

1. The following reports should print in duplicate: Calibration, Certification, Installation, Annual Preventative Maintenance, Routine Performance Check.
2. Subject Test results should print in triplicate.
3. Add "DMT Serial Number #" and "page 1 of 1" (or 1 of 2, etc as applicable) to all report footers (including subject test report)
4. Wherever the phrase RFI Interference Tests is stated, please change to either RF Interference Test or RFI Test. "RFI Interference" is redundant.
5. Anywhere lot numbers are entered, should allow 15 alpha/numeric characters and not be limited to the ##-##-#### format. We may be changing how we assign lot numbers and we do on occasion put letters in the lot number.
6. **All entered concentrations, generated results or computed averages are ALL to be limited to three (3) significant digits ONLY. For example 0.102 or 0.080.**
7. **CALIBRATION:**
 - a. During Calibration, while running water through the cal port, DMT displays "running external standard" which isn't really accurate.
 - b. **Calibrated by** field is not populating
 - c. Some instruments are not requiring a signature despite the fact that all instruments currently have the SAME software update installed.
 - d. Signature and date fields not populating
8. **CERTIFICATION:**
 - a. **Calibration Date** field not populating
 - b. Vermont is not a dry gas state, so all references to dry gas should be removed from software
 - c. Ensure that DMT runs 7 replicates of solution during linearity test
 - d. Average result of each concentration should be displayed on the Check Box screen so operator can monitor progress of Certification
 - e. During the 0.020 test, a result of 0.018 was obtained, yet with an acceptance criteria of +/- 0.002 the DMT failed the solution. The DMT should allow passage $\leq [X] \geq$
 - f. Currently, if you touch a box that has already been checked on the Check Box screen, it will uncheck that test and force you to rerun the concentration. This should not occur. If the operator touches one of the check boxes, it should ask if they would like to rerun the concentration, not automatically eliminate the previous test.
9. **INSTALLATION:**
 - a. If you select "No" when prompted "Sample Acceptance Test Pass?" the instrument still printed "Passed" on the report.
10. **SIMULATOR SOLUTION CHANGE:**
 - a. Location field not populating
11. **ROUTINE PERFORMANCE CHECK:**
 - a. Date change reminder not functioning
 - b. Location field not populating
12. **ANNUAL PREVENTATIVE MAINTENANCE:**
 - a. Location field not populating
 - b. Change **Technician:** to **Performed by:** in the title section
 - c. If you select "No" when prompted "Sample Acceptance Test Pass?" the instrument still printed "Passed" on the report.
13. **SUBJECT TEST SEQUENCE:**
 - a. The first prompt after the Operator presses run should ask "Type of Test?" with the options being "DUI" or "Check In", NOT "DUI?" Yes or No.

14. Multiple test Sequence

Bolduc, Amanda

From: Richardson, Darcy
Sent: Tuesday, January 29, 2008 3:34 PM
To: Bolduc, Amanda; Drawbaugh, Bob
Subject: Preliminary Software Review

Here are my findings for the preliminary software testing I did on 103006.

1/29/08

DMT Software preliminary review

In general: All reports should print in two copies. The installation report printed two copies only when it failed. No other report printed more than one copy. The header *RFI Interference Test* should be changed to *RFI Test* or *RF Interference Test* since RFI stands for Radio Frequency Interference. (Interference does not need to be repeated.) More testing of the software is needed.

Calibration:

No apparent problems although during water analysis it does display "running external standard."

Certification:

What does "Detector stability" mean as displayed during diagnostic test?

Calibration date not filled in.

References to Dry gas should be removed from Option.

0.020 Standard was labeled as failed with a 0.018 result and an acceptance criteria of +/-0.002. Outside acceptance ranges should result in a passing test.

Checking a box on a linearity already run should not eliminate it.

Lot numbers need to allow letters as well as numbers.

Installation:

Installation should not pass if there is a failure during the Sample Acceptance test.

Concentrations needs to be reduced to three decimal places.

Simulator Solution Change Report:

Concentrations should be reduced to three decimal places.

Routine Performance Check:

Concentrations should be reduced to three decimal places.

After changing the date on the instrument to August 1st a reminder to perform an RPC was not given and a subject test was allowed.

Annual Preventative Maintenance Report:

APM should not pass if there is a failure during the Sample Acceptance Test.

