

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 100384 Analyst Derek Walton Start Date 06/21/2018

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 AG605804 Exp 02/27/2020
 - ii. 0.040g/210L Mnf Airgas Lot AG630101 Exp 10/27/2018
 - iii. 0.080g/210L Mnf Airgas Lot AG634001 Exp 12/05/2018
 - iv. 0.100g/210L Mnf Airgas Lot AG629304 Exp 10/19/2018
 - v. 0.200g/210L Mnf Cuth Lot 17090 Exp 02/24/2019
 1. Simulator S/N DR5298 Date Calibrated 01/24/2018
 - vi. 0.300g/210L Mnf Cuth Lot 17140 Exp 05/15/2019
 1. Simulator S/N SD1198 Date Calibrated 01/23/2018
 5. Functional Tests (attached)
 - a. Incomplete
 - b. Invalid
 - c. Interference
 - d. Exceeded attempts
 - i. Acetone - Mnf Cuth Lot 17280 Level 0.100 Exp 09/11/2019
 1. Simulator S/N SD1177 Date Calibrated 01/24/2018
 - ii. Isopropanol - Mnf Cuth Lot 17280 Level 0.100 Exp 09/11/2019
 1. Simulator S/N SD1199 Date Calibrated 01/24/2018
 - iii. Negative Control - Mnf ~~17280~~ Lot 17280 Level 0.100 Exp 09/11/2019
 1. Simulator S/N SD1088 Date Calibrated 01/24/2018
 - e. RFI Entry error DM 06/21/18
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 06/22/2018

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100384

Date: 06/21/2018
Time: 09:03:43

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 = 46.5°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.72 V PASSED
(0.97 V - 2.27 V)
Cooler Voltage = 1.71 V PASSED
(0.89 V - 2.09 V)
Bias Voltage = 79 V PASSED
(48 V - 112 V)
Chopper Freq = 545 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.6 in

PUMP INFO

Flow Rate = 4.603 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 = 0.085 1.41% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100384

Date: 06/21/2018
Time: 9:31 AM

Temperatures (°C)

Sample Cell: 49.1°C
Breath Tube: 46.3°C

Current Barometer 29.5 in
Volume (Ltr) 1.53

Settings

Lamp: 1.67 V
Bias: 79 V
Cooler: 1.66 V
Chopper: 545 Hz

Voltages (V)

Flow: 1.06 V
Detector: 0.039 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100384

Date: 08/12/2015
Time: 12:59:33

OPERATOR NAME:
COLLEEN S OBRYANT
CERTIFICATE #: 6237

Ca = 0.1000
CAL = 0.945546 0.800 <= CAL < 1.200
b1 = 0.0004 0.0000 <= b1 < 0.0040
b2 = 0.0064 0.0010 <= b2 < 0.0100
b3 = 0.0003 0.0000 <= b3 < 0.0040
Xq = 0.0862 0.0500 <= Xq < 0.2000
a21 = 1.174741 1.050 <= a21 < 1.300
a31 = 0.527980 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100384

Date: 06/21/2018
Time: 09:53:11

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 29.50: 0.079

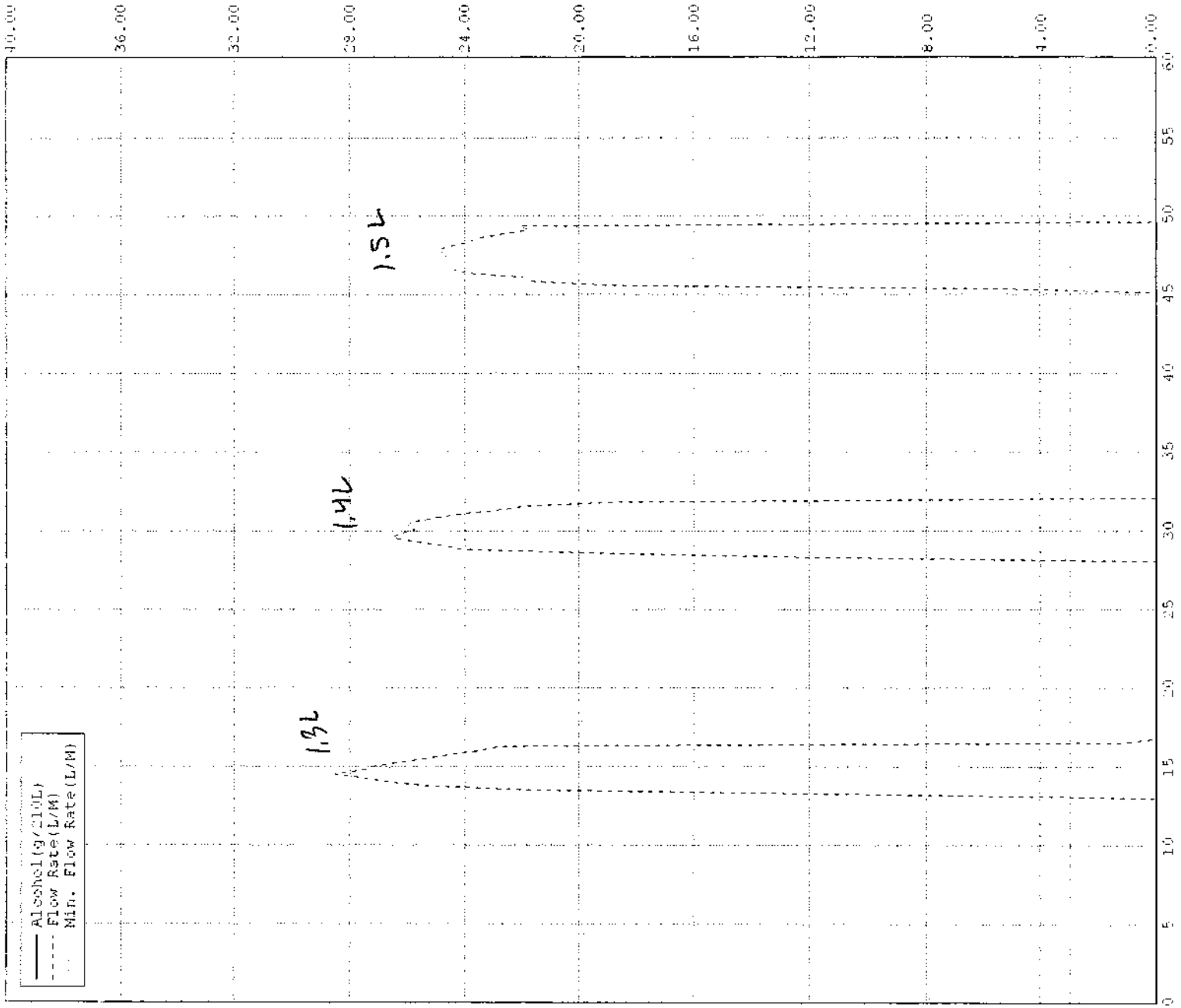
DIAGNOSTIC CHECK	PASSED	09:54
BLANK TEST	0.000	09:54
INTERNAL STANDARD	VERIFIED	09:54
EXTERNAL STANDARD	0.076	09:54
BLANK TEST	0.000	09:55
SUBJECT SAMPLE (Vol=1.57L)	0.000	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.075	09:57
BLANK TEST	0.000	09:58

Standard lot A6634001

Exp. 12/05/18

DW 06/21/18

DW



LINEARITY CHECK

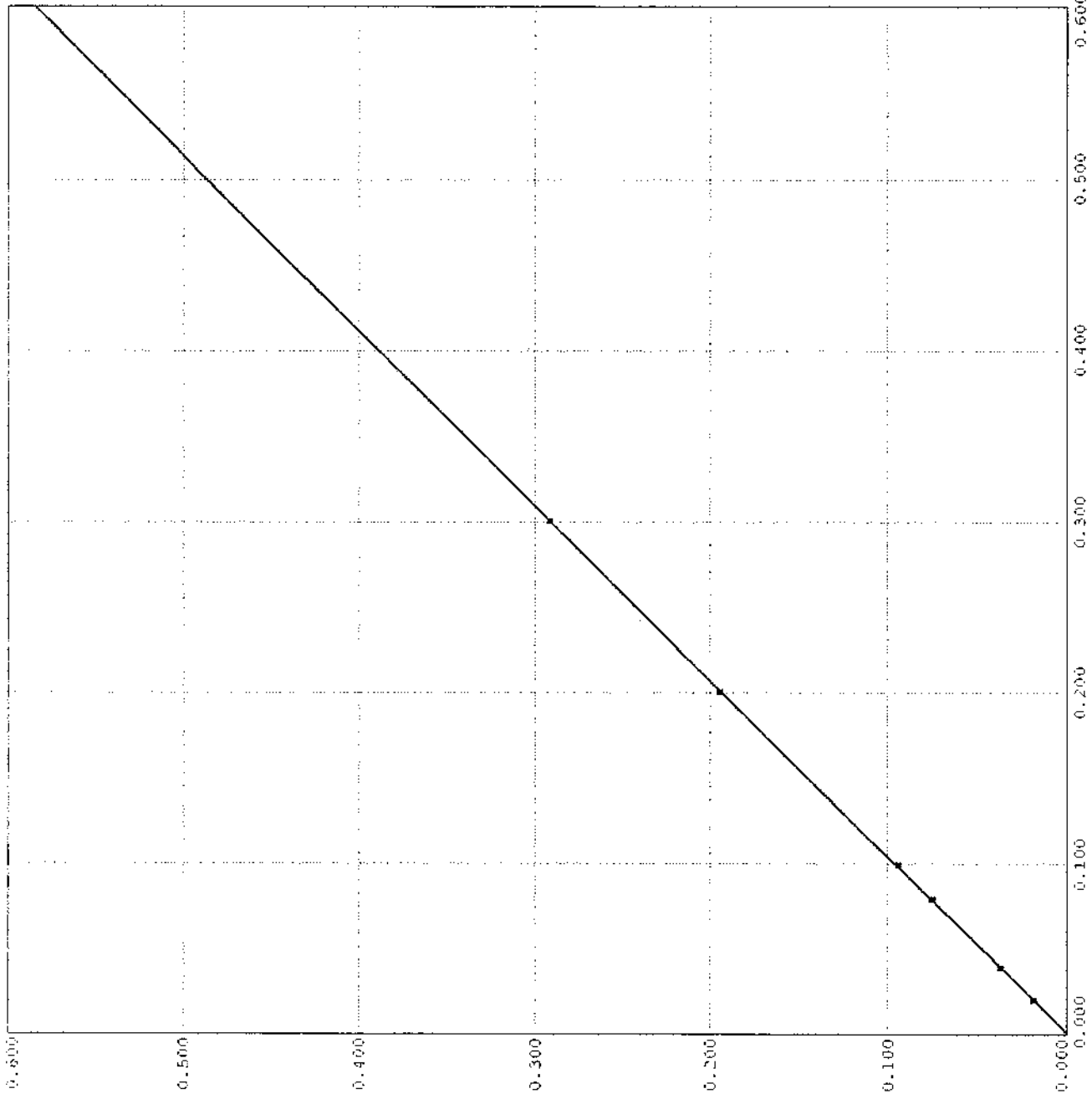
Alaska Department of Public Safety
DATAMASTER dmt: 100384

