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HAWAII'S ONLY NATURAL ARTESIAN WATER



BOTTLED WATER QUALITY REPORT - 2017

Hawaiian Springs, LLC

Corporate Address:

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Bottling Plant Address:

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Kea'au, HI 96749

INTRODUCTION

Hawaiian Springs Bottled Water is natural artesian bottled water that meets all federal and state health standards. FDA regulates bottled water as a food product whereas EPA regulates tap water as provided by water utilities. Standards of quality enacted by the FDA for bottled water must be as protective of the public health as EPA's standards (known as Maximum Contaminant Levels) for tap water. Ensuring the safety of the water is our primary objective in providing our product to the consumer.

OUR SOURCE

Natures Gift - Purity of Source: Hawaiian Springs Natural Artesian Water is truly a miracle of nature. Bottled at the source In Kea'au on the Big Island of Hawaii, it brings the bounty of one of the world's finest water exclusively sourced from the most remote eco-system in the world to discerning, health-minded consumers around the globe.

The Hawaiian Island archipelago was formed millions of years ago and spans some 1,500 miles. It is the most isolated on earth, 2,400 miles from the nearest industrial landmass and is surrounded by 10 million square miles of ocean. Formed by volcanic activity, The Big Island is by far the youngest at 400,000 years old and the largest – bigger than all the others combined. It is home to the largest mountain on earth, Mauna Kea measuring 33,476 from the ocean floor. Mauna Loa is a close second and holds the additional claim as the largest volcano in the world. This living island range continues to grow, fascinating visitors with its actively flowing basalt lava. Most importantly, it creates a unique eco-system as its high elevation transforms arctic moisture to bountiful, pure rain and creates a home to thousands of endemic species of flora, fauna and wildlife.

Recently, a US Geological Survey concluded that the waters of Kea'au are among the purest in the world. Hawaiian Springs—proudly bottled at the source; one that is like no other on Earth."

Source water: The Big Island of Hawaii has one of the most prolific rain sources in the world, the slopes feeding the Kea'au aquifer capture almost 200 inches of pure rainwater per year. This translates into 1.38 billion gallons per day, which in less than 2 weeks could provide all the bottled water consumed each year in America!

Arctic moisture traveling thousands of miles on the trade winds, converts to bountiful rain or snow as it hits these mountain slopes replenishing the earth, the sea, and the aquifers 8,000 to 12,000

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feet below. Hawaiian Springs is sourced from these rains and snow, capturing its purity and freshness in every sip."

Traveling downhill, the billions of gallons of pure rainwater that fall on Mauna Loa percolate through nature's ideal filter—13,000 feet of porous lava—for added purity. One of nature's miracles, the porous lava acts like a sieve as it captures much of the rainfall, the balance returned to nature through evaporation or as run off into Hilo Bay.

With minimal human interference or mechanical processing, Hawaiian Springs artesian water is certified to be naturally free of heavy metal, chemical or excessive mineral content. Clear and pure from start to finish, there's nothing complicated about Hawaiian Springs purity."

Source Sustainability:

The entire North East Mauna Loa system, including our aquifer, is recharged by the rain and snow that falls on the slopes of Mauna Loa and Kilauea Volcanoes. Every year up to 200 inches rain fall on these slopes. With an approved sustainable use rating of 744 million gallons per day, the N.E. Mauna Loa system is the most robust on the Island of Hawaii and one of the healthiest in the world. The confined aquifer that provides Hawaiian Springs Natural Artesian Water is a small part of the larger Mauna Loa system on Hawaii Island. A 2010 Hydrogeological study (Hawaiian Springs Well - #3802-06) conservatively estimated that this source replenishes at a rate of 117 million gallons of water per day. Hawaiian Springs bottles less than 16,000 gallons a day of this supply.

HOW BOTTLED WATER IS PREPARED

Our protected source is monitored many times daily to insure the artesian water is safe and of extremely high quality. Bottled at the source, our water is pumped through a sealed delivery system free of human contact. The water is filtered to remove any particulate matter; ultra violet light is applied to insure disinfection, micron-filtered to remove microbiological particles. As a secondary, redundant measure, the water is given Ozone (O₃) disinfection in a very small, computer controlled micro dose – measured in parts per billion. Ozone then dissipates with-in minutes in the sealed bottle and reverts to Oxygen molecules (O₂) leaving the bottled water disinfected, pristine, and with the same chemical properties and taste, as was when it was pumped minutes earlier from the source.

