



## KEELER YARD 2023 DRINKING WATER QUALITY REPORT

The 2023 Drinking Water Quality Report for Keeler Yard was prepared by the Los Angeles Department of Water and Power (LADWP). This annual Drinking Water Quality Report (also known as a Consumer Confidence Report) is required by the California State Water Resources Control Board, Division of Drinking Water (DDW) and is prepared in accordance with their guidelines. The report provides information about drinking water at Keeler Yard during the 2023 calendar year (January 1, 2023 to December 31, 2023). Only those constituents that were detected are listed in this report.

### SUMMARY

The water provided to the Keeler Yard meets all state and federal drinking water requirements. Only the following substances with primary standards were detected at low levels in the water supplied to Keeler: Arsenic, Chlorine Residual, Copper, Fluoride, Haloacetic Acids, Trihalomethanes, Lead, Nitrate, Turbidity and Uranium. SWRCB-DDW allows LADWP to monitor for a number of contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative, are more than a year old. The data for lead and copper on Table 1 are the results of residential tap monitoring conducted in 2023 as required by the Lead and Copper Rule (LCR). For more information on these contaminants, please refer to Table 1 "Health Based Primary Drinking Water Substances Detected".

**Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien.**

## WHERE DOES MY WATER COME FROM?

The term “source water” describes where LADWP obtains the water you drink. All drinking water, tap or bottled, comes from either surface water or groundwater sources. Surface water sources include rivers, lakes, streams, ponds, or reservoirs. Groundwater sources are springs or wells.

Keeler Yard is a non-transient, non-community water system that receives water from the Los Angeles Aqueduct System (Lubken Gate and Cartago Gate) and the Lower Owens River. Raw water is disinfected with chlorine to ensure bacterial quality of the water. It is also treated by filtration, coagulation, and flocculation to decrease turbidity and remove arsenic and other constituents prior to being available for consumption. All monitoring and analyses of source and treated water are conducted by LADWP personnel.



## SOURCE WATER ASSESSMENT

LADWP is required to conduct a source water assessment every five years. In 2020, LADWP conducted an assessment of the Owens Valley and Mono Basin watersheds that supply the Los Angeles Aqueduct. These sources are most vulnerable to geothermal activities that release naturally occurring arsenic into creeks that feed the Owens River. Other activities that impact water quality in these watersheds are livestock grazing, wildlife, and unauthorized public use of storage reservoirs. The impact to water quality from these activities is deemed to be minimal. Regular monitoring for *Cryptosporidium* and *Giardia* indicates that their presence is infrequent and at very low levels.

## WHY IS DRINKING WATER MONITORED AND TREATED?

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 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 organics, that are by-products 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 a result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

### **Health Advisory for People with Weakened Immune Systems**

Although LADWP treats its water to meet drinking water standards, 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).

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 U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

## **WATER QUALITY UPDATE**

There were no violations of drinking water standards during the 2023 calendar year. However, Keeler Yard issued a Do Not Drink water notice on March 11, 2023. This was due to weather conditions that created a drop in the chlorine residual level below the minimum 0.2 mg/L. Disinfectant residual is the amount of chlorine present in the pipes of the distribution system. LADWP routinely monitors for disinfectant residual in the distribution system. The chlorine residuals were restored to acceptable levels and the Unsafe Water Alert was canceled on March 24, 2023 with the approval of the DDW.

Another Unsafe Water Alert was issued for Keeler Yard on August 21, 2023 following a power outage that resulted in the distribution system pressure dropping below 5 psi. After electrical power was restored, the distribution system was disinfected, bacterial sampling was completed, and water pressure was restored. The Unsafe Water Alert was canceled on August 30, 2023 with DDW's approval.

## **MONITORING OF REGULATED CONSTITUENTS**

There are over 110 regulated constituents (or contaminants). Utilities monitor for each constituent at varying frequencies based on the type of constituent and the type of source water. For example, groundwater sources are generally sampled once every three years. Those constituents that pose acute risk require more frequent monitoring. Nitrate sampling is required annually, and bacteriological sampling is required monthly. Since most constituents are not detected in the water, only those constituents that are detected are listed in the tables.

### **Disinfection Byproducts (DBPs)**

Total trihalomethanes and haloacetic acids are byproducts of the disinfection process. The most recent analytical results show that levels of both contaminants are well below their respective MCLs.

