

R & A Farms

Water Quality Report – 2019

California Water System (Santa Cruz County) I.D. No. 4400543

*****Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien.*****

R & A Farms has its' own water system. The water system is classified as a "non- transient, non- community water system". As such, we are required to provide this *Water Quality / Consumer Confidence Report* to you, the water user. In 2019, water from the system was tested and compared to the EPA and State drinking water health standards. **Source water supplied to the system met all EPA and State drinking water standards, with the exception of Iron and Manganese (see following page for details).** This brochure reviews 2019's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

Dinking 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 USEPA's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, person who have undergone organ transplants, people with HIV / AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA / Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Your water comes from an on-site water production well sunk approximately 350-feet into an underground source of water. This well pumps water into a 5,000-gallon polyethylene (plastic) storage tank that was installed in January 2016 (replaced a leaking steel tank). A booster pump and pressure tanks provide pressure throughout the water system. The well and storage tank are located on the south side of the property, to the north of Paulsen Road. Please see the notes below regarding drinking water.

The well pump also supplied water for irrigation of nearby farmland, but irrigation ceased in November of 2019.

Sources of drinking water (both tap water and bottled water) include river, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before it is treated include:

- *Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic system, agricultural livestock operations, and wildlife.

- *Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

- *Pesticides and herbicides that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

- *Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.

- *Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agriculture application, and septic systems.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Control Board – Division of Drinking Water (DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DDW regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

WATER QUALITY DATA

The following Table lists all the drinking water contaminants and compounds (analytes) that the source well was tested for, the date of the tests, the results of the tests, and the Maximum Contaminant Level (MCL) for that analyte established by the US EPA or the state of California in parts per million (ppm). For reference, the time equivalent of 1 ppm is 1 second in 11.5 days. The presence of any compound in the water does not necessarily indicate that the water poses a health risk. The State requires monitoring for certain compounds less than once per year because the concentrations of these compounds are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Data prior to March 23, 2015 was gathered by the previous water system operator, and it is presented solely for informational purposes. Weber, Hayes & Associates cannot assure the quality or accuracy of this data.

Note on Iron and Manganese in the water system: Both Iron and Manganese are present in the source well at levels exceeding the secondary MCL. A secondary MCL is a limit that is not based on a health risk, but instead refers to aesthetic qualities in water. In the case of Iron and Manganese, levels exceeding the secondary MCL can result in reddish-brown and dark brown coloration in the water and possible staining on fixtures and washed clothing.

Note on bacteria in the water system: Trace levels of total coliforms, an “indicator” bacterium that poses no health risk, continued to be detected periodically in routine samples during 2019. Two samples collected in April and July had detectable levels of coliform bacteria. These detections were followed by disinfection using chlorine until follow-up testing no longer detected coliform bacteria. A distribution system flushing program was introduced that has reduced the periodic bacteria detections; however, additional steps are necessary to resolve this on-going bacteria issue.

We are working on the intermittent bacteria issue and will continue to keep you posted on the status of this issue. The Santa Cruz County Health Services Agency – Drinking Water Program was informed of and continues to monitor the situation and our response to it.

The following table summarizes the Source Well Laboratory Analytical Results. Terms and abbreviations used in the table include:

- **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.
- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.
- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
- **Regulatory Action Level or Notification Level (AL or NL):** The concentration of a contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow.
- **ND:** Not detected

Please direct any questions about the potable water system to:

Rosalba Alvarez (R & A Farms – Owner) at 831.227.9698

OR

Sean Abbey (Certified Water Distribution Operator - Weber, Hayes and Associates) at 831.722.3580

Table 1: Summary of Source Well-001 Analytical Results 2019
R & A Farms, Water System I.D. No. 4400543
143 Paulsen Road, Watsonville, California

