

Test Report

LAB REPORT ON GLACIER DRINKING WATER DISTILLER

Test conducted by the independent laboratory of Robb & Moody Chemists Inc. in Richmond, VA..

CERTIFICATE OF ANALYSIS (Analysis No. 86-0594, Lab No. 836315)

The Glacier distiller was submitted to this laboratory to determine both its capability and capacity to remove minerals, non-toxic and toxic metals (listed as hazardous metals by USEPA), tri-halomethanes (THM's), pesticides and various other organic and inorganic substances from water supplies. Hopewell City Water was used as the base diluent and it was "spiked" with minerals, pesticides and THM'S. Measured amounts of spikes were prepared with higher than normal concentrations of contaminants in order to evaluate unit to its ultimate capabilities. By spiking with all contaminants during a single test, it was felt that distilling unit would be asked to perform under the most stringent conditions (gross contamination) and results obtained therefore would serve to indicate the potential that this unit actually possesses for removal of contaminants.

Even under the worst possible conditions that could be produced, the unit performed remarkably well, removing the greater portion of contamination that had been applied. If the unit had been tested using single groups of contaminants, such as THM's only, pesticides only, etc. based on the information listed below, it would be expected that unit would remove contaminants to an even greater degree.

The Hopewell City Water was not analyzed prior to spiking. This is a normal municipal supply, low in mineral content and we felt nothing would be gained by analysis of this supply prior to spiking.

It is the opinion of this laboratory that the Glacier distiller performed well in both capability and capacity to remove minerals, non-toxic and toxic metals, THM'S, pesticides and various other inorganic and organic substances from water supplies.

"Spiked" Hopewell City Water:

	Before Distillation	After Distillation	Percent Removal
Pesticides			
Endrin	0.247*	0.030	88%
Lindane	0.706	0.008	88%
Toxaphene	0.040	<0.006	>85%
2,4,D	0.129	<0.00001	>99%
2,4,5,TP	0.0326	0.00021	>99%
Ethylenedibromide, EDB	0.380	0.008	98%
Total Alkalinity	19.8	2.0	90%
Bicarbonate Alkalinity	19.8	2.0	90%
Total Dissolved Solids	821.5	1.7	>99%
Flouride	1.0	0.01	>99%
Chloride	266.0	2.7	>99%
Sodium	160.0	1.1	99%
Calcium	19.0	2.1	89%
Magnesium	2.6	0.38	85%
Nitrate	2.32	<0.05	>98%
Aluminum	0.5	<0.1	>80%
Iron	0.09	<0.03	>70%

	Before Distillation	After Distillation	Percent Removal
Hazardous Waste Metals			
Arsenic	0.123*	<0.001	>99%
Cadmium	0.095	<0.005	>95%
Chromium	0.55	<0.05	>91%
Lead	0.37	<0.05	>86%
Mercury	0.0104	<0.0005	>95%
Selenium	0.090	0.002	98%
Silver	0.21	<0.01	>95%
Trihalomethanes, THM's			
Chloroform	0.039	0.013	69%
Bromodichloromethane	0.008	0.0013	84%
Dibromochloromethane	0.0036	<0.0002	>95%

* All values expressed in mg/litre

As you can see from the report, we asked that the Glacier distiller be put to the most severe test possible — all contaminants in very high concentrations at one time. The Glacier distiller passed with flying colors!! **To our knowledge, no other company as ever dared to put their distiller to such a strenuous test.** Had these tests been performed individually, we have proved in previous tests that the results would have been even better. The product water from the Glacier distiller is fed thru a post filter to put a final “polish” on the water. The chart below shows the results.

CONTAMINANT	FEED CONCENTRATION (parts per billion)	AVG. PERCENT CHEMICAL REMOVAL (through 1500 gal)
THMs (chloroform)	330	96%
TCE (trichloroethylene)	580	99%
PCE (tetrachlorethylene)	114	97%
EDB (ethylene dibromide)	32	99%
DBCP	26	99%
Carbon tetrachloride	160	99%
Lindane	14	99%
1.1.1-trichloroethane	141	96%
1.2-dichlorethane	133	97%

Tests were performed on water containing measured amounts of chemical contaminants (shown) much greater than is normally found in contaminated drinking water. Test results were slightly better than the rounded off figure shown. Tests conducted by: Swanson Environmental, Inc., Milwaukee, WI and James M. Montgomery Laboratories, Pasadena, CA. Tests were conducted independently. Additional test data available upon request.