

Alaska Scientific Crime Detection Laboratory

DataMaster Certification Form

Issued: 10/9/2014
Effective: 10/9/2014

Version: DMCEF 2014 R1
Status: Active

Instrument S/N 100677 Analyst Colleen O'Bryant Start Date 12/11/14

- 1. Diagnostic Test (attached)
- 2. Voltage Checks
 - a. Adjust voltages, if needed
 - i. Lamp (2.6V Maximum)
 - ii. Bias
 - iii. Cooler (2.0V Maximum)
 - 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)
 - iv. Chopper Frequency
 - v. Detector Voltage (-0.100V to 0.100V)

- 3. Print Calibration Factors (attached)
- 4. Volume Test - Minimum 1.6 L (1.3L to 1.7L)

- 5. Linearity Test (attached)
 - a. Levels Used
 - i. 0.020g/210L Mnf ILMO Lot 00813020A1 Exp 3/1/15
 - ii. 0.040g/210L Mnf ILMO Lot 00813040A2 Exp 3/1/15
 - iii. 0.080g/210L Mnf ILMO Lot 09214080A2 Exp 5/1/10
 - iv. 0.100g/210L Mnf ILMO Lot 00813100A3 Exp 3/1/15
 - v. 0.200g/210L Mnf Guth Lot 14130 Exp 5/12/10
 - 1. Simulator S/N DR5298 Date Calibrated 2/19/14
 - vi. 0.300g/210L Mnf Guth Lot 14150 Exp 6/2/10
 - 1. Simulator S/N SD1177 Date Calibrated 2/20/14

- 6. Functional Tests (attached)
 - a. Incomplete
 - b. Invalid
 - c. Interference
 - i. Acetone - Mnf Guth Lot 14030 Level 0.100 Exp 1/20/10
 - 1. Simulator S/N SD1198 Date Calibrated 2/20/14
 - ii. Isopropanol - Mnf Guth Lot 14080 Level 0.100 Exp 1/20/10
 - 1. Simulator S/N SD1202 Date Calibrated 2/20/14
 - iii. Negative Control - Mnf Guth Lot 14030 Level 0.100 Exp 1/20/10
 - 1. Simulator S/N DR4161 Date Calibrated 2/20/14 ~~2/19/14~~

- d. RFI
- 7. Verify stylus is calibrated
- 8. Reset Options
- 9. Clear Memory
- 10. Verification of Calibration
- 11. Non-Drinking Subject Test (attached)
- 12. Upload
- 13. Remove tank prior to shut down

End Date 12/17/14

DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100677

Date: 12/11/2014
Time: 13:06:09

VERSIONS
DMT: 2.00
PIC: 3.03
Modem: 2.3
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C PASSED
Breath Tube = 48.1°C PASSED

PUMP INFO

Flow Rate = 4.477 L/M PASSED

DETECTOR INFO

PUMP ON PASSED
PUMP OFF PASSED

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD PASSED

Technician Screen

DATAMASTER dmt: 100677

Date: 12/11/2014
Time: 1:13 PM

Temperatures (°C)

Sample Cell: 49.0°C
Breath Tube: 48.0°C

Current Barometer 28.9 in
Volume (Ltr) 1.42

Settings

Lamp: 1.78 V
Bias: 80 V
Cooler: 1.75 V
Chopper: 550 Hz

Voltages (V)

Flow: 1.06 V
Detector: 0.046 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100677

Date: 10/26/2011
Time: 08:04:31

Ca	=	0.1000		
CAL	=	1.016524	0.800	<= CAL < 1.200
b1	=	0.0000	0.0000	<= b1 < 0.0040
b2	=	0.0030	0.0010	<= b2 < 0.0100
b3	=	0.0000	0.0000	<= b3 < 0.0040
Xq	=	0.0842	0.0500	<= Xq < 0.2000
a21	=	1.257001	1.050	<= a21 < 1.300
a31	=	0.532617	0.300	<= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100677

Date: 12/11/2014
Time: 15:04:40

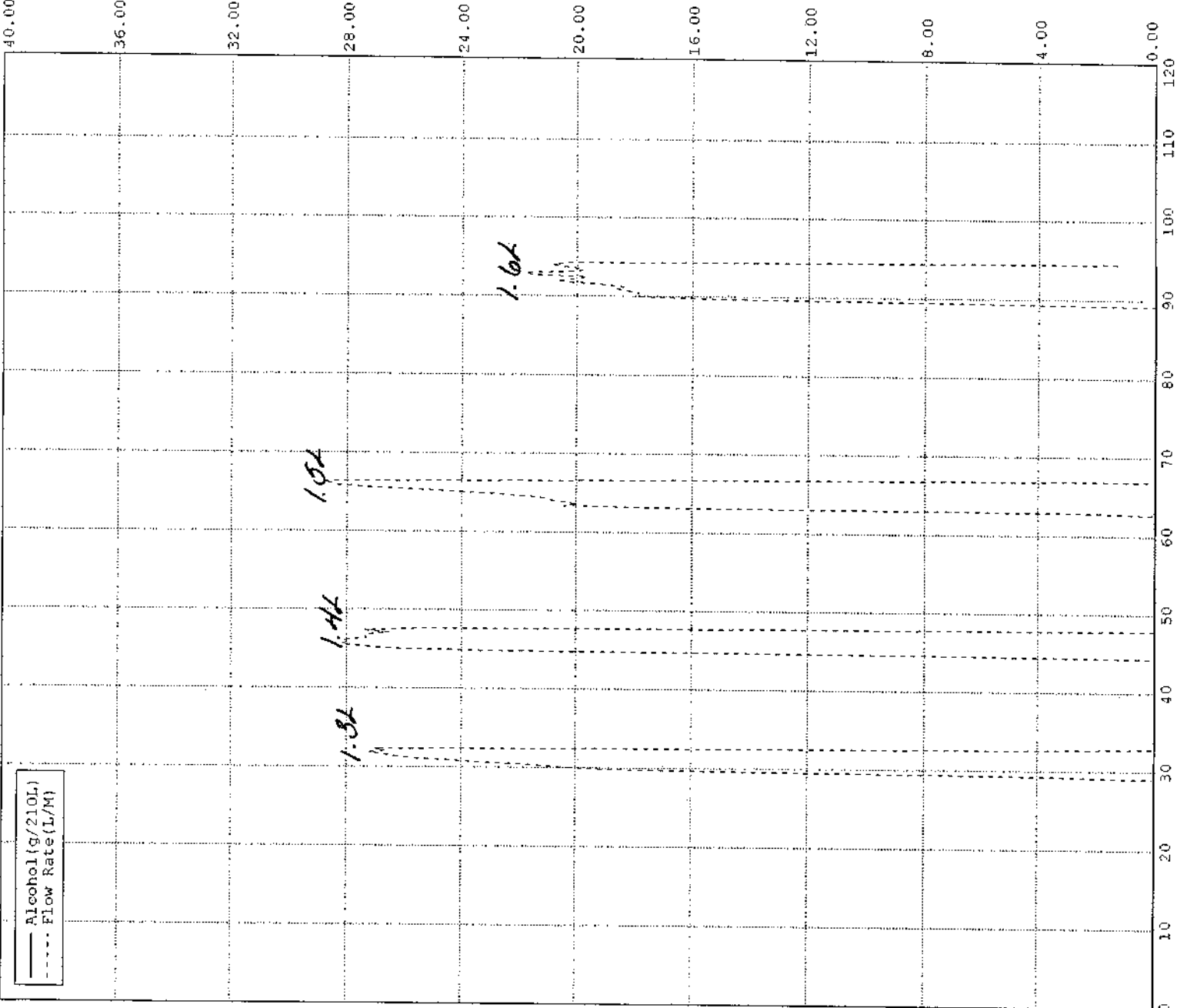
SUBJECT NAME:
TEST TEST
LICENSE #: VOLUME TEST

OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

DEPT/AGENCY:
AAA1
CASE/REPORT: 14-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 28.93: 0.077
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	15:06
BLANK TEST	0.000	15:06
INTERNAL STANDARD	VERIFIED	15:06
EXTERNAL STANDARD	0.077	15:06
BLANK TEST	0.000	15:07
SUBJECT SAMPLE	0.000	15:09
BLANK TEST	0.000	15:09
EXTERNAL STANDARD	0.077	15:10
BLANK TEST	0.000	15:11