Date: 06/21/2018
Time: 10:05:53

SUPERVISOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0192	0.0004
0.039	0.0380	0.0000
0.079	0.0760	0.0000
0.099	0.0950	0.0000
0.200	0.1952	0.0004
0.300	0.2922	0.0004

SLOPE = 0.976332
R² = 0.999963



DMC

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
DATAMASTER dmt: 100384

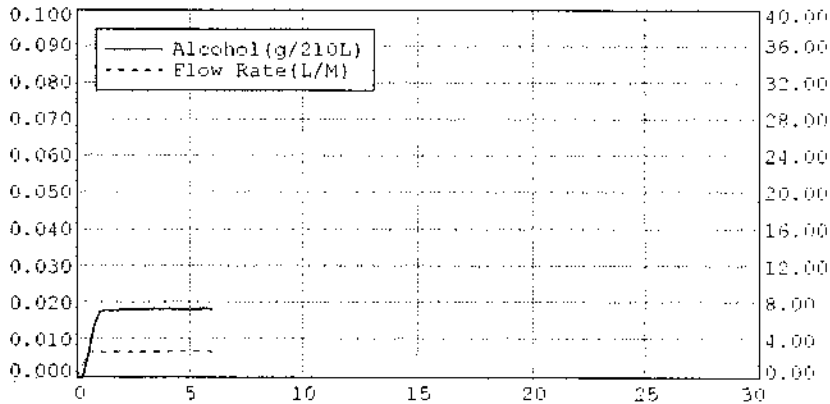
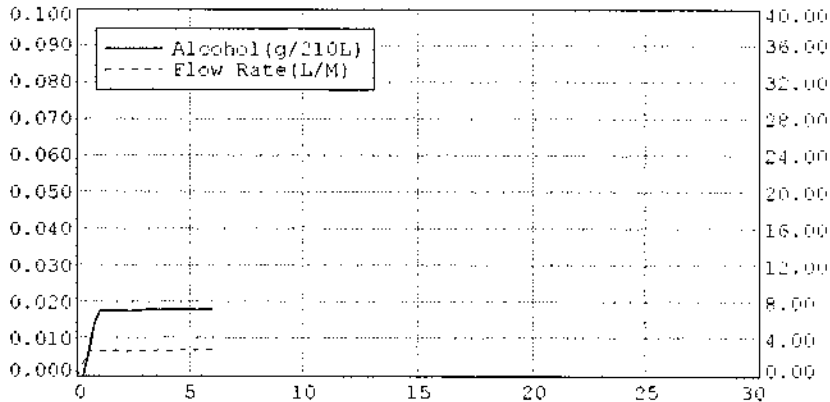
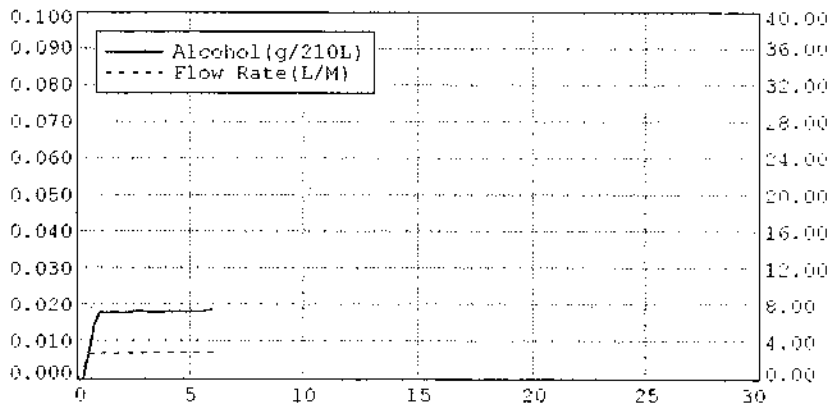
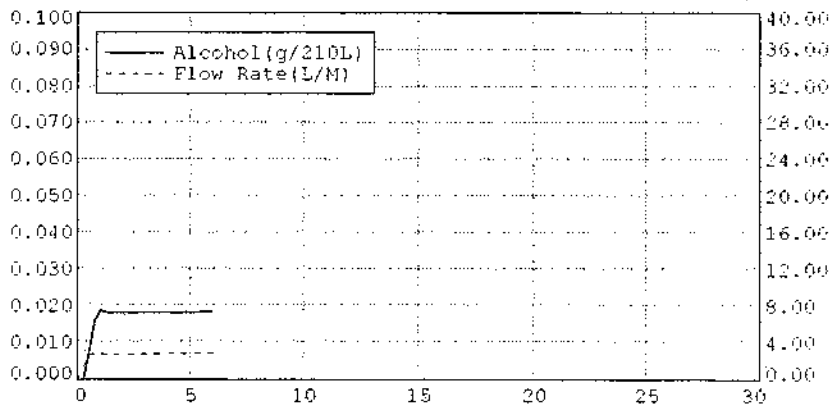
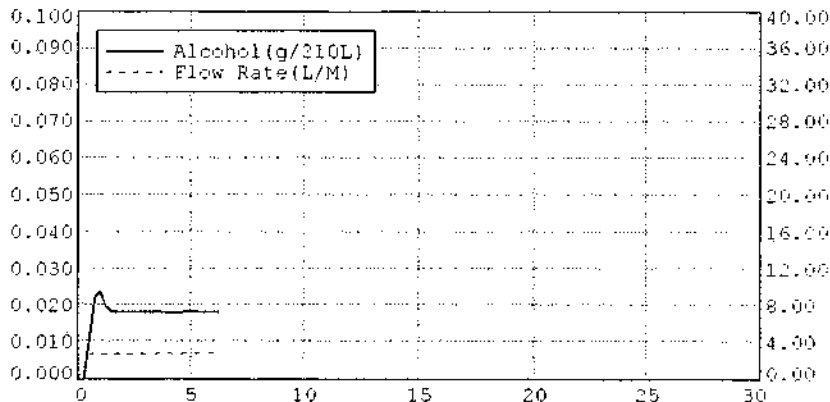
Date: 06/21/2018
Time: 10:05:55

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
TARGET AT 29.50: 0.020
LOT #: AG805804
EXPIRATION: 02/27/2020
TANK PRESSURE: 1104 psi

BLANK TEST	0.000	10:07
INTERNAL STANDARD	VERIFIED	10:07
EXTERNAL STANDARD	0.019	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.019	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.019	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.019	10:11
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.020	10:12
BLANK TEST	0.000	10:13

