

**BREATH ALCOHOL EQUIPMENT
REPAIR AND MAINTENANCE**

Instrument: 8000 Serial Number: 80-005937 Location: TOXL

1. Instrument repairs/maintenance performed:

INSTRUMENT WAS USED FOR EVALUATING ADJUSTMENT PROCEDURES IN PREPARATION OF ISO CALIBRATIONS. INSTRUMENT WAS ADJUSTED FIVE TIMES USING A DIFFERENT NUMBER OF SIMULATOR SOLUTIONS AT DIFFERENT CONCENTRATIONS. THIS IS A VERY EARLY STEP IN PREPARATION OF ISO CALIBRATIONS BY TRYING TO DETERMINE WORKFLOW. ATTACHED IS THE ADJUSTMENT (CALIBRATION) STILL PRESENT ON THE INSTRUMENT. ALSO ATTACHED ARE ACA PRINTOUTS OF ETHANOL GAS STANDARDS AND SIMULATOR SOLUTIONS AT 0.020 AND 0.300 AC TO VERIFY FUNCTIONALITY OF INSTRUMENT.

2. Does the instrument require further testing?

Yes or No

If Yes, continue.
If No, sign and date below.

3. If needed, set the time, date, and location.

NA

4. Does the flow need to be calibrated?

Yes or No

If Yes, attach paperwork.

5. Does the optical bench need to be calibrated?

Yes or No

If Yes, attach test records.

6. Does the gas regulator need to be calibrated?

Yes or No

PSI gauge reading _____ PSI display reading _____

Set instrument to Wet Bath and run tests:

7. Low AC. Use < 0.03 AC in ACA mode. Attach test record.

✓

Sim SN: DR3374 Lot #: 2015018 ACS AC: 0.020
EGS CYL: 001 LOT#: 32114020A3 AC: 0.020

8. Linearity Test. Use ≥ 0.25 AC in ACA mode. Attach test record.

✓

Sim SN: DR3841 Lot #: 14270 AC: 0.300
EGS CYL: 003 LOT#: 01215300A2 AC: 0.300

Set instrument to Gas and run tests:

9. Print test. Attach test record. _____

10. Interferent Check. Use a 0.10 AC ethanol plus 0.05% acetone in ABA mode.
Attach test record. _____

Sim SN: _____ Lot #: _____ AC: _____

11. RFI Check. Run in CMS mode. Key radio during any room air or subject test.
Attach test record. _____

12. Calibration Check. Use a valid 0.080 AC Ethanol Gas Standard. Run three
calibration sets in ACA mode. Attach test records. _____

Lot No. _____ Cylinder No. _____ Expiration Date _____

Test 1 _____	Test 1 _____	Test 1 _____
Test 2 _____	Test 2 _____	Test 2 _____
Test 3 _____	Test 3 _____	Test 3 _____

Average _____


Field Inspector's Signature

3/23/15
Date

Deb Kashur
Reviewed by

23 Mar 15
Date

TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-005937
 02/02/2015 14:35:36

Auto Calibration

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

Solution = 0.000 g/210L or 0.0000 mg/l, Samples = 4, Discarded = 1													0.000 AC
Sample	% Abs	(% Abs Ref)		% Abs	(% Abs Ref)			% Abs	(% Abs Ref)				MILLI-Q H ₂ O
Sample #1	0.1630	(-0.0100)		0.2600	(-0.0070)			0.2600	(-0.0070)				
Sample #2	0.1450	(0.0490)		0.2460	(0.0240)			0.2460	(0.0240)				DR3453
Sample #3	0.1070	(0.0850)		0.2230	(0.0180)			0.2230	(0.0180)				
Sample #4	0.0960	(0.1110)		0.2400	(0.0200)			0.2400	(0.0200)				
Avg % Abs	0.1160	(0.0817)		0.2363	(0.0207)			0.2363	(0.0207)				
STD DEV	0.0257	(0.0311)		0.0119	(0.0031)			0.0119	(0.0031)				
REL STD DEV	22.164	(38.123)		5.048	(14.783)			5.048	(14.783)				

