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Sample Type: Water
Date Received: Nov 02, 2005
Date Analysed: Nov 02-09, 2005
Date Reported: Nov 10, 2005

Entech, an independent water testing lab, has tested two separate Jupiter Melody water ionizers using both "before" and "after" water quality samples. In this test, an ionization cell, combined with the biostone carbon filter media, is shown to effectively reduce the presence of both lead and arsenic, two toxins prevously thought to be uneffected by water ionizers. This test also shows a reduction of sodium.

| Parameter | Units | "Before" Control Sample | "After" Jupiter Melody | "After" Jupiter Melody Duplicate |
|---|---|---|---|---|
| Nitrate | g/mL | 76.58 | 1.25 | 1.27 |
| Nitrite | g/mL | 3.31 | <0.02 | <0.02 |
| Nitrate(as N) | g/mL | 17.29 | 0.28 | 0.29 |
| Nitrite(as N) | g/mL | 1 | <0.006 | <0.006 |
| Ortho Phosphate | g/mL | 12.21 | <0.05 | <0.05 |
| Fluoride | g/mL | 4.4 | 0.59 | 0.59 |
| Carbonate | g/mL | - | 9 | 10 |
| Bicarbonate | g/mL | - | 94 | 93 |
| Total Anions | meq/L | - | 3 | 3 |
| Calcium | g/mL | 23.5 | 41 | 41 |
| Magnesium | g/mL | 4.4 | 9.23 | 9.24 |
| Sodium | g/mL | 21.97 | 14 | 14 |
| Potassium | g/mL | 13.04 | 2.07 | 2.08 |
| Aluminum | g/mL | 0.84 | <0.05 | <0.05 |
| Lead | g/mL | 0.69 | <0.004 | <0.004 |
| Iron | g/mL | 1.52 | 0.01 | 0.01 |
| Manganese | g/mL | 0.34 | 0.002 | 0.001 |
| Zinc | g/mL | 5.313 | 0.003 | 0.003 |
| Total Cations | meq/L | - | 3 | 3 |

| | | | | |
|---|---|---|---|---|
| Ion Balance | % Difference | - | 7 | 6 |
| Hardness (CaC03) | g/mL | - | 140 | 140 |
| pH | - | 7.41 | 9.03 | 9.04 |
| Turbidity | NTU | 5.37 | <0.25 | <0.25 |
| Alkalinity (CaC03) | g/mL | 25 | 104 | 104 |
| Colour | TCU | - | <1 | <1 |
| Total Dissolved Solids | g/mL | 308 | 208 | 218 |
| Langelier Index | - | - | 0.83 | 0.84 |
| Conductivity | mhos/cm | 147 | 299 | 292 |
| Ammonia (as N) | g/mL | 1.37 | 0.23 | 0.25 |
| Sulphate | g/mL | 9.97 | 24.68 | 24.55 |

**Jupiter Water Ionizer's Certificate of Analysis - Dissolved Metals - Lead Removal**

In a specific test for dissolved metals, Entech laboratorties, shows the reduction of various metals present in the "before" control sample.

| Parameter | Maximum Detectable Testing Level | "Before" Control Sample | "After" Jupiter Melody | "After" Jupiter Melody Duplicate |
|---|---|---|---|---|
| Aluminum | 30 | 438 | <30 | <30 |
| Antimony | 1 | 0.03 | <1 | <1 |
| Arsenic | 1 | 248 | <1 | <1 |
| Barium | 1 | 819 | 22.2 | 21.5 |
| Beryllium | 0.2 | 102 | <0.2 | <0.2 |
| Boron | 1 | 855 | 25.8 | 25.8 |
| Cadmium | 0.2 | 489 | <0.2 | <0.2 |
| Calcium | 20 | 23500 | 40967 | 40817 |
| Chromium | 10 | 374 | <10 | <10 |
| Cobalt | 2 | 818 | <2 | <2 |
| Copper | 2 | 341 | 2.62 | 2.4 |
| Iron | 5 | 346 | 6.2 | 5.9 |
| Lead | 4 | 209 | <4 | <4 |
| Magnesium | 10 | 4404 | 9226 | 9236 |

| | | | | |
|---|---|---|---|---|
| Manganese | 1 | 139 | 1.1 | 1 |
| Mercury | 0.02 | 3.5 | <0.02 | <0.02 |
| Molybdenum | 7 | 575 | <7 | <7 |
| Nickel | 5 | 463 | <5 | <5 |
| Potassium | 100 | 13040 | 2071 | 2081 |
| Selenium | 1 | 15.7 | <1 | <1 |
| Silver | 1 | 185 | <1 | <1 |
| Sodium | 25 | 21970 | 13779 | 13809 |
| Vanadium | 5 | 1048 | <5 | <5 |
| Zinc | 2 | 273 | 3 | 3 |

Tests used - ICP - AES, CV - AAS, Hy - AAS (< symbol, less than)

**Filtering Common Contaminants Found in Drinking water**

In this test, a specially concocted “brew” containing excessive quantities of every commonly detected dangerous chemical found in drinking as passed through a Jupiter water ionizer. The results show that contaminants were reduced in most cases to levels undetectable by the performing labs.

**Independent Test Laboratories:**

The follow laboratories have been involved with this test of the Jupiter's water ionizer cell technology.

- Seoul Metropolitan Government Institute of Health and Environment, Korea
- Mizutek, USA
- Microbac Laboratories, USA
- Brandywine Science Center

| Contaminant | Standard mg / litre | Result mg / litre |
|---|---|---|
| KmnO4 | 10 | 2.7 |
| Lead | 0.05 | Not Detectible |
| Fluoride | 1.5 | Not Detectible |
| Arsenic | 0.05 | Not Detectible |
| Cyanide | 0.01 | Not Detectible |

| | | |
|---|---|---|
| Mercury | 0.001 | Not Detectible |
| Selenium | 0.01 | Not Detectible |
| Chromium | (6+)0.05 | Not Detectible |
| Cadmium | 0.01 | Not Detectible |
| Phenol | 0.005 | Not Detectible |
| Diazinon | 0.02 | Not Detectible |
| Malathion | 0.25 | Not Detectible |
| Parathion | 0.06 | Not Detectible |
| Fenitrothion | 0.04 | Not Detectible |
| 1,1,1 Trichloroethane | 0.1 | Not Detectible |
| Tetrachloroethylene | 0.03 | Not Detectible |
| Dichloromethane | 0.02 | Not Detectible |
| Benzene | 0.01 | Not Detectible |
| Xylene | 0.5 | Not Detectible |
| 1,1 Dichloroethylene | 0.03 | Not Detectible |
| Carbon Tetrachloride | 0.002 | Not Detectible |
| Methylene Chloride | 25.0ppm | 5.0ppm |
| Nitrate | 10 | 1.82 |
| Iron | 0.3 | <0.02 |
| Manganese | 0.05 | <0.02 |
| Sodium | 20 | 8 |