

# HOW TO READ YOUR WATER QUALITY DATA

WATER QUALITY BY DISTRIBUTION AREA								
Naturally Occurring Compounds as well as Contaminants						Distribution Area 4		
Detected Compound	Likely Source	MCL	MCLG	Unit of Measure	Range Of Readings			
					Low Value	High Value	Avg. Value	No. Of Tests
<b>Inorganics</b>								
Alkalinity to pH 4.5mg CaCO <sub>3</sub> /L	Naturally occurring	n/a	n/a	mg/L	30.4	54.2	40.1	8
Aluminum	Naturally occurring	n/a	n/a	mg/L	0.02	0.09	0.06	14
Ammonia, free	Some fertilizers, septic systems	n/a	n/a	mg/L	ND	ND	ND	8
Arsenic	Erosion of natural deposits	10	0	ug/L	ND	ND	ND	14
Barium	Erosion of natural deposits	2	2	mg/L	ND	ND	ND	14
Boron	Naturally occurring	n/a	n/a	mg/L	ND	0.11	ND	43
Bromide	Naturally occurring	n/a	n/a	mg/L	ND	ND	ND	14
Cadmium	Natural deposits, galvanized pipe	5	5	ug/L	ND	ND	ND	14
Calcium	Naturally occurring, pH control	n/a	n/a	mg/L	ND	1.0	0.5	43
CO <sub>2</sub> , calculated	Naturally occurring	n/a	n/a	mg/L	0.6	19.2	8.9	8
Chloride	Naturally occurring, salt water intrusion	250	n/a	mg/L	2.3	3.2	3.0	14
Chromium, total	Natural deposits	100	100	ug/L	ND	0.61	ND	14
Cobalt-59	Naturally occurring	n/a	n/a	ug/L	ND	ND	ND	14
Color	Naturally occurring metals or minerals	15	n/a	Color Units	ND	7	ND	8
Copper	Household plumbing	AL=1.3	1.3	mg/L	ND	0.03	ND	14
Dissolved Solids, total	Naturally occurring minerals and metals	n/a	n/a	mg/L	59	88	69	11
Fluoride	Erosion of natural deposits	2.2	n/a	mg/L	ND	ND	ND	14
Hardness, total	Measure of the calcium and magnesium	n/a	n/a	mg/L	ND	2.8	ND	43
Hexavalent Chromium	Erosion of natural deposits	n/a	n/a	ug/L	ND	0.67	0.13	12
Iron	Naturally occurring	300	n/a	ug/L	186	495	259	43
Lead	Household plumbing, lead solder	AL=15	0	ug/L	ND	ND	ND	14
Lithium	Naturally occurring	n/a	n/a	ug/L	3.5	4.2	3.8	14
Magnesium	Naturally occurring	n/a	n/a	mg/L	ND	ND	ND	43
Manganese	Naturally occurring	300	n/a	ug/L	ND	ND	ND	43
Molybdenum	Naturally occurring	n/a	n/a	ug/L	ND	ND	ND	14
Nickel	Alloys, coatings manufacturing, batteries	100	n/a	ug/L	ND	ND	ND	14
Nitrate	Natural deposits, fertilizer, septic tanks	10	10	mg/L	ND	ND	ND	14
Perchlorate	Fertilizers, solid fuel propellant, fireworks	15	5	ug/L	ND	ND	ND	8
Phosphate, total	Added to keep iron in solution	n/a	n/a	mg/L	ND	0.36	0.29	43
pH	Measure of water acidity or alkalinity	n/a	n/a	pH Units	6.5	8.2	7.1	8
pH, field	Measure of water acidity or alkalinity	n/a	n/a	pH Units	7.0	8.5	7.4	8
Potassium	Naturally occurring	n/a	n/a	mg/L	1.04	1.44	1.23	43
Silicon	Naturally occurring	n/a	n/a	mg/L	4.0	4.4	4.2	14
Sodium	Naturally occurring	n/a	n/a	mg/L	11.4	39.3	19.8	43

**A** **DETECTED COMPOUNDS** - compounds found during testing include naturally occurring compounds and contaminants. (On page 47 you will find the list of compounds that were not found in our drinking water).

**B** **LIKELY SOURCE** - where the detected compound might come from.

**C** **MAXIMUM CONTAMINANT LEVEL (MCL)** - the highest amount of a compound allowed in drinking water.  
**MAXIMUM CONTAMINANT LEVEL GOAL (MCLG)** - there is no known or expected health risk for a compound in drinking water below this level.

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**D** **UNITS OF MEASURE** - metric units used to describe the amount of the compound present (see chart below for definitions).

**E** **DISTRIBUTION AREA**  
SCWA's service area, all the areas we supply water to, is divided into 30 distinct geographical areas called Distribution Areas. Each area is numbered. The map on pages 2 and 3 shows the boundaries of each area. Some towns have more than one Distribution Area so please read carefully. There is also an interactive map to help you define your Distribution Area. Once you know the Distribution Area number for your home, school, business or other area of interest, you can then find the water quality results in the tables located on pages 6 through 35.

## **RANGE OF READINGS FOR DETECTED COMPOUNDS**

**F** **LOW VALUE** - the lowest amount of the chemical found in all water samples collected during the year for the distribution area noted.

**HIGH VALUE** - the highest amount of the chemical found in all water samples collected during the year for the distribution area noted.

**AVERAGE VALUE** - the average amount of the chemical found in all the water samples collected during the year for the distribution area noted. This is the amount of the chemical that would typically be present in your drinking water on any given day during the year.

**NO. OF TESTS** - the total number of water samples collected for the chemical during the year in the distribution area noted.

## **G** **TYPES OF DETECTED COMPOUNDS**

Broad categories based on chemical characteristics.

## Water Quality Data Key Terms, Definitions & Units of Measure

**USEPA Health Advisory Levels (HAL):** Identify the concentration of a contaminant in drinking water at which adverse health effects and/or aesthetic effects are not anticipated to occur over specific exposure durations. Health Advisory Levels are not to be construed as legally enforceable federal standards and are subject to change as new information becomes available.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as possible.

**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 allow for a margin of safety.

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

**Micrograms per liter (ug/L):** Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

**Milligrams per liter (mg/L):** Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

**Nanograms per liter (ng/L):** Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

**Picocuries per liter (pCi/L):** Picocuries per liter is a measure of the radioactivity in water.

**Nephelometric Turbidity Unit (NTU):** A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Micromhos per centimeter (umho/cm):** A measure of the total amount of naturally occurring minerals in the water.

**NA:** Not Applicable

**Non-Detects (ND):** - Laboratory analysis indicates that the constituent is not present.



**Units of Measure:** It can be hard to wrap our minds around what a concentration of a contaminant actually means. The most commonly used units of measure for drinking water analysis are parts per million (ppm / mg/L) and parts per billion (ppb / ug/L) respectively. To help visualize these concentrations, imagine that 1 ppm is the same as one drop of water in a 13 gallon bucket, while 1 ppb is the same as one drop of water in a swimming pool (13,200 gallons)! Parts per trillion (ppt) or ng/L is an even smaller concentration. Imagine one drop of water in roughly 20 Olympic size swimming pools, or 1 inch in 16 million miles which is 600+ times around the earth.