LINEARITY CHECK

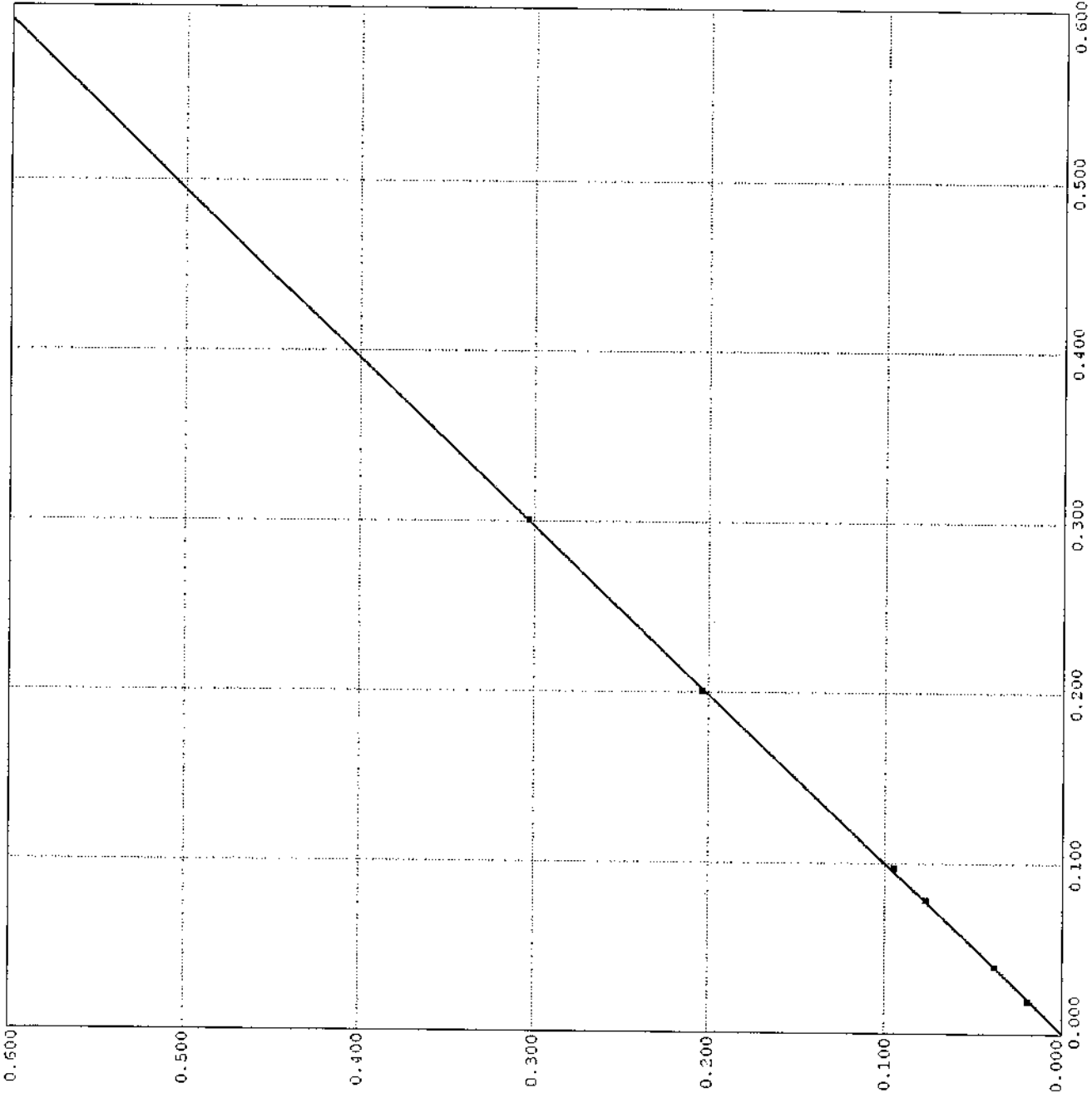
Alaska Department of Public Safety
 DATAMASTER dmt: 100677

Date: 12/17/2014
 Time: 09:05:23

SUPERVISOR NAME:
 COLLEEN S O'BRYAN
 OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.019	0.0202	0.0003
0.039	0.0393	0.0002
0.078	0.0781	0.0004
0.097	0.0960	0.0003
0.200	0.2043	0.0006
0.300	0.3040	0.0004

SLOPE = 1.015725
 R² = 0.999849



COS

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100677

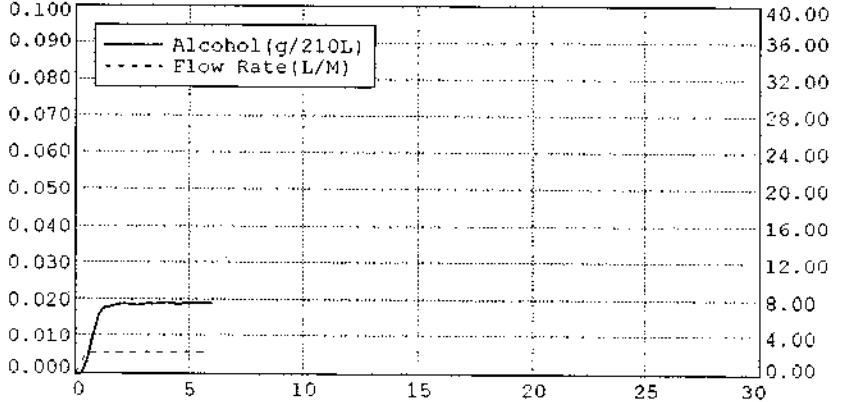
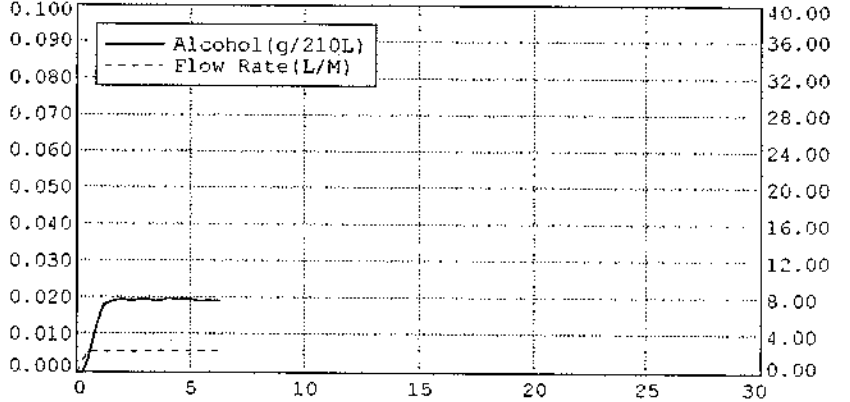
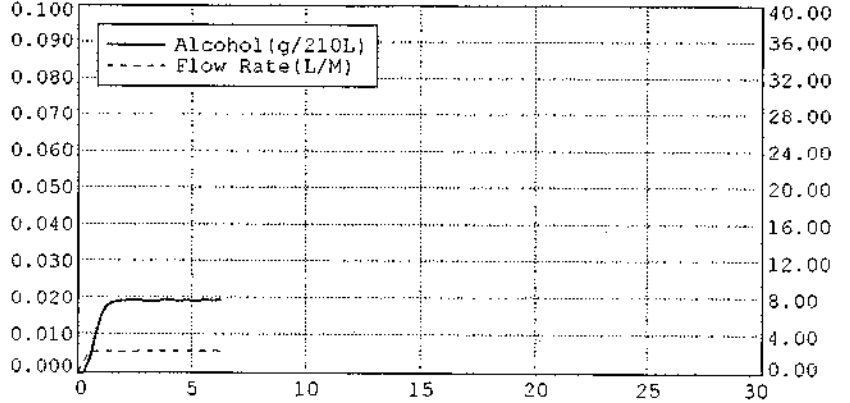
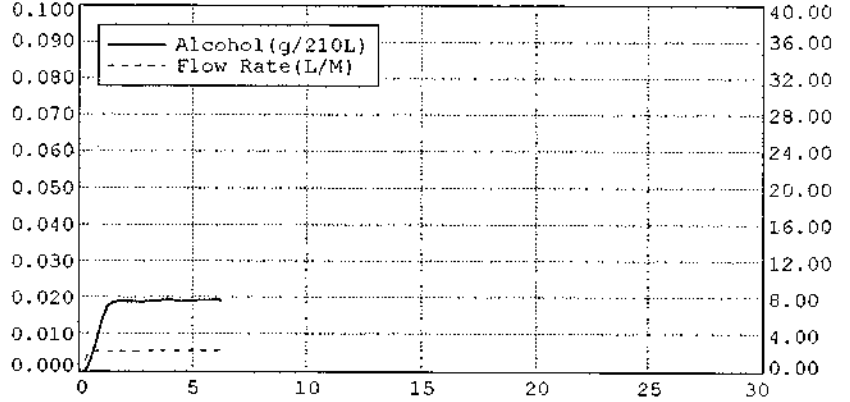
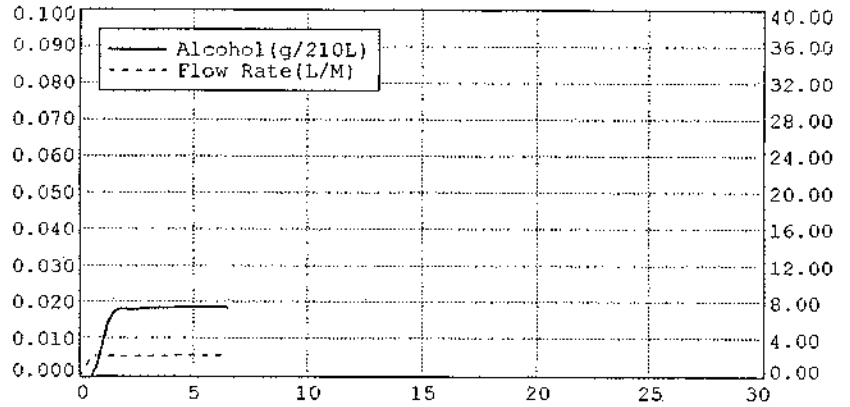
Date: 12/17/2014
 Time: 09:12:41

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 29.27: 0.019
 LOT #: 00813020A1
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:13
INTERNAL STANDARD	VERIFIED	09:13
EXTERNAL STANDARD	0.019	09:14
BLANK TEST	0.000	09:14
EXTERNAL STANDARD	0.020	09:15
BLANK TEST	0.000	09:16
EXTERNAL STANDARD	0.020	09:16
BLANK TEST	0.000	09:17
EXTERNAL STANDARD	0.020	09:17
BLANK TEST	0.000	09:18
EXTERNAL STANDARD	0.020	09:18
BLANK TEST	0.000	09:19

