

Terms Used In This Report:

- **AL** - Regulatory Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **MCL** - Maximum Contaminant Level: 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.
- **MCLG** - Maximum Contaminant Level Goal: 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 (USEPA).
- **mfl** - Million Fibers per Liter: a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- **MRDL** - Maximum Residual Disinfectant Level
- **ND** - Not detectable at testing limit
- **NTU** - Nephelometric Turbidity Unit: A measure of the clarity of water. Turbidity in excess of 5NTU is just noticeable to the average person.
- **pCi/L** - picocuries per liter (a measure of radiation)
- **PDWS** - Primary Drinking Water Standards: MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **PHG** - Public Health Goal: 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.
- **ppb** - parts per billion or micrograms per liter (ug/L)
- **ppm** - parts per million or milligrams per liter (mg/L)
- **SDWS** - Secondary Drinking Water Standards: 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.

Contaminants that may be present in source water include:

- **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.
- **Microbial contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **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, and septic systems.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Tables 1, 2, 3, and 4 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The California Department of Public Health (CDPH) allows us to monitor for certain contaminants less than once per year because their concentrations are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are more than one year old.

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.

In order to ensure that tap water is safe to drink, USEPA and the CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Microbiological Quality monitoring is required of the VVCS Distribution system. Required samples are 3 per week. VVCS samples 4 per week. In 2012, we tested 208 samples; none were found to be positive. The District is in compliance with the Total Coliform Rule.

Radiological water quality is measured by the concentration of Gross Alpha radionuclides. District wells were tested for Gross Alpha in 2010 with the following results: Well 1B (0 pCi/L), Well 3A (0.3 pCi/L), and Well 3B (0 pCi/L). The MCL for Gross Alpha is 15 pCi/L. Radiological testing is due again in 2019.

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. More information about contaminants and potential health effects are available from the Safe Drinking Water Hotline (800-426-4791).

Information for your water softener:
Hardness = 23.2 gpg
Iron = <100 ppb

This report may also be viewed online at <http://vvcsc.org/publications/waterqual.htm>.

Large print copies of this report are available upon request from the District office. Please call 733-2475 to have a copy mailed to you.

VANDENBERG VILLAGE COMMUNITY SERVICES DISTRICT CONSUMER CONFIDENCE REPORT (CCR) FOR YEAR ENDING DECEMBER 31, 2012

Vandenberg Village Community Services District (VVCS) routinely monitors for constituents in accordance with Federal and State laws. All drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk. THE DISTRICT HAS MET ALL STANDARDS.

Our water comes from three wells which draw from the "Lompoc Uplands Aquifer." Our wells are located at 702 and 704 Highway 1 about 1/4 mile west of the "Wye" intersection.

In accordance with the State's Drinking Water Source Assessment and Protection (DWSAP) Program, a Drinking Water Source Assessment for all three District wells was completed in April 2001 and updated during a sanitary survey in 2012. The assessments included: A delineation of the areas around a drinking water source through which contaminants might move and reach that drinking water supply; an inventory of possible contaminating activities (PCAs) that might lead the release of microbiological or chemical contaminants within the delineated area; and a determination of the PCAs to which the drinking water source is most vulnerable. In summary District sources, Wells 1B, 3A, and 3B are considered most vulnerable to the following activities NOT associated with any detected contaminants: National Pollutant Discharge Elimination System/Waste Discharge Requirements (NPDES/WDR) permitted discharges and pesticide/fertilizer/petroleum storage and transfer areas. It is important to note that no contaminants have been detected. The Drinking Water Source Assessment is the first step in the development of a complete drinking water source protection program.

