 0.100 Exp 10/30/21

1. Simulator S/N DR4163 Date Calibrated 10/04/19

iii. Negative Control - Mnf Coeln Lot 19301 Level 0.100 Exp 10/30/21

1. Simulator S/N SD1176 Date Calibrated 10/07/19

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 03/23/20

All printed copies are uncontrolled.

Replaced breath hose due to loose connection. Re-ran RFI (after reset in Tech mode)  
Approved by Forensic Alcohol Supervisor DM 03/23/20

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100346  
-----

Date: 03/20/2020  
Time: 16:49:53

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 = 48.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.64 V PASSED  
(0.97 V - 2.25 V)  
Cooler Voltage = 1.58 V PASSED  
(0.97 V - 2.25 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 534 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 30.3 in

PUMP INFO

Flow Rate = 4.504 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 = 0.104 0.51% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100346  
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Date: 03/20/2020  
Time: 5:39 PM

Temperatures (°C)  
Sample Cell: 48.7°C  
Breath Tube: 47.9°C

Current Barometer 30.3 in  
Volume (Ltr) 1.55

Settings  
Lamp: 1.69 V  
Bias: 79 V  
Cooler: 1.58 V  
Chopper: 525 Hz

Voltages (V)  
Flow: 1.06 V  
Detector: -0.065 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100346  
-----

Date: 07/31/2018  
Time: 09:33:11

OPERATOR NAME:  
DEREK WALTON  
CERTIFICATE #: 9508

Ca = 0.1000  
CAL = 0.962482    0.800 <= CAL < 1.200  
b1 = 0.0014    0.0000 <= b1 < 0.0040  
b2 = 0.0064    0.0010 <= b2 < 0.0100  
b3 = 0.0011    0.0000 <= b3 < 0.0040  
Xq = 0.1037    0.0500 <= Xq < 0.2000  
a21 = 1.177531    1.050 <= a21 < 1.300  
a31 = 0.414073    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 03/23/2020  
Time: 16:41:57

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

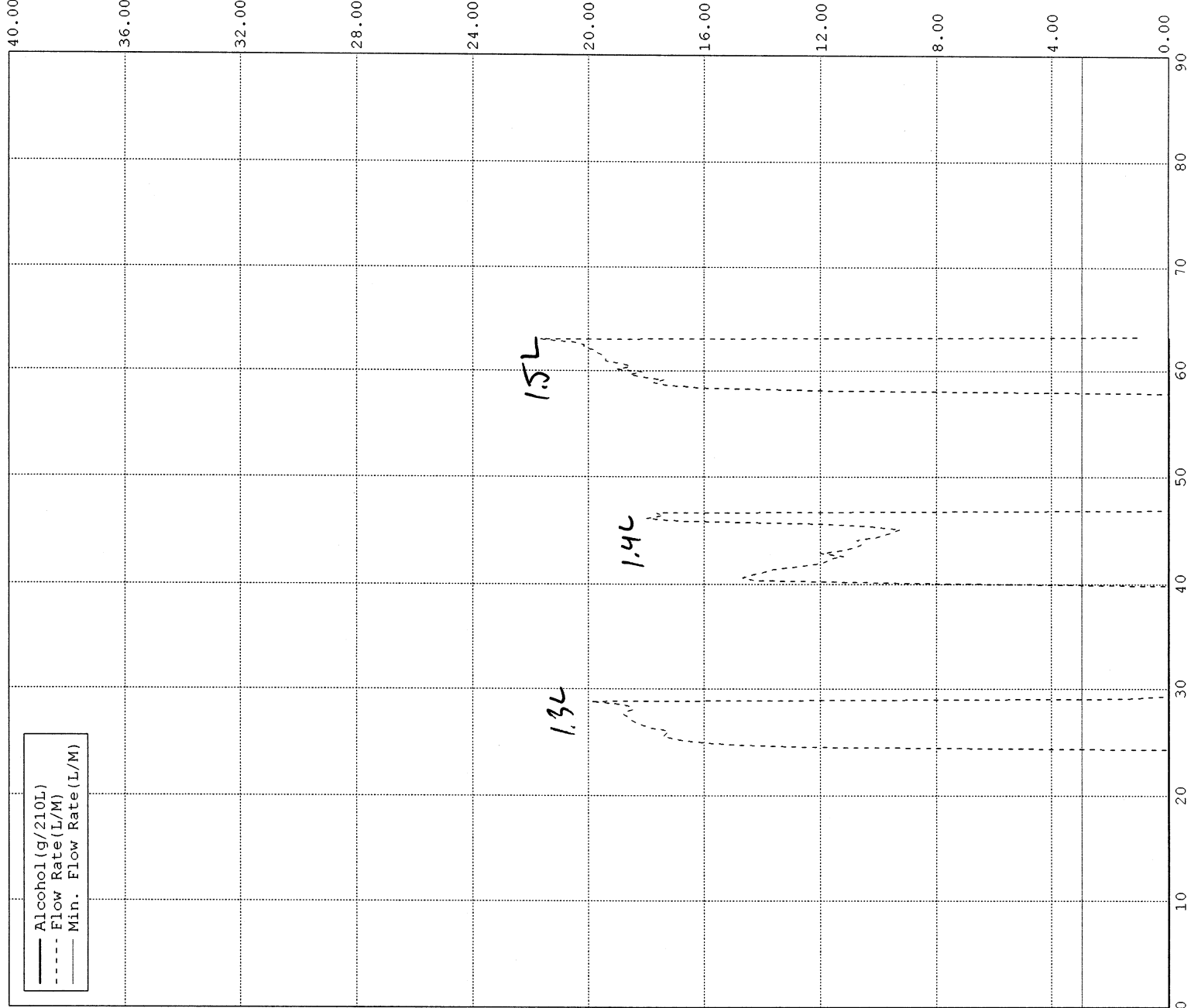
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 30.24: 0.081  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	16:44
BLANK TEST	0.000	16:44
INTERNAL STANDARD	VERIFIED	16:44
EXTERNAL STANDARD	0.080	16:44
BLANK TEST	0.000	16:45
SUBJECT SAMPLE (Vol=1.55L)	0.000	16:47
BLANK TEST	0.000	16:47
EXTERNAL STANDARD	0.080	16:48
BLANK TEST	0.000	16:49

*DW*

Alcohol (g/210L)  
Flow Rate (L/M)  
Min. Flow Rate (L/M)



LINEARITY CHECK

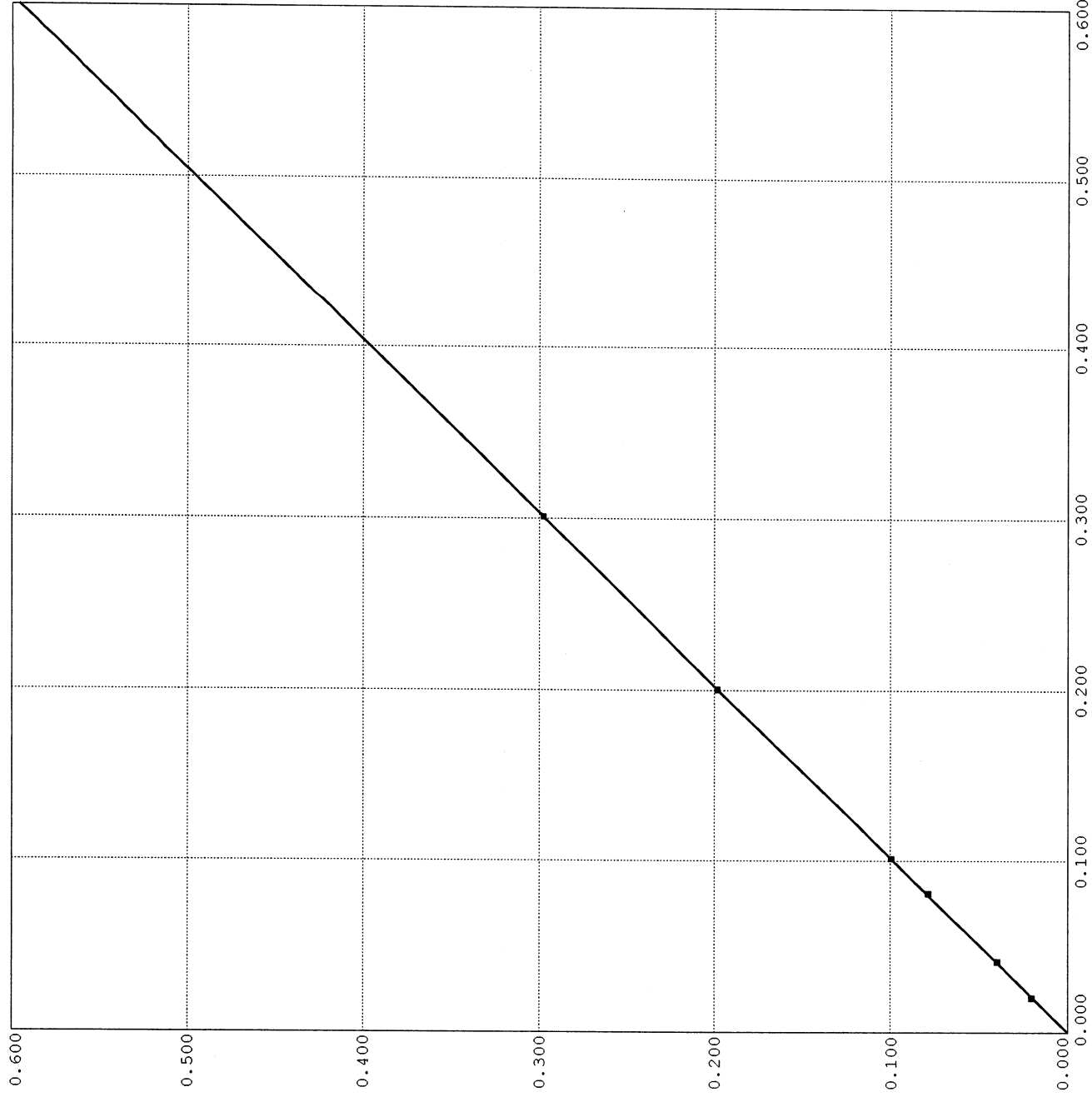
-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100346  
 -----

