

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 100345 Analyst CRF Start Date 12/11/15

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 ILMO Lot 02915020A2 Exp 3/5/17
- ii. 0.040g/210L Mnf ILMO Lot 02915040A3 Exp 3/5/17
- iii. 0.080g/210L Mnf ILMO Lot 01315040A2 Exp 2/5/17
- iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17
- v. 0.200g/210L Mnf Guth Lot 15130 Exp 3/11/17
 - 1. Simulator S/N DR6267 Date Calibrated 1/20/15
- vi. 0.300g/210L Mnf Guth Lot 14270 Exp 12/2/16
 - 1. Simulator S/N DR4162 Date Calibrated 1/19/15

Replaced regulator
before linearity.
see 12/11/15
Evaluation
Form

5. Functional Tests (attached)

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

- i. Acetone - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
 - 1. Simulator S/N DR4163 Date Calibrated 1/19/15
- ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
 - 1. Simulator S/N SD1176 Date Calibrated 1/20/15
- iii. Negative Control - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
 - 1. Simulator S/N DR4178 Date Calibrated 1/19/15

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 12/14/15

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100345

Date: 12/11/2015
Time: 10:43:39

VERSIONS
DMT: 3.01
PIC: 3.02
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.8°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 46.7°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.62 V PASSED
(0.97 V - 2.25 V)
Cooler Voltage = 1.71 V PASSED
(1.03 V - 2.39 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 528 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 29.0 in

PUMP INFO

Flow Rate = 4.648 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 = 0.093 0.09% (0.00% - 4.00%)

Technician Screen

DATAMASTER dmt: 100345

Date: 12/11/2015
Time: 10:56 AM

Temperatures (°C)
Sample Cell: 49.2°C
Breath Tube: 47.2°C

Current Barometer 29.0 in
Volume (ltr) 1.47

Settings
Lamp: 1.70 V
Bias: 80 V
Cooler: 1.76 V
Chopper: 528 Hz

Voltages (V)
Flow: 1.06 V
Detector: -0.053 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100345

Date: 12/08/2015
Time: 14:27:12

OPERATOR NAME:
COLLEEN S OBRYANT
CERTIFICATE #: 6237

Ca = 0.1000
CAL = 0.969254 0.800 <= CAL < 1.200
b1 = 0.0007 0.0000 <= b1 < 0.0040
b2 = 0.0072 0.0010 <= b2 < 0.0100
b3 = 0.0003 0.0000 <= b3 < 0.0040
Xq = 0.0930 0.0500 <= Xq < 0.2000
a21 = 1.137727 1.050 <= a21 < 1.300
a31 = 0.500777 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100345

Date: 12/11/2015
Time: 11:04:47

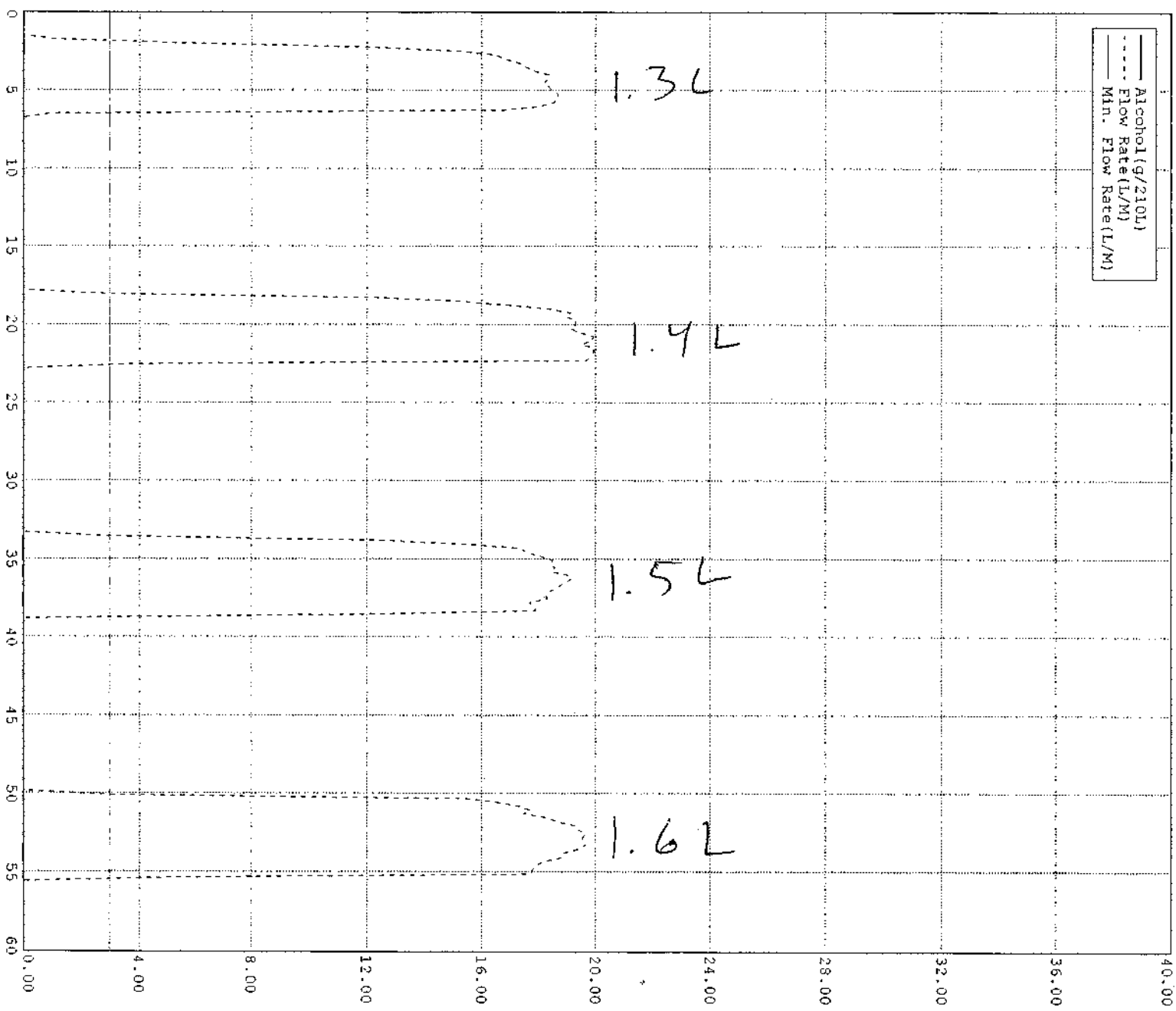
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
MINIMUM VOLUME
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.02: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	11:06
BLANK TEST	0.000	11:07
INTERNAL STANDARD	VERIFIED	11:07
EXTERNAL STANDARD	0.074	11:07
BLANK TEST	0.000	11:08
SUBJECT SAMPLE (Vol=1.57L)	0.000	11:09
BLANK TEST	0.000	11:10
EXTERNAL STANDARD	0.075	11:10
BLANK TEST	0.000	11:11



LINEARITY CHECK

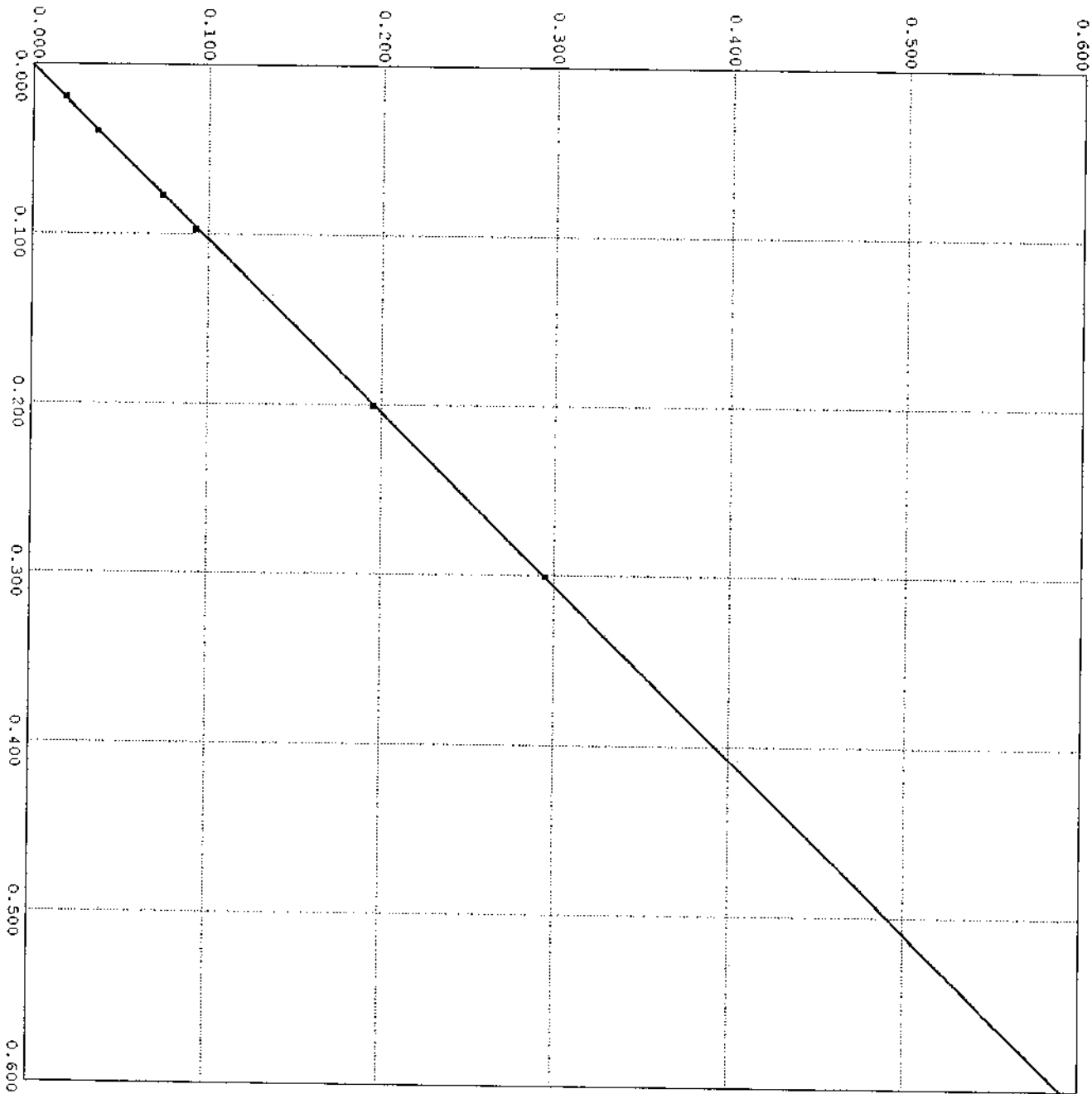
Alaska Department of Public Safety
DATAMASTER dmt: 100345

