

INTOXILYZER® 8000 CALIBRATION ADJUSTMENT

Intoxilyzer® 8000 Serial Number: 80-004947 Location: TOXL

- A. Flow Sensor Calibration and Verification Check (Level 3,M,C,F)
1. Replaced o-rings if damaged
 2. Flow Meter Serial Number: 55260 & 40655
 3. Air Supplied to Intoxilyzer® 8000 at:
 - a. 5 L/min 15 L/min 30 L/min
 4. Flow Rate Calibration Printout Attached
 - a. Correlation \geq 0.99000
 5. Flow Sensor Calibration Verification (Level 3,D,F)
 - a. 10 L/min: 0. 164 L/S X 60 Sec/min = 9.84 L/min
 - b. 20 L/min: 0. 324 L/S X 60 Sec/min = 19.44 L/min
 - c. Flow Rates within \pm 1 L/min of Expected Value
- B. Gas Tank Sensor Check (Level 3,D,G)
1. Display: 687 psi Regulator: 700 psi
 2. Display and Regulator within 50 psi
 3. Completed tare of tank sensor if needed (Level 3,M,C,G)
- C. Optical Bench Calibration and Verification Check (Level 3,M,C,O)
1. Autocalibration Printout Attached
 - a. Max Power Res Value \geq 10
 - b. Auto Range Res Value \geq 4
 2. Simulator Solutions for Optical Bench Calibration Adjustment
 - a. Set # Solutions to Run at 5

| Soln. | g/210 L | Lot No. | Exp. Date | Simulator SN |
|-------|-------------------|---------------------------------|------------------------------|--------------|
| 1 | 0.000 (ACTUAL) | NA - MilliQ H ₂ O | NA - MilliQ H ₂ O | DR 7111 |
| 2 | 0.040 | 20060 | 2.10.22 | DR 7347 |
| 3 | 0.080 | 19100 | 3.26.21 | DR 5114 |
| 4 | 0.150 | 20150 | 3.16.22 | DR 5131 |
| 5 | 0.300 (0.298) | 20030 | 1.21.22 | DR 7346 |

3. 0.100 AC Calibration Gas for H₂O Adjustment
 - a. Lot No. 13518100 A3 Cyl No. 6 Exp. Date: 8.5.20
4. Atmospheric Pressure
 - a. 921 mbar Displayed by Intoxilyzer® 8000
 - b. 946 mbar Adjusted to using barometer
 - c. 945 mbar on Auto Calibration Report printout
5. Screen displayed "Calibration Success"

6. Calibration Adjustment Printout Attached
- a. Solution 1 Avg % Abs \leq 0.2500
- b. Solution 2-5 REL STD DEV \leq 3.000
- c. Residual (g/210 L) Values for Solutions 1-5 \leq 0.0020 for 3 μ m and 9 μ m channels
- d. Dry Gas H2O Adjustment Sum for 3 μ m and 9 μ m channels within \pm 10

| | Average | | H2O Adjust | |
|-----------|-------------|---|------------|---------------|
| 3 μ m | <u>4266</u> | + | <u>495</u> | = <u>4761</u> |
| 9 μ m | <u>4226</u> | + | <u>535</u> | = <u>4761</u> |

7. Optical Bench Calibration Verification (Level 1, S and C)
- a. Wet Calibration Check
- i. Low AC Known Value \leq 0.03 AC: 0.020 AC
Sim. SN: MP3061 Lot No.: 201810D Exp. Date: 10.24.20
- ii. High AC Known Value \geq 0.25 AC: 0.250 AC
Sim. SN: MP3067 Lot No.: 201911B Exp. Date: 11.5.21
- b. Dry Calibration Check: Known Value 0.08 AC
Lot No. 13518080 A6 Cyl No. 33 Exp. Date: 8.5.20
Test 1 0.096 AC Test 4 0.080 AC Test 7 0.080 AC
Test 2 0.079 AC Test 5 0.081 AC Test 8 0.080 AC
Test 3 0.080 AC Test 6 0.081 AC Test 9 0.081 AC
Average 0.080 AC
- c. Wet Calibration Check and Dry Calibration Check AC results are within \pm 0.005 or \pm 5% (whichever is greater) of stated value.