Analyte	Date Sampled	RESULT <i>in ppm</i>	LIMIT <i>DW - MCL in ppm*</i>
PRIMARY INORGANICS			
Aluminum (Al)	04/19/19	ND	1.0 (0.2 ²)
Antimony (Sb)	04/19/19	ND	0.006
Arsenic (As)	04/19/19	ND	0.01
Barium (Ba)	04/19/19	0.190	1.0
Beryllium (Be)	04/19/19	ND	0.004
Boron (B)	04/19/19	0.11	*NL: 1.0
Cadmium (Cd)	04/19/19	ND	0.005
Chromium (Cr)	04/19/19	ND	0.05
Hexavalent Chromium (Cr ⁺⁶)	06/29/15	ND	0.01
Copper (Cu)	04/19/19	ND	*AL: 1.3
Cyanide (CN)	04/19/19	ND	0.2
Fluoride (F)	04/19/19	0.13	2.0
Lead (Pb)	04/19/19	ND	*AL: 0.015
Mercury (Hg)	04/19/19	ND	0.002
Nickel (Ni)	04/19/19	ND	0.1
Nitrite (as N)	04/19/19	ND	1.0
Nitrate-N + Nitrite-N	04/19/19	ND	10
Nitrate (as Nitrogen) **	07/10/19	ND	10
Perchlorate	06/29/15	ND	0.006
Selenium (Se)	04/19/19	ND	0.05
Silver (Ag)	04/19/19	ND	0.1 ²
Thallium (Tl)	04/19/19	ND	0.002
SECONDARY / GENERAL MINERAL & PHYSICAL			
Bicarbonate Alk. (as HCO ₃)	04/19/19	270	–
Carbonate Alk. (as CO ₃)	04/19/19	ND	--
Calcium (Ca)	04/19/19	41	–
Chloride (Cl)	04/19/19	20	500 ²
MBAS (Surfactants)	04/19/19	ND	0.5 ²
Magnesium (Mg)	04/19/19	20	–
Manganese (Mn)	04/19/19	0.24	0.05 ²
Potassium (K)	04/19/19	2.2	–
Sodium (Na)	04/19/19	35	–
Sulfate (SO ₄)	04/19/19	22	500 ²
Total Iron (Fe)	04/19/19	0.79	0.3 ²
Total Alkalinity (as CaCO ₃)	02/11/10	210	–
Total Hardness (as CaCO ₃)	04/19/19	190	–
Total Dissolved Solids	04/19/19	290	1,000 ²
Zinc (Zn)	04/19/19	ND	5.0 ²

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Analyte	Date Sampled	RESULT <i>in ppm</i>	LIMIT <i>DW - MCL in ppm*</i>
OTHER			
pH value	4/19/2019	7.6	6.5 - 8.5
Specific Conductance (EC)	04/19/19	490.0	1,600 ²
Color (Co/Pt) (Units)	04/19/19	10	--
Odor (Threshold Number)	04/19/19	ND	--
Turbidity (NTU)	04/19/19	2.8	--
Synthetic Organic Compounds ***	07/19/18	All ND	<i>varies</i>
Volatile Organic Compounds ***	02/14/18	All ND	<i>varies</i>
1,2,3, TCP	11/07/18	ND	0.000005
Gross Alpha	07/28/18	ND	15 pCi/L
Radium 228	05/04/09	0.429	2 pCi/L
NOTES: <i>Data prior to March 23, 2015 was collected by others. We make no warranty regarding the quality or accuracy of data collected by others, it is presented solely for informational purposes.</i> Maximum Contaminant Level (MCL) = United States Environmental Protection Agency, <i>National Primary Drinking Water Regulations</i> , revised July 1, 2014 ² = Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and DO NOT affect health at that established level. * = EPA Action Levels (AL) and Notification Levels (NL) are shown for analytes which do not have an MCL, but require further attention including sampling and/or treatment *** All compounds have not been detected (Non-Detect = ND). MCLs & PHGs are different for each compound. DW-MCL = MCLs for Title 22 Drinking Water <div style="display: flex; justify-content: space-between; align-items: center;"> <div> < = Not Detected (ND) at or above the laboratory's Reporting Limit, X -- = Not Analyzed or Not Applicable </div> <div style="border: 1px solid black; background-color: #f4a460; padding: 2px 10px; font-weight: bold;">EXCEEDS LIMIT</div> <div> NTU= Nephelometric Turbidity Units pCi/L = picocuries per liter </div> </div>			