



CITY OF ODESSA

2011 WATER QUALITY REPORT

PWS No. TX068002

ODESSA'S DRINKING WATER EXCEEDS ALL FEDERAL PRIMARY DRINKING WATER REQUIREMENTS!

This report is intended to provide you with important information about your drinking water and the efforts made by the City of Odessa to provide safe 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

For more information regarding this report contact: Matt Irvin at 432-335-4625.

En español: Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al tel. (432) 335-4625 – para hablar con una persona bilingüe en español.

Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, and people with HIV/AIDS or other immune problems: 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. EPA/Centers for Disease Control and Prevention (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 (800-426-4791).

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. 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 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 or at <http://www.epa.gov/safewater/lead>.

Where Do We Get Our Drinking Water? The City purchases all of its water, untreated, from the Colorado River Municipal Water District (CRMWD). The majority of the water is surface water from Lake Ivie (Runnels County). Lake Thomas (Scurry County) and Lake Spence (Coke County) are also sources for our drinking water supply. The City may also receive water from Ward and Martin Counties wells during certain times of the year to supplement the surface water supplies. The TCEQ completed an assessment of our source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, please contact us.

Water Sources: 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 Contaminants that may be present in the source:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrially or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

About the Tables Contained In This Report. The tables in this report list all of the federally regulated or monitored constituents, which have been found in Odessa's water. The EPA requires testing of up to 97 constituents. The concentrations (MCL and MCLG) of these standards are set by the EPA based on the potential health effects of the regulated constituent in the public water supply. The data presented in the report is from the most recent testing done in accordance with regulations. The following abbreviations/definitions are used in the tables:

NTU - Nephelometric Turbidity Units.

pCi/L - picocuries per liter (a measure of radioactivity).

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.

ppq – parts per quadrillion, or pictograms per liter.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected health risk. MCLG's allow for a margin of safety.

Maximum Contaminant Level (MCL) - The highest permissible level of a contaminant in drinking water. MCL's are set as close to the MCLG as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of 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 contamination.

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

na – not applicable

Turbidity

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.						
Year	Constituent	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits in 95% of Samples	Unit of Measure	Source of Constituent
2011	Turbidity	0.23	100.0%	0.3	NTU	Soil runoff

Cryptosporidium Monitoring – Cryptosporidium was not detected in any sample analyzed during 2011

Total Coliform

Total Coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Year	Contaminant	Highest Monthly % of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2011	Total Coliform Bacteria	0.9	*	Presence	Naturally present in the environment

* Presence of coliform bacteria in 5% or more of the monthly samples

Fecal Coliforms – No fecal coliform bacteria were detected in the water supply during the required monitoring for 2011.

Inorganics

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2011	Arsenic	3.4	3.4	3.4	10	0	ppb	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
2011	Barium	0.148	0.148	0.148	2	2	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2011	Fluoride	0.75	0.75	0.75	4	4	ppm	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
2011	Nitrate (measured as Nitrogen)	0.26	0.26	0.26	10	10	ppm	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.

Nitrate Advisory – Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Volatile & Synthetic Organic Contaminants: Testing waived, not reported, or none detected.

Radioactive Contaminants

Year	Constituent	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Erosion of natural deposits.
2011	Combined Radium	2	2	2	15	pCi/L	Erosion of natural deposits.

Disinfectant Residuals

Year	Constituent	Annual Average	Range of Detected Levels from Single Sample		MRDL for Annual Average	MRDLG	Unit of Measure	Source of Constituent
			Minimum	Maximum				
2011	Chloramines	2.94	0.5	4.8	4	<4.0	ppm	Disinfectant used to control microbes.

Total Organic Carbon (TOC)

TOC has no health effects. The disinfectant can combine with TOC to form disinfection byproducts (THM and HAA) which are reported below. Disinfection is necessary to ensure the water does not have unacceptable levels of pathogens.

Year	Constituent	Average	Range		MCL	MCLG	Units of Measure	Source of Constituent.
			Minimum	Maximum				
2011	Raw Water TOC	6.44	5.74	7.33	NA	NA	ppm	Naturally occurring
2011	Treated Water TOC	5.23	4.03	5.98	NA	NA	ppm	Naturally occurring

Disinfection Byproducts

Year	Constituent	Average of all Sampling Points	Minimum Level	Maximum Level	MCL, Annual Average of all samples	Unit of Measure	Source of Constituent
2011	Total Trihalomethanes (THM)	71	28.7	99.9	80	ppb	By-product of drinking water chlorination.
2011	Total Haloacetic Acids (HAA)	19	7.9	21.8	60	ppb	By-product of drinking water chlorination.

Unregulated Contaminants

Odessa has participated in the Unregulated Contaminant Monitoring Rule by sampling for the following parameters. There is no maximum level for these chemicals at the entry to the distribution system.

Year	Constituent	Average Level	Minimum Level	Maximum Level	Unit of Measure	Reason for Monitoring
2009	Chloroform	1	1	1	ppb	Byproduct of drinking water disinfection
2009	Bromoform	15	15	15	ppb	Byproduct of drinking water disinfection.
2009	Bromodichloromethane	3.9	3.9	3.9	ppb	Byproduct of drinking water disinfection.
2009	Chlorodibromomethane	8.5	8.5	8.5	ppb	Byproduct of drinking water disinfection.

Lead and Copper

Year	Constituent	The 90 th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Constituent
6/26/09	Lead	2.74	0	15	ppb	Corrosion of household plumbing systems. Erosion of natural deposits.
6/26/09	Copper	0.144	0	1.3	ppm	Corrosion of household plumbing systems. Erosion of natural deposits. Leaching from wood preservatives.

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Secondary Constituents

Many constituents (such as dissolved solids) which are often found in drinking water can cause taste, color, and odor problems. These constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2009	Bicarbonate	142	142	142	NA	ppm	Corrosion of carbonate rocks such as limestone.
2009	Sodium	169	139	169	NA	ppm	Naturally occurring soluble mineral salts.
2011	Chloride	436	210	564	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
2009	pH	7.6	7.6	7.6	>7.0	Standard units	Measure of corrosivity of water.
2011	Sulfate	351	193	450	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2011	Total Alkalinity as CaCO ₃	126	93	164	NA	ppm	Naturally occurring soluble mineral salts.
2011	Total Dissolved Solids	1267	860	1887	1000	ppm	Total dissolved mineral constituents in water.
2011	Total Hardness as CaMg	586	354	858	NA	ppm	Naturally occurring element.

Questions or Comments? The Utilities Department values your comments on the Water Quality Report as well as on other issues relating to water quality or provision of water service. No meetings concerning this report are scheduled. If you have any comments or questions or would like additional conservation information, please contact us by calling 335-4625, write us at City of Odessa Utilities Department, P.O. Box 4398, Odessa, Texas 79760 or email us at utilities@odessa-tx.gov.