

INTOXILYZER® 8000 CALIBRATION ADJUSTMENT

Intoxilyzer® 8000 Serial Number: 80-006667 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: 40655 & 55260
 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 ≥ 0.99000
 5. Flow Sensor Calibration Verification (Level 3,D,F)
 - a. 10 L/min: 0. 167 L/S X 60 Sec/min = 10.02 L/min
 - b. 20 L/min: 0. 332 L/S X 60 Sec/min = 19.92 L/min
 - c. Flow Rates within ± 1 L/min of Expected Value
- B. Gas Tank Sensor Check (Level 3,D,G)
1. Display: 345 psi Regulator: 375 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 ≥ 10
 - b. Auto Range Res Value ≥ 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 0.040	201808D	8.22.20	DR 7351
3	0.080 0.081	201807C	7.25.20	DR 5114
4	0.150 0.151	201811E	11.26.20	DR 5131
5	0.300 0.298	19010	1.3.21	DR 7346

3. 0.100 AC Calibration Gas for H₂O Adjustment
 - a. Lot No. 13518100A3 Cyl No. 4 Exp. Date: 8.5.2020
4. Atmospheric Pressure
 - a. 931 mbar Displayed by Intoxilyzer® 8000
 - b. 949 mbar Adjusted to using barometer
 - c. 949 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		H ₂ O Adjust		
3 μ m	<u>4425</u>	+	<u>336</u>	=	<u>4761</u>
9 μ m	<u>4410</u>	+	<u>351</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
MP3061 Sim. SN: 201810D 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: 11.05.21
 - b. Dry Calibration Check: Known Value 0.08 AC
Lot No. 24119080A1 Cyl No. 9 Exp. Date: 11.5.21
Test 1 0.079 AC Test 4 0.079 AC Test 7 0.080 AC
Test 2 0.079 AC Test 5 0.079 AC Test 8 0.080 AC
Test 3 0.079 AC Test 6 0.080 AC Test 9 0.079 AC
Average 0.079 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: CAL. ADJ. DUE TO ATMOSPHERIC
SENSOR READING 931 mbar and ACTUAL ATMOSPHERIC
PRESSURE IS 949 mbar,
INSTRUMENT LEFT ON MOUNTAIN TIME FOR CAL. ADJ.

Instrument is acceptable to be used in the field.

Charles E. Edr
Breath Analyst Signature

NA

Reviewed by

5.22.2020
Date

NA

Date

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

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-006667
Location = ~~GLDN-TOYL~~ 8164.14.00 09/16
05/22/2020 *CEE* 08:27

Flow Rate Calibration*****

1: Rate (Liters/min) = 5

 SQRT(Diff)) = 7.348

2: Rate (Liters/min) = 15

 SQRT(Diff)) = 12.203

3: Rate (Liters/min) = 30

 SQRT(Diff)) = 21.586

Dependent Data Scale Factor = 100000 L/min

Independent Data Scale Factor = 256

Rounded Slope = 678

Rounded Intercept = -711846

Correlation = 0.99778



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-006667
 05/22/2020 08:53:15

Auto Calibration

pg 1 of 2

<<<<< 3um >>>>>			<<<<< 9um >>>>>		

Solution = 0.000 g/210L or 0.0000 mg/l, Samples = 4, Discarded = 1					
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)	
Sample #1	0.1120	(-0.0100)	0.1860	(-0.0150)	
Sample #2	0.0690	(0.0800)	0.1750	(0.0010)	
Sample #3	0.0800	(0.1170)	0.1480	(0.0310)	
Sample #4	0.0980	(0.1380)	0.1570	(0.0370)	
Avg % Abs	0.0823	(0.1117)	0.1600	(0.0230)	
STD DEV	0.0146	(0.0294)	0.0137	(0.0193)	
REL STD DEV	17.782	(26.297)	8.592	(83.858)	

Solution = 0.040 g/210L or 0.1905 mg/l, Samples = 4, Discarded = 1					
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)	
Sample #1	0.7730	(0.0060)	1.5340	(-0.0020)	
Sample #2	0.7370	(0.0290)	1.5440	(0.0030)	
Sample #3	0.7380	(0.0440)	1.5440	(0.0010)	
Sample #4	0.7350	(0.0550)	1.5520	(0.0140)	
Avg % Abs	0.7367	(0.0427)	1.5467	(0.0060)	
STD DEV	0.0015	(0.0131)	0.0046	(0.0070)	
REL STD DEV	0.207	(30.589)	0.299	(116.667)	

Solution = 0.081 g/210L or 0.3857 mg/l, Samples = 4, Discarded = 1					
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)	
Sample #1	1.4100	(0.0130)	2.9390	(0.0190)	
Sample #2	1.4610	(0.0100)	2.9360	(0.0300)	
Sample #3	1.4330	(0.0220)	2.9400	(0.0340)	
Sample #4	1.4700	(0.0240)	2.9510	(0.0510)	
Avg % Abs	1.4547	(0.0187)	2.9423	(0.0383)	
STD DEV	0.0193	(0.0076)	0.0078	(0.0112)	
REL STD DEV	1.326	(40.564)	0.264	(29.088)	