Date: 12/11/2015
Time: 15:03:43

SUPERVISOR NAME:
CHARLES FOSTER
OPERATOR'S #: 7734

TARGET	AVERAGE	STD. DEV.
0.019	0.0196	0.0005
0.039	0.0378	0.0004
0.077	0.0750	0.0000
0.097	0.0940	0.0000
0.200	0.1962	0.0004
0.300	0.2956	0.0009

SLOPE = 0.984861
R² = 0.999936



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100345

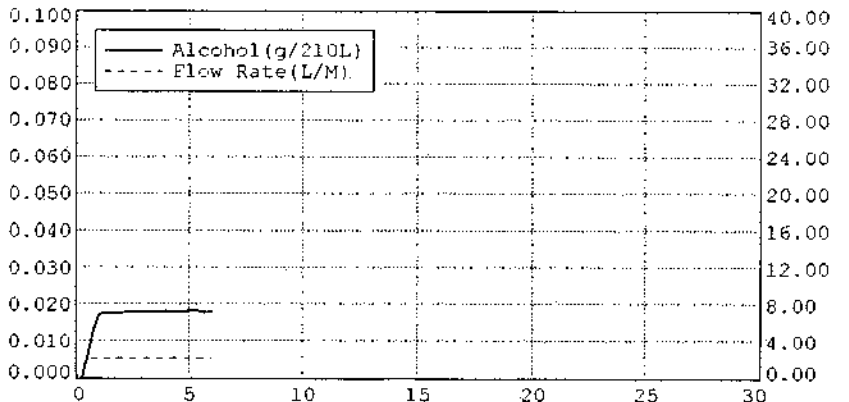
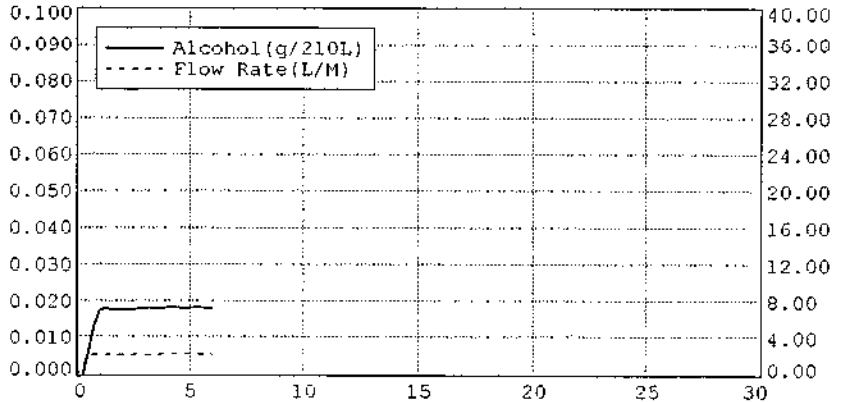
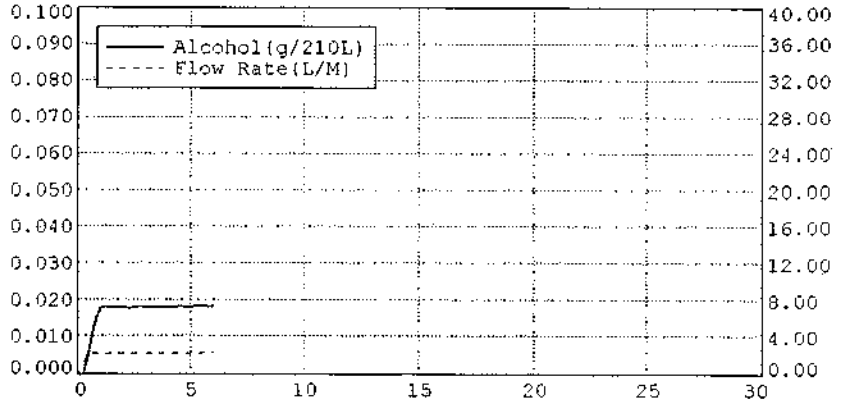
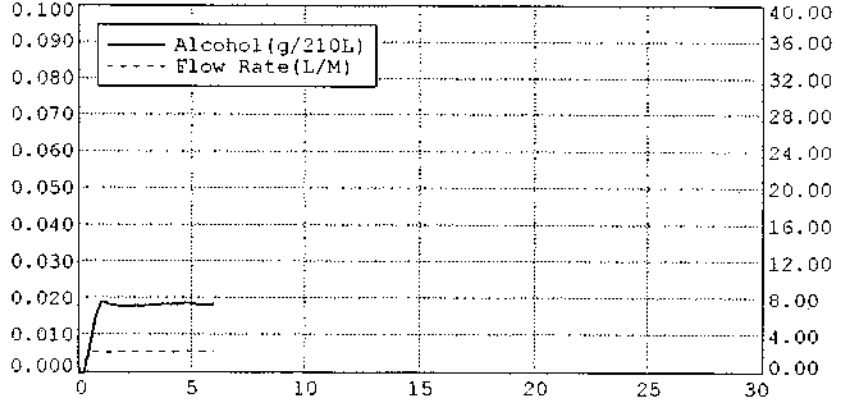
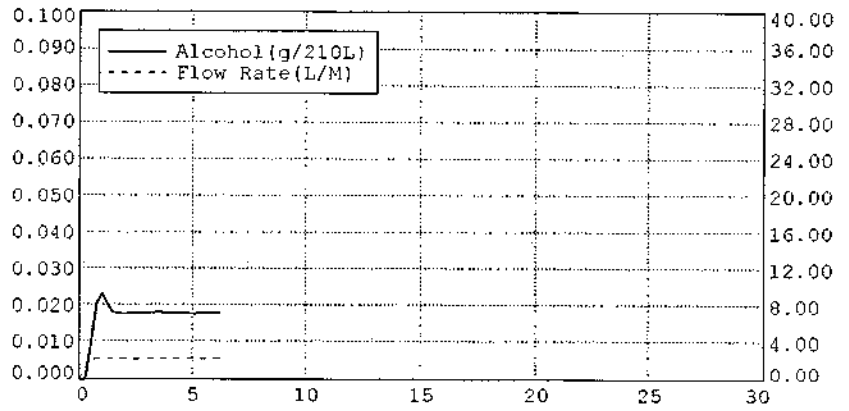
Date: 12/11/2015
 Time: 15:03:45

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 28.99: 0.019
 LOT #: 02915020A2
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 635 psi

BLANK TEST	0.000	15:05
INTERNAL STANDARD	VERIFIED	15:05
EXTERNAL STANDARD	0.019	15:05
BLANK TEST	0.000	15:06
EXTERNAL STANDARD	0.019	15:06
BLANK TEST	0.000	15:07
EXTERNAL STANDARD	0.020	15:08
BLANK TEST	0.000	15:08
EXTERNAL STANDARD	0.020	15:09
BLANK TEST	0.000	15:10
EXTERNAL STANDARD	0.020	15:10
BLANK TEST	0.000	15:11

