



PHOENIX
GRAVITY

PHOENIX GRAVITY Filtration Performance

Performance Summary

Contaminant Type	Contaminants Filtered	Phoenix Gravity Carbon Filter Cartridge Testing results (%)	POSTreat Steel Fluoride Reduction Add-on Cartridge Testing results (%)
Chemical	Chlorine	99.9%	N/A
	Lead	99.9%	N/A
PFOA & PFOS	PFOA	>99%	N/A
	PFOS	>99.5%	N/A
	PFOA+PFOS	>99.66%	N/A
Heavy Metal Contaminants	Aluminum	99.9%	N/A
	Antimony	99.9%	N/A
	Arsenic	99.9%	N/A
	Beryllium	99.9%	N/A
	Bismuth	99.4%	N/A
	Boron	99.9%	N/A
	Barium	99.9%	N/A
	Cadmium	99.9%	N/A
	Chromium	97.2%	N/A
	Copper	97.9%	N/A
	Iron	98.3%	N/A
	Lead	94.0%	N/A
	Manganese	99.9%	N/A
	Mercury	99.9%	N/A
	Nickel	99.9%	N/A
	Selenium	99.9%	N/A
Zinc	82.6%	N/A	
Disinfectant & Inorganic Non-Metallic Contaminants	Chloramines	99.9%	N/A
	Free Chlorine	99.9%	N/A
	Chloride	98.2%	N/A
Inorganic Non-Metallic Contaminants	Nitrates	99.0%	N/A
	Nitrites	99.9%	N/A
	Fluoride	75.5%	>95%
Pharmaceutical Drug Contaminants	Caffeine	99.9%	N/A
	Bisphenol A	99.9%	N/A
Volatile Organic Contaminants	Dischlorodifluoromethane	99.9%	N/A
	Chloromethane	99.9%	N/A
	Vinylchloride	99.9%	N/A
	Bromomethane	99.9%	N/A
	Chloroethane	99.9%	N/A
	Trichlorofluoromethane	99.9%	N/A
	1,1-Dichloroethene	99.9%	N/A

Performance Summary Con'd

Contaminant Type	Contaminants Filtered	Phoenix Gravity Carbon Filter Cartridge Testing results (%)	POSTreat Steel Fluoride Reduction Add-on Cartridge
Volatile Organic Contaminants	Methylene Chloride	99.9%	N/A
	trans-1,2-Dichloroethene	99.9%	N/A
	MTBE	99.9%	N/A
	1,1-Dichloroethane	99.9%	N/A
	cis-1,2-Dichloroethane	99.9%	N/A
	2,2-Dichloropropane	99.9%	N/A
	Bromochloromethane	99.9%	N/A
	Chloroform	99.9%	N/A
	Carbon Tetrachloride	99.9%	N/A
	1,1,1-Trichloroethane	99.9%	N/A
	1,1-Dichloropropane	99.9%	N/A
	Benzene	99.9%	N/A
	1,2-dichloroethane	99.9%	N/A
	Trichloroethene	99.9%	N/A
	Dibromomethane	99.9%	N/A
	1,2-Dichloropropane	99.9%	N/A
	Bromodichloromethane	99.9%	N/A
	cis-1,3-Dichloropropene	99.9%	N/A
	Toluene	99.9%	N/A
	trans-1-3-Dichloropropene	99.9%	N/A
	Tetrachloroethene	99.9%	N/A
	1,1,2-Trichloroethane	99.9%	N/A
	Chlorodibromomethane	99.9%	N/A
	1,3-Dichloropropane	99.9%	N/A
	Ethylbenzene	99.9%	N/A
	Chlorobenzene	99.9%	N/A
	1,1,1,2- Tetrachloroethane	99.9%	N/A
	m-Xylene	99.9%	N/A
	o-Xylene	99.9%	N/A
	Styrene	99.9%	N/A
	Bromoform	99.9%	N/A
	Isopropylbenzene	99.9%	N/A
n-Propylbenzene	99.9%	N/A	
Bromobenzene	99.9%	N/A	
1,1,2,2-Tetrachloroethane	99.9%	N/A	
1,3,5-Trimethylbenzene	99.9%	N/A	
2-Chlorotoluene	99.9%	N/A	

