Facility A - Brownsville WTP
Facility B - Wax WTP

	Facility ID	Allowable Level	Highest Level Detected	Lowest Monthly %	Violation	
Turbidity	A=	Never more than 1.0	0.3	100%	No	Soil Runoff
	B=	NTU. Less than 0.3 NTU 95% of samples	0.3	100%	No	

Contaminant		Sample Date	MCL	MCLG	Amount Detected	Range	Violation	Likely Source
Total Organic Carbon	A=	Mthly 2010	TT	N/A	1.23	1.1 to 2.0	N	Naturally present in environment
	B=	Mthly 2010			1.7	1.0 to 3.73	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.								
Combined Radium	A=	Oct-02	5	0	0.05	0 to 05	N	Erosion of natural deposits
	B=	Oct-02			0.05	.2 to 1.1	N	
Alpha Emitters	A=	Sep-03	15	0	0.4	0 to .4	N	Erosion of natural deposits
	B=	Sep-03			0.4	0 to .4	N	
Copper	A=	Jul-08	AL=	0	0.0813	.025 - .1057	N	Corrosion of household plumbing systems
	B=	Jul-08	1.3		0.1868 (90th percentile)	0 to .3788	N	
2008 results indicate that 0 sites exceed the action level for Copper								
Chlorine	A=	Daily 2010	MRDL	MRDL	1.66	0.6 to 2.33	N	Water additive used to control microbes
	B=	Daily 2010	4	G 4	2.1	.5 to 2.8	N	
Fluoride	A=	Bi-Mthly 10	4	4	0.99	.83 to 1.2	N	Water additive which promotes strong teeth
	B=	Bi-Mthly 10			1.1	.92 to 1.1	N	
Lead	A=	Jul-08	AL= 15	0	0	0 to 15	N	Corrosion of household plumbing systems
	B=	Jul-08			0	0 to 15	N	
					0.0 (90th percentile)			
2008 results indicate that 0 sites exceed the action level for Lead								
HAA5 Haloacetic Acids	A=	Quarterly 10	60	N/A	57	38 to 85	N	Byproduct of drinking water disinfection
	B=	Quarterly 10			59 (highest avg)	28 to 93	N	
TTHM (total trihalomethanes)	A=	Quarterly 10	80	N/A	58	34 to 75	N	Byproduct of drinking water disinfection
	B=	Quarterly10			50 (highest avg)	25 to 63	N	
Nitrate	A=	Mar 2010	10	0	1.3	0.0 to 1.3	N	Fertilize use, leaching from septic tanks, erosion of natural deposits
	B=	Feb 2010			2.5	.2 to 2.5	N	
Nitrite	A=	Mar 2010	1	0	<0.015	0.0 to <.015	N	Fertilize use, leaching from septic tanks, erosion of natural deposits
	B=	Feb 2010			<0..015	0.0 to <.015	N	

Definitions & terms

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.

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.

MRDL - The highest level a disinfectant allowed in drinking water. There is convincing evidence that addion of a disinfectant is necessary for control of microbial contaminants.

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.

BDL - Laboratory analysis indicates that the contaminant is not present.

N/A - Does not apply.

AL - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

NDS= No data submitted

TT - A required process intended to reduce the level of a contaminant in drinking water.

MCL - The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

2011 Annual Water Quality Report
Edmonson County Water District
PWSID 0310114 A&B

We are pleased to present to you this years annual water quality report. This report is designed to inform you about the quality water and services we deliver to you everyday. 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 Resivoir. 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

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/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

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, 2010. 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. **D**rinking 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.

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 July 2011

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 1-800-426-4791.

*D*rinking 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 the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791)

*T*he 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. Microbial contaminant such as viruses and bacteria that may come from sewage treatment plants, septic systems, agriculture livestock operations, and wildlife. Inorganic contaminants, such as salts and metals that may be naturally-occurring or result from urban storm water 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 storm water 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 storm water runoff, and septic systems. Radioactive contaminants, which may be naturally-occurring or be the result of oil and gas production and mining activities. To

insure the 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.

Our water system violated one or more dirking 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 periods listed below, we did not monitor or test for the listed contaminants 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 no 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.

The following is a list of Edmonson County Water Districts compliance determinations and description of each contaminant and its potential health effects as outlined by Federal EPA Guidelines.

**Feb 2007 - Failure to submit adequate number of DBP samples for the compliance period 2-1-2007 / 2-28-2007 for both KY0310114A&B (Brownsville & Wax WTPs). Overdue information for Total Carbon analysis was submitted.

Total Organic Carbon - 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 TTHM's, and haloacetic acids, or HAA's. 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 cancer.

** May 2007 - Coliform (Total Coliform) - The Edmonson Co. Water Dist. Failed to submit a correct Bacteriological Analysis Report Form. The correct form was submitted with the correct collection date.

Total Coliform. 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.

**Oct 2007 - Failure to submit adequate number of DBP samples for the compliance period 10-1-2007 / 10-31-2007 for both KY0310114A&B (Brownsville & Wax WTPs). Overdue information for Total Carbon analysis was submitted.