Average = 0.0196
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100345

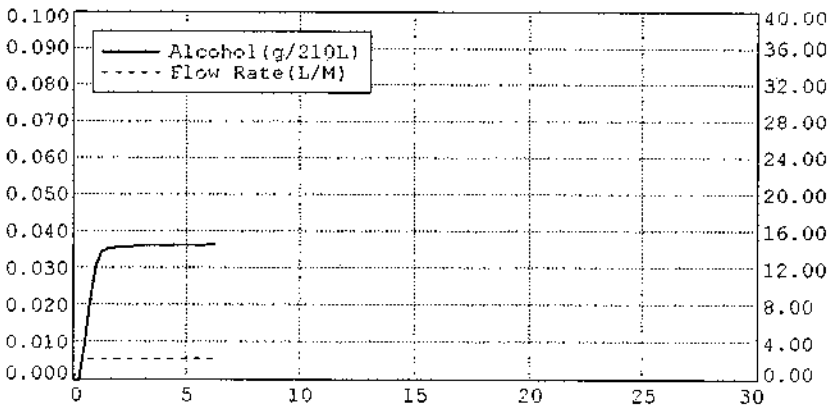
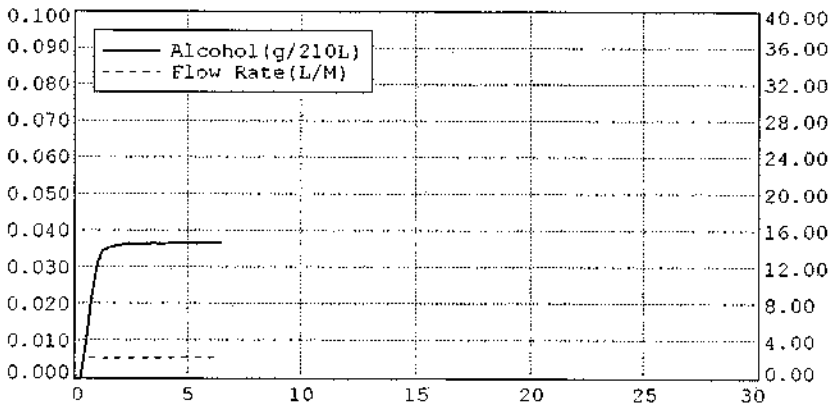
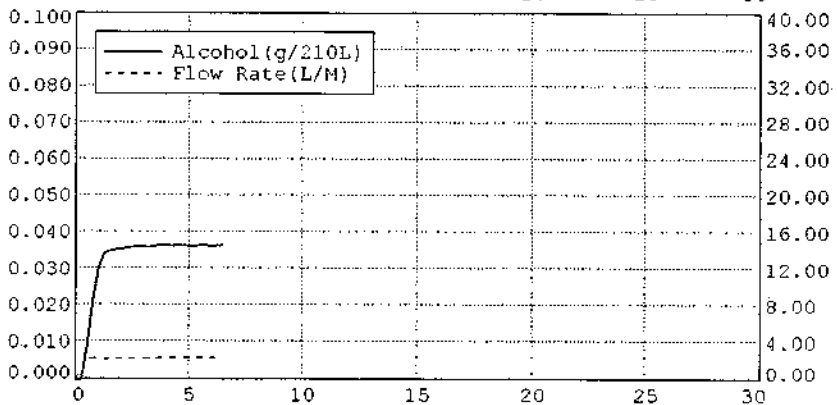
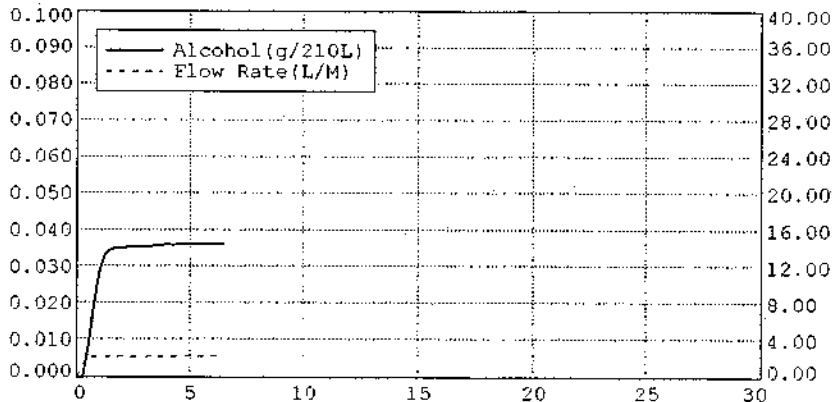
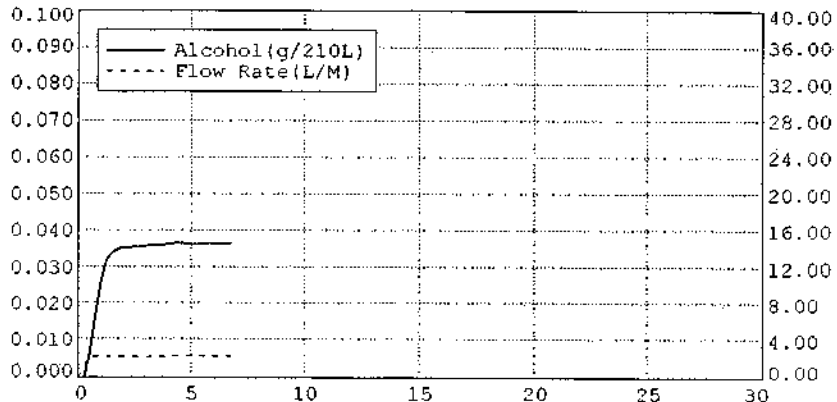
Date: 12/11/2015
 Time: 15:12:53

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040
 TARGET AT 28.98: 0.039
 LOT #: 02915040A3
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 659 psi

BLANK TEST	0.000	15:14
INTERNAL STANDARD	VERIFIED	15:14
EXTERNAL STANDARD	0.038	15:14
BLANK TEST	0.000	15:15
EXTERNAL STANDARD	0.037	15:15
BLANK TEST	0.000	15:16
EXTERNAL STANDARD	0.038	15:16
BLANK TEST	0.000	15:17
EXTERNAL STANDARD	0.038	15:17
BLANK TEST	0.000	15:18
EXTERNAL STANDARD	0.038	15:18
BLANK TEST	0.000	15:19

Average = 0.0378
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100345

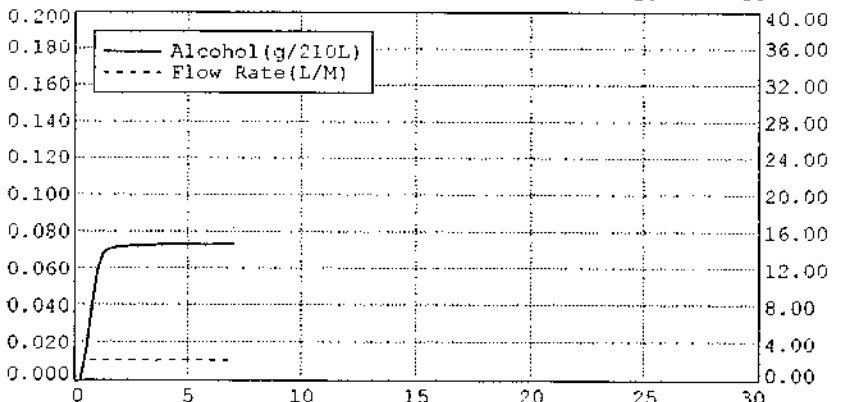
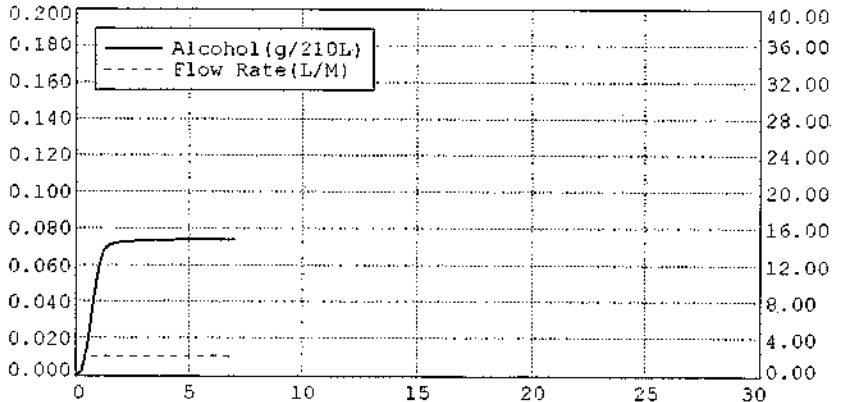
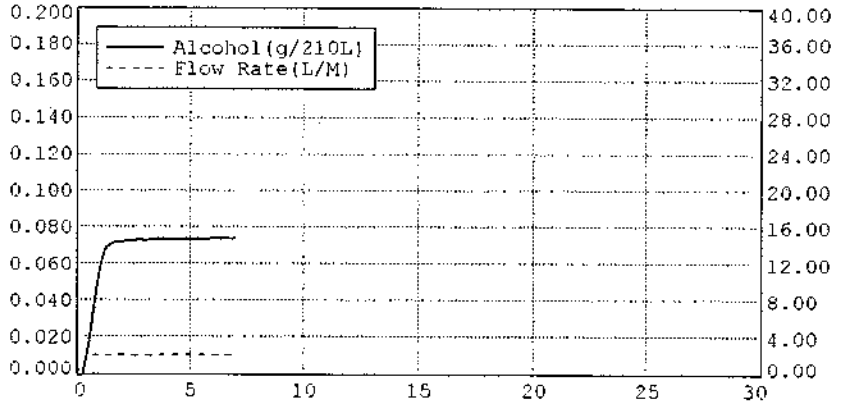
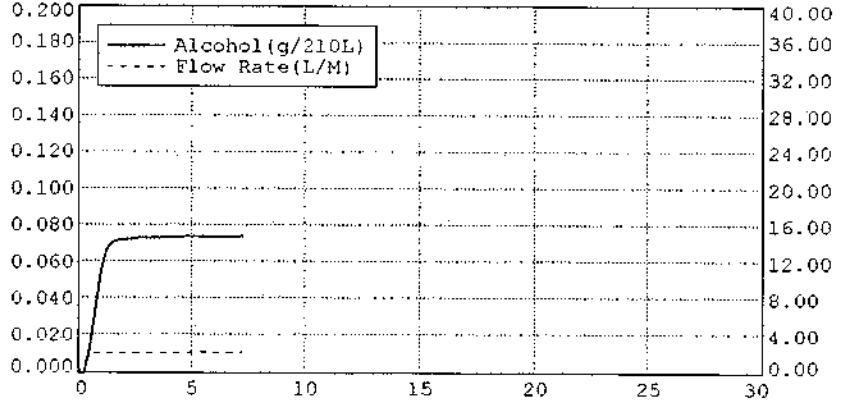
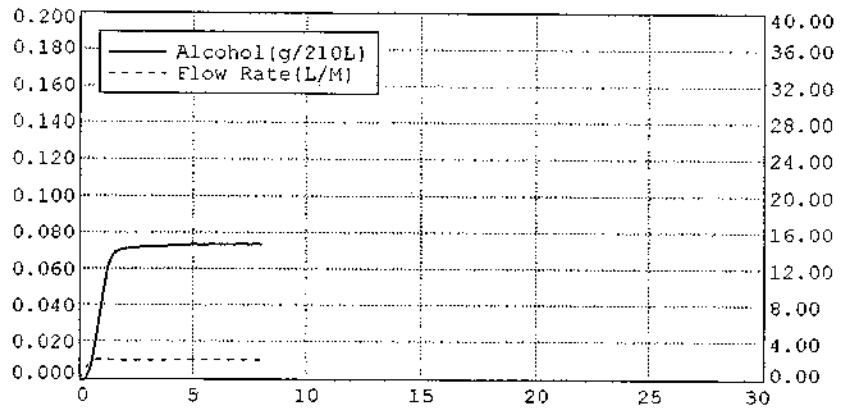
Date: 12/11/2015
 Time: 15:20:43

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 28.98: 0.077
 LOT #: 01315080A2
 EXPIRATION: 02/05/2017
 TANK PRESSURE: 435 psi

BLANK TEST	0.000	15:22
INTERNAL STANDARD	VERIFIED	15:22
EXTERNAL STANDARD	0.075	15:22
BLANK TEST	0.000	15:23
EXTERNAL STANDARD	0.075	15:23
BLANK TEST	0.000	15:24
EXTERNAL STANDARD	0.075	15:24
BLANK TEST	0.000	15:25
EXTERNAL STANDARD	0.075	15:25
BLANK TEST	0.000	15:26
EXTERNAL STANDARD	0.075	15:27
BLANK TEST	0.000	15:27

