

## Shamokin Dam Borough - Contaminant List and Test Results - 2016

Contaminant	MCL	MCLG	Borough (Avg)	Range of Detects	Violation Yes/No	Likely Source of Contaminant			
<b>Inorganic Chemicals</b>									
Arsenic (Mg/L)	0.01	0.01	ND	ND	No	Natural deposits. Runoff from orchards, glass & electronics production.			
Barium (Mg/L)	2	2	0.0343	0.034	No	Discharges of drilling wastes, metal refineries and erosion of natural deposits			
Chromium (Mg/L)	0.1	0.1	0.00231	0.00231	No	Chemical manufacturing and combustion of natural gas, oil coal			
Fluoride (Mg/L) - System	2	2	0.43	0.41 - 0.59	No	Water additive, promotes strong teeth.			
Nickel (Mg/L)	N/A	N/A	0.00163	0.00163	No	Releases by power plants, metal factories and waste incinerators			
Nitrate (ppm)	10	10	0.527	0.527	No	Runoff from fertilizer use			
Nitrite (ppm)	1	1	ND	ND	No	Runoff from fertilizer use			
<b>Organic Chemicals</b>									
Disinfection Byproducts	Trihalomethanes (TTHM)(Mg/L)	0.080	0.080	0.0526	0.0162 - 0.1130	No	Chlorine Byproduct		
	Total Haloacetic Acids (HAA5)(Mg/L)	0.060	0.060	0.0368	0.0199 - 0.0515	No	Chlorine Byproduct		
Disinfectant	Location	MDR	LLD	Borough (Avg)	Range of Detects	Violation Yes/No	Likely Source of Contaminant		
	Sodium Hypochlorite (ppm) Entry Point	4	4	0.95	0.52 - 1.46	No	Water additive used to control microbes.		
<b>Combined Filter Effluent (CFE) Turbidity (NTU)</b>									
Contaminant	MCL	MCLG	Borough (Avg)	Range of Detects	Violation Yes/No	Likely Source of Contaminant			
Combined Filter Effluent (CFE) Turbidity (NTU)	*TT	0	0.06	0.03 - 0.13	No	Soil run-off			
	**TT		100%						
*TT Treatment Technique = 1.0 NTU for a single measurement.									
**TT Treatment Technique = at least 95% of monthly samples less than or equal to 0.3 NTU.									
<b>Total Organic Carbons (TOC's) (See Notes Below)</b>									
Contaminant	MCL	MCLG	Borough (Avg)	Range of Detects	Violation Yes/No	Likely Source of Contaminant			
Total Organic Carbons (TOC's) (See Notes Below)	(Raw) >2.0 to 4.0	0	Raw Avg.= 1.12	N/A	No	Naturally present in the environment.			
			Fin. Avg.= 1.06						
Previous Detects	Contaminant	MCL	Result Range	Sample Date	Latest Sample Period Start Date	Latest Sample Period End Date	90th Percentile Result	Action Level	90% Action Level Exceeded
	Copper (ppm)	N/A	0.00472 - 0.07930	8/11/2016	6/1/2016	9/30/2016	0.079100	1.3	No
	Lead (ppb)	N/A	0.00 - 0.00372	8/11/2016	6/1/2016	9/30/2016	0.002100	15	No
* No Lead or Copper sample in the twelve that were tested exceeded the action level.									
<b>In 2016 PA DEP required the Borough to test for a series of additional Organic Chemicals.</b>									
<p><b>Regulated Volatile Organic Compounds (VOC's).</b> The testing was done one time, in the first quarter of 2016. <b>VOC's</b> pose certain health risks, from cancer, liver / kidney, reproductive and stomach to nervous &amp; immune system effects. Likely sources are discharges from industrial, chemical and petroleum factories and metal degreasing sites, leaching from gas storage tanks and landfills, and various other industrial