Some people who drink water containing haloacetic acids and/or trihalomethanes in excess of the MCL over many years may have an increased risk of getting cancer. Liver, kidney, or central nervous system problems may also be experienced with long term consumption of water containing trihalomethanes in excess of the MCL.

### **Arsenic**

Arsenic compliance is based on a running annual average (RAA). The RAA was below the standard in 2023. While your drinking water meets the federal and state standard for arsenic, it may contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which 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.

## **Lead in Drinking Water**

LCR sampling was last conducted in August 2021. The 90<sup>th</sup> percentile values for lead and copper at Keeler Yard were below their respective action levels. This data, as well as other water quality data, are shown in tables on the following pages. The next tap water sampling will be conducted in 2024.

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. LADWP 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 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 or at <http://www.epa.gov/lead>.

## **Turbidity**

Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites such as Cryptosporidium and Giardia that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

## **MONITORING OF UNREGULATED CONSTITUENTS**

There are contaminants/constituents found in drinking water that are not yet regulated. Some of these “unregulated contaminants/constituents” are monitored because they could be candidates for future regulations or are of interest to our consumers.

## **TERMS USED IN THIS REPORT**

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

**DLR (Detection Limit for Reporting Purposes):** The DLR is the lowest level at which all DDW certified laboratories can accurately and reliably detect a compound. The DLR provides a standardized basis for reporting purposes.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the PHGs and MCLGs (see below) as economically and

technologically feasible. For certain contaminants, compliance with the MCL is based on the average of all samples taken throughout the year.

**MCLG (Maximum Contaminant Level Goal) - Federal:** 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.

**MRDL (Maximum Residual Disinfectant Level):** 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

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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.

**NL (Notification Levels) - State:** Health-based advisory levels established by DDW for chemicals in drinking water that lack maximum contaminant levels (MCLs). When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

**PHG (Public Health Goal) - State:** 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.

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

**SDWS (Secondary Drinking Water Standard):** Highest level a constituent allowed in drinking water that may affect the taste, odor or appearance. SDWSs are set by the U.S. EPA.

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

## KEEELER YARD – 2023 CALENDAR YEAR

***Table 1: Health-Based Primary Drinking Water Substances Detected***

Constituents	Major Source in Drinking Water	Sampled	Units	MEET PRIMARY STANDARD / ACTION LEVEL?	Primary Standard (MCL)	PHG	Water Quality	
							Range	Average
Arsenic <sup>a</sup>	Natural hot springs; erosion of natural deposits	2023	µg/L	YES	10	0.004	3.1 – 11.3	5.4
Chlorine Residual, Total (as Cl <sub>2</sub> ) <sup>a</sup>	Drinking water disinfectant added for treatment	2023	mg/L	YES	[MRDL = 4.0 (as Cl <sub>2</sub> )]	[MRDL = 4.0 (as Cl <sub>2</sub> )]	1.06 – 2.77	1.97
Copper (at-the-tap) <sup>b</sup>	Internal corrosion of interior water plumbing systems	2021	µg/L	YES	AL=1300	300	number of samples exceeding AL = 0 out of 5	90th Percentile value = 384
Fluoride	Erosion of natural deposits	2023	mg/L	YES	2	1	0.12	0.12
Haloacetic Acids [HAA5] <sup>c</sup>	Disinfection by-product	2023	µg/L	YES	60	none	5 - 160	45.5
Lead (at-the-tap) <sup>b</sup>	Internal corrosion of interior water plumbing systems	2021	µg/L	YES	AL=15	0.2	number of samples exceeding AL = 0 out of 5	90th Percentile value = 5
Nitrate (as N)	Runoff and leaching from fertilizer use; erosion of natural deposits	2023	mg/L	YES	10	10	ND – 0.25	ND
Total Tri-Halomethanes <sup>c</sup>	Disinfection by-product	2023	µg/L	YES	80	none	9 - 116	41.3
Turbidity <sup>d</sup>	Soil runoff	2023	NTU	YES	TT	TT	% Reading ≤ 0.3: 100%	Highest: 0.09
Uranium	Erosion of natural deposits	2022	µg/L	YES	20	0.43	4	4