Average = 0.0192
Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100384

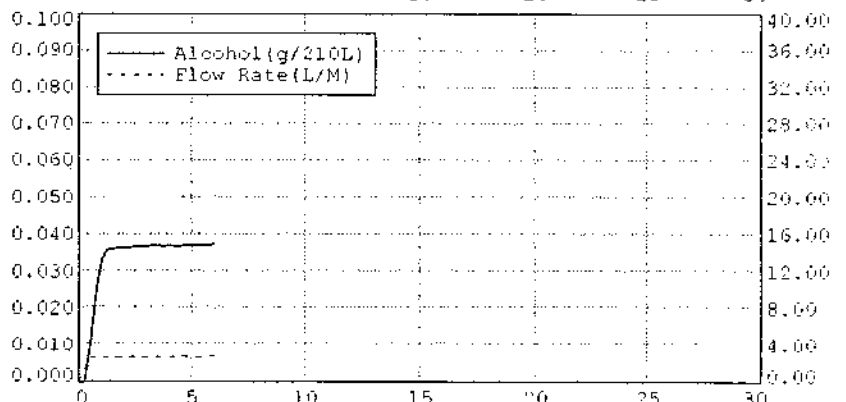
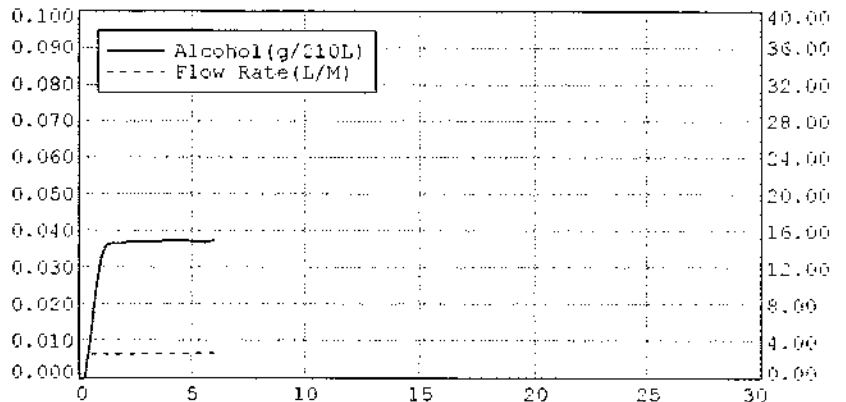
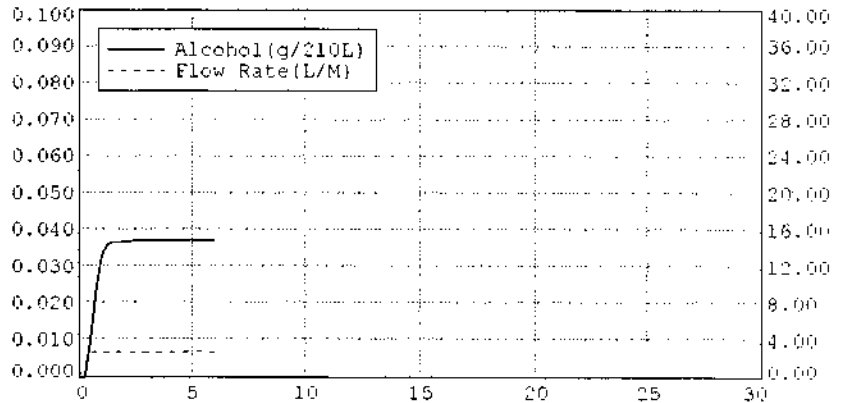
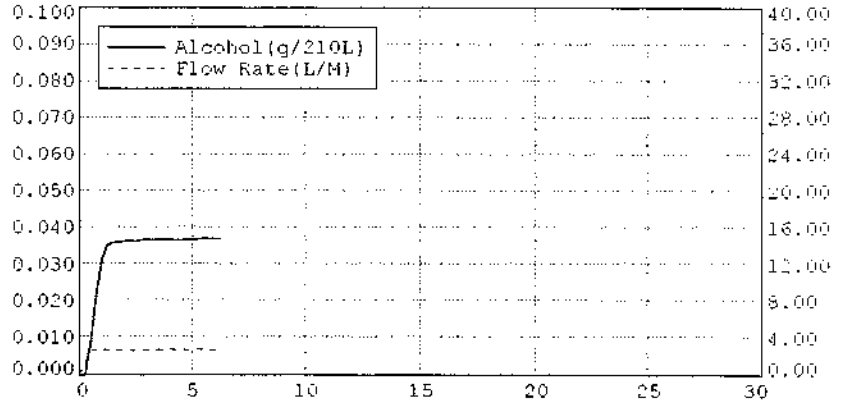
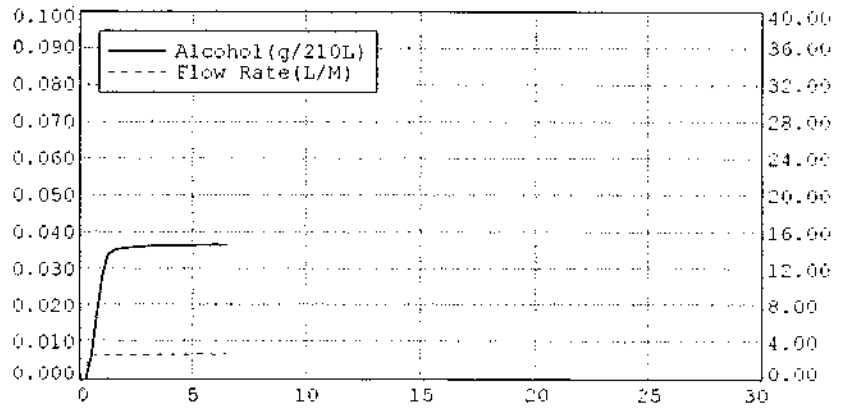
Date: 06/21/2018
 Time: 10:14:36

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 29.51: 0.039
 LOT #: AG630101
 EXPIRATION: 10/27/2018
 TANK PRESSURE: 891 psi

BLANK TEST	0.000	10:16
INTERNAL STANDARD	VERIFIED	10:16
EXTERNAL STANDARD	0.038	10:16
BLANK TEST	0.000	10:17
EXTERNAL STANDARD	0.038	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.038	10:18
BLANK TEST	0.000	10:19
EXTERNAL STANDARD	0.038	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.038	10:20
BLANK TEST	0.000	10:21

Average = 0.0380
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100384

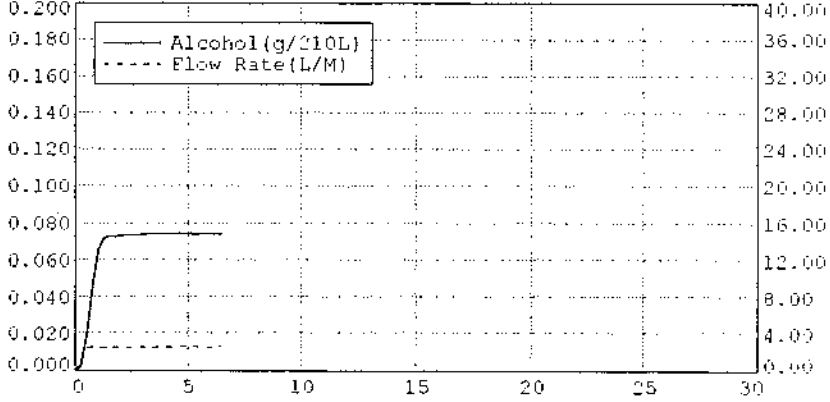
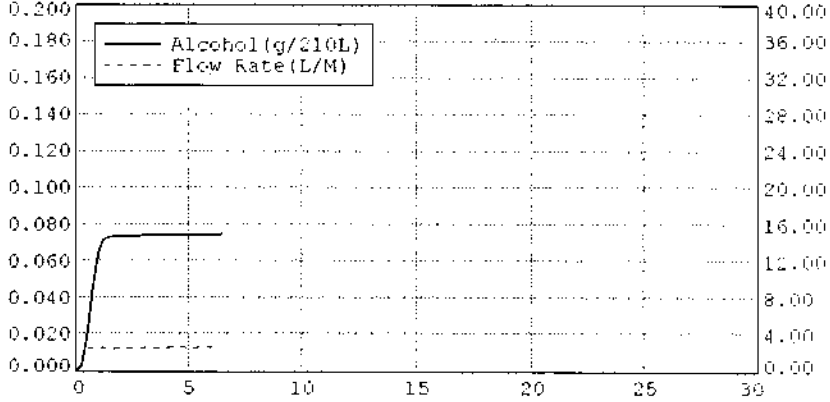
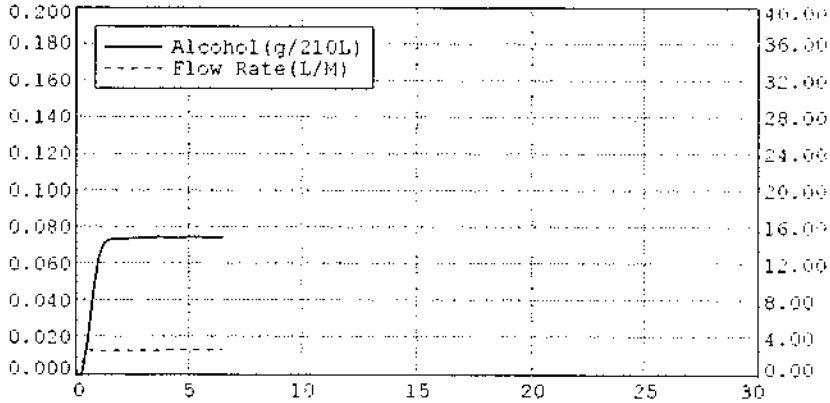
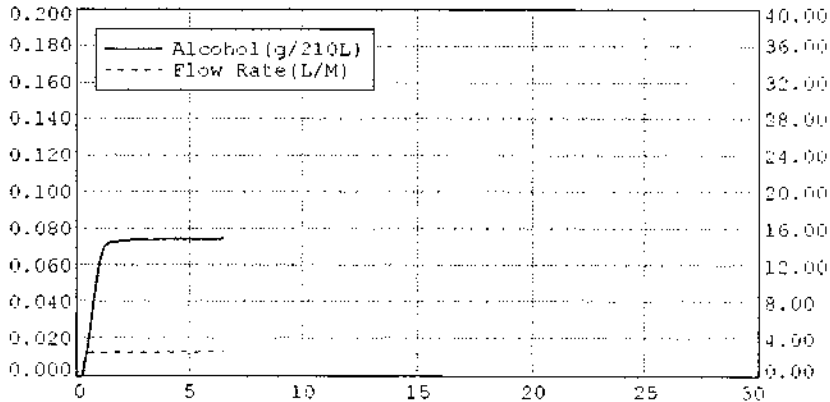
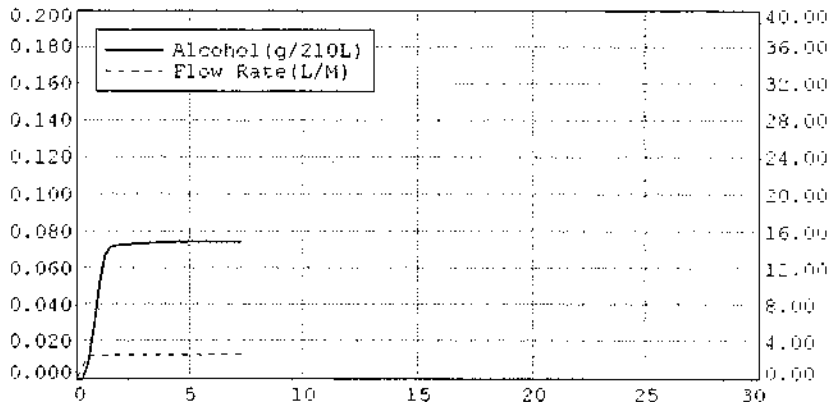
Date: 06/21/2018
 Time: 10:24:50

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.51: 0.079
 LOT #: AG634001
 EXPIRATION: 12/05/2018
 TANK PRESSURE: 468 psi

BLANK TEST	0.000	10:26
INTERNAL STANDARD	VERIFIED	10:26
EXTERNAL STANDARD	0.076	10:26
BLANK TEST	0.000	10:27
EXTERNAL STANDARD	0.076	10:27
BLANK TEST	0.000	10:28
EXTERNAL STANDARD	0.076	10:28
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.076	10:29
BLANK TEST	0.000	10:30
EXTERNAL STANDARD	0.076	10:31
BLANK TEST	0.000	10:32

Average = 0.0760
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dmt: 100384

