



M^cCALL ENVIRONMENTAL

June 18, 2009

Mawera Canada Ltd.
104 6th St East
Revelstoke, BC
V0E 2S0

Attention: **Cornelius Suchy**
Re: **Air Emission Testing of June 12, 2009**

As requested our firm performed a series of air emission tests at the UNBC facility on June 12, 2009.

Two modified EPA Method 5 particulate tests were performed on the pellet boiler system attached to the greenhouse facility.

Test results are summarized immediately following this cover letter. A discussion of the testing conditions can also be found immediately following this cover letter.

Testing methodology was conducted in accordance with the BC Field Sampling Manual except in instances noted in the Discussion of Test Results.

Please don't hesitate to contact us with any questions or concerns.

Sincerely,

MCCALL ENVIRONMENTAL

Matt McCall
Digitally signed by Matt McCall
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"Testing today for your children's tomorrow"

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Summary of Test Results

June 12, 2009- Average of two tests

Gas Temperature:	162 ° F	72 ° C
Moisture Content (by volume):	6.9 %	
Average Stack Gas Velocity:	6.1 ft/sec	1.9 m/sec
Total Actual Gas Flow Rate:	393 ACFM	
Dry Gas flow Rate at Reference Conditions:	303 SCFM	.1 m ³ /sec
Total Particulate Concentration:		
Dry Basis Actual at Reference Conditions	.024 gr/ft ³	54.1 mg/m ³
Mass Emission Rate	0.06 lbs/hr	0.03 kg/hr

Discussion of Test Results

The purpose of these tests was to determine a particulate loading on the system in order to assist in creating a set point for the SICK opacity system.

Deviations from standard test methods involved only conducting two 30 minute sample runs. Shorter test durations were due to the inability to maintain a high, constant load on the system. Warmer summer temperatures result in a reduced demand from the boiler. Steady operating rates are necessary for a decent set point in configuring the opacity monitor.

McCall Environmental

**UNBC/Mawera Pellet Boiler
Prince George, B.C.
Pellet Boiler**

6/12/2009

AVERAGE OF AIR EMISSION TESTS 1 & 2

Gas Temperature:	162 ° F	72 ° C
Moisture Content (by volume):	6.9 %	
Average Stack Gas Velocity:	6.1 ft/sec	1.9 m/sec
Total Actual Gas Flow Rate:	393 ACFM	
Dry Gas flow Rate at Reference Conditions:	303 SCFM	.1 m ³ /sec
Total Particulate Concentration:		
Dry Basis Actual at Reference Conditions	.024 gr/ft ³	54.1 mg/m ³
Mass Emission Rate	0.06 lbs/hr	0.03 kg/hr

SUMMARY OF AIR EMISSION TESTS

TEST 1:

Gas Temperature:	161 ° F	71 ° C
Moisture Content (by volume):	6.5 %	
Average Stack Gas Velocity:	6.1 ft/sec	1.9 m/sec
Total Actual Gas Flow Rate:	392 ACFM	
Dry Gas flow Rate at Reference Conditions:	305 SCFM	.1 m ³ /sec
Total Particulate Concentration:		
Dry Basis Actual at Reference Conditions	.024 gr/ft ³	56.1 mg/m ³
Mass Emission Rate	0.06 lbs/hr	0.03 kg/hr

TEST 2:

Gas Temperature:	164 ° F	73 ° C
Moisture Content (by volume):	7.3 %	
Average Stack Gas Velocity:	6.1 ft/sec	1.9 m/sec
Total Actual Gas Flow Rate:	394 ACFM	
Dry Gas flow Rate at Reference Conditions:	301 SCFM	.1 m ³ /sec
Total Particulate Concentration:		
Dry Basis Actual at Reference Conditions	.023 gr/ft ³	52.2 mg/m ³
Mass Emission Rate	0.06 lbs/hr	0.03 kg/hr