**Footnotes for Table 1**

- a. Values reflect Running Annual Average (RAA). RAA is a calculated average of all samples collected within the previous 12-month period, which may include test data from the previous calendar year.
- b. At-the-tap monitoring in 2021 was conducted triennially, as required by the Lead and Copper Rule. A system is out of compliance if the 90th percentile value of all samples taken exceeds the Action Level of 15 µg/L and 1300 µg/L of lead and copper, respectively.
- c. The federal Stage 2 Disinfectants/Disinfection Byproducts Rule (Stage 2 DBPR) requires compliance monitoring and reporting for total trihalomethanes (TTHM) and five haloacetic acids (HAA5) based on Locational Running Annual Averages (LRAAs) of established monitoring locations.
- d. Turbidity is a measure of the cloudiness of the water and is a good indicator of water quality and filtration performance. The Primary Drinking Water Standard for turbidity at the treatment plant is less than or equal to 0.3 NTU in at least 95% of the measurements taken in any month, and may not exceed 1.0 NTU for more than eight consecutive hours. High turbidity can hinder the effectiveness of disinfectants and can harbor pathogens. The reporting requirement for treatment plant turbidity is to report the highest single measurement in the calendar year and the lowest monthly percentage of measurements less than or equal to 0.3 NTU. Turbidity is monitored at 15-minute intervals all year round.

***Table 2: Regulated Substances with Secondary Drinking Water Standards Detected***

Constituents	Major Source in Drinking Water	Sampled	Units	Secondary MCL	Keeler Water Quality
					<b>Level Detected</b>
Chloride	Runoff/leaching from natural deposits	2023	mg/L	500	27.5
Color	Naturally-occurring organic materials	2023	ACU	15	ND - 3
Iron	Leaching from natural deposits; Industrial wastes	2023	µg/L	300	27.3
Specific Conductance	Substances that form ions when in water	2023	µS/cm	1600	223-768
Sulfate (as SO <sub>4</sub> )	Natural constituent	2023	mg/L	500	34
Total Dissolved Solids (TDS)	Runoff/leaching from natural deposits	2023	mg/L	1000	132-348
Turbidity	Soil runoff	2023	NTU	5	0.04 – 0.61



**Table 3: Unregulated Drinking Water Substances Detected**

Constituents	Major Source in Drinking Water	Sampled	Units	Water Quality
				Level Detected
Alkalinity	Natural constituent	2023	mg/L	76 - 196
Boron	Natural constituent	2023	µg/L	735
Calcium	Natural constituent	2023	mg/L	33
Magnesium	Natural constituent	2023	mg/L	12
pH	Naturally-occurring dissolved gases and minerals	2023	Unit	7.3 – 8.2
Sodium	Natural constituent	2023	mg/L	66
Total Hardness [as CaCO <sub>3</sub> ]	Natural constituent	2023	mg/L	132
Vanadium	Natural constituent	2023	µg/L	7

**Abbreviations for Tables**

mg/L = milligrams per Liter (equivalent to parts per million)  
 µg/L = micrograms per Liter (equivalent to parts per billion)

ACU = Apparent color unit  
 NTU = Nephelometric Turbidity Units

µS/cm = microsiemens per centimeter  
 ND = Not Detected

**GENERAL INFORMATION**

This annual Drinking Water Quality Report (also known as a Consumer Confidence Report) is required by the California State Water Resources Control Board, Division of Drinking Water and is prepared in accordance with their guidelines. LADWP, the largest municipal utility in the nation, was established more than 100 years ago. The utility provides a reliable and safe water and electric supply to the City’s more than 4 million residents and businesses. LADWP is governed by a five-member Board of Water and Power Commissioners, appointed by the Mayor and confirmed by the City Council. The Board meets regularly on the second and fourth Tuesdays of each month at 10:00 a.m.

Meetings are held at: **Los Angeles Department of Water and Power**  
 111 North Hope Street, Room 1555H  
 Los Angeles, CA 90012-2694

The meeting agenda is available to the public the Thursday prior to the week of the meeting. You can access the Board agenda at [www.ladwp.com/board](http://www.ladwp.com/board) or via email at [commission@ladwp.com](mailto:commission@ladwp.com). For general information about LADWP, call (800) 342-5397 or visit [www.ladwp.com](http://www.ladwp.com).

For questions regarding information in this report or the Source Water Assessment, please contact the Water Quality Hotline at 213-367-3182.