D. Remarks/Maintenance: ATMOSPHERIC SENSOR READING 921 mbar
WHEN ACTUAL ATMOSPHERIC PRESSURE IS 946 mbar,
REPLACED SIMULATOR RETURN O-RING.

Instrument is acceptable to be used in the field.

Charles E. Ed
Breath Analyst Signature

4/7/2020
Date

NA
Reviewed by

NA
Date

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-004947
Location = TOXL 8164.14.00 09/16
04/07/2020 13:55

Flow Rate Calibration*****

1: Rate (Liters/min) = 5

 SQRT(Diff) = 7.000

2: Rate (Liters/min) = 15

 SQRT(Diff) = 12.648

3: Rate (Liters/min) = 30

 SQRT(Diff) = 22.691

Dependent Data Scale Factor = 100000 L/min

Independent Data Scale Factor = 256

Rounded Slope = 618

Rounded Intercept = -565524

Correlation = 0.99897



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-004947
 04/07/2020 14:01:13

Auto Calibration

pg 1 of 2

| | <<<<< 3um >>>>> | | <<<<< 9um >>>>> | |
|--|-----------------|-------------|-----------------|-------------|
| | % Abs | (% Abs Ref) | % Abs | (% Abs Ref) |
| ----- | | | | |
| Solution = 0.000 g/210L or 0.0000 mg/l, Samples = 4, Discarded = 1 | | | | |
| Sample #1 | 0.0970 | (0.0120) | 0.2270 | (-0.0080) |
| Sample #2 | 0.0890 | (0.0750) | 0.1990 | (0.0200) |
| Sample #3 | 0.0870 | (0.1090) | 0.1950 | (0.0500) |
| Sample #4 | 0.0670 | (0.1370) | 0.1940 | (0.0510) |
| Avg % Abs | 0.0810 | (0.1070) | 0.1960 | (0.0403) |
| STD DEV | 0.0122 | (0.0310) | 0.0026 | (0.0176) |
| REL STD DEV | 15.019 | (29.017) | 1.350 | (43.677) |
| ----- | | | | |
| Solution = 0.040 g/210L or 0.1905 mg/l, Samples = 4, Discarded = 1 | | | | |
| Sample #1 | 0.8340 | (-0.0080) | 1.6150 | (-0.0150) |
| Sample #2 | 0.8180 | (0.0130) | 1.5900 | (-0.0020) |
| Sample #3 | 0.8100 | (0.0230) | 1.6160 | (-0.0030) |
| Sample #4 | 0.8210 | (0.0280) | 1.6040 | (0.0010) |
| Avg % Abs | 0.8163 | (0.0213) | 1.6033 | (-0.0013) |
| STD DEV | 0.0057 | (0.0076) | 0.0130 | (0.0021) |
| REL STD DEV | 0.697 | (35.801) | 0.812 | (156.125) |
| ----- | | | | |
| Solution = 0.080 g/210L or 0.3810 mg/l, Samples = 4, Discarded = 1 | | | | |
| Sample #1 | 1.5470 | (0.0000) | 2.9890 | (0.0250) |
| Sample #2 | 1.5420 | (0.0050) | 2.9890 | (0.0330) |
| Sample #3 | 1.5370 | (0.0130) | 2.9960 | (0.0340) |
| Sample #4 | 1.5210 | (0.0210) | 2.9770 | (0.0450) |
| Avg % Abs | 1.5333 | (0.0130) | 2.9873 | (0.0373) |
| STD DEV | 0.0110 | (0.0080) | 0.0096 | (0.0067) |
| REL STD DEV | 0.715 | (61.538) | 0.322 | (17.835) |
| ----- | | | | |
| Solution = 0.150 g/210L or 0.7143 mg/l, Samples = 4, Discarded = 1 | | | | |
| Sample #1 | 2.7660 | (-0.0180) | 5.3110 | (0.0060) |
| Sample #2 | 2.7580 | (-0.0100) | 5.3110 | (0.0330) |
| Sample #3 | 2.7600 | (-0.0020) | 5.3200 | (0.0270) |
| Sample #4 | 2.7670 | (-0.0040) | 5.3220 | (0.0250) |
| Avg % Abs | 2.7617 | (-0.0053) | 5.3177 | (0.0283) |
| STD DEV | 0.0047 | (0.0042) | 0.0059 | (0.0042) |
| REL STD DEV | 0.171 | (78.062) | 0.110 | (14.694) |
| ----- | | | | |
| Solution = 0.298 g/210L or 1.4190 mg/l, Samples = 4, Discarded = 1 | | | | |
| Sample #1 | 5.3450 | (-0.0080) | 10.0160 | (-0.0190) |
| Sample #2 | 5.3330 | (0.0200) | 10.0310 | (-0.0060) |
| Sample #3 | 5.3150 | (0.0240) | 9.9970 | (0.0190) |
| Sample #4 | 5.3050 | (0.0240) | 9.9720 | (0.0020) |
| Avg % Abs | 5.3177 | (0.0227) | 10.0000 | (0.0050) |
| STD DEV | 0.0142 | (0.0023) | 0.0296 | (0.0128) |
| REL STD DEV | 0.267 | (10.189) | 0.296 | (255.343) |
| ----- | | | | |

TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-004947
 04/07/2020 14:01:13

Auto Calibration

pg 2 of 2

| <<<<< 3um >>>>> | | | <<<<< 9um >>>>> | | |
|-------------------|----------|----------|-----------------|----------|----------|
| ----- | | | ----- | | |
| Zero Order Coef | -223.71 | | | -261.51 | |
| First Order Coef | 2608.22 | | | 1330.81 | |
| Second Order Coef | 19.36 | | | 11.44 | |
| ----- | | | ----- | | |
| Act | Fit | Residual | Act | Fit | Residual |
| (g/210L) | (g/210L) | (g/210L) | (g/210L) | (g/210L) | (g/210L) |
| 0.000 | -0.000 | 0.0003 | 0.000 | -0.000 | 0.0000 |
| 0.040 | 0.040 | -0.0003 | 0.040 | 0.040 | 0.0001 |
| 0.080 | 0.080 | -0.0002 | 0.080 | 0.080 | -0.0001 |
| 0.150 | 0.150 | 0.0003 | 0.150 | 0.150 | 0.0001 |
| 0.298 | 0.298 | -0.0001 | 0.298 | 0.298 | -0.0000 |
| ----- | | | ----- | | |

| <<<<< 3um >>>>> | | <<<<< 9um >>>>> | |
|--|-----------|-----------------|--|
| ----- | | ----- | |
| Solution = 0.100 g/210L or 0.4762 mg/l, Samples = 4, Discarded = 1 | | | |
| Sample | | | |
| Sample #1 | 4257.00 | 4191.00 | |
| Sample #2 | 4261.00 | 4231.00 | |
| Sample #3 | 4265.00 | 4247.00 | |
| Sample #4 | 4272.00 | 4200.00 | |
| Avg | 4266.0000 | 4226.0000 | |
| STD DEV | 5.5678 | 23.8956 | |
| REL STD DEV | 0.131 | 0.565 | |
| H2O adjust (mg/l*10k) | 495 | 535 | |

Atmospheric Pressure = 945

*****CALIBRATION SUCCESSFUL*****



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-004947
 04/07/2020 14:01:13

