

# 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 100674 Analyst CRF Start Date 3/24/16

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 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 01315080A2 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 5/11/17
  - 1. Simulator S/N DRS298 Date Calibrated 8/5/15
- vi. 0.300g/210L Mnf Guth Lot 15170 Exp 7/20/17
  - 1. Simulator S/N SD1198 Date Calibrated 8/5/15

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 SD1199 Date Calibrated 8/5/15
- ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N SD1177 Date Calibrated 8/5/15
- iii. Negative Control - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17
  - 1. Simulator S/N DR4161 Date Calibrated 8/5/15

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 3/25/16

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100674  
-----

Date: 03/24/2016  
Time: 10:45:52

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

TEMPERATURES

Sample Chamber = 48.8°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 44.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.80 V PASSED  
(1.04 V - 2.44 V)  
Cooler Voltage = 1.75 V PASSED  
(1.05 V - 2.45 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 530 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.5 in

PUMP INFO

Flow Rate = 4.176 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  
(0.001 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.106 0.75% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100674  
-----

Date: 03/24/2016

Time: 11:02 AM

Temperatures (°C)

Sample Cell: 48.9°C

Breath Tube: 45.1°C

Current Barometer 29.5 in

Volume (Ltr) 1.55

Settings

Lamp: 1.80 V

Bias: 80 V

Cooler: 1.83 V

Chopper: 531 Hz

Voltages (V)

Flow: 1.03 V

Detector: -0.042 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100674  
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Date: 05/16/2013  
Time: 07:20:44

OPERATOR NAME:  
COLLEEN S OBRYANT  
CERTIFICATE #: 6237

Ca = 0.1000  
CAL = 0.978600    0.800 <= CAL < 1.200  
b1 = 0.0015    0.0000 <= b1 < 0.0040  
b2 = 0.0055    0.0010 <= b2 < 0.0100  
b3 = 0.0006    0.0000 <= b3 < 0.0040  
Xq = 0.1049    0.0500 <= Xq < 0.2000  
a21 = 1.116940    1.050 <= a21 < 1.300  
a31 = 0.416219    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100674

Date: 03/24/2016  
Time: 12:00:14

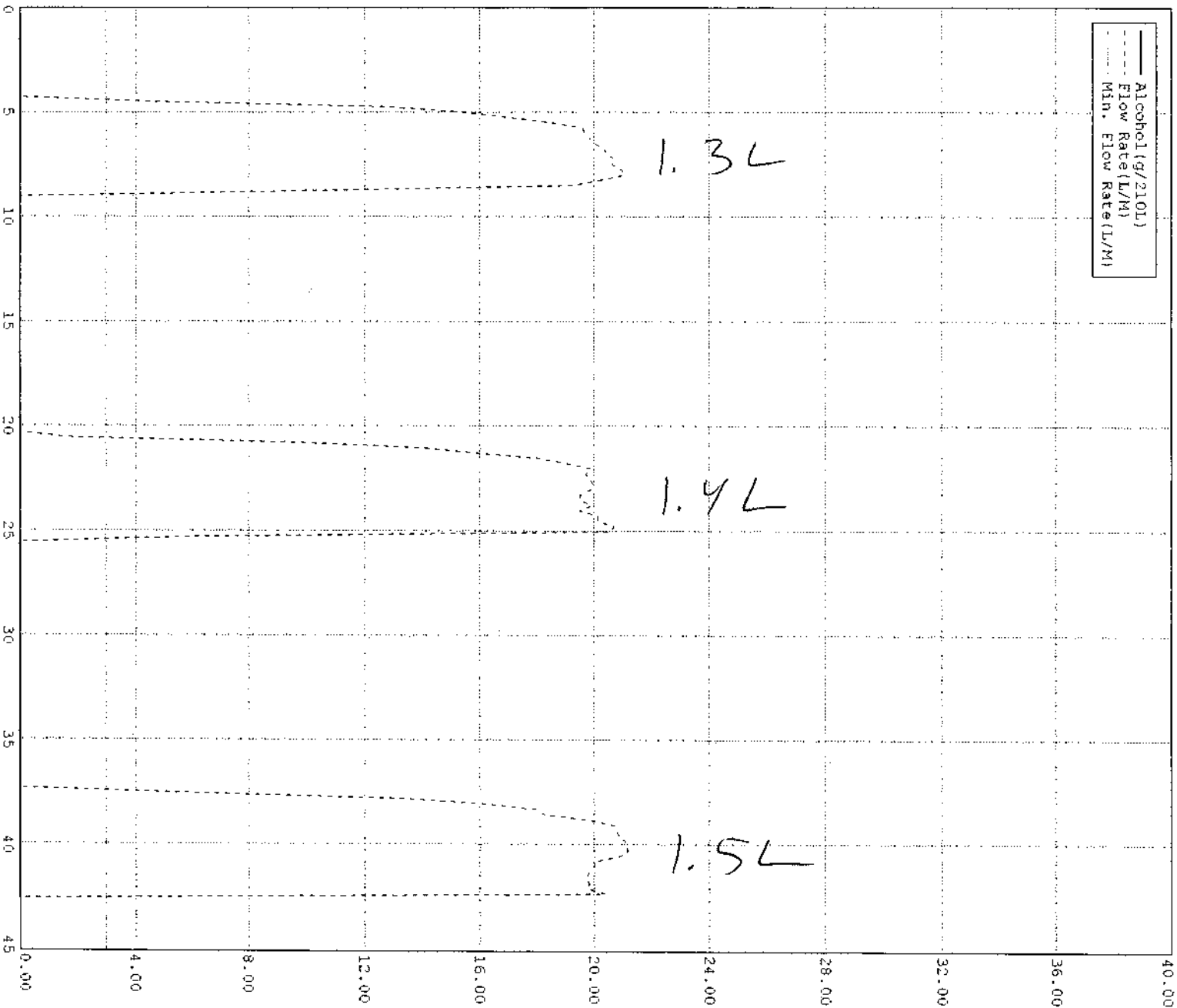
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
MINIMUM VOLUME  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AV: 29.50: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:08
BLANK TEST	0.000	12:08
INTERNAL STANDARD	VERIFIED	12:08
EXTERNAL STANDARD	0.077	12:08
BLANK TEST	0.000	12:09
SUBJECT SAMPLE (Vol=1.58L)	0.000	12:10
BLANK TEST	0.000	12:11
EXTERNAL STANDARD	0.077	12:11
BLANK TEST	0.000	12:12



LINEARITY CHECK

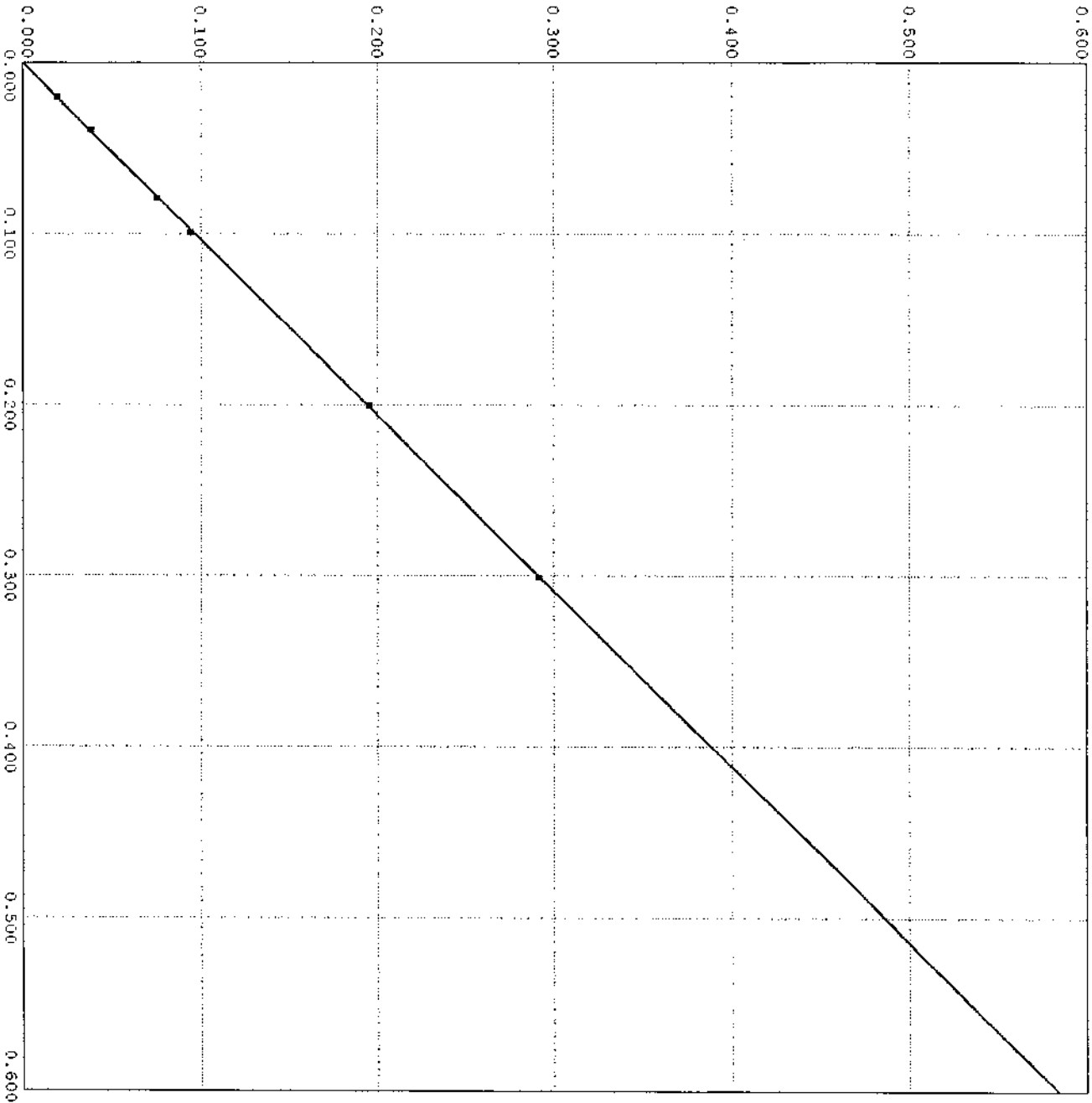
Alaska Department of Public Safety  
DATAMASTER dmt: 100674

