

INTOXILYZER® 8000 CALIBRATION ADJUSTMENT

Intoxilyzer® 8000 Serial Number: 80-006681

Location: TOXL

- A. Flow Sensor Calibration and Verification Check (Level 3,M,C,F)
1. Replaced o-rings if damaged ^{ADJUST} ^{VERIFY}
 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: 905 psi Regulator: 875 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	DR7111
2	0.040 (0.040)	201808D	8.22.20	DR7347
3	0.080 (0.081)	201807C	7.25.20	DR5114
4	0.150 (0.151)	201811E	11.26.20	DR5131
5	0.300 (0.298) (0.298)	19010	1.3.21	DR7346

3. 0.100 AC Calibration Gas for H₂O Adjustment
 - a. Lot No. 135180100A3 Cyl No. 4 Exp. Date: 8.5.20
4. Atmospheric Pressure ^{CEE}
 - a. 955 mbar Displayed by Intoxilyzer® 8000
 - b. 954 mbar Adjusted to using barometer
 - c. 954 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>4634</u>	<u>+0.4474</u>	<u>127</u> = <u>4761</u>
9 μ m	<u>4474</u>	<u>+ 287</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. 2411908041 Cyl No. 9 Exp. Date: 11.5.21
 Test 1 0.079 AC Test 4 0.079 AC Test 7 0.079 AC
 Test 2 0.080 AC Test 5 0.079 AC Test 8 0.079 AC
 Test 3 0.079 AC Test 6 0.079 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: CALIBRATION ADJUST DUE TO 0.020 AC STANDARD RETURNING READINGS OF 0.015 & 0.016 AC. STILL WITHIN \pm 0.005 AC TOLERANCE BUT LOW.

Instrument is acceptable to be used in the field.

Chanda E. Ehr
 Breath Analyst Signature

5.27.20
 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 80-006681
Location = TOXL 8164.14.00 09/16
05/27/2020 11:47

Flow Rate Calibration*****

1: Rate (Liters/min) = 5

 SQRT(Diff)) = 7.211

2: Rate (Liters/min) = 15

 SQRT(Diff)) = 12.039

3: Rate (Liters/min) = 30

 SQRT(Diff)) = 21.977

Dependent Data Scale Factor = 100000 L/min

Independent Data Scale Factor = 256

Rounded Slope = 651

Rounded Intercept = -622365

Correlation = 0.99662



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-006681
 05/27/2020 11:55:15

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	0.0640	(0.0070)	0.1300	(0.0090)	
Sample #2	0.0340	(0.0850)	0.1420	(0.0200)	
Sample #3	0.0290	(0.1370)	0.1290	(0.0330)	
Sample #4	0.0160	(0.1820)	0.1170	(0.0390)	
Avg % Abs	0.0263	(0.1347)	0.1293	(0.0307)	
STD DEV	0.0093	(0.0485)	0.0125	(0.0097)	
REL STD DEV	35.284	(36.046)	9.668	(31.671)	

Solution = 0.040 g/210L or 0.1905 mg/l, Samples = 4, Discarded = 1					
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)	
Sample #1	0.7520	(-0.0180)	1.5390	(0.0020)	
Sample #2	0.7540	(0.0250)	1.5130	(0.0350)	
Sample #3	0.7480	(0.0310)	1.5260	(0.0350)	
Sample #4	0.7720	(0.0310)	1.5360	(0.0200)	
Avg % Abs	0.7580	(0.0290)	1.5250	(0.0300)	
STD DEV	0.0125	(0.0035)	0.0115	(0.0087)	
REL STD DEV	1.648	(11.945)	0.756	(28.868)	

Solution = 0.081 g/210L or 0.3857 mg/l, Samples = 4, Discarded = 1					
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)	
Sample #1	1.4630	(0.0060)	2.9260	(-0.0020)	
Sample #2	1.4490	(0.0230)	2.8940	(0.0230)	
Sample #3	1.4810	(0.0230)	2.9190	(0.0260)	
Sample #4	1.4850	(0.0350)	2.9180	(0.0330)	
Avg % Abs	1.4717	(0.0270)	2.9103	(0.0273)	
STD DEV	0.0197	(0.0069)	0.0142	(0.0051)	
REL STD DEV	1.341	(25.660)	0.486	(18.774)	

Solution = 0.151 g/210L or 0.7190 mg/l, Samples = 4, Discarded = 1					
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)	
Sample #1	2.6460	(0.0140)	5.1800	(0.0120)	
Sample #2	2.6910	(0.0170)	5.1880	(0.0430)	
Sample #3	2.6600	(0.0240)	5.1710	(0.0390)	
Sample #4	2.6400	(0.0300)	5.1670	(0.0400)	
Avg % Abs	2.6637	(0.0237)	5.1753	(0.0407)	
STD DEV	0.0257	(0.0065)	0.0112	(0.0021)	
REL STD DEV	0.965	(27.492)	0.215	(5.119)	