Auto Calibration
 Max Power Res Value = 36
 Auto Range Res Value = 19

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

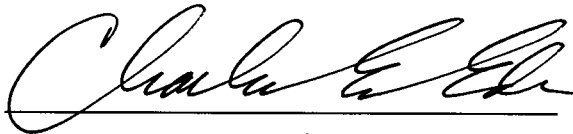
CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-004947
Location = TOXL 8164.14.00 09/16
04/07/2020 14:44

WET CAL CHECK

| Test | AC | Time |
|--------------|-------|-------|
| 01 Room Air | 0.000 | 14:45 |
| 02 Std. Sol. | 0.019 | 14:45 |
| 03 Room Air | 0.000 | 14:46 |
| 04 Std. Sol. | 0.019 | 14:47 |
| 05 Room Air | 0.000 | 14:47 |
| 06 Std. Sol. | 0.020 | 14:48 |
| 07 Room Air | 0.000 | 14:48 |

08 Sim Temp = 34.0°C

Simul Ser No = MP3061
Std Sol No = 201810D
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks: *Low AC*
 0.020 AC

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-004947
Location = TOXL 8164.14.00 09/16
04/07/2020 14:49

WET CAL CHECK

| Test | AC | Time |
|--------------|-------|-------|
| 01 Room Air | 0.000 | 14:50 |
| 02 Std. Sol. | 0.250 | 14:50 |
| 03 Room Air | 0.000 | 14:51 |
| 04 Std. Sol. | 0.253 | 14:52 |
| 05 Room Air | 0.000 | 14:52 |
| 06 Std. Sol. | 0.252 | 14:53 |
| 07 Room Air | 0.000 | 14:54 |

08 Sim Temp = 34.0°C

Simul Ser No = MP3067
Std Sol No = 201911B
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks:

HIGH AC
0.250 AC

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-004947
Location = TOXL 8164.14.00 09/16
04/07/2020 14:56

DRY CAL CHECK

| Test | AC | Time |
|-------------|-------|-------|
| 01 Room Air | 0.000 | 14:57 |
| 02 Std. Gas | 0.080 | 14:57 |
| 03 Room Air | 0.000 | 14:58 |
| 04 Std. Gas | 0.079 | 14:58 |
| 05 Room Air | 0.000 | 14:59 |
| 06 Std. Gas | 0.080 | 14:59 |
| 07 Room Air | 0.000 | 14:59 |

Lot No = 13518080A6
Cyl No = 33
Exp Date = 08/05/2020
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks: CALIBRATION CHECK

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-004947
Location = TOXL 8164.14.00 09/16
04/07/2020 15:00

DRY CAL CHECK

| Test | AC | Time |
|-------------|-------|-------|
| 01 Room Air | 0.000 | 15:01 |
| 02 Std. Gas | 0.080 | 15:01 |
| 03 Room Air | 0.000 | 15:02 |
| 04 Std. Gas | 0.081 | 15:02 |
| 05 Room Air | 0.000 | 15:02 |
| 06 Std. Gas | 0.081 | 15:03 |
| 07 Room Air | 0.000 | 15:03 |

Lot No = 13518080A6
Cyl No = 33
Exp Date = 08/05/2020
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks: CALIBRATION CHECK
0.080 AC

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-004947
Location = TOXL 8164.14.00 09/16
04/07/2020 15:04

DRY CAL CHECK

| Test | AC | Time |
|-------------|-------|-------|
| 01 Room Air | 0.000 | 15:04 |
| 02 Std. Gas | 0.080 | 15:04 |
| 03 Room Air | 0.000 | 15:05 |
| 04 Std. Gas | 0.080 | 15:05 |
| 05 Room Air | 0.000 | 15:06 |
| 06 Std. Gas | 0.081 | 15:06 |
| 07 Room Air | 0.000 | 15:07 |

Lot No = 13518080A6
Cyl No = 33
Exp Date = 08/05/2020
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks: CALIBRATION CHECK
0.080 AC

Form 106-I8000