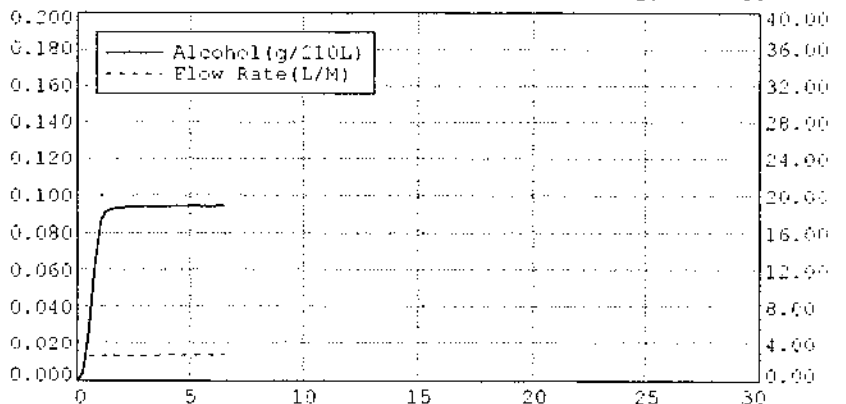
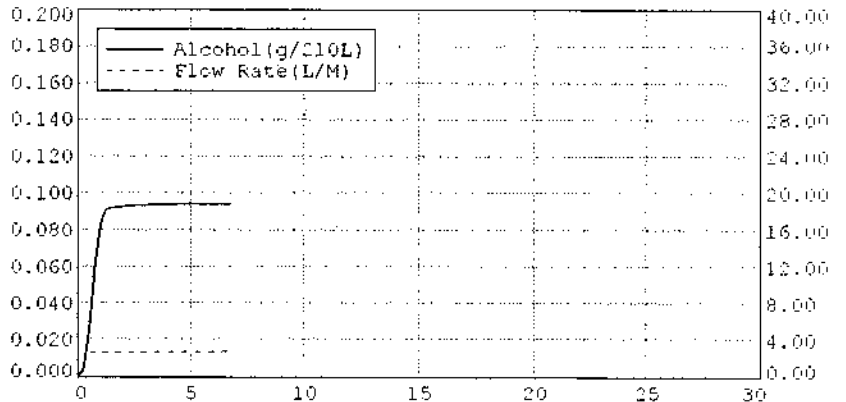
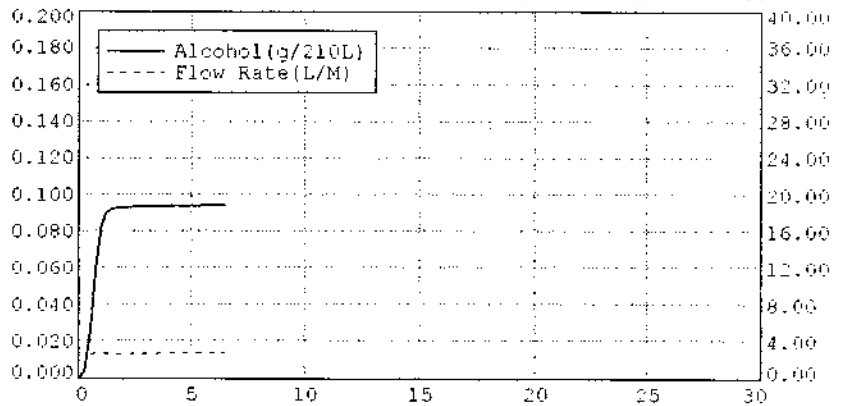
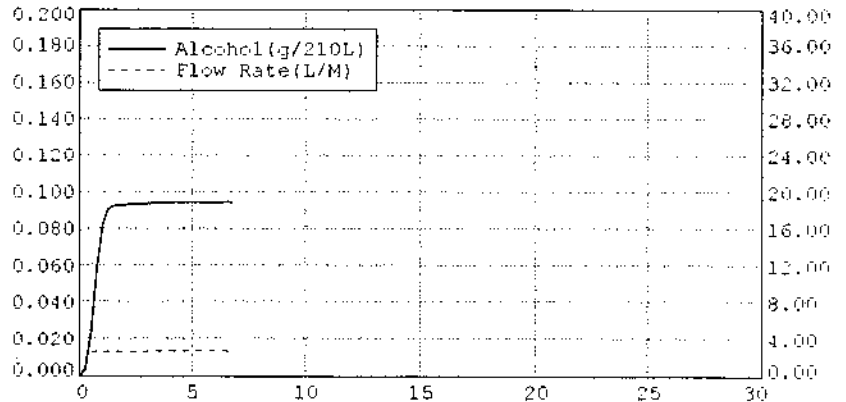
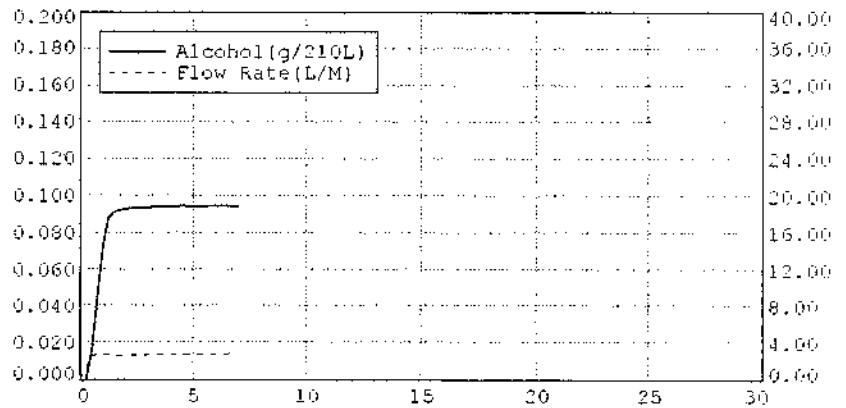
Date: 06/21/2018
 Time: 10:37:43

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 29.52: 0.099
 LOT #: AG629304
 EXPIRATION: 10/19/2018
 TANK PRESSURE: 927 psi

BLANK TEST	0.000	10:39
INTERNAL STANDARD	VERIFIED	10:39
EXTERNAL STANDARD	0.095	10:39
BLANK TEST	0.000	10:40
EXTERNAL STANDARD	0.095	10:40
BLANK TEST	0.000	10:41
EXTERNAL STANDARD	0.095	10:41
BLANK TEST	0.000	10:42
EXTERNAL STANDARD	0.095	10:42
BLANK TEST	0.000	10:43
EXTERNAL STANDARD	0.095	10:43
BLANK TEST	0.000	10:44

Average = 0.0950
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

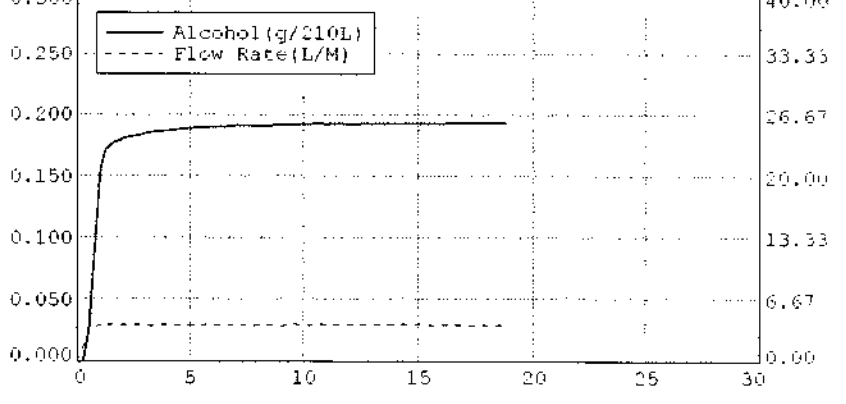
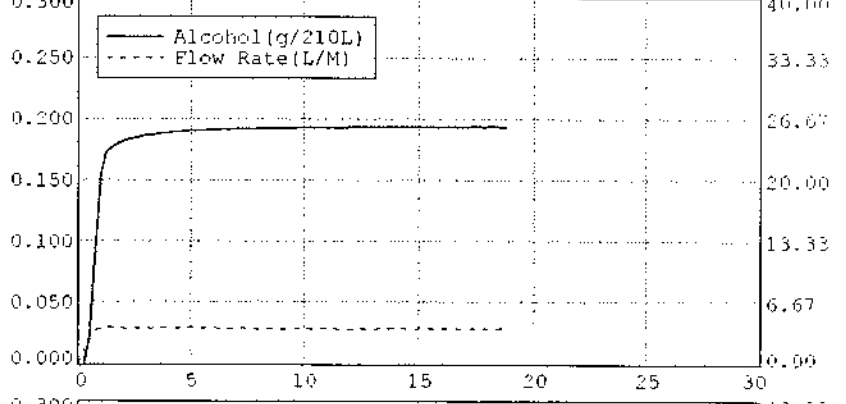
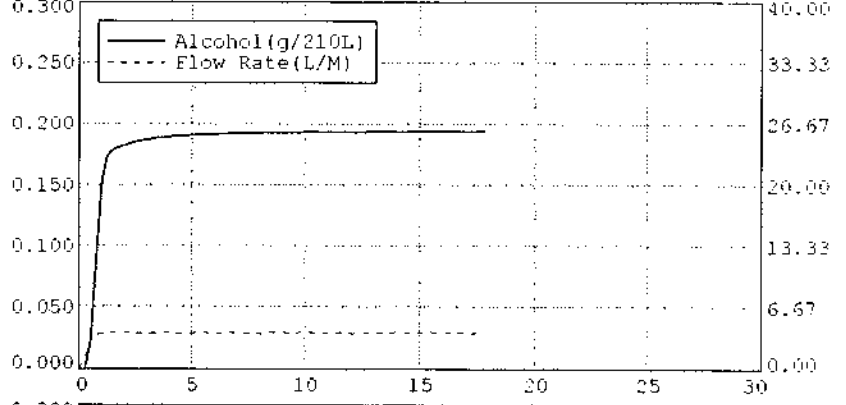
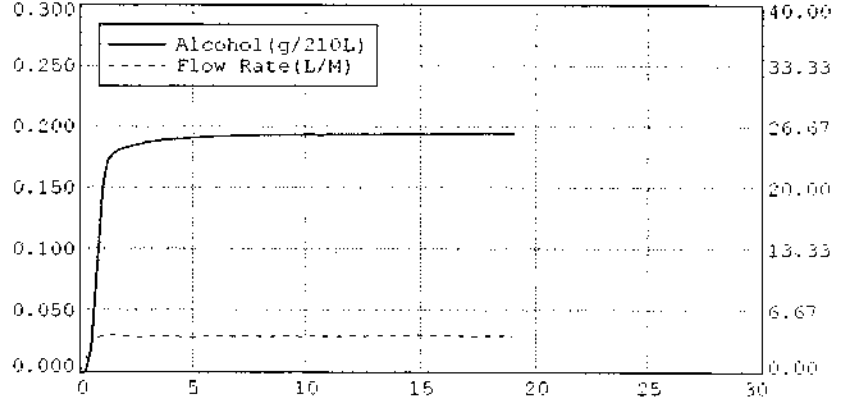
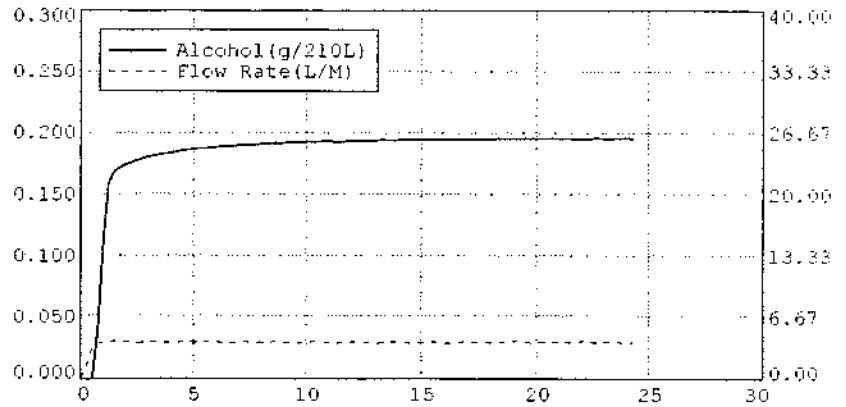
Alaska Department of Public Safety
 DATAMASTER dmt: 100384