Average = 0.0750
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety
 DATAMASTER dnt: 100345

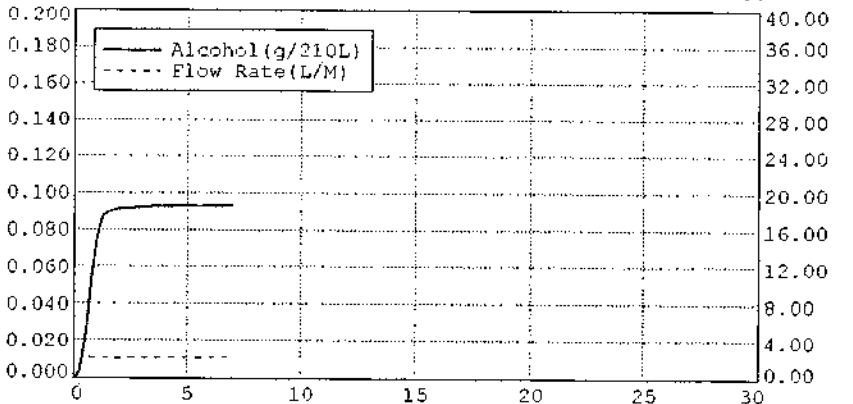
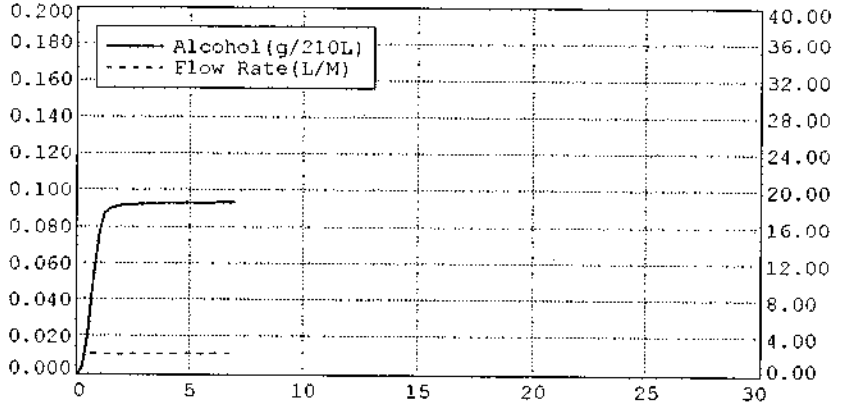
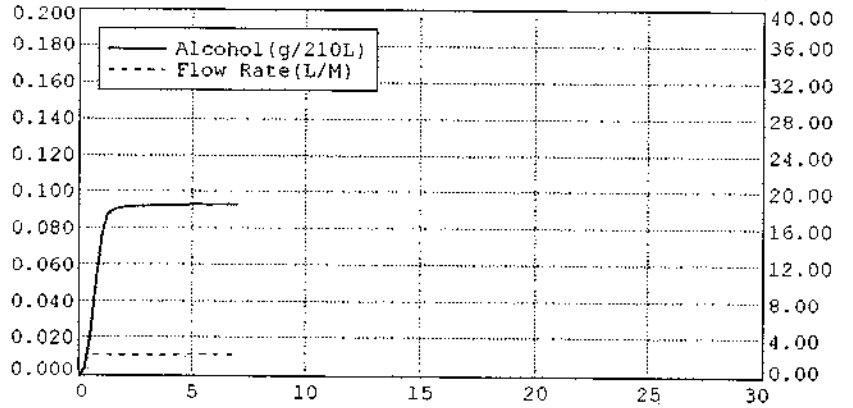
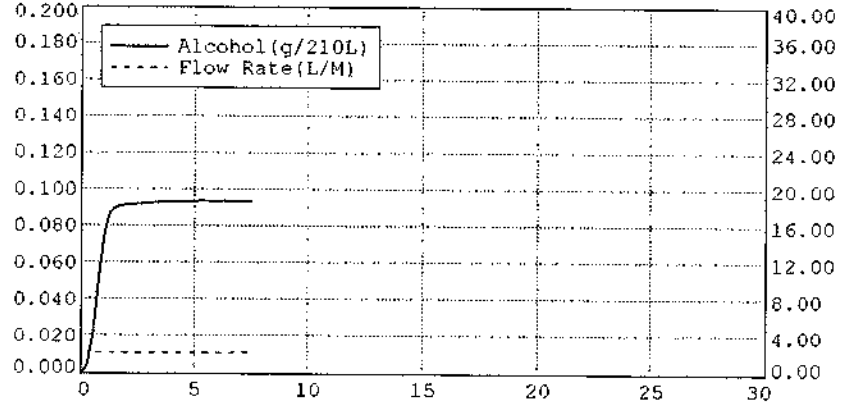
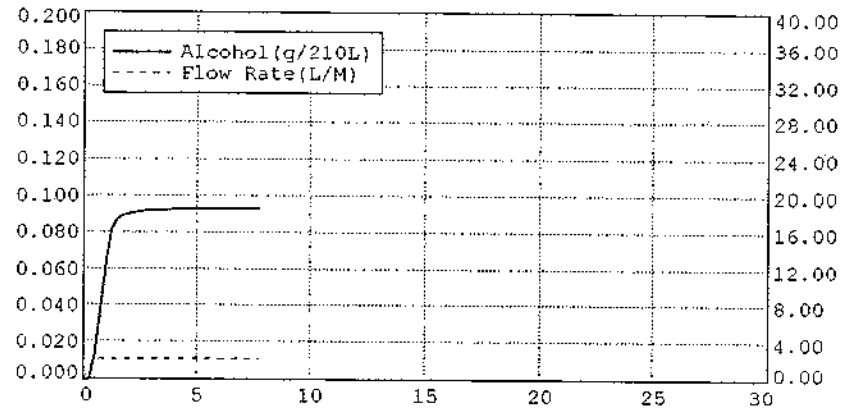
Date: 12/11/2015
 Time: 15:30:01

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 28.99: 0.097
 LOT #: 02915100A1
 EXPIRATION: 03/05/2017
 TANK PRESSURE: 641 psi

BLANK TEST	0.000	15:31
INTERNAL STANDARD	VERIFIED	15:31
EXTERNAL STANDARD	0.094	15:31
BLANK TEST	0.000	15:32
EXTERNAL STANDARD	0.094	15:33
BLANK TEST	0.000	15:33
EXTERNAL STANDARD	0.094	15:34
BLANK TEST	0.000	15:35
EXTERNAL STANDARD	0.094	15:35
BLANK TEST	0.000	15:36
EXTERNAL STANDARD	0.094	15:36
BLANK TEST	0.000	15:37

Average = 0.0940
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100345

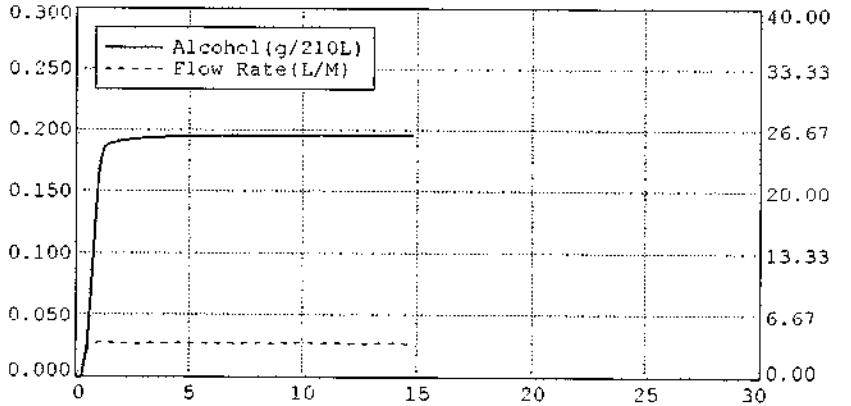
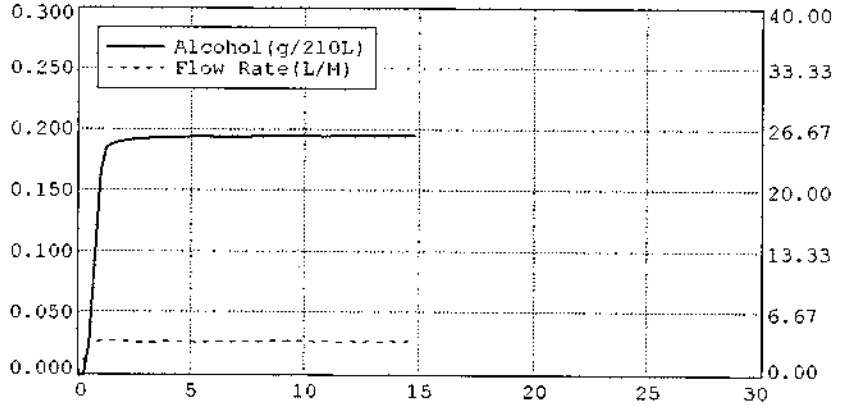
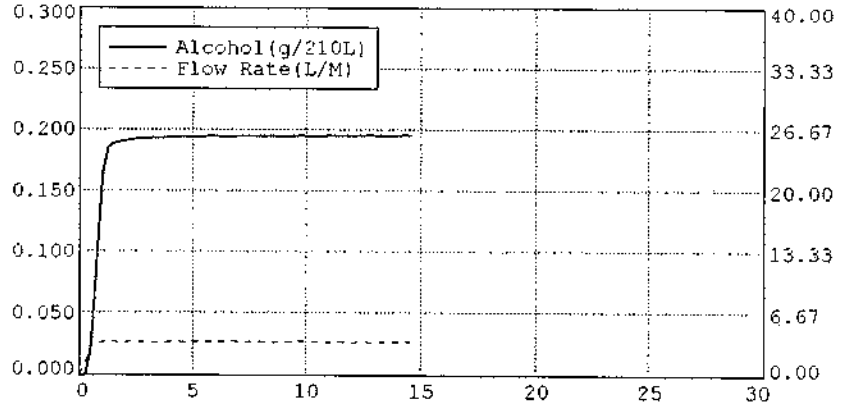
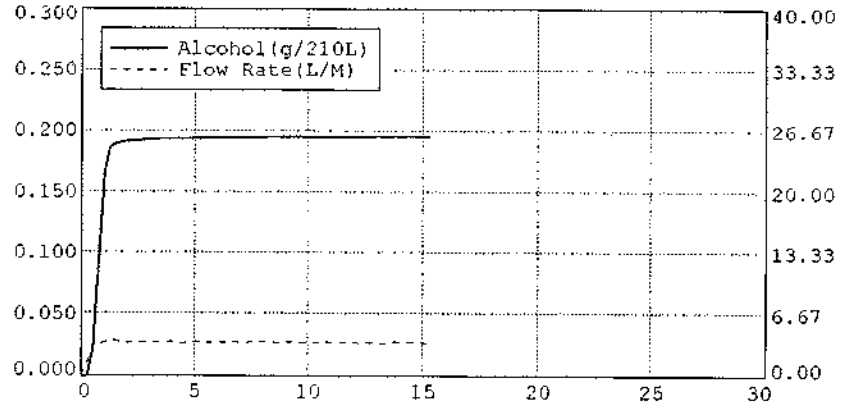
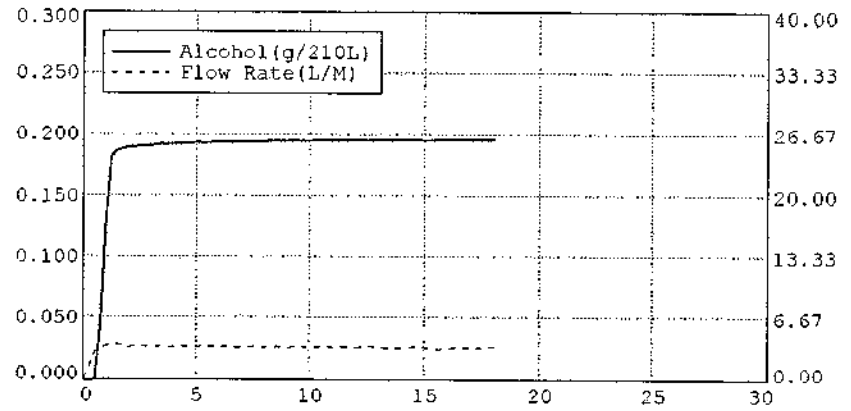
Date: 12/11/2015
 Time: 15:38:23

