



3933 US Route 11
Cortland, NY 13045

Telephone: +01 607 753 6711
Facsimile: +01 607 756 9891
www.intertek-etlsemko.com

27 July 2010

Mr. Charlie Waddell
Global Plasma Solutions
714 Mall Blvd
Suite 3
Savannah, GA 31406 USA
Ph: +01 (540) 798-5239
email:charlie@globalplasmasolutions.com

Mr. Waddell,

We appreciate the opportunity to be of service to you. Please find enclosed one (1) copy of Report No. G100145818CRT-002, covering the ozone emissions test on the model(s) noted below as per quote 500238176.

<u>Sample #</u>	<u>Model Number</u>	<u>Serial Number</u>	<u>Control Number</u>
1 of 2	GPS-RN	100331-210	209399.01
2 of 2	GPS-RN	100331-209	209399.02

If there are any questions regarding the results contained in this report, or any of the other services offered by Intertek, please do not hesitate to contact the undersigned or your account representative, Adell Pickens at 678-775-2442.

Sincerely,

Denis Niggli
Associate Engineer





3933 US Route 11
Cortland, NY 13045

Telephone: +01 607 753 6711
Facsimile: +01 607 756 9891
www.intertek-etlsemko.com

Order No. G100145818

27 July 2010

Report Number: G100145818CRT-002
Model Number: GPS-RN

RENDERED TO:

Mr. Charlie Waddell
Global Plasma Solutions
714 Mall Blvd
Suite 3
Savannah, GA 31406 USA
Ph: +01 (540) 798-5239
Email:charlie@globalplasmasolutions.com

<u>Report Scope:</u>	Ozone Emissions Testing of Household Electrostatic Air Cleaners.
<u>Limitation Statement:</u>	The test data and results contained in this report are provided for client information and evaluation. No conclusions are drawn by Intertek.
<u>Authorization:</u>	The tests were authorized by signed quote # 500238176, dated 6/8/2010.
<u>Standard Used:</u>	<p>UL Standard for Safety for Electrostatic Air Cleaners, UL 867, Section 37 Fourth Edition, December 21, 2007.</p> <ul style="list-style-type: none"> - Std. 867 Certification Requirement Decision, Section/Paragraph 37.2.2 a) 2), Ozone Test – Chamber Air tightness - Std. 867 Certification Requirement Decision, Section/Paragraph 37.4.8 & 37A.5, Ozone Test – Test Conditions. - Std. 867 Certification Requirement Decision, Section/Paragraph 37A.1, Peak Ozone Determination Test – Room Dimensions. - Std. 867 Certification Requirement Decision, Section/Paragraph 37.4.6, Definition of Steady-State Hours 7-8. - Std. 867 Certification Requirement Decision, Section/Paragraph 37.2.3, Chamber Setup. - Std. 867 Certification Requirement Decision, Section/Paragraph 3.3A, 3.9A, 3.11A , 37.4.6A, 37.4.7, 37.4.8, 37A.5, 37A.4, 37.5A, 37A.5, 37A.5B, 37.4.1. Filter Test Iterations.
<u>Report Content:</u>	<ol style="list-style-type: none"> 1. Unit Under Test 2. Peak Ozone Test Results 3. Max Ozone Test Results 4. Chamber Equipment 5. Summary/Signatures 6. Appendix



This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only the sample tested. This report by itself does not imply that the material, product or service is or has ever been under an Intertek certification program.



1. Unit Under Test Information

MODEL

Manufacturer:	Global Plasma Solutions	Pre-Filter:	No
Model Number:	GPS-RN	HEPA Filter:	No
		ESP Filter:	No
Settings:	1	Carbon Filter:	No
O3/Voltage Settings:	-	UV Light:	No
O3 Monitor:	-	Ionizer:	Yes
Model Notes:	Unit is a duct ionizer. Has two ionizers with tube extensions and an ON/OFF switch.		