Date: 06/21/2018
 Time: 11:10:23

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200
 LOT #: 17090
 EXPIRATION: 02/24/2019

BLANK TEST	0.000	11:11
INTERNAL STANDARD	VERIFIED	11:11
EXTERNAL STANDARD	0.196	11:12
BLANK TEST	0.000	11:13
EXTERNAL STANDARD	0.195	11:13
BLANK TEST	0.000	11:14
EXTERNAL STANDARD	0.195	11:15
BLANK TEST	0.000	11:16
EXTERNAL STANDARD	0.195	11:16
BLANK TEST	0.000	11:17
EXTERNAL STANDARD	0.195	11:17
BLANK TEST	0.000	11:18

Average = 0.1952
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100384

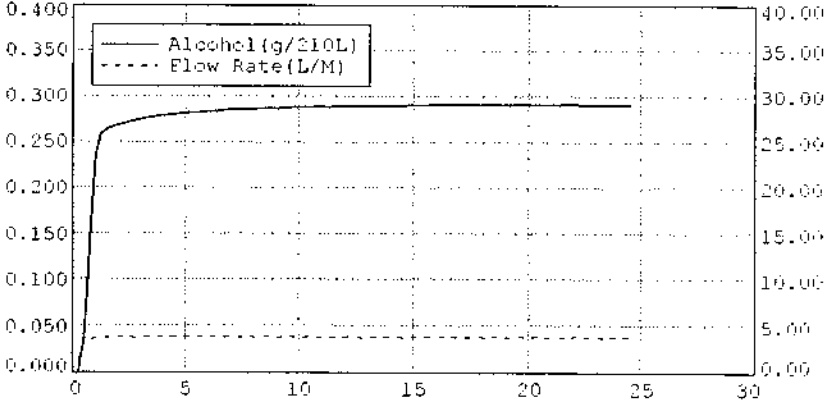
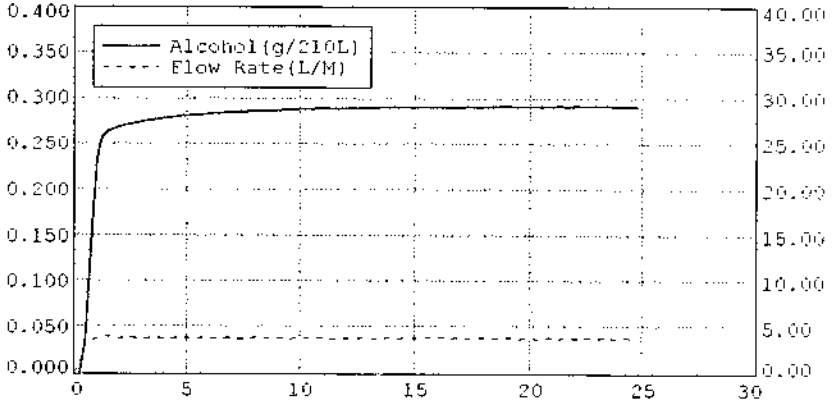
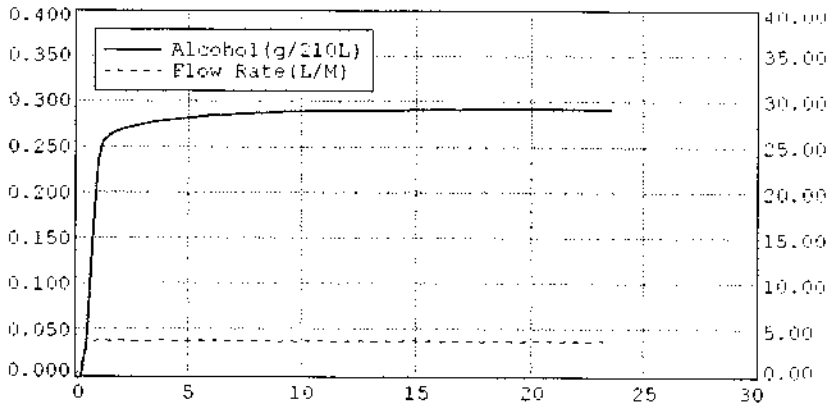
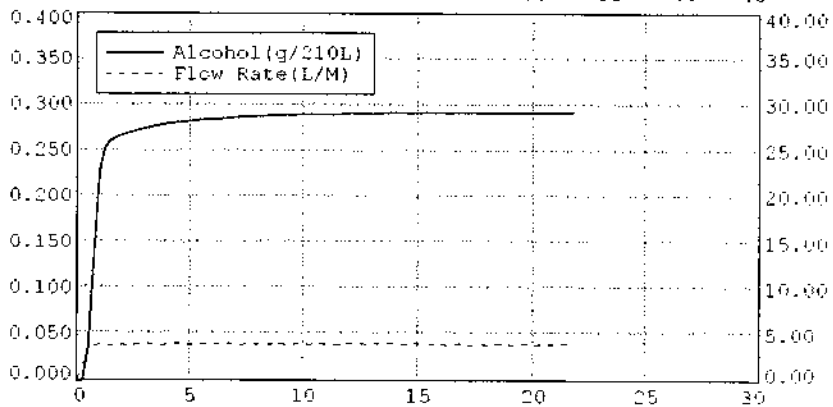
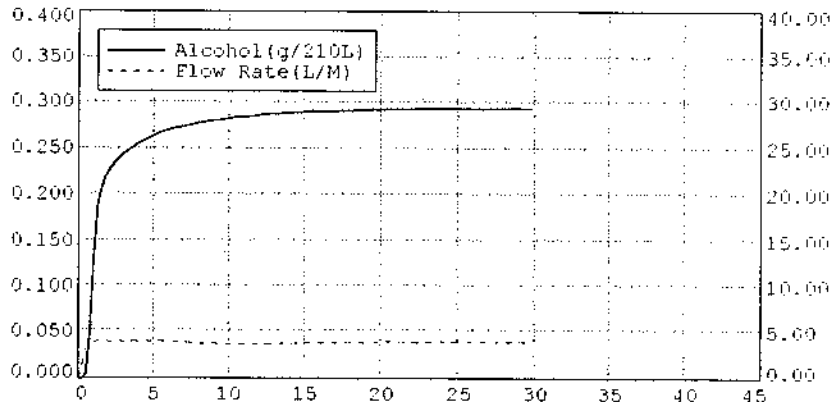
Date: 06/21/2018
 Time: 11:21:09

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 17140
 EXPIRATION: 05/15/2019

BLANK TEST	0.000	11:22
INTERNAL STANDARD	VERIFIED	11:22
EXTERNAL STANDARD	0.293	11:23
BLANK TEST	0.000	11:24
EXTERNAL STANDARD	0.292	11:24
BLANK TEST	0.000	11:25
EXTERNAL STANDARD	0.292	11:26
BLANK TEST	0.000	11:26
EXTERNAL STANDARD	0.292	11:27
BLANK TEST	0.000	11:28
EXTERNAL STANDARD	0.292	11:28
BLANK TEST	0.000	11:29

