

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 100680 Analyst Derek Walth Start Date 05/30/19

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 A6733403 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 DR4177 Date Calibrated 06/04/18
- vi. 0.300g/210L Mnf Auth Lot 17350 Exp 10/11/19
 - 1. Simulator S/N DR6267 Date Calibrated 06/04/18

5. Functional Tests (attached)

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

- i. Acetone - Mnf Auth Lot 18370 Level 0.100 Exp 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 05/30/19

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100680

Date: 5/30/2019
Time: 08:26:42

VERSIONS
DMT: 3.02
PIC: 3.03
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 46.9°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.83 V PASSED
(1.09 V - 2.53 V)
Cooler Voltage = 1.85 V PASSED
(1.03 V - 2.41 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 536 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.7 in

PUMP INFO

Flow Rate = 4.352 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
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD PASSED

Xq = 0.117 1.27% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100680

Date: 5/30/2019
Time: 8:42 AM

Temperatures (°C)
Sample Cell: 49.2°C
Breath Tube: 46.2°C

Current Barometer 29.8 in
Volume (Ltr) 1.57

Settings
Lamp: 1.88 V
Bias: 80 V
Cooler: 1.74 V
Chopper: 518 Hz

Voltages (V)
Flow: 1.04 V
Detector: 0.040 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100680

Date: 10/25/2011
Time: 11:32:51

Ca = 0.1000
CAL = 0.988403 0.800 <= CAL < 1.200
b1 = 0.0000 0.0000 <= b1 < 0.0040
b2 = 0.0024 0.0010 <= b2 < 0.0100
b3 = 0.0000 0.0000 <= b3 < 0.0040
Xq = 0.1197 0.0500 <= Xq < 0.2000
a21 = 1.188030 1.050 <= a21 < 1.300
a31 = 0.551496 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100680

Date: 5/30/2019
Time: 08:55:21

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

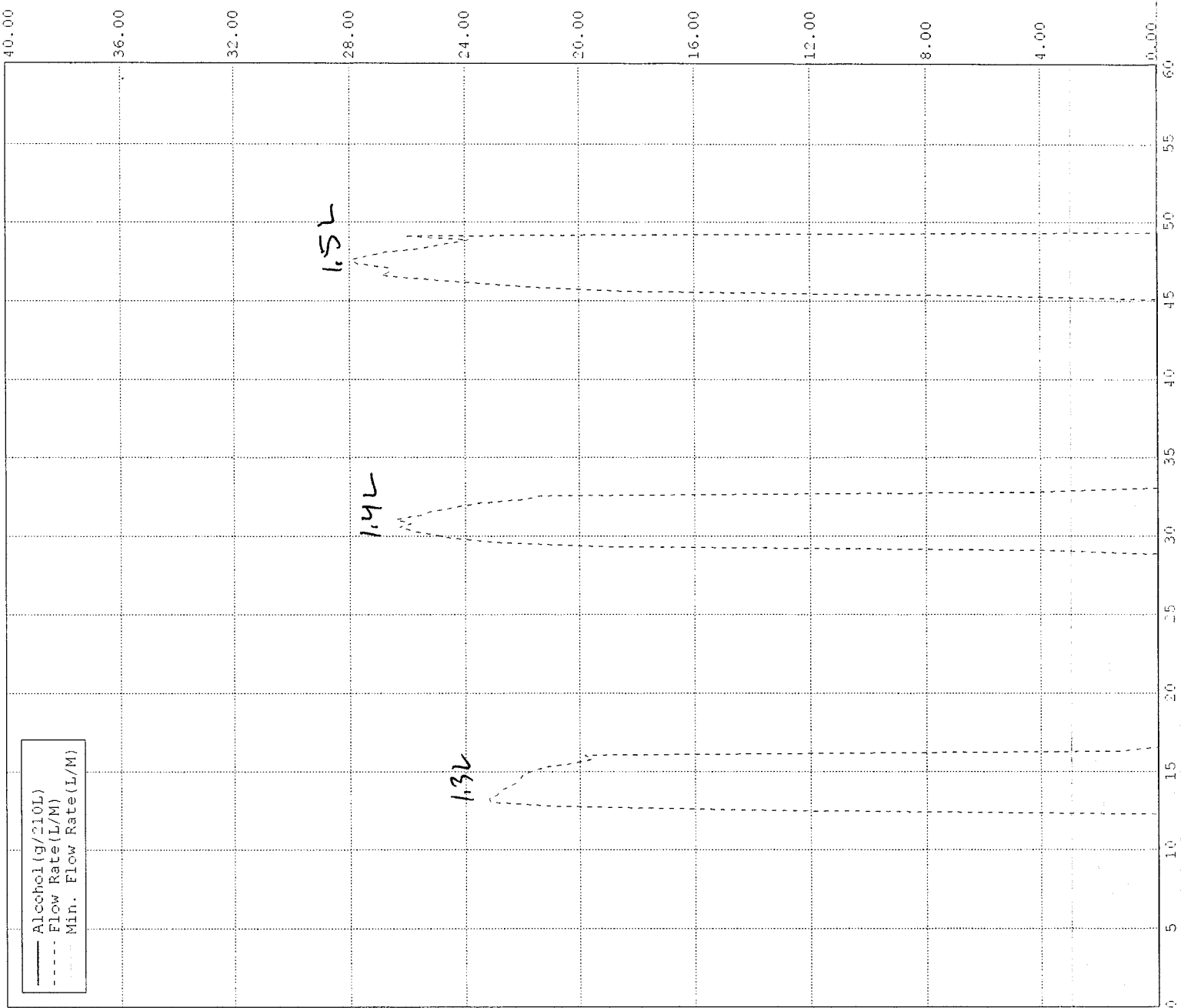
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.77: 0.080
LOT #: AG826101
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK	PASSED	08:58
BLANK TEST	0.000	08:59
INTERNAL STANDARD	VERIFIED	08:59
EXTERNAL STANDARD	0.079	08:59
BLANK TEST	0.000	09:00
SUBJECT SAMPLE (Vol=1.61L)	0.000	09:02
BLANK TEST	0.000	09:03
EXTERNAL STANDARD	0.079	09:03
BLANK TEST	0.000	09:04



LINEARITY CHECK

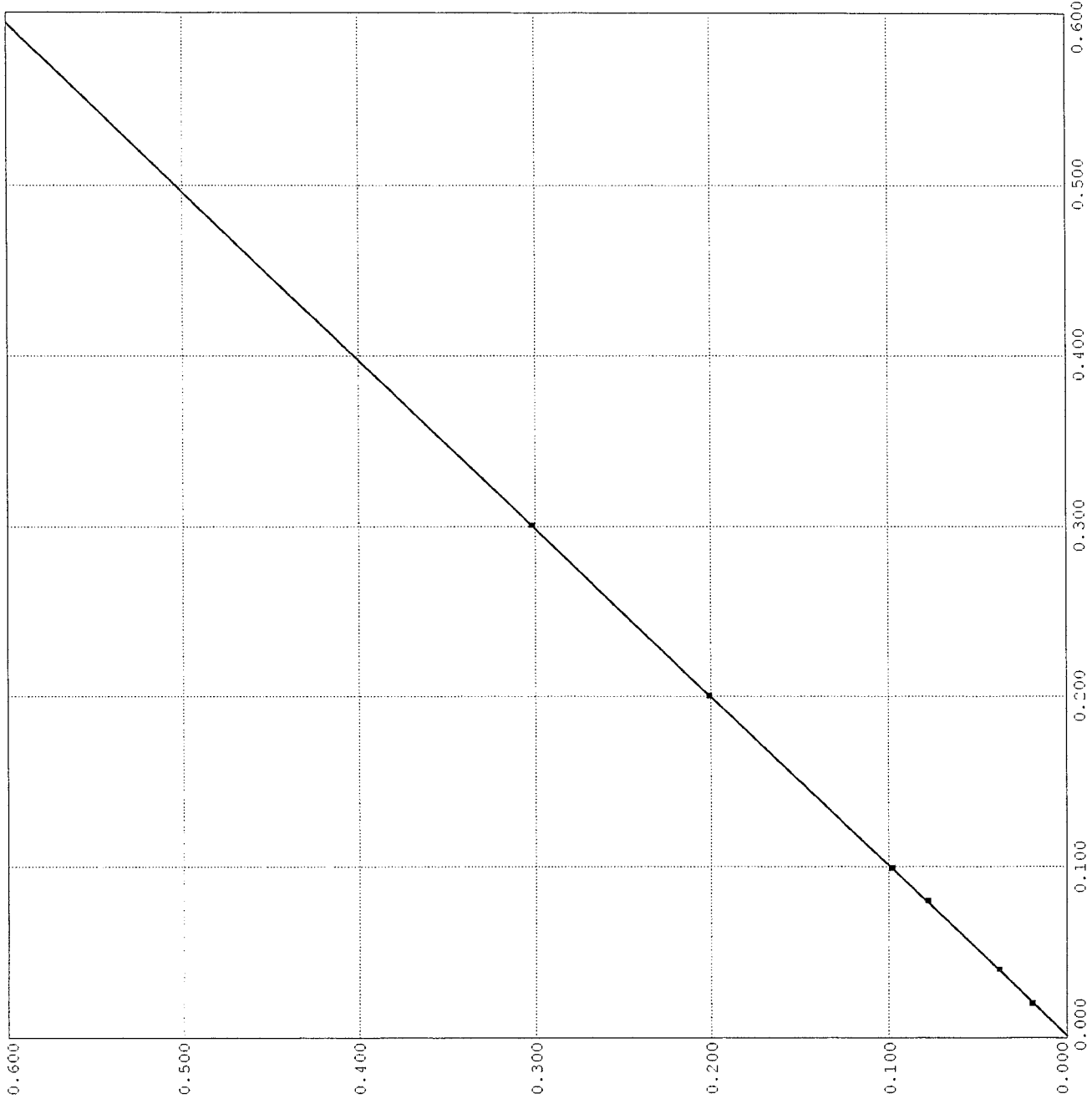
 Alaska Department of Public Safety
 DATAMASTER dmt: 100680