Date: 03/20/2020  
 Time: 17:52:02

SUPERVISOR NAME:  
 DEREK WALTON  
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0210	0.0007
0.041	0.0406	0.0005
0.081	0.0798	0.0004
0.101	0.1006	0.0005
0.200	0.1990	0.0007
0.300	0.2982	0.0004

SLOPE = 0.992902  
 R<sup>2</sup> = 0.999969



*AW*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

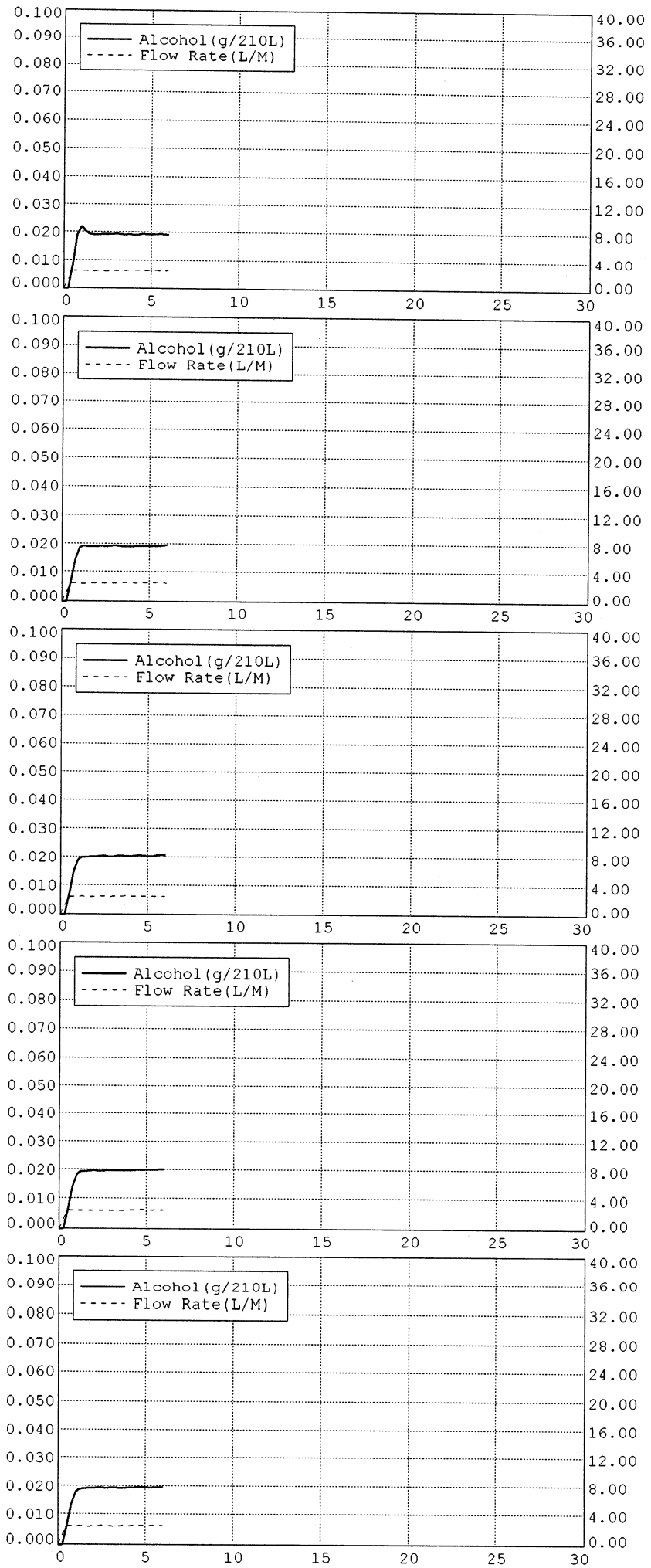
Date: 03/20/2020  
Time: 17:52:04

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
TARGET AT 30.29: 0.020  
LOT #: AG928203  
EXPIRATION: 10/09/2021  
TANK PRESSURE: 1071 psi

BLANK TEST	0.000	17:53
INTERNAL STANDARD	VERIFIED	17:53
EXTERNAL STANDARD	0.021	17:53
BLANK TEST	0.000	17:54
EXTERNAL STANDARD	0.020	17:54
BLANK TEST	0.000	17:55
EXTERNAL STANDARD	0.022	17:55
BLANK TEST	0.000	17:56
EXTERNAL STANDARD	0.021	17:56
BLANK TEST	0.000	17:57
EXTERNAL STANDARD	0.021	17:57
BLANK TEST	0.000	17:58

Average = 0.0210  
Std Dev = 0.0007



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100346

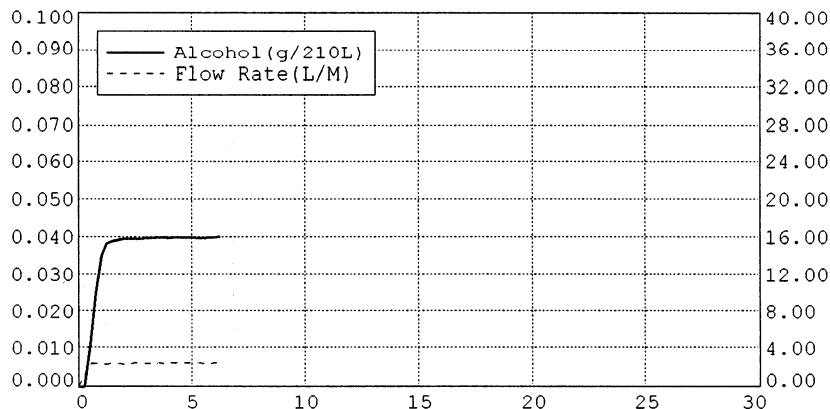
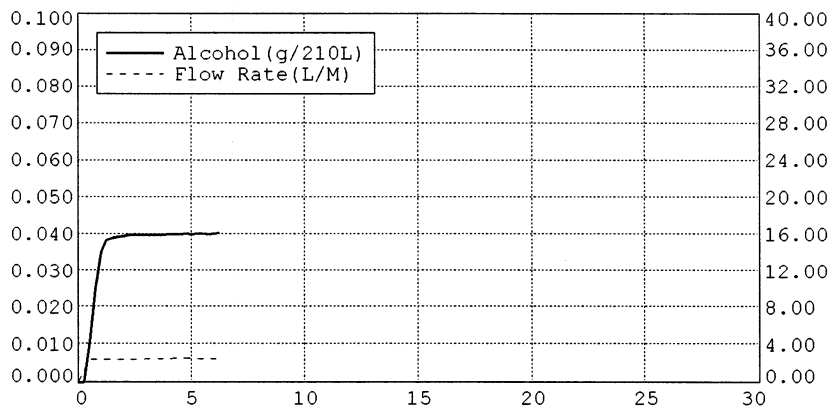
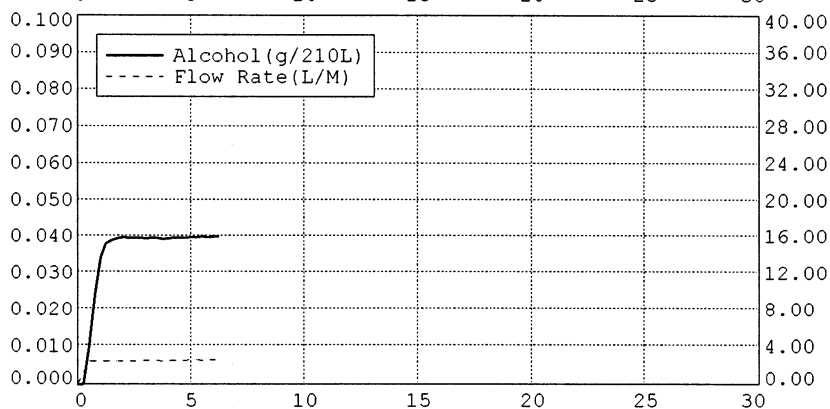
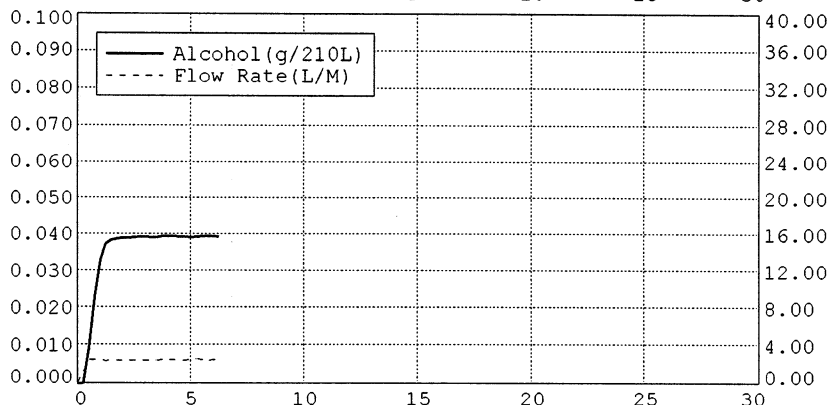
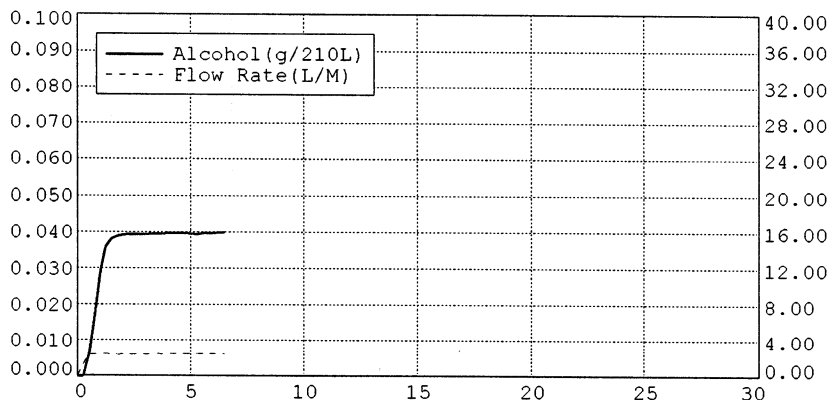
Date: 03/20/2020  
 Time: 17:59:42