Average = 0.2922
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100384

Date: 06/21/2018
Time: 15:06:41

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 29.54: 0.079

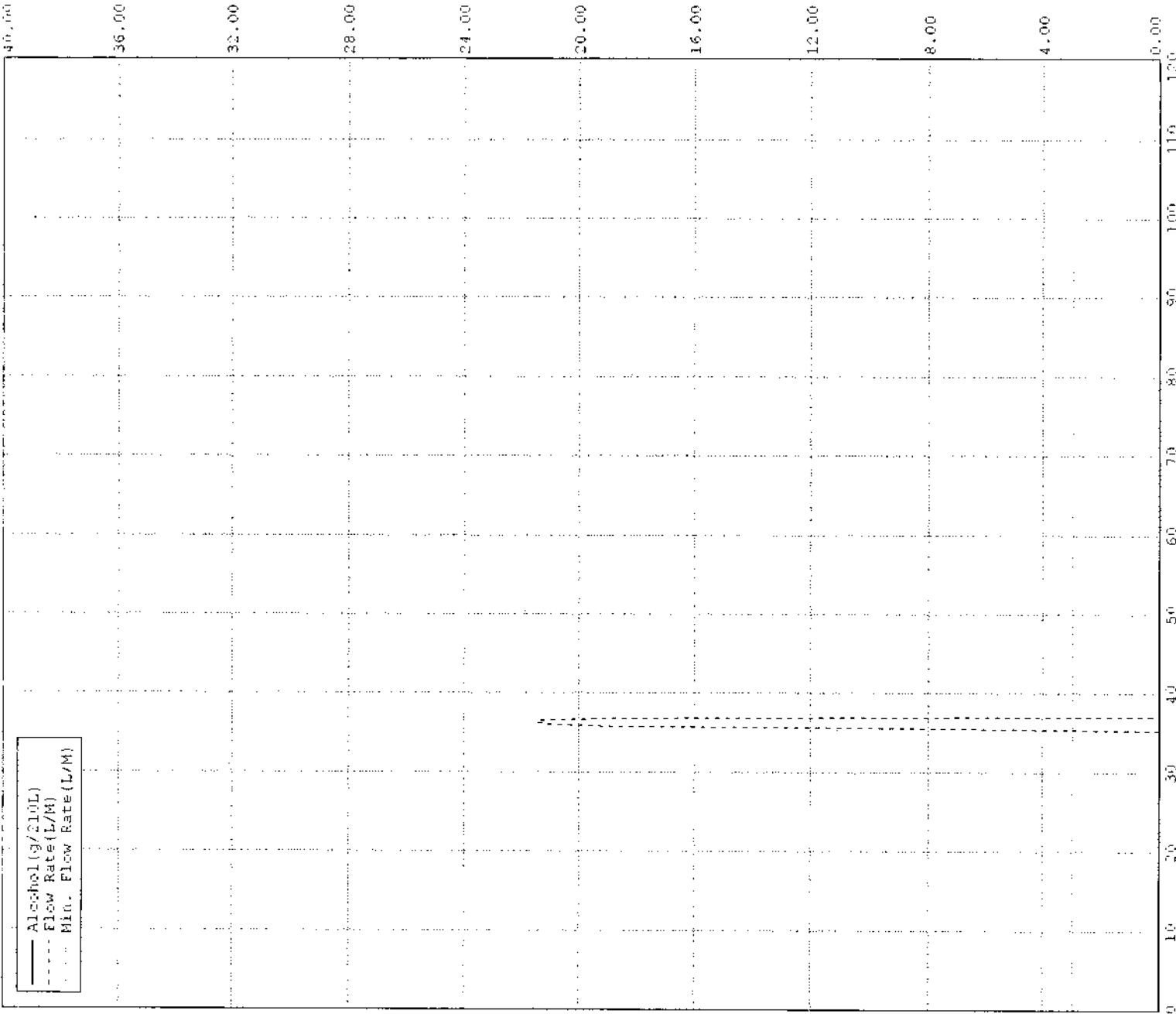
DIAGNOSTIC CHECK	PASSED	15:07
BLANK TEST	0.000	15:07
INTERNAL STANDARD	VERIFIED	15:07
EXTERNAL STANDARD	0.075	15:08
BLANK TEST	0.000	15:09
SUBJECT SAMPLE	INCOMPLETE	15:11

External standard lot

A6634001

Exp. 12/05/2018 DM 06/21/18

DN



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100384

Date: 06/22/2018
Time: 08:15:00

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 29.80: 0.080

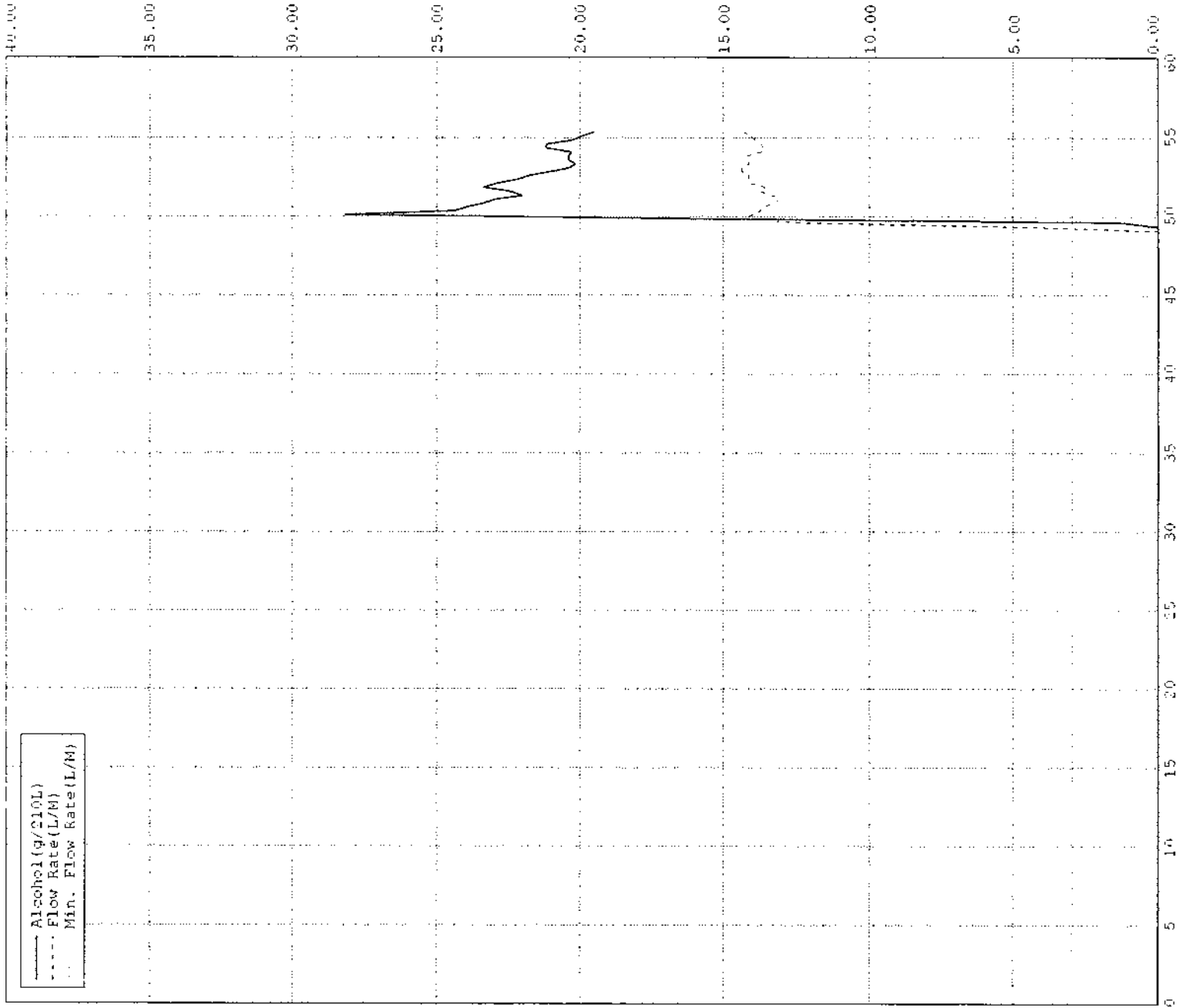
DIAGNOSTIC CHECK	PASSED	08:24
BLANK TEST	0.000	08:25
INTERNAL STANDARD	VERIFIED	08:25
EXTERNAL STANDARD	0.077	08:25
BLANK TEST	0.000	08:26
SUBJECT SAMPLE	INVALID	08:27

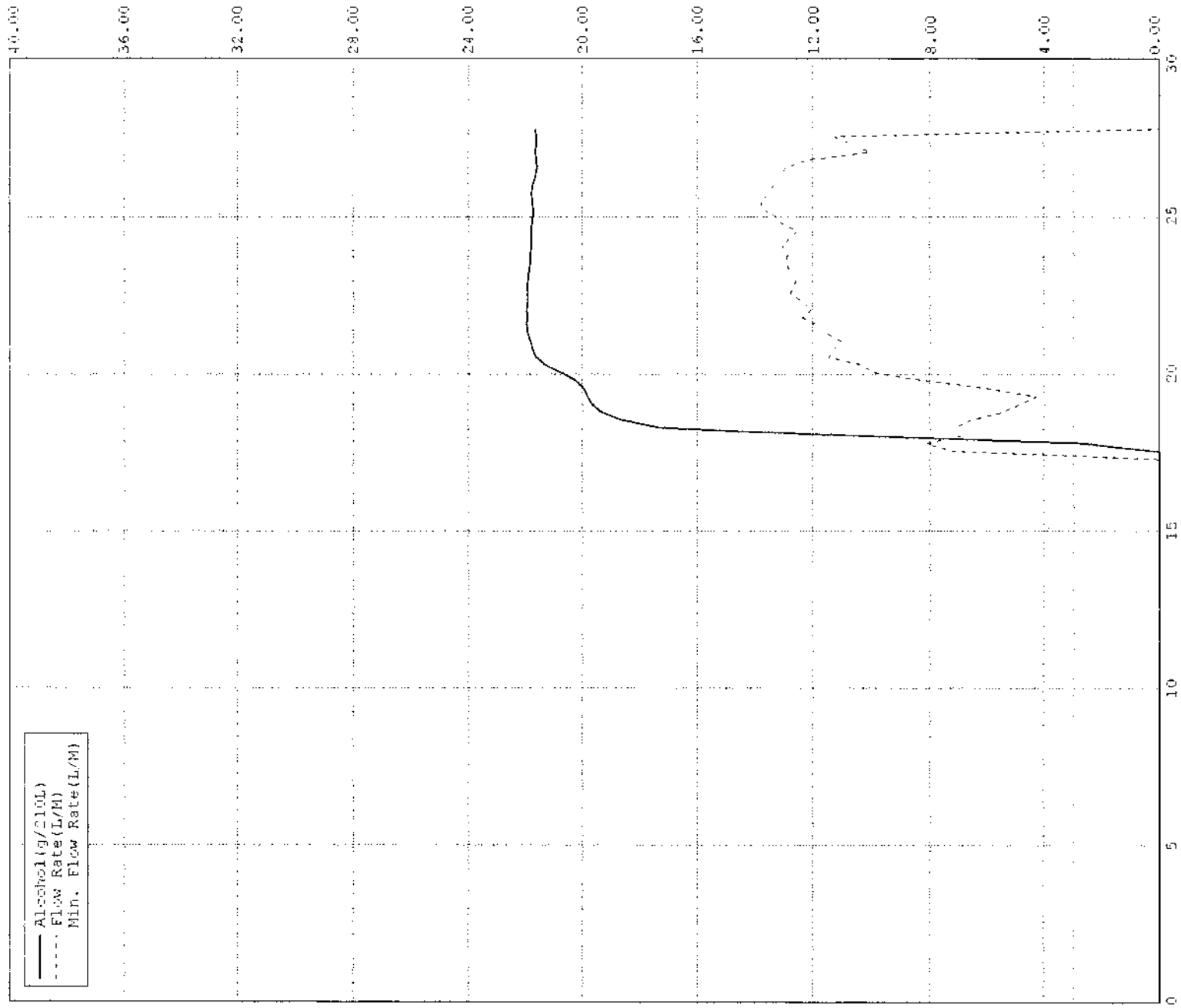
External standard lot

AG634001

Exp. 12/05/2018 DM 06/22/18

DM





SUBJECT TEST

 Alaska Department of Public Safety
 DATAMASTER dmt: 100384

 Date: 06/22/2018
 Time: 08:33:25

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 29.80: 0.080

DIAGNOSTIC CHECK	PASSED	08:34
BLANK TEST	0.000	08:35
INTERNAL STANDARD	VERIFIED	08:35
Xq = 0.086 (0.00%)		
EXTERNAL STANDARD	0.076	08:35
X[1] = 0.0761 (-0.0009) (0.0022)		
BLANK TEST	0.000	08:36
SUBJECT SAMPLE	XXX	08:36
X[1] = 0.1090 (-0.0161) (0.0019)		

