



# User-friendly Summary of Test Results for UltraWater

*performed by:*



All test results are certified and performed in NELAP accredited labs to proper EPA Standards.

**Filters for Models :** MELODY H2, ATHENA H2, VESTA H2

**Abstract:** All tests performed were done in manner to replicate the flow rates and contact times of Avivar ionizers with a flow rate of 3 liters per minute. No ionizers, or form of electrolysis was used in testing.

All control water samples, influent samples, were created using DI water then spiked with contaminant samples from ERA Labs (<http://www.eraqc.com>) and scanned separately for accurate starting values without passing through UltraWater filters. All filters were flushed prior to testing using 10 gallons of DI water, than cleared of excess water by air. Prior to collection approximately 2 liters of control water sample was passed through and the effluent samples were collected at this time.

Testing for the sample group of heavy metals, disinfectants, VOCs and anions were performed by Silver State Analytical Laboratories and completed on 12/10/12 using the UltraWater Filtration System. The Anions group was tested with the addition of a Fluoride Shield. Testing for a sample group of PPCP (Pharmaceuticals and Personal Care Products) was performed by MHW on 8/3/12 using the UltraWater Filtration System only. Glyphosate testing was performed by eurofins / Eaton Analytical on 4/14/16 using the UltraWater Filtration System only. Original lab reports available upon request.

## Test Result Definitions:

**Influent** = The levels found in the control sample prior to passing through the UltraWater Filtration System.

**Effluent** = The levels found in the collected sample after passing through the UltraWater Filtration System.

**mg/L** = Milligrams per liter, or Parts Per Million (PPM)

**ug/L** = Nanograms per Liter, or Parts Per Billion (PPB)

**ND** = Nondetectable levels were found in testing. ND is an indicator if the lowest level of accurate reporting based on the equipment's capabilities and the type of tests performed.

*User Friendly Summary of UltraWater Test Results*

Drinking Water Contaminant	Influent Contaminant Level	Unit of Measure	UltraWater Results (Effluent)	Reporting Limits
<b><u>Disinfectants and other Anions</u></b>				
Total Residual Chlorine	1	mg/L	ND	0.25
Free Chlorine	0.33	mg/L	ND	0.25
Fluoride	2.27	mg/L	ND	0.5
Nitrate as N	0.73	mg/L	ND	0.1
Nitrite as N	0	mg/L	ND	0.1
TDS	105	mg/L	100	10
<b><u>Heavy Metals</u></b>				
Aluminum	0.695	mg/L	0.216	0.01
Antimony	0.0313	mg/L	ND	0.001
Arsenic	0.466	mg/L	ND	0.001
Barium	0.932	mg/L	0.00103	0.001
Beryllium	0.00482	mg/L	ND	0.001
Boron	1.69	mg/L	0.722	0.01
Cadmium	0.0471	mg/L	ND	0.001
Chromium	0.179	mg/L	ND	0.001
Chromium VI	0.958	mg/L	ND	0.0005
Copper	0.41	mg/L	ND	0.001
Iron	1.36	mg/L	0.0103	0.01
Lead	0.0988	mg/L	ND	0.001

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*User Friendly Summary of UltraWater Test Results*

Drinking Water Contaminant	Influent Contaminant Level	Unit of Measure	UltraWater Results (Effluent)	Reporting Limits
Manganese	0.0912	mg/L	ND	0.01
Molybdenum	0.0675	mg/L	ND	0.001
Mercury	0.008	mg/L	ND	0.002
Nickle	0.0693	mg/L	ND	0.001
Selenium	0.0909	mg/L	ND	0.001
Silver	0.117	mg/L	ND	0.001
Thalium	0.0071	mg/L	ND	0.001
Vanadium	0.977	mg/L	ND	0.001
Zinc	0.585	mg/L	ND	0.001
<b><u>Volitile Organics</u></b>				
1,1,1,2-Tetrachloethane	201	ug/L	ND	5
1,1,1-Trichlorethane	156	ug/L	ND	5
1,1,2,2-Tetrachloroethane	616	ug/L	ND	5
1,1,2-Trichloroethane	60.2	ug/L	ND	5
1,1-Dichlorethane	397	ug/L	5.43	5
1,1-Dichloroethene	98.5	ug/L	ND	5
1,1-dichloropropene	246	ug/L	ND	5
1,2,3-Trichloropropane	528	ug/L	ND	5
1,2,4-Trichlorobenzene	101	ug/L	ND	5

