#### Testing for Cryptosporidium onitoring of our source water indicates no MCryptosporidium above equipment detection limits. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100-percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease.

# Where Does My Water Come From?

The City of Imperial receives its water supply from the Colorado River via the All-American Canal and the facilities of the Imperial Irrigation District. The city currently provides an average of 2.6 million gallons per day and an average of 961 million gallons of water annually to its citizens. At the present time, the City of Imperial meets all applicable State Board, Division of Drinking Water, and U.S. EPA domestic water quality standards. The raw water we receive from the All-American Canal

re are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated questions or concerns about your water.

### **Our Mission Continues**

ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new chal-lenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please remember that we are always available should you ever have any

# Substances That Could Be in Water

isinfection, a chemical process used to control

disease-causing microorganisms by killing or inac-

tivating them, is unquestionably the most important

step in drinking water treatment. By far, the most common method of disinfection in North America is

Before communities began routinely treating drinking

water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents

annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the

U.S. Significant strides in public health are directly

linked to the adoption of drinking water chlorination.

In fact, the filtration of drinking water and the use of chlorine are probably the most significant public health

Chlorination

chlorination.

from the presence of animals or from human activity. active material and can pick up substances resulting naturally occurring minerals and, in some cases, radiosurface of the land or through the ground, it dissolves reservoirs, springs, and wells. As water travels over the . bottled water) include rivers, lakes, streams, ponds, The sources of drinking water (both tap water and

presence of contaminants does not necessarily indicate at least small amounts of some contaminants. The bottled water, may reasonably be expected to contain protection for public health. Drinking water, including contaminants in bottled water that provide the same regulations and California law also establish limits for systems. The U.S. Food and Drug Administration certain contaminants in water provided by public water Board) prescribe regulations that limit the amount of and the State Water Resources Control Board (State U.S. Environmental Protection Agency (U.S. EPA) In order to ensure that tap water is safe to drink, the

:əpnjouj Contaminants that may be present in source water

systems, agricultural livestock operations, and wildlife; that may come from sewage treatment plants, septic Microbial Contaminants, such as viruses and bacteria,

discharges, oil and gas production, mining, or farming; stormwater runoff, industrial or domestic wastewater can be naturally occurring or can result from urban Inorganic Contaminants, such as salts and metals, that

sosu leinobresi bne of sources such as agriculture, urban stormwater runoff, Pesticides and Herbicides that may come from a variety

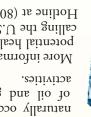
stormwater runoff, agricultural applications, and and which can also come from gas stations, urban of industrial processes and petroleum production and volatile organic chemicals, which are by-products Organic Chemical Contaminants, including synthetic

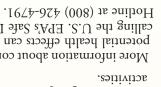
septic systems;

that water poses a health risk.

of oil and gas production and mining naturally occurring or can be the result Radioactive Contaminants that can be

calling the U.S. EPA's Safe Drinking Water potential health effects can be obtained by More information about contaminants and



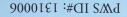




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an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Ingestion of Cryptosporidium may cause cryptosporidiosis,

### Important Health Information

Some people may be more vulnerable to contami-nants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.

exceeded standards for aluminum and iron. Water quality data for the reporting period ending December 31, 2019, is included in this report. Water quality information for previous years is available for review upon request.

### Lead in Home Plumbing

f 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. We are responsible for providing high-quality drinking water, but we 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 two 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 at (800) 426-4791 or www.epa.gov/safewater/lead.

- causing microorganisms in drinking water to almost immeasurable levels.
- Taste and Odor Reduction of many disagreeable tastes and odors from foul-smelling algae secretions, sulfides, and decaying vegetation.

· Potent Germicide Reduction of many disease-

- Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.
- · Chemical Removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

## **City Council Meeting**

advancements in human history.

**Benefits of Chlorination** 

You are invited to participate in our city council meetings. We meet the first and third Wednesday of each month at 7:00 p.m. at Imperial Council Chambers, 200 West Ninth Street.

**QUESTIONS?** For more information about this report, or for any questions relating to your drinking water, or to voice your concerns about your drinking water, please call Robert Emmett, Chief Water Plant Operator, at (760) 355-2155.