Date: 5/30/2019
 Time: 09:09:00

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.040	0.0390	0.0000
0.080	0.0790	0.0000
0.099	0.0990	0.0000
0.200	0.2018	0.0004
0.300	0.3026	0.0009

SLOPE = 1.012308
 R² = 0.999962



DW

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100680

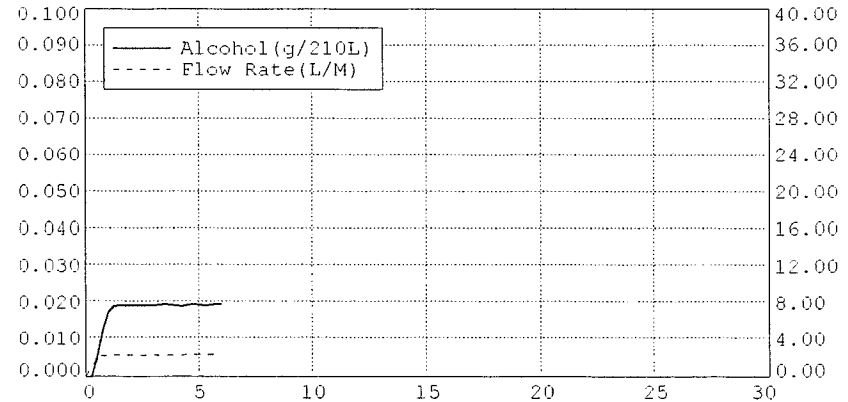
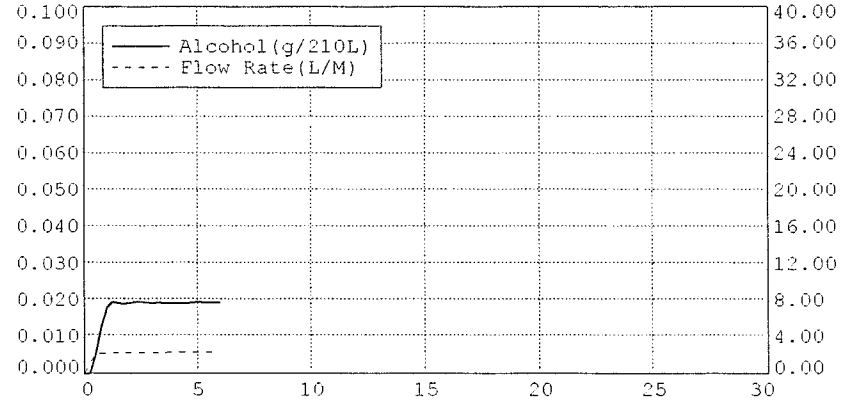
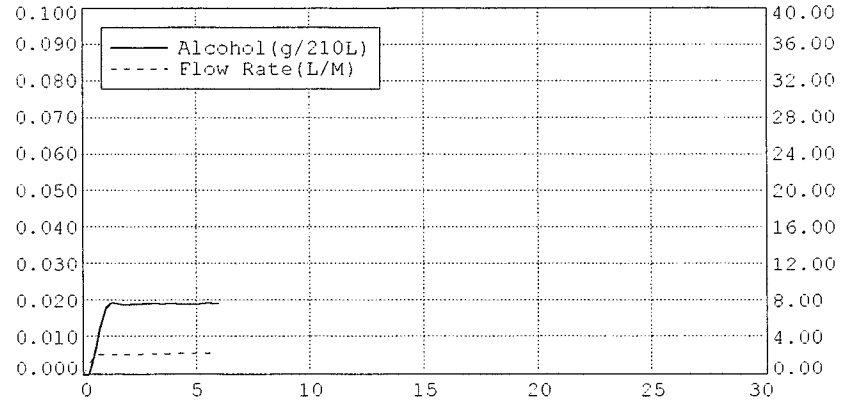
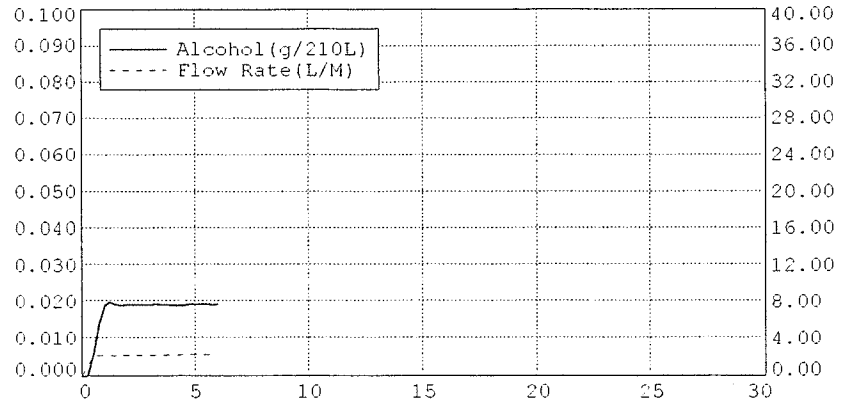
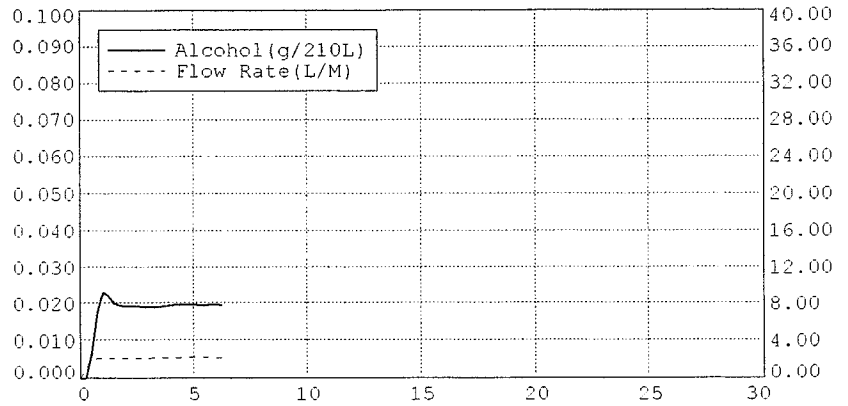
Date: 5/30/2019
 Time: 09:09:01

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.77: 0.020
 LOT #: AG805804
 EXPIRATION: 2/27/2020
 TANK PRESSURE: 697 psi

BLANK TEST	0.000	09:10
INTERNAL STANDARD	VERIFIED	09:10
EXTERNAL STANDARD	0.021	09:10
BLANK TEST	0.000	09:11
EXTERNAL STANDARD	0.020	09:11
BLANK TEST	0.000	09:12
EXTERNAL STANDARD	0.020	09:13
BLANK TEST	0.000	09:13
EXTERNAL STANDARD	0.020	09:14
BLANK TEST	0.000	09:15
EXTERNAL STANDARD	0.020	09:15
BLANK TEST	0.000	09:16

Average = 0.0202
 Std. Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100680

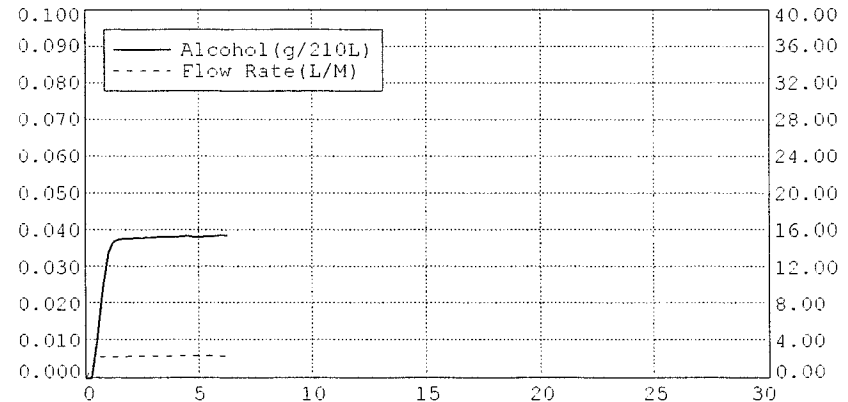
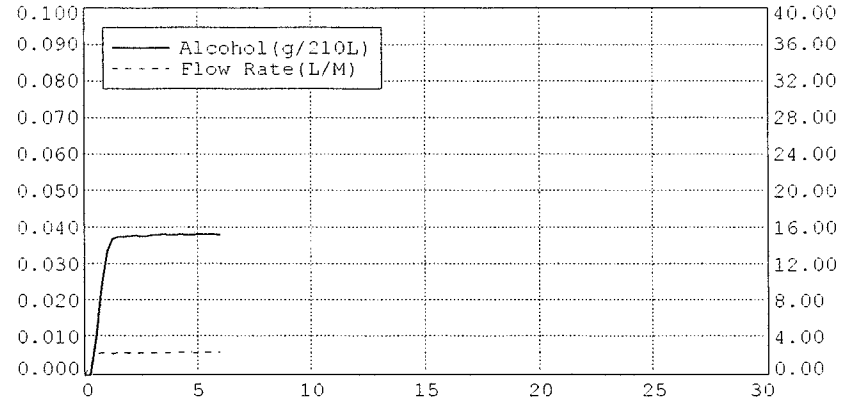
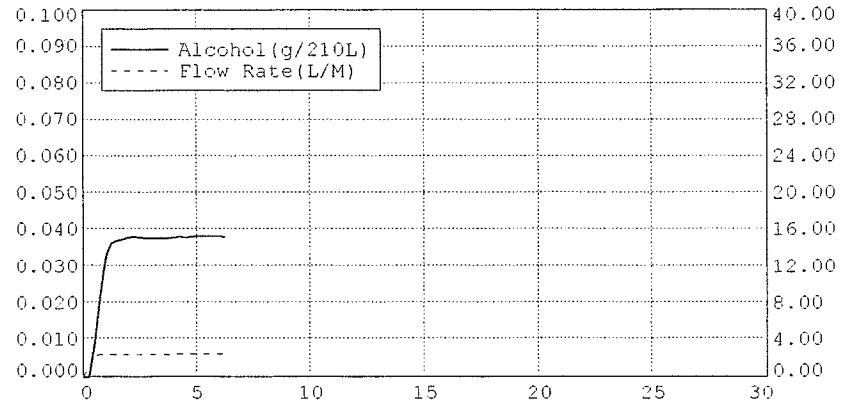
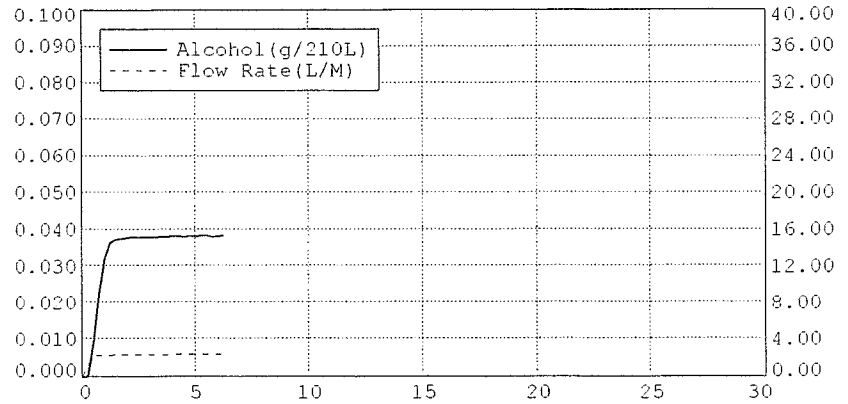
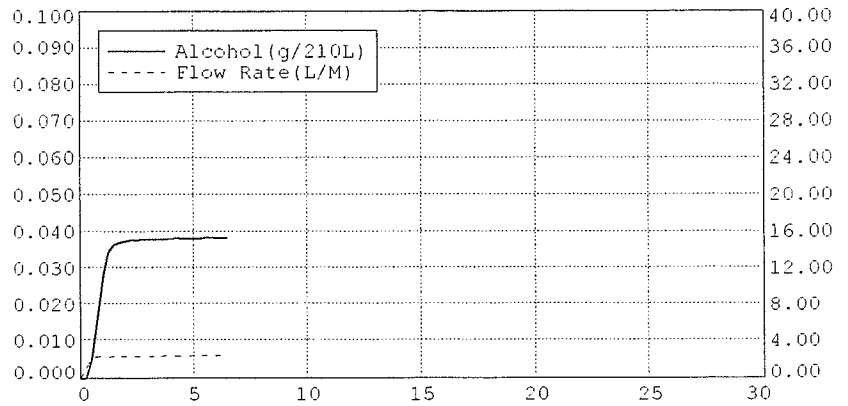
Date: 5/30/2019
 Time: 09:17:20