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<b>Drinking Water Contaminant</b>	<b>Influent Contaminant Level</b>	<b>Unit of Measure</b>	<b>UltraWater Results (Effluent)</b>	<b>Reporting Limits</b>
1,2,4-Trimethylbenzene	192	ug/L	ND	5
1,2-Dichlorobenzene	228	ug/L	ND	5
1,2-Dichloroethane	108	ug/L	ND	5
1,2-Dichloropropane	186	ug/L	ND	5
1,3,5-Trimethylbenzene	387	ug/L	ND	5
1,3-Dichloropropane	275	ug/L	ND	5
1,4-Dichlorobenzene	203	ug/L	ND	5
2,2-Dichloropropane	179	ug/L	ND	5
2-Chlorotoluene	429	ug/L	ND	5
4-Chlorotoluene	94.5	ug/L	ND	5
Benzene	172	ug/L	ND	5
Bromobenzene	59.6	ug/L	ND	5
Carbon Tetrachloride	153	ug/L	ND	5
Chlorobenzene	231	ug/L	ND	5
cis-1,2-dichloroethane	366	ug/L	ND	5
cis-1,3-Dichloropropene	145	ug/L	ND	5
Dibromomethane	156	ug/L	ND	5
Dichlorodifluoromethane	160	ug/L	ND	5
Ethylbenzene	262	ug/L	ND	5
Glyphosate	860	ug/L	ND	6

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Hexachlorobutadine	80.3	ug/L	ND	5
Drinking Water Contaminant	Influent Contaminant Level	Unit of Measure	UltraWater Results (Effluent)	Reporting Limits
Isopropylbenzene	328	ug/L	ND	5
m+p-Xylene	72.5	ug/L	ND	5
Methylene chloride	266	ug/L	ND	5
methyl-t-butyl ether (MTBE)	372	ug/L	5.36	5
Napthalene	124	ug/L	ND	5
n-Propylbenzene	247	ug/L	ND	5
o-Xylene	59.8	ug/L	ND	5
p-isopropyltoluene	124	ug/L	ND	5
Styrene	85.4	ug/L	ND	5
tert-Butylbenzene	318	ug/L	ND	5
Tetrachloroethane	168	ug/L	ND	5
Toluene	265	ug/L	ND	5
trans-1,2-Dichloroethane	186	ug/L	ND	5
trans-1,3-Dichloropropene	205	ug/L	ND	5
Trichloroethane	259	ug/L	ND	5
Vinyl Chloride	136	ug/L	ND	5

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**User Friendly Summary of UltraWater Test Results**

<b>Compounds Action</b>	<b>Compound Name</b>	<b>Influent Compound Level (ng/L)</b>	<b>UltraWater Results</b>	<b>Reporting Limit (ng/L)</b>
<b><u>Hormones</u></b>				
Contraceptive Hormone	EE2 (17 Alpha-ethynylestradiol)	500	ND	5
Estrogenic Hormone	E2 (17 Beta-Estradiol)	380	ND	5
Estrogenic Hormone	Estrone	400	ND	5
Steroid Hormone	Androstenedione	370	ND	5
Steroid Hormone	Norethisterone	600	ND	5
Steroid Hormone	Progesterone	550	ND	5
Steroid Hormone	Testosterone	410	ND	10
<b><u>Over the Counter</u></b>				
Analgesic	Acetaminophene	640	ND	5
Analgesic	Phenazone	530	ND	5
Analgesic-NSAID	Ibuprofen	1800	ND	10
<b><u>Prescription Drugs</u></b>				
Analgesic	Lidocaine	280	ND	5
Analgesic-NSAID	Butalbital	310	ND	5
Anti anxiety	Meprobamate	520	ND	5
Anti Asthmatic	Albuterol	1800	ND	5
Anti Asthmatic	Theophylline	310	ND	10
Anti Convulsant	Primidone	230	ND	5
Anti Inflammatory	Diclofenac	390	ND	5
Anti Inflammatory	Ketoprofen	280	ND	5

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Anti Inflammatory	Ketoprofen	230	ND	5
Anti Inflammatory	Ketorolac	380	ND	5
Anti seizure	Meclofenamic Acid	480	ND	5
Antibiotic	Carbamazepine	480	ND	20
Antibiotic	Azrothromycin	31000	810	5
Antibiotic	Carbadox	360	ND	5
		<b>Influent Compound Level (ng/L)</b>	<b>UltraWater Results</b>	<b>Reporting Limit (ng/L)</b>
Antibiotic	Chloramphenicol	700	ND	10
Antibiotic	Erythromycin	110	ND	10
Antibiotic	Flumequine	270	ND	10
Antibiotic	Lincomycin	1200	ND	10
Antibiotic	Oxolinic acid	84	ND	5
Antibiotic	Trimethoprim	200	ND	5
Anti-cholesterol	Clofibric acid	470	ND	5
Anticoagulant	Warfarin	860	ND	5
Antidepressant	Fluoxetine (Prozac)	470	ND	10
Anti-Seizure	Dilantin	2400	ND	20
Beta Blocker	Atenolol	1000	ND	5
Beta Blocker	Lopressor	3400	ND	20
Blood thinner	Pentoxifylline	490	ND	5
Calcium Blocker	Nifedipine	1600	87	20

