

Facility A - Brownsville WTP

Facility B - Wax WTP

Facility D - Distribution

Facility ID	Allowable Level	Highest Level Detected	Lowest Monthly %	Violation				
Turbidity	A=	Never more than 1.0	0.29	100%	No			
	B=	NTU. Less than 0.3 NTU 95% of samples	0.30	100%	No			
Total Organic Carbon	A=	Mthly 2011	TT	N/A	1.0	.82 to 2.12	N	Naturally present in environment
	B=	Mthly 2011			1.0	.91 to 2.75	N	
				Annual Average	Mthly Ratio			
Mthly ratio is the % TOC removal achieved to the % TOC removal required. Lowest annual avg. of ratios must be 1.00 or greater.								
Copper	D=	Sep-11	AL= 1.3	0	0.025 (90th percentile)	<0.025 to 0.558	N	Corrosion of household plumbing systems
2011 results indicate that 0 sites exceed the action level for Copper								
Chlorine	A=	Continuous	MRDL	MRDLG	1.90	0.3 to 2.1	N	Water additive used to control microbes
	B=	Continuous	4	4	2.10 (highest avg)	0.3 to 2.9	N	
Fluoride	A=	Mthly	4	4	1	1 to 2	N	Water additive which promotes strong teeth
	B=	Mthly			1.1	0.82 to 1.75	N	
HAA5 Haloacetic	D=	Qrtly 2011	60	N/A	64 (highest avg)	29 to 94	N	Byproduct of drinking water disinfection
TTHM (total trihalometha)	D=	Qrtly 2011	80	N/A	99 (highest avg)	10 to 107	N	Byproduct of drinking water disinfection
Nitrate	A=	Feb-11	10	10	2.109	0.0 to 2.109	N	Fertilize use, leaching from septic tanks, erosion of natural deposits
	B=	Feb-11			2.574	0.0 to 2.574	N	

Some or all of these definitions may be found in this report:

**Nephelometric Turbidity Unit (NTU)** - A measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

**Maximum Contaminant Level (MCL)** - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**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 allow for a margin of safety.

**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.

**Below Detection Levels (BDL)** - laboratory analysis indicates that the contaminant is not present.

**Not Applicable (N/A)** - does not apply.

**Parts per million (ppm)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.

**Parts per billion (ppb) - or micrograms per liter, (µg/L)**. One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system shall follow.

**Treatment Technique (TT)** - a required process intended to reduce the level of a contaminant in drinking water.

**Total Organic Carbon (TOC)** - has no health effects. However, total organic carbon, provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes, or THMs, and haloacetic acids, or HAAs. Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Edmonson County Water District routinely monitors for constituents in your drinking water according to Federal and State Laws. This report shows the detected contaminant results of our monitoring for the period of January 1st to December 31, 2011. Some contaminants are not required to be tested for every year, therefore, for some, we are reporting for the most current data available. Contact the Edmonson County Water District for a complete listing of all the contaminants tested for during the year. 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.

Our water system violated one or more drinking water requirements over the past year. Even though these were not emergencies, as our customers, you have the right to know what happened and what we are doing or did to correct these situations. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the times listed below, we did not monitor for Atrazine or did not meet all monitoring or testing for TTHM, TOC, HAA5 and therefore cannot be sure of the quality of your drinking water during that time. There is nothing you need to do at this time.

The table below lists the contaminants we did not properly test for during the last years, how often we are supposed to sample for the listed contaminants, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and date samples have been taken, and date on which follow-up samples were or will be taken.

Contaminant	Required sampling frequency	Number of samples taken	Samples should have been taken	When samples were or will be taken
#1 TTHM KY 0310114	1st Quarter 2011	8	8	April 11, 2011
#2 HAA5 KY 0310114	1st Quarter 2011	8	8	April 11, 2011
#3 Total Carbon Plant A/B	May 2011	2	2	June 14, 2011
#4 Atrazine Plant B	2nd Quarter 2011	1	1	December 14, 2011
#5 TTHM KY 0310114	2nd Quarter 2011	8	8	July 11, 2011
#6 HAA5 KY 0310114	2nd Quarter 2011	8	8	July 11, 2011
#7 Total Carbon Plant A/B	June 2011	2	2	July 12, 2011

#1, 2, 5, & 6 - Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5) - The TTHM and HAA5 samples for the period of 1/1/2011 to 3/31/2011 and 4/1/2011 to 6/30/2011 was missing the site code or the analysis date due to laboratory error.

#3 & 7 - Total Organic Carbon (TOC) - The Total Organic Carbon samples for May 1, 2011 to May 31, 2011 and June 1, 2011 to June 30, 2011 had an incorrect location code due to laboratory error. No health risk due to not being MCL violation. Sample collectors and laboratory are checking site or location codes.

#4 - Atrazine - For the compliance period of 4/1/2011 to 6/30/2011 our operator failed to sample for atrazine at the Wax WTP B. Sample was taken December 14, 2011.

Edmonson County Water District received a Notice of Violation dated 7/27/2011 for not submitting a Public Notice Certification Form. (wrong form submitted 6/21/2011) Correct Public Notice Certification Form with List of Violations that were included in 2011 CCR was submitted on August 3, 2011.