Average = 0.0202
 Std Dev = 0.0003



LINEARITY CHECK: Control Test 2

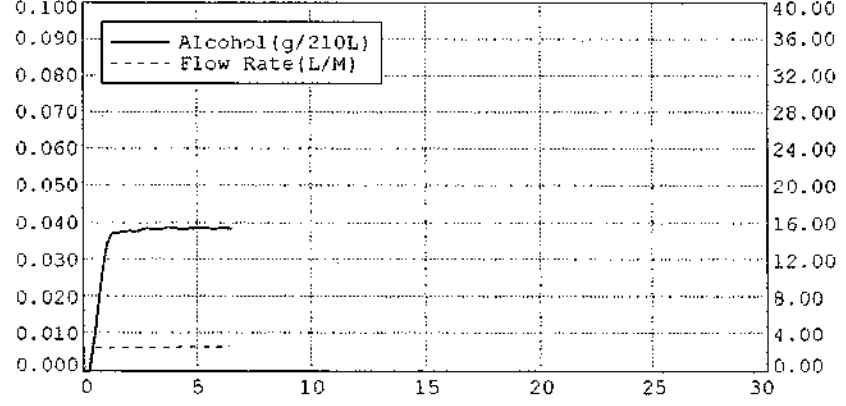
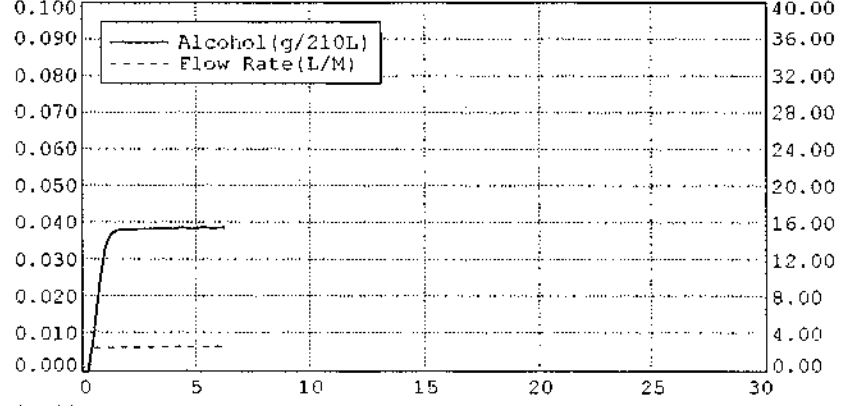
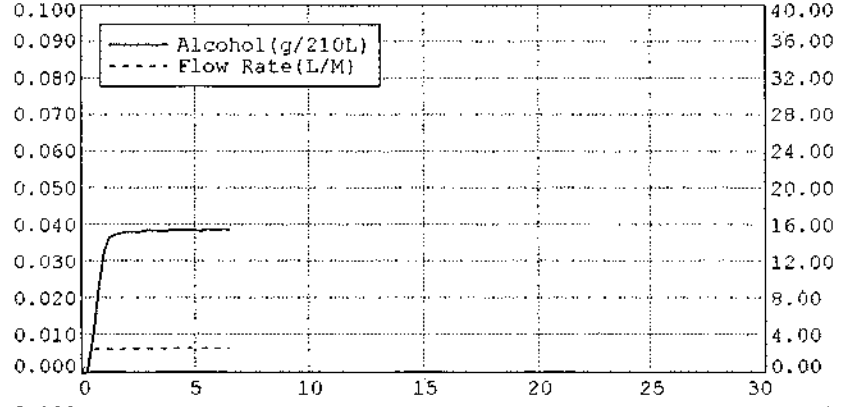
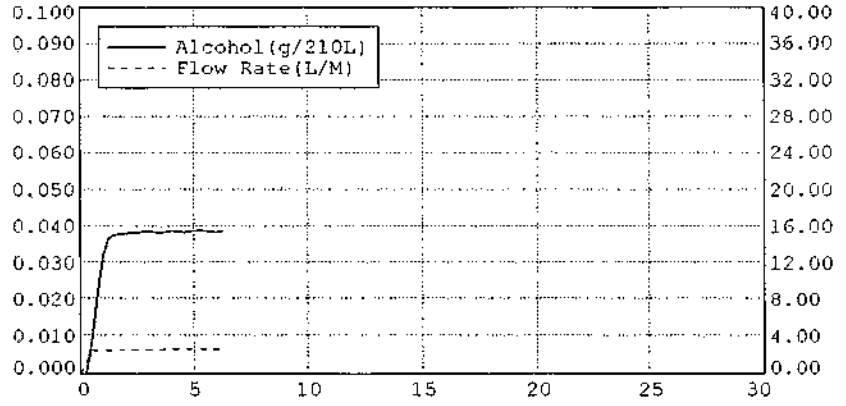
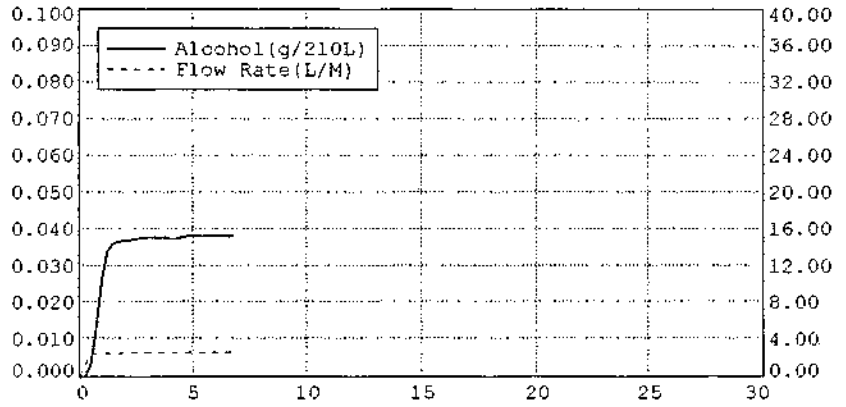
Alaska Department of Public Safety
 DATAMASTER dmt: 100677

Date: 12/17/2014
 Time: 09:20:43

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.040
 TARGET AT 29.28: 0.039
 LOT #: 00813040A2
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:21
INTERNAL STANDARD	VERIFIED	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
EXTERNAL STANDARD	0.039	09:24
BLANK TEST	0.000	09:25
EXTERNAL STANDARD	0.039	09:25
BLANK TEST	0.000	09:26
EXTERNAL STANDARD	0.039	09:26
BLANK TEST	0.000	09:27

Average = 0.0393
 Std Dev = 0.0002



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100677

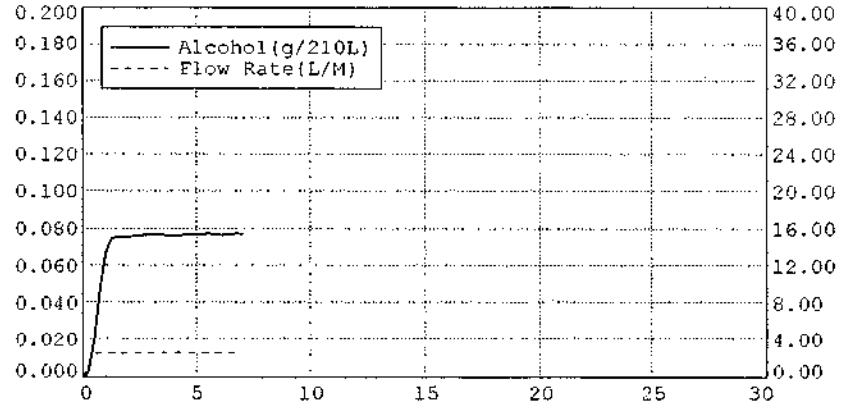
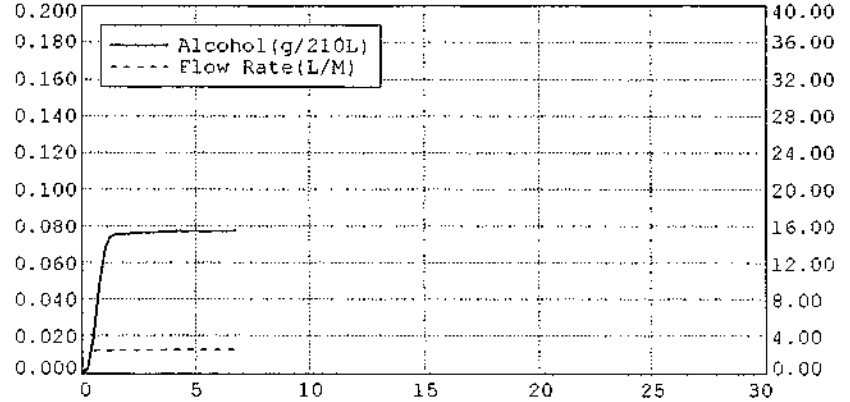
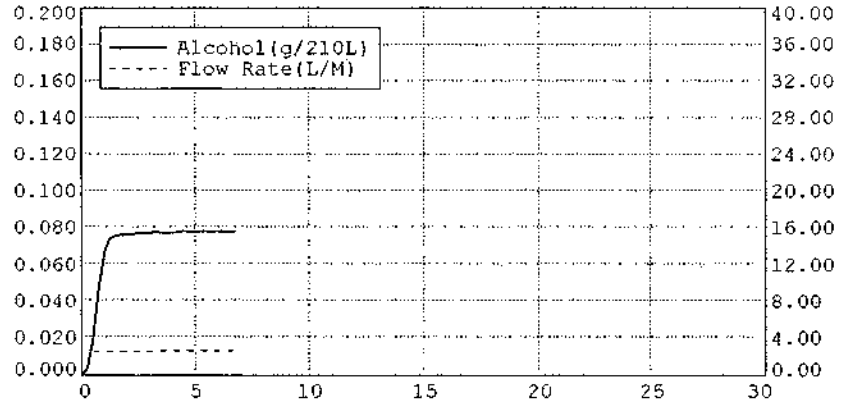
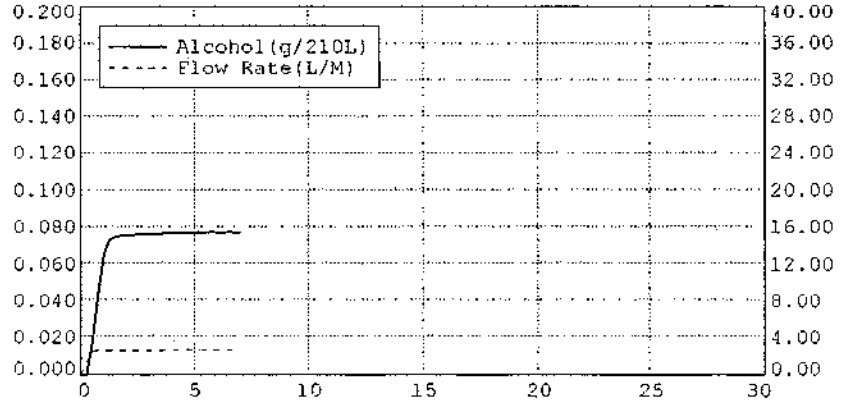
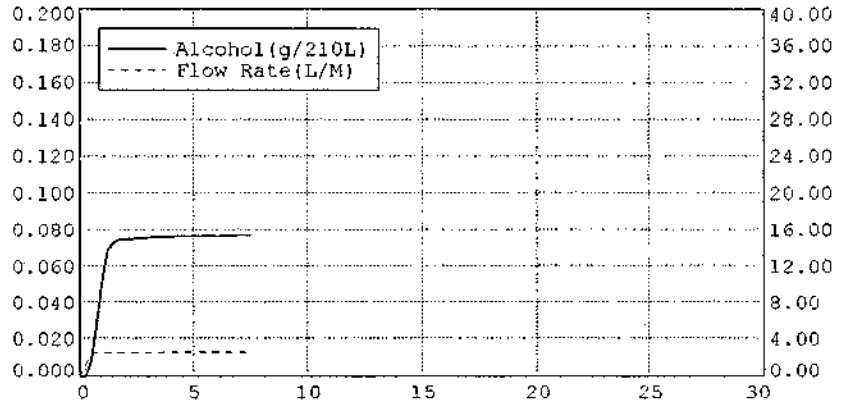
Date: 12/17/2014
 Time: 09:28:03