FIRST SAMPLE

Control Number:	209399.01	Run-in Start:	10:00 6/28/10
Serial Number:	100331-210	Run-in End:	12:00 6/30/10
Manufacture Date:	NA	Run-in Temperature:	77 ± 4 degF
Receive Date:	6/18/2010		
Received Status:	Ok		
Sample Notes:			

SECOND SAMPLE

Control Number:	209399.02	Run-in Start:	NA
Serial Number:	100331-209	Run-in End:	NA
Manufacture Date:	NA	Run-in Temperature:	NA
Receive Date:	6/18/2010		
Received Status:	Ok		
Sample Notes:			

2. Peak Ozone Test Results

GRILL AND AIR PERIPHERY DIMENSIONS

		Date of Test:	7/8/2010
Grill Height:	-	Air Periphery Height:	-
Grill Width:	-	Air Periphery Width:	-
Estimated Grill Area:	-	Est. Air Periphery Area:	-
Notes:	Two Ionizers with tube extenders Diameter = 0.25" Measurements taken from center of device, Position C		

PEAK LOCATIONS



Loc.	X [inches]	Y [inches]
-		
1	-0.75	1.5
2	0.75	1.5
C	0	0

* Location measurements are coordinates in reference to the center point.



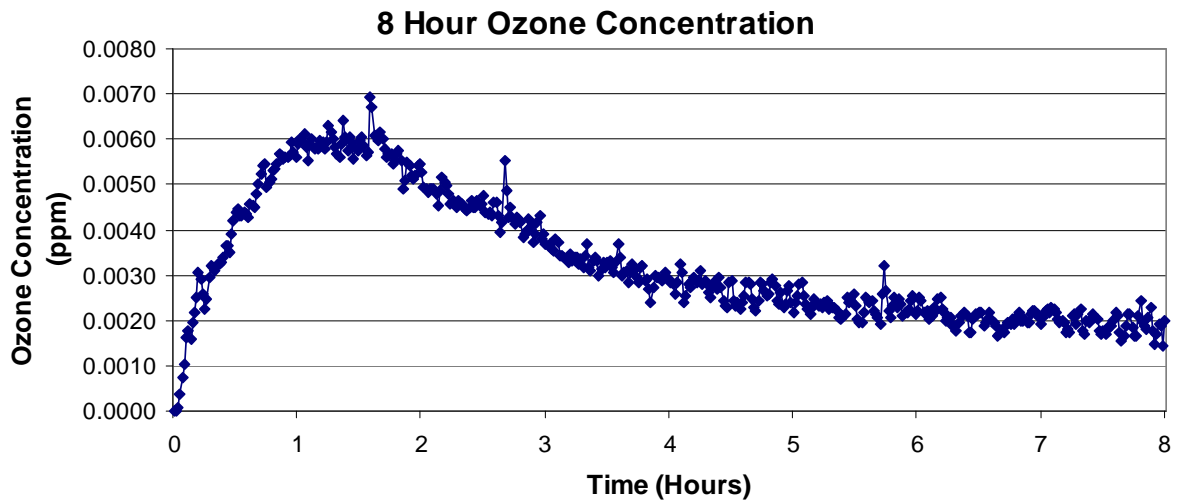
PEAK OZONE CONCENTRATIONS

Location								
	On		High	Low	High	Low	High	Low
1	0.0033							
2	0.0014							
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

Notes: - Ozone Concentrations less background level; in units of PPM.
- Peak concentration for each iteration is in **BOLD**.

3. Max Ozone Test Results

Date of Test:	7/20/2010
Sample:	1 of 2
Setting:	ON
Filter(s):	-



MAXIMUM OZONE TEST RESULTS							
	UL Ref.	Pass/Fail	Mean	Min	Max	Delta	Units
Background C(t) O3:	37.4.3	PASS	0.000	0.000	0.000	0.000	[ppm]
Test 1min C(t) O3:	37.1.2	PASS	0.003	0.000	0.007	0.007	[ppm]
Test 5min C(t) O3:	37.1.2	PASS	0.003	0.000	0.006	0.006	[ppm]
Chamber Temperature:	37.4.2	PASS	77	77	77	1	[degF]
Chamber Humidity:	37.4.2	PASS	50	49	51	2	[%RH]
Chamber Static Pressure:	-	PASS	0.02	0.02	0.02	0.01	["H2O]
Chamber Supply Air Flow:	-	-	19	19	19	0	[SCFM]
Required to Test 2nd Sample:	37.1.1	NO					
Test Duration:	*37.4.6	8 hours					

Notes:



4. Chamber Equipment Information

Test Equipment List

Instrument	Model	Intertek Ctrl #	Cal Due Date
Teledyne – Advanced Pollution Instrumentation Ozone Calibrator	703E	O200	1-5-2011
Teledyne – Advanced Pollution Instrumentation Ozone Monitor	400E	O201	*
Teledyne – Advanced Pollution Instrumentation Ozone Monitor	400E	O202	*
Vaisala – Temperature & Humidity Transducer	HMD-70Y	T1307	04-09-11
Dwyer Airflow – Anemometer	471	Y202	07-22-10

* The 400E Ozone Monitor is calibrated using the 703E calibrator.