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.76: 0.040
 LOT #: AG733403
 EXPIRATION: 11/30/2019
 TANK PRESSURE: 1106 psi

BLANK TEST	0.000	09:18
INTERNAL STANDARD	VERIFIED	09:19
EXTERNAL STANDARD	0.039	09:19
BLANK TEST	0.000	09:20
EXTERNAL STANDARD	0.039	09:20
BLANK TEST	0.000	09:21
EXTERNAL STANDARD	0.039	09:21
BLANK TEST	0.000	09:22
EXTERNAL STANDARD	0.039	09:22
BLANK TEST	0.000	09:23
EXTERNAL STANDARD	0.039	09:23
BLANK TEST	0.000	09:24

Average = 0.0390
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100680

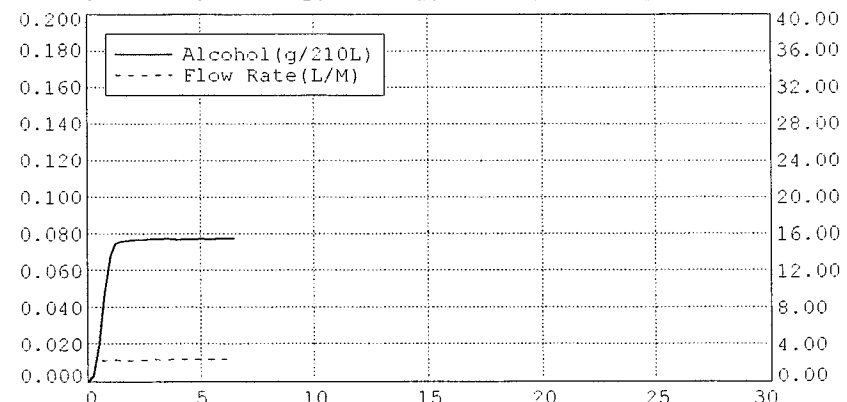
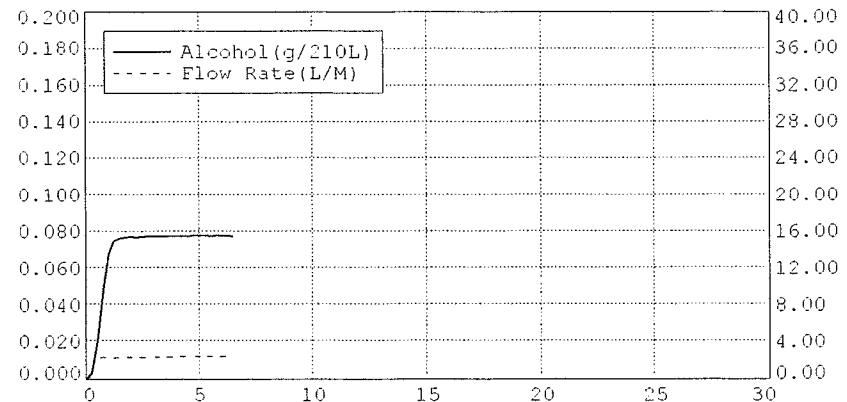
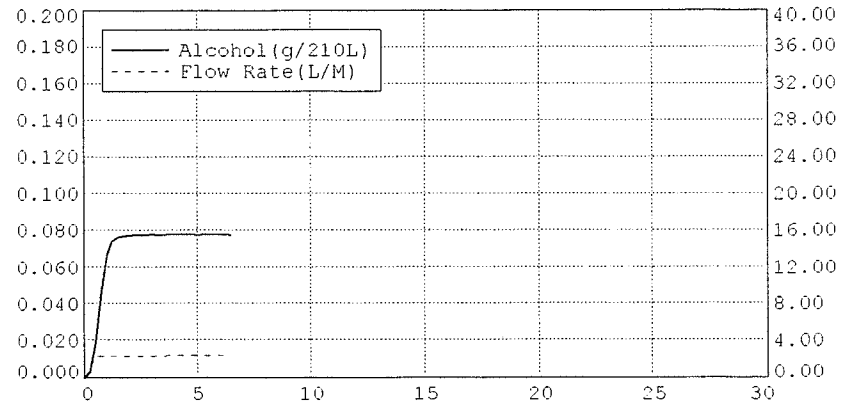
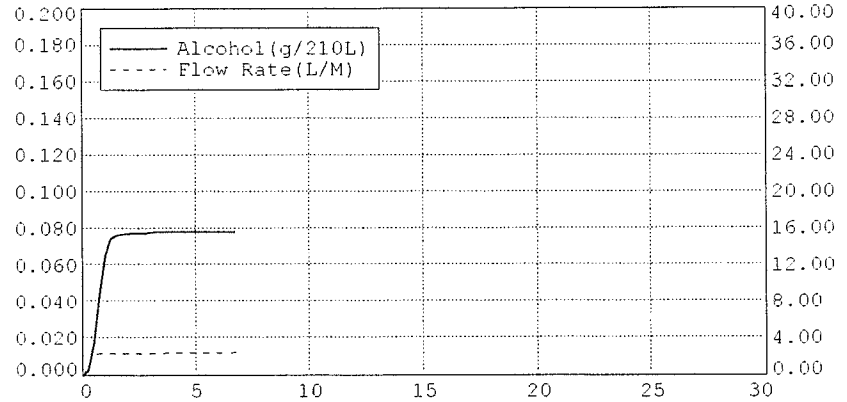
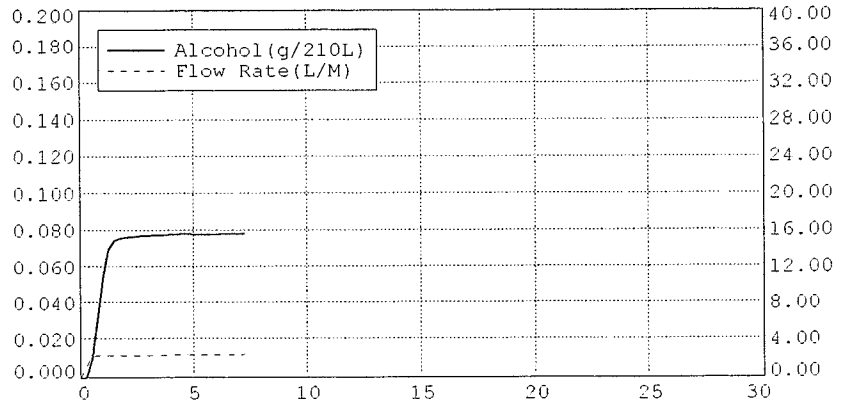
Date: 5/30/2019
 Time: 09:25:03

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.77: 0.080
 LOT #: AG826101
 EXPIRATION: 9/18/2020
 TANK PRESSURE: 1185 psi

BLANK TEST	0.000	09:26
INTERNAL STANDARD	VERIFIED	09:26
EXTERNAL STANDARD	0.079	09:26
BLANK TEST	0.000	09:27
EXTERNAL STANDARD	0.079	09:27
BLANK TEST	0.000	09:28
EXTERNAL STANDARD	0.079	09:29
BLANK TEST	0.000	09:29
EXTERNAL STANDARD	0.079	09:30
BLANK TEST	0.000	09:31
EXTERNAL STANDARD	0.079	09:31
BLANK TEST	0.000	09:32

Average = 0.0790
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
DATAMASTER dmt: 100680