Performance Summary Con'd

Contaminant Type	Contaminants Filtered	Phoenix Gravity Carbon Filter Cartridge Testing results (%)	POSTreat Steel Fluoride Reduction Add-on Cartridge
Volatile Organic Contaminants	1,2,3-Trichloropropane	99.9%	N/A
	4-Chlorotoluene	99.9%	N/A
	tert-Butylbenzene	99.9%	N/A
	1,2,4-Trimethylbenzene	99.9%	N/A
	sec-Butylbenzene	99.9%	N/A
	4-Isopropyltoluene	99.9%	N/A
	1,3-Dichlorobenzene	99.9%	N/A
	1,4-Dischlorobenzene	99.9%	N/A
	n-Butylbenzene	99.9%	N/A
	1,2-Dichlorobenzene	99.9%	N/A
Microbiological	Bacteria	>99.999%	N/A
	Rotavirus (Virus)	>99.9%	N/A
	Cryptosporium (Cysts)	>99.999%	N/A
	E. Coli	>99.999%	N/A

Performance Summary for FluoRid media

Contaminant Type	Contaminants Filtered	FluoRid media Test results (%)
Metal	Fluoride	>95%



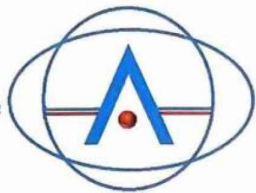
PHOENIX
GRAVITY

Third-party Lab Reports
Carbon Filter Cartridge
PFOA and PFOS

Atom Testing Laboratory

A procedure to prove the existence
Accreditation: NABL(ISO/IEC 17025:2017)

#B-376,9th Cross, Ring Road, Peenya 1st Stage, Peenya Industrial Estate,
Bangalore - 560 058 Phone : 080-42021842 E-mail : atomprocedure@gmail.com



Analytical Report

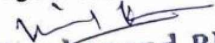
Perfluorooctanic acid (PFOA) and
Perfluorooctanesulfonate (PFOS)
Data for Rama Water Filter.

Filter Model	CARBON GRAVITY FILTER
Product Code	PHOENIX GRAVITY FILTER
Batch Number	RMU1023
Report Number	2312042
Report Date	December 08, 2023
Sample Details	210mm L X 70mm OD
Flow rate	3-5 LPH
Customer Name	RAMA PURE WATER #196, East Coast Road, Injambakkam, Chennai, Tamilnadu - 600115
Date of Reporting	08-12-2023

Testing Methodology and Quality Standards Overview

1. The test results presented were obtained using a single filter. For systems utilizing two filters, the capacity may be doubled.
2. The testing was carried out under controlled conditions in an ISO/9000:2015 & ISO 17025:2017 accredited laboratory.
3. Flushing time:
The system/unit is flushed in accordance with the manufactures instructions using test water. The system is challenged using appropriate influent challenge water.
4. Test Run: 50% ON / 50% OFF cycle.
5. Methods
 - As per the Standard guidelines of NSF 53 AND NSF 42
 - Test methods followed as per APHA 22ND EDITION

Page 1 of 2


Vivekanand Bhat
General Manager

Authorised Signatory

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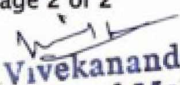


Analytical Report

- Test methods followed as per AOAC 20TH EDITION
 - Test methods followed as per NSF/ANSI53 -2020 INFORMATIVE Annex 5
 - Test methods followed as per EPA guidelines
6. Test water to be analyzed for perfluorooctanic acid (PFOA) and Perfluorooctanesulfonate (PFOS) are directly injected and then analyzed by liquid chromatography triple quadrupole mass spectroscopy LC/MS/MS in electrospray negative mode. Method sensitivity is 10 ng/L
7. Prepared the standard and samples solution as per NSF/ANSI53 -2020

Contaminant	Liters Tested as of 07/12/23	Influent Challenge Concentration Before Filtration (ug/L)	Effluent Concentration After Filtration (ug/L)	Maximum Allowable Effluent Concentration (ug/L)	Testing Status
PFOA	0	0.5	<0.005		Passed
PFOS	0	1	<0.005		Passed
PFOA+PFOS	0	1.5	<0.005	0.02	Passed
PFOA	250	0.5	<0.005		Passed
PFOS	250	1	<0.005		Passed
PFOA+PFOS	250	1.5	<0.005	0.02	Passed
PFOA	500	0.5	<0.005		Passed
PFOS	500	1	<0.005		Passed
PFOA+PFOS	500	1.5	<0.005	0.02	Passed
PFOA	1000	0.5	<0.005		Passed
PFOS	1000	1	<0.005		Passed
PFOA+PFOS	1000	1.5	<0.005	0.02	Passed
PFOA	1500	0.5	<0.005		Passed
PFOS	1500	1	<0.005		Passed
PFOA+PFOS	1500	1.5	<0.005	0.02	Passed

