



## Clinton County Health Department

400 East Clinton Street, Frankfort, Indiana 46041

Phone: 765-659-6385 Fax: 765-659-6387



The Clinton County Health Department provides a drop off and pick up station for HML (Hoosier Microbiological Laboratory). The water testing bottles are provided in our office. Instructions on how to take the samples are included with the water bottles. The water samples should be taken on Wednesday night then refrigerated or first thing Thursday morning. Bring water samples back to the Health Department on Thursday mornings by 8:30 am. HML accepts cash, check, or credit cards. When filling out payment information, please add a \$7.00 pick up fee to your total. Any further questions, please contact HML at (800) 551-5217 or (765) 288-1124. Thank you.

# DRINKING WATER CONTAMINANTS AND RELATED HEALTH PROBLEMS



**912 W. McGalliard  
Muncie, IN 47303**

**Phone:  
800-551-5217  
765-288-1124**

**Fax:  
765-288-TEST**



**COLIFORM**-The presence of coliform bacteria in your water supply is indicative of fecal pollution. Diseases such as diarrhea, Asiatic cholera, salmonellosis, dysentery, hepatitis, typhoid fever, urinary tract infections, ear infections, colitis and skin diseases may be spread through fecal contaminated water. \$20.00 [Requires 4 oz. sterile container]

**FLUORIDE**-Fluoride levels of 4.0 mg/L\* or more may act as direct cellular poisons by interfering with calcium metabolism and enzyme mechanisms. Ingestion causes salivation, nausea, vomiting, diarrhea and abdominal pain. Later weakness, tremors, shallow respiration, spasms and convulsions may occur, as well as jaundice and urine suppression. It also may cause discoloration of the teeth. \$25.00 [Requires 8 oz. container]

**NITRATE**-Levels of nitrates exceeding 10 mg/L as nitrogen have been shown to cause methemoglobinemia in infants. This results in oxygen deprivation, which may be harmful to the developing nervous system of young children or cause death by suffocation. Symptoms include chocolate colored blood, headache, flushing of the skin, vomiting, dizziness, marked fall of blood pressure, cyanosis (bluish purple discoloration of skin and mucous membranes), collapse, coma, and respiratory paralysis. \$25.00 [Requires 8 oz container]

**SULFATE**-Ingestion of sulfates in excess of 250 mg/L may cause pain in the abdomen, gastrointestinal irritation, vomiting, watery or bloody diarrhea, tenesmus (painful straining to empty bowels or bladder without the evacuation of them) and collapse. \$35.00 [Requires 8 oz. container]

**SULFIDE**-Sulfide concentrations in excess of 0.1 mg/L can cause irritation and sensory loss. Ingestion of higher concentrations may cause irritation of the gastrointestinal tract, renal (kidney) injury, anoxic (absence of oxygen) effects and damage to the cells of the central nervous system. Sulfides have the odor of rotten eggs and may appear as black particles in the water. \$25.00 [Requires 8 oz. container]

**NITRITE**-Levels of nitrites in excess of 1 mg/L may cause headaches, flushing of the skin, vomiting, dizziness, collapse, marked fall of blood pressure, cyanosis, coma and respiratory paralysis. \$20.00 [Requires 8 oz. container]

**IRON**-Iron limits of 0.3 mg/L were established as secondary standards because of their aesthetic problems of staining clothes and appliances. In dairy sanitation it should be less than 0.1 mg/l. \$25.00 [Requires 8 oz. container]

**SODIUM**-The acceptable limit of sodium in the water is 20 mg/L. Sodium is a problem for individuals with cardiovascular diseases. \$20.00 [Requires 8 oz. container]

**HERBICIDE/PESTICIDE SCAN**-These compounds have been linked to cancer and other health related problems, symptoms may be similar to those of the flu. \$220.00 per GC/MS scan [Requires 2 qt. glass container with foil under lid]

**ARSENIC**-Arsenic concentrations in excess of 0.01 mg/L may cause loss of energy and fatigue, gastroenteritis, burning esophageal pain, vomiting and copious watery or bloody diarrhea containing shreds of mucus. Death may result due to circulatory failure. May have increased risk of cancer. \$30.00 [Requires 8 oz. container]



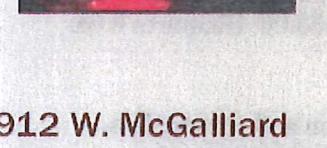
LEAD-Lead concentrations in excess of 0.015 mg/L may result in black stools, a metallic taste, abdominal pain, vomiting, diarrhea, oliguria (diminution in the quantity of urine excreted), collapse and coma. It is particularly harmful to children for it may lower their intelligence. Pregnant women may bear children with clubfeet, or with neurological, mental or physical abnormalities. It also may be a major cause of hypertension, brain and kidney damage, stroke and heart attacks for middle age men. \$30.00 [Requires 4 oz. container]



CYANIDE-Low levels of cyanide poisoning (0.20 mg/L) may result in weakness, dizziness, headache, nausea and vomiting, which occur rapidly. Ultimately cyanide poisoning results in unresponsive hypotension, respiration slow and gasping, dilated pupils, cyanosis at high levels and finally death. Cyanide has a classical odor of bitter almonds. \$45.00 [Requires 8 oz. container]



CHROMIUM-Chromium ingestion in excess of 0.05 mg/L may cause dizziness, intense thirst, abdominal pain, vomiting, shock and oliguria or anuria (suppression of urinary output). Hexavalent chromium has been shown to cause cancer in mice. \$25.00 [Requires 8 oz. container]



ZINC & NICKEL-Zinc concentrations in excess of 5.0 mg/L and nickel concentrations in excess of 0.1 mg/l can cause burning in the mouth and throat, vomiting, watery or bloody diarrhea, tenesmus, retching (strain in vomiting), anuria, liver damage, collapse and convulsions. \$20.00 each [Requires 8 oz. container]

MERCURY-The acceptable limit is 0.002 mg/L. May cause inflammation of mouth and gums, excessive salivation, loosening of teeth, kidney damage, muscle tremors, jerky gait, spasms of extremities, personality changes, depression, irritability, and nervousness. \$40.00 [Requires 8 oz. container]

VOLATILE ORGANIC CARBONS (VOC) SCAN-Many of these compounds have been linked to cancer and other health related problems. Scan includes trichloroethylene (TCE), carbon tetrachloride, vinyl chloride, benzene, MTBE, CS<sub>2</sub> and other compounds. \$200.00. [Requires filled VOC vial]

TOTAL PETROLEUM HYDROCARBONS (TPH-GC/FID)-Petroleum hydrocarbons should be virtually absent from drinking water supplies for ingestion of some may cause vomiting, coughing, pulmonary irritation progressing to pulmonary edema, bloody sputum and bronchial pneumonia with fever and cough. Others have been linked with cancer. \$130.00 [Requires 2 qt. glass container with foil under lid]

CADMIUM-The acceptable level is 0.005 mg/L. Cadmium plays a role in the bone disease, osteomalacia and causes increased salivation, choking, vomiting, abdominal pain, anemia, renal dysfunction, diarrhea and tenesmus. \$25.00 [Requires 8 oz. container]



BARIUM-The acceptable level is 2 mg/L. Barium may cause increased blood pressure. \$20.00 [Requires 8 oz. container]

COPPER-The acceptable level is 1.3 mg/L. Copper may cause nausea and diarrhea. \$20.00 [Requires 4 oz. container]

AEROBIC PLATE COUNT-Can be used to check the effectiveness of charcoal filtration units for they may amplify bacterial populations. The aerobic plate count should not exceed 500/mL. \$25.00 [Requires 4 oz. sterile container]