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
 TARGET AT 29.28: 0.078
 LOT #: 09214080A2
 EXPIRATION: 05/01/2016

BLANK TEST	0.000	09:29
INTERNAL STANDARD	VERIFIED	09:29
EXTERNAL STANDARD	0.077	09:29
BLANK TEST	0.000	09:30
EXTERNAL STANDARD	0.077	09:30
BLANK TEST	0.000	09:31
EXTERNAL STANDARD	0.078	09:31
BLANK TEST	0.000	09:32
EXTERNAL STANDARD	0.078	09:33
BLANK TEST	0.000	09:33
EXTERNAL STANDARD	0.078	09:34
BLANK TEST	0.000	09:35

Average = 0.0781
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

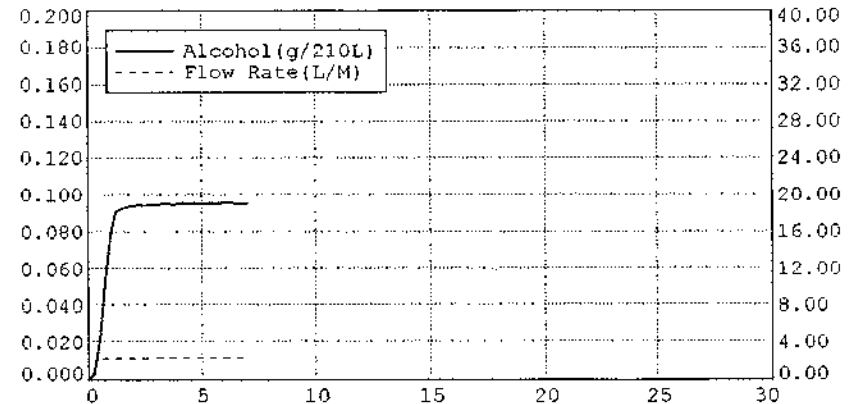
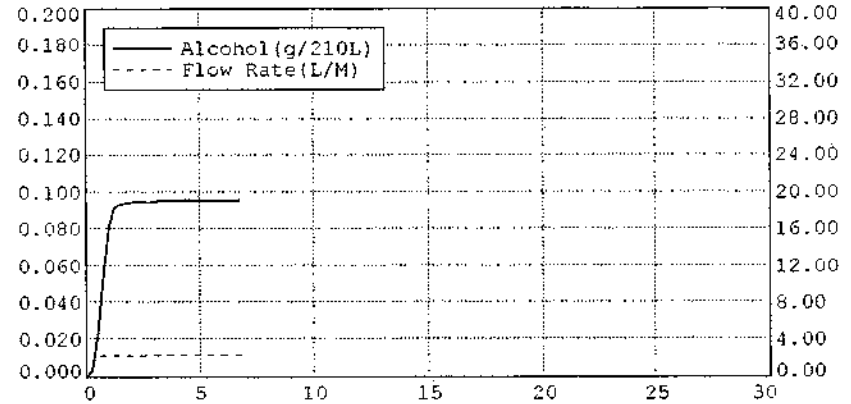
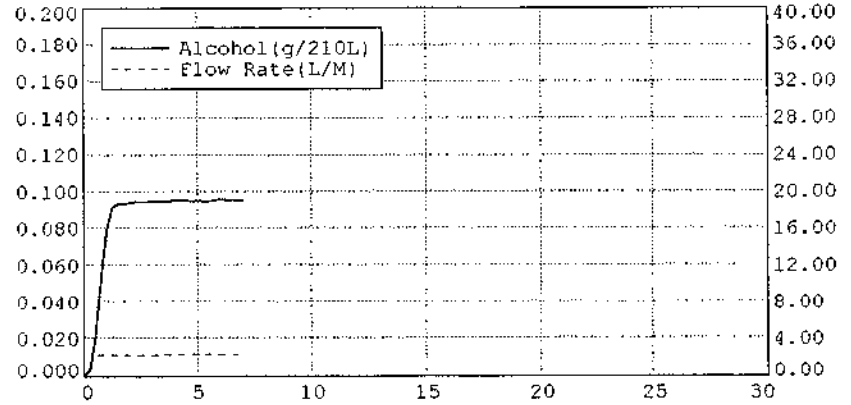
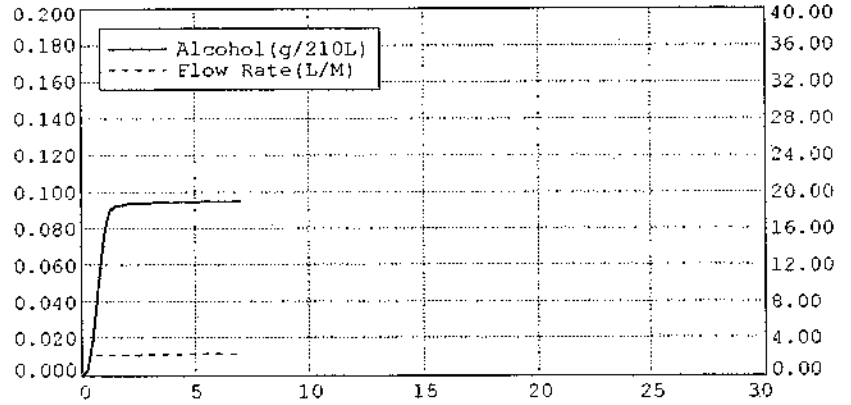
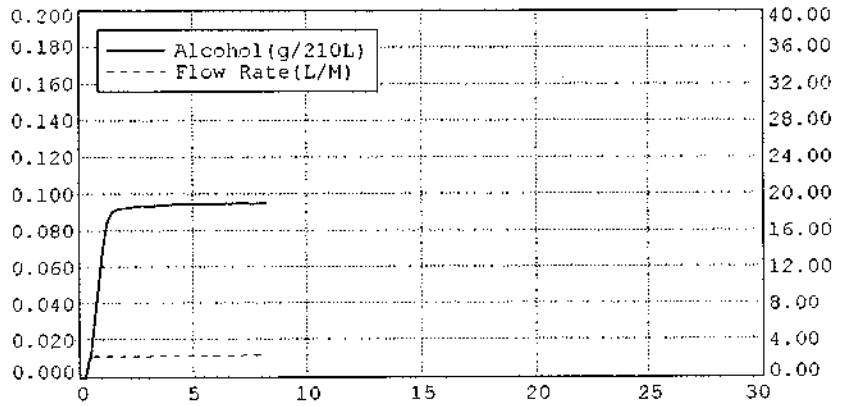
Alaska Department of Public Safety
 DATAMASTER dmt: 100677

Date: 12/17/2014
 Time: 09:36:56

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.100
 TARGET AT 29.28: 0.097
 LOT #: 00813100A3
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:38
INTERNAL STANDARD	VERIFIED	09:38
EXTERNAL STANDARD	0.095	09:38
BLANK TEST	0.000	09:39
EXTERNAL STANDARD	0.095	09:39
BLANK TEST	0.000	09:40
EXTERNAL STANDARD	0.096	09:40
BLANK TEST	0.000	09:41
EXTERNAL STANDARD	0.096	09:41
BLANK TEST	0.000	09:42
EXTERNAL STANDARD	0.096	09:43
BLANK TEST	0.000	09:43