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General Manager

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Third-party Lab Reports
Carbon Filter Cartridge
Heavy Metals

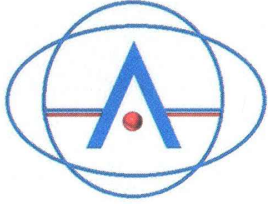
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Analytical Report

REPORT ISSUED TO: RAMA PURE WATER PVT LTD

Date: 20112023

Customer Address: #196, East Coast Road, Injambakkam, Chennai, Tamilnadu - 600115

Report Number: 2311159

Test Data Summary :

Sample Name	: CARBON GRAVITY FILTER
Product Code	: PHOENIX GRAVITY FILTER
Batch Number	: RMU1023
Sample Details	: 210mm L X 70mm OD
Capacity Of Block	: More than 4000L
Flow Rate	: 3-5 LPH

Flushing time:

The system/unit is flushed in accordance with the manufactures instructions using test water.
The system is challenged using appropriate influent challenge water.

Test Run: 50% ON / 50% OFF cycle.

Instruments used for the testing:

- ICPMS: Inductively Coupled Plasma Mass Spectrophotometer for Heavy Metals.

Methods

- As per the Standard guidelines of NSF 53 AND NSF 42
- Test methods followed as per APHA 22ND EDITION
- Test methods followed as per AOAC 20TH EDITION
- Test methods followed as per EPA guidelines.
- Microbiology as per the test methods of NSF PROTOCOL

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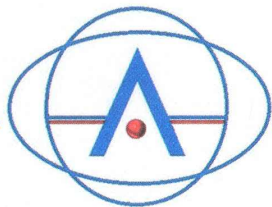

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General Manager
Authorised Signatory

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Analytical Report

Results

Parameters	General Test Water	Target
pH	7.0 to 7.68	6.5 to 8.5
Temperature	20.0°C to 23.5°C	20.5°C
TDS	200 to 400 mg/L	50-500 mg/L
Turbidity	1 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	2.0 to 3.0 mg/L	2 to 5 mg/L

Table 2: - Challenge Water Properties

Parameters	Influent Challenge Water	Target
pH	8.5-9.3	8.5 to 9.5
Temperature	18.5-21.3°C	20.5°C

Table 3: - Input Water Properties

TDS	1250-1658 mg/L	1250-1700 mg/L
Turbidity	3 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	10 to 15mg/L	10 to 15 mg/L

Chemical Test Reports

Heavy Metal Contaminants, µg/L

Element	Input Concentration	Output Concentration	% Reduction
Aluminum	200	<2	99.9 +
Antimony	21	<0.5	99.9 +
Arsenic	200	<0.5	99.9 +
Beryllium	200	<0.2	99.9 +
Bismuth	50	0.3	99.43
Boron	20	<1	99.9 +
Barium	20	<1	99.9 +
Cadmium	20	<0.2	99.9 +
Chromium	200	7.2	97.21
Copper	2000	40.8	97.96
Iron	1500	25.9	98.35
Lead	150	9.0	94.00
Manganese	500	<0.5	99.9 +
Mercury	10	<0.1	99.9 +
Nickel	100	<0.5	99.9 +
Selenium	100	<0.5	99.9 +
Zinc	150	26.1	82.60

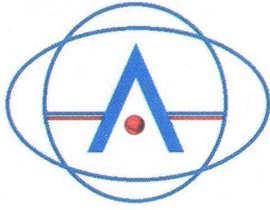
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Analytical Report

Disinfectant and Inorganic Non-Metallic Contaminants in mg/L

Element	Input Concentration	Output Concentration	% Reduction
Chloramines	3.02	<0.1	99.9+
Free Chlorine	2.0	<0.1	99.9+
Chloride	236	10	98.2+