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200
 LOT #: 15130
 EXPIRATION: 05/11/2017

BLANK TEST	0.000	15:39
INTERNAL STANDARD	VERIFIED	15:39
EXTERNAL STANDARD	0.197	15:39
BLANK TEST	0.000	15:40
EXTERNAL STANDARD	0.196	15:41
BLANK TEST	0.000	15:42
EXTERNAL STANDARD	0.196	15:42
BLANK TEST	0.000	15:43
EXTERNAL STANDARD	0.196	15:43
BLANK TEST	0.000	15:44
EXTERNAL STANDARD	0.196	15:45
BLANK TEST	0.000	15:45

Average = 0.1962
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100345

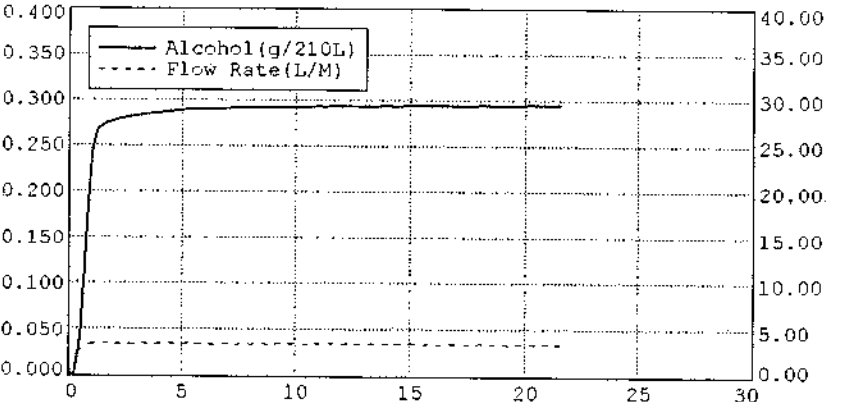
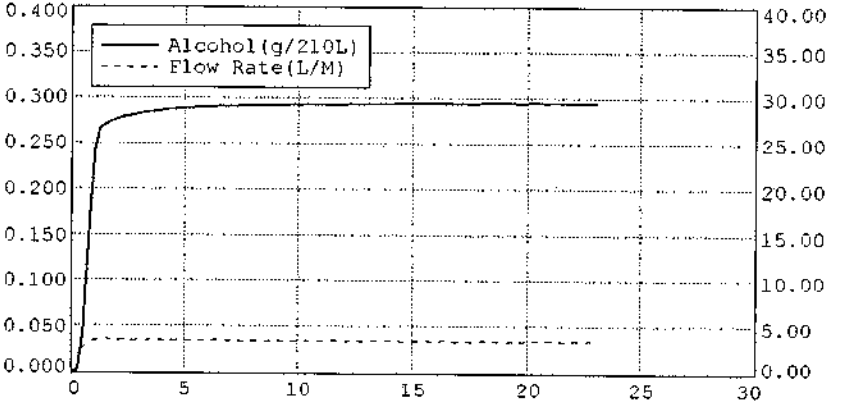
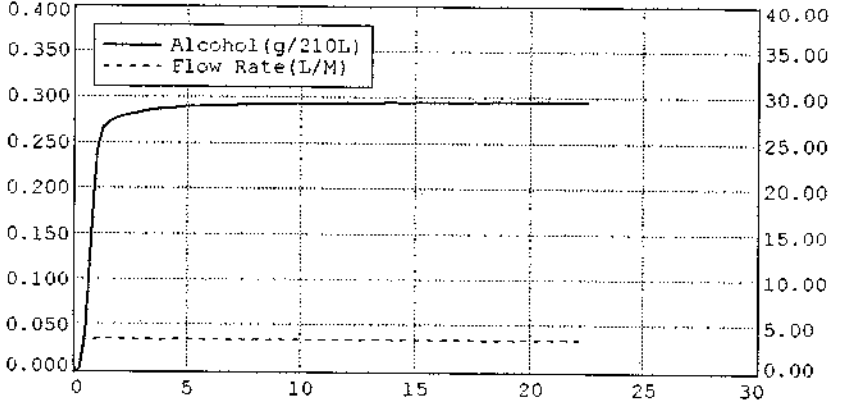
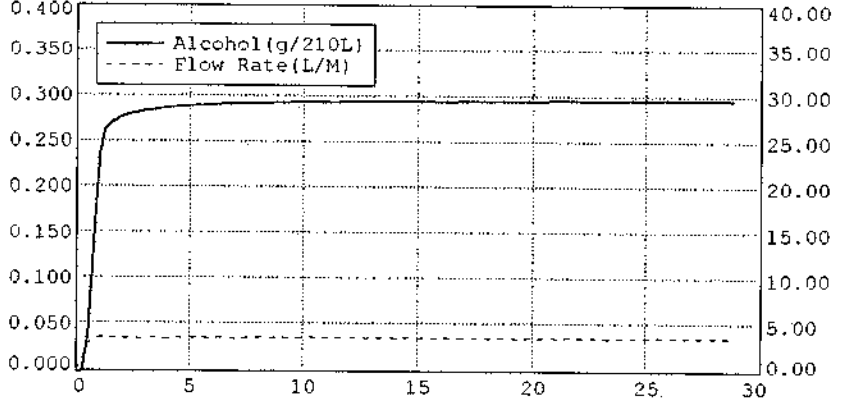
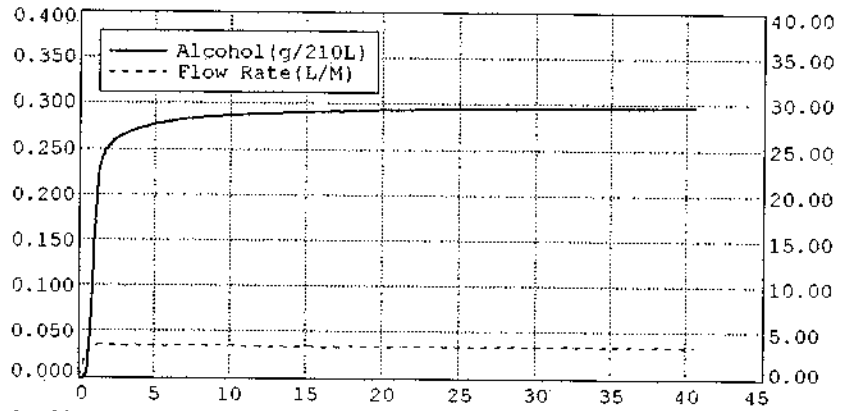
Date: 12/11/2015
 Time: 15:47:19

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 14270
 EXPIRATION: 12/02/2016

BLANK TEST	0.000	15:48
INTERNAL STANDARD	VERIFIED	15:48
EXTERNAL STANDARD	0.297	15:49
BLANK TEST	0.000	15:50
EXTERNAL STANDARD	0.296	15:50
BLANK TEST	0.000	15:51
EXTERNAL STANDARD	0.295	15:52
BLANK TEST	0.000	15:53
EXTERNAL STANDARD	0.295	15:53
BLANK TEST	0.000	15:54
EXTERNAL STANDARD	0.295	15:55
BLANK TEST	0.000	15:56