Date: 03/24/2016  
Time: 12:36:03

SUPERVISOR NAME:  
CHARLES FOSTER  
OPERATOR'S #: 7734

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.039	0.0394	0.0005
0.079	0.0760	0.0000
0.099	0.0952	0.0004
0.200	0.1958	0.0004
0.300	0.2924	0.0005

SLOPE = 0.973838  
 $R^2$  = 0.999895



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100674

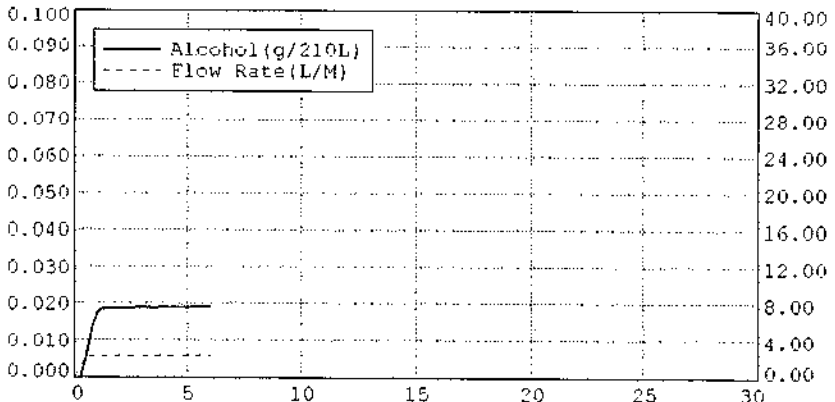
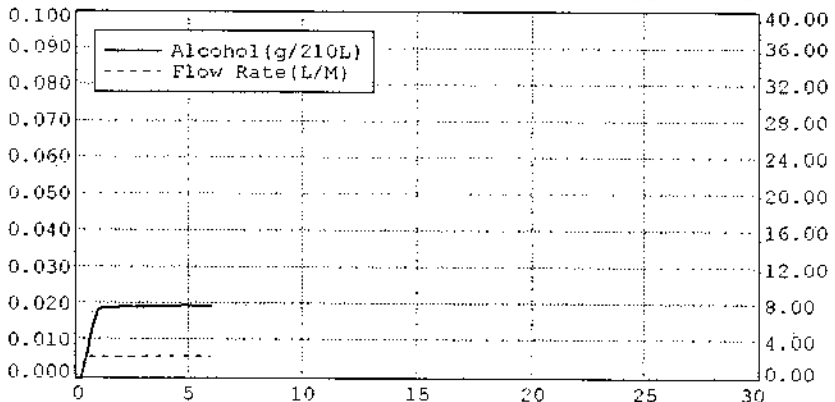
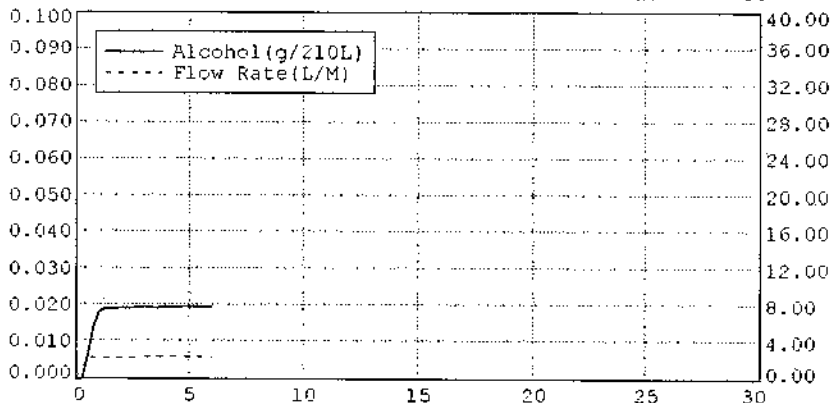
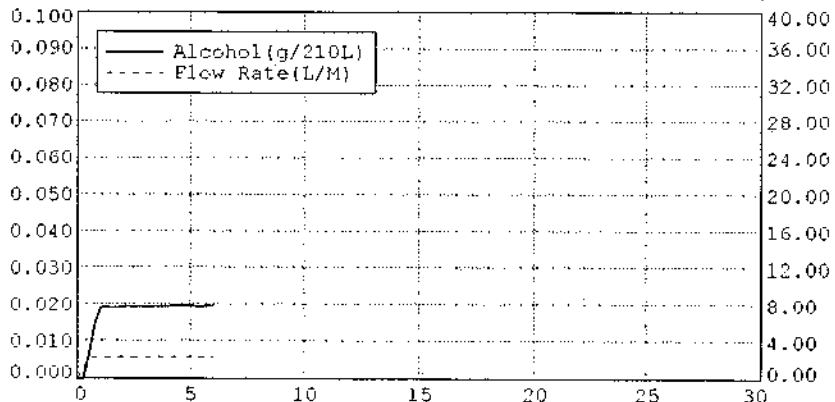
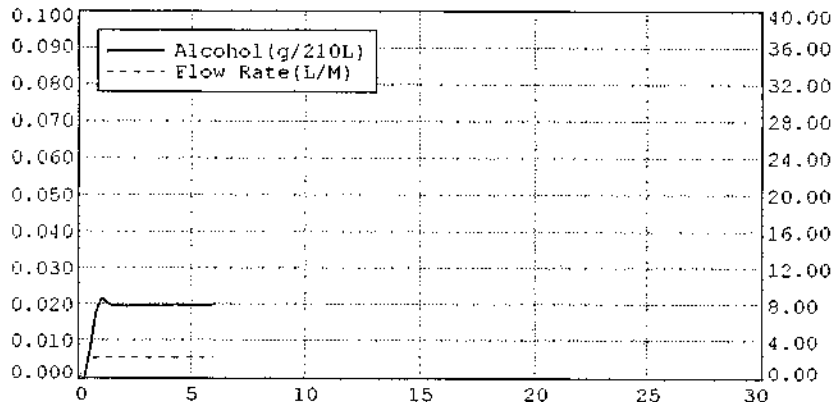
Date: 03/24/2016  
 Time: 12:36:05

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.52: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 531 psi

BLANK TEST	0.000	12:37
INTERNAL STANDARD	VERIFIED	12:37
EXTERNAL STANDARD	0.021	12:37
BLANK TEST	0.000	12:38
EXTERNAL STANDARD	0.020	12:38
BLANK TEST	0.000	12:39
EXTERNAL STANDARD	0.020	12:39
BLANK TEST	0.000	12:40
EXTERNAL STANDARD	0.020	12:41
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.020	12:42
BLANK TEST	0.000	12:43

Average = 0.0202  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100674

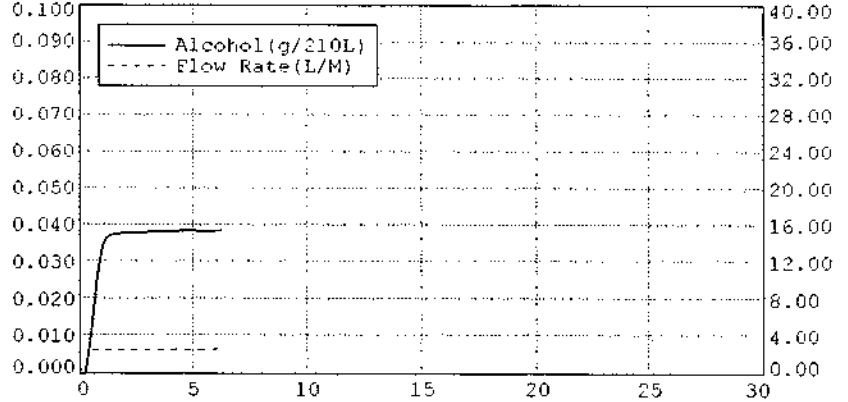
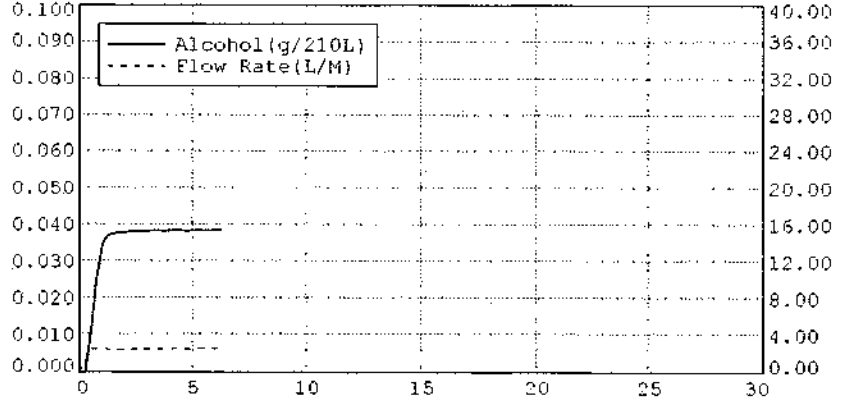
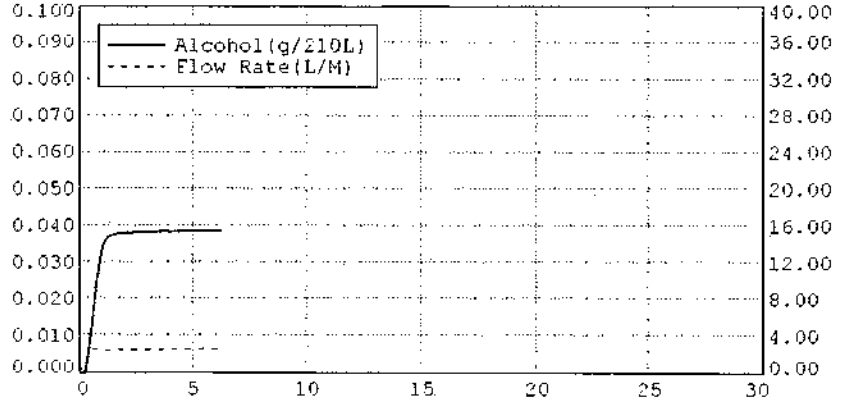
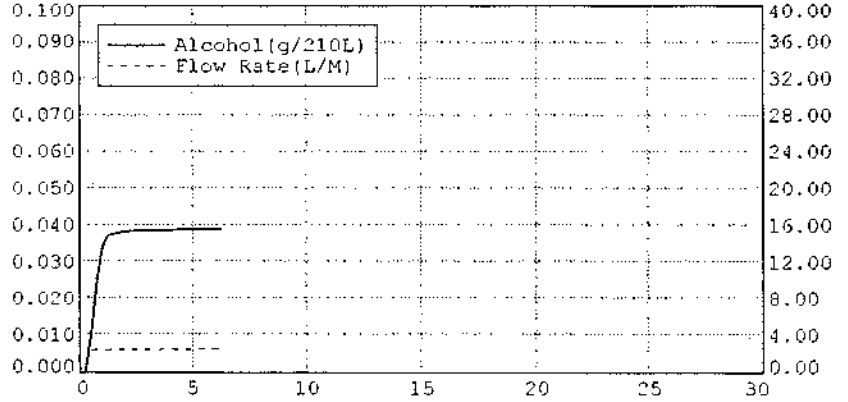
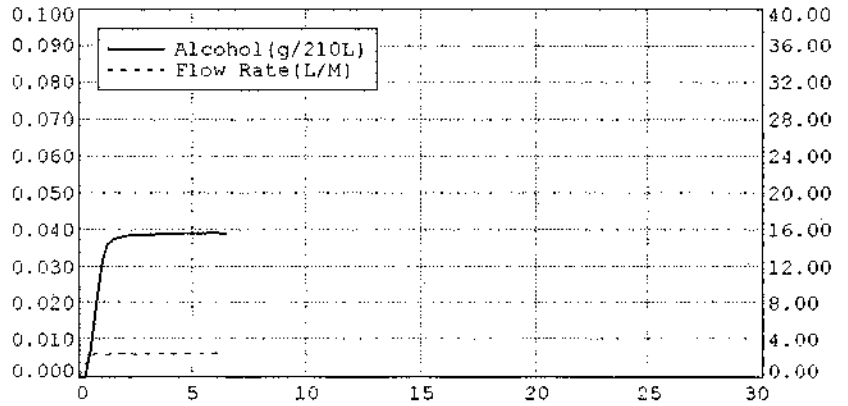
Date: 03/24/2016  
 Time: 12:43:40