Inorganic Non-Metallic Contaminants in mg/L

Drinking Water Containment Tested	Influent Water Concentration in µg/L	Filter Element Effluent Concentration in µg/L	% Reduction
Nitrates	42	0.3	99.0
Nitrites	3.8	<0.1	99.9 +
Fluoride	8000	1960	75.5



Fig 1: - Candle

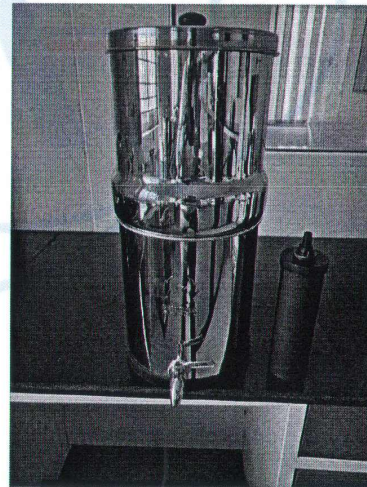


Fig 2: - Filtering Unit

CONCLUSION:

The Filter Element meets the requirements for the Chemical Reduction NSF Protocol Passed.



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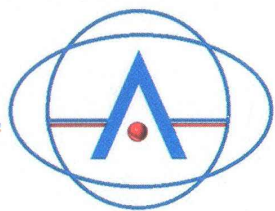
Third-party Lab Reports
Carbon Filter Cartridge
Pharmaceuticals, VOCs

Atom Testing Laboratory

A procedure to prove the existence

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Analytical Report

REPORT ISSUED TO: RAMA PURE WATER PVT LTD

Date: 20112023

Customer Address: #196, East Coast Road, Injambakkam, Chennai, Tamilnadu - 600115

Report Number: 2311160

Test Data Summary :

Sample Name : CARBON GRAVITY FILTER
Product Code : PHOENIX GRAVITY FILTER
Batch Number : RMU1023
Sample Details : 210mm L X 70mm OD
Capacity Of Block : More than 4000L
Flow Rate : 3-5 LPH

Flushing time:

The system/unit is flushed in accordance with the manufactures instructions using test water.
The system is challenged using appropriate influent challenge water.

Test Run: 50% ON / 50% OFF cycle.

Instruments used for the testing:

• GCMSMS: Gas chromatography with Mass Spectroscopy for the evaluation of Pesticides Polyaromatic hydrocarbons, Polychlorinated biphenyls and Volatile Organic Compounds.

Methods

- As per the Standard guidelines of NSF 53 AND NSF 42
- Test methods followed as per APHA 22ND EDITION
- Test methods followed as per AOAC 20TH EDITION
- Test methods followed as per EPA guidelines.
- Microbiology as per the test methods of NSF PROTOCOL

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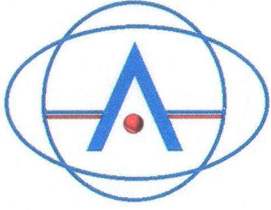

Vivekanand Bhat
General Manager
Authorised Signatory

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Analytical Report

Results

Parameters	General Test Water	Target
pH	7.0 to 7.68	6.5 to 8.5
Temperature	20.0°C to 23.5°C	20.5°C
TDS	200 to 400 mg/L	50-500 mg/L
Turbidity	1 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	2.0 to 3.0 mg/L	2 to 5 mg/L

Table 2: - Challenge Water Properties

Parameters	Influent Challenge Water	Target
pH	8.5-9.3	8.5 to 9.5
Temperature	18.5-21.3°C	20.5°C

Table 3: - Input Water Properties

TDS	1250-1658 mg/L	1250-1700 mg/L
Turbidity	3 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	10 to 15mg/L	10 to 15 mg/L

Pharmaceutical Drugs Contaminants in µg/L

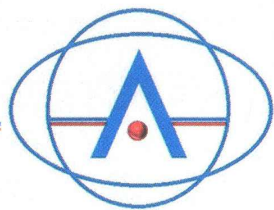
Drinking Water Containment Tested	Influent Water Concentration in µg/L	Filter Element Effluent Concentration in µg/L	% Reduction
Caffeine	18.6	<0.1	99.9 +
Bisphenol A	20.2	<0.1	99.9 +

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Analytical Report

Volatile Organic Contaminants $\mu\text{g/L}$ (Considered mainly as a Chloroform)

