

2019 Consumer Confidence Report

Water System Name: ARTOIS COMMUNITY S. D.

Report Date: JUNE 2020

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2019 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse ARTOIS COMMUNITY SERVICES DISTRICT a 530-517-1830 para asistirlo en español.

Type of water source(s) in use: According to SWRCB records, Well 01 is Groundwater and North Well is groundwater.

Name & general location of source(s): Well 01 and North Well

6505 County Rd 27, Orland, CA 95963

Drinking Water Source Assessment information: Well 01 is Groundwater. This Assessment was done using the Default Groundwater System Method. A source water assessment was conducted for the WELL 01 of the ARTOIS COMMUNITY S.D. in December, 2001. A source water assessment was conducted for NORTH WELL of the ARTOIS Community S.D. water system in May 2006.

Discussion of Vulnerability:

Well 01 - is considered most vulnerable to the following activities not associated with any detected contaminants at the time of the source assessment: Historic gas stations, Septic systems - high density [>1 /acre]

The North Well is considered most vulnerable to the following activities not associated with any detected contaminants at the time of the source assessment: Septic systems – high density, Agricultural/Irrigation well, A historic gas station

Acquiring Information: A copy of each source assessment may be viewed at the SWRCB Division of Drinking Water office, (Valley District - 21) 364 Knollcrest Dr. Suite 101, Redding, CA 96002. You may request a summary of the assessments be sent to you by contacting Jack F. Cavier Jr., Chairman, Artois Community Service District (530) 934-4025

Time and place of regularly scheduled board meetings for public participation: Regularly-scheduled water board meetings may be held (check due to COVID-19) at the Artois Fire Station on the first Wednesday of every month at 6:00 pm.

For more information, contact: Jack Cavier Jr., Chairman, Artois C. S. D. Phone: (530) 934 - 5654

TERMS USED IN THIS REPORT

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 (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

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 (U.S. EPA).

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 Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variances and Exemptions: Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (μ g/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, 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 include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater 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 stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	(In a month) 6 *	2 *	1 positive monthly sample ^(a)	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule)	(In the year)	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive		Human and animal fecal waste
<i>E. coli</i> (federal Revised Total Coliform Rule)	(In the year)	0	(b)	0	Human and animal fecal waste

(a) Two or more positive monthly samples is a violation of the MCL

(b) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of Samples Collected	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	(2019)	5	0.3	0	15	0.2		Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	(2019)	5	ND	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	(2014 - 2018)	23	21-24	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	(2014 - 2018)	147	145-149	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic (ug/L)	(2018)	3	ND - 5	10	0.004	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes
Barium (ug/L)	(2014 - 2018)	122	73 – 170	1000	2000	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits.
Fluoride (mg/L)	(2014 - 2018)	0.2	0.2 - 0.2	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Hexavalent Chromium (ug/L)	(2014 - 2018)	4.9	2.1 – 7.6	none	0.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.
Nitrate as N (mg/L)	(2019)	2.8	1.6 – 3.9	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Nitrate + Nitrite as N (mg/L)	(2014 - 2018)	3.1	2.9 – 3.3	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Gross Alpha (pCi/L)	(2019)	1.56	1.16 – 1.95	15	(0)	Erosion of natural deposits.

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (mg/L)	(2014 - 2018)	17	16 - 17	500	n/a	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (umhos/cm)	(2014 - 2018)	375	374 - 376	1600	n/a	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	(2014 - 2018)	10.8	10.5 - 11	500	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L)	(2014 - 2018)	235	200 - 270	1000	n/a	Runoff/leaching from natural deposits
Turbidity (NTU)	(2017 - 2018)	0.5	0.1 - 0.9	5	n/a	Soil runoff

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Vanadium (ug/L)	(2014-2018)	10	6 - 13	50	Vanadium exposures resulted in developmental and reproductive effects in rats.

Continued with Table 7 next page

TABLE 7 – ADDITIONAL DETECTIONS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Typical Sources of Contaminant
Calcium (mg/L)	(2014 - 2018)	23	20 - 25	n/a	n/a
Magnesium (mg/L)	(2014 - 2018)	22	21 - 23	n/a	n/a
pH (units)	(2014 - 2018)	7.3	7.1 - 7.4	n/a	n/a
Alkalinity (mg/L)	(2014 - 2018)	135	120 - 150	n/a	n/a
Aggressiveness Index	(2014 - 2018)	11.2	11.0 - 11.3	n/a	n/a
Langelier Index	(2014 - 2018)	-0.7	-0.8 - -0.6	n/a	n/a

Additional General Information on Drinking Water

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

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, persons 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. U.S. EPA/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 (1-800-426-4791).

Lead-Specific Language: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. **ARTOIS COMMUNITY S. D. WATER SYSTEM** is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/lead>.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
In both October and December, the State Total Coliform Rule was	5 water samples were positive for Coliform in October (5) and six were positive in December (6).	10/21/2019 – 10/28/2019 and from 12/9/2019 to 12/27/2019	A loose pressure gauge and a spider web were removed. The hole was sealed. Next, the system was chlorinated. Repeat bacteriology samples were collected. A Public information Notice was issued on November 15 th .	

Summary Information for Federal Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements

Level 1 or Level 2 Assessment Requirement not Due to an *E. coli* MCL Violation

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct ONE Level 1 assessment(s). ONE Level 1 assessment(s) was completed. In addition, we were required to take THREE corrective actions and we completed THREE of these actions.

The three corrective actions that were completed are:

1. The assessment process was followed to determine the source of the contamination.

The spider nest and loose old gauge were removed and the hole was sealed with an expansion plug.

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2. The system was Chlorinated. Repeat samples were taken in October, November and December.

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3. A Public Information Notice about the findings and actions taken was issued on November 15, 2020.
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