Solution = 0.020 g/210L or 0.0952 mg/l, Samples = 4, Discarded = 1													0.020 AC
Sample	% Abs	(% Abs Ref)		% Abs	(% Abs Ref)			% Abs	(% Abs Ref)				LOT: 13070
Sample #1	0.4700	(-0.0320)		0.8810	(-0.0030)			0.8810	(-0.0030)				EXP: 3/6/15
Sample #2	0.4280	(0.0100)		0.8920	(-0.0090)			0.8920	(-0.0090)				SIM: DR3455
Sample #3	0.4380	(0.0160)		0.8890	(-0.0060)			0.8890	(-0.0060)				
Sample #4	0.4390	(0.0150)		0.8900	(-0.0040)			0.8900	(-0.0040)				
Avg % Abs	0.4350	(0.0137)		0.8903	(-0.0063)			0.8903	(-0.0063)				
STD DEV	0.0061	(0.0032)		0.0015	(0.0025)			0.0015	(0.0025)				
REL STD DEV	1.398	(23.521)		0.172	(39.736)			0.172	(39.736)				

Solution = 0.040 g/210L or 0.1905 mg/l, Samples = 4, Discarded = 1													0.040 AC
Sample	% Abs	(% Abs Ref)		% Abs	(% Abs Ref)			% Abs	(% Abs Ref)				LOT: 13060
Sample #1	0.8160	(-0.0080)		1.6020	(-0.0350)			1.6020	(-0.0350)				EXP: 2/4/15
Sample #2	0.7920	(0.0160)		1.6090	(-0.0180)			1.6090	(-0.0180)				SIM: DR5113
Sample #3	0.8160	(0.0230)		1.6220	(-0.0330)			1.6220	(-0.0330)				
Sample #4	0.7920	(0.0290)		1.6070	(-0.0320)			1.6070	(-0.0320)				
Avg % Abs	0.8000	(0.0227)		1.6127	(-0.0277)			1.6127	(-0.0277)				
STD DEV	0.0139	(0.0065)		0.0081	(0.0084)			0.0081	(0.0084)				
REL STD DEV	1.732	(28.705)		0.505	(30.313)			0.505	(30.313)				

Solution = 0.080 g/210L or 0.3810 mg/l, Samples = 4, Discarded = 1													0.080 ^{CCE} AC
Sample	% Abs	(% Abs Ref)		% Abs	(% Abs Ref)			% Abs	(% Abs Ref)				LOT: 13190
Sample #1	1.5110	(-0.0150)		2.9570	(0.0050)			2.9570	(0.0050)				EXP: 7/6/15
Sample #2	1.4800	(0.0140)		2.9440	(0.0290)			2.9440	(0.0290)				SIM: DR5115
Sample #3	1.4560	(0.0300)		2.9330	(0.0320)			2.9330	(0.0320)				
Sample #4	1.5230	(0.0020)		2.9260	(0.0250)			2.9260	(0.0250)				
Avg % Abs	1.4863	(0.0153)		2.9343	(0.0287)			2.9343	(0.0287)				
STD DEV	0.0339	(0.0140)		0.0091	(0.0035)			0.0091	(0.0035)				
REL STD DEV	2.284	(91.614)		0.309	(12.251)			0.309	(12.251)				

Solution = 0.150 g/210L or 0.7143 mg/l, Samples = 4, Discarded = 1													0.150 AC
Sample	% Abs	(% Abs Ref)		% Abs	(% Abs Ref)			% Abs	(% Abs Ref)				LOT: 13150
Sample #1	2.6750	(-0.0200)		5.1890	(0.0140)			5.1890	(0.0140)				EXP: DR5188
Sample #2	2.6780	(-0.0050)		5.1900	(0.0370)			5.1900	(0.0370)				
Sample #3	2.6710	(0.0020)		5.1990	(0.0360)			5.1990	(0.0360)				
Sample #4	2.6450	(0.0130)		5.1700	(0.0430)			5.1700	(0.0430)				
Avg % Abs	2.6647	(0.0033)		5.1863	(0.0387)			5.1863	(0.0387)				
STD DEV	0.0174	(0.0091)		0.0148	(0.0038)			0.0148	(0.0038)				
REL STD DEV	0.653	(272.213)		0.286	(9.791)			0.286	(9.791)				

Solution = 0.300 g/210L or 1.4286 mg/l, Samples = 4, Discarded = 1													

Sample	% Abs	(% Abs Ref)
Sample #1	5.1340	(0.0200)
Sample #2	5.2030	(0.0280)
Sample #3	5.1890	(0.0420)
Sample #4	5.1970	(0.0410)
Avg % Abs	5.1963	(0.0370)
STD DEV	0.0070	(0.0078)
REL STD DEV	0.135	(21.109)