Drinking Water Contaminant Tested	Influent Water Concentration in $\mu\text{g/L}$	Filter Element Effluent Concentration in $\mu\text{g/L}$	% Reduction
Dichlorodifluoromethane	80.5	<0.5	99.9+
Chloromethane	80.2	<0.5	99.9+
Vinylchloride	80.1	<0.5	99.9+
Bromomethane	80.0	<0.5	99.9+
Chloroethane	80.0	<0.5	99.9+
Trichlorofluoromethane	80.0	<0.5	99.9+
1,1-Dichloroethene	81.0	<0.5	99.9+
Methylene Chloride	80.1	<0.5	99.9+
trans-1,2-Dichloroethene	80.2	<0.5	99.9+
MTBE	80.1	<0.5	99.9+
1,1-Dichloroethane	80.5	<0.5	99.9+
cis-1,2-Dichloroethene	80.2	<0.5	99.9+
2,2-Dichloropropane	80.0	<0.5	99.9+
Bromochloromethane	80.0	<0.5	99.9+
Chloroform	80.0	<0.5	99.9+
Carbon Tetrachloride	80.0	<0.5	99.9+
1,1,1-Trichloroethane	80.0	<0.5	99.9+

1,1-Dichloropropene	80.0	<0.5	99.9+
Benzene	80.0	<0.5	99.9+
1,2-Dichloroethane	80.0	<0.5	99.9+
Trichloroethene	80.2	<0.5	99.9+
Dibromomethane	80.2	<0.5	99.9+
1,2-Dichloropropane	80.1	<0.5	99.9+
Bromodichloromethane	80.0	<0.5	99.9+

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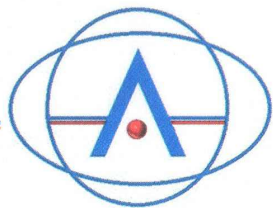

Vivekanand Bhat
General Manager
Authorised Signatory

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Analytical Report

cis-1,3-Dichloropropene	80.0	<0.5	99.9+
Toluene	80.0	<0.5	99.9+
trans-1,3-Dichloropropene	80.0	<0.5	99.9+
Tetrachloroethene	80.0	<0.5	99.9+
1,1,2-Trichloroethane	80.0	<0.5	99.9+
Chlorodibromomethane	80.0	<0.5	99.9+
1,3-Dichloropropane	80.0	<0.5	99.9+
Ethylbenzene	80.0	<0.5	99.9+
Chlorobenzene	80.0	<0.5	99.9+
1,1,1,2-Tetrachloroethane	80.0	<0.5	99.9+
m-Xylene	40.0	<0.5	99.9+
o-Xylene	40.0	<0.5	99.9+
Styrene	80.0	<0.5	99.9+
Bromoform	80.0	<0.5	99.9+
Isopropylbenzene	80.0	<0.5	99.9+
n-Propylbenzene	80.0	<0.5	99.9+
Bromobenzene	80.0	<0.5	99.9+
1,1,2,2-Tetrachloroethane	80.0	<0.5	99.9+
1,3,5-Trimethylbenzene	80.0	<0.5	99.9+

2-Chlorotoluene	80.0	<0.5	99.9+
1,2,3-Trichloropropane	80.0	<0.5	99.9+
4-Chlorotoluene	80.0	<0.5	99.9+
tert-Butylbenzene	80.0	<0.5	99.9+
1,2,4-Trimethylbenzene	80.0	<0.5	99.9+
sec-Butylbenzene	80.0	<0.5	99.9+
4-Isopropyltoluene	80.0	<0.5	99.9+
1,3-Dichlorobenzene	80.0	<0.5	99.9+
1,4-Dichlorobenzene	80.0	<0.5	99.9+
n-Butylbenzene	80.0	<0.5	99.9+
1,2-Dichlorobenzene	80.0	<0.5	99.9+

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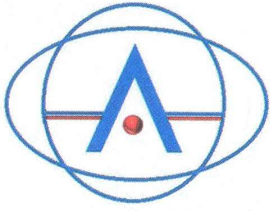

Vivekanand Bhat
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Analytical Report




Fig 1: - Candle



Fig 2: - Filtering Unit

CONCLUSION:

The Filter Element meets the requirements for the Volatile Organic Compounds Reduction NSF Protocol Passed.