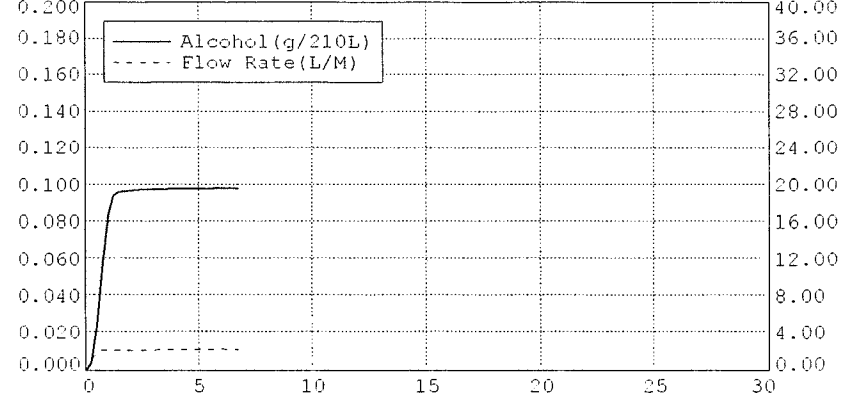
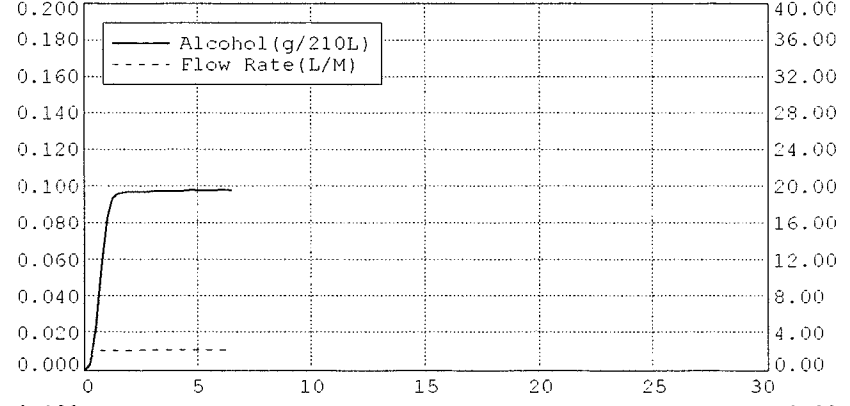
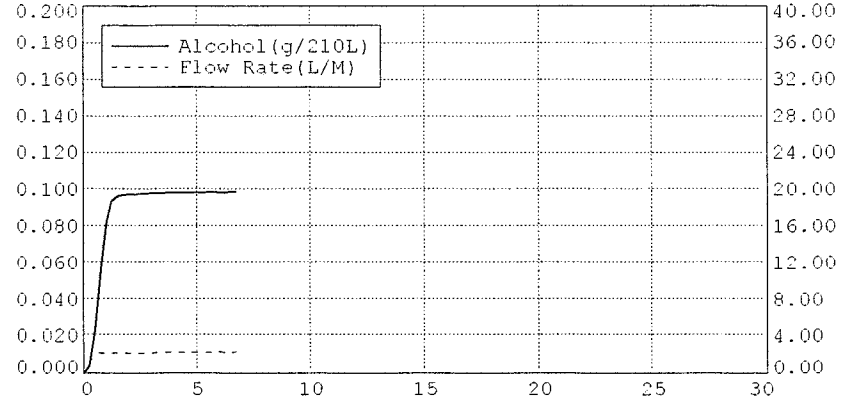
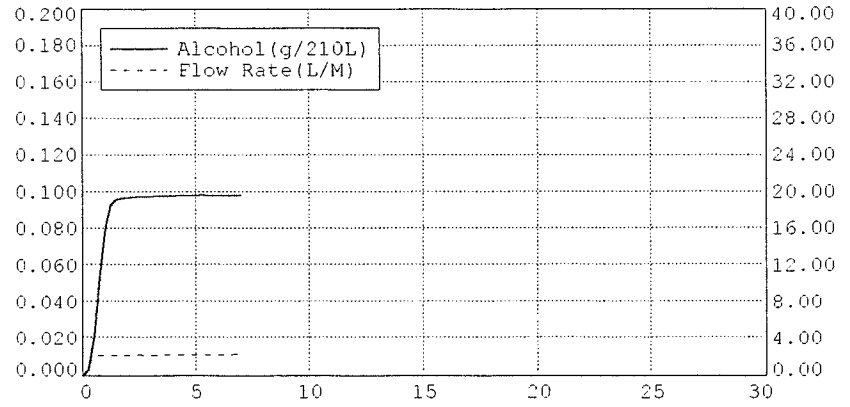
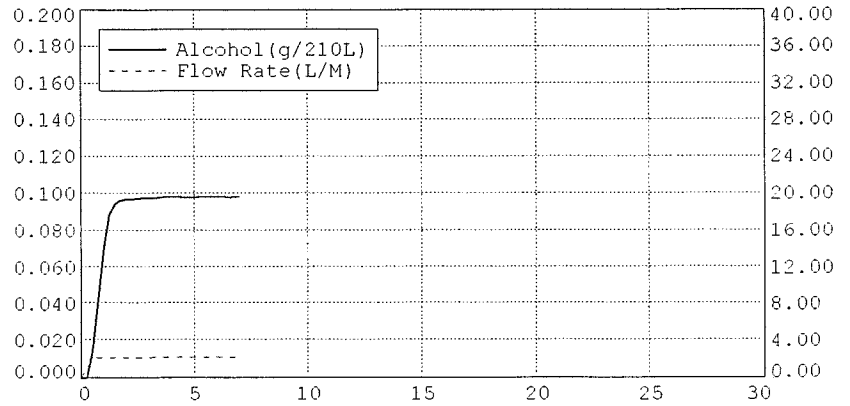
Date: 5/30/2019
Time: 09:33:13

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
TARGET AT 29.77: 0.099
LOT #: AG805903
EXPIRATION: 2/28/2020
TANK PRESSURE: 619 psi

BLANK TEST	0.000	09:34
INTERNAL STANDARD	VERIFIED	09:34
EXTERNAL STANDARD	0.099	09:35
BLANK TEST	0.000	09:35
EXTERNAL STANDARD	0.099	09:36
BLANK TEST	0.000	09:37
EXTERNAL STANDARD	0.099	09:37
BLANK TEST	0.000	09:38
EXTERNAL STANDARD	0.099	09:38
BLANK TEST	0.000	09:39
EXTERNAL STANDARD	0.099	09:39
BLANK TEST	0.000	09:40

Average = 0.0990
Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

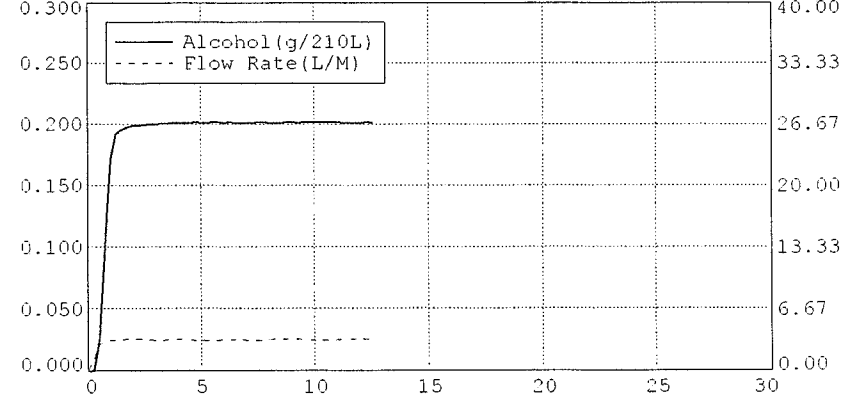
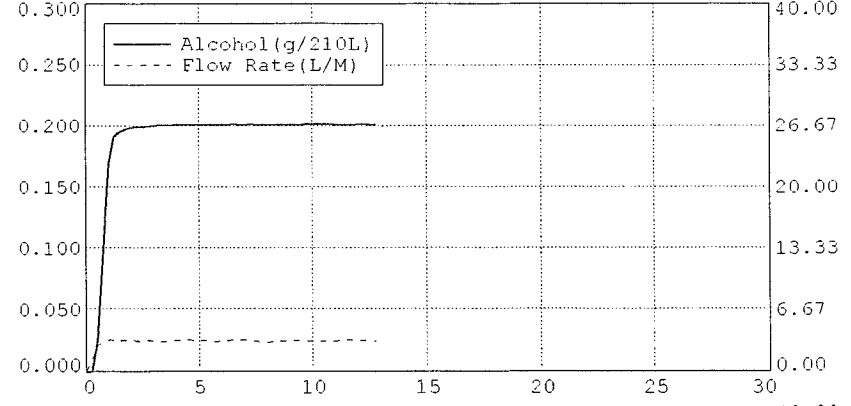
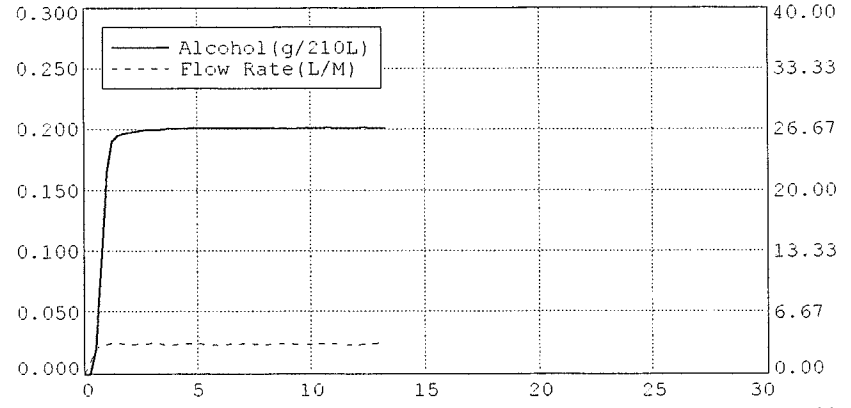
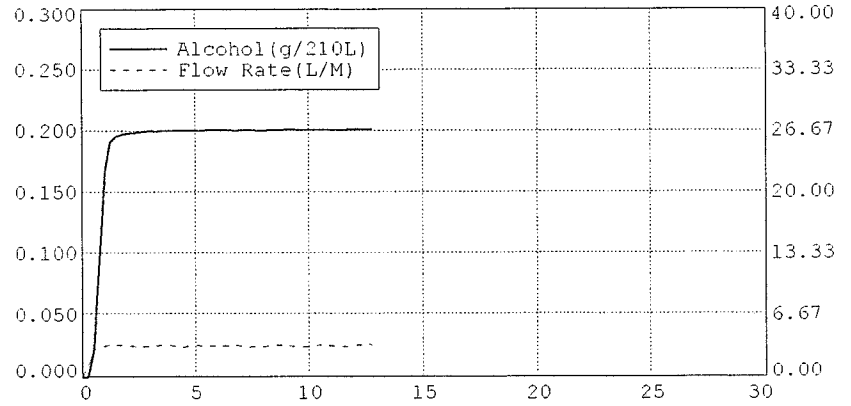
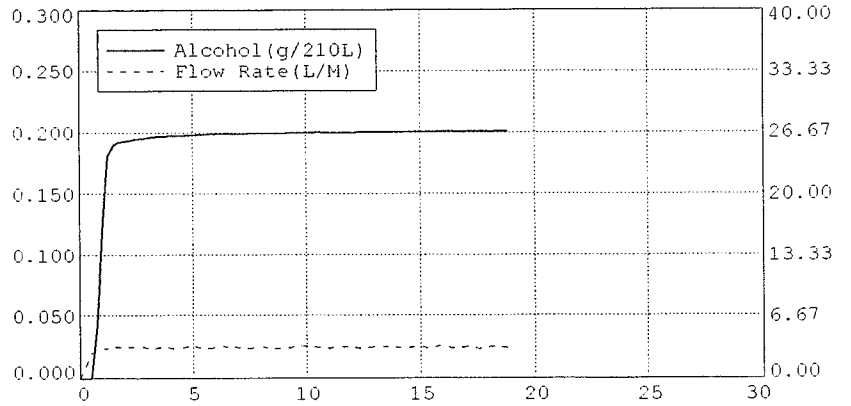
Alaska Department of Public Safety
DATAMASTER dmt: 100680

