

# *IN5235006*

## *Markle Water Utility*

### *2012 Consumer Confidence Report*

#### ***Important information for the Spanish-speaking population***

Este informe contiene información muy importante sobre la calidad del agua potable que usted consume. Por favor tradúzcalo, o hable con alguien que lo entienda bien y pueda explicarle.

#### ***Is our water safe?***

This brochure is a snapshot of the quality of the drinking water that we provided last year. Included as part of this report are details about where the water that you drink comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and Indiana standards. We are committed to provide you with all the information that you need to know about the quality of the water that you drink.

#### ***Do I need to take special precautions?***

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as people with cancer undergoing chemotherapy, people who have undergone organ transplant, people with HIV/AIDS or other kind of 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 has set guidelines with appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants which are available from the Safe Drinking Water Hotline at (800) 426-4791.

#### ***Where does our water come from?***

We have three ground water wells that we receive our water from for the Town of Markle.

#### ***Why are there contaminants in my drinking water?***

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk or that it is not suitable for drinking. More information about contaminants and their potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

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, or can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in the raw, untreated water may include:

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

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants that may be present in the water provided by public drinking water systems. We are required to treat our water according to EPA's regulations. Moreover, FDA regulations establish limits for contaminants that may be present in bottled water, which must provide the same level of health protection for public health.

## Water Quality Data

The table below lists all the contaminants that we detected during the calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise indicated, the data presented in this table is from testing done between January 1 and December 31, . The Indiana Department of Environmental Management (IDEM) requires us to monitor for certain contaminants at a frequency less than once per year because the concentrations of these contaminants are not expected to vary significantly from one year to another. Some of the data, though representative of the water quality, may however be more than one year old.

Some of the terms and abbreviations used in this report are:

**MCL:** Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water.

**MCLG:** Maximum Contaminant Level Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health.

**MRDL:** Maximum Residual Disinfectant Level, the highest level of disinfectant allowed in drinking water.

**MRDLG:** Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no known or expected risk to health.

**AL:** Action Level, the concentration of a contaminant which, when exceeded, triggers treatment or other requirements or action which a system must follow.

**TT:** Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.

**NTU:** Nephelometric Turbidity Unit, a measure of the clarity (or cloudiness) of water.

**ppm:** parts per million, a measure for concentration equivalent to milligrams per liter.

**ppb:** parts per billion, a measure for concentration equivalent to micrograms per liter.

**pCi/L:** picocuries per liter, a measure for radiation.

**P\*:** Potential violation, one that is likely to occur in the near future, subject to other applicable requirements.

**n/a:** either not available or not applicable.

**ND:** Not Detected, the result was not detected at or above the analytical method detection level.

<b>Section 1- Contaminants Detected</b>						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Disinfection Byproducts &amp; Precursors</b>						
Total Haloacetic Acids (haa5) Date: 09/08/2011	N	8	Ug/l		60	By-product of drinking water
Total Trihalomethanes (tthm) Date: 09/08/2011	N	33	Ug/l		80	By-product of drinking water
<b>Lead and Copper</b>						
Copper (90 <sup>th</sup> percentile)	N	0.12	0.12 ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (90 <sup>th</sup> percentile)	N	0.5	Less than detection limit.	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
<b>Regulated IOC.s</b>						
Fluoride Date 2009	N	.88	ppm	4	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories

Barium Date 2009	N	0.112	ppm	2	2.0	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Arsenic Date: 2011	N	2	ppb	0	10	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Chromium Date: 2011	N	6	PPB	100	100	Discharge from steel and pulp mills: Erosion of natural deposits.

**Unregulated Contaminants**

Nickel Date 2009	N	0.009	ppm	100	n/a	Discharge from metal refineries; erosion of natural deposits
Sodium	N	20	ppm		No MCL	Erosion of natural deposits
Calcium	N	110	ppm	10000		

**Residual Disinfectant**

Contaminant	MCL	Units	Results	Min.	Max.	Violation	Water additive ( disinfectant ) used to control microbiological organisms
Chlorine Residual	4MRDL	ppm	1	0.7	1.2	No	

**Radiological Contaminants**

Date	Contaminants	MCL	MCLG	Units	Results	Min	Max	Above AL # Repeats	Violates	
10/29/ 2008	Gross Alpha, excluding radon and uranium	15	0	pci/l	2.7				No	Erosion of natural deposits
10/29/ 2008	Gross Beta Particle Activity	50	0	pci/l	4.7				No	Decay of natural and man-made deposits
10/29/ 2008	Radium-228	5	0	pci/l	0.2				No	Erosion of natural deposits
10/29/ 2008	Uranium, Combined	30		ug/l	0.5				No	Erosion of natural deposits