Average = 0.2956
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100345

Date: 12/14/2015
Time: 10:00:02

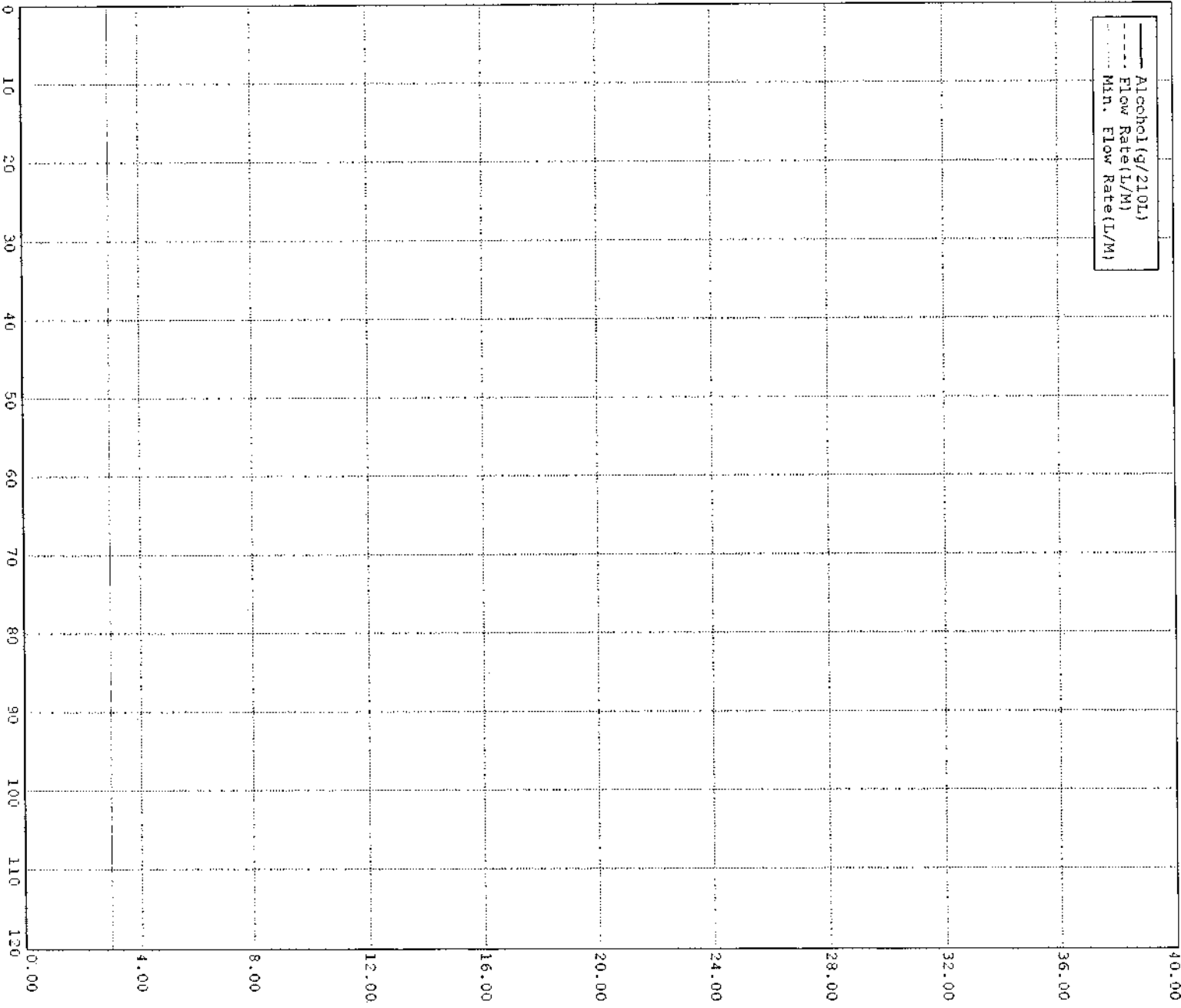
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
INCOMPLETE XXXX
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.28: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:01
BLANK TEST	0.000	10:01
INTERNAL STANDARD	VERIFIED	10:01
EXTERNAL STANDARD	0.075	10:01
BLANK TEST	0.000	10:02
SUBJECT SAMPLE	INCOMPLETE	10:04



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100345

Date: 12/14/2015
Time: 10:08:20

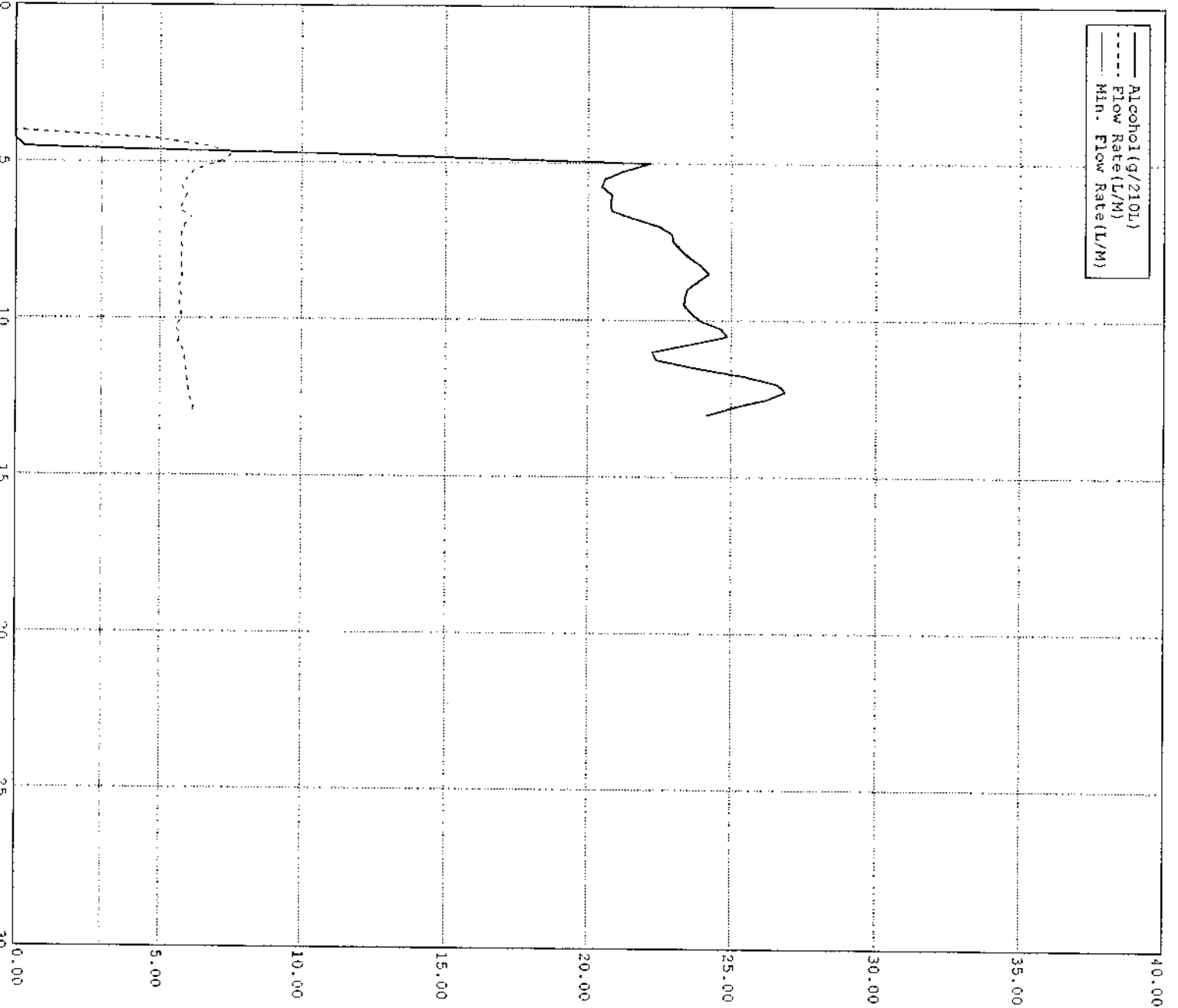
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
MOUTH EFOH
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.28: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK
BLANK TEST PASSED 10:11
INTERNAL STANDARD VERIFIED 10:11
EXTERNAL STANDARD 0.076 10:11
BLANK TEST 0.000 10:12
SUBJECT SAMPLE INVALID 10:13



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100345

Date: 12/14/2015
Time: 10:15:51

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
INTERFERENCE ACETONE
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.28: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

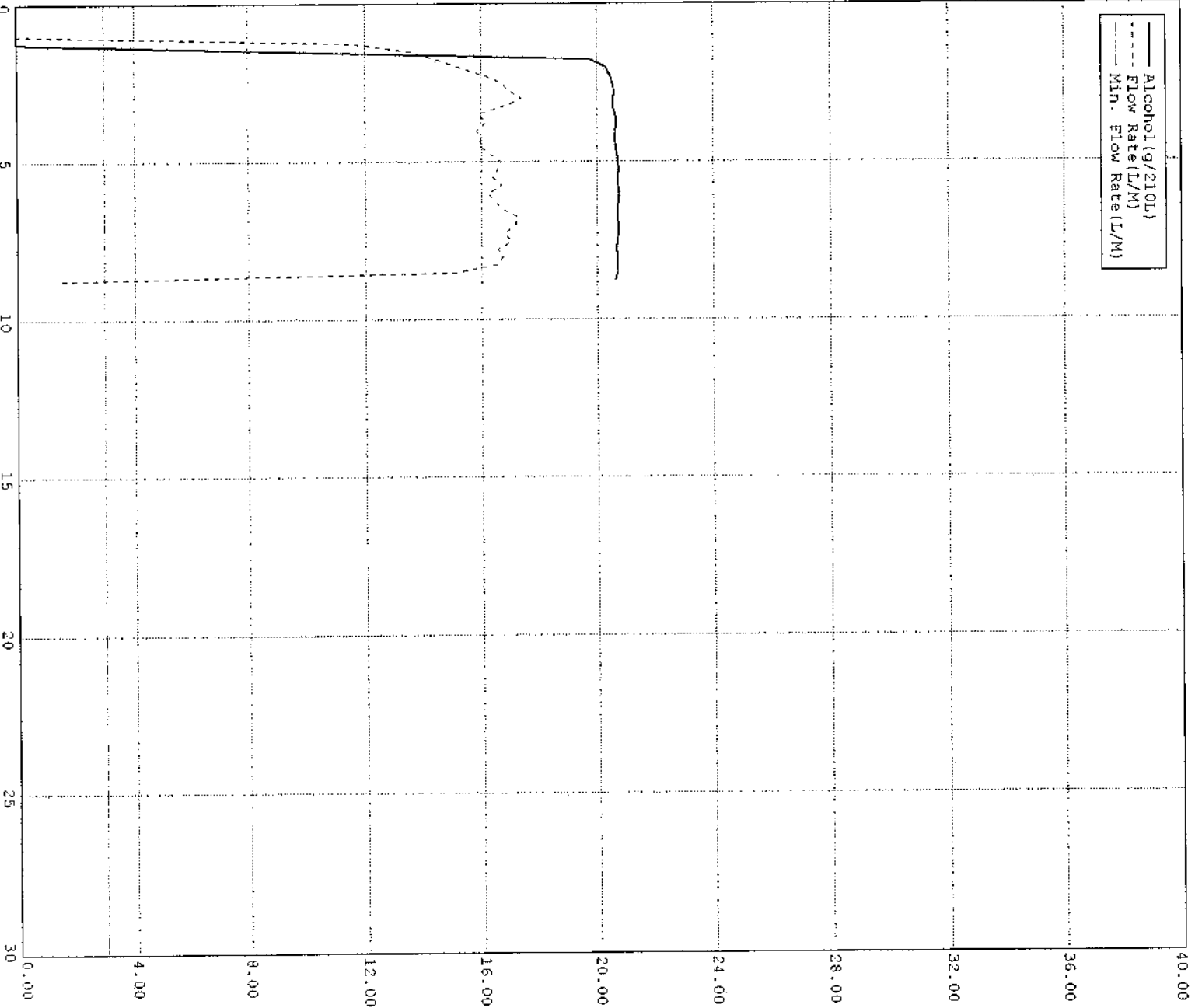
DIAGNOSTIC CHECK	PASSED	10:17
BLANK TEST	0.000	10:17
INTERNAL STANDARD	VERIFIED	10:17
Xq = 0.093 (0.198)	0.075	10:18
EXTERNAL STANDARD	X[1] = 0.0753 (-0.0034)	(0.0016)
BLANK TEST	0.000	10:19
SUBJECT SAMPLE	X[1] = 0.1038 (-0.0129)	(0.0011)