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.52: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 971 psi

BLANK TEST	0.000	12:45
INTERNAL STANDARD	VERIFIED	12:45
EXTERNAL STANDARD	0.040	12:45
BLANK TEST	0.000	12:46
EXTERNAL STANDARD	0.040	12:46
BLANK TEST	0.000	12:47
EXTERNAL STANDARD	0.039	12:47
BLANK TEST	0.000	12:48
EXTERNAL STANDARD	0.039	12:48
BLANK TEST	0.000	12:49
EXTERNAL STANDARD	0.039	12:49
BLANK TEST	0.000	12:50

Average = 0.0394  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100674

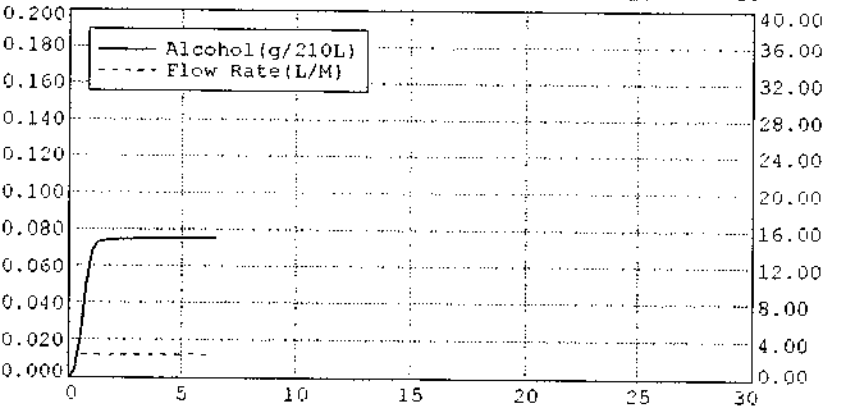
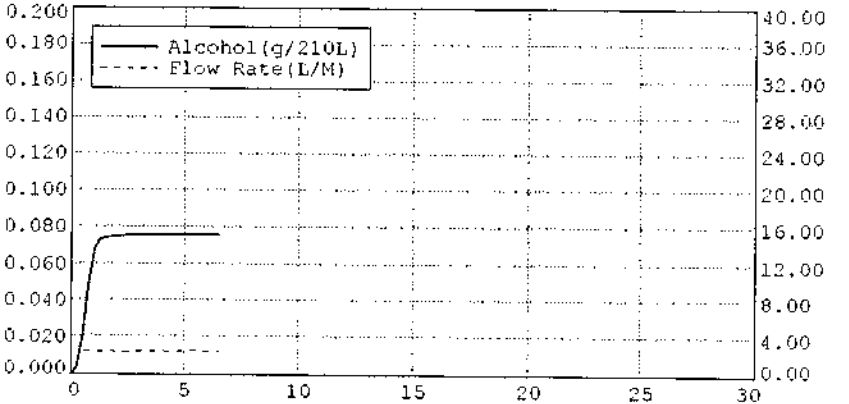
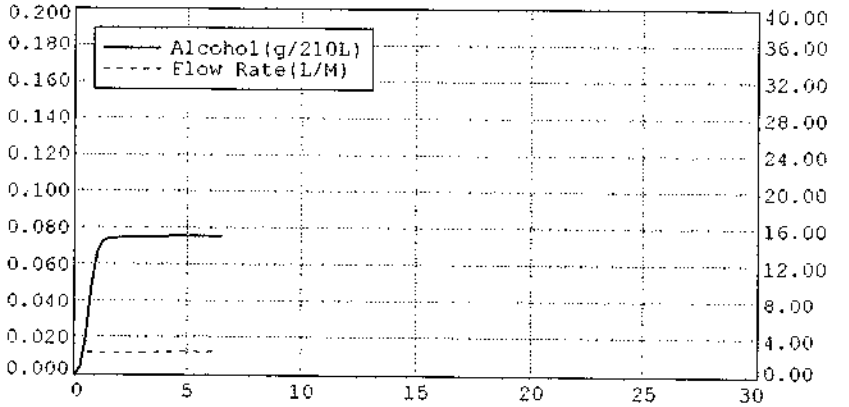
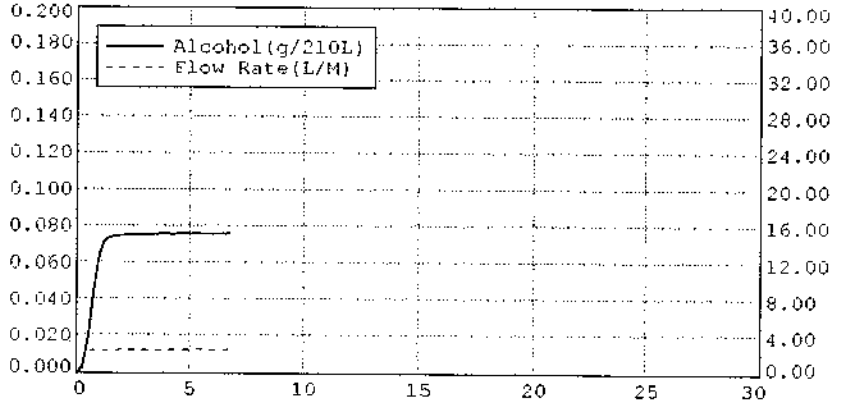
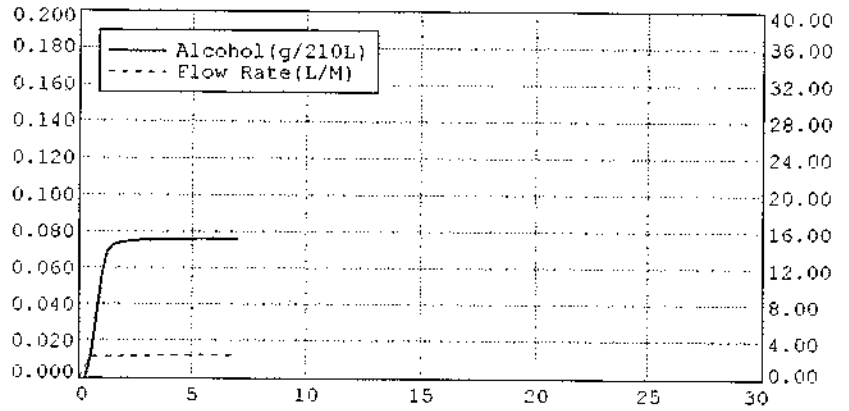
Date: 03/24/2016  
 Time: 12:52:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.52: 0.079  
 LOT #: 01315080A2  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 890 psi

BLANK TEST	0.000	12:53
INTERNAL STANDARD	VERIFIED	12:53
EXTERNAL STANDARD	0.076	12:53
BLANK TEST	0.000	12:54
EXTERNAL STANDARD	0.076	12:54
BLANK TEST	0.000	12:55
EXTERNAL STANDARD	0.076	12:55
BLANK TEST	0.000	12:56
EXTERNAL STANDARD	0.076	12:57
BLANK TEST	0.000	12:57
EXTERNAL STANDARD	0.076	12:58
BLANK TEST	0.000	12:59