Average = 0.0960
 Std Dev = 0.0003



LINEARITY CHECK: Control Test 5

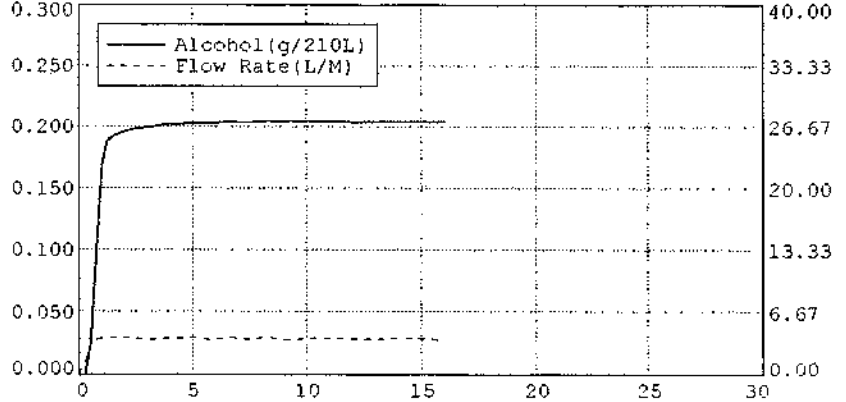
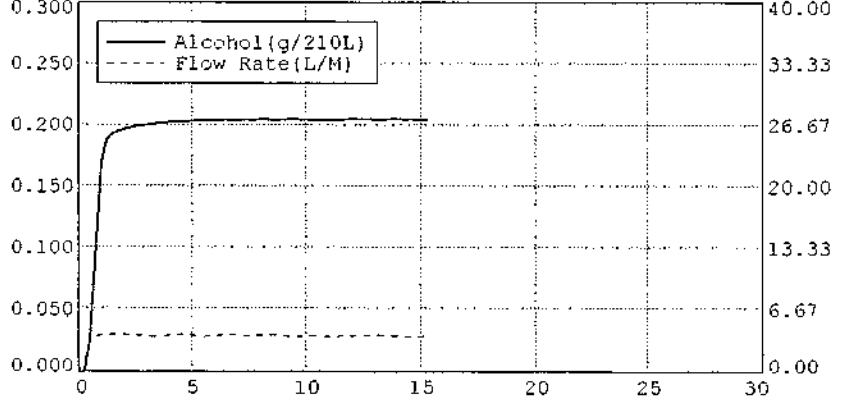
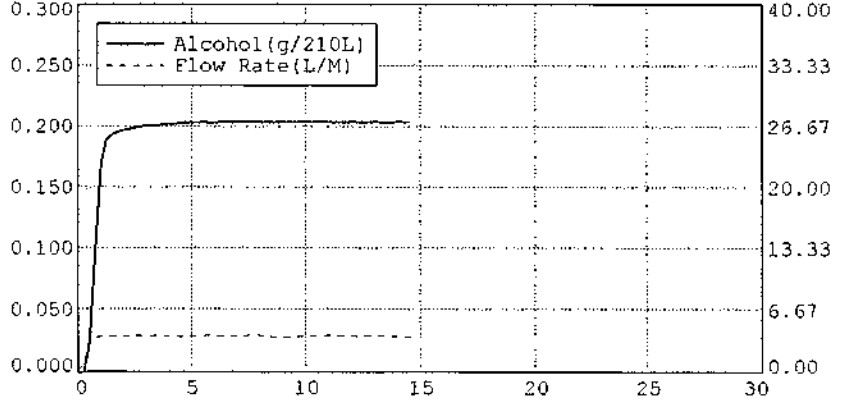
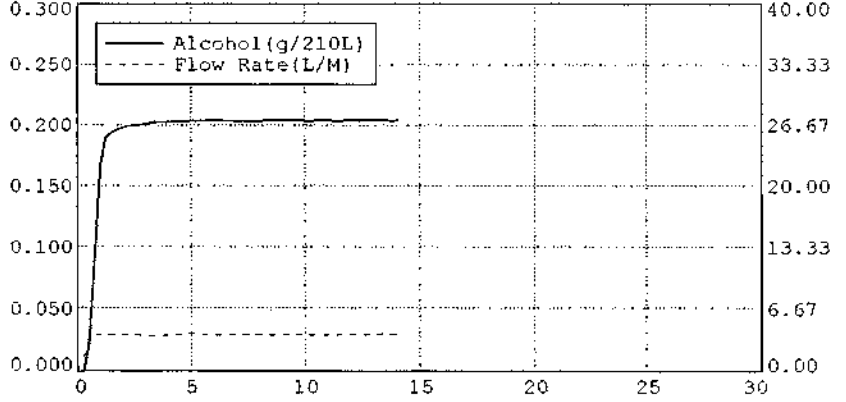
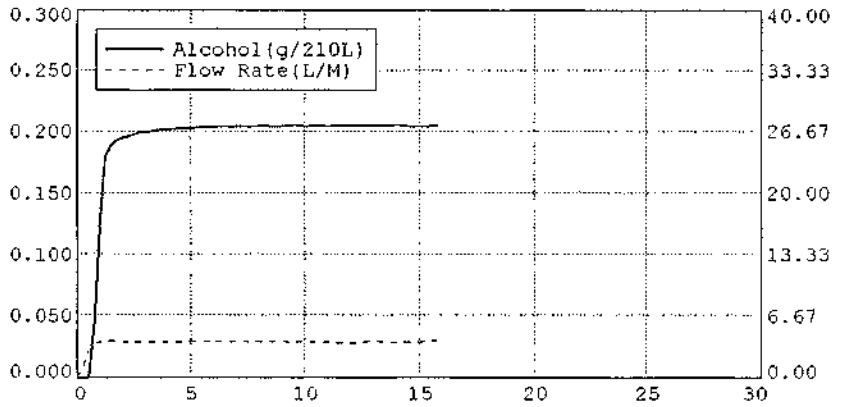
Alaska Department of Public Safety
 DATAMASTER dmt: 100677

Date: 12/17/2014
 Time: 09:48:10

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200
 LOT #: 14130
 EXPIRATION: 05/12/2016

BLANK TEST	0.000	09:49
INTERNAL STANDARD	VERIFIED	09:49
EXTERNAL STANDARD	0.205	09:49
BLANK TEST	0.000	09:50
EXTERNAL STANDARD	0.203	09:50
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.203	09:52
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.204	09:53
BLANK TEST	0.000	09:54
EXTERNAL STANDARD	0.204	09:54
BLANK TEST	0.000	09:55

Average = 0.2043
 Std Dev = 0.0006



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100677

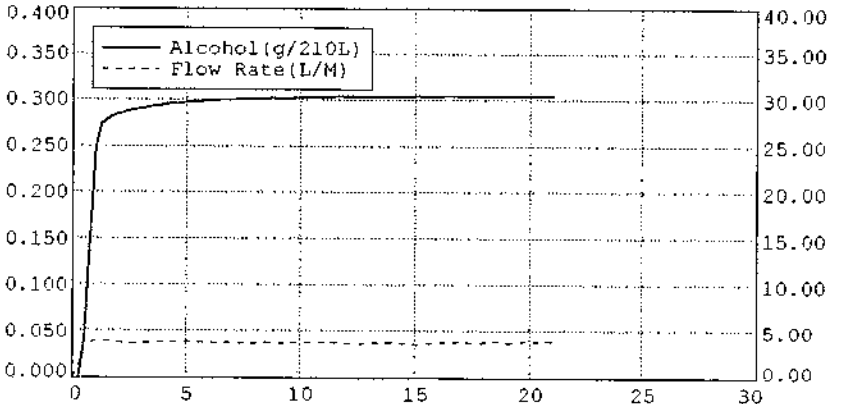
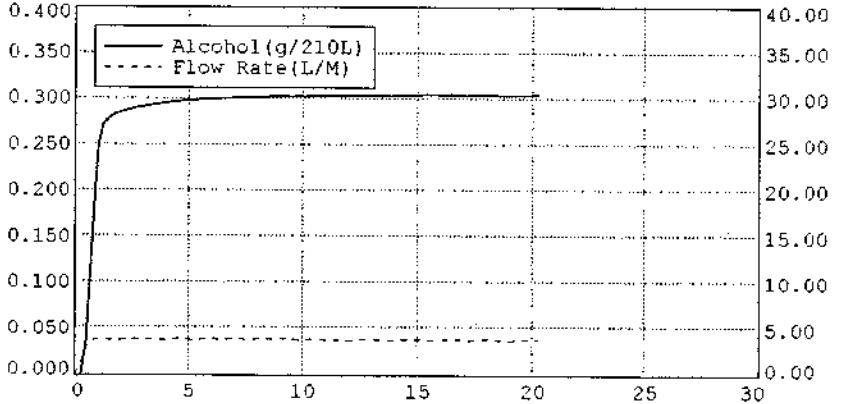
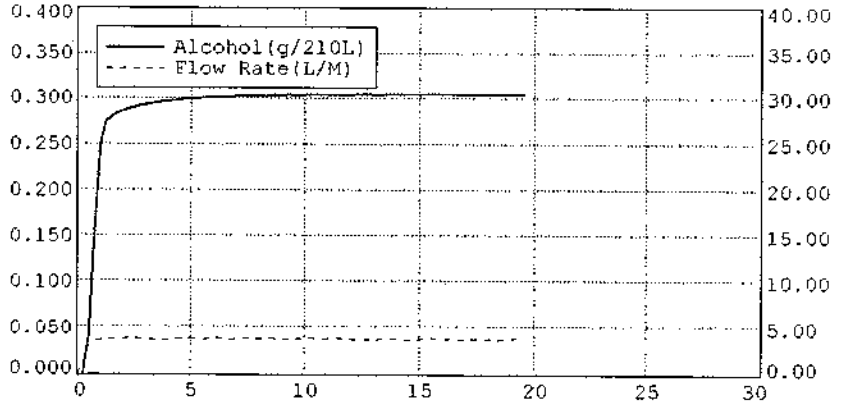
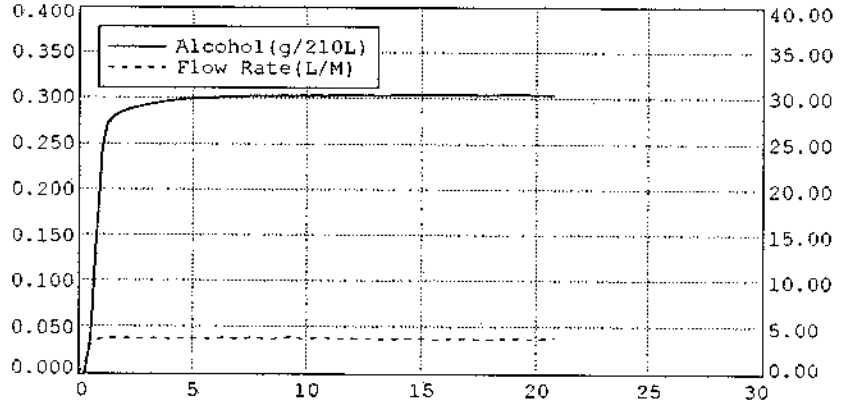
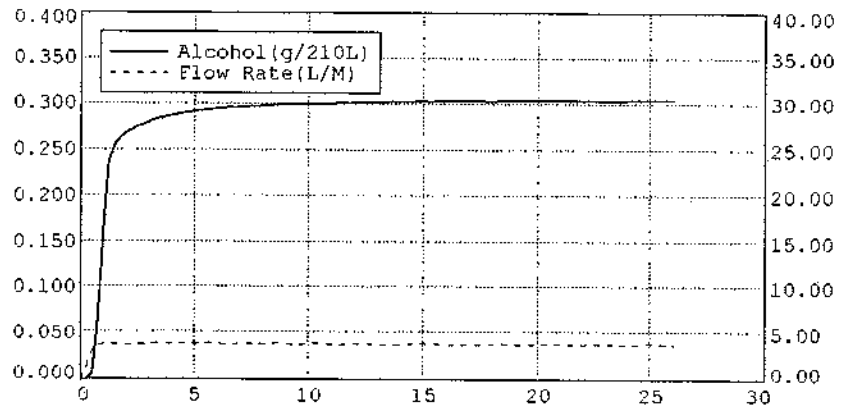
Date: 12/17/2014
 Time: 09:58:08