Interference Detected

Filter 2 Aug = -0.0035

Filter 3 Aug = 0.0016

CWF 12/14/15



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100345

Date: 12/14/2015
Time: 10:21:58

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

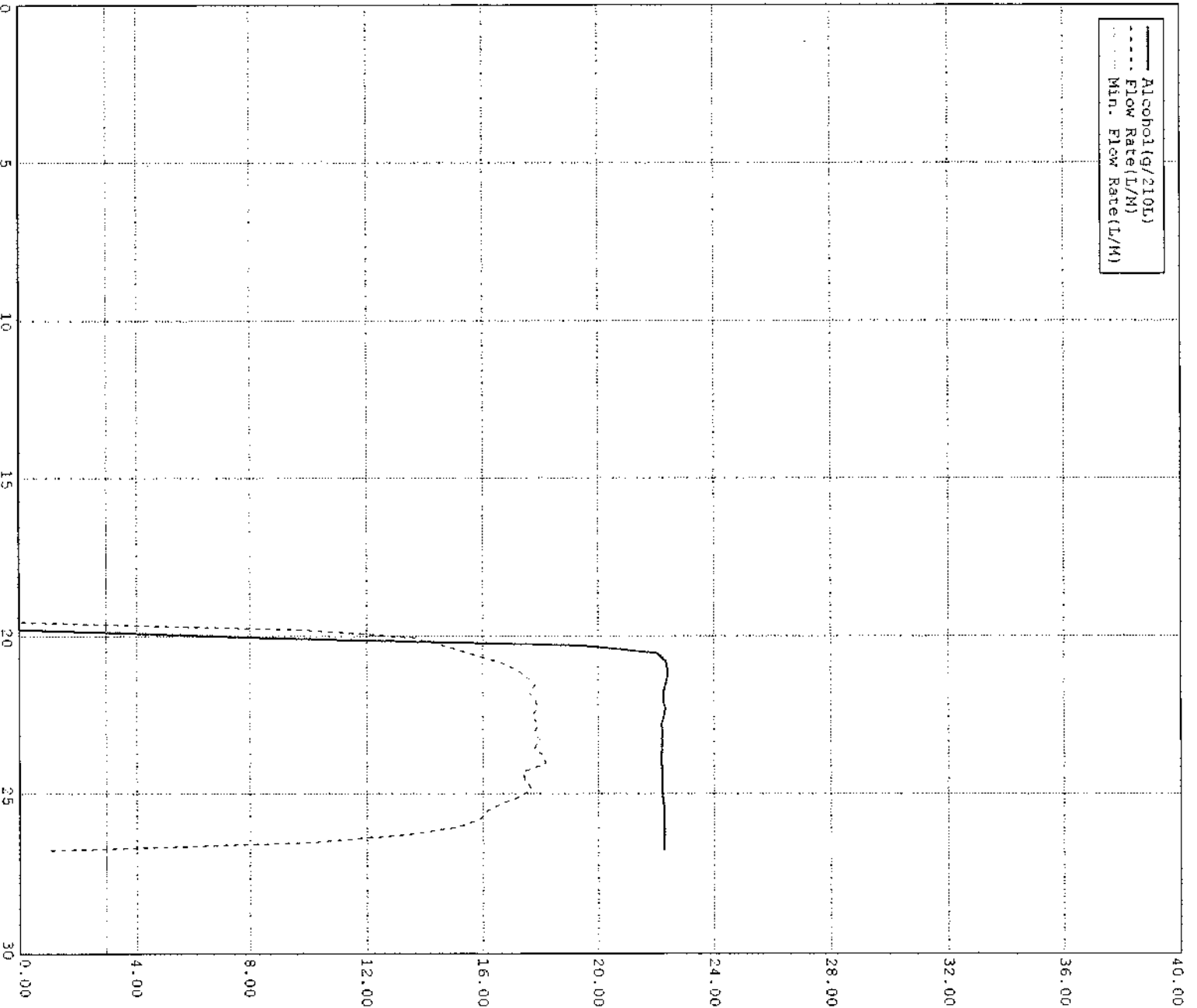
OPERATOR NAME:
INTERFERENCE IPA
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.28: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:23
BLANK TEST	0.000	10:23
INTERNAL STANDARD	VERIFIED	10:23
Xq = 0.092 (0.56%)		
EXTERNAL STANDARD	0.075	10:24
X[1] = 0.0751 (-0.0034)	(0.0015)	
BLANK TEST	0.000	10:25
SUBJECT SAMPLE	XXX	10:25
X[1] = 0.1120 (-0.0229)	(-0.0004)	

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100345

Date: 12/14/2015
Time: 10:28:09

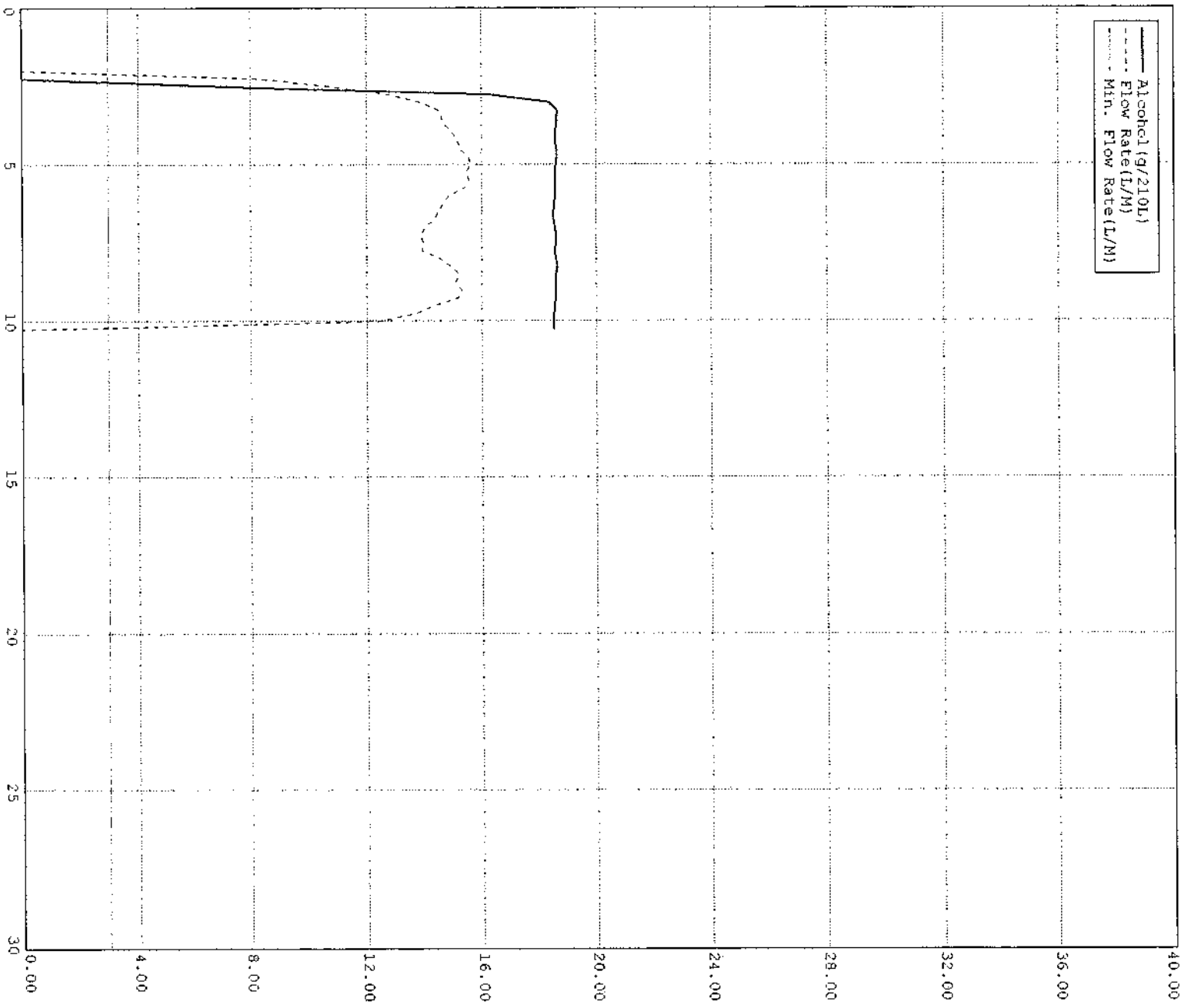
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
INTERFERENCE NEGATIVE
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.29: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	10:29
BLANK TEST	0.000	10:30
INTERNAL STANDARD	VERIFIED	10:30
XQ = 0.093 (0.19%)		
EXTERNAL STANDARD	0.075	10:30
X[1] = 0.0752 (-0.0031)	(0.0019)	
BLANK TEST	0.000	10:31
SUBJECT SAMPLE (Vol=1.91L)	0.093	10:31
X[1] = 0.0931 (0.0003)	(-0.0003)	
BLANK TEST	0.000	10:32
EXTERNAL STANDARD	0.075	10:32
X[1] = 0.0748 (-0.0040)	(0.0013)	
BLANK TEST	0.000	10:33