TABLE 1: Hawaiian Springs Typical ANALYSIS

Typical Mineral and Water Properties Analysis	Hawaiian Springs
Calcium	6.4 mg/L
Chloride	4.2 mg/L
Magnesium	3.4 mg/L
Potassium	2.3 mg/L
Silica	43.6 mg/L
Sodium	6.7 mg/L
Sulfate	4.6 mg/L

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Total Dissolved Solids	91 mg/L
Hardness	27.0mg/L CaCO3/L
Conductivity	102 uS/cm
PH	7.8
Sodium per 8 oz. Serving	1.54 mg

OUR COMPANY'S WATER TESTING

Hawaiian Springs water is tested regularly for many hundreds of organic and inorganic chemicals that are regulated by the FDA. Third party EPA registered food laboratories test and confirm our Corporate Quality Assurance water chemistry and Microbiology results weekly and annually. As an extra safeguard, we also test for unregulated contaminants. No contaminants were detected above the FDA's limits in our testing, as demonstrated by Table 2 below. There have been no violations of the FDA Standard of Quality. Furthermore, Hawaiian Springs tests its water to the even more stringent standards set by the International Bottled Water Association (IBWA) SOQ standards.

TABLE 2: *Hawaiian Springs Water Analysis*

Product	Hawaiian Springs Water	FDA or IBWA SOQ
<u>Inorganic Chemicals</u>		Reported in mg/L
Antimony	ND	0.006
Arsenic	ND	0.010
Barium	ND	1.0

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		Reported in mg/L
<u>Inorganic Chemicals Continued</u>	Hawaiian Springs Water	FDA or IBWA SOQ
Beryllium	ND	0.004
Cadmium	ND	0.005
Chromium	0.001	0.05
Cyanide	ND	0.1
Fluoride	ND	2
Lead	ND	0.005
Mercury	ND	0.001
Nickel	ND	0.1
Nitrate-N	0.65	10.0
Nitrite-N	ND	1.0
Total Nitrate/Nitrite	0.65	10.0
Selenium	ND	0.010
Perchlorate	ND	0.002
Thallium	ND	0.002
<u>Disinfectants/DPB</u>		
HAA (5)	ND	0.060
Bromate	0.0025	0.010
Chlorine	ND	0.1
Chloramines Total	ND	4.0
Chlorine dioxide	ND	No Standard
Chlorite	ND	1.00
<u>Secondary Inorganic Parameters</u>		
Aluminum	ND	0.2
Chloride	4.2	250
Copper	ND	1.0
Iron	ND	0.3
Manganese	ND	0.05
Silver	ND	0.025
Sulfate	4.6	250.0
Total Dissolved Solids (TDS)	91	500.0
Zinc	ND	5.0

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		Reported in ug/L
<u>Volatile Organic Chemicals</u>	Hawaiian Springs Water	FDA or IBWA SOQ
1,1,1-Trichloroethane	ND	30
1,1,2-Trichloroethane	ND	3
1,1-Dichloroethylene	ND	2
1,2,4-Trichlorobenzene	ND	9
1,2-Dichloroethane	ND	2
1,2-Dichloropropane	ND	5
Benzene	ND	1
Carbon tetrachloride	ND	5
cis-1,2-Dichloroethylene	ND	70
trans-1,2-Dichloroethylene	ND	100
Ethylbenzene	ND	700
Haloacetic acids, total (HAA5)	ND	60
Methylene chloride (Dichloromethane)	ND	3
Methyl tertiary butyl ether (MTBE)	ND	70
Monochlorobenzene	ND	50
o-Dichlorobenzene	ND	600
p-Dichlorobenzene	ND	75
Naphthalene	ND	300
Styrene	ND	100
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethylene	ND	1
Toluene	ND	1000
Trichloroethylene	ND	1
Vinyl chloride	ND	2
Xylenes (total)	ND	1000
Bromodichloromethane	ND	No standard
Chlorodibromomethane	ND	No standard
Chloroform	ND	No standard
Bromoform	ND	No standard
Total Trihalomethanes	ND	10

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Reported in ug/L		
<u>Semivolatile Organic Chemicals</u>	Hawaiian Springs Water FDA or IBWA SOQ	
Benzo (A)pyrene	ND	0.2
Di(2-ethyhexyl)-adipate	ND	400
Di(2-ethyhexyl)-phthalate	ND	6
Hexachlorobenzene	ND	1
Hexachlorocyclo-pentadiene	ND	50
Total Recoverable Phenolics	ND	1
<u>Synthetic Organic Chemicals</u>	Hawaiian Springs Water FDA or IBWA SOQ	
2,4,5-TP (Silvex)	ND	10
2,4-D (Dichlorophenoxy acetic acid)	ND	70
Alachlor	ND	2
Aldicarb	ND	3
Aldicarb sulfone	ND	3
Aldicarb sulfoxide	ND	4
Atrazine	ND	3
Carbofuran	ND	40
Chlordane	ND	2
Dalapon	ND	200
Dibromochloropropane (DBCP)	ND	0.2
Dinoseb	ND	7
Dioxin (2,3,7,8-TCDD)	ND	30
Diquat	ND	20
Endothall	ND	100
Endrin	ND	2
Ethylene dibromide (EDB)	ND	0.05
Glyphosate	ND	700
Heptachlor	ND	0.4
Heptachlor epoxide "B"	ND	0.2
Lindane (BHC – GAMMA)	ND	0.2
Reported in ug/L		
<u>Synthetic Organic Chemicals Continued</u>	Hawaiian Springs Water FDA or IBWA SOQ	
Methoxychlor	ND	40

