

## 2014 - 2019 Consumer Confidence Report

Water System Name: KEELER CSDReport Date: July 6, 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, 2014 through 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 Keeler CSD a (760) 744-7467 para asistirlo en español.**

Type of water source(s) in use: Groundwater WellName & general location of source(s): Well 01 is located near the community of Keeler

Drinking Water Source Assessment information: The Source Water Assessment was conducted in May 2002. The source is considered most vulnerable to the following activities not associate with any detected contaminants: transportation corridors and historic waste dumps/landfills. A complete copy of the source assessment may be viewed at Inyo County Environmental Health Services, 207 W. South Street, Bishop, CA or call (760) 873-7865.

Time and place of regularly scheduled board meetings for public participation: 3rd Tuesday of each month at 6:00 pm. Meetings held at the Cargo Container (Connex Box)

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### 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.

**Variations 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 (µg/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)

**NTU:** nephelometric turbidity units (a measure of cloudiness)

**µS/cm:** microSiemens per centimeter (a measure of electric conductivity)

**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)	2014: 4 2015: 1 2016: 0 2017: 0 2018: 0 2019:1	2014: 1 2015: 0 2016: 0 2017: 0 2018: 0 2019:0	1 positive monthly sample <sup>(a)</sup>	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule)	2014 – 2019: 0	2014 – 2019: 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	n/a	Human and animal fecal waste
<i>E. coli</i> (federal Revised Total Coliform Rule)	2014 – 2019: 0	2014 – 2019: 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 <sup>th</sup> Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	8/26/17 8/27/14	5 5	8 2.9	None	15	0.2	Not applicable	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	8/26/17 8/27/14	5 5	0.333 0.056	None	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)	5/8/2017	166	n/a	None	None	Salt present in the water and is generally naturally occurring
	8/3/2016	164				
Hardness (ppm)	5/8/2017	339	n/a	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
	8/3/2016	335				

**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 (ppb) – treated water	Monthly 2014	0.145 Avg.	ND – 2	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
	Monthly 2015	ND Avg.	ND			
	Monthly 2016	ND Avg.	ND			
	Monthly 2017	0.02 Avg.	ND – 1			
	Monthly 2018	20.6 Avg.	ND - 156			
	Monthly 2019	34.88 Avg.	ND - 510			
Arsenic (ppb) – untreated source water	Quarterly 2014	85.25 Avg.	70 – 111	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
	Quarterly 2015	62.5 Avg.	43 – 80			
	Quarterly 2016	75.5 Avg.	51 – 96			
	Quarterly 2017	79.75 Avg.	72 – 95			
	Quarterly 2018	78.67 Avg.	72 – 90			
	Quarterly 2019	84 Avg.	74 - 101			
Fluoride (ppm)	5/8/2017	1.2	n/a	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
	8/3/2016	1.2				
Haloacetic Acids (ppb)	7/5/2016	1	n/a	60	n/a	Byproduct of drinking water disinfection

**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)	5/8/2017	103	n/a	500	n/a	Leaching from natural deposits
	8/3/2016	89				
Manganese (ppb)	Quarterly 2014	61.4 Avg.	57.6 – 69.5	50	n/a	Leaching from natural deposits
	Quarterly 2015	58.8 Avg.	44.6 – 84.5			
	Quarterly 2016	79.9 Avg.	52.6 – 100.0			
	Quarterly 2017	85.6 Avg.	77.3 – 100.0			
	Quarterly 2018	77.4 Avg.	64.4 – 88.4			
	Quarterly 2019	94.1 Avg.	81.6 - 106			
Specific Conductance (uS/cm)	5/8/2017	1350	n/a	1600	n/a	Substances that form ions when in water
	8/3/2016	1440				
Sulfate (mg/L)	5/8/2017	112	n/a	500	n/a	Leaching from natural deposits
	8/3/2016	103				
Turbidity (NTU)	5/8/2017	2.8	n/a	5	n/a	Soil runoff
Zinc (mg/L)	8/3/2016	130	n/a	5000	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L)	5/8/2017	820	n/a	1000	n/a	Leaching from natural deposits

**TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Boron (ppm)	5/8/2017	2.5	n/a	1	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.
	8/3/2016	2.5			

Vanadium (ug/L)	8/3/2016	4	n/a	50	Vanadium exposures resulted in developmental and reproductive effects in rats.
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### 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).

**Arsenic-Specific Language:** Your drinking water contains high levels of arsenic. Arsenic is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. Point of use devices are currently been used to remove arsenic from drinking water. However, your drinking water may still exceed the maximum contaminant level. Do not consume your water until your Point of use device has been tested and results show that the arsenic concentration is below the maximum contaminant level. An alternative water supply, such as bottled water, should be used.

**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. Keeler CSD 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>.

Our water system has average fluoride levels of 1.2 mg/L. You may want to contact your child's pediatrician and/or dentist with this information.

### 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
Exceedance of Arsenic MCL	Arsenic from the source ranges from 43 – 111 ppb, which is over acceptable amount of 10 ppb. Arsenic after point of use (POU) treatment ranges from 0 – 510 ppb, which is also above the acceptable amount of 10 ppb.	2014 – present On-going	POU treatment was installed. However, many of the POU devices are not removing arsenic to below the acceptable amount. Further treatment options are being researched. We are continuing to monitor POU devices monthly, and source quarterly.	Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.

Exceedance of Manganese MCL	Manganese from the source ranges from 44 – 106 ppb, which is over the acceptable amount of 50 ppb. It is unknown if the existing POU devices remove manganese to be below the maximum contaminant level.	2014 – present On-going	Continue to monitor quarterly for manganese.	Manganese exposures resulted in neurological effects. High levels of manganese in people have been shown to result in adverse effects to the nervous system.
Exceedance of Total Coliform MCL	Four coliform samples were positive in a month, which is over the acceptable amount of 1 sample.	September 2014	Disinfected and flushed the system, took repeat samples.	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Monitoring Violation for 1,2,3-TCP	1,2,3- TCP sample were not taken	First, second, third quarter 2018	Samples were taken in 2019	The health effects of this violation are unknown.
Monitoring Violation for Total Coliform	Total coliform samples were not taken.	April 2015, November 2015	Samples were taken in the following month.	The health effects of this violation are unknown.
Failure to submit Emergency Notification Plan (ENP)	Updated ENP not submitted	2018 2019	File new ENP in 2020	The health effects of this violation are unknown.
Failure to submit Consumer Confidence Report (CCR)	CCR's not submitted	2014-2018	This report contains data from 2014 – 2019.	The health effects of this violation are unknown.