Haloacetic acids-HAA5 - Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. For the compliance periods of 1/1/2011-3/31/2011(The reported result of 0.066 mg/l exceeded the MCL of 0.060 mg/l), 4/1/2011-6/30/2011 (The reported result of 0.063 mg/l exceeded the MCL of 0.060 mg/l), and 7/1/2011-9/30/2011 (The reported result of 0.069mg/l exceeded the MCL of 0.060 mg/l) Haloacetic acids (HAA's) exceeded the limits when averaged with the previous 3 quarters respectively for KY 0310114 Distribution System. Edmonson County Water District has changed our operation and treatment techniques and have been in compliance for the periods of 10/1/2011-12/31/2011, 1/1/2012-3/31/2012, and 4/1/2012-6/30/2012.

The Edmonson County Water District received a Notice of Violation dated February 3, 2011 for failure to give Public Notification in the 2011 CCR for violations for Atrazine for 4th Quarter 2008, 2nd Quarter 2009 and 3rd Quarter 2009.

Edmonson County Water District received Notice of Violation dated 8/9/2011 for failure to include in its 2011 CCR:

1. the name of a contact and phone number. Name of contact and phone number included in 2012 CCR.
2. missing mandatory language "Contaminants that may be present in source water include:" This is included in the 2012 CCR.
3. to report in the table the Total Coliform and E-Coli positives dated November 16, 2010.

The Edmonson County Water District inadvertently listed Lead in the table for Detected Contaminants with a zero in the 2011 CCR. Only Detected Contaminants is listed in the 2012 CCR.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. 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 may 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 may be naturally-occurring or result from urban stormwater runoff, industrial 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 stormwater runoff, and residential uses. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems. Radioactive contaminants, which may be naturally-occurring or be the result of oil and gas production and mining activities. To ensure that tap water is safe to drink, U.S. EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. FDA regulations establish limits for contaminants in bottled water that shall provide the same protection for public health.

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 may be obtained by calling Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

**Information about lead** - 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. Edmonson Co. Water District 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 or at <http://www.epa.gov/safewater/lead>.

\*\*The next compliance sampling period for Edmonson County Water District for lead and copper is scheduled for June-September 2014.

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 (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.



Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

**"Thank You" if you have reported a leak. Please continue helping us watch for leaks.**



Distribution Crew



Administrative Staff



Treatment Plant Crew

**We have a professional experienced staff with a combine tenure of 269 years.**

Our commitment is to provide our customers with a safe, clean, and reliable supply of drinking water. We would like the public to be assured that we will continue to monitor, improve, and protect the water system and deliver a high quality water direct from the tap. We know that water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system. Please report any activity that might jeopardize the water supply.



## 2012 Annual Water Quality Report Edmonson County Water District

PWSID# 0310114 Facilities A & B  
Water testing performed in 2011

We are pleased to present this years Annual Water Quality Report. This report is designed to inform the public about the quality of water and services provided on a daily basis. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our customers and resources. We are committed to ensuring the quality of your water with lines in Edmonson, Hart, Grayson, Warren and Butler Counties with a combined total population of over 32,000 people. Brownsville WTP is our facility "A" and serves over 15,200 people and Wax WTP is our "B" facility and serves over 16,700 people.

In conjunction with the Barren River Area Development District, Edmonson Co. Water District has developed a Source Water Assessment and Protection Plan for Brownsville WTP "A" and with The Lincoln Trail Area Development District for Wax WTP "B". Both are classified as surface water treatment facilities. The Brownsville WTP draws water from Green River and Wax WTP draws water from Nolin Reservoir. The susceptibility of contaminants is in the moderate category due to the route of the rivers. The rivers pass through towns, under bridges on major roads, close to underground storage sites, agriculture activities and oil and gas production facilities. A complete source water assessment can be obtained and viewed at the Edmonson Co. Water District office located at 1128 Hwy. 259 N, Brownsville, KY between 8am and 4:30pm Mon-Fri. Our regular scheduled board meetings are on the 2nd and 4th Tues. at 8:30am. Also available by request is a complete list and report of all parameters of contaminants that are sampled for each year.

# EDMONSON COUNTY WATER DISTRICT

The Edmonson County Water District's Goal is to continually improve the water facilities that provide you "our customers" with a safe and dependable supply of drinking water. We want you to be aware of the efforts we make daily to provide this service.



Our Treatment Plant and Distribution Line Operators are license professional that work long hours seven (7) days a week, three hundred sixty-five (365) days a year so that you are provided with quality service.



Our licensed employees test and analysis your water daily in our Treatment Plant laboratories. Other testing required by the Environmental Protection Agency is contracted to commercial laboratories certified by Environmental Protection Agency.

The Edmonson County Water District is blessed with two excellent sources of Raw Water.



Brownsville WTP

The Brownsville WTP is on Green River being our facility "A", that serves over 15,200 people and our Wax WTP is on Nolin Lake being our facility "B", that serves over 16,700 people.



Wax WTP

The Water District also consists of approximately 683 miles of water mains in Edmonson, Hart, Grayson, Warren and Butler Counties, 17 storage tanks, main office building, and 2 maintenance and storage buildings. The Water District will continue to provide its 10,000± customers with dependable service at a reasonable price. The Water District has organized a Wastewater Division and will be providing that service to the people throughout the county as money becomes available.

PWSID# 0310114  
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CCR Contact: Tim Brewster  
270-597-2165

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