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Oxamyl (vydate)	ND	200
Pentachlorophenol	ND	1
Picloram	ND	500
Polychlorinated biphenyls (PCBs)	ND	0.5
Simazine	ND	4
Toxaphene	ND	3
<u>Additional testing</u>	Hawaiian Springs Water	FDA or IBWA SOQ
Asbestos	ND MF/L	7 MFL
Bisphenol-A	ND ug/L	No Standard
Boron	ND mg/L	No standard
Calcium	6.7 mg/L	No Standard
Magnesium	3.4 mg/L	No Standard
Potassium	2.3 mg/L	No Standard
Silica	43.6 mg/L	No Standard
Sodium	6.7 mg/L	No Standard
Surfactants	ND mg/L	No Standard
<u>Water Properties</u>	Hawaiian Springs Water	FDA or IBWA SOQ
Alkalinity	36.3 mgCaCO ₃ /L	No Standard
Color	ND	5 Color Units
Electrical Conductivity	102 uS/cm	No Standard
Hardness as calcium carbonate	30.09 mg/L	No Standard
Odor	ND	3 T.O.N.
'pH (Hydrogen Ion)	7.8	6.5-8.5 pH units
Turbidity	ND	0.5 NTU
<u>Radiological Contaminants</u>	Hawaiian Springs Water	Reported in pCi/L
Gross alpha particle activity	ND	15
Gross beta particle and photon activity	ND	50
Radium 226	ND	No Standard
Radium 228	ND	5
Radon	ND	No Standard
Uranium	ND	0.030
FDA Microbiological Standards		
<u>Microbiological Contaminants</u>	Hawaiian Springs Water Standards are Reported in Colony Forming Units per sample size (CFU)	Standards
Total Coliform	ABSENT - ND	<1 CFU/100 mL

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E. Coli	ABSENT - ND	0 CFU/mL
Heterotrophic Plate Count	<1 CFU/mL at 35 –degrees C	No standard
Mold	<1 CFU/10 mL	No standard
Yeast	<1 CFU/10 mL	No standard

California law requires a reference to FDA's website for recalls:
<http://www.fda.gov/opacom/7alerts.html>

Our product has been thoroughly tested in accordance with Federal, California and International law. Our bottled water is a food product and cannot be sold in California unless it meets the standards established by the U.S. Food and Drug Administration and the California Department of Public Health. The following statements are required under California law:

"Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the United States Food and Drug Administration, Food and Cosmetic Hotline (1-888-723-3366)."

"Some persons may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, including, but not limited to, persons with cancer who are undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly persons, and infants can be particularly at risk from infections. These persons should seek advice about drinking water from their health care providers. The United States Environmental Protection Agency and the Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791)."

"The sources of bottled water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water naturally travels over the surface of the land or through the ground, it can pick up naturally occurring substances as well as substances that are present due to animal and human activity."

Substances that may be present in the source water include any of the following:

(1) Inorganic substances, including, but not limited to, salts, metals, that can be naturally occurring or result from farming, urban storm water runoff, industrial or domestic wastewater discharges, or oil and gas production.

(2) Pesticides and herbicides that may come from a variety of sources, including, but not limited to, agriculture, urban storm water runoff, and residential uses.

(3) Organic substances that are byproducts of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.

(4) Microbial organisms that may come from wildlife, agricultural livestock operations, sewage treatment plants, and septic systems.

(5) Substances with radioactive properties that can be naturally occurring or be the result of oil and gas production and mining activities."

"In order to ensure that bottled water is safe to drink, the United States Food and Drug Administration and the State Department of Public Health prescribe regulations that limit the amount of certain contaminants in water provided by bottled water companies."

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TERMINOLOGY

Statement of Quality (SOQ) – The standard (statement) of quality for bottled water is the highest level of a contaminant that is allowed in a container of bottled water, as established by the United States Food and Drug Administration (FDA) and the California

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Department of Public Health. The standards can be no less protective of public health than the standards for public drinking water, established by the U.S. Environmental Protection Agency (EPA) or the California Department of Public Health.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water, established by the U.S. Environmental Protection Agency (EPA) or the California Department of Public Health. Primary MCLs are set as close to the PHGs as is economically and technologically feasible.

Public Health Goal (PHG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Primary Drinking Water Standard[®] - MCLs for contaminants established by the U.S. Environmental Protection Agency (EPA) or the California Department of Public Health that affect health along with their monitoring and reporting requirements, and water treatment requirements.