Total Organic Carbon - 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 TTHM's, and

**Dec 2007 - Total Carbon analysis missing sample date, time and sample type for KY0310114A&B (Brownsville & Wax WTPs). Overdue information for Total Carbon analysis was submitted.

Total Organic Carbon - 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 TTHM's, and

**Jan-Dec 2007 Arsenic - Edmonson Co. Water Dist. Failed to submit analytical results for the specified contaminant for the compliance period 1-1-2007 / 12-31-2007.

Arsenic. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

**Apr-Jun 2007 Atrazine - Edmonson Co. Water Dist. Wax WTP KY0310114B failed to submit analytical results for atrazine for the compliance period 4-1-2007 / 6-30-2007. Second qtr. Sampling for atrazine was not conducted.

Atrazine - Some people who drink water containing Atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

**Jul-Sept 2008 Atrazine - Edmonson Co. Water Dist. Wax WTP KY0310114B failed to submit analytical results for atrazine for the compliance period 7-1-2008 / 9-30-2008. Second qtr. Sampling for atrazine was not conducted.

Atrazine - Some people who drink water containing Atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

**Oct-Dec 2008 Atrazine - Edmonson Co. Water Dist. Wax WTP KY0310114B failed to submit analytical results for atrazine for the compliance period 10-1-2008 / 12-31-2008. Second qtr. Sampling for atrazine was not conducted.

Atrazine - Some people who drink water containing Atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

**Apr-Jun 2009 Atrazine - Edmonson Co. Water Dist. Wax WTP KY0310114B failed to submit analytical results for atrazine for the compliance period 4-1-2009 / 6-30-2009. Second qtr. Sampling for atrazine was not conducted.

Atrazine - Some people who drink water containing Atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

**Jul-Sept 2009 Atrazine - Edmonson Co. Water Dist. Wax WTP KY0310114B failed to submit analytical results for atrazine for the compliance period 7-1-2009 / 9-30-2009. Second qtr. Sampling for atrazine was not conducted.

Atrazine - Some people who drink water containing Atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

**Oct-Dec 2009 Atrazine - Edmonson Co. Water Dist. Wax WTP KY0310114B failed to submit analytical results for atrazine for the compliance period 10-1-2009 / 12-31-2009. Second qtr. Sampling for atrazine was not conducted.

Atrazine - Some people who drink water containing Atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

**Jan 2010 Total Carbon analysis missing sample date, time and sample type for KY0310114B (Wax WTP). Overdue information for Total Carbon analysis was submitted.

**Jan 2010 Total Carbon analysis not submitted for KY0310114A (Brownsville WTP). Overdue information for Total Carbon analysis was submitted.

Total Organic Carbon - 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 TTHM's, and

**Feb 22, 2010 - Failure to submit analytical results of Atrazine for KY0310114B (Wax WTP) for the specified compliance period of 4 consecutive quarters. Testing began in the first quarter of 2010 and ended in the last quarter of 2010 with all required quarters being sampled.

Atrazine - Some people who drink water containing Atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

**Nov 2010 - Failure to submit analytical results for radiological monitoring for KY0310114A (Brownsville WTP). Analysis will be completed in 2011.

**Nov 2010 - Failure to submit analytical results for radiological monitoring for KY0310114B (Wax WTP). Analysis will be completed in 2011.

Beta/photon emitters. Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increased risk of getting cancer.

Alpha emitters. 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 of the MCL over many years may have an increased risk of getting cancer.

Combined Radium 226/228. 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.

Uranium - Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.

**2010 - Failure to submit analytical results for VOC's (Volatile Organic Contaminants) for KY0310114A (Brownsville WTP). Contaminats that make up the VOC's are 1,2,4-Trichlorobenzene, CIS-1,2-Dichloroethylene, Zylenes(Total), Dichloromethane, O-Dichlorobenzene, P-Dichlorobenzene, Vinyl Chloride, 1,I-Dichloroethylene Trans-1,2-, Dichloroethylene, 1,2-Dichloroethane, 1,1,1-Trichloroethane, Carbon Tetrachloride, 1,2-Dichloropropane, Trichloroethylene, 1,1,2-Trichloroethylene, Tetrachloroethylene, Chlorobenzene and Benzene. Sampling was conducted on Feb. 16, 2010 but analysis results were not forwarded to the Division of Water.

**Jul 20, 2010 - CCR Adequacy / Availability / Content for KY0310114 for the missing total coliform positive sample on Sept 15, 2009. Also omitted were the 2nd, 3rd and 4th qtr. Atrazine NOV's for KY0310114B (Wax WTP). All NOV's and analysis results will be included in future CCR's.

**2010 Public Notice violation CCR Adequacy/Availability/Content - Failure to submit notices for violations - Atrazine for 4th quarter 2008, Atrazine 2nd quarter 2009 and Atrazine 3rd quarter 2009 for KY0310114B (Wax WTP). Public notification was omitted from the 2010 CCR but has been included in the 2011 CCR.

**2010 Public Notice violation - Failure to prepare and submit a Certification of the distribution of the 2010 CCR report. Certification of mailing was sent.

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.

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 sources and the water system. Please report any activity that might jeopardize the water system.