M 00	<sup>2</sup> Sampled in 2020. <sup>3</sup> This is an Unrequiated Substances and Other				hrehnet9 vre		ne bətelup: Ionetadıı2 :			
S	.Srot in belqme21								⁺ S∃ONA	
Ъ	Honui lio2	εs∋Υ	ΨN	٧N	∀N	<b>⊅</b> .0	SN	ς	7075	(UTV) <b>vibidiuT</b>
ou M M	Runoff/leaching from natural deposits	٥N	٧N	٧N	٧N	009	SN	000'I	7707	<b>Total Dissolved Solids</b> (mqq)
N N	Runoff/leaching from natural deposits; industrial wastes	٥N	ΨN	580 <sub>1</sub>	٧N	077	SN	005	7707	(mqq) suffate
re ns	Substances that form ions when in water; seawater influence	٥N	ΨN	1'100 <sub>5</sub>	¥N	001,1	SN	009'I	7707	Specific Conductance (mnho/cm)
N	Leaching from natural deposits	٥N	∀N	٧N	٧N	ND	SN	90	7077	Manganese (ppb)
N DD	Leaching from natural deposits; industrial wastes	٥N	ΨN	٧N	٧N	ЛD	SN	900	7077	(dqq) <b>norl</b>
գ	Naturally occurring organic materials	٥N	∀N	ΨN	٧N	ND	SN	۶ĩ	7077	<b>Color</b> (units)
to w in	Erosion of natural deposits; residual from some surface water treatment processes	٥N	ΨN	٧N	٧N	۷9	SN	007	7077	(dqq) <b>munimulA</b>
D M	TYPICAL SOURCE	ΝΟΙΤΑΙΟΙΛ	RANGE	AMOUNT DETECTED	LOW-HIGH RANGE	AMOUNT DETECTED	(WCTG) bhg	SMCL	AAAY SAMPLED	SUBSTANCE (UNIT OF MEASURE)

Primary Standards,

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occur and whether the contaminants need to be Soard to determine where certain contaminants U.S. EPA and the State Water Resources Control \*Unregulated contaminant monitoring helps Substances Central Main Canal violation only.



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Leaching from natural deposits

Leaching from natural deposits

Leaching from natural deposits

**TYPICAL SOURCE** 

# rally occurring stisoqab latural deposits aing from natural deposits

		1/	0000		107 CF CLILL		
Treatment Process	Vater						
Leaching from natural deposits	ΨN	ΨN	∀N	ND	7075	(dqq) <b>muibsns</b> V	
Naturally occurring	ΨN	٧N	ΨN	8.6	7707	(mqq) <b>eations</b> (ppm)	
Naturally occurring	ΨN	∀N	∀N	8.01	7707	(mqq) <b>enoinA letoT</b>	
Leaching from natural deposits	ΨN	∀N	∀N	<b></b> ⊅6	7707	(mqq) <b>muibo</b> 2	
Leaching from natural deposits	ΨN	∀N	∀N	£.4	7707	(mqq) <b>muissesoI</b>	
Leaching from natural deposits	ΨN	∀N	ΨN	I.8	7707	(ziinu) <b>Hq</b>	
Leaching from natural deposits	ΨN	∀N	ΨN	6.4.9	7075	(mqq) <b>muisəngsM</b>	
Leaching from natural deposits	ΨN	ΨN	ΨN	087	7075	Hardness, Total [as CaCO3] (ppm)	
Leaching from natural deposits	ΨN	₩N	∀N	īΖ	7075	Calcium (ppm)	

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Process	Jnəmtes Treatment	

ers of fine coal and silicate sand. As smaller suspended particles are removed, turbidity disappears and clear water emerges. them heavy enough to settle into a basin from which sediment is removed. At this point, the water is filtered through laycoagulant are added. The addition of these substances causes small particles, called floc, to adhere to one another, making the water treatment plant. The water is then pumped to a settling basin that has flocculator mixers, where a polymer and a Un treatment process for surface water consists of sedimentation, coagulation, flocculation, and disinfec-tion. First, raw water is drawn from our water source and sent to several ponds, which provide holding capacity for

water tank. From there the water is pumped into the distribution system to your home or business. precursors of trihalomethane formation in the water. Finally, the combined water is sent to a two-million gallon finished water is pumped into four granular activated carbon columns to reduce total organic carbon (TOC), which is one of the adding the lowest quantity necessary to protect the safety of your water without compromising taste. Next, a portion of the Chlorine is added after filtration to prevent the development of bacteria. We carefully monitor the amount of chlorine,

