

2010 Test Results

In order to be better informed and prepared for emerging water issues, Huntsville Utilities has begun voluntarily testing for pharmaceuticals, personal care products, endocrine disruptors and perchlorate in the water supply. The test results to date have shown that minute amounts of only a few of these products are being detected in the water supply. It is important to note that there is no evidence that these compounds pose any risk at the trace levels detected. Huntsville Utilities plans to continue to monitor these compounds to determine what action, if any, is necessary.

Many of these compounds are thought to have been in the source water for years though it is now possible, with the advancement in testing technologies, to detect more substances at much lower levels than ever before. Parts per million has been the norm in the water industry for measuring compounds but as technology has improved, the measurements are now being routinely measured in parts per billion and even as low as parts per trillion. To help illustrate just how small a measurement a part per billion is, imagine one drop of water in a railroad tanker car or 1 second in 32 years. A point of reference for a part per trillion can be illustrated as the equivalent of one square inch in 250 square miles or a few drops in 20 Olympic-sized swimming pools.

Listed below are results from testing on our source waters:

Compounds detected during testing			
	Southwest	South Parkway	Lincoln Dallas
Progesterone	*0.2ppt	0.1ppt	Not Detected
Cotinine	**0.005ppb	0.004ppb	0.001ppb
DEET	0.008ppb	0.007ppb	Not Detected
Paraxanthine	Not Detected	Not Detected	0.010ppb
Carbamazepine	0.002ppb	0.001ppb	Not Detected
Perchlorate	0.27ppb	0.23ppb	0.77ppb
Gemfibrozil	0.0016ppb	0.008ppb	Not Detected
Atenolol	0.006ppb	0.003ppb	Not Detected
Meprobamate	0.005ppb	0.004ppb	Not Detected
Primidone	0.008ppb	0.014ppb	Not Detected
Theobromine	0.06ppb	0.06ppb	Not Detected

*-parts per trillion

**-parts per billion

Progesterone: A C-21 steroid hormone involved in the female menstrual cycle, pregnancy and embryogenesis of humans and other species.

Cotinine: A metabolite of nicotine.

DEET: The active ingredient in insect repellent.

Paraxanthine: Possesses a potency roughly equal to that of caffeine / a stimulant

Carbamazepine: An anticonvulsant and mood stabilizing drug.

Perchlorate: A salt that exists naturally in some fertilizers and because of the large amounts of oxygen in its chemical makeup, can be used as an oxidizer to help solid rocket fuel burn.

Gemfibrozil: A drug used to lower lipid levels

Atenolol: A class of drugs used primarily for cardiovascular diseases

Meprobamate: A minor tranquilizer

Primidone: An anticonvulsant

Theobromine: a bitter alkaloid (a group of naturally occurring chemical compounds) of the cacao plant, found in chocolate, as well as in a number of other foods, including the leaves of the tea plant, and the cola nut.

Compounds not detected during testing

Bisphenol A	Antipyrine	Nicotine	Trimethoprim	Prednisone
Nonylphenol, isomer mix	Azithromycin	Norfloxacin	Tylosin	Tetracycline
4-n-Octylphenol	Bacitracin	Oleandomycin	Virginiamycin M1	Theophylline
4-tert-Octylphenol	Caffeine	Dexamethasone	Bezafibrate	Triclocarban
Pentachlorophenol	Carbadox	Prednisone	Chloramphenicol	Triclosan
Phenylphenol	Ciprofloxacin	Roxithromycin	Chlorotetracycline	Tonalid
Tetrabromobisphenol A	Penicillin V	Salinomycin	Clofibric acid	Sulfasalazine
2,4,6-Trichlorophenol	Dilantin	Simvastatin	Diclofenac	
Diethylstilbestrol (DES)	Diltiazem	Sulfachloropyridazine	Dilantin	
17alpha-Estradiol	Enrofloxacin	Sulfadiazine	Doxycycline	
17beta-Estradiol	Erythromycin	Sulfadimethoxine	Diazepam	
Estriol	Fluoxetine (Prozac)	Sulfamerazine	Ibuprofen	
Estrone	Lasalocid	Sulfamethazine	Levothyroxine (Synthroid)	
17alpha-Ethynyl estradio	Levothyroxine (Synthroid)	Sulfamethizole	Naproxen	
cis-Testosterone	Lincomycin	Sulfamethoxazole	Oxytetracycline	
trans-Testosterone	Monensin	Sulfathiazole	Penicillin G	
Acetaminophen	Narasin	Iopromide	Salicylic acid	