

Water Sample Results Form



Client Name: _____

Client ID#: _____

Collection Date: _____

Sample #: _____

Contaminants	Contamination Level		EPA's Maximum Contamination Level
	Green = Below or at EPA's Maximum Contamination Level Goal (MCLG), Yellow = Between MCLG or at Maximum Contamination Level (MCL), Red = Above EPA's MCL		mg/L = Milligrams per Liter Pci/L = pico Curies per Liter, gpg = Grains per Gallon
Basic	Coliform		Detected
	Ecoli		Detected
	TDS	mg/L	500 mg/L
	pH		6.5 - 8.5
	Hardness	gpg	30 gpg
	Iron	mg/L	0.3 mg/L
	Preferred ^	Nitrate	mg/L
Nitrite		mg/L	1 mg/L
VOC			Detected
Premium ^	Copper	mg/L	1.3 mg/L
	Lead	mg/L	0.015 mg/L
	Arsenic	mg/L	0.015 mg/L
	Pesticides, Herbicides, PBC's		Detected
	Manganese	mg/L	0.05 mg/L
	Sodium	mg/L	150 mg/L
	Alkalinity	mg/L	200 mg/L
	Chloride	mg/L	250 mg/L
	Sulfate	mg/L	250 mg/L
	Barium	mg/L	2 mg/L

Additional / Individual Tests

Iron Bacteria		Detected
Lead	mg/L	0.015 mg/L
Copper	mg/L	1.3 mg/L
Arsenic	mg/L	0.015 mg/L
Phosphorus	mg/L	0.03 mg/L
Manganese	mg/L	0.015 mg/L
Barium	mg/L	2 mg/L
Sodium	mg/L	150 mg/L
Sulfate	mg/L	250 mg/L
Chromium	mg/L	.1 mg/L
Radium 226	Pci/L	20 Pci/L
Radium 228	Pci/L	20 Pci/L



Contaminants

Nitrates

Nitrates and nitrites are nitrogen-oxygen chemical units which combine with various organic and inorganic compounds. Once taken into the body, nitrates are converted into nitrites. The greatest use of nitrates is as a fertilizer.

Excessive levels of nitrate in drinking water have caused serious illness and sometimes death. The primary health concern for newborns under one year of age is blue baby syndrome which affects the oxygen carrying capacity, turning the baby blue. This can be an acute condition in which health deteriorates rapidly over a period of days.

Iron Bacteria

Iron Bacteria is a name for a large diverse group of bacteria that have a significant effect on water treatment and distribution systems. This bacterium is mostly found in private well water supplies. Iron Bacteria will cause restricted well performance from the plugging of groundwater extraction as well as the clogging of well parts including screens, casing, inlets etc. The blocking of these components can be extremely rapid, and reduce the flow of wells to below operational requirements in a short period of time.

Iron bacteria do not cause any severe health problems but it will cause unpleasant stomach discomfort and diarrhea.

Hardness

Hard water is high in dissolved minerals, both calcium and magnesium. As water moves through soil and rock, it dissolves small amounts of these naturally-occurring minerals and carries them into the ground water supply. Water is a great solvent for calcium and magnesium, so if the minerals are present in the soil around your well and its water supply, you can end up with hard water.

Hardness does not pose a health risk and is not regulated by state or federal agencies. In fact, calcium and magnesium in your drinking water can help ensure you get the average daily requirements for these minerals in your diet.

Total Dissolved Solids (TDS)

The expression, "total dissolved solids" (TDS), refers to the total amount of all inorganic and organic substances – including minerals, salts, metals, cations or anions – that are dispersed within a volume of water.

The TDS concentration is considered a Secondary Drinking Water Standard, which means that it is not a health hazard. However, further testing may be warranted, as water with a high TDS concentration (500ppm) may indicate elevated levels of ions that do pose a health concern, such as aluminum, arsenic, copper, lead, nitrate and others.



Contaminants

Iron

Iron is not hazardous in drinking water, but it can be a nuisance. Iron in your water can stain your laundry and fixtures and give your water a bitter, metallic taste.

The EPA considers iron and manganese secondary water contaminants, which pose no direct threat to human health. Iron and manganese can affect the flavor and color of food and water. They may react with tannins in coffee, tea and some alcoholic beverages to produce a black sludge, which affects both taste and appearance. Manganese is objectionable in water even when present in smaller concentrations than iron.

E-Coli (Coliform)

E. coli is a type of fecal coliform bacteria commonly found in the intestines of animals and humans. The presence of E. coli in water is a strong indication of recent sewage or animal waste contamination. Sewage may contain many types of disease-causing organisms.

Although most strains are harmless and live in the intestines of healthy humans and animals, this strain produces a powerful toxin and can cause severe illness. Infection often causes severe bloody diarrhea and abdominal cramps; sometimes the infection causes non-bloody diarrhea. Frequently, no fever is present. It should be noted that these symptoms are common to a variety of diseases, and maybe caused by sources other than contaminated drinking water.

Pesticides (Atrazine & Simazine)

Pesticides consist of a large group of chemicals that are used in agriculture and residential settings to control plant and animal infestation. Pesticides can range from herbicides (to control weeds), insecticides (insects), nematocides (worms) and fungicides (molds, mildews, rusts). Pesticides are commonly applied on farms, fruit orchards, golf courses and residential lawns and gardens. Many pesticides also are used inside homes and other buildings.

The potential health effects of pesticides depend upon the kind and amount of pesticide, how long the person has been consuming the water and the person's overall health. Acute pesticide poisoning symptoms may include headaches, dizziness, stomach and intestinal upset, numbness of extremities, spasms, convulsions and heart attacks.