#### Source Water Assessment

**L** please teel tree to contact our office during regular office hours at (760) 355-2155. Source Water Assessment Plan (SWAP) is now available at our office. If you would like to review the SWAP,

Site 2	05	I⊅	95	ΙÞ								
Site 1 LRAA <sup>1</sup>	69	0∠	0∠	۷2								
Site 1	<del>7</del> 9	τL	SL	<del>7</del> 9								
LOCATION	1ST QTR	2ND QTR	зкр отк	4ТН ОТР								
2022 TTHM RES	סססס דואא גנפטרנז (אַלר)											
MCL in CCR uni	<b>\$</b> 1		J\g <b>u</b> 08									
<b>LTHM MCL</b>			J\Zm 080.0									

2022

2022

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**GAMPLED** 

**YEAR** 

reported on this table. ton cuarters of a set based on results from previous quarters not

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Site 4 LRAA<sup>1</sup>

Site 3 LRAA<sup>1</sup>

Site 2 LRAA<sup>1</sup>

Boron (ppb)

Bicarbonate (ppm)

(JUNIT OF MEASURE)

SUBSTANCE

(mqq) IstoT (ppm)

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#### Definitions

of our lead and copper detections. percentile is equal to or greater than 90% and copper represent the 90th percentile of the total number of sites tested. The 90th 90th %ile: The levels reported for lead

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

of drinking water. to protect the odor, taste, and appearance feasible. Secondary MCLs (SMCLs) are set as is economically and technologically are set as close to the PHGs (or MCLGs) allowed in drinking water. Primary MCLs The highest level of a contaminant that is MCL (Maximum Contaminant Level):

known or expected risk to health. MCLGs are set by the U.S. EPA. drinking water below which there is no Goal): The level of a contaminant in MCLG (Maximum Contaminant Level

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

conductivity of a solution.

conductivity of a solution.

A unit expressing the amount of electrical

A unit expressing the amount of electrical

umho/cm (micromhos per centimeter):

substance per million parts water (or milligrams per liter).

ppm (parts per million): One part

substance per billion parts water (or

which there is no known or expected risk

PHG (Public Health Goal): The level of

vleasurement of the clarity, or turbidity of vater. Turbidity in excess of 5 NTU is just VTU (Nephelometric Turbidity Units):

> ubstance was not found by laboratory ND (Not detected): Indicates that the

control microbial contaminants. he benefits of the use of disinfectants to

which there is no known or expected of a drinking water disinfectant below Disinfectant Level Goal): The level MRDLG (Maximum Residual

a contaminant in drinking water below

requirements and water treatment with their monitoring and reporting contaminants that affect health, along Standard): MCLs and MRDLs for PDWS (Primary Drinking Water noticeable to the average person.

**Us:** No standard.

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**T**Szilit e that

i metal

ppb (parts per billion): One part

:(nicrosiemens per centimeter):

respective maximum allowed levels. able upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is avail-) ur water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific

frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken. The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change

	Unregulated and Other								
ISY SUBSTANCES									
By-product of drinking water disinfection	٥N	∀N	ΨN	ΨN	ЛD	ΨN	08	5022	TTHMs [total trihalomethanes]– Stage I (ppb)
Erosion of natural deposits; water additive promotes strong teeth; discharge from ferti and aluminum factories	٥N	ΨN	٧N	ΨN	∠£.0	Ţ	0.2	7707	(mqq) <b>əbiroulA</b>
Discharges of oil drilling wastes and from 1 refineries; erosion of natural deposits	٥N	ΨN	∀N	∀N	011	7	I	7707	(J\gu) <b>muirsB</b>
VIOLATION TYPICAL SOURCE		RANGE RANGE	AMOUNT DETECTED	RANGE RANGE	AMOUNT DETECTED	[שצםרפ] (שכרפ) 6HG	[שאסר] שכר	AAAY Dajqmaz	SUBSTANCE (UNIT OF MEASURE)
		Primary St Central Ma	, Central	bətalugərd Substances O nisM					
								SAUCES	REGULATED SUBS

#### Test Results