Average = 0.0760  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100674

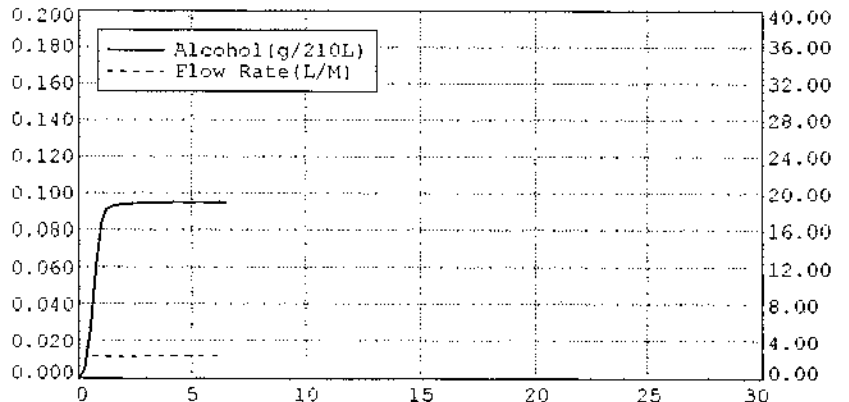
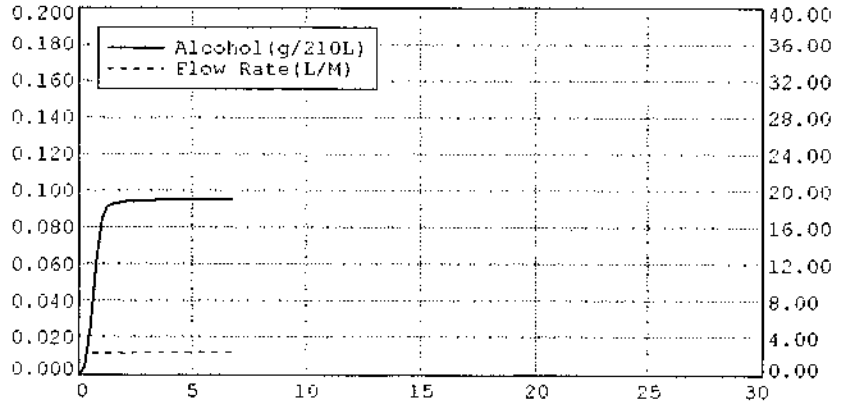
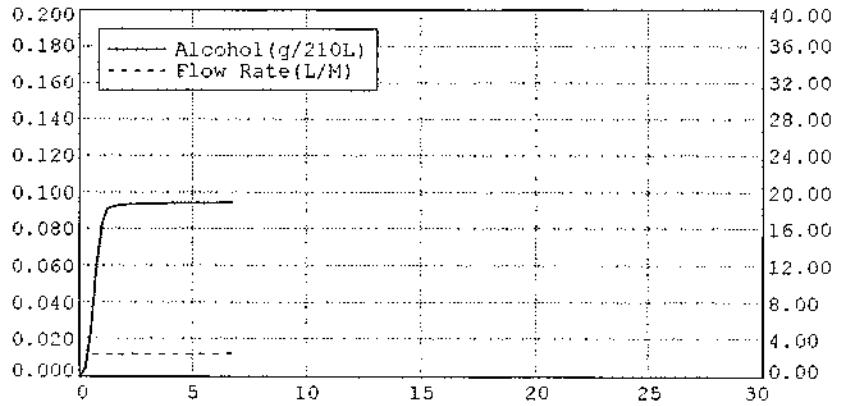
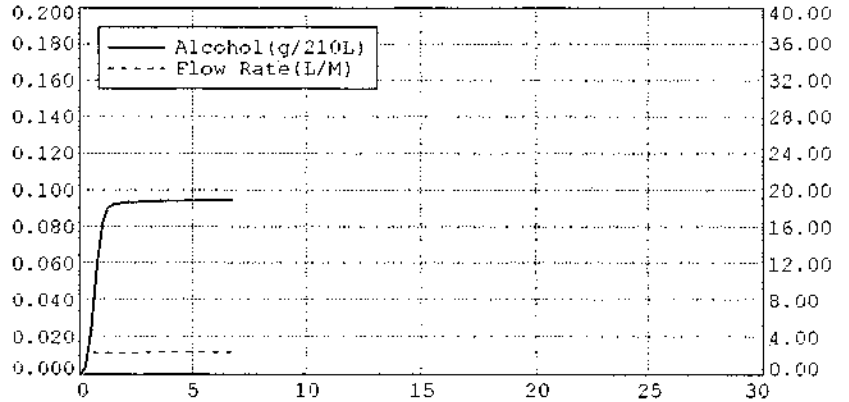
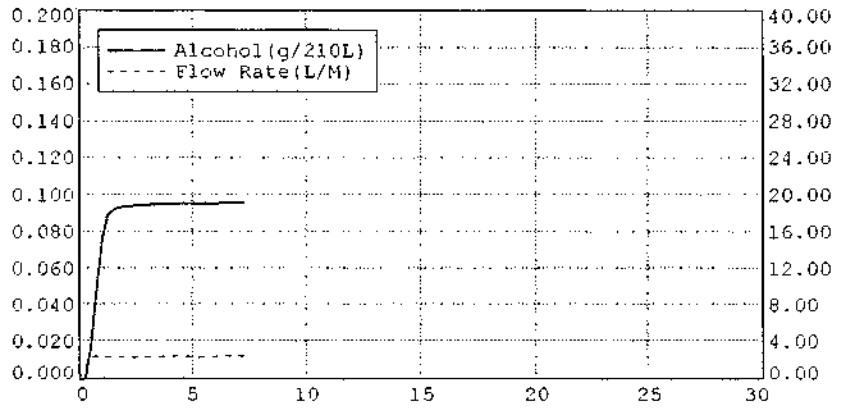
Date: 03/24/2016  
 Time: 13:01:45

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.52: 0.099  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 720 psi

BLANK TEST	0.000	13:03
INTERNAL STANDARD	VERIFIED	13:03
EXTERNAL STANDARD	0.096	13:03
BLANK TEST	0.000	13:04
EXTERNAL STANDARD	0.095	13:04
BLANK TEST	0.000	13:05
EXTERNAL STANDARD	0.095	13:05
BLANK TEST	0.000	13:06
EXTERNAL STANDARD	0.095	13:06
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.095	13:07
BLANK TEST	0.000	13:08

Average = 0.0952  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100674

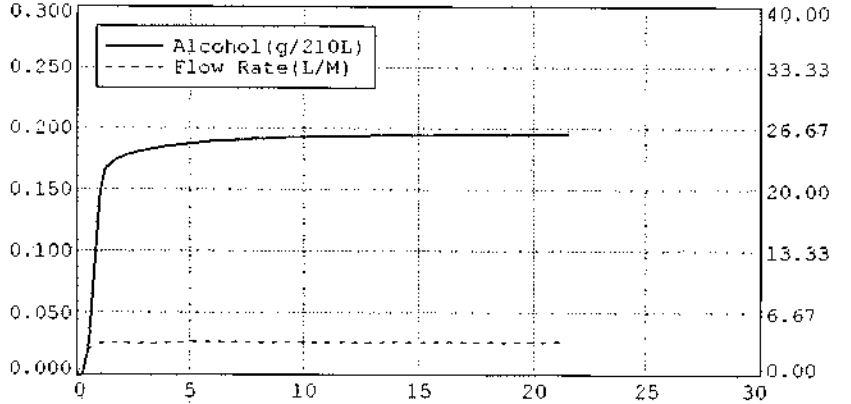
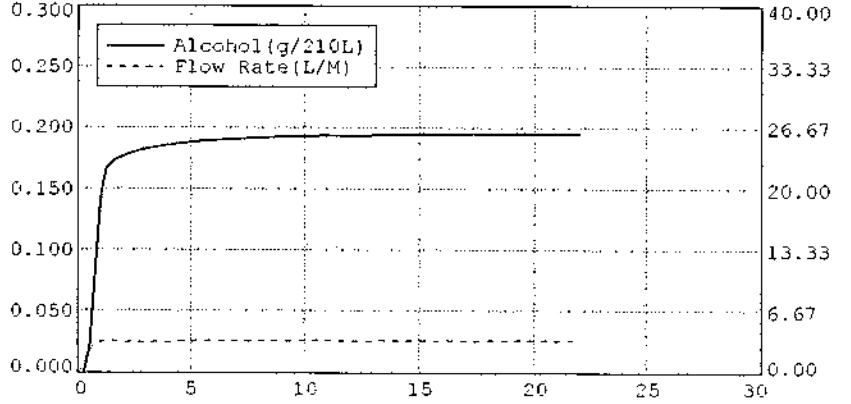
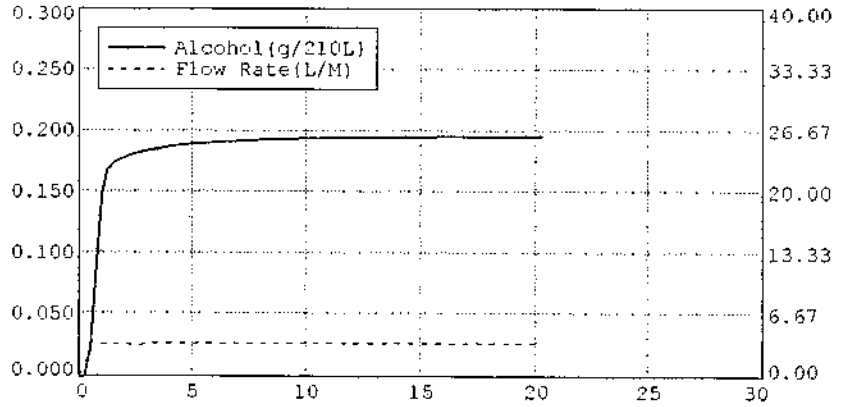
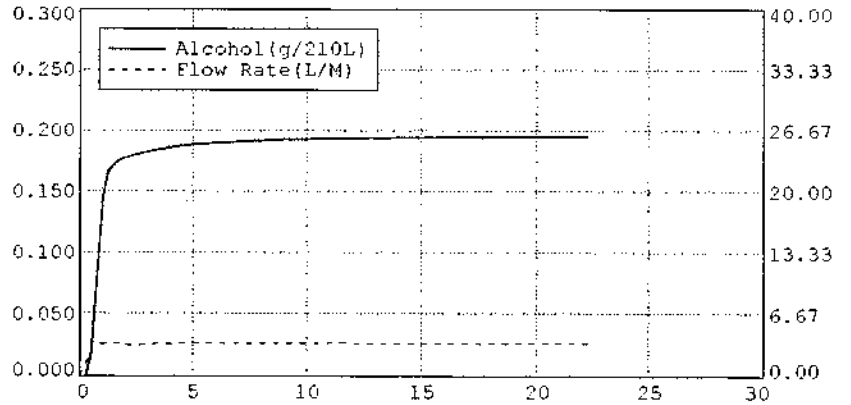
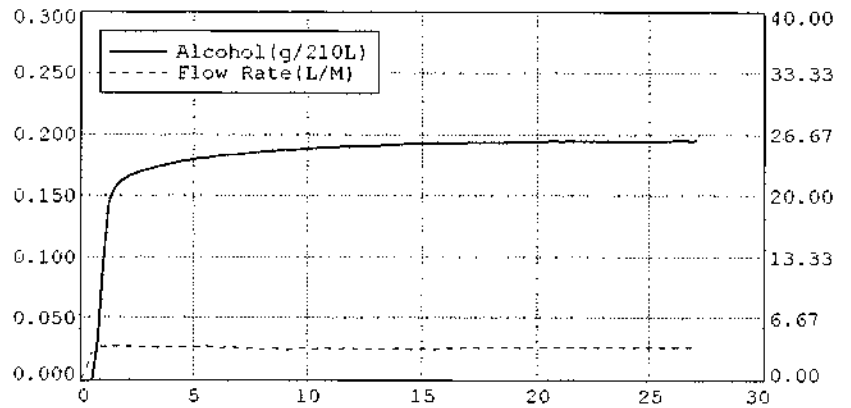
Date: 03/24/2016  
 Time: 13:10:43