Vivekanand Bhat
General Manager
Authorised Signatory



PHOENIX
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Third-party Lab Reports
Carbon Filter Cartridge
Microbiological

Atom Testing Laboratory

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Analytical Report

REPORT ISSUED TO: RAMA PURE WATER PVT LTD

Date: 20112023

Customer Address: #196, East Coast Road, Injambakkam, Chennai, Tamilnadu - 600115

Report Number: 2311162

Test Data Summary :

Sample Name	: CARBON GRAVITY FILTER
Product Code	: PHOENIX GRAVITY FILTER
Batch Number	: RMU1023
Sample Details	: 210mm L X 70mm OD
Capacity Of Block	: More than 4000L
Flow Rate	: 3-5 LPH

Flushing time:


**The system/unit is flushed in accordance with the manufactures instructions using test water.
The system is challenged using appropriate influent challenge water.**

Test Run: 50% ON / 50% OFF cycle.

Methods

- **As per the Standard guidelines of NSF 53 AND NSF 42**
- **Test methods followed as per APHA 22ND EDITION**
- **Test methods followed as per AOAC 20TH EDITION**
- **Test methods followed as per EPA guidelines.**
- **Microbiology as per the test methods of NSF PROTOCOL**

Page 1 of 5


Vivekanand Bhat
General Manager - Quality
Authorised Signatory

Atom Testing Laboratory

A procedure to prove the existence
Accreditation: NABL(ISO/IEC 17025:2017)

#B-376,9th Cross, Ring Road, Peenya 1st Stage, Peenya Industrial Estate,
Bangalore - 560 058 Phone : 080-42021842 E-mail : atomprocedure@gmail.com



Analytical Report

MICROBIOLOGICAL TEST REPORT

PROCEDURE

Flushed the filter element with approximately 1 gallon of sterile water. Prepared 20 gallons of general test water daily for 6 consecutive days with Klebsiella at a concentration of $10^6/L$, Rotavirus at $10^4/L$, and microspheres at $10^6/L$. Two days of stagnation. Prepared 20 gallons of challenge water for the following 4 days without adding the micro-organisms and two additional days of stagnation. Table 1 and 2 summarize the general test and challenge water properties. Passed 20 gallons of the general test water through the filter element per day, every day for the first 6 days. Collected the effluent water and analyzed the filtered water for micro-organisms following the Standard Methods of Analysis of Water 21st Edition, methods SM 9222-D (bacteria); SM 9510-B (virus); SM9711-B (cyst).

Left the filter system in stagnation for the following 2 days, then added 20 gallons per day of the challenge water and analyzed the filtered water for micro-organisms following the Standard Methods of Analysis of Water 21st Edition, methods SM 9222-D (bacteria); SM 9510-B (virus); SM9711-B (cyst). The results are summarized in Table 3, 4, and 5 below.

RESULTS

Parameters	General Test Water	Target
pH	7.0 to 7.68	6.5 to 8.5
Temperature	20.0°C to 23.5°C	20.5°C
TDS	200 to 400 mg/L	50-500 mg/L
Turbidity	1 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	2.0 to 3.0 mg/L	2 to 5 mg/L

Table 2: - Challenge Water Properties

Parameters	Influent Challenge Water	Target
pH	8.5-9.3	8.5 to 9.5
Temperature	18.5-21.3°C	20.5°C

Table 3: - Input Water Properties

TDS	1250-1658 mg/L	1250-1700 mg/L
Turbidity	3 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	10 to 15mg/L	10 to 15 mg/L


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Bacterial Reduction

Analytical Report

Accumulate Volume	Influent Water Concentration	Filtered Water Concentration	% Reduction	Criteria: Minimum % Reduction: 99.9999
Day 1 (20 gallons)	10 ⁶ /L	<10 CFU/L	99.9999	Passed
Day 2 (40 gallons)	Not Tested	Not Tested	N/A	N/A
Day 3 (60 gallons)	10 ⁶ /L	<10 CFU/L	99.9999	Passed
Day 4 (80 gallons)	Not Tested	Not Tested	N/A	N/A
Day 5 (100 gallons)	Not Tested	Not Tested	N/A	N/A
Day 6 (120 gallons)	10 ⁶ /L	<10 CFU/L	99.9999	Passed
Day 7 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 8 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 9 (140 gallons)	10 ⁶ /L	<10 CFU/L	99.9999	Passed
Day 10 (160 gallons)	10 ⁶ /L	<10 CFU/L	99.9999	Passed
Day 11 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 12 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 13 (180 gallons)	10 ⁶ /L	<10 CFU/L	99.9999	Passed
Day 14 (200 gallons)	10 ⁶ /L	<10 CFU/L	99.9999	Passed