5. Summary/Signatures

The test sample(s) documented in this report were tested in accordance to the standard(s) and Certification Requirement Decision(s) (CRDs) referenced in the first page of this report.

The representative sample(s) have been tested, investigated, and found to comply with the requirements of the UL Standard 867 Section 37.1.2 criteria of emitting a maximum ozone concentration of less than 0.050 ppm. Furthermore a second sample was not required to be tested as the first sample's maximum emissions were less than 0.030 ppm to satisfy the exception in the Section 37.1.1.

This report completes our evaluation covered by Intertek Project No. G100145818CRT-002. If there are any questions regarding the results contained in this report, or any of the other services offered by Intertek, please do not hesitate to contact the undersigned.

Please note; this Report does not represent authorization for the use of any Intertek certification marks.

<u>OZONE EMISSIONS SUMMARY</u>			
Setting	Filter(s)	O3/Voltage Setting	C(t) _{max} [ppm]
ON	-	-	0.007

Completed by: Title:	Denis Niggli Associate Engineer	Reviewed by: Title:	Eric Dunay Engineer
Signature:		Signature	
Date	27 July 2010	Date:	27 July 2010

6. Appendix

DATA FILES

Test Name	Raw Data File
Model Half Life	573_HalfLife_ozonelog.csv
Max Ozone: ON	574_ON_ozonelog.csv

ATTACHMENT DOCUMENTS

Document	Soft-copy File Name
Chain of Custody: Sample 1	COC_209399.01.pdf
Chain of Custody: Sample 2	COC_209399.02.pdf

UUT PHOTOGRAPHS

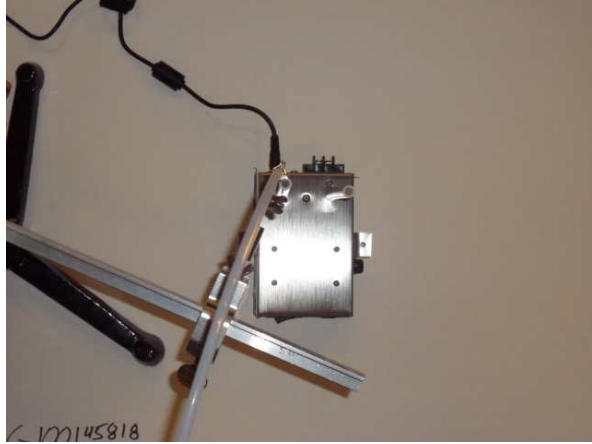


UUT



Nameplate

UUT PHOTOGRAPHS: PEAK TEST



ON

UUT PHOTOGRAPHS: MAX OZONE TEST



ON

Chain of Custody Form

Ozone Testing Facility



As of: 7/22/2010 9:37:48 AM

Control Number: 209399.01 Client: Global Plasma Solutions

Model Number: GPS-RN Project Number: G100145818

Serial Number: 100331-210 Sample Selection: 1 / 2

Notes:

Name	Purpose	Location	Date	Notes
Denis Niggli	Received	Fan Lab	6/18/2010	
Denis Niggli	48 hr Run-in	Fan Lab	6/28/2010	Start 10:00
Denis Niggli	48 hr Run-in	Fan Lab	6/30/2010	Stop 10:00
Denis Niggli	Peak O3 Test	Fan Lab	7/8/2010	
Denis Niggli	Move	O3 Lab	7/20/2010	
Denis Niggli	Max O3 Test	O3 Lab	7/20/2010	

Chain of Custody Form

Ozone Testing Facility



As of: 7/22/2010 9:38:24 AM

Control Number: 209399.02 Client: Global Plasma Solutions
Model Number: GPS-RN Project Number: G100145818
Serial Number: _____ Sample Selection: 2 / 2

Notes:

Name	Purpose	Location	Date	Notes
Denis Niggli	Received	Fan Lab	6/18/2010	