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	13:12
INTERNAL STANDARD	VERIFIED	13:12
EXTERNAL STANDARD	0.195	13:13
BLANK TEST	0.000	13:13
EXTERNAL STANDARD	0.196	13:14
BLANK TEST	0.000	13:15
EXTERNAL STANDARD	0.196	13:15
BLANK TEST	0.000	13:16
EXTERNAL STANDARD	0.196	13:17
BLANK TEST	0.000	13:18
EXTERNAL STANDARD	0.196	13:18
BLANK TEST	0.000	13:19

Average = 0.1958  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100674

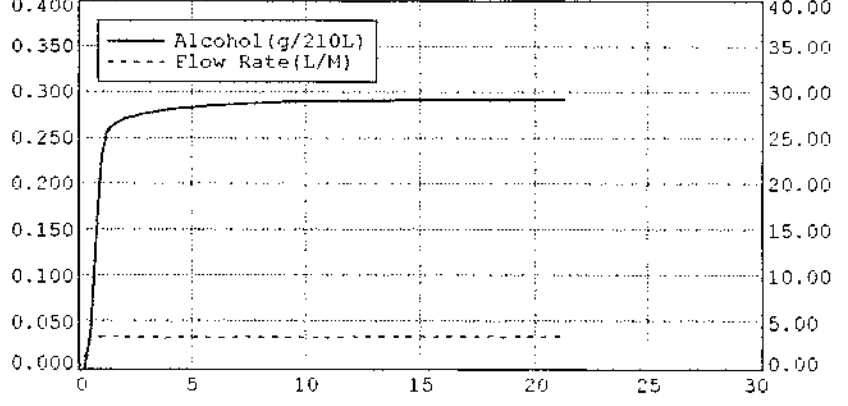
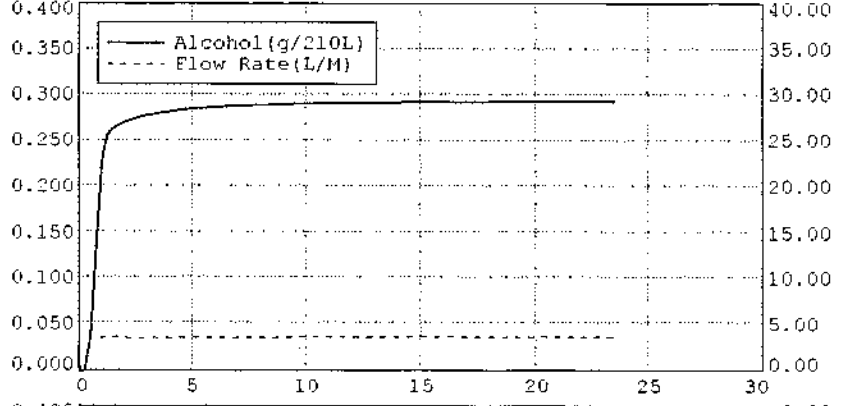
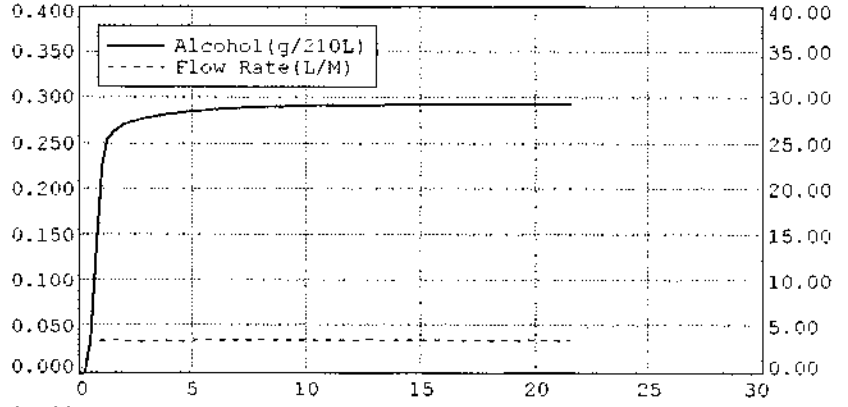
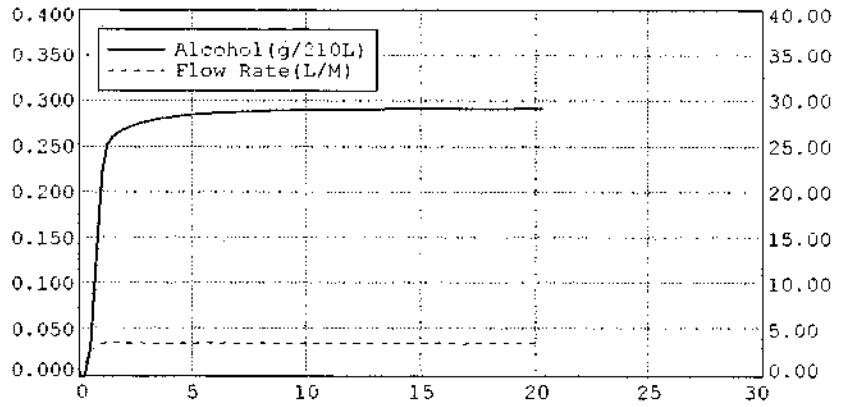
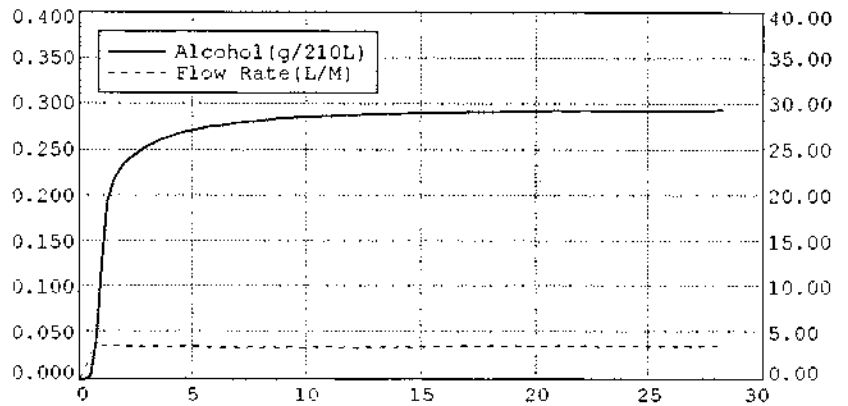
Date: 03/24/2016  
 Time: 13:20:37

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 15170  
 EXPIRATION: 07/20/2017

BLANK TEST	0.000	13:21
INTERNAL STANDARD	VERIFIED	13:22
EXTERNAL STANDARD	0.293	13:22
BLANK TEST	0.000	13:23
EXTERNAL STANDARD	0.292	13:24
BLANK TEST	0.000	13:24
EXTERNAL STANDARD	0.292	13:25
BLANK TEST	0.000	13:26
EXTERNAL STANDARD	0.293	13:26
BLANK TEST	0.000	13:27
EXTERNAL STANDARD	0.292	13:28
BLANK TEST	0.000	13:29