Table 4

Rotavirus (Virus) Test Results

Accumulate Volume	Influent Water Concentration	Filtered Water Concentration	% Reduction	Criteria: Minimum % Reduction: 99.99
Day 1 (20 gallons)	10 ⁴ /L	<10 PFU/L	99.99	Passed
Day 2 (40 gallons)	Not Tested	Not Tested	N/A	N/A
Day 3 (60 gallons)	10 ⁴ /L	<10 PFU/L	99.99	Passed
Day 4 (80 gallons)	Not Tested	Not Tested	N/A	N/A
Day 5 (100 gallons)	Not Tested	Not Tested	N/A	N/A
Day 6 (120 gallons)	10 ⁴ /L	<10 PFU/L	99.99	Passed
Day 7 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 8 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 9 (140 gallons)	10 ⁴ /L	<10 PFU/L	99.99	Passed
Day 10 (160 gallons)	10 ⁴ /L	<10 PFU/L	99.99	Passed
Day 11 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A

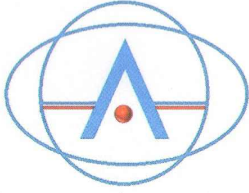

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Analytical Report

Day 12 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 13 (180 gallons)	10 ⁴ /L	<10 PFU/L	99.99	Passed
Day 14 (200 gallons)	10 ⁴ /L	<10 PFU/L	99.99	Passed

Table 5

Microspheres (Cryptosporium) Test Results

Accumulate Volume	Influent Water Concentration	Filtered Water Concentration	% Reduction	Criteria: Minimum % Reduction: 99.99
Day 1 (20 gallons)	10 ⁶ /L	<10 oocysts/L	99.99	Passed
Day 2 (40 gallons)	Not Tested	Not Tested	N/A	N/A
Day 3 (60 gallons)	10 ⁶ /L	<10 oocysts/L	99.99	Passed
Day 4 (80 gallons)	Not Tested	Not Tested	N/A	N/A
Day 5 (100 gallons)	Not Tested	Not Tested	N/A	N/A
Day 6 (120 gallons)	10 ⁶ /L	<10 oocysts/L	99.99	Passed

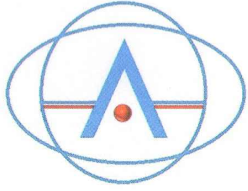
Day 7 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 8 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 9 (140 gallons)	10 ⁶ /L	<10 oocysts/L	99.99	Passed
Day 10 (160 gallons)	10 ⁶ /L	<10 oocysts/L	99.99	Passed
Day 11 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 12 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 13 (180 gallons)	10 ⁶ /L	<10 oocysts/L	99.99	Passed
Day 14 (200 gallons)	10 ⁶ /L	<10 oocysts/L	99.99	Passed


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Analytical Report



Fig 1: - Candle



Fig 2: - Filtering Unit

CONCLUSION:

The Filter Element meets the requirements for the Microbiological Reduction NSF Protocol P231 Passed.



PHOENIX
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Third-party Lab Reports
Carbon Filter Cartridge

Environmental Monitoring Service

Testing and research laboratory for water, soil and food products

Aurobrindavan, Auroville, T.N., India - 605101

Phone: 91-0413-2964096, 9786620685

E-mail: ems@auroville.org.in

Test Report

Customer name: Rama Pure Water P.
Ltd.,
Nature of sample: Phoenix Carbon Filter

Analysis started: 22/02/2023
Analysis completed: Mention below
Sample collected: By lab person
Lab ID: 049

Objective: To find out efficiency of the water filters 1 and 2 for the removal of the chlorine, lead and E. coli.

Procedure: Filters were conditioned by passing 10 L tap water and checked for flow rate before trial started.

Chemical parameters:

Tap water having TDS 178 mg/l and pH 6.7 was used. Spiked concentration for chlorine and lead in the table.