*Darcy Richardson
Alcohol and Toxicology Program
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Harnois, Steven

From: Harnois, Steven
Sent: Thursday, February 07, 2008 3:28 PM
To: Bolduc, Amanda

*Add serial #
And lot 1 on footers*

Annual Preventative Maintenance

Location does not print

Technician should be changed to Person Performing APM as the Technician may not be doing the APM
All reports generated should indicate sheet number i.e. 1 of 1

Calibration Report

Calibrated by has no name in this field
Instrument did not ask for a signature or date

Certification Report

~~Calibration Date Empty~~

No Calibration Date listed?

Page 2 has no indication of what serial number it belongs to

Number of tests was three per solution should be 7?

This should be tech level selectable?

All tests should be displayed, i.e. not just the average,

~~R² test?~~

avg on screen not just rpt.

Installation Report

All reports generated should indicate sheet number i.e. 1 of 1

~~All tests should be displayed, i.e. not just the average~~

~~Concentration is displayed to 4 significant figures, but we can only enter three~~

Number of Reps at 3 should be ? (5) 10

3 digits everywhere

Routine Performance Check Report

Location does not print

All reports generated should indicate sheet number i.e. 1 of 1

All tests should be displayed, i.e. not just the average

Concentration is displayed to 4 significant figures, but we can only enter three

Does the instrument make the call on if the RPC passed or not, based on what criteria. Does it remove the instrument from service

Will the instrument dial a pager or send a text message or something if there is a failure?

Sample acceptance testing, can we make this a question asked by the instrument to the RPCer to start?

*RPC Reminder
check*

Simulator solution Change Report

While running external standard tests it ran three or more

Location does not print

~~No Calibration Date listed?~~

~~No Certification Date listed?~~

Concentration is displayed to 4 significant figures, but we can only enter three

Number of Reps at 3 should be ? (5)

All reports generated should indicate sheet number i.e. 1 of 1

All tests should be displayed, i.e. not just the average

~~Should we just do away with this protocol and do a RPC instead~~

Steven Harnois
State of Vermont

CALIBRATION REPORT

DataMaster DMT: 102706
Calibration Date: 01/31/2008
Calibrated by:

No Name



Ca = 0.100000	
CAL = 0.991839	0.800 <= CAL < 1.200
b1 = 0.000230	0.000 <= b1 < 0.004
b2 = 0.005458	0.002 <= b2 < 0.013
b3 = 0.000115	0.000 <= b3 < 0.004
Xq = 0.095762	0.050 <= Xq < 0.200
a21 = 1.188792	1.050 <= a21 < 1.300
a31 = 0.472363	0.300 <= a31 < 0.800

Performed by

*No print for
sig*

Date

1/31/08

or Date

copy

CERTIFICATION REPORT

DataMaster DMT: 102706
Calibration Date:
Certification Date: 01/31/2008
Certified by: S E H

No Name or Date



Diagnostic Results

VERSIONS

DMT 0.29
PIC 2.04
Modem 1.00
Questions 1.00
Reports 0.03

TEMPERATURES

Sample Chamber = 48.68°C
Breath Tube = 44.51°C
Digital Sim = 34.0°C

SETTINGS

Lamp Voltage = 1.72 V
Cooler Voltage = 1.70 V
Bias Voltage = 81.9 V
Chopper Freq = 531.3 Hz

PUMP INFO

Flow Rate = 4.037 L/M

DETECTOR INFO

PUMP ON OFF
MAX(V) 0.0498 0.0490
MIN(V) 0.0470 0.0472

FILTER INFO

Filter 1 0.047 Zero = true
Filter 2 0.425 Zero = true
Filter 3 0.048 Zero = true

INTERNAL STANDARD

Xq = 0.0958 0.09%

Options

Printer: yes
Number of Copies: 1 *A+?*
Number of Supervisor Tests: ~~10~~ *10* ←
Tolerance Check: no
Data Collection: yes
Units: g/210L
Simulator Check: no
Uses Wet Bath Simulator: yes
Simulator Nominal: 0.100
Dry Gas PPM: 260.500
Digital Simulator: none
Simulator Before: yes
Simulator Between: yes
Simulator After: no
Number of Subject Tests: 2
AskQuestions: yes
Query Refusal: yes
Alcohol Display: yes
Show Two Digits: no
Volume Display: yes
Number of Calibration Tests: 1
Calibrate with Wet Bath: yes
Calibration Nominal: 0.100
Calibration PPM: 260.500

Status Report

Cal Date
Called By
Cert Date
Cert By
Installed By
Install Date
Location

INSTALLATION REPORT

DataMaster DMT: 102706
Location: VDH LAB
Calibration Date: 01/31/2008
Certification Date: 01/31/2008
Installation Date: 02/05/2008
Installed By: S E H