Interference Detected

External standard lot
 AG654001
 Exp. 12/05/2018 JMW
 06/22/18
 DOW

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100384

Date: 06/22/2018
Time: 08:38:54

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.80: 0.080

DIAGNOSTIC CHECK	PASSED	08:39
BLANK TEST	0.000	08:40
INTERNAL STANDARD	VERIFIED	08:40
Xq = 0.086 (0.10%)		
EXTERNAL STANDARD	0.077	08:40
X[1] = 0.0766 (-0.0013) (0.0015)		
BLANK TEST	0.000	08:41
SUBJECT SAMPLE	XXX	08:41
X[1] = 0.1149 (-0.0267) (0.0004)		

Interference Detected

External standard lot

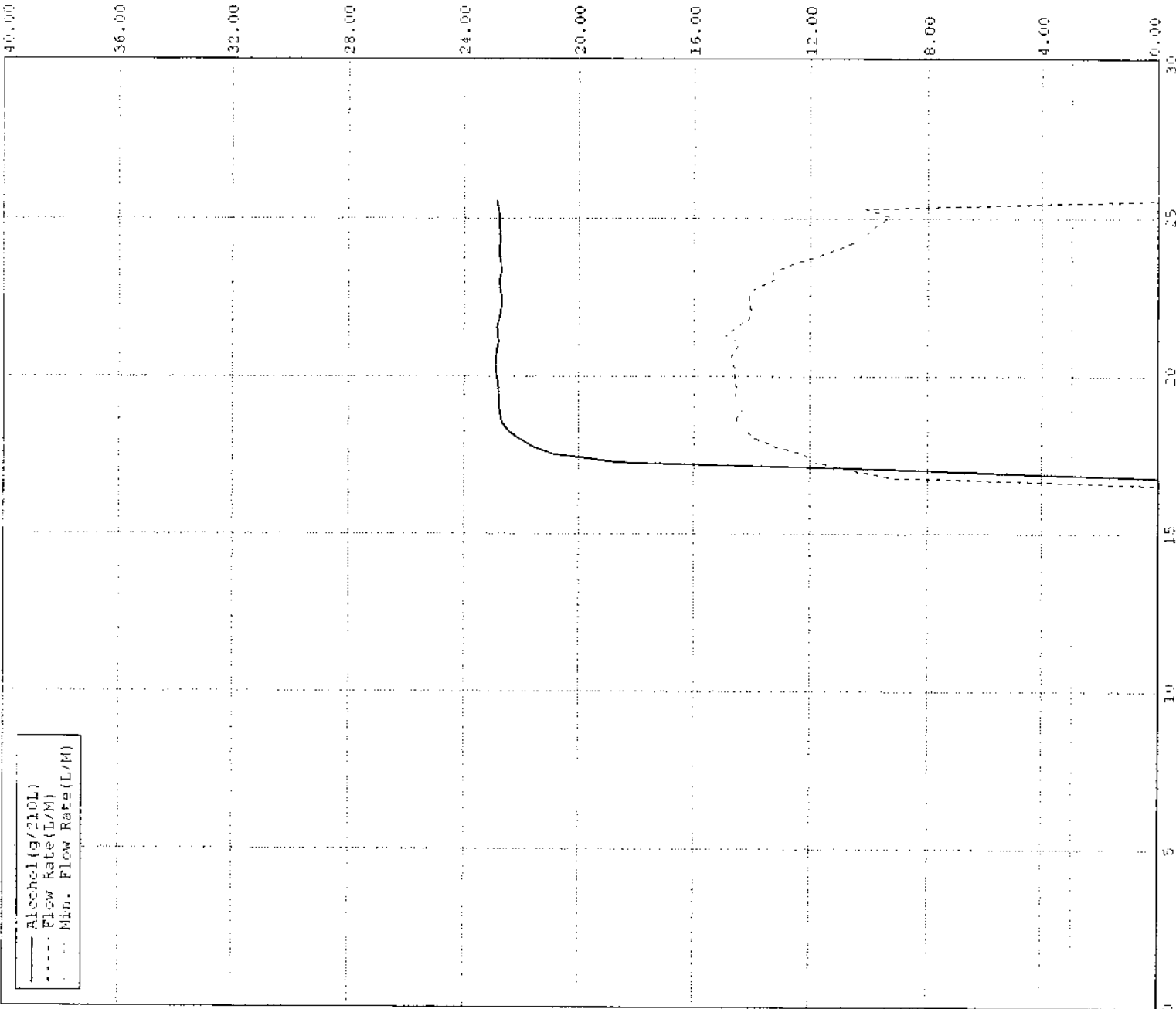
AG634001

Exp. 06/12/05/2018

DW
06/22/18

DW
06/22/18

DW



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100384

Date: 06/22/2018
Time: 08:44:49

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 29.80: 0.080
LOT #: AG634001
EXPIRATION: 12/05/2018

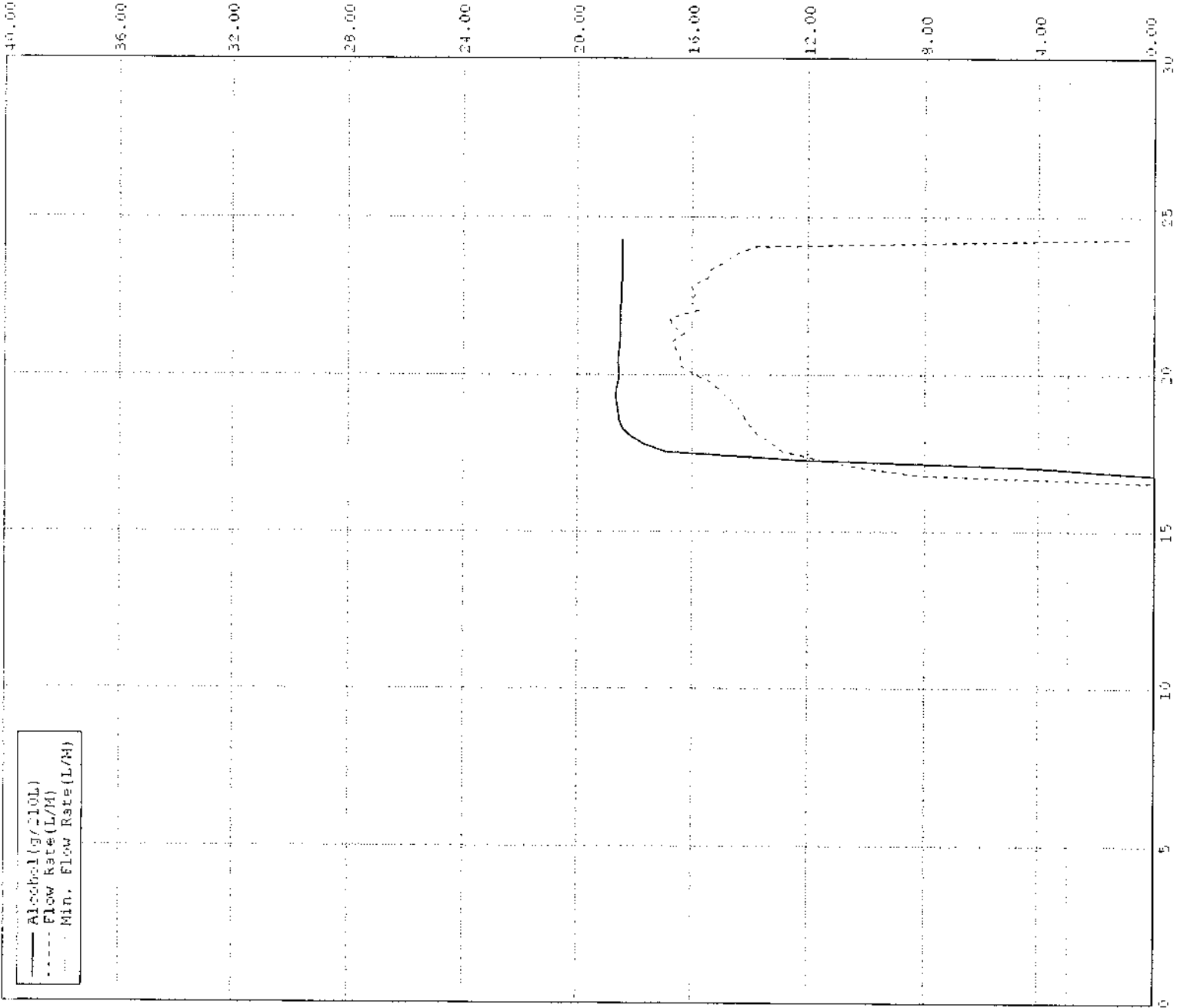
DIAGNOSTIC CHECK	PASSED	08:47
BLANK TEST	0.000	08:48
INTERNAL STANDARD	VERIFIED	08:48
$X_g = 0.087$ (0.30%)		
EXTERNAL STANDARD	0.077	08:48
$X[1] = 0.0766$ (-0.0016) (0.0014)		
BLANK TEST	0.000	08:49
SUBJECT SAMPLE (Vol=1.84L)	0.093	08:49
$X[1] = 0.0930$ (0.0000) (-0.0002)		
BLANK TEST	0.000	08:50
EXTERNAL STANDARD	0.076	08:50
$X[1] = 0.0763$ (-0.0010) (0.0013)		
BLANK TEST	0.000	08:51