Date: 5/30/2019
Time: 09:45:54

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.200
LOT #: 17340
EXPIRATION: 10/9/2019

BLANK TEST	0.000	10:09
INTERNAL STANDARD	VERIFIED	10:09
EXTERNAL STANDARD	0.202	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.201	10:11
BLANK TEST	0.000	10:12
EXTERNAL STANDARD	0.202	10:12
BLANK TEST	0.000	10:13
EXTERNAL STANDARD	0.202	10:13
BLANK TEST	0.000	10:14
EXTERNAL STANDARD	0.202	10:14
BLANK TEST	0.000	10:15

Average = 0.2018
Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100680

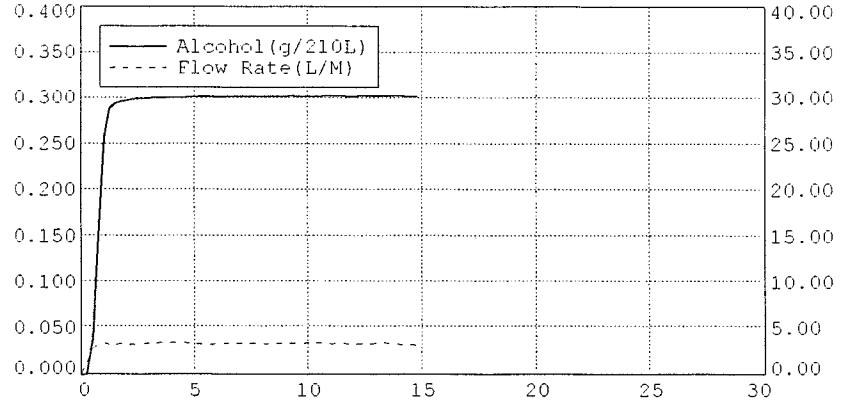
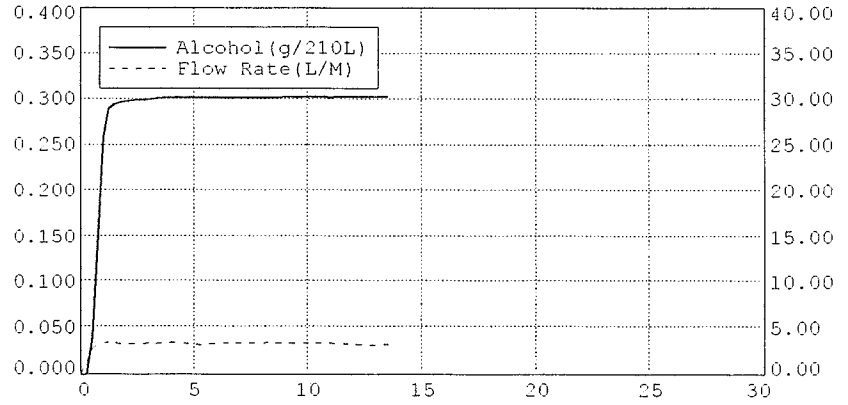
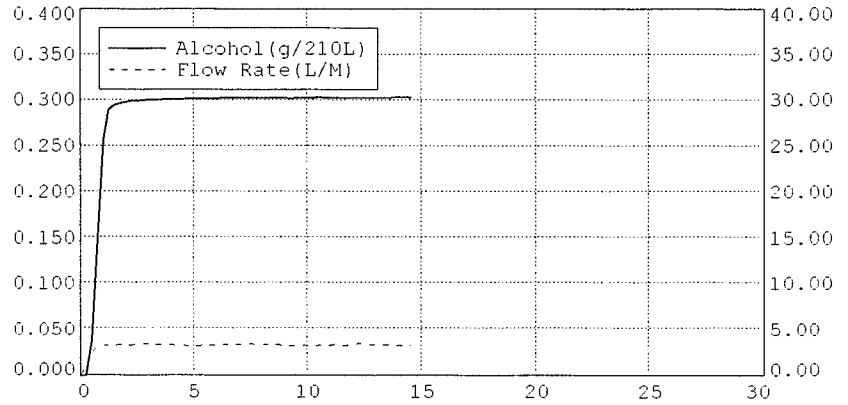
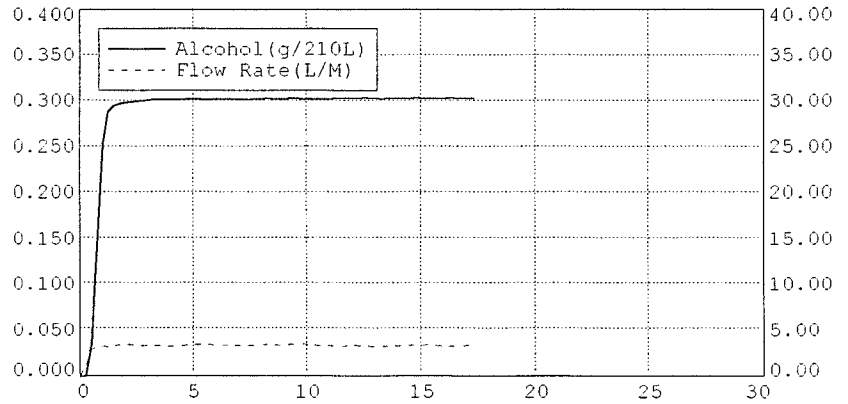
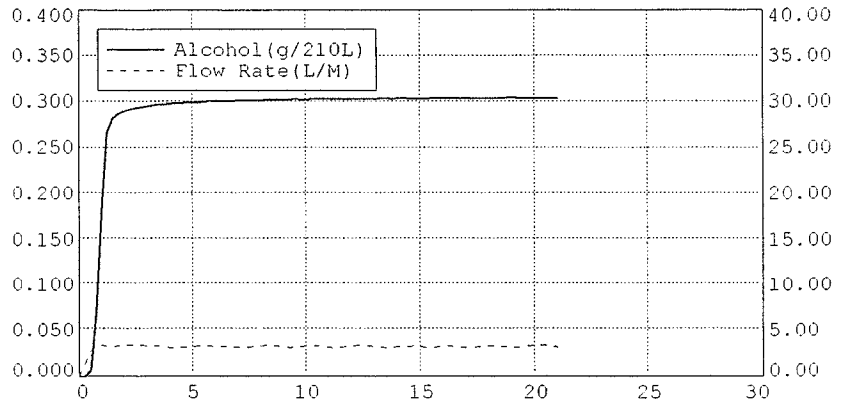
Date: 5/30/2019
 Time: 10:17:41

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 17350
 EXPIRATION: 10/11/2019

BLANK TEST	0.000	10:18
INTERNAL STANDARD	VERIFIED	10:18
EXTERNAL STANDARD	0.304	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.302	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.303	10:22
BLANK TEST	0.000	10:23
EXTERNAL STANDARD	0.302	10:23
BLANK TEST	0.000	10:24
EXTERNAL STANDARD	0.302	10:24
BLANK TEST	0.000	10:25