Site meets specification in doc P-ALC-210

Diagnostic Results

VERSIONS
DMT 0.29
PIC 2.04
Modem 1.00
Questions 1.00
Reports 0.03

TEMPERATURES
Sample Chamber = 48.68°C
Breath Tube = 45.77°C
Digital Sim = 33.9°C

SETTINGS
Lamp Voltage = 1.72 V
Cooler Voltage = 1.70 V
Bias Voltage = 81.9 V
Chopper Freq = 531.6 Hz

PUMP INFO
Flow Rate = 4.067 L/M

DETECTOR INFO
PUMP ON OFF
MAX(V) 0.0451 0.0476
MIN(V) 0.0433 0.0461

FILTER INFO
Filter 1 0.046 Zero = true
Filter 2 0.424 Zero = true
Filter 3 0.046 Zero = true

INTERNAL STANDARD
Xq = 0.0960 0.27%

INSTALLATION PASSED

Accuracy and Precision Check

Concentration = 0.1000g/210L
Lot # = 07-04-100
Average = 0.1010g/210L
Std Dev = 0.0000

of Sig
Figs

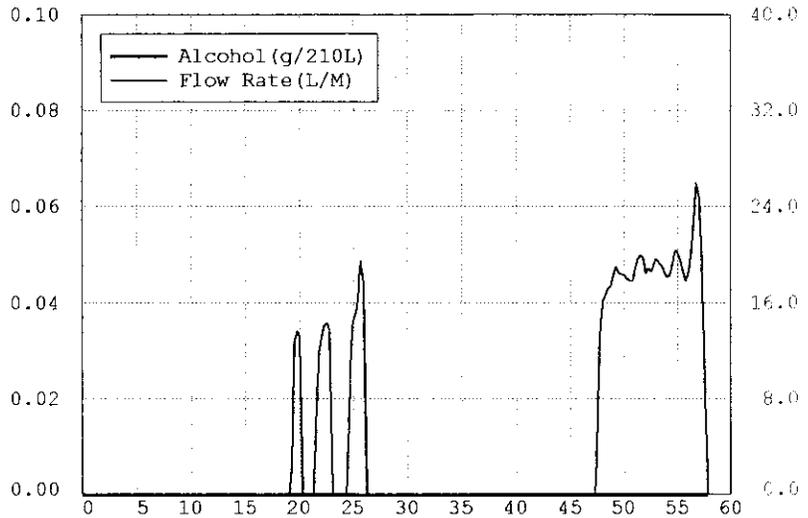
RFI Interference Test

RFI detected

Sample Acceptance Test

Passed

Display of
Each Point
(5)



Performed by * Andrew Dem

Date 02/05/2008

Reviewed by _____

Date _____

ANNUAL PREVENTATIVE MAINTENANCE REPORT

Reviewed By
DataMaster DMT: 102706
Location: *No Loc*
Calibration Date: 01/31/2008
Certification Date: 01/31/2008
Installation Date: 02/05/2008
APM Date: 02/05/2008
Technician: S E H
Person Performing PM
Site meets specification in doc P-ALC-210



Diagnostic Results

VERSIONS
DMT 0.29
PIC 2.04
Modem 1.00
Questions 1.00
Reports 0.03

TEMPERATURES
Sample Chamber = 49.03°C
Breath Tube = 45.15°C
Digital Sim = 33.9°C

SETTINGS
Lamp Voltage = 1.72 V
Cooler Voltage = 1.70 V
Bias Voltage = 81.9 V
Chopper Freq = 531.1 Hz

PUMP INFO
Flow Rate = 4.056 L/M

DETECTOR INFO
PUMP ON OFF
MAX(V) 0.0549 0.0573
MIN(V) 0.0539 0.0559

FILTER INFO
Filter 1 0.058 Zero = true
Filter 2 0.438 Zero = true
Filter 3 0.059 Zero = true

