Consumer Confidence Report Certification Form

(to be submitted with a copy of the CCR)

(to certify electronic delivery of the CCR, use the certification form on the State Board's website at http://www.waterboards.ca.gov/drinking water/certlic/drinkingwater/CCR.shtml)

Water System Name:		Pacific S	cientific-EMC							
Wa	ter Sys	tem Number:	3500563	3500563						
7/1/2 certi	2020 to fies the itoring	customers (and the customers)	and approp ation conta	eby certifies that its oriate notices of ava ained in the report and to the State Wate	ilability ha	ve been give and consiste	en). Further, the co	he system ompliance		
Certified by: Name:			:	Charlie Martin	7	2	*	1		
		Signa	ture:	Chin	13	1	Must			
		Title:		Manager, Secur Services	ty and	Env.				
		Phone	Number:	(831) 630 5398		Date:	July 1, 2020	-		
	CCR was distributed by mail or other direct delivery methods. Specify other direct delivery method used: Posted on numerous official Company bulletin boards throughout the facility. "Good faith" efforts were used to reach non-bill paying consumers. Those efforts included the following methods:									
		•		Internet at www						
		Mailing the	CCR to pos	stal patrons within th	ie service a	rea (attach ziț	codes used)			
87	Publication o		the availab	ability of the CCR in news media (attach copy of press release)						
				ne CCR in a local newspaper of general circulation (attach a copy of the including name of newspaper and date published)						
		Posted the C	CR in publ	lic places (attach a li	st of location	ons)				
				opies of CCR to sing es, and schools	le-billed ac	ldresses servi	ng several pers	ons, such		
		Delivery to	community	organizations (attac	h a list of o	rganizations)				
		Other (attack	a list of ot	ther methods used)		ž.				
		vstems serving llowing addre		00,000 persons: Pos	sted CCR o	n a publicly-a	accessible inter	net site at		
	For p	rivately-owned	d utilities:	Delivered the CCR 1	o the Califo	ornia Public U	Jtilities Commi	ssion		
		This form	is provided as a	ı convenience and may be u.	sed to meet the	certification requi	rement of			

section 64483(c), California Code of Regulations.

2020 Consumer Confidence Report

Water System Name: Pacific Scientific-EMC

Pac Sci EMC tests 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, 2019 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Pac Sci EMC a (831) 637-3731 para asistirlo en español.

Type of water source(s) in use:

Well water

Name & general location of source(s):

Well 01 and 02 - Located West of Lake Teledyne

Report Date: 6/30/2020

Drinking Water Source Assessment information: A Level 2 Assessment was conducted by the Division of Drinking Water on May 13, 2020. Please contact Charlie Martin at (831) 630 5398 to coordinate reviewing this assessment.

Time and place of regularly scheduled board meetings for public participation: NA

For more information, contact: Charlie Martin

Phone: (831) 630 5398

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.

Variances 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)

SWS CCR Form

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)	(In a month) 12	2	I positive monthly sample	0	Naturally present in the environment					
Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule)	(In the year) 2017	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		Human and animal fecal waste					
E. coli (federal Revised Total Coliform Rule)	(In the year) 2017	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	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 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant		
Lead (ppb)	9/19/19	5	<0.0028	0	15	0.2	Not applicable	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits		
Copper (ppm)	9/19/19	5	0.240	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives		

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	TABLE:	3 - SAMPLING	RESULTS FOR	SODIUM A	ND HARDN	ESS
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	4/4/19	440	N/A	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	4/10/13	1193	N/A	None	None	Sum of polyvalent cations presen in the water, generally magnesium and calcium, and are usually naturally occurring
TABLE 4 – SAN	MPLING RI	ESULTS FOR RA	ADIOACTIVE	CONTAMI	NANTS	
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	MCL (AL) [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant	Health Effects
Gross Alpha particle activity (pCi/L)	2016	6.65-10.8 4.34 (avg)	15	0	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess the MCL over many years may have an increased ris of getting cancer.
Uranium (pCi/L)	2016	3.37-11.6 3.81 (avg)	20	0.43	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have kidne problems or an increased risk of getting cancer.
Ra-226	2016	0-0.57 0.014 (avg)	5	0	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Ra-228	2016	0-0.75 0.019 (avg)	5	0	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
TABLE 5 – DETE	CTION OF	CONTAMINA	NTS WITH A S	ECONDARY		G WATER STANDARD
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride	4/4/19	630	N/A	500	N/A	Runoff/leaching from natural deposits; seawater influence
Sulfate	4/10/13	395	N/A	500	N/A	Runoff/leaching from natural deposits; seawater influence
*Specific Conductance (µS/cm)	2019	4140 (avg)	3600-5400	1600	N/A	Substances that form ions when in water; seawater influence
*Total Dissolved Solids (TDS)	2019	2371 (avg)	2100-2700	1000	N/A	Runoff/leaching from natural deposits
Turbidity Units (NTU)	4/10/13	0.46	N/A	5	N/A	Soil runoff
Iron	2019	0.36 (avg)	0.037-1.2	300	N/A	Leaching from natural deposits; industrial wastes

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	MCL (AL) [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contamination	Health Effects Language
Nitrate as NO3	7/6/2017	1.45	45	45	Runoff and leaching from fertilized use; leaching from septic tanks and sewage; erosion of natural deposits.	Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.

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Perchlorate (ppb)	2019	0.12-3.7 1.75 (avg)	6	1	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts	Perchlorate has been shown to interfere with uptake of iodide by the thyroid gland, and to thereby reduce the production of thyroid hormones, leading to adverse effects associated with inadequate hormone levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed for normal metabolism and mental function.
Chromium Hexavalent	7/14/2016	0.059-1.4 0.729 (avg)	1	0.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; crosion of natural deposits.	Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.
Barium	2016	620	1000	N/A	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure.
Nitrate as N	2019	0.37-1.3 0.76 (avg)	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.
Fluoride	7/14/2016	0.003- 0.004 0.0035 (avg)	2	1	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.	Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.
N-Nitrosodimethylamine (NDMA)	4/30/2019	33 ng/L	N/A	N/A	NDMA can be unintentionally produced in and released from industrial sources through chemical reactions, such as those that involve alkylamines with nitrogen oxides, nitrous acid on ritrite salts. Potential industrial sources include byproducts from tanneries, pesticide manufacturing plants, rubber and tire manufacturers, alkylamine manufacture and use sites, fish processing facilities, foundries and dye manufacturers	Exposure to high levels of NDMA may cause liver damage.

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).

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. Pac Sci EMC 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. [OPTIONAL: 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.

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					
Coliform Rule Exceedance	Greater than 1 coliform positive sample taken in consecutive months.		water well was the suspected culprit in the high coliform counts in the months of September and October. Disinfection of the well and distribution system using a sodium hypochlorite solution removed the	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.					