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 30.30: 0.041  
 LOT #: AG915607  
 EXPIRATION: 06/05/2021  
 TANK PRESSURE: 884 psi

BLANK TEST	0.000	18:00
INTERNAL STANDARD	VERIFIED	18:01
EXTERNAL STANDARD	0.041	18:01
BLANK TEST	0.000	18:02
EXTERNAL STANDARD	0.040	18:02
BLANK TEST	0.000	18:03
EXTERNAL STANDARD	0.040	18:03
BLANK TEST	0.000	18:04
EXTERNAL STANDARD	0.041	18:04
BLANK TEST	0.000	18:05
EXTERNAL STANDARD	0.041	18:05
BLANK TEST	0.000	18:06

Average = 0.0406  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100346

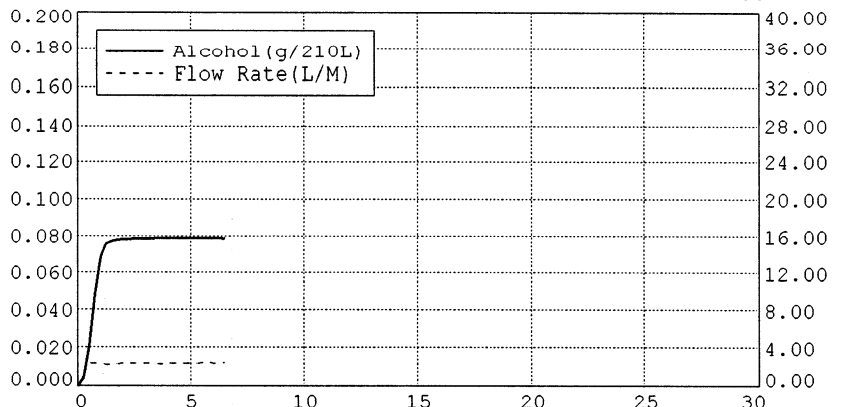
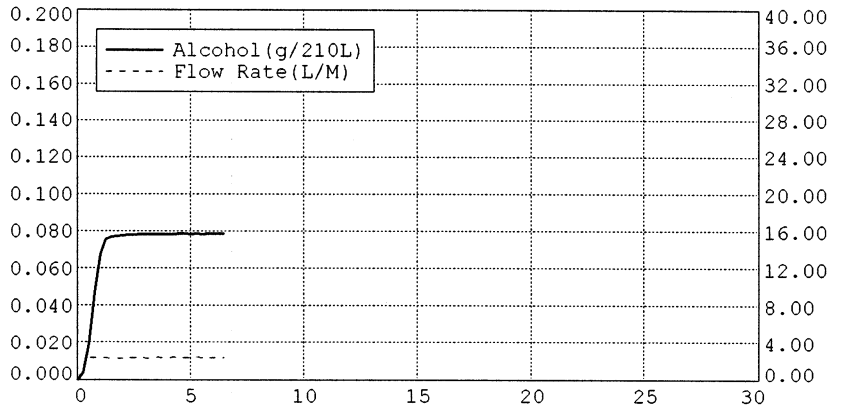
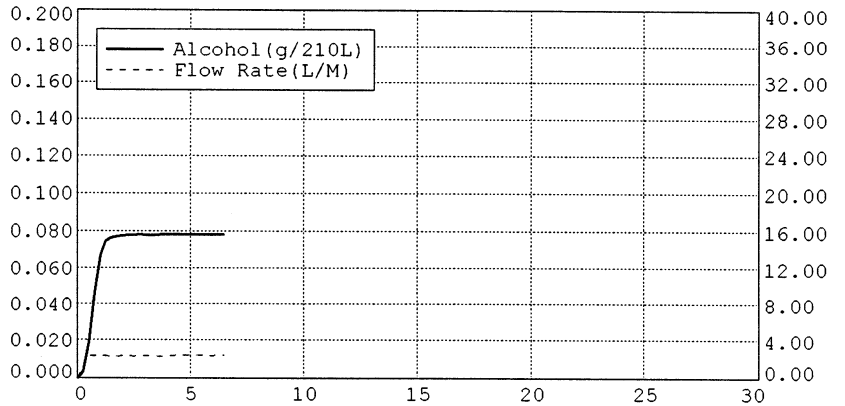
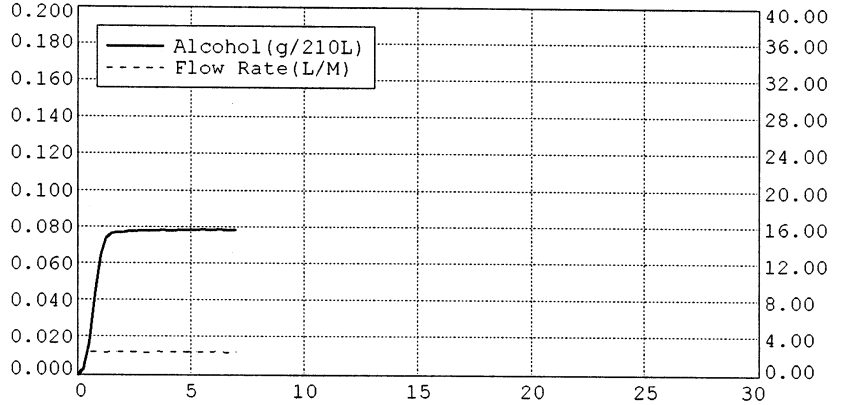
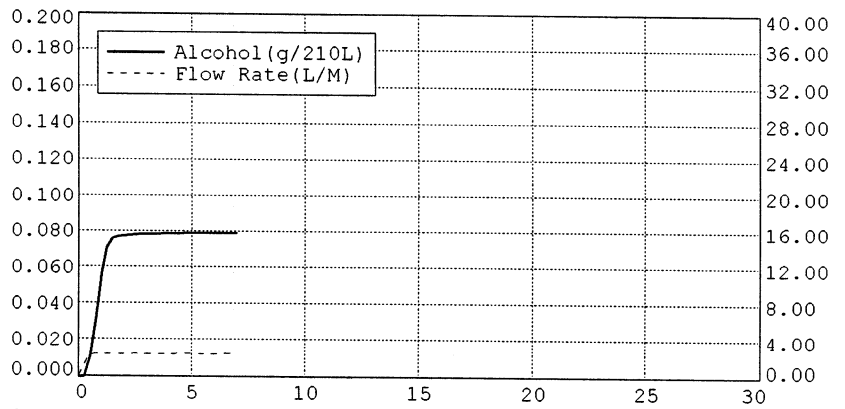
Date: 03/20/2020  
 Time: 18:07:48

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 30.29: 0.081  
 LOT #: AG826101  
 EXPIRATION: 09/18/2020  
 TANK PRESSURE: 739 psi

BLANK TEST	0.000	18:09
INTERNAL STANDARD	VERIFIED	18:09
EXTERNAL STANDARD	0.080	18:09
BLANK TEST	0.000	18:10
EXTERNAL STANDARD	0.079	18:10
BLANK TEST	0.000	18:11
EXTERNAL STANDARD	0.080	18:11
BLANK TEST	0.000	18:12
EXTERNAL STANDARD	0.080	18:12
BLANK TEST	0.000	18:13
EXTERNAL STANDARD	0.080	18:13
BLANK TEST	0.000	18:14