A copy of the complete assessment may be viewed at:

California Department of Public Health (CDPH)
Drinking Water Field Operations Branch
1180 Eugenia Place, Suite 200
Carpinteria, CA 93013-2000

or you may request a summary of the assessment be sent to you by contacting:

Kurt Souza
District Engineer
805-566-1326

If you have any questions about this report or your water quality, please contact:

Martin Damwyk
Phone: 805-733-2475
Email: administration@vvcsc.org

The Board of Directors holds regularly scheduled Board meetings on the first Tuesday of every month at 7:00 p.m. in the District's office conference room at 3757 Constellation Rd. The public is encouraged to attend.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper sampled: July 2012 Next round of sampling: July 2015	No. of samples collected	90 th percentile level detected	No. Sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	20	ND	0	15	0.2	Internal corrosion of household water plumbing systems; erosion of natural deposits; discharges from industrial manufacturers.
Copper (ppm)	20	0.8	0	1.3	0.3	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

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. VVCSD 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 at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

TABLE 2 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	02/09/2011	125	93 - 140	N/A	N/A	Generally found in ground and surface water
Hardness (ppm)	02/09/2011	397	220 - 480	N/A	N/A	Generally found in ground and surface water

Note: Because treated water is blended from different water sources which have different hardness levels, Detected Levels are calculated based on the amount of water pumped from each well during the reporting period. To obtain the grains per gallon (gpg), as used by the water softener industry, divide the hardness level by 17.1. In this case the gpg is 23.2.

TABLE 3 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Arsenic ¹ (ppb)	02/09/2011	1.8	ND – 5.7	10	N/A (N/A)	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Asbestos (mfl)	03/08/2006	ND	System Sample	7	N/A (7)	Internal corrosion of asbestos cement water mains; erosion of natural deposits
Nitrate (as NO ₃) (ppm)	02/09/2011	ND	ND	45	45 (N/A)	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride (ppm)	02/09/2011	0.45	0.30 - 0.52	2	1 (N/A)	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

¹ USEPA has revised the drinking water standard for arsenic because of special concerns that it may not be stringent enough. Arsenic is a naturally occurring mineral known to cause cancer in humans at high concentrations. On February 22, 2002, the arsenic in drinking water rule became effective. The date by which systems must comply with the 10 ppb standard was January 23, 2006. The District is in compliance.

TABLE 4 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Level Detected	MCL	Typical Source of Contaminant
Color (units)	<5	15	Naturally occurring organic materials
Copper (ppm)	ND	1	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron (ppb) after filtration	<100	300	Leaching from natural deposits; industrial wastes
Manganese (ppb) after filtration	<50	50	Leaching from natural deposits
Odor (TON -Threshold Odor Number)	1	3	Naturally occurring organic material
Corrosivity (AI – Aggressive Index)	12.2	N/A	Natural or industrially-influenced balance of hydrogen, carbon, and oxygen in the water, affected by temperature and other factors. (Water with AI ≥ 12 is non-aggressive. Water with AI < 12 is aggressive.)
Foaming Agents (MBAS) (ppb)	ND	500	Municipal and industrial waste discharges
Turbidity - Clarity (ntu)	<0.25	5	Soil Runoff
Total Dissolved Solids (ppm)	808	1000	Runoff/Leaching from natural deposits
Specific Conductance (micromhos)	12.34	1600	Substances that form ions when in water
Chloride (ppm)	180	500	Runoff/leaching from natural deposits, seawater influence
Sulfate (ppm)	178	500	Runoff/leaching from natural deposits, industrial wastes

Note: There are no PHGs or MCLGs for constituents with Secondary drinking Water Standards because these are not health based levels, but set on basis of aesthetics.

Disinfection Byproducts, Residuals, and Byproduct Precursors	Date Tested	MCL	2012 Average	2012 Range of Detection	Major Sources
Total Trihalomethanes (TTHMs) (ppb)	08/29/2012	80	19.6	N/A	By-product of drinking water chlorination
Haloacetic acids (HAA5s) (ppb)	08/29/2012	60	4.2	N/A	By-product of drinking water chlorination
Free Chlorine Residuals (ppm)	4 per week	MRDL 4.0 (as CL ₂)	0.64	0.57 – 0.72	Drinking water disinfectant added for treatment

Note: The contaminant MTBE (Methyl Tertiary-Butyl Ether) is a gasoline additive that was banned in 2004. District wells were tested in 2008 and no MTBE was detected. The District's "Stage 1 Disinfection Byproduct Rule" monitoring has consistently revealed low levels of Total Trihalomethanes (TTHMs) and Haloacetic acids (HAA5s) and has been granted a waiver to reduce monitoring in the main distribution system to a triennial basis, testing is due again in the 3rd quarter of 2014. Wells were tested for **27 regulated Volatile Organic Compounds** and all were non-detectable.