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dnt: 100345

Date: 12/14/2015
Time: 11:52:04

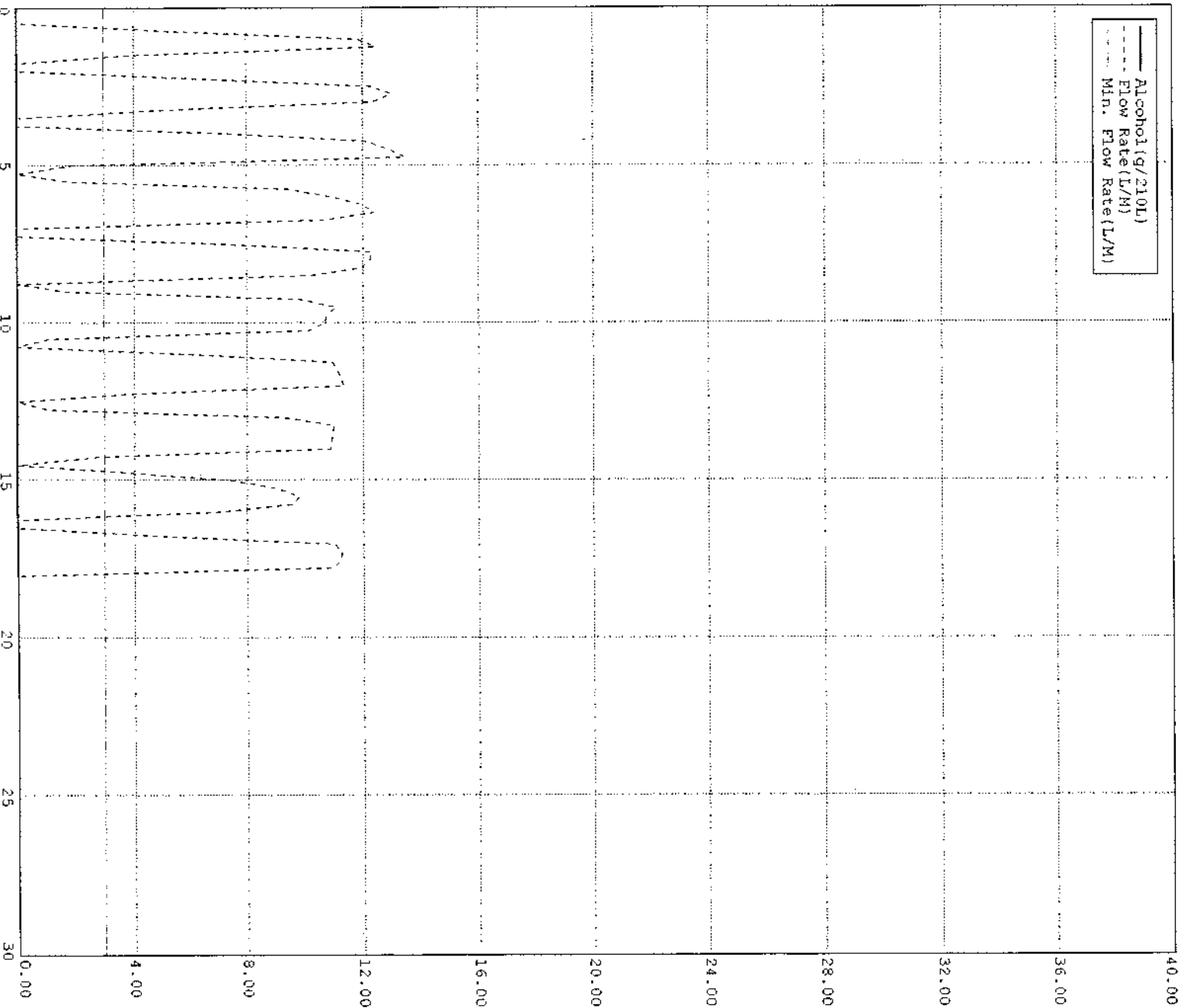
SUBJECT NAME:
TEST TEST
LICENSE #: XXXX
OPERATOR NAME:
EXCEEDED ATTEMPTS
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.32: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	11:54
BLANK TEST	0.000	11:54
INTERNAL STANDARD	VERIFIED	11:54
EXTERNAL STANDARD	0.076	11:54
BLANK TEST	0.000	11:55
SUBJECT SAMPLE	XXX	11:56

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100345

Date: 12/14/2015
Time: 11:58:28

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

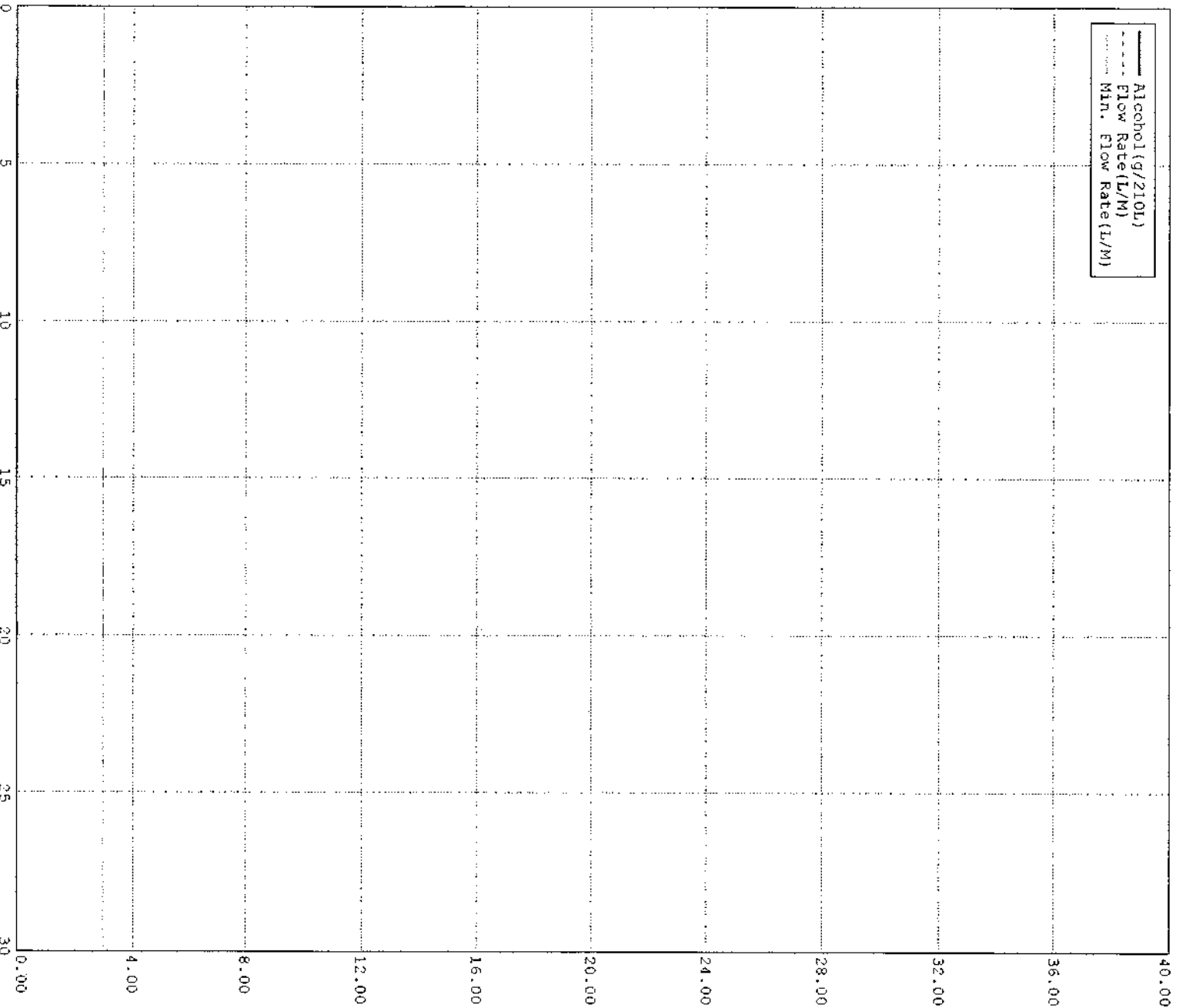
OPERATOR NAME:
RFI XXXX
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.32: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	11:59
BLANK TEST	0.000	11:59
INTERNAL STANDARD	VERIFIED	12:00
EXTERNAL STANDARD	0.076	12:00
BLANK TEST	0.000	12:01

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100345

Date: 12/14/2015
Time: 12:16:34

SUBJECT NAME:
TEST TEST
LICENSE #: XXXX

OPERATOR NAME:
CHARLES FOSTER
OPERATOR'S #: 7734

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.34: 0.078
LOT #: 01315080A2
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:18
BLANK TEST	0.000	12:18
INTERNAL STANDARD	VERIFIED	12:18
EXTERNAL STANDARD	0.076	12:18
BLANK TEST	0.000	12:19
SUBJECT SAMPLE (VOL=2.14L)	0.000	12:20
BLANK TEST	0.000	12:21
EXTERNAL STANDARD	0.076	12:21
BLANK TEST	0.000	12:22