Average = 0.3026
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100680

Date: 5/30/2019
Time: 10:42:04

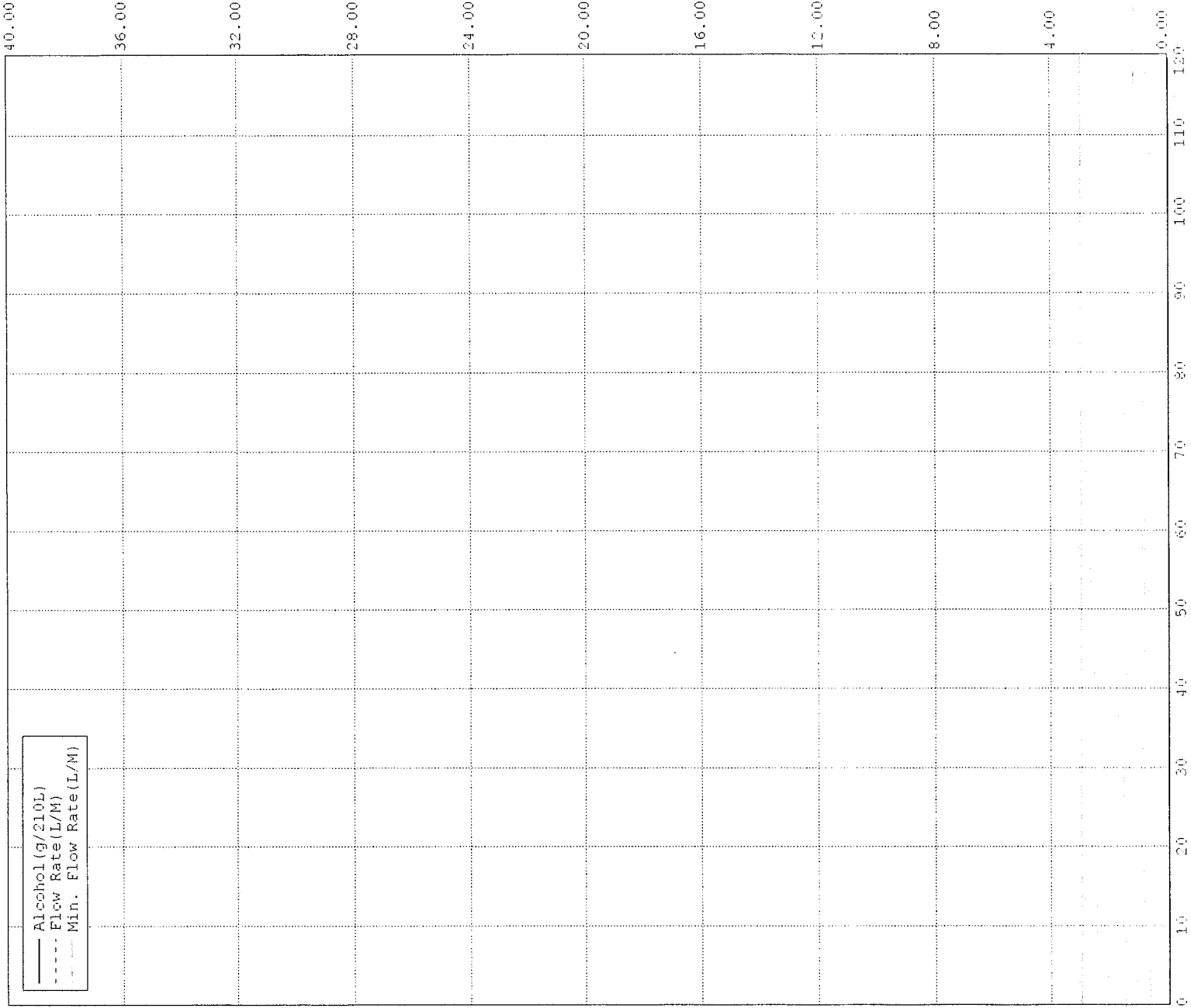
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.76: 0.080
LOT #: AG826101
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK PASSED 10:43
BLANK TEST 0.000 10:43
INTERNAL STANDARD VERIFIED 10:43
EXTERNAL STANDARD 0.078 10:43
BLANK TEST 0.000 10:44
SUBJECT SAMPLE INCOMPLETE 10:47



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100680

Date: 5/30/2019
Time: 10:50:04

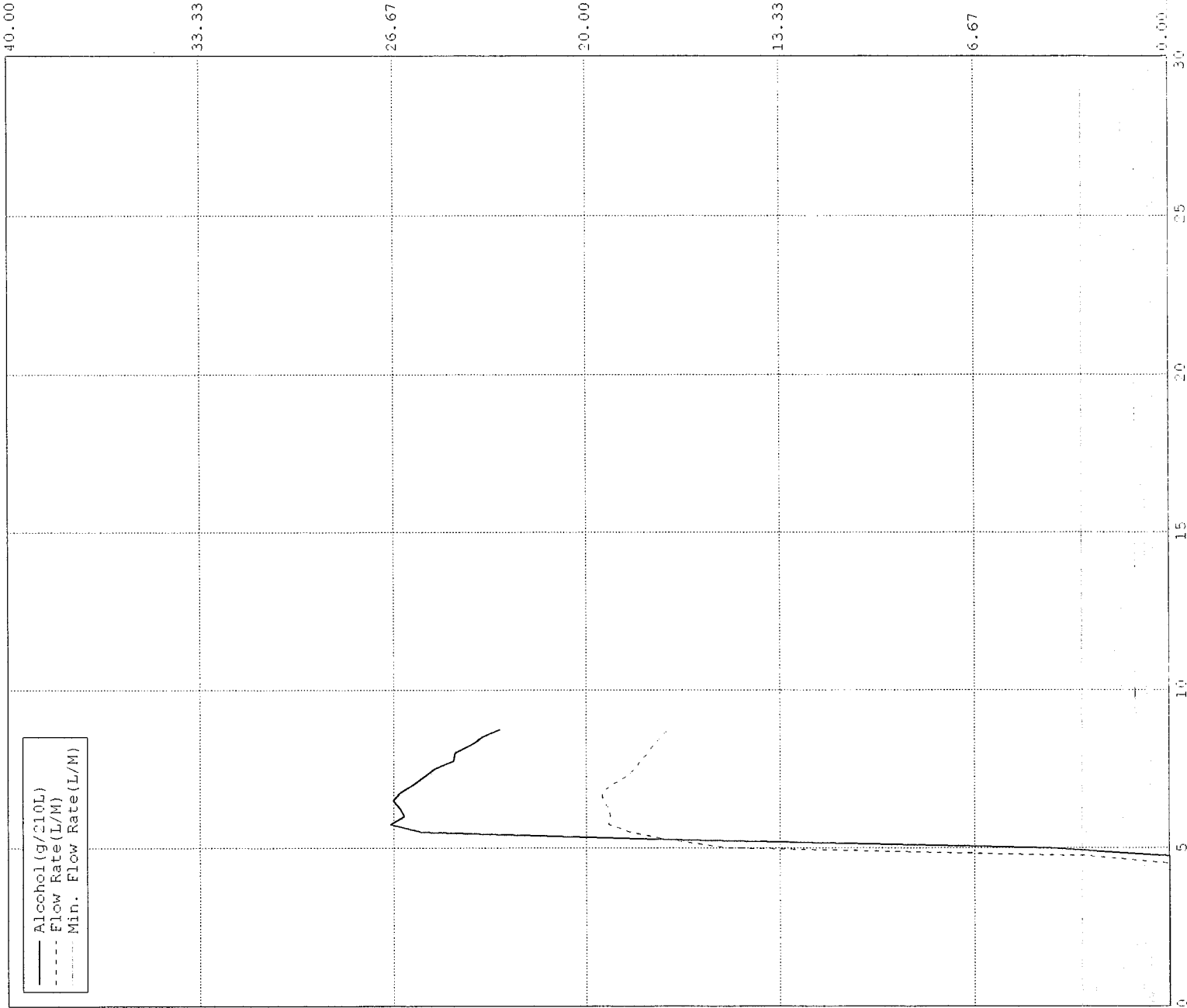
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.76: 0.080
LOT #: AG826101
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK	PASSED	10:52
BLANK TEST	0.000	10:52
INTERNAL STANDARD	VERIFIED	10:52
EXTERNAL STANDARD	0.079	10:53
BLANK TEST	0.000	10:53
SUBJECT SAMPLE	INVALID	10:54



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100680

Date: 5/30/2019
Time: 11:12:40

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

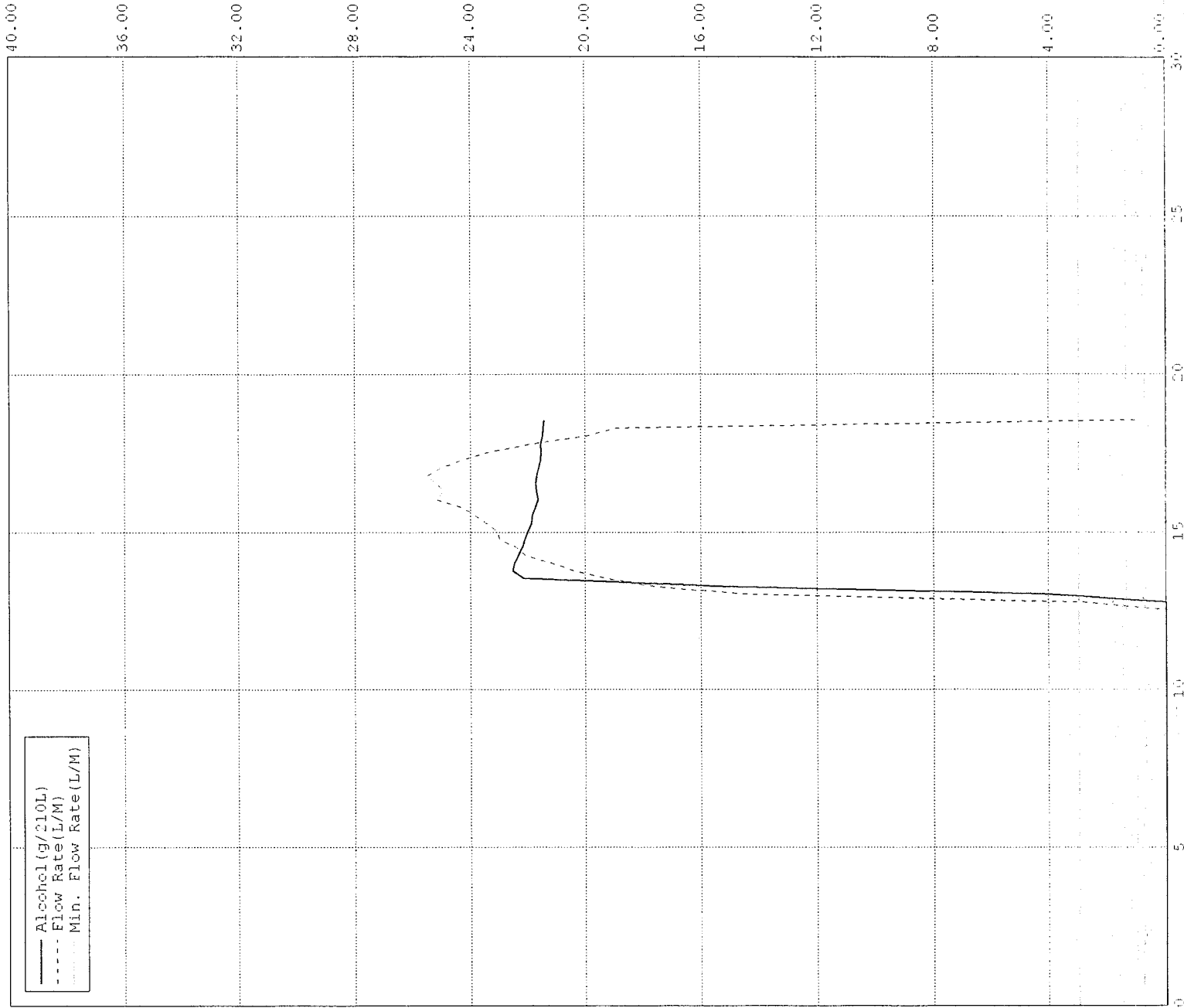
NOMINAL: 0.080
TARGET AT 29.75: 0.080
LOT #: AG826101
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK	PASSED	11:13
BLANK TEST	0.000	11:13
INTERNAL STANDARD	VERIFIED	11:13
Xq = 0.118 (0.52%)		
EXTERNAL STANDARD	0.079	11:14
X[1] = 0.0785 (0.0012) (0.0030)		
BLANK TEST	0.000	11:15
SUBJECT SAMPLE	XXX	11:15
X[1] = 0.1063 (-0.0213) (0.0005)		