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 14150
 EXPIRATION: 06/02/2016

BLANK TEST	0.000	09:59
INTERNAL STANDARD	VERIFIED	09:59
EXTERNAL STANDARD	0.304	09:59
BLANK TEST	0.000	10:00
EXTERNAL STANDARD	0.303	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.304	10:02
BLANK TEST	0.000	10:03
EXTERNAL STANDARD	0.303	10:03
BLANK TEST	0.000	10:04
EXTERNAL STANDARD	0.304	10:05
BLANK TEST	0.000	10:06

Average = 0.3040
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety
DATA MASTER dmt: 100677

Date: 12/17/2014
Time: 10:20:02

SUBJECT NAME:
TEST TEST
LICENSE #: INCOMPLETE

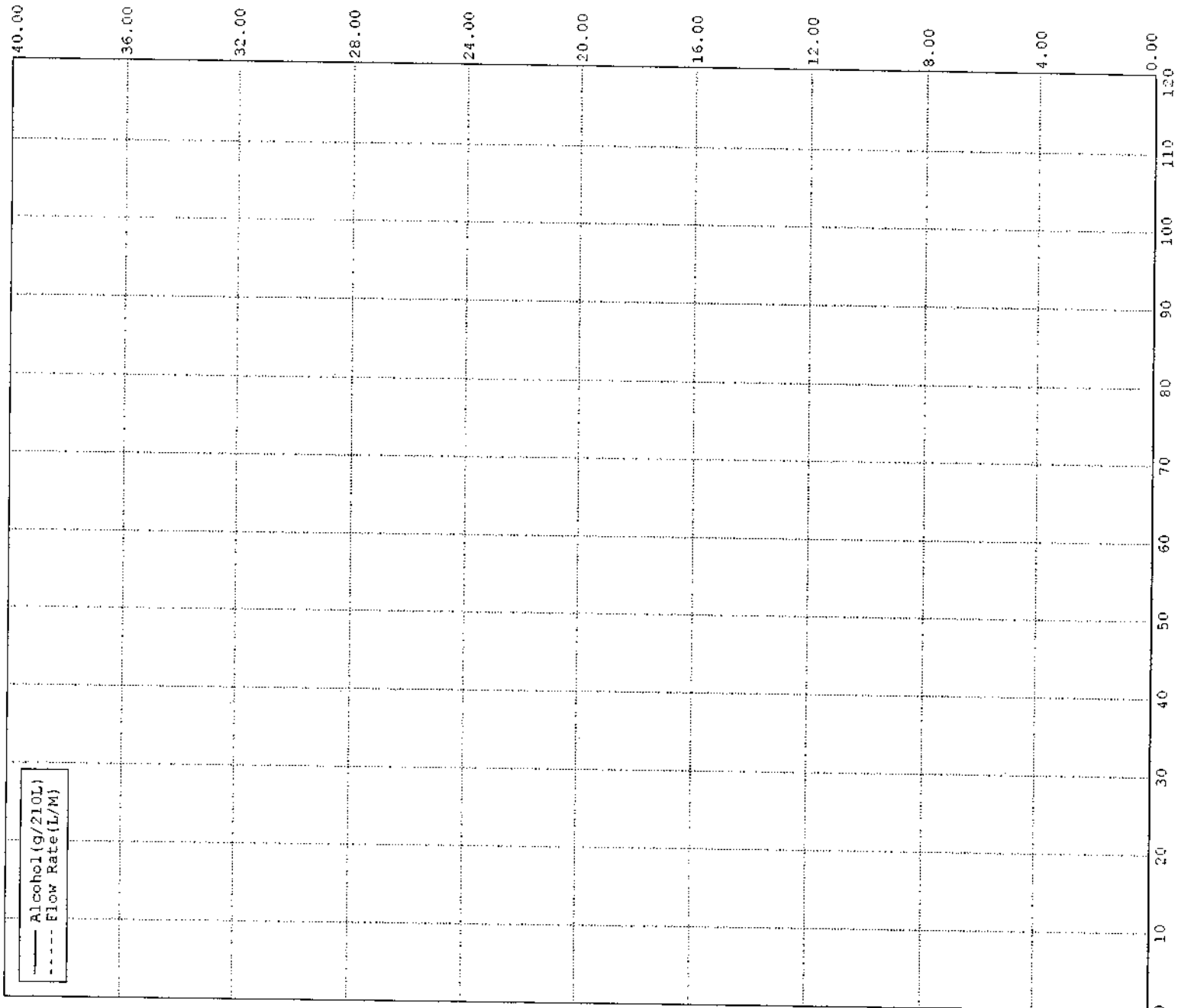
OPERATOR NAME:
COLIEN S OBRVANT
OPERATOR'S #: 6237

DEPT/AGENCY:
AAA1
CASE/REPORT: 14-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.28: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 10:22
BLANK TEST 0.000 10:22
INTERNAL STANDARD VERIFIED 10:22
EXTERNAL STANDARD 0.077 10:22
BLANK TEST 0.000 10:23
SUBJECT SAMPLE INCOMPLETE 10:25

COB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100677

Date: 12/17/2014
Time: 10:29:40

SUBJECT NAME:
TEST TEST
LICENSE #: INVALID

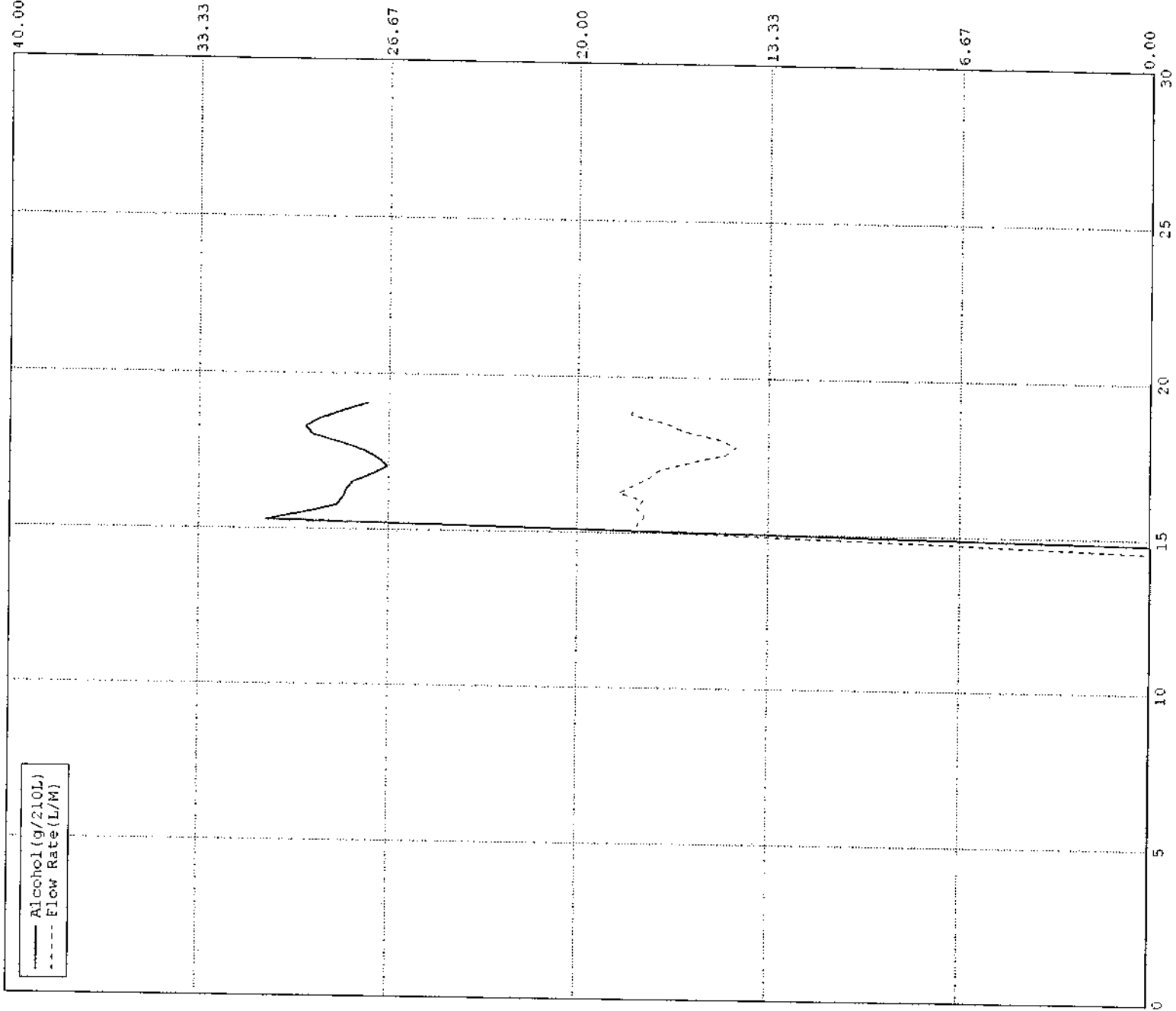
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