Average = 0.2924  
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100674

Date: 03/25/2016  
Time: 09:37:04

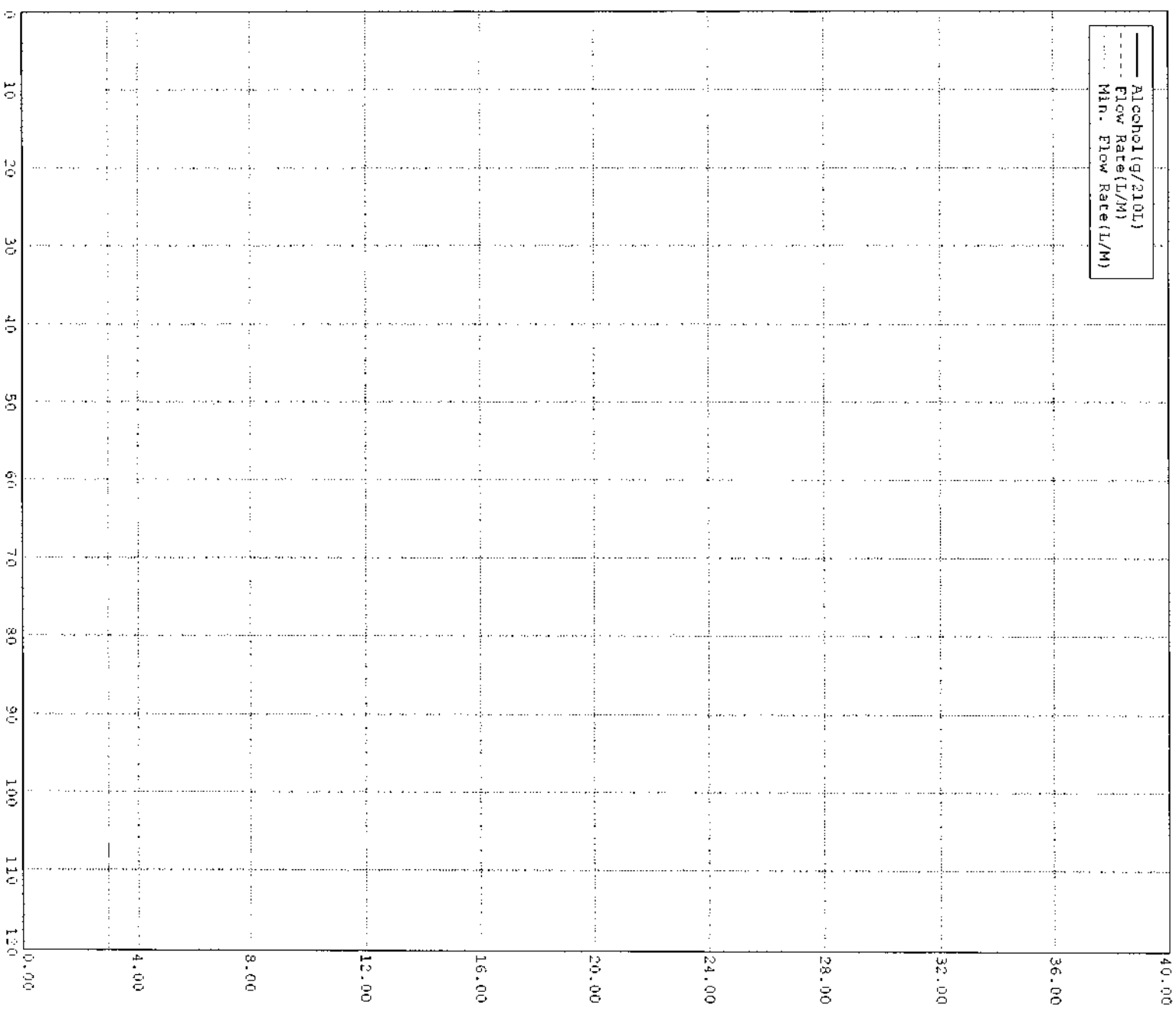
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INCOMPLETE XXXX  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.45: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:38
BLANK TEST	0.000	09:38
INTERNAL STANDARD	VERIFIED	09:38
EXTERNAL STANDARD	0.077	09:38
BLANK TEST	0.000	09:39
SUBJECT SAMPLE	INCOMPLETE	09:41



SUBJECT TEST

Alaska Department of Public Safety  
DATAWASTER dmt: 100674

Date: 03/25/2016  
Time: 09:55:36

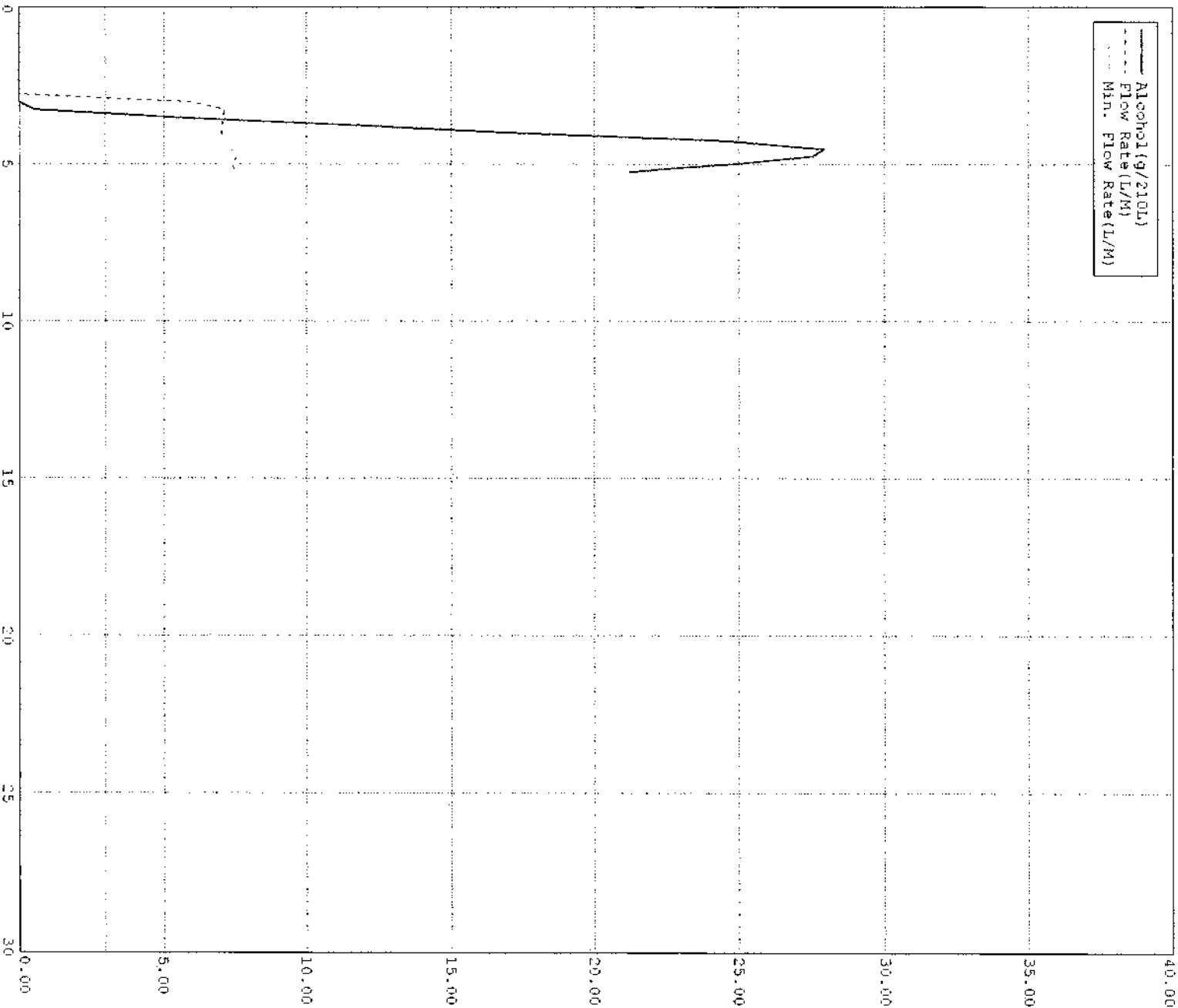
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INVALID XXXX  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AF 29.45: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:58
BLANK TEST	0.000	09:59
INTERNAL STANDARD	VERIFIED	09:59
EXTERNAL STANDARD	0.077	09:59
BLANK TEST	0.000	10:00
SUBJECT SAMPLE	INVALID	10:00



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100674

Date: 03/25/2016  
Time: 10:03:30

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 29.44: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

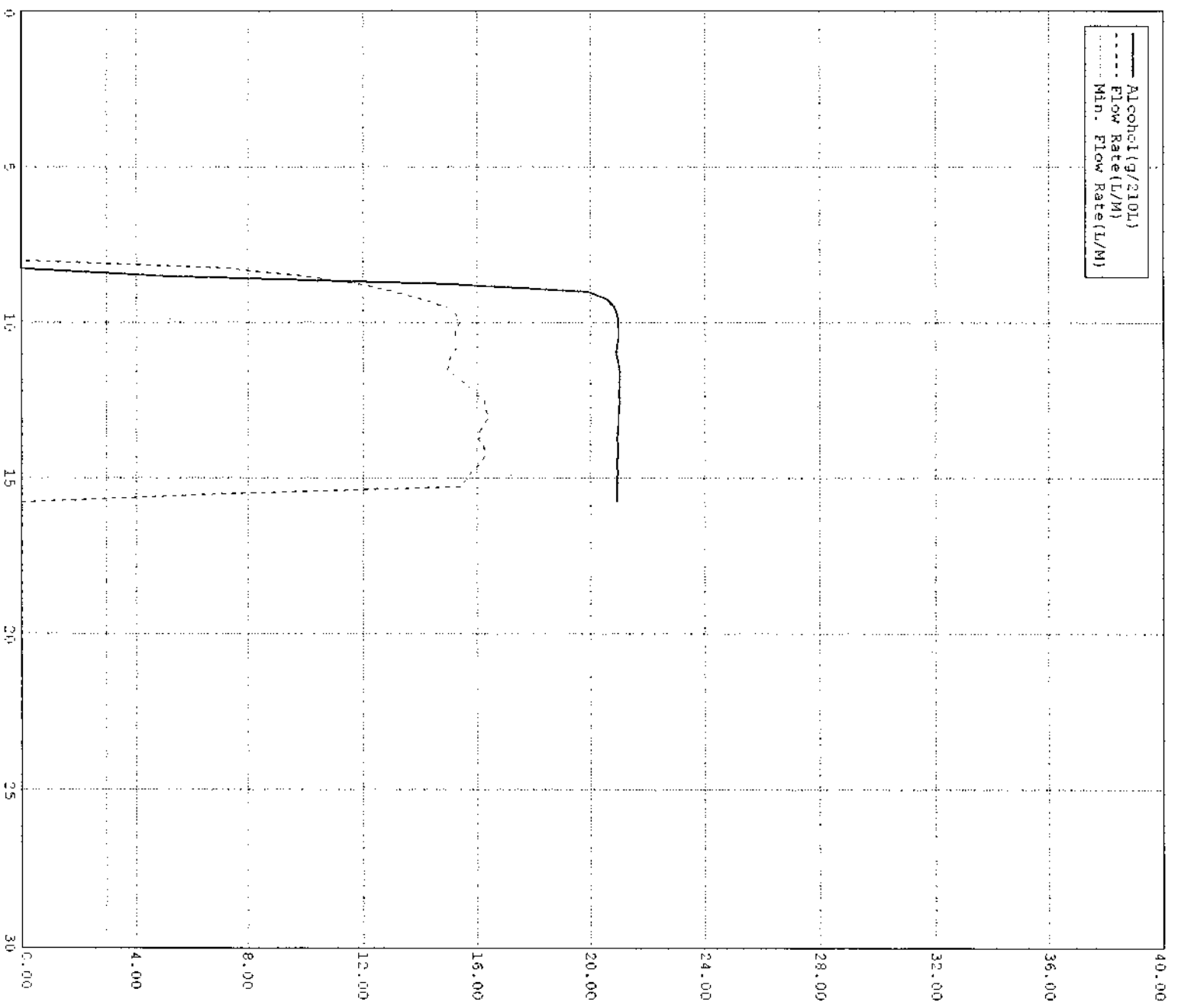
DIAGNOSTIC CHECK PASSED 10:07  
BLANK TEST 0.080 10:07  
INTERNAL STANDARD VERIFIED 10:07  
Xq = 0.106 (0.75%)  
EXTERNAL STANDARD 0.077 10:08  
X[1] = 0.0774 (-0.0007) (0.0017)  
BLANK TEST 0.000 10:09  
SUBJECT SAMPLE XXX 10:09  
X[1] = 0.1051 (-0.0229) (-0.0018)

