

# Alaska Scientific Crime Detection Laboratory

## DataMaster Calibration Form

Effective: 10/10/2022

Version: 3.0

Instrument #: 100416 Analyst: Dereen Watton Start Date: 11/03/23

- Diagnostic Test (attached)  Internal Standard value  $\leq$  3.00%  
 Adjust voltages, if needed

- Lamp (2.60 V Maximum)  Chopper Frequency  
 Bias  Detector Voltage  
 Cooler (2.00 V Maximum) (-0.100V to 0.100V)

Set RFI Sensitivity

Adjust internal barometer reading to match NIST-traceable barometer

Adjust volume setting, if needed (1.50 L +/- 0.10 L) **Calibration rejected due to Interference Detected status messages on the 0.100 g/210L linearity standard. Detector replacement or return to factory needed. DJW 11/03/2023**

Print Technician Screen (attached)

Print Calibration Factors (attached)

Minimum Volume Test 1.5 L (1.3L to 1.7L)

As Left Conditions:

Barometric Pressure (in Hg): 29.33 Temperature (C): 22.1 Relative Humidity (%): 23

Linearity Test (attached)

0.020g/210L Mnf: Airgas Lot: AG217902 Exp: 06/28/24

0.040g/210L Mnf: Airgas Lot: AG217904 Exp: 06/28/24

0.080g/210L Mnf: Airgas Lot: AG310901 Exp: 04/19/25

0.100g/210L Mnf: Airgas Lot: AG211003 Exp: 04/20/24

0.150g/210L Mnf: Airgas Lot: AG134205 Exp: 12/08/23

0.300g/210L Mnf: \_\_\_\_\_ Lot: \_\_\_\_\_ Exp: \_\_\_\_\_

Functional Tests (attached)

- Incomplete  
 Maximum Attempts Exceeded  
 Interference (Volatiles)

- Invalid **① Not tested. Interference detected 3 times on 0.100 g/210 L**  
 Radio Frequency Interference (RFI) **DJW 11/03/23**

Acetone Mnf: \_\_\_\_\_ Lot: \_\_\_\_\_ Level: 0.100 Exp: \_\_\_\_\_

Simulator S/N: \_\_\_\_\_ Verification Performed?

Isopropanol Mnf: \_\_\_\_\_ Lot: \_\_\_\_\_ Level: 0.100 Exp: \_\_\_\_\_

Simulator S/N: \_\_\_\_\_ Verification Performed?

Neg. Control Mnf: \_\_\_\_\_ Lot: \_\_\_\_\_ Level: 0.100 Exp: \_\_\_\_\_

Simulator S/N: \_\_\_\_\_ Verification Performed?

Calibrated External Thermometer:

Thermometer S/N: \_\_\_\_\_ Calibration Due Date: \_\_\_\_\_

- Verify stylus is calibrated  Non-Drinking Subject Test  
 Reset Options  Upload  
 Clear Memory  Remove Tank Prior to Shutdown  
 Verification of Calibration (VOC) Calibration End Date: \_\_\_\_\_

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100416  
-----

Date: 11/03/2023  
Time: 08:01:34

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

TEMPERATURES

Sample Chamber = 48.8°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 43.5°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.58 V PASSED  
(0.95 V - 2.21 V)  
Cooler Voltage = 1.53 V PASSED  
(0.92 V - 2.14 V)  
Bias Voltage = 82 V PASSED  
(49 V - 115 V)  
Chopper Freq = 528 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.3 in

PUMP INFO

Flow Rate = 4.570 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 = 0.091 0.48% (0.00% - 4.00%)

Rejected

Technician Screen

-----  
DATAMASTER dmt: 100416  
-----

Date: 11/03/2023  
Time: 8:11 AM

Temperatures (°C)  
Sample Cell: 48.9°C  
Breath Tube: 43.3°C

Current Barometer 29.3 in  
Volume (Ltr) 1.52

Settings  
Lamp: 1.63 V  
Bias: 82 V  
Cooler: 1.53 V  
Chopper: 525 Hz

Voltages (V)  
Flow: 1.07 V  
Detector: 0.009 V

Rejected

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100416  
-----

Date: 10/03/2023  
Time: 15:45:22

OPERATOR NAME:  
COLLEEN S OBRYANT  
CERTIFICATE #: 6237

Ca = 0.1000  
CAL = 0.978563    0.800 <= CAL < 1.200  
b1 = 0.0004    0.0000 <= b1 < 0.0040  
b2 = 0.0053    0.0010 <= b2 < 0.0100  
b3 = 0.0005    0.0000 <= b3 < 0.0040  
Xq = 0.0905    0.0500 <= Xq < 0.2000  
a21 = 1.157270    1.050 <= a21 < 1.300  
a31 = 0.500444    0.300 <= a31 < 0.800

Rejected

SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100416

Date: 11/03/2023  
Time: 08:15:34

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 29.32: 0.078  
LOT #: AG310901  
EXPIRATION: 04/19/2025

DIAGNOSTIC CHECK	PASSED	08:18
BLANK TEST	0.000	08:18
INTERNAL STANDARD	VERIFIED	08:18
EXTERNAL STANDARD	0.078	08:19
BLANK TEST	0.000	08:20
SUBJECT SAMPLE (Vol=1.52L)	0.000	08:20
BLANK TEST	0.000	08:21
EXTERNAL STANDARD	0.078	08:22
BLANK TEST	0.000	08:22

*mw*