INTERNAL STANDARD
Xq = 0.0957 0.00%

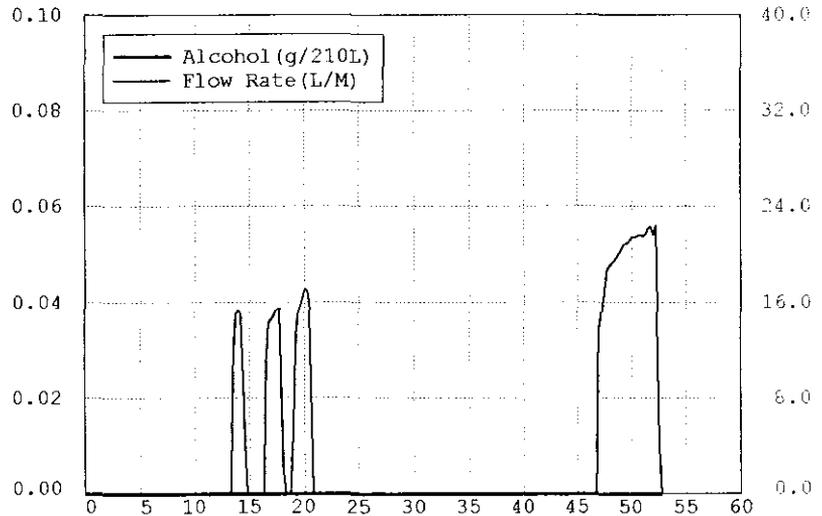
APM PASSED

RFI Interference Test

RFI detected

Sample Acceptance Test

Passed



Performed by *[Signature]*

Date 02/05/2008

Reviewed by _____

Date _____

ROUTINE PERFORMANCE CHECK REPORT

DataMaster DMT: 102706
Location: *Loc*
Calibration Date: 01/31/2008
Certification Date: 01/31/2008
Installation Date: 02/05/2008
RPC Date: 02/05/2008
Supervisor Name: S E H



Diagnostic Results

VERSIONS
DMT 0.29
PIC 2.04
Modem 1.00
Questions 1.00
Reports 0.03

TEMPERATURES
Sample Chamber = 49.03°C
Breath Tube = 44.71°C
Digital Sim = 33.9°C

SETTINGS
Lamp Voltage = 1.72 V
Cooler Voltage = 1.70 V
Bias Voltage = 81.9 V
Chopper Freq = 530.9 Hz

PUMP INFO
Flow Rate = 4.048 L/M

DETECTOR INFO
PUMP ON OFF
MAX(V) 0.0618 0.0628
MIN(V) 0.0596 0.0608

FILTER INFO
Filter 1 0.063 Zero = true
Filter 2 0.443 Zero = true
Filter 3 0.064 Zero = true

INTERNAL STANDARD
Xq = 0.0960 0.27%

Routine Performance Check Passed

Service Requested 02/05/2008
Reason for failure: test

Accuracy and Precision Check

Concentration = 0.1000g/210L
Lot # = 07-04-100
Average = 0.1008g/210L
Std Dev = 0.0004

Sig Fig

RFI Interference Test

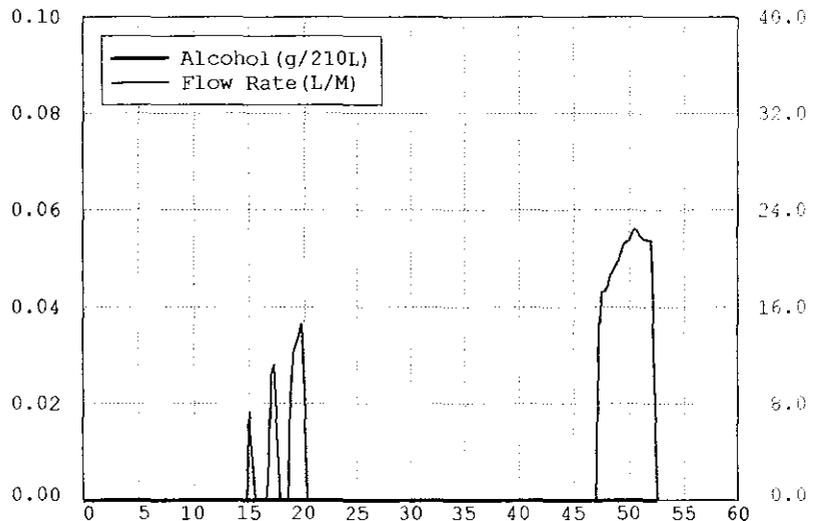
RFI detected

of tests

Sample Acceptance Test

Passed

Result of each Test



Performed by *[Signature]*

Date _____

02/05/2008 15:58

Copy

SIMULATOR SOLUTION CHANGE REPORT

DataMaster DMT: 102706
Location:
Date: 02/07/2008
Performed by: S E H



Accuracy and Precision Check

Concentration = 0.1000g/210L
Lot # = 07-04-100
Range = 0.0950 - 0.1050
Average = 0.1006g/210L
Std Dev = 0.0005

Simulator Temperature: 33.9°C

Performed by x *Steve Rowe*

Date 02/07/2008