Interference Detected

Filter 2 Avg: -0.0009

Filter 3 Avg: 0.0016

CNE 3/25/16



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100674

Date: 03/25/2016  
Time: 10:12:29

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

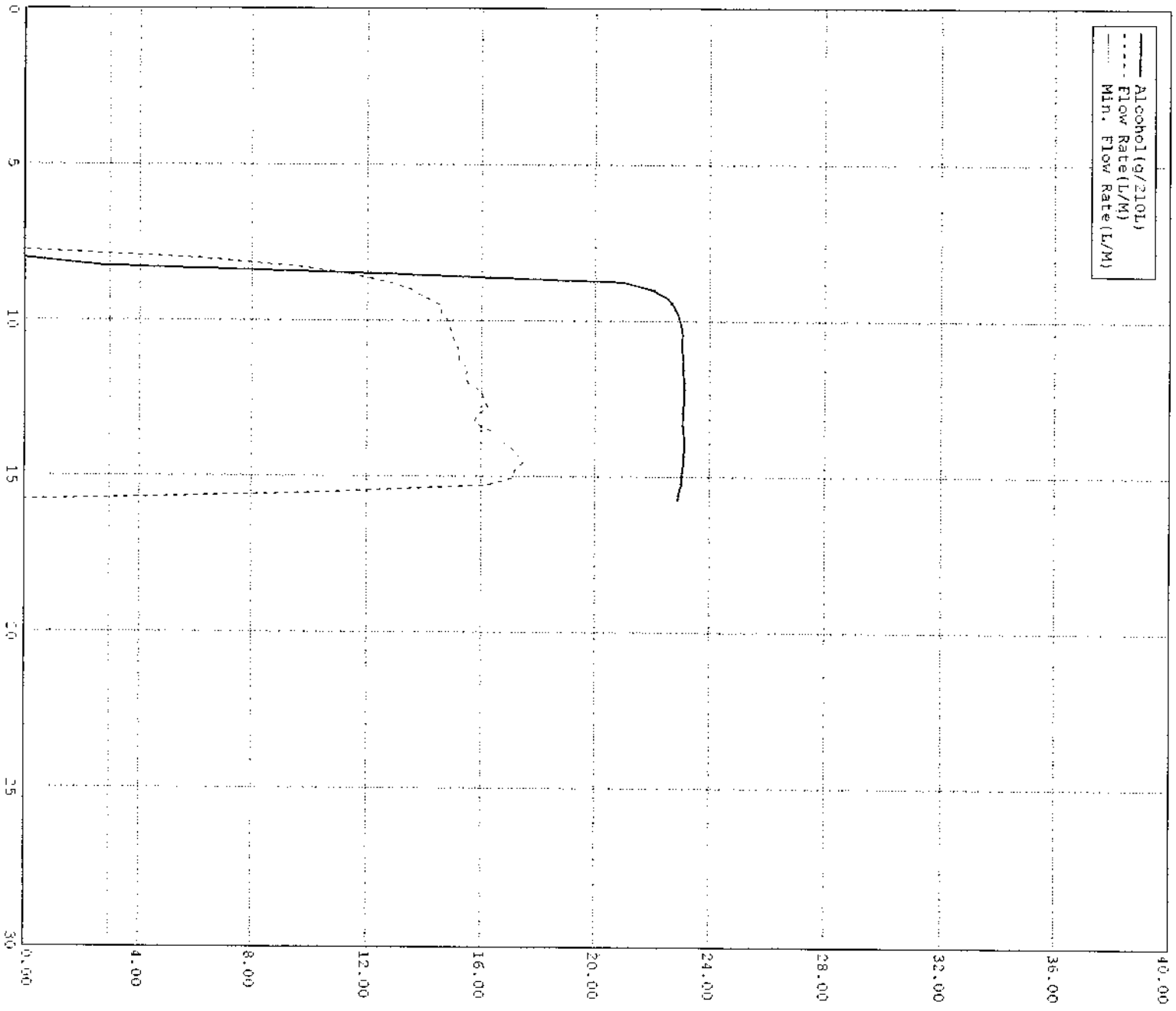
OPERATOR NAME:  
INTERFERENCE IPA  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.44: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 10:16  
BLANK TEST 0.000 10:17  
INTERNAL STANDARD VERIFIED 10:17  
Xq = 0.105 (0.25%)  
EXTERNAL STANDARD 0.077 10:17  
X[1] = 0.0767 (-0.0012) (0.0016)  
BLANK TEST 0.000 10:18  
SUBJECT SAMPLE XXX 10:18  
X[1] = 0.1150 (-0.0192) (0.0005)

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100674

Date: 03/25/2016  
Time: 10:22:21

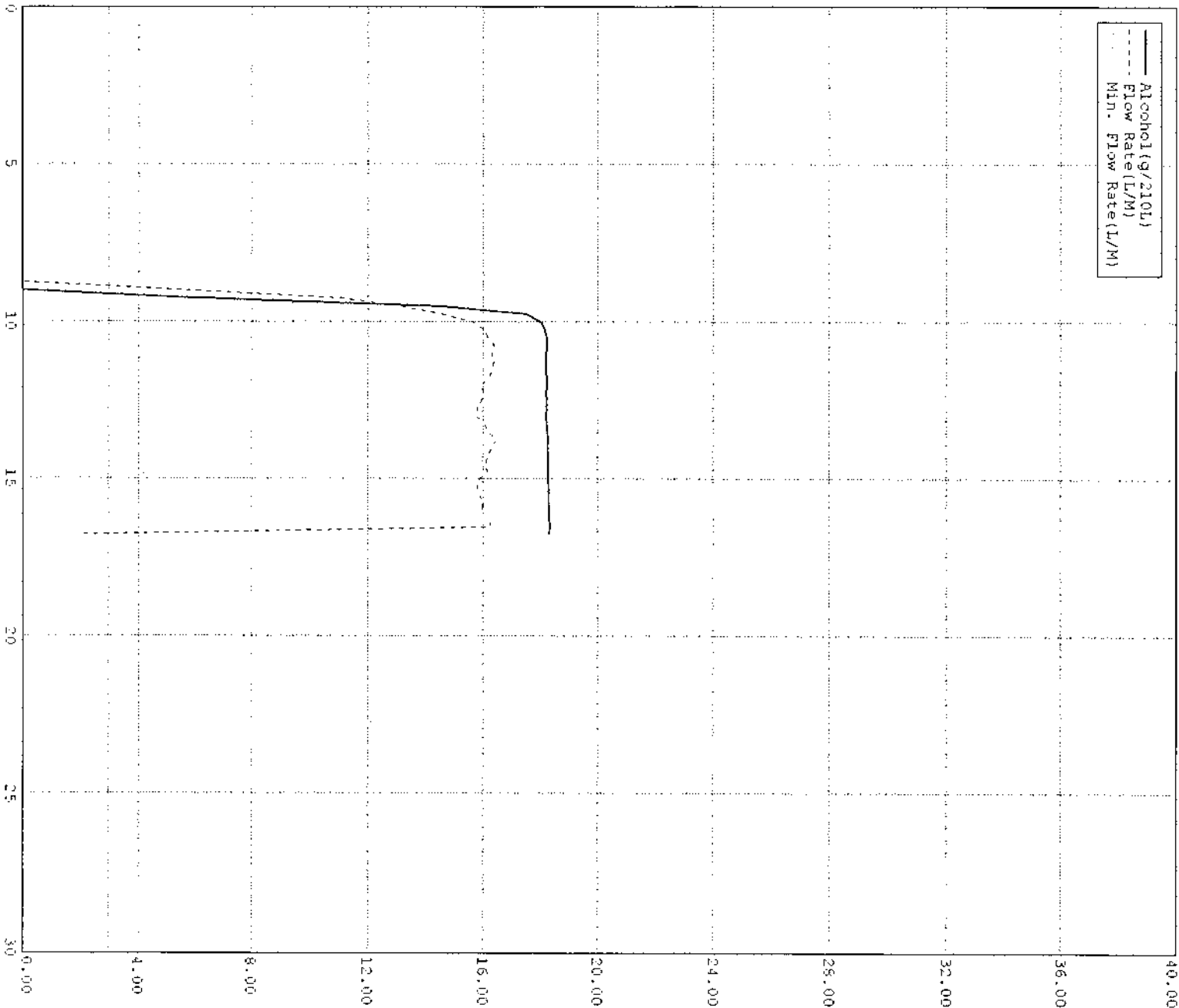
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INTERFERENCE NEGATIVE  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.44: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	10:28
BLANK TEST	0.000	10:28
INTERNAL STANDARD	VERIFIED	10:28
Xq = 0.105 (0.42%)		
EXTERNAL STANDARD	0.077	10:28
X[1] = 0.0773 (-0.0005)	(0.0018)	
BLANK TEST	0.000	10:29
SUBJECT SAMPLE (Vol=2.00L)	0.092	10:29
X[1] = 0.0922 (-0.0008)	(-0.0007)	
BLANK TEST	0.000	10:30
EXTERNAL STANDARD	0.076	10:31
X[1] = 0.0764 (-0.0012)	(0.0013)	
BLANK TEST	0.000	10:32