Average = 0.0798  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100346

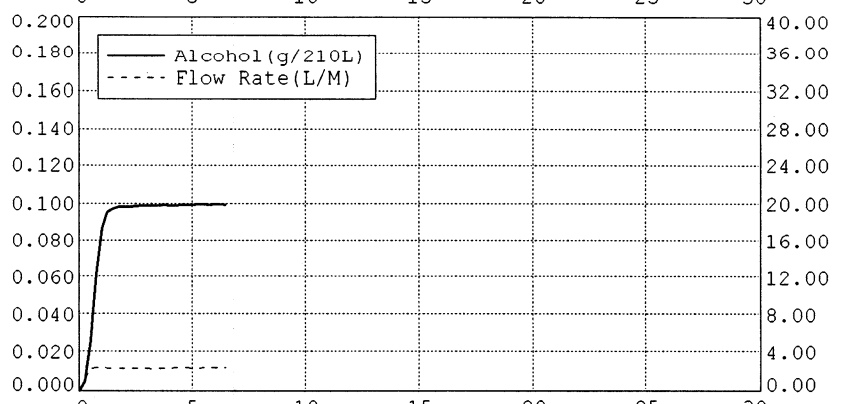
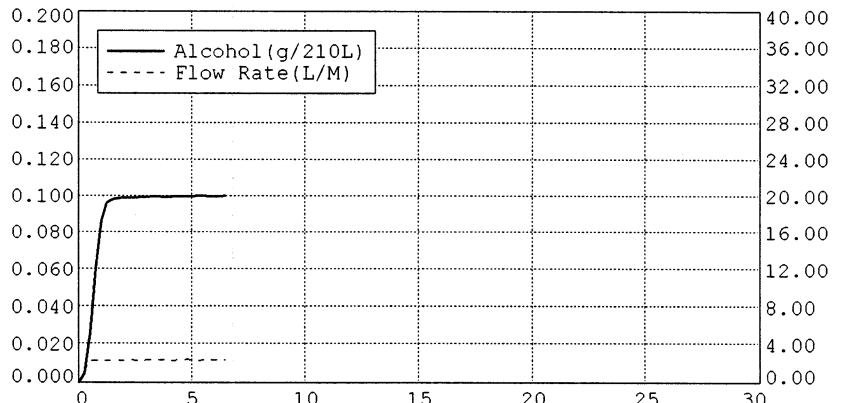
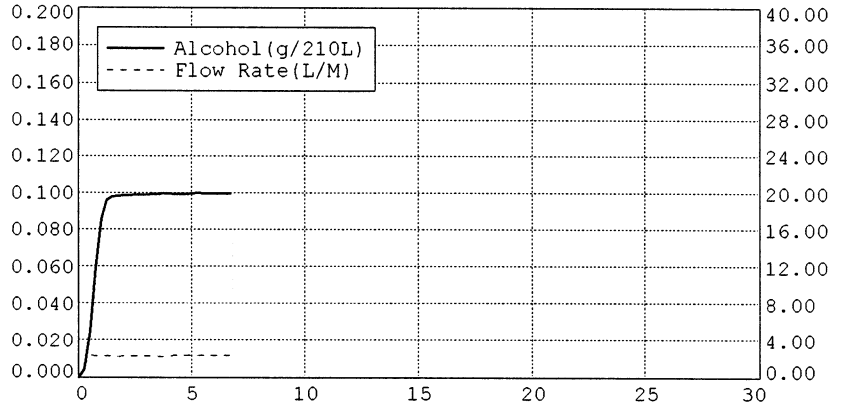
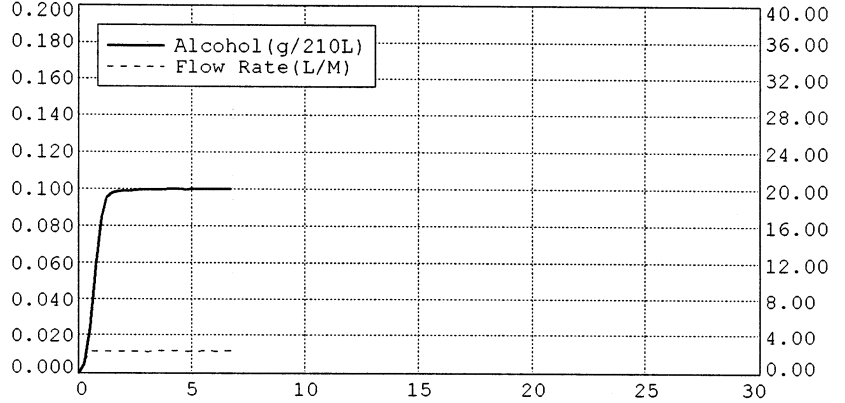
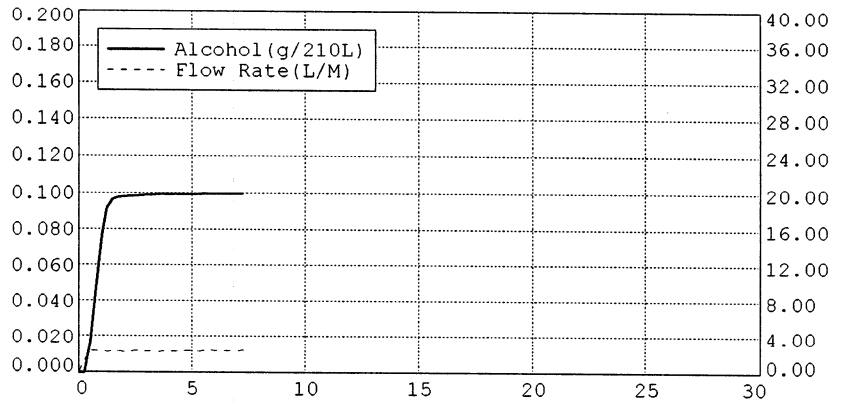
Date: 03/20/2020  
 Time: 18:15:15

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 30.28: 0.101  
 LOT #: AG924701  
 EXPIRATION: 09/04/2021  
 TANK PRESSURE: 666 psi

BLANK TEST	0.000	18:16
INTERNAL STANDARD	VERIFIED	18:16
EXTERNAL STANDARD	0.100	18:16
BLANK TEST	0.000	18:17
EXTERNAL STANDARD	0.101	18:17
BLANK TEST	0.000	18:18
EXTERNAL STANDARD	0.101	18:19
BLANK TEST	0.000	18:19
EXTERNAL STANDARD	0.101	18:20
BLANK TEST	0.000	18:21
EXTERNAL STANDARD	0.100	18:21
BLANK TEST	0.000	18:22

Average = 0.1006  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100346

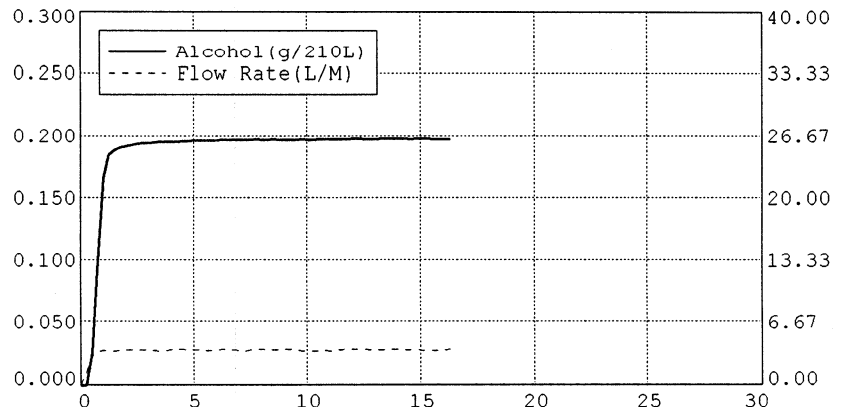
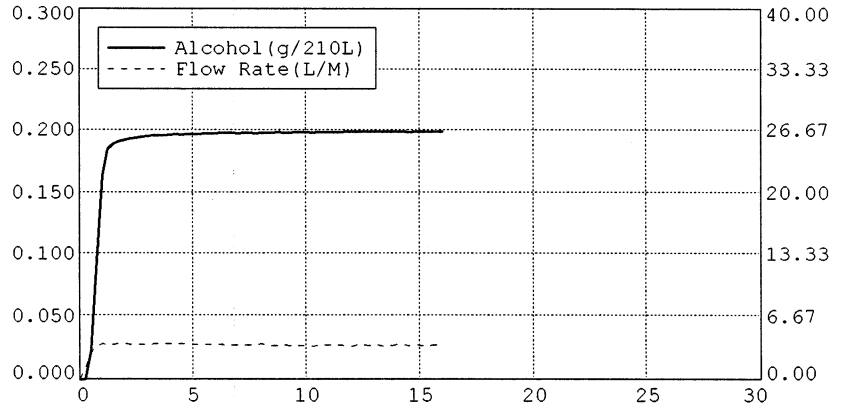
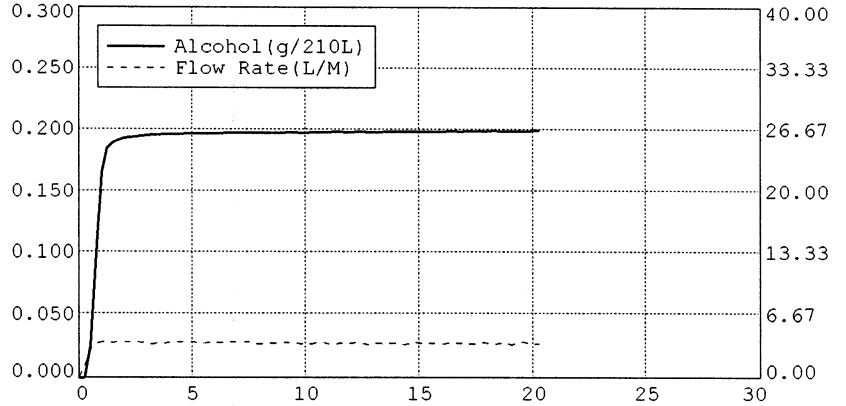
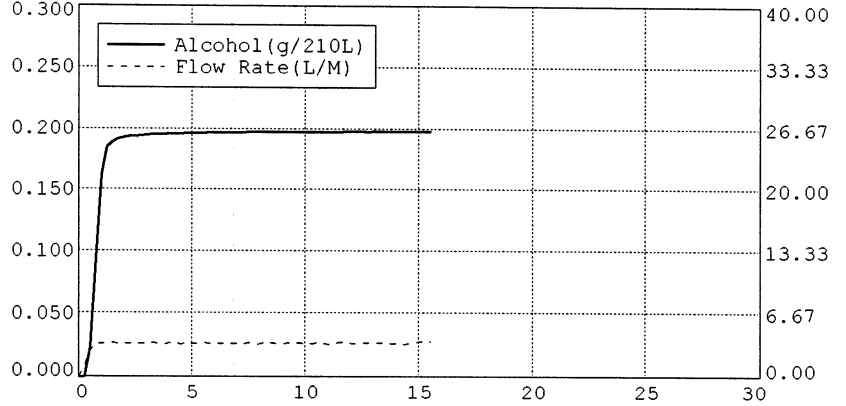
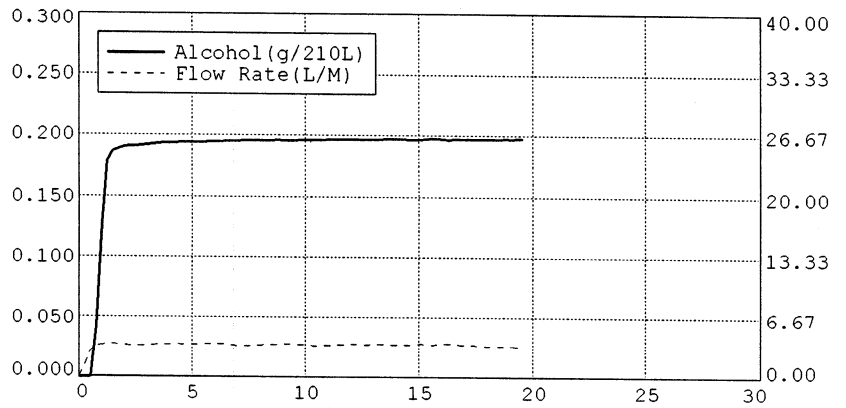
Date: 03/20/2020  
 Time: 18:45:44