DEPT/AGENCY:
AAA1
CASE/REPORT: 14-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.29: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	10:35
BLANK TEST	0.000	10:35
INTERNAL STANDARD	VERIFIED	10:35
EXTERNAL STANDARD	0.078	10:35
BLANK TEST	0.000	10:36
SUBJECT SAMPLE	INVALID	10:37



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100677

Date: 12/17/2014
Time: 13:48:08

SUBJECT NAME:
TEST TEST
LICENSE #: INT-ACETONE

OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

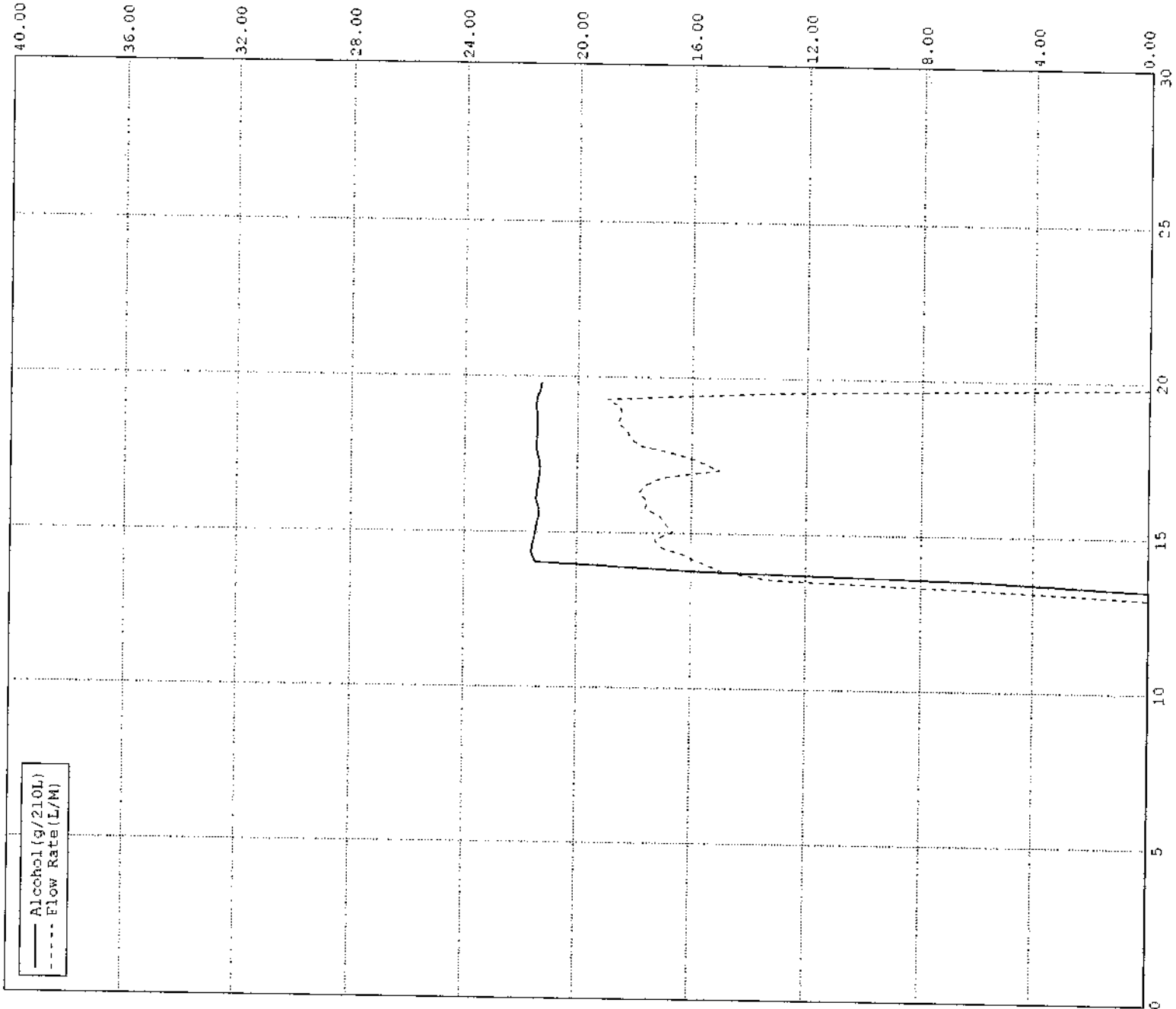
DEPT/AGENCY:
AAA1

CASE/REPORT: 14-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.30: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 13:49
BLANK TEST 0.000 13:49
INTERNAL STANDARD VERIFIED 13:50
 $X_Q = 0.084 (0.21\%)$
EXTERNAL STANDARD 0.078 13:50
 $X\{1\} = 0.0784 (0.0020) (0.0003)$
BLANK TEST 0.000 13:51
SUBJECT SAMPLE INTERFERENCE 13:51
 $X\{1\} = 0.1061 (-0.0209) (-0.0020)$



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100677

Date: 12/17/2014
Time: 13:56:27

SUBJECT NAME:
TEST TEST
LICENSE #: INT-IPA

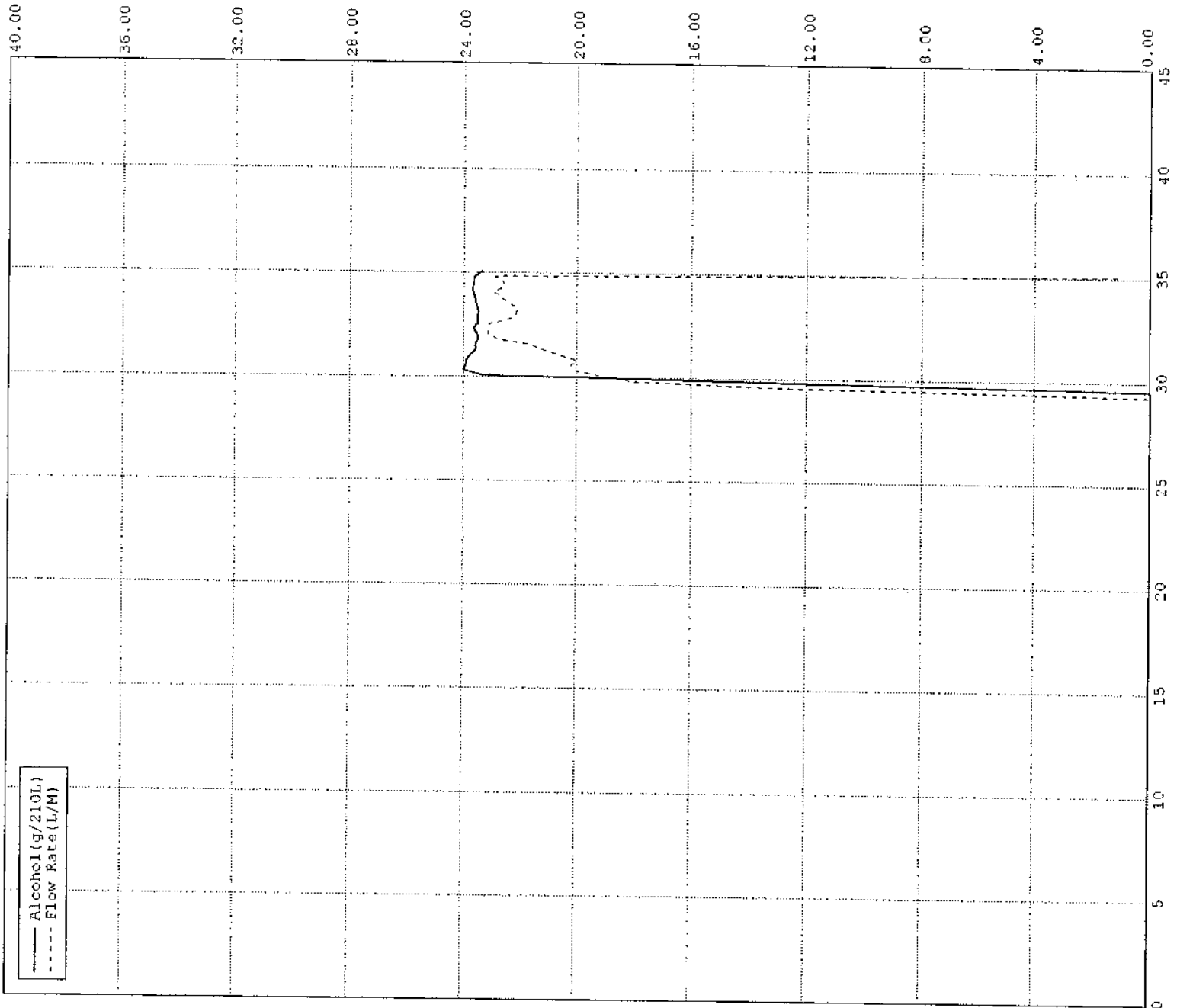
OPERATOR NAME:
COLLEEN S O'BRYANT
OPERATOR'S #: 6237

DEPT/AGENCY:
AAA1
CASE/REPORT: 14-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.30: 0.078
LOT #: 09214080AZ
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 13:58
BLANK TEST 0.000 13:58
INTERNAL STANDARD VERIFIED 13:58
Xq = 0.084 (0.31%)
EXTERNAL STANDARD 0.077 13:58
X{1} = 0.0776 (0.0018) (0.0005)
BLANK TEST 0.000 13:59
SUBJECT SAMPLE INTERFERENCE 14:00
X[1] = 0.1161 (-0.0274) (0.0004)