**Special Note on 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. Our system 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>.*

**Special Note on Gross Beta :** *The MCL for Gross Beta is 4mrem/year; however, EPA considers 50 pCi/l to be the level of concern for Beta particles.*

***Our Watershed Protection Efforts***

Our water system is working with the community to increase awareness of better waste disposal practices to further protect the sources of our drinking water. We are also working with other agencies and with local watershed groups to educate the community on ways to keep our water safe.

***Public Involvement Opportunities***

If you have any questions about the contents of this report, or would like to be involved with our wellhead protection program please contact Mr. Stephen Jeffers at 260-758-3193

***Please Share This Information***

Large water volume customers (like apartments complexes, hospitals, schools, and/or industries) are encouraged to post extra copies of this report in conspicuous locations or to distribute them to your tenants, residents, patients, students, and/or employees. This "good faith" effort will allow non-billed customers to learn more about the quality of the water that they consume.

# How to Protect Your Drinking Water in the Home

Listed below are some simple steps you can use in your home to protect your drinking water everyday:

- Dispose of wastes properly. Wastewater treatment plants are not designed to treat harmful chemicals such as paint, oil, solvents, and pesticides. Therefore, it is important not to dump these substances down the drain, toilet, or sewer. Landfills also can not handle these substances so do not put them in the trash. You can dispose of these substances at your local household hazardous materials collection day.
- Limit use of hazardous products in the home. These products include oven cleaner, toilet bowl cleaner, bleaches, paints, furniture cleaner, carpet cleaner, and glue, among others. Share what you do not use with churches, schools, or neighbors instead of disposing of it. Use non-hazardous products when possible. You can find “environmentally friendly” products or make your own cleaning solutions. **Recipe for all-purpose cleaner:** 1 gallon hot water, 1/4 cup household ammonia, 1/4 cup vinegar, 1 tablespoon baking soda.
- Use pesticides and fertilizers in moderation. Instead of using chemicals, consider pulling weeds or infected leaves by hand or using some type of biological control such as ladybugs.
- Avoid spilling or pouring automotive wastes such as oil or gas on the ground during maintenance. After changing oil, dispose of it at a local oil recycling center.



*“Protect Your Water One Drop At A Time”*



**SOURCE WATER ASSESSMENT**

Date Completed	12/27/2011	PWSID	5235006
System Name	Markle Water Utility		

SYSTEM SUMMARY	
County	Huntington
Population Served	1095
Additional Information	N/A

AREA GEOLOGY			
Physiographic Region	Central Till Plain	Sub Region	Bluffton Till Plain
Production Well Area Geology			
The production well area consists of approximately 0 to 50 feet of unconsolidated deposits overlying bedrock.			

WELLFIELD GEOLOGY			
Aquifer Type	Limestone Bedrock		
Confining Clay Layer	Yes	Clay Thickness	Approximately 20 to 42 feet thick; averaging 31 feet
Geological Sensitivity			
HIGH		Clay Thickness <15 ft	
MEDIUM		Clay Thickness 15-30 ft	
LOW		Clay Thickness >30 ft	

WELLFIELD INFORMATION			
Well	Diameter (in)	Depth (ft)	Average Pumping Rate (gal/day)*
3	8	340	1,315
4	10	257	53,126
5	10	140	42,132
Total System Pumping Rate (gal/day)			96,573

\*Based on the 2010 pumping records from the DNR Significant Water Withdrawal Facility Database

Source Water Assessment  
 Public Water Supply ID# 5235006  
 Markle Water Utility  
 December 2011



LAND USE/POTENTIAL CONTAMINANT SOURCES WITHIN WHPA					
Land Uses	Agricultural, Residential, Commercial, Industrial				
Number of PCS	At least 6; Residential and Agricultural areas are counted each as one; each PCS symbol is counted as one (see attached map*) *Map created using IDEM database				
Any detections of concern during IDEM Compliance Sampling (i.e. finished water) within the past five years?	None				
Aquifer Vulnerability to Contamination	HIGH	MODERATELY HIGH	MODERATE	MODERATELY LOW	LOW
SUSCEPTIBILITY DETERMINATION					
	HIGH	MODERATELY HIGH	MODERATE	MODERATELY LOW	LOW