Solution = 0.298 g/210L or 1.4190 mg/l, Samples = 4, Discarded = 1					
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)	
Sample #1	5.2020	(-0.0070)	9.8390	(0.0000)	
Sample #2	5.1920	(0.0110)	9.8200	(0.0350)	
Sample #3	5.2090	(0.0100)	9.8210	(0.0410)	
Sample #4	5.1960	(0.0390)	9.8350	(0.0430)	
Avg % Abs	5.1990	(0.0200)	9.8253	(0.0397)	
STD DEV	0.0089	(0.0165)	0.0084	(0.0042)	
REL STD DEV	0.171	(82.310)	0.085	(10.496)	

TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-006681
 05/27/2020 11:55:15

Auto Calibration

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

 Zero Order Coef -104.20
 First Order Coef 2694.01
 Second Order Coef 10.95

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

 Zero Order Coef -195.73
 First Order Coef 1374.03
 Second Order Coef 9.23

Act (g/210L)	Fit (g/210L)	Residual (g/210L)
0.000	-0.001	0.0007
0.040	0.041	-0.0008
0.081	0.082	-0.0006
0.151	0.150	0.0009
0.298	0.298	-0.0002

Act (g/210L)	Fit (g/210L)	Residual (g/210L)
0.000	-0.000	0.0004
0.040	0.040	-0.0003
0.081	0.082	-0.0005
0.151	0.150	0.0006
0.298	0.298	-0.0001

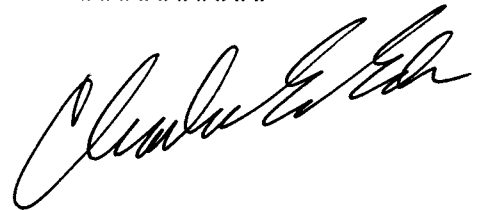
<<<<< 3um >>>>> <<<<< 9um >>>>>

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

Sample	3um	9um
Sample #1	4633.00	4465.00
Sample #2	4634.00	4442.00
Sample #3	4644.00	4497.00
Sample #4	4625.00	4485.00
Avg	4634.3335	4474.6665
STD DEV	9.5044	28.9194
REL STD DEV	0.205	0.646
H2O adjust (mg/l*10k)	127	287

Atmospheric Pressure = 954

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



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-006681
 05/27/2020 11:55:15

Auto Calibration
 Max Power Res Value = 51
 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 80-006681
Location = TOXL 8164.14.00 09/16
05/27/2020 12:38

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	12:38
02 Std. Sol.	0.019	12:39
03 Room Air	0.000	12:40
04 Std. Sol.	0.019	12:40
05 Room Air	0.000	12:41
06 Std. Sol.	0.019	12:42
07 Room Air	0.000	12:42

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 80-006681
Location = TOXL 8164.14.00 09/16
05/27/2020 12:43

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	12:44
02 Std. Sol.	0.249	12:45
03 Room Air	0.000	12:45
04 Std. Sol.	0.249	12:46
05 Room Air	0.000	12:46
06 Std. Sol.	0.249	12:47
07 Room Air	0.000	12:48

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

CEE ~~0.249~~ 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 80-006681
Location = TOXL 8164.14.00 09/16
05/27/2020 12:48

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	12:49
02 Std. Gas	0.079	12:49
03 Room Air	0.000	12:50
04 Std. Gas	0.080	12:50
05 Room Air	0.000	12:50
06 Std. Gas	0.079	12:51
07 Room Air	0.000	12:51

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 80-006681
Location = TOXL 8164.14.00 09/16
05/27/2020 12:51

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	12:52
02 Std. Gas	0.079	12:52
03 Room Air	0.000	12:53
04 Std. Gas	0.079	12:53
05 Room Air	0.000	12:54
06 Std. Gas	0.079	12:54
07 Room Air	0.000	12:55

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

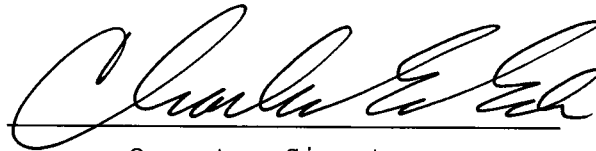
Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-006681
Location = TOXL 8164.14.00 09/16
05/27/2020 12:55

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	12:55
02 Std. Gas	0.079	12:56
03 Room Air	0.000	12:56
04 Std. Gas	0.079	12:57
05 Room Air	0.000	12:57
06 Std. Gas	0.079	12:57
07 Room Air	0.000	12:58

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