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100674

Date: 03/25/2016  
Time: 12:18:24

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

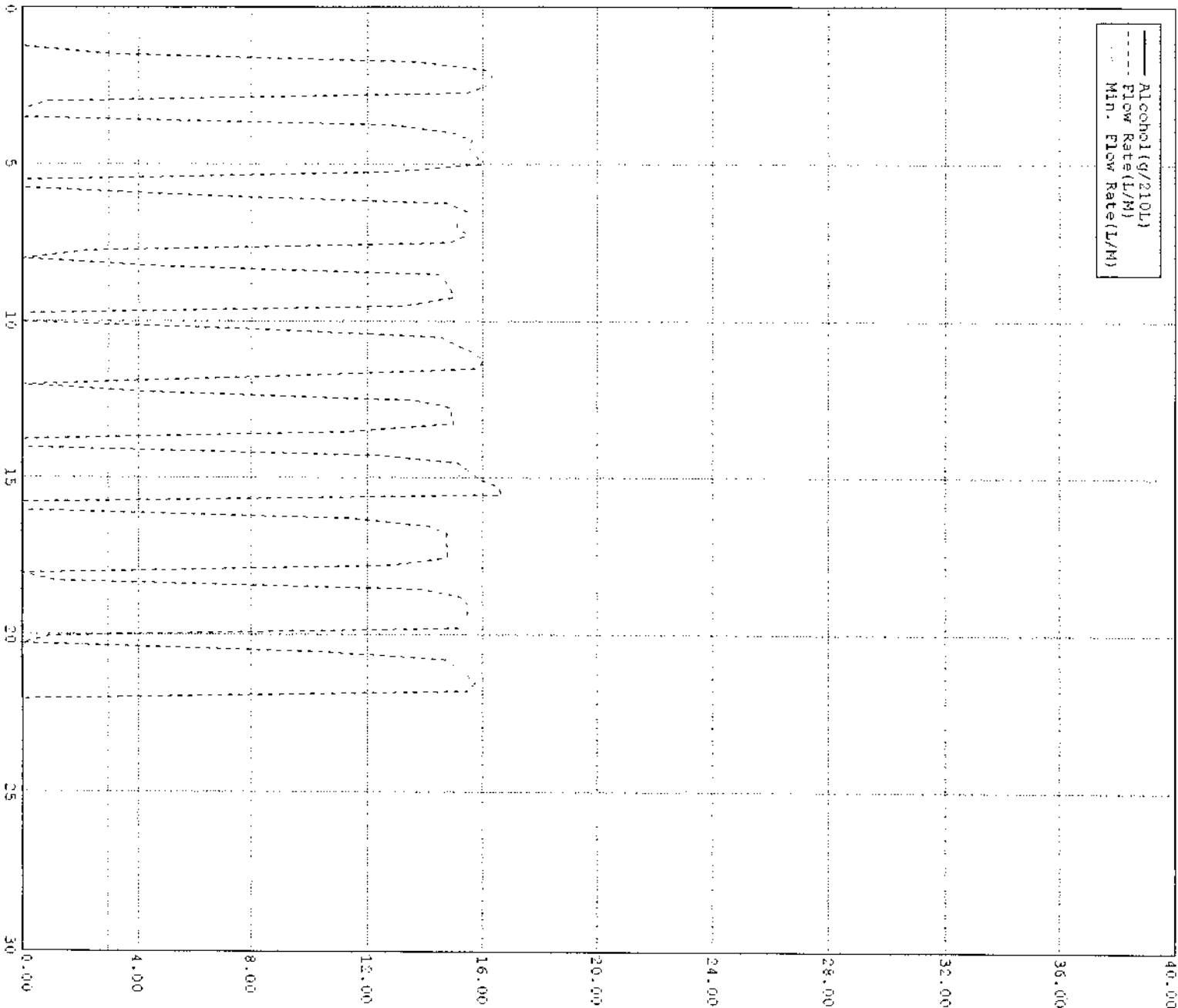
OPERATOR NAME:  
EXCEEDED ATTEMPTS  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.42: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:22
BLANK TEST	0.000	12:22
INTERNAL STANDARD	VERIFIED	12:22
EXTERNAL STANDARD	0.077	12:23
BLANK TEST	0.000	12:24
SUBJECT SAMPLE	XXX	12:24

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100674

Date: 03/25/2016  
Time: 12:29:12

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

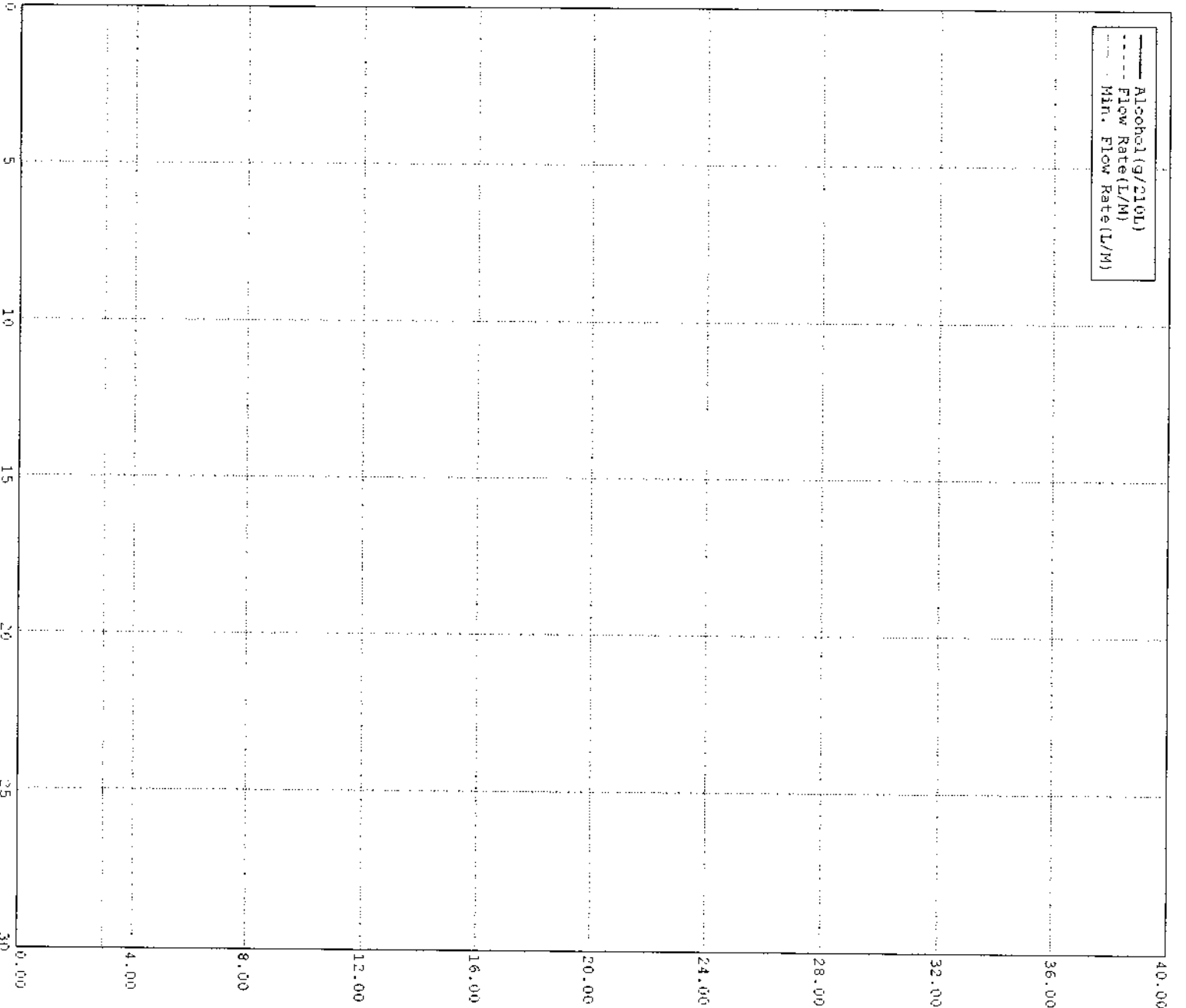
OPERATOR NAME:  
RFI XXXX  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.42: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:39
BLANK TEST	0.000	12:39
INTERNAL STANDARD	VERIFIED	12:40
EXTERNAL STANDARD	0.078	12:40
BLANK TEST	0.000	12:41

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100674

Date: 03/25/2016  
Time: 12:58:20

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 AM 29.42: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	13:01
BLANK TEST	0.000	13:01
INTERNAL STANDARD	VERIFIED	13:01
EXTERNAL STANDARD	0.077	13:01
BLANK TEST	0.000	13:02
SUBJECT SAMPLE (Vol=1.74L)	0.000	13:02
BLANK TEST	0.000	13:03
EXTERNAL STANDARD	0.077	13:04
BLANK TEST	0.000	13:04