% Abs	(% Abs Ref)	
9.8110	(0.0040)	0.300 AC
9.8800	(0.0310)	Lot: 13300
9.8680	(0.0500)	
9.8820	(0.0360)	Exp. 11/4/15
9.8767	(0.0390)	
0.0076	(0.0098)	Sim: DR5190
0.077	(25.253)	

TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-005937
 02/02/2015 14:35:36

Auto Calibration

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

 Zero Order Coef -299.74
 First Order Coef 2768.15
 Second Order Coef 7.51

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

 Zero Order Coef -325.52
 First Order Coef 1387.71
 Second Order Coef 9.31

Act (g/210L)	Fit (g/210L)	Residual (g/210L)
0.000	0.000	-0.0005
0.020	0.019	0.0010
0.040	0.040	-0.0003
0.080	0.080	-0.0005
0.150	0.150	0.0003
0.300	0.300	-0.0000

Act (g/210L)	Fit (g/210L)	Residual (g/210L)
0.000	0.000	-0.0001
0.020	0.019	0.0007
0.040	0.041	-0.0007
0.080	0.080	-0.0004
0.150	0.150	0.0004
0.300	0.300	-0.0001

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

 Solution = 0.080 g/210L or 0.3810 mg/l, Samples = 4, Discarded = 1
 Sample

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

 Solution = 0.080 g/210L or 0.3810 mg/l, Samples = 4, Discarded = 1
 Sample

Sample #1	3607.00
Sample #2	3574.00
Sample #3	3560.00
Sample #4	3595.00
Avg	3576.3333
STD DEV	17.6163
REL STD DEV	0.493
H2O adjust (mg/l*10k)	233

3507.00	0.080AC
3519.00	E.G.S.
3540.00	
3520.00	LOT: 14214080AG
3526.3333	CYL: 055
11.8462	
0.336	Exp: 7/5/2016
283	

Atmospheric Pressure = 952

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

Charles E. Edr
 2/2/15

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

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-005937
Location = TOXL 8164.13.00 06/09
02/02/2015 15:25

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	15:26
02 Std. Sol.	0.019	15:26
03 Room Air	0.000	15:27
04 Std. Sol.	0.020	15:28
05 Room Air	0.000	15:28
06 Std. Sol.	0.019	15:29
07 Room Air	0.000	15:29

08 Sim Temp = 34.0°C

Simul Ser No = DR3374
Std Sol No = 201501B
County = 08 Oper No. = 666666

CEC

Operator Signature
CHARLES EDER

Remarks:

0.020 AC Sim. Sol. ^(ACS) ~~(GUTH)~~ CEC

~~Exp: 10/20/16~~ CEC ^{Exp.} 1/6/17

Form 106-I8000

Charles E. Eder 3/23/15

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

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-005937
Location = TOXL 8164.13.00 06/09
02/02/2015 16:42

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	16:43
02 Std. Gas	0.018	16:43
03 Room Air	0.000	16:43
04 Std. Gas	0.017	16:44
05 Room Air	0.000	16:44
06 Std. Gas	0.018	16:44
07 Room Air	0.000	16:45

Lot No = 32114020A3
Cyl No = 1
Exp Date = 12/05/2016
County = 08 Oper No. = 666666

CE

Operator Signature
CHARLES EDER

Remarks: 0.020 AC E.G.S.

Form 106-I8000

Charles Eder 3/23/15

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

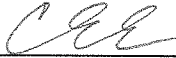
CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-005937
Location = TOXL 8164.13.00 06/09
02/02/2015 16:21

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	16:21
02 Std. Sol.	0.298	16:22
03 Room Air	0.000	16:23
04 Std. Sol.	0.298	16:24
05 Room Air	0.000	16:24
06 Std. Sol.	0.298	16:25
07 Room Air	0.000	16:25

08 Sim Temp = 34.0°C

Simul Ser No = DR3841
Std Sol No = 14270
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks: 0.300 AC Sim. Sol. (GUTH)
Exp: 12/2/16

Form 106-I8000

 3/23/15

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

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-005937
Location = TOXL 8164.13.00 06/09
02/18/2015 12:01

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	12:02
02 Std. Gas	0.294	12:02
03 Room Air	0.000	12:03
04 Std. Gas	0.295	12:03
05 Room Air	0.000	12:04
06 Std. Gas	0.295	12:04
07 Room Air	0.000	12:05

Lot No = 01215300A2
Cyl No = 3
Exp Date = 02/05/2017
County = 08 Oper No. = 666666

CEE

Operator Signature
CHARLES EDER

Remarks: 0.300 AC EGS.

Form 106-I8000

Charles Eder 3/23/15