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dnt: 100677

Date: 12/17/2014
Time: 14:02:50

SUBJECT NAME:
TEST TEST
LICENSE #: INT-NEG

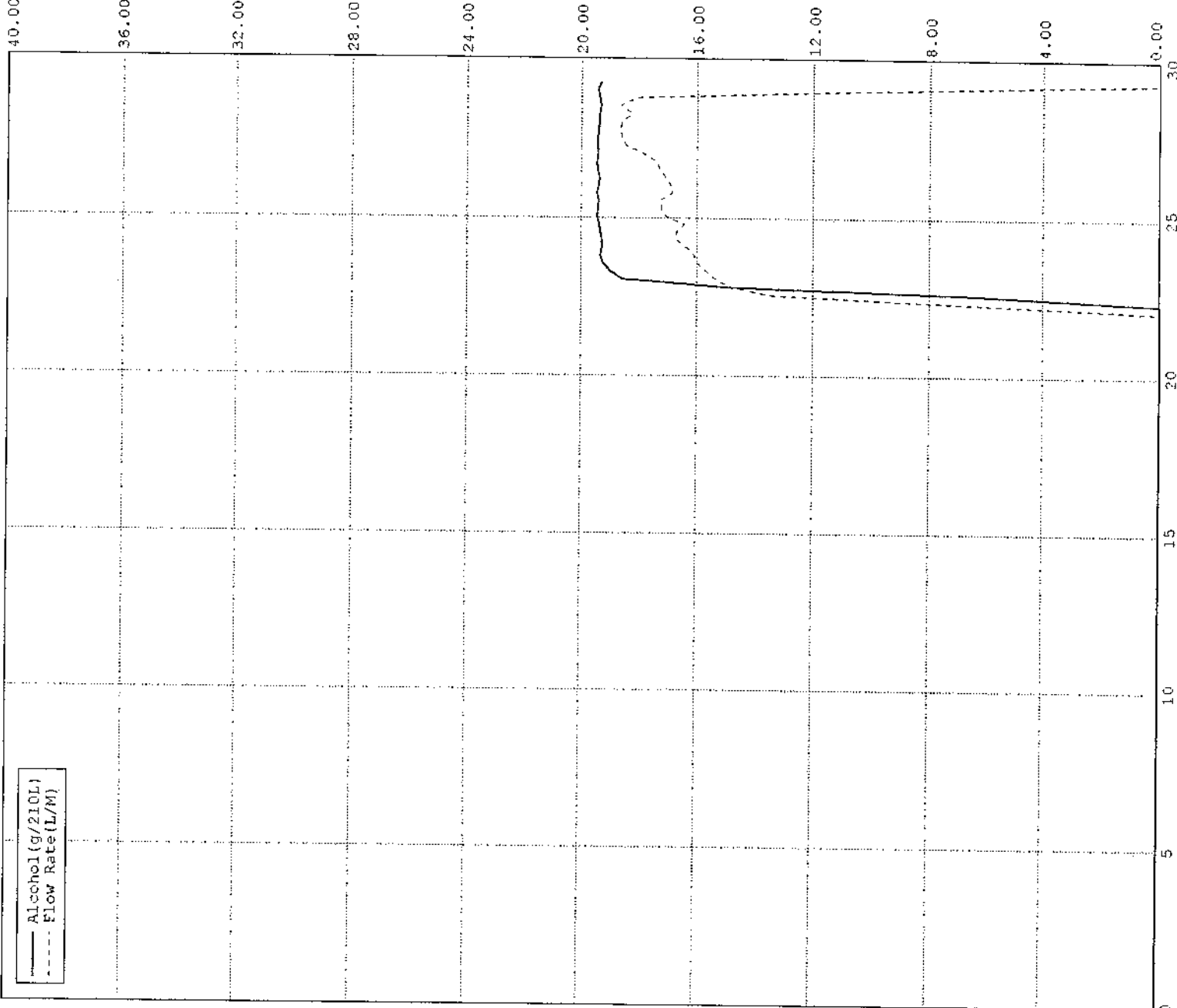
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

DEPT/AGENCY:
AAA1
CASE/REPORT: 14-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 29.30: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	14:03
BLANK TEST	0.000	14:04
INTERNAL STANDARD	VERIFIED	14:04
Xg = 0.084 (0.10%)		
EXTERNAL STANDARD	0.077	14:04
X[1] = 0.0772 (0.0009) (0.0007)		
BLANK TEST	0.000	14:05
SUBJECT SAMPLE (Vol=1.93L)	0.096	14:05
X[1] = 0.0960 (-0.0014) (-0.0003)		
BLANK TEST	0.000	14:06
EXTERNAL STANDARD	0.077	14:07
X[1] = 0.0776 (0.0012) (0.0009)		
BLANK TEST	0.000	14:07

Filter 2 avg = 0.0015
Filter 3 avg = 0.0006



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100677

Date: 12/17/2014
Time: 14:19:40

SUBJECT NAME:
TEST TEST
LICENSE #: RFI

OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

DEPT/AGENCY:
AAA1

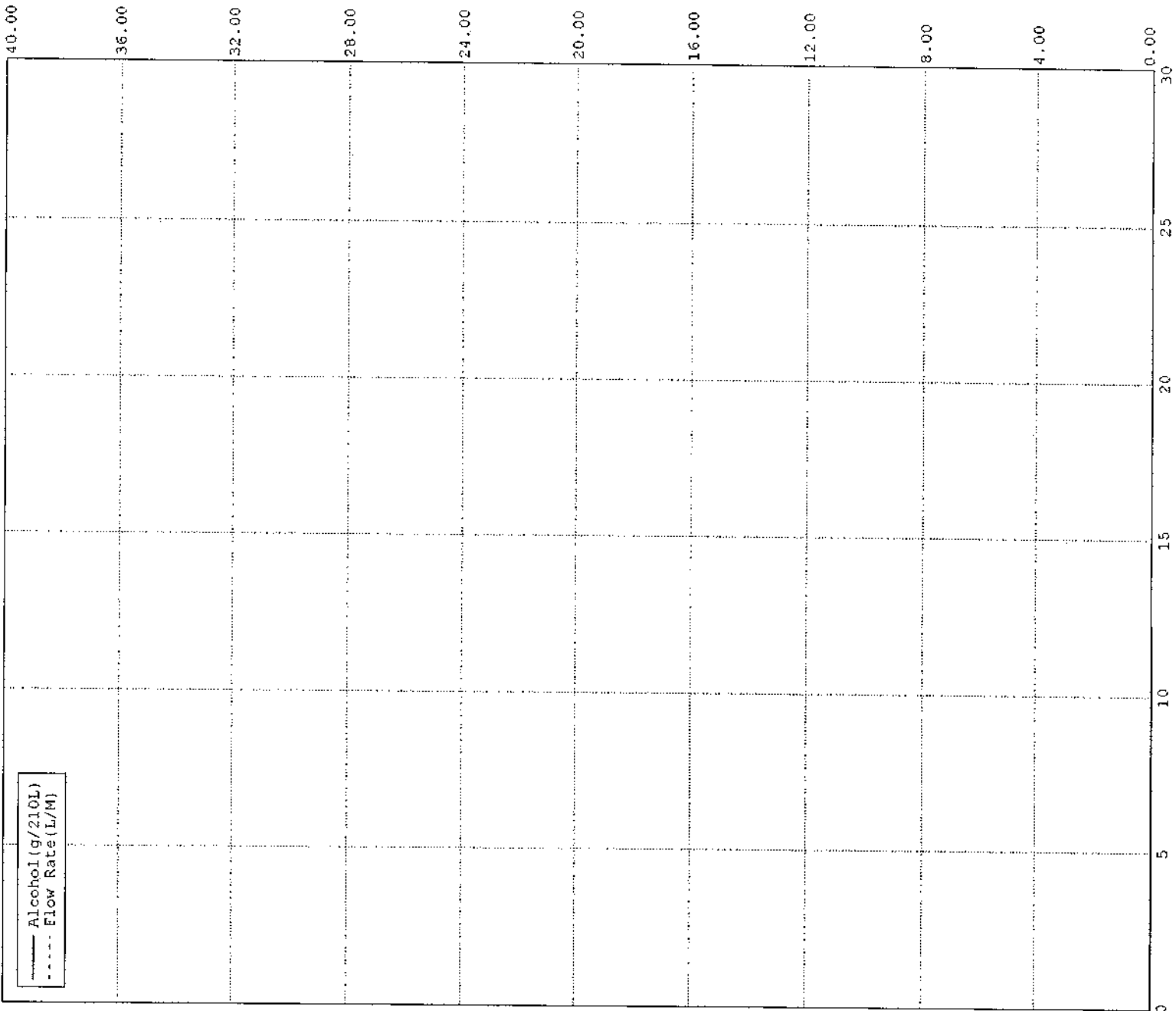
CASE/REPORT: 14-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.30: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 14:20
BLANK TEST 0.000 14:20
INTERNAL STANDARD VERIFIED 14:20
EXTERNAL STANDARD 0.077 14:21
BLANK TEST 0.000 14:22

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100677

Date: 12/17/2014
Time: 14:33:33

SUBJECT NAME:
TEST TEST
LICENSE #: NON-DRINKING

OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

DEPT/AGENCY:
AAAL

CASE/REPORT: 14-1234
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080
TARGET AT 29.30: 0.078
LOT #: 09214080A2
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	14:34
BLANK TEST	0.000	14:34
INTERNAL STANDARD	VERIFIED	14:34
EXTERNAL STANDARD	0.078	14:35
BLANK TEST	0.000	14:35
SUBJECT SAMPLE	0.000	14:36
BLANK TEST	0.000	14:37
EXTERNAL STANDARD	0.078	14:37
BLANK TEST	0.000	14:38