Chlorine

Chlorine has been the most widely used disinfectant in the U.S. for over 60 years and is the primary disinfectant for drinking water in the world. There is concern in the scientific and regulatory community over the use of chlorine compounds to disinfect drinking water. Health officials are concerned with the chlorinating by-products, also known as "chlorinated hydrocarbons" or trihalomethanes (THM's). Most THM's are formed in drinking water when chlorine reacts with naturally occurring substances such as decomposing plant and animal materials.

Some people who use drinking water containing chlorine well in excess of EPA's standard could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of EPA's standard could experience stomach discomfort.



Contaminants

pH

The pH level of your drinking water reflects how acidic it is. pH stands for “potential hydrogen,” referring to the amount of hydrogen mixed with the water. pH is measured on a scale that runs from 0-14. Seven is neutral, indicating there is no acid or alkalinity present. A measurement below 7 indicates acid is present and a measurement above 7 indicates alkalinity.

The U.S. Environmental Protection Agency (EPA) does not regulate the pH level in drinking water. It is classified as a secondary drinking water contaminant whose impact is considered aesthetic. However, the EPA recommends that public water systems maintain pH levels of between 6.5 and 8.5, a good guide for individual well owners.

Arsenic

Arsenic is a semi-metal element in the periodic table. It is odorless and tasteless. It enters drinking water supplies from natural deposits in the earth or from agricultural and industrial practices.

Non-cancer effects can include thickening and discoloration of the skin, stomach pain, nausea, vomiting; diarrhea; numbness in hands and feet; partial paralysis; and blindness. Arsenic has been linked to cancer of the bladder, lungs, skin, kidney, nasal passages, liver, and prostate.

Lead

Lead, a metal found in natural deposits, is commonly used in household plumbing materials and water service lines. The greatest exposure to lead is swallowing or breathing in lead paint chips and dust.

In babies and children, exposure to lead in drinking water above the action level can result in delays in physical and mental development, along with slight deficits in attention span and learning abilities. In adults, it can cause increases in blood pressure. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Alkalinity

The alkalinity of water may be defined as its capacity to neutralize acid. Alkali substances in water include hydroxides or bases. They can be detected by their acrid taste and by the fact that they cause red litmus paper to turn blue.

It is classified as a secondary drinking water contaminant whose impact is considered aesthetic.

Manganese

Iron and manganese are non-hazardous elements that can be a nuisance in a water supply. Iron and manganese are chemically similar and cause similar problems. Iron is the more frequent of the two contaminants in water supplies; manganese is typically found in iron-bearing water.

EPA has established “secondary” standards for manganese in drinking water. These limits are based on aesthetic concerns such as staining, taste and odor (.05 mg/L). Manganese may affect neurological and muscle function in humans.



Contaminants

Copper

Copper is a metal found in natural deposits as ores containing other elements. It is widely used in household plumbing materials.

EPA has found copper to potentially cause the following health effects when people are exposed to it at levels above the Action Level. Short periods of exposure can cause gastrointestinal disturbance, including nausea and vomiting. Use of water that exceeds the Action Level over many years could cause liver or kidney damage.

Silica

Silica is a hard, glassy mineral substance which occurs in a variety of forms such as sand, quartz, sandstone, and granite. It also is found in the skeletal parts of various animals and plants.

It is classified as a secondary drinking water contaminant whose impact is considered aesthetic.

Chlorides

Chlorides in groundwater can be naturally occurring in deep aquifers or caused by pollution from sea water, brine, or industrial or domestic wastes. Chloride concentration above 250 mg/L can produce a distinct taste in drinking water.

Acute health effects are likely when contamination level is high. Acute health effects include nausea, stomach discomfort, and skin irritation.

Barium

Barium is a lustrous, machinable metal which exists in nature only in ores containing mixtures of elements. It is used in making a wide variety of electronic components, in metal alloys, bleaches, dyes, fireworks, ceramics and glass. In particular, it is used in well drilling operations where it is directly released into the ground.

EPA has found barium to potentially cause the following health effects when people are exposed to it at levels above the MCL for relatively short periods of time: gastrointestinal disturbances and muscular weakness.



Contaminants

Volatile Organic Compounds (VOC's)

VOC's are organic chemicals such as pesticides, herbicides, and other chemicals that are "readily vaporizable at a relatively low temperature".

Examples are Paints, varnishes, and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing, and hobby products and fuel. All of these products can release organic compounds while you are using them, and, to some degree, when they are stored.

Symptoms are eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system are most common. More severe health effects include leukemia, respiratory problems, and birth defects

Sulfate

Sulfates are a combination of sulfur and oxygen and are a part of naturally occurring minerals in some soil and rock formations that contain groundwater.

At high levels, sulfate can give water a bitter or astringent taste, rotten egg smell, and can have laxative effects.

Radium 226 & 228

Radium (Ra) is a naturally occurring radioactive element that is present in varying amounts in rocks and soil within the earth's crust. Absorbed radium behaves similarly to calcium and is deposited in the tissues of the body, especially bone that can cause bone cancers.

When radium decays, the resultant product is the radioactive chemically inert gas radon. The Surgeon General has warned that radon is the second leading cause of lung cancer in the United States today.

We certify that the analyses performed for this report are accurate, and that the laboratory test were conducted by methods approved by the U.S. Environmental Protection Agency or variations of these EPA methods.

These test are intended to be used for informational purposes only and may not be used for regulatory compliance.