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	18:46
INTERNAL STANDARD	VERIFIED	18:46
EXTERNAL STANDARD	0.198	18:47
BLANK TEST	0.000	18:48
EXTERNAL STANDARD	0.199	18:48
BLANK TEST	0.000	18:49
EXTERNAL STANDARD	0.199	18:49
BLANK TEST	0.000	18:50
EXTERNAL STANDARD	0.200	18:51
BLANK TEST	0.000	18:52
EXTERNAL STANDARD	0.199	18:52
BLANK TEST	0.000	18:53

Average = 0.1990  
 Std Dev = 0.0007



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100346

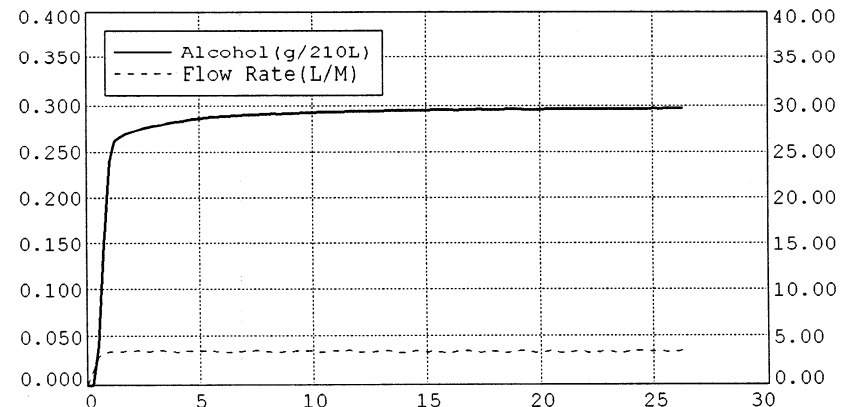
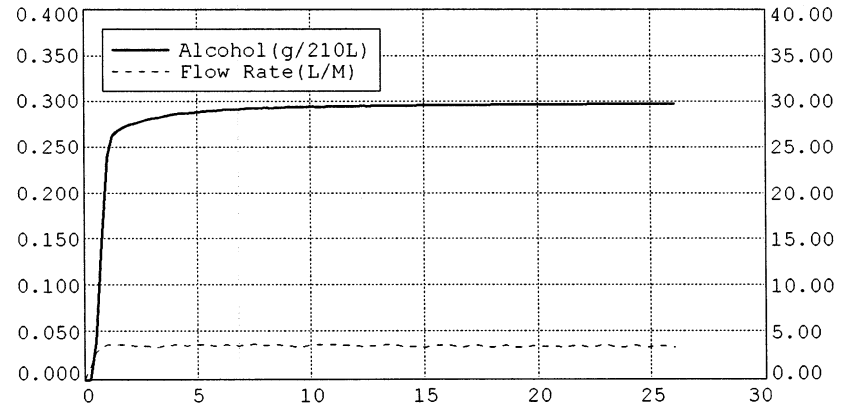
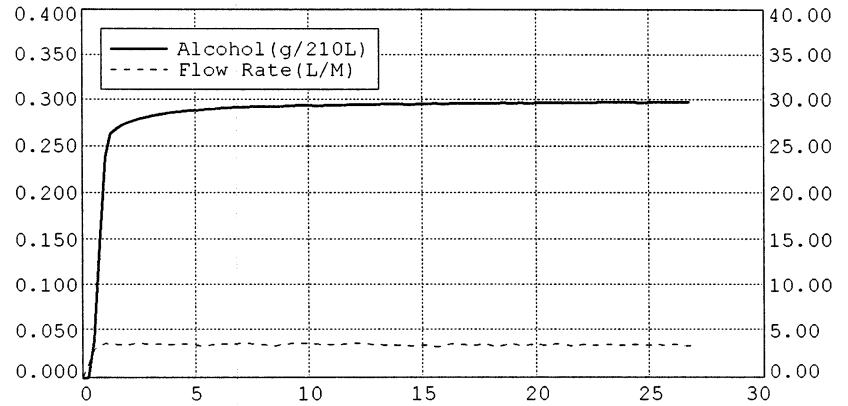
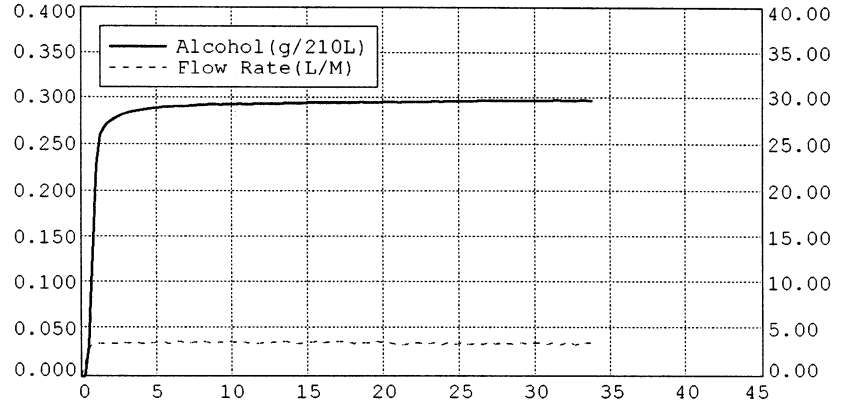
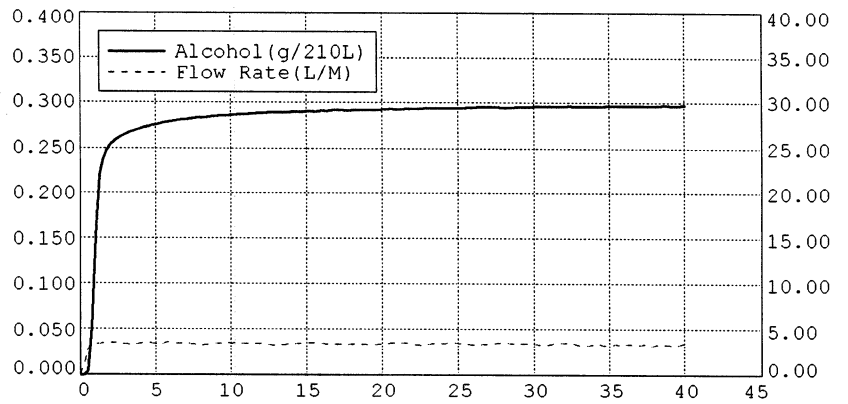
Date: 03/20/2020  
 Time: 19:00:08

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 19330  
 EXPIRATION: 11/13/2021

BLANK TEST	0.000	19:01
INTERNAL STANDARD	VERIFIED	19:01
EXTERNAL STANDARD	0.298	19:02
BLANK TEST	0.000	19:03
EXTERNAL STANDARD	0.298	19:03
BLANK TEST	0.000	19:04
EXTERNAL STANDARD	0.298	19:05
BLANK TEST	0.000	19:06
EXTERNAL STANDARD	0.299	19:06
BLANK TEST	0.000	19:07
EXTERNAL STANDARD	0.298	19:08
BLANK TEST	0.000	19:09

