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## MICROCYSTIN LR REDUCTION TEST REPORT

Report # 14-227-Microcystin LR Reduction Test (ProOne G2.0 Filter System)

Customer Name: ProPur Water Purification Systems

Report Date: August 16, 2014

### EXECUTIVE SUMMARY

Five gallons of tap water were spiked with Microcystin LR to obtain a final concentration of 10 µg/L, the spiked tap water was filtered through the ProOne G2.0 filter system and tested; the Microcystin in the tap water was reduced by at least 99.0%.

### INTRODUCTION

Five gallons of tap water were spiked with Microcystin LR to obtain a final concentration of 10 µg/L, the spiked tap water was filtered through the ProOne G2.0 filter system; the spiked solution and the filtered solution were tested a HPLC/DAD method; the Microcystin in the tap water was reduced by at least 99.0%.

### REAGENTS AND LAB EQUIPMENT

ProOne G2.0 Filter System

Microcystin ALX-350-012-C500 Enzo Life Sciences, Inc. lot 02211428. Standard Grade (99.99%)

Agilent HPLC 1200 DAD System with ChemStation data system.

Agilent Zorbax Eclipse XDB-C18 ODSR 993967-902 column 150 mm lengths, 4.6 mm diameter, 1.8 µm particle size.

Micro syringes and type A glassware necessary to perform the method for drinking water analysis.

### PROCEDURE

Five gallons of tap water were spiked with 190 µg of Microcystin to obtain a final concentration of 10 µg/L. The solution was filtered through ProOne G2.0 filter system; the spiked solution and the filtered solution were tested using HPLC/DAD method. The results are summarized in Tables 1 and 2 below.

### RESULTS

Table 1  
Spiked Tap Water Properties

Parameter	Spiked Tap Water	Target
pH	7.55	7.00 to 8.00
TDS	450 mg/L	200 to 500 mg/L
Temperature	21.5 °C	20 ? 2.5°C
Turbidity	0.75 NTU	< 1 Nephelometric Turbidity Units
Free Chlorine	0.25 mg/L	0.25 to 2.0 mg/L
Microcystin-LR	10.2 µg/L	10 µg/L

Table 2  
Filtered Water Results

Parameter Tested	ProOne G2.0 Filtered Water Result	% Reduction
Microcystin-LR	<0.1 µg/L	99.0 %

### CONCLUSION

The ProOne G2.0 filter reduced the Microcystin LR concentration in the tap water by at least 99.0 %.

**Jaime A. Young**

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Lab Director

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The removal/reduction of contaminants or other substances that maybe present in your water supply may vary depending on its content. The contaminants or other substances removed or reduced are not necessarily present in all users' water. Some contaminants maybe more easily filtered than others. Percentage of reductions will vary from approximately 50% to 95% over the life of the filter based on the level of contaminant(s) found in your water supply. Testing was performed under standard laboratory conditions. Actual performance may vary.