External standard lot A6634001
Exp. 12/05/2018 DM 06/22/18

Filter 2 average: -0.0012

Filter 3 average: 0.0016

DW



SUBJECT TEST

Alaska Department of Public Safety

DATA MASTER dmt: 100384

Date: 06/21/2018
Time: 15:46:28

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 29.54: 0.079

DIAGNOSTIC CHECK	PASSED	15:47
BLANK TEST	0.000	15:47
INTERNAL STANDARD	VERIFIED	15:47
EXTERNAL STANDARD	0.075	15:48
BLANK TEST	0.000	15:49
SUBJECT SAMPLE	XXX	15:49

Maximum Attempts Exceeded

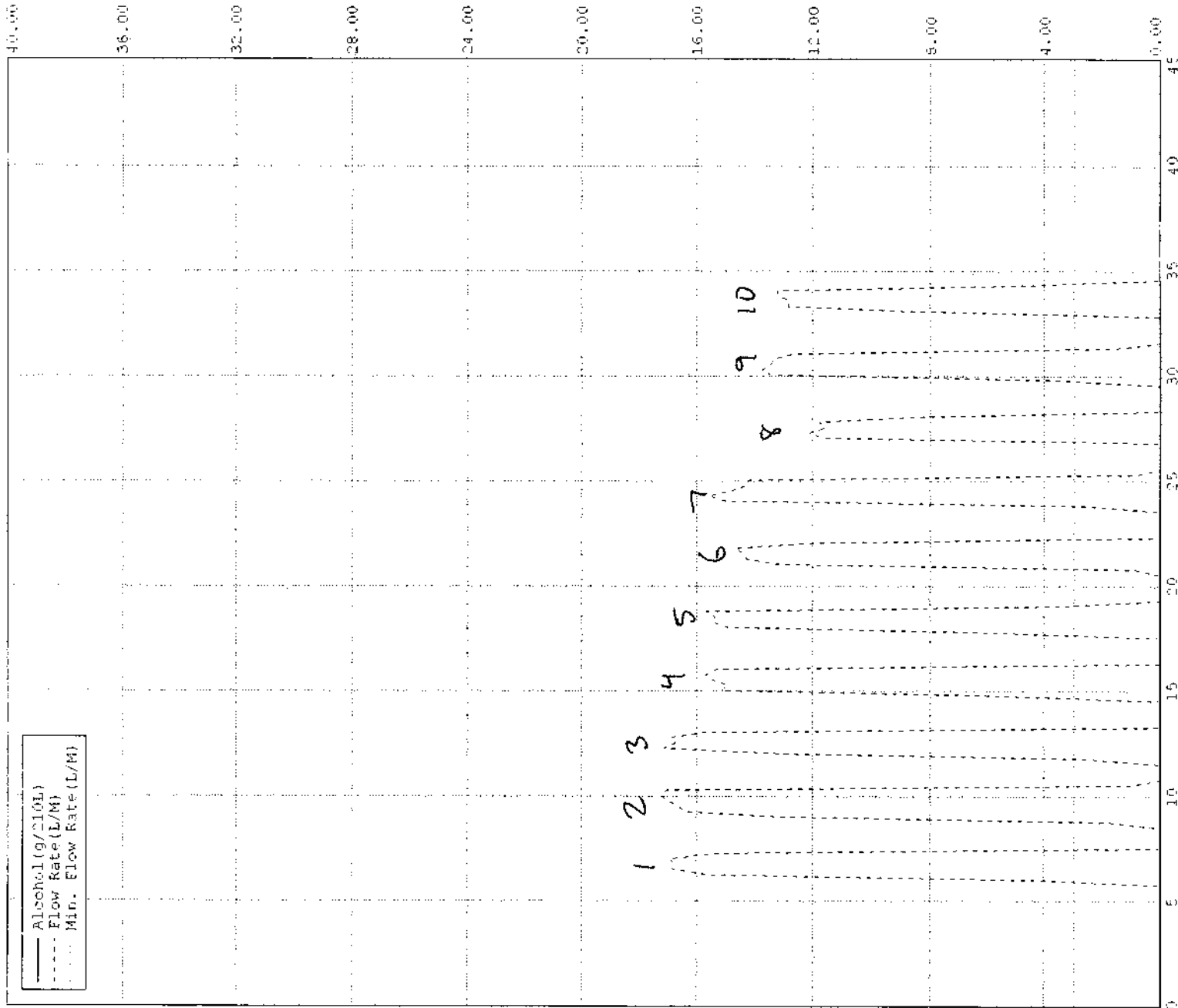
External standard lot

AG 634001

Exp. 12/05/2018

DM 06/21/2018

MLW



SUBJECT TEST

Alaska Department of Public Safety

DATA MASTER dmt: 100384

Date: 06/21/2018

Time: 15:40:23

SUBJECT NAME:

TEST TEST

LICENSE #: XXXX

OPERATOR NAME:

DEREK WALTON

OPERATOR'S #: 9508

DEPT/AGENCY:

RFI

CASE/REPORT: XXXX

TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080

TARGET AT 29.54: 0.079

DIAGNOSTIC CHECK

PASSED 15:41

BLANK TEST

0.000

INTERNAL STANDARD

VERIFIED 15:41

EXTERNAL STANDARD

0.075

BLANK TEST

0.000

15:42

RFI DETECTED

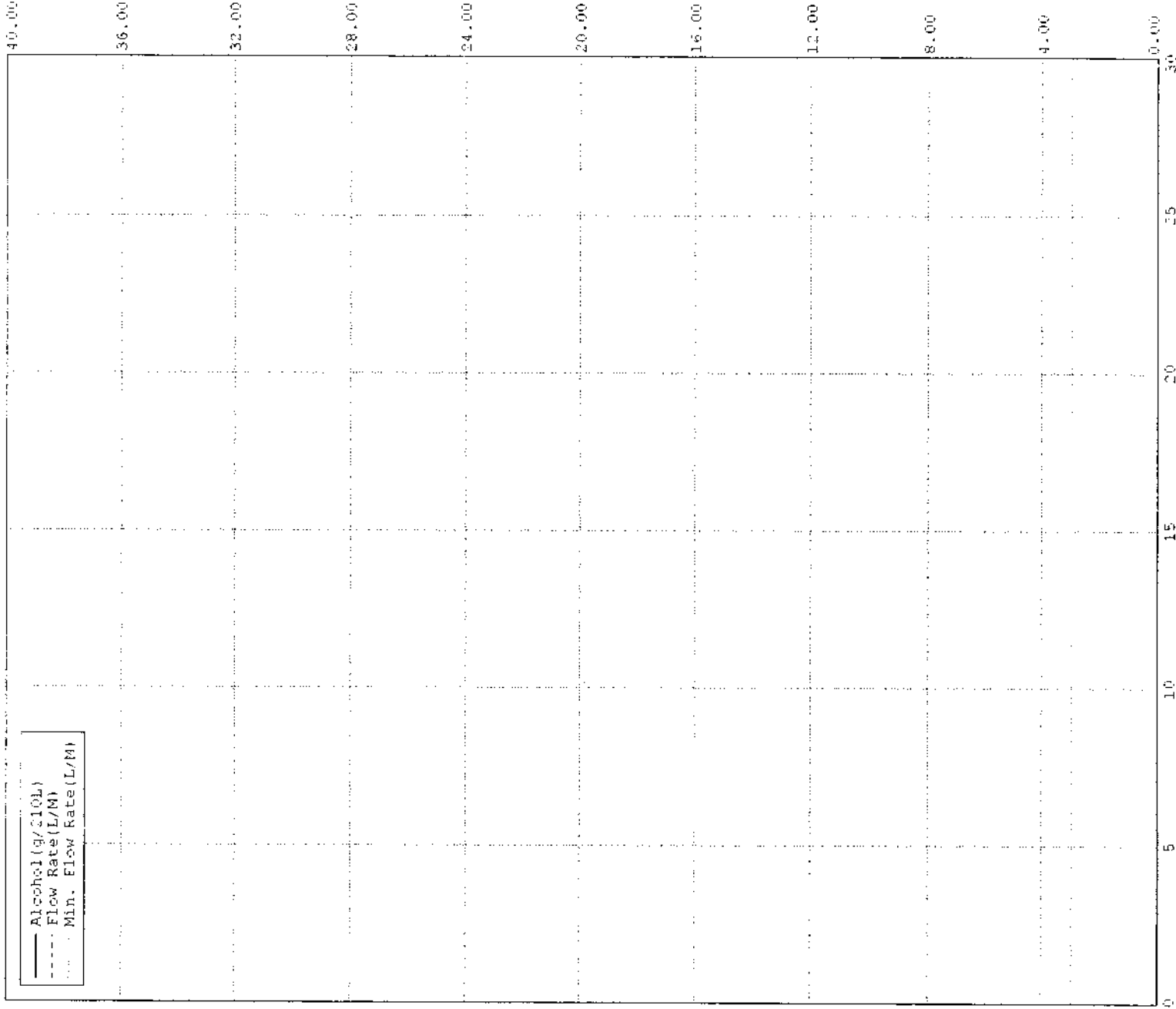
External standard lot

A6034001

Exp. 12/05/2018

06/21/2018

ML



SUBJECT TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100384

Date: 06/22/2018
 Time: 09:20:00

SUBJECT NAME:
 TEST TEST
 LICENSE #: XXXX

OPERATOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

DEPT/AGENCY:
 NON-DRINKING SUBJECT TEST
 CASE/REPORT: XXXX
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.080
 TARGET AT 29.81: 0.080

DIAGNOSTIC CHECK	PASSED	09:55
BLANK TEST	0.000	09:56
INTERNAL STANDARD	VERIFIED	09:56
EXTERNAL STANDARD	0.076	09:56
BLANK TEST	0.000	09:57
SUBJECT SAMPLE (Vol=2.50L)	0.000	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.076	09:59
BLANK TEST	0.000	09:59

External standard lot

AK634001

Exp. 12/05/2018

Lot DM 06/22/2018
 DM 06/24/2018

DRW