Interference Detected

Filter 2 Avg: 0.0009

Filter 3 Avg: 0.0023



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100680

Date: 5/30/2019
Time: 11:19:14

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

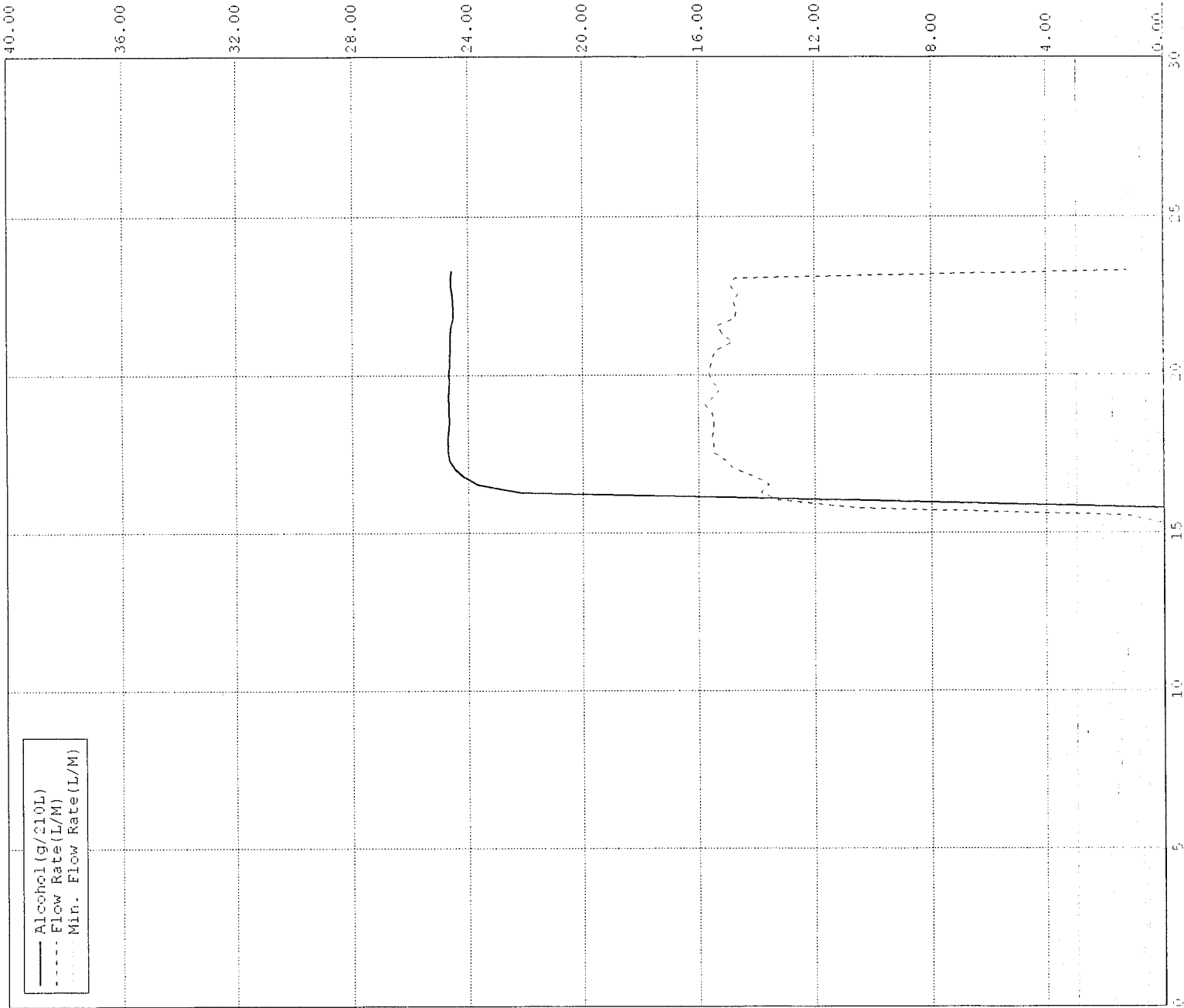
DEPT/AGENCY:
INTERFERENCE ISOPROPANOL
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.75: 0.080
LOT #: AG826101
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK PASSED 11:20
BLANK TEST 0.000 11:20
INTERNAL STANDARD VERIFIED 11:20
Xq = 0.118 (0.37%)
EXTERNAL STANDARD 0.079 11:21
X[1] = 0.0787 (0.0009) (0.0022)
BLANK TEST 0.000 11:22
SUBJECT SAMPLE XXX 11:22
X[1] = 0.1218 (-0.0277) (0.0008)

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100680

Date: 5/30/2019
Time: 11:26:16

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

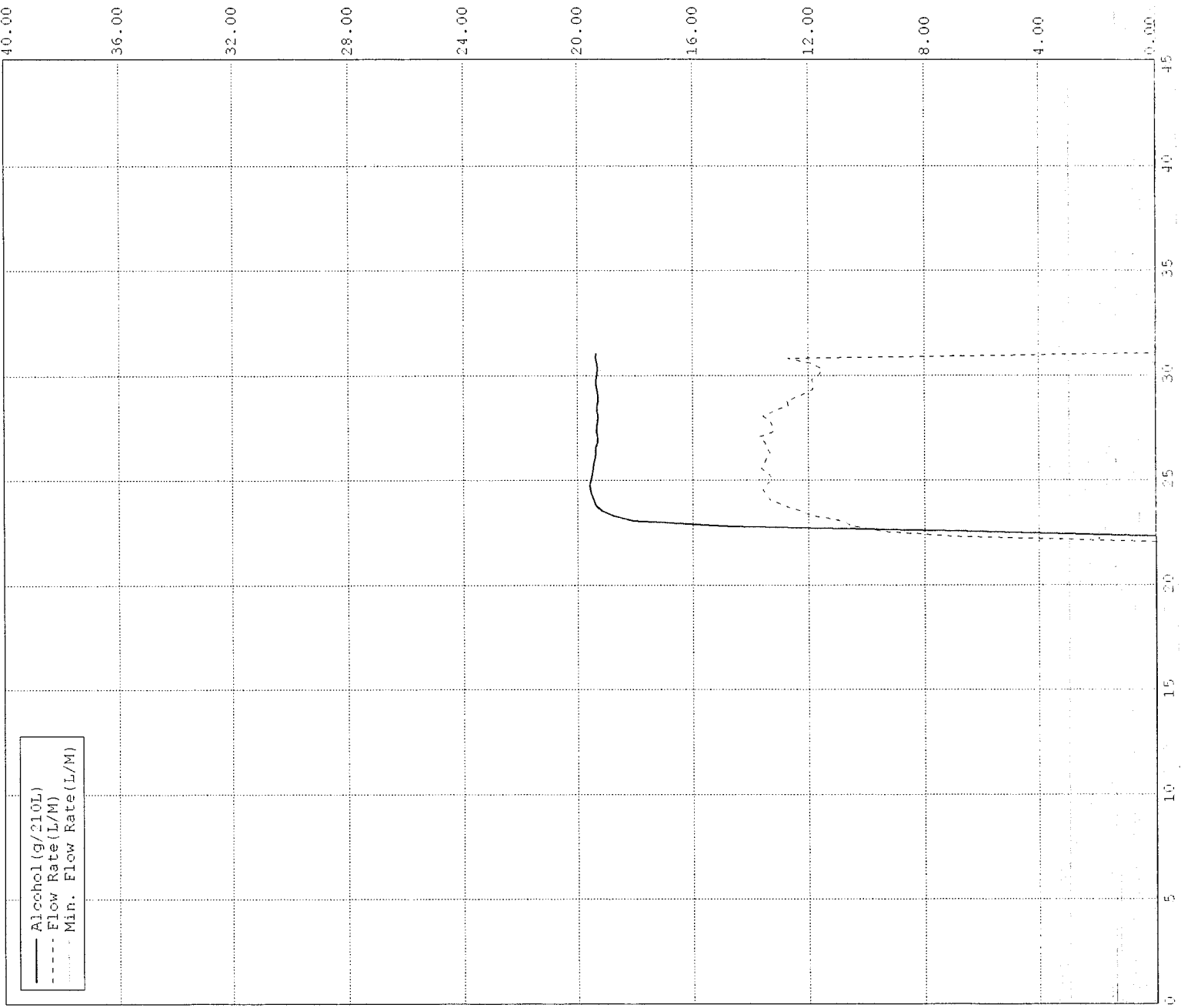
OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.74: 0.080
LOT #: AG826101
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK	PASSED	11:27
BLANK TEST	0.000	11:27
INTERNAL STANDARD	VERIFIED	11:27
$X_q = 0.117 (1.27\%)$		
EXTERNAL STANDARD	0.078	11:27
$X[1] = 0.0783 (0.0006) (0.0023)$		
BLANK TEST	0.000	11:28
SUBJECT SAMPLE (Vol=1.83L)	0.096	11:29
$X[1] = 0.0962 (-0.0014) (0.0003)$		
BLANK TEST	0.000	11:30
EXTERNAL STANDARD	0.078	11:30
$X[1] = 0.0783 (0.0007) (0.0018)$		
BLANK TEST	0.000	11:31