Solution = 0.151 g/210L or 0.7190 mg/l, Samples = 4, Discarded = 1					
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)	
Sample #1	2.6080	(-0.0290)	5.2770	(-0.0060)	
Sample #2	2.5990	(-0.0040)	5.2950	(0.0000)	
Sample #3	2.5850	(-0.0010)	5.2720	(0.0070)	
Sample #4	2.5660	(0.0150)	5.2360	(0.0270)	
Avg % Abs	2.5833	(0.0033)	5.2677	(0.0113)	
STD DEV	0.0166	(0.0102)	0.0297	(0.0140)	
REL STD DEV	0.641	(306.431)	0.565	(123.634)	

Solution = 0.298 g/210L or 1.4190 mg/l, Samples = 4, Discarded = 1					
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)	
Sample #1	4.9750	(-0.0310)	9.8910	(-0.0220)	
Sample #2	4.9470	(0.0000)	9.8500	(0.0220)	
Sample #3	4.9860	(-0.0150)	9.8480	(0.0400)	
Sample #4	4.9920	(-0.0060)	9.8780	(0.0150)	
Avg % Abs	4.9750	(-0.0070)	9.8587	(0.0257)	
STD DEV	0.0244	(0.0075)	0.0168	(0.0129)	
REL STD DEV	0.491	(107.855)	0.170	(50.248)	

TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-006667
 05/22/2020 08:53:15

Auto Calibration

pg 2 of 2

<<<<< 3um >>>>>

 Zero Order Coef -223.05
 First Order Coef 2819.66
 Second Order Coef 15.70

<<<<< 9um >>>>>

 -209.10
 1344.70
 11.73

Act (g/210L)	Fit (g/210L)	Residual (g/210L)
0.000	0.000	-0.0002
0.040	0.039	0.0009
0.081	0.082	-0.0011
0.151	0.150	0.0005
0.298	0.298	-0.0001

Act (g/210L)	Fit (g/210L)	Residual (g/210L)
0.000	0.000	-0.0001
0.040	0.040	0.0001
0.081	0.081	0.0002
0.151	0.151	-0.0002
0.298	0.298	0.0001

<<<<< 3um >>>>> <<<<< 9um >>>>>

 Solution = 0.100 g/210L or 0.4762 mg/l, Samples = 4, Discarded = 1

Sample	3um	9um
Sample #1	4376.00	4419.00
Sample #2	4371.00	4389.00
Sample #3	4486.00	4437.00
Sample #4	4420.00	4404.00
Avg	4425.6665	4410.0000
STD DEV	57.7090	24.5561
REL STD DEV	1.304	0.557
H2O adjust (mg/l*10k)	336	351

Atmospheric Pressure = 949

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



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-006667
 05/22/2020 08:53:15

Auto Calibration
 Max Power Res Value = 50
 Auto Range Res Value = 29

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

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-006667
Location = TOXL 8164.14.00 09/16
05/22/2020 09:35

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	09:36
02 Std. Sol.	0.018	09:37
03 Room Air	0.000	09:37
04 Std. Sol.	0.018	09:38
05 Room Air	0.000	09:39
06 Std. Sol.	0.019	09:39
07 Room Air	0.000	09:40

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 80-006667
Location = TOXL 8164.14.00 09/16
05/22/2020 09:41

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	09:41
02 Std. Sol.	0.246	09:42
03 Room Air	0.000	09:42
04 Std. Sol.	0.248	09:43
05 Room Air	0.000	09:44
06 Std. Sol.	0.248	09:44
07 Room Air	0.000	09:45

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 80-006667
Location = TOXL 8164.14.00 09/16
05/22/2020 09:45

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	09:46
02 Std. Gas	0.079	09:46
03 Room Air	0.000	09:47
04 Std. Gas	0.079	09:47
05 Room Air	0.000	09:48
06 Std. Gas	0.079	09:48
07 Room Air	0.000	09:49

Lot No = 24119080A1
Cyl No = 9
Exp Date = 11/05/2021
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 80-006667
Location = TOXL 8164.14.00 09/16
05/22/2020 09:49

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	09:49
02 Std. Gas	0.079	09:50
03 Room Air	0.000	09:50
04 Std. Gas	0.079	09:51
05 Room Air	0.000	09:51
06 Std. Gas	0.080	09:51
07 Room Air	0.000	09:52

Lot No = 24119080A1

Cyl No = 9

Exp Date = 11/05/2021

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 80-006667
Location = TOXL 8164.14.00 09/16
05/22/2020 09:52

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	09:53
02 Std. Gas	0.080	09:53
03 Room Air	0.000	09:53
04 Std. Gas	0.080	09:54
05 Room Air	0.000	09:54
06 Std. Gas	0.079	09:55
07 Room Air	0.000	09:55

Lot No = 24119080A1
Cyl No = 9
Exp Date = 11/05/2021
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks: CALIBRATION CHECK
0.080 AC

Form 106-I8000