Average = 0.2982  
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100346

Date: 03/20/2020  
Time: 20:32:17

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

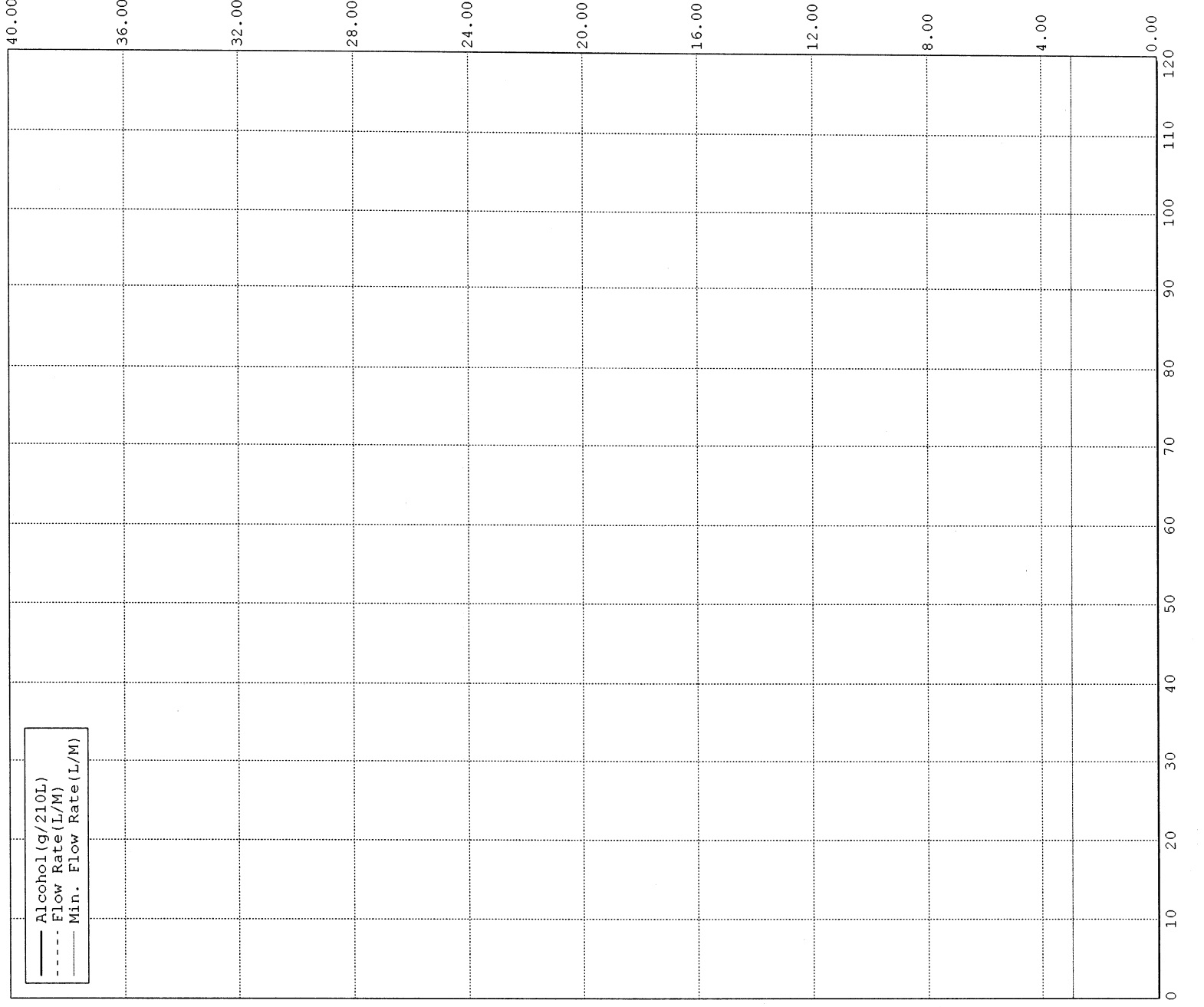
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 30.26: 0.081  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 20:33  
BLANK TEST 0.000 20:33  
INTERNAL STANDARD VERIFIED 20:33  
EXTERNAL STANDARD 0.079 20:34  
BLANK TEST 0.000 20:35  
SUBJECT SAMPLE INCOMPLETE 20:37



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100346  
-----

Date: 03/20/2020  
Time: 20:25:18

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

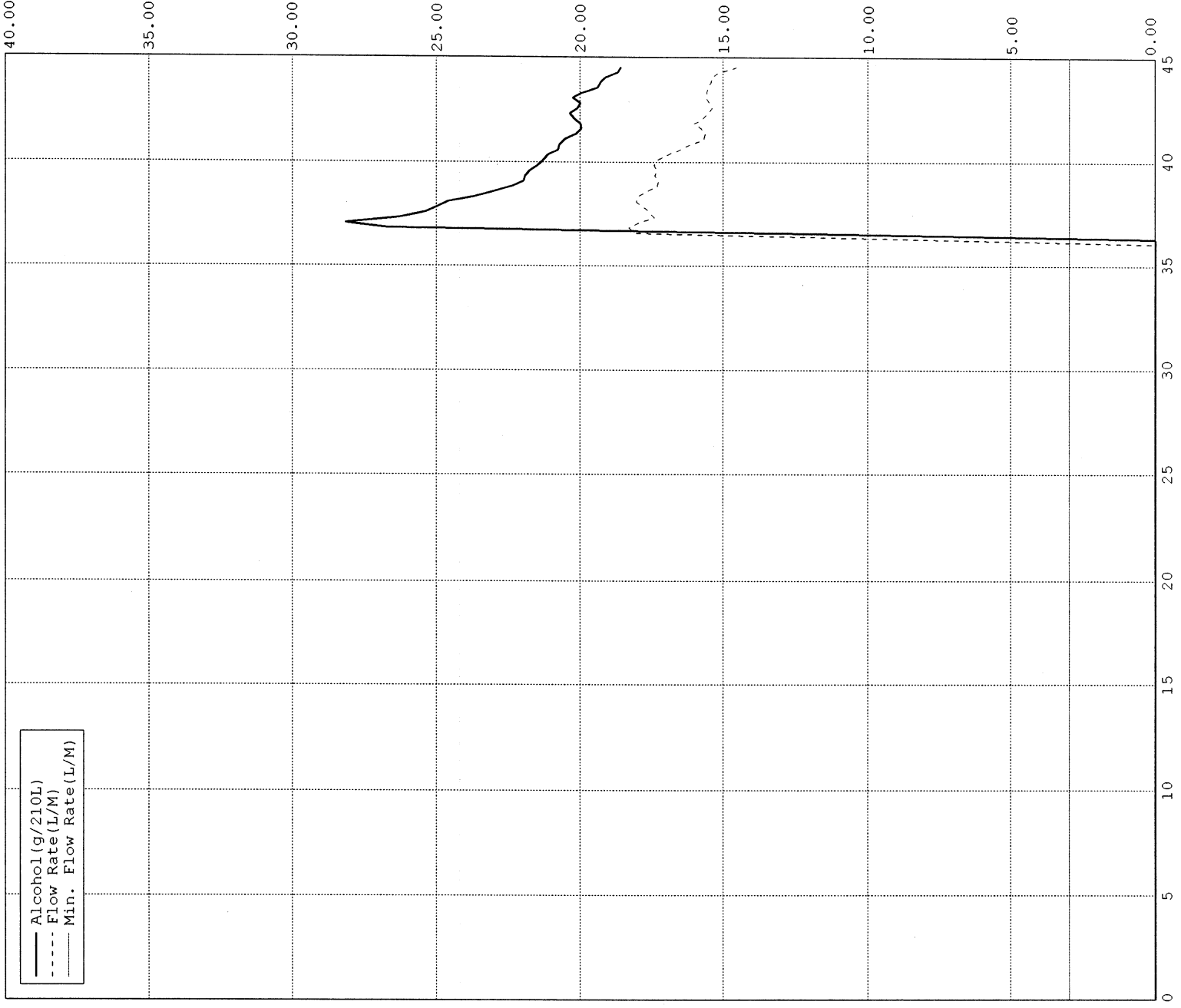
DEPT/AGENCY:  
INVALID  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 30.28: 0.081  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	20:26
BLANK TEST	0.000	20:26
INTERNAL STANDARD	VERIFIED	20:26
EXTERNAL STANDARD	0.080	20:27
BLANK TEST	0.000	20:28
SUBJECT SAMPLE	INVALID	20:28

*DM*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 03/23/2020  
Time: 16:05:45

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 30.26: 0.081  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 16:07  
BLANK TEST 0.000 16:07  
INTERNAL STANDARD VERIFIED 16:07  
Xq = 0.104 (0.17%)  
EXTERNAL STANDARD 0.080 16:07  
X[1] = 0.0797 (-0.0014) (0.0015)  
BLANK TEST 0.000 16:08  
SUBJECT SAMPLE XXX 16:09  
X[1] = 0.1095 (-0.0207) (-0.0004)

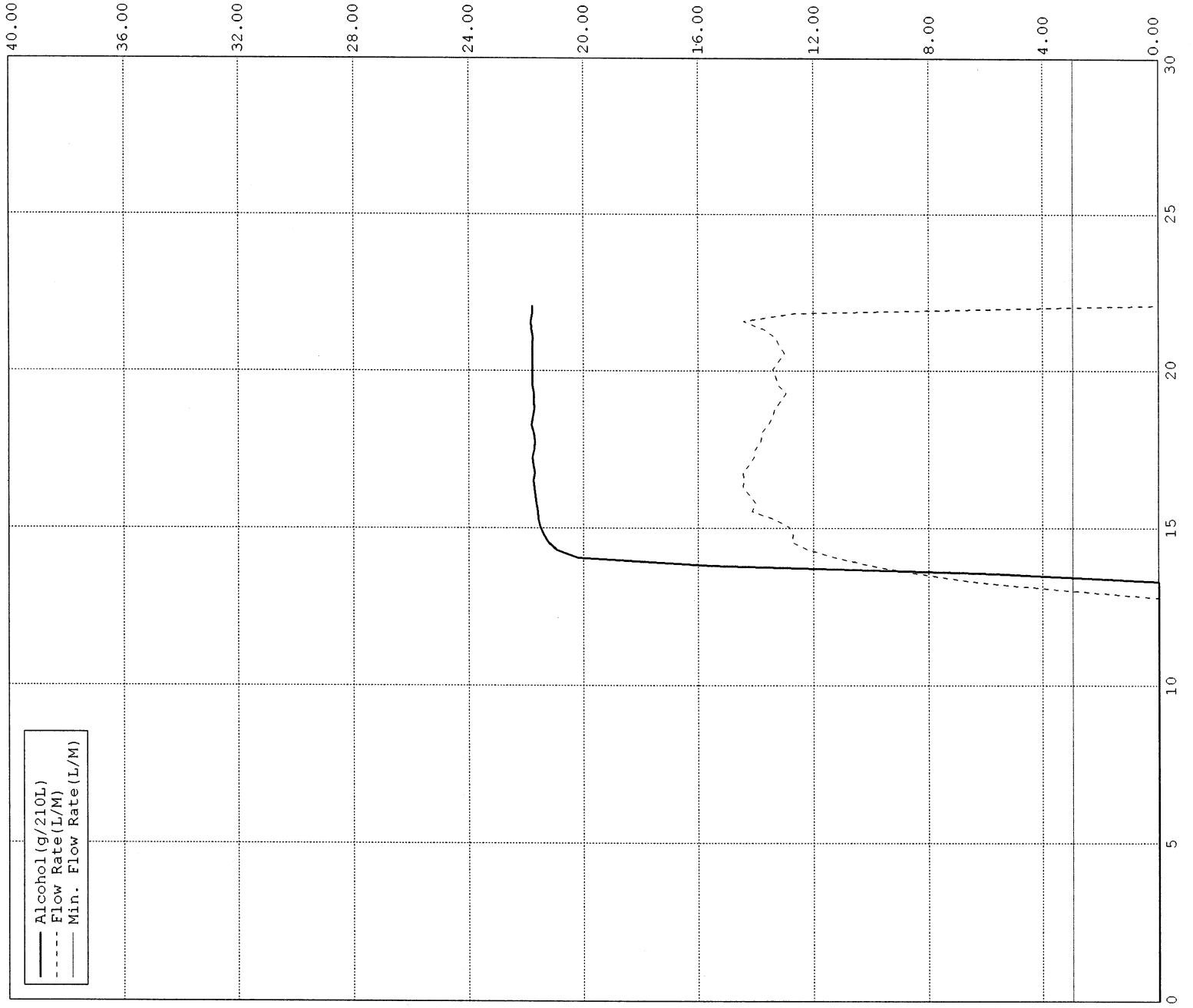
Interference Detected

Filter 2 Avg: -0.0016

Filter 3 Avg: 0.0021

*DM*

— Alcohol (g/210L)  
- - - - Flow Rate (L/M)  
- - - - Min. Flow Rate (L/M)



SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100346  
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Date: 03/23/2020  
Time: 17:02:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

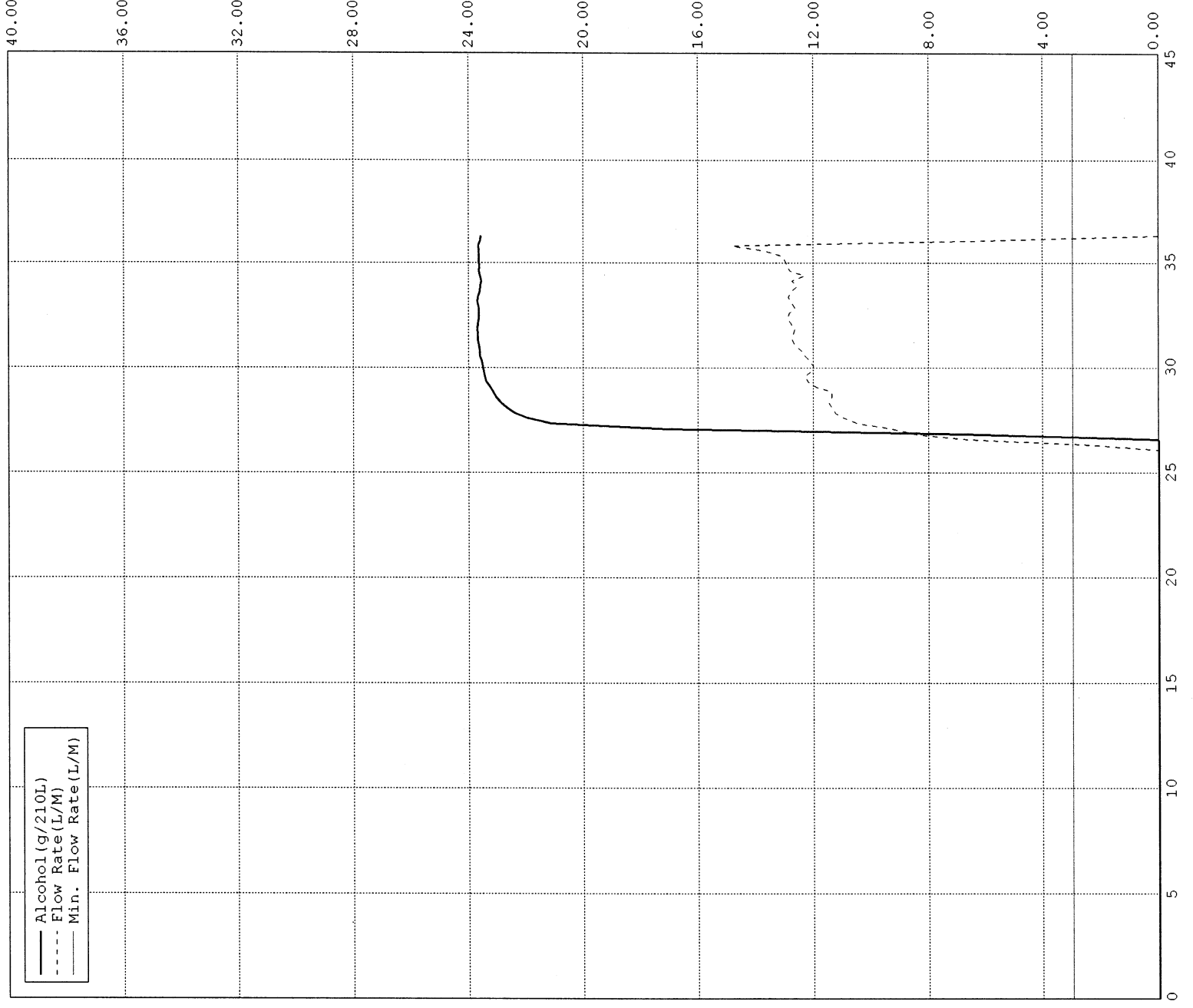
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 30.23: 0.081  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 17:04  
BLANK TEST 0.000 17:04  
INTERNAL STANDARD VERIFIED 17:05  
Xq = 0.104 (0.25%)  
EXTERNAL STANDARD 0.080 17:05  
X[1] = 0.0798 (-0.0013) (0.0027)  
BLANK TEST 0.000 17:06  
SUBJECT SAMPLE XXX 17:06  
X[1] = 0.1187 (-0.0296) (0.0022)

Interference Detected

*DWM*





SUBJECT TEST

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100346  
-----

Date: 03/23/2020  
Time: 16:52:38

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

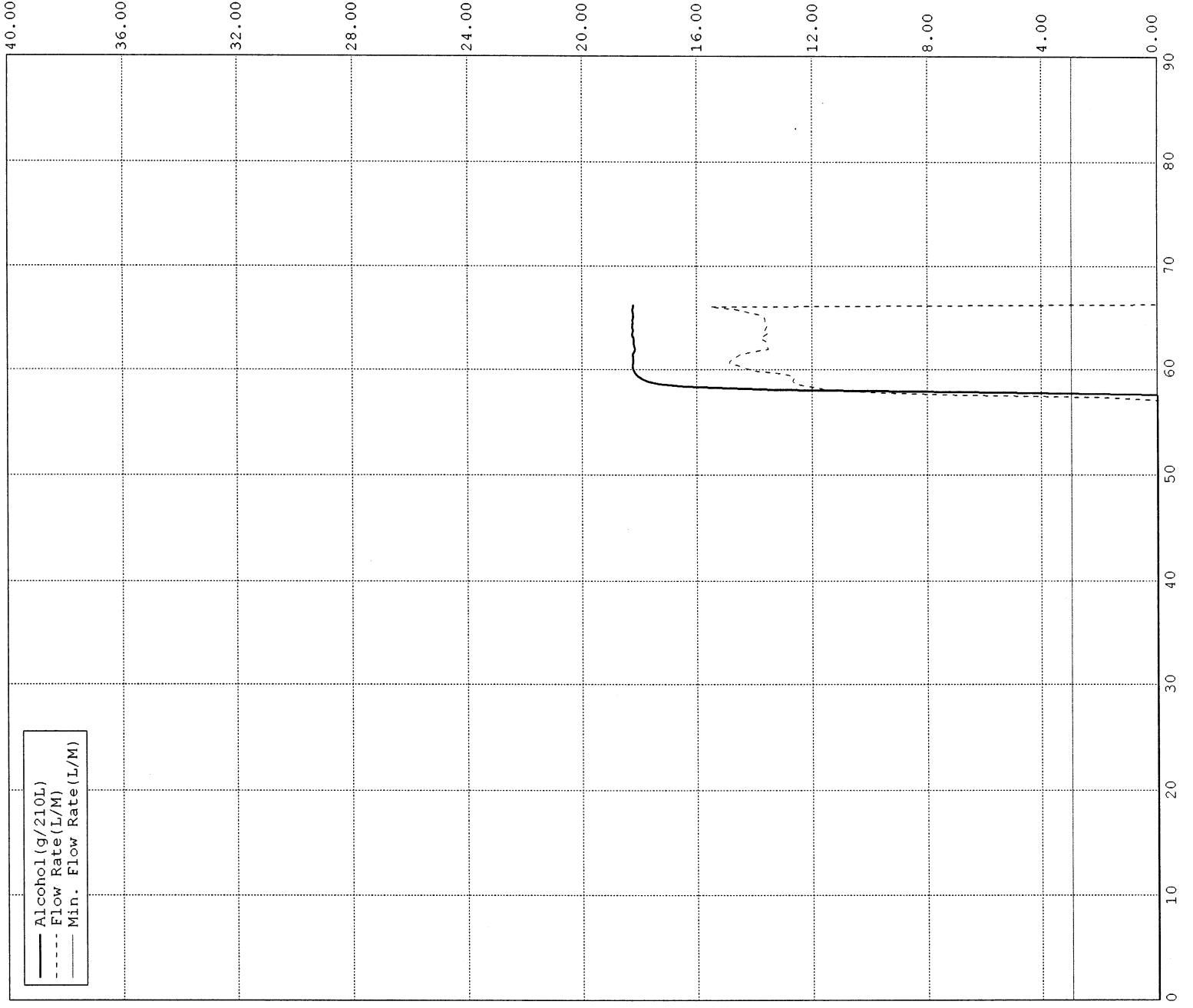
OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 30.23: 0.081  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	16:54
BLANK TEST	0.000	16:54
INTERNAL STANDARD	VERIFIED	16:54
$X_q = 0.104$ (0.59%)		
EXTERNAL STANDARD	0.081	16:55
$X[1] = 0.0806$ (-0.0020) (0.0026)		
BLANK TEST	0.000	16:56
SUBJECT SAMPLE (Vol=1.90L)	0.092	16:57
$X[1] = 0.0920$ (-0.0019) (0.0006)		
BLANK TEST	0.000	16:58
EXTERNAL STANDARD	0.080	16:58
$X[1] = 0.0796$ (-0.0016) (0.0015)		
BLANK TEST	0.000	16:59