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100680

Date: 5/30/2019
Time: 11:05:44

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

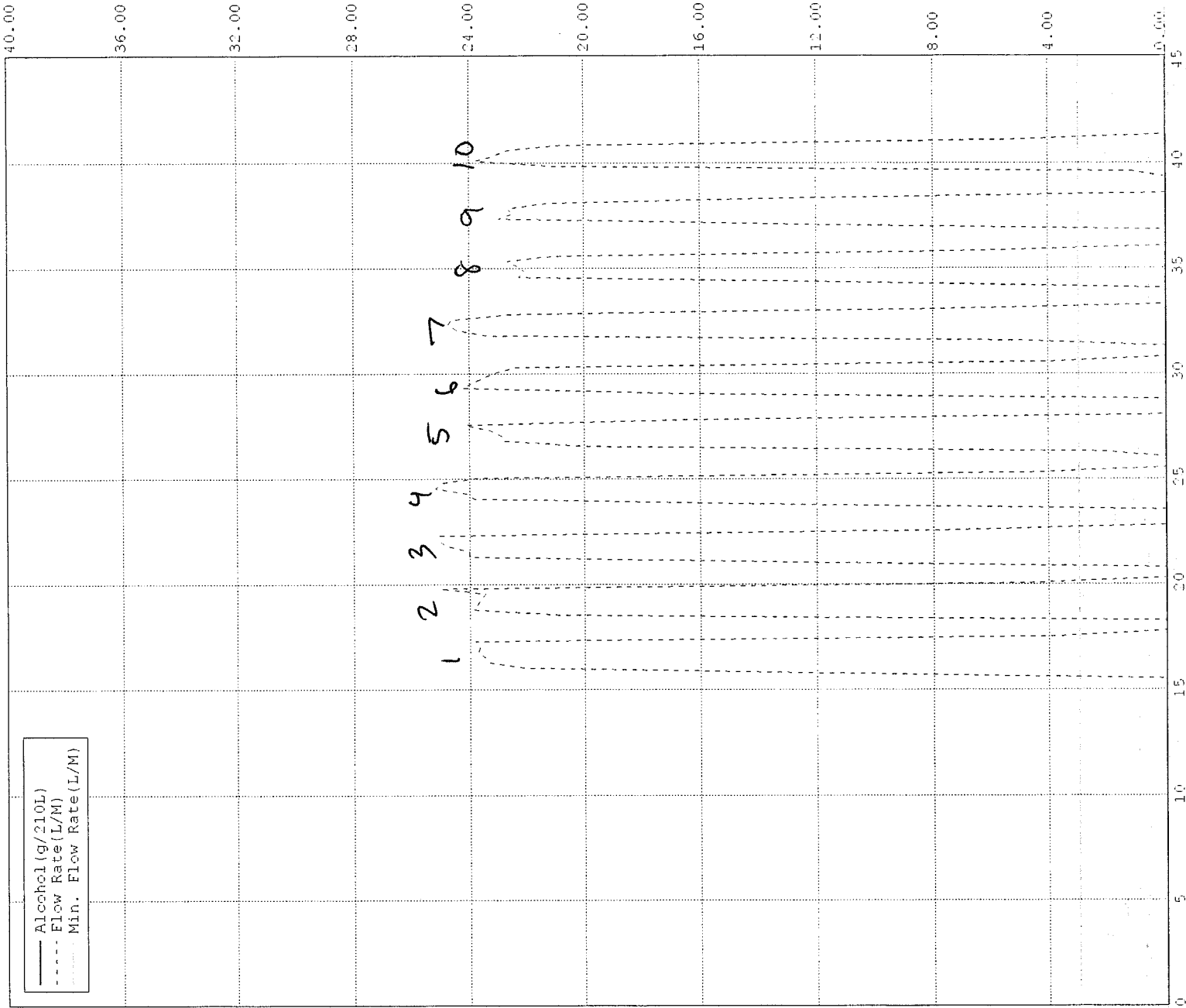
DEPT/AGENCY:
MAXIMUM ATTEMPTS
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.74: 0.080
LOT #: AG826101
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK PASSED 11:06
BLANK TEST 0.000 11:06
INTERNAL STANDARD VERIFIED 11:06
EXTERNAL STANDARD 0.079 11:07
BLANK TEST 0.000 11:08
SUBJECT SAMPLE XXX 11:09

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100680

Date: 5/30/2019
Time: 10:58:15

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

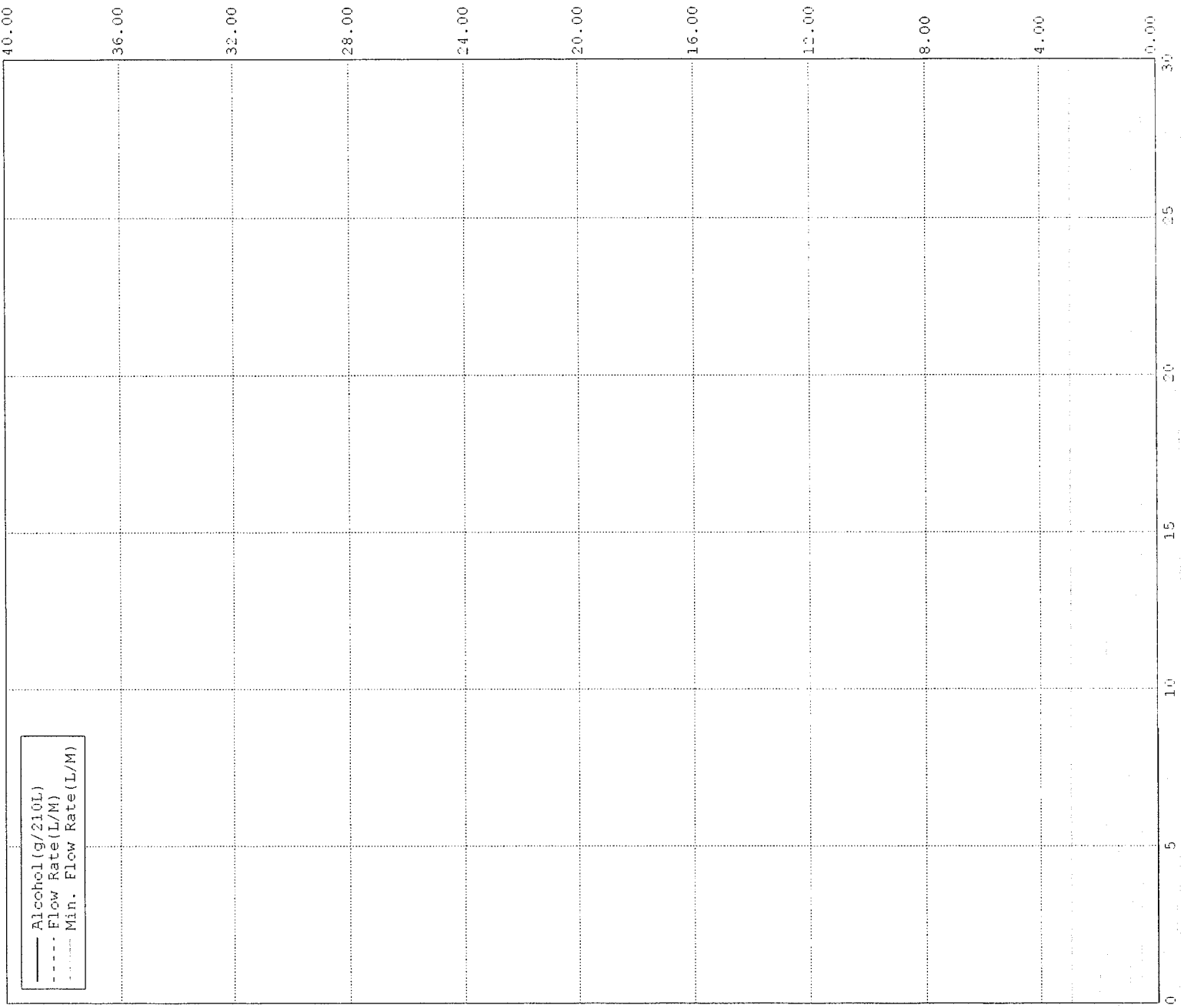
DEPT/AGENCY:
RADIO FREQUENCY
CASE/REPORT: XXXX
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.75: 0.080
LOT #: AG826101
EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK PASSED 10:59
BLANK TEST 0.000 11:00
INTERNAL STANDARD VERIFIED 11:00
EXTERNAL STANDARD 0.078 11:00
BLANK TEST 0.000 11:01

RFI DETECTED



SUBJECT TEST

 Alaska Department of Public Safety
 DATAMASTER dmt: 100680

 Date: 5/30/2019
 Time: 11:48:14

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 29.73: 0.079
 LOT #: AG826101
 EXPIRATION: 9/18/2020

DIAGNOSTIC CHECK	PASSED	Time
BLANK TEST	0.000	11:49
INTERNAL STANDARD	VERIFIED	11:49
EXTERNAL STANDARD	0.079	11:50
BLANK TEST	0.000	11:51
SUBJECT SAMPLE (Vol=2.63L)	0.000	11:51
BLANK TEST	0.000	11:52
EXTERNAL STANDARD	0.079	11:52
BLANK TEST	0.000	11:53

DW