Microbiological Parameter:

The stabilized tap water was spiked with E. coli more than 1 million/100 ml, after passing spike water for 10 minutes samples were collected and tested for removal rate.

Both chemical and microbiological tests are run separately

Filters ID: Sl. No.1 - PCC8/FX20230106, Sl. No. 2 - PCC8/FX20230107.

Sl. No.	Sample ID	Flow rate L/hr.	Removal %		
			Free Cl ⁻	Lead (as Pb)	E. coli
50 L (23-02-2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
1	1	5.0	99.9	99.9	99.9998
2	2	5.6	99.9	99.9	99.9998
500 L (03-03-2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
3	1	5.0	99.9	99.9	99.9996
4	2	5.6	99.9	99.9	99.9994
1000 L (18-03-2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
5	1	3.6	99.9	99.9	99.9997
6	2	3.9	99.9	99.9	99.9998
2000 L (08-04-2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
7	1	3.9	99.9	99.9	99.9998
8	2	4.1	99.9	99.9	99.9992
3000 L (04/05/2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
9	1	3.6	99.9	99.9	99.79
10	2	3.9	99.9	99.9	99.93
4000 L (07/07/2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
11	1	3.5	99.9	99.9	-
12	2	3.6	99.9	99.9	-

5000 L (08/08/2023) Spike free chlorine: 15 mg/L & lead 1.0 mg/L					
13	1	3.4	99.9	99.9	-
14	2	3.3	99.9	99.9	-

6000 L (10/10/2023) Spike free chlorine: 15 mg/L & lead 1.0 mg/L					
13	1	3.3	96.3	96.1	-
14	2	3.2	97.1	95.5	-

Method of testing:

Free Chlorine - APHA 20, 4500-CL

Lead - APHA 20, 3111-Pb

E.coli - IS-15185:20021 ISO -9308-1:2000

Analyst 

Lab executive 





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Third-party Lab Reports
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Environmental Monitoring Service

Testing and research laboratory for water, soil and food products

Aurobrindavan, Auroville, T.N., India - 605101

Phone: 91-0413-2964096, 9786620685

E-mail: ems@auroville.org.in

Test Report

Customer name: Rama Water Filters

Nature of sample: Water

Sample ID: Filter PTS - AA

Analysis started: 05/11/2021

Analysis completed: 30/12/2021

Sample collected: by lab person

Lab ID: 400

Objective: To find out life time of the filter for fluoride removal.

Experiment: Filter was conditioned by passing 10 L tap water and check for flow rate before trial started.

Tap water having TDS 171 mg/l and pH 6.4 is spiked with fluoride to get 2 ppm and passed through the filter, samples were collected in a period of intervals and test for the removal rate of fluoride and flow rate was given below.

Delta P - 30 cm

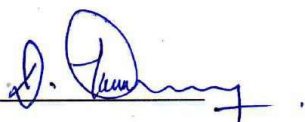
Water passed in liters	Flow rate L/hr	Initial F ⁻ ppm	Residue after filter, ppm	Removal %
250	2.6	2.0	< 0.1	> 95
500	2.8	2.0	< 0.1	> 95
750	2.6	2.0	< 0.1	> 95
1000	2.9	2.0	< 0.1	> 95

Delta P - 60 cm (This testing after 1000-Litres has been accelerated to speed up the testing time)

Water passed in liters	Flow rate L/hr	Initial F ⁻ ppm	Residue after filter, ppm	Removal %
1250	3.9	2.0	0.13	93.5
1500	4.1	2.0	0.17	91.6
1750	3.7	2.0	0.31	84.3
2000	3.8	2.0	0.44	78.2

Method of testing for Fluoride - 4500-F-.C, APHA 23rd 2017

Analyst



Lab executive





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WQA Certificate

Water Quality Association Gold Seal Certificate

Rama Pure Water Pvt. Ltd.

196, East Coast Road, Chinnadi Kuppam, Injambakkam
Kotivakkam, Tamil Nadu India

Facility: Rama Pure Water Pvt Ltd

Certification Date: May 10, 2022

Authorized By: *Caren L. Settler*

Caren L. Settler
Process Improvement Manager

Water Quality Association
2375 Cabot Drive
Lisle, IL 60532, USA



Products are evaluated according to Product Certification Scheme Type 5, as defined in ISO/IEC 17067 (current version).
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