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 03/20/2020  
Time: 20:42:21

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

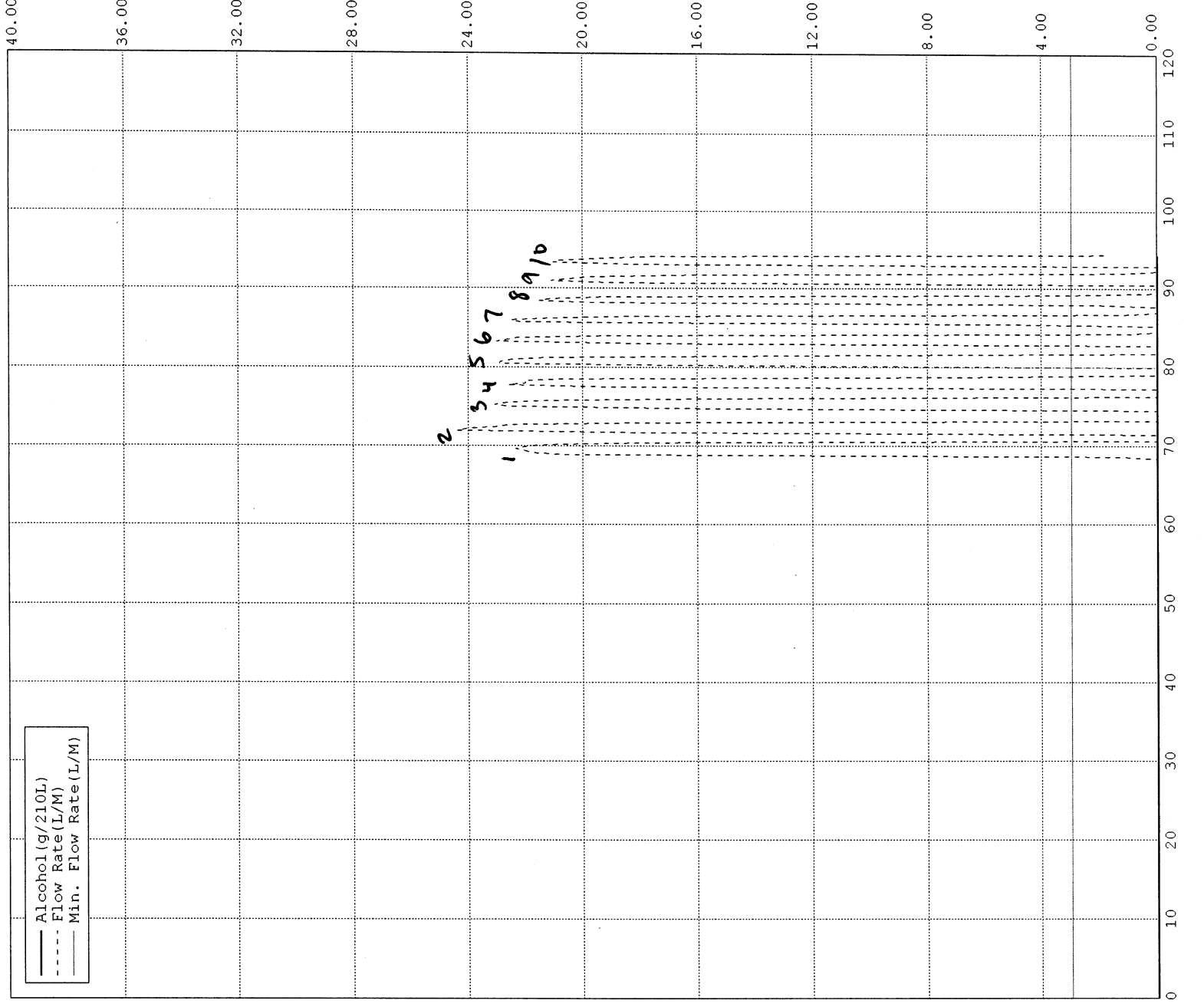
DEPT/AGENCY:  
MAXIMUM ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 30.26: 0.081  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 20:47  
BLANK TEST 0.000 20:47  
INTERNAL STANDARD VERIFIED 20:47  
EXTERNAL STANDARD 0.080 20:47  
BLANK TEST 0.000 20:48  
SUBJECT SAMPLE XXXX 20:50

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100346

Date: 03/20/2020  
Time: 20:16:31

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
DEREK WALTON  
OPERATOR'S #: 9508

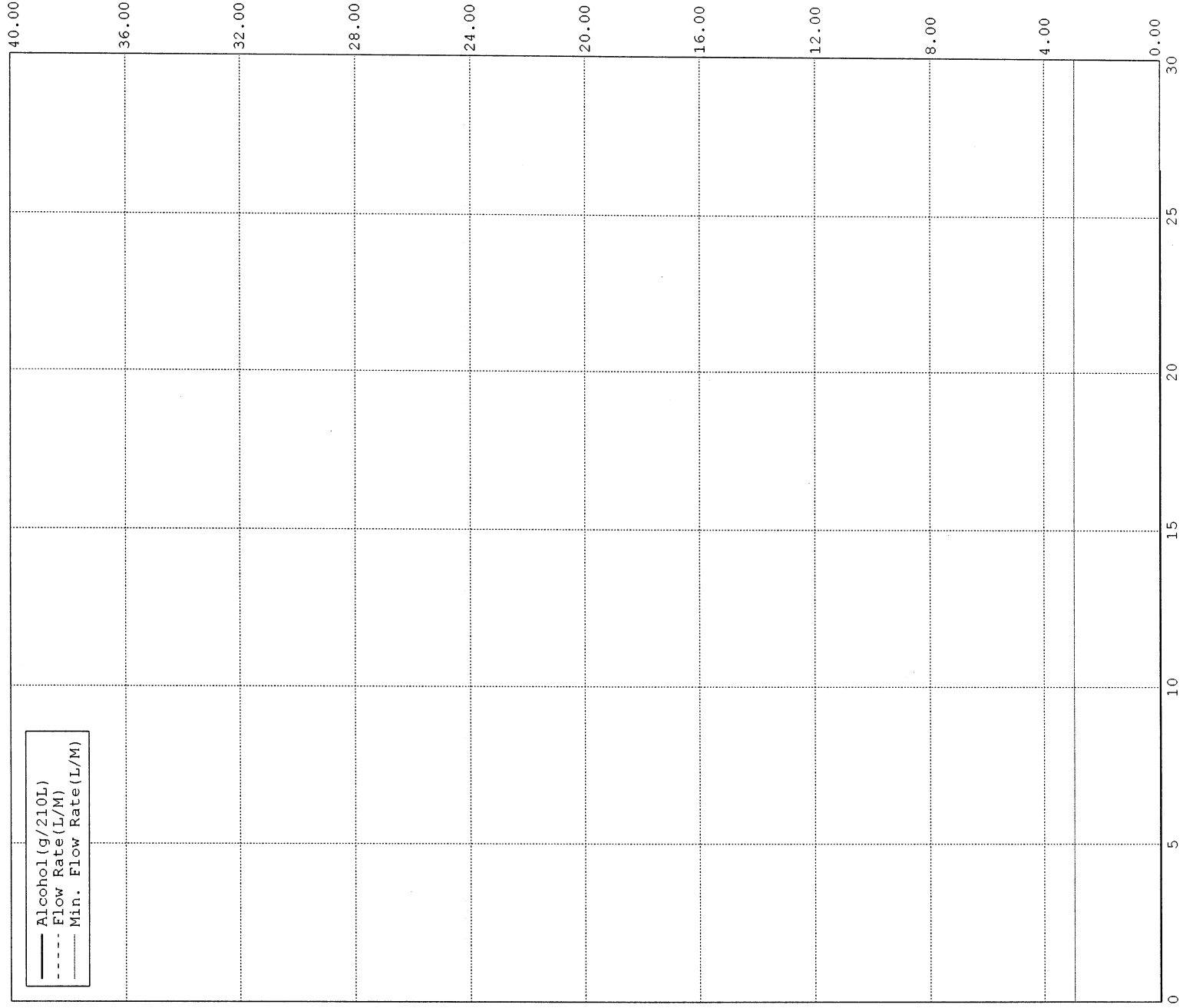
DEPT/AGENCY:  
RADIO FREQUENCY  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 30.27: 0.081  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK PASSED 20:17  
BLANK TEST 0.000 20:17  
INTERNAL STANDARD VERIFIED 20:17  
EXTERNAL STANDARD 0.079 20:17  
BLANK TEST 0.000 20:18

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety

DATE/TIME: 03/23/2020 17:26:22

DATE/TIME: 03/23/2020 17:26:22

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 30.23: 0.081

LOT #: AG826101

EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	17:27
BLANK TEST	0.000	17:27
INTERNAL STANDARD	VERIFIED	17:27
INTERNAL STANDARD	0.080	17:27
BLANK TEST	0.000	17:28
SUBJECT SAMPLE (Vol=3.31L)	0.000	17:29
BLANK TEST	0.000	17:30
EXTERNAL STANDARD	0.080	17:30
BLANK TEST	0.000	17:31

Alcohol (g/210L)  
Flow Rate (L/M)  
Min. Flow Rate (L/M)