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Enzyme	Chloridazon	120	ND	5
H2 Blocker	Cimetidine	4400	ND	5
Heart Medication	Dehydronifedipine	230	ND	5
Lipid Regulator	Bezafibrate	1200	ND	5
Lipid Regulator	Gemfibrozil	450	ND	5
Muscle Relaxant	Carisoprodol	540	ND	5
Sulfa Antibiotic	Sulfachloropyridazine	3400	ND	5
Sulfa Antibiotic	Sulfadimethoxine	550	ND	5
Sulfa Antibiotic	Sulfamerazine	170	ND	5
Sulfa Antibiotic	Sulfadiazine	630	ND	5
Sulfa Antibiotic	Sulfamethazine	200	ND	5
		<b>Influent Compound Level (ng/L)</b>	<b>UltraWater Results</b>	<b>Reporting Limit (ng/L)</b>
Sulfa Antibiotic	Sulfamethizole	270	ND	5
Sulfa Antibiotic	Sulfathiazole	200	ND	5
Sulfa Antibiotic	Sulfamethoxazole	290	ND	5
Triazide	Bendroflumethiazide	880	ND	5
Valium- Antianxiety	Diazepam	620	ND	5
<b><u>Stimulants</u></b>				
Caffeine Degradate	1,7-dimethylxanthine	700	ND	5
Caffeine Degradate	Theobromine	560	ND	5
Nicotine Degradate	Cotinine	1900	ND	10
Stimulant	Caffeine	780	ND	5

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<b>Analgesic-NSAID</b>	<b>Naproxen</b>	240	<b>ND</b>	10
<b><u>Personal Care Products</u></b>				
<b>Antibacterial</b>	<b>Triclosan</b>	1000	<b>ND</b>	10
<b>Mosquito Repellant</b>	<b>DEET</b>	340	<b>ND</b>	2
<b><u>Preservatives</u></b>				
<b>Preservative</b>	<b>Butylparaben</b>	730	<b>ND</b>	5
<b>Preservative</b>	<b>Ethylparaben</b>	2100	<b>ND</b>	20
<b>Preservative</b>	<b>Isobutylparaben</b>	780	<b>ND</b>	5
<b>Preservative</b>	<b>Methylparaben</b>	1400	<b>ND</b>	20
<b>Preservative</b>	<b>Propylparaben</b>	270	<b>ND</b>	5
<b><u>Pesticides/Herbicides</u></b>				
<b>Herbicide</b>	<b>2,4-D</b>	250	<b>ND</b>	5
<b>Herbicide</b>	<b>Bromacil</b>	480	<b>ND</b>	5
<b>Herbicide</b>	<b>Chlorotoluron</b>	440	<b>ND</b>	5
<b>Herbicide</b>	<b>Diuron</b>	940	<b>ND</b>	5
<b>Herbicide</b>	<b>Isoproturon</b>	2000	<b>ND</b>	100
<b>Herbicide</b>	<b>Linuron</b>	420	<b>ND</b>	5
		<b>Influent</b>		
<b>Compounds Action</b>	<b>Compound Name</b>	<b>Compound Level (ng/L)</b>	<b>UltraWater Results</b>	<b>Reporting Limit (ng/L)</b>
<b>Herbicide</b>	<b>Metazachlor</b>	520	<b>ND</b>	5
<b>Pesticide</b>	<b>Quinoline</b>	250	<b>ND</b>	5
<b>Triazine Herbicide</b>	<b>Atrazine</b>	390	<b>ND</b>	5
<b>Triazine Herbicide</b>	<b>Cyanazine</b>	16	<b>ND</b>	5

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Triazine Degradate	DACT (Diaminochlorotriazine)	260	ND	5
Triazine Degradate	DEA (Deethylatrazine)	120	ND	5
Triazine Degradate	DIA (Deisopropylatrazine)	250	ND	5
Triazine Herbicide	Propazine	340	ND	5
Triazine Herbicide	Simazine	120	ND	5
<b><u>Wastewater Indicators</u></b>				
Flame Retardant	TCEP	29	ND	5
Flame Retardant	TCPP	440	ND	5
Flame Retardant	TDCPP	1000	ND	5
Plasticizer	BPA (Bis Phenol A)	270	ND	10
Sugar Substitute	Acesulfame-K	1300	ND	20
Sugar Substitute	Sucralose	15000	ND	100
Surfactant	4-nonylphenol	710	ND	100
Surfactant	4-tert-octylphenol	400	ND	50
X-ray Contrast agent	Iohexol (Iohexal)	240	ND	10
X-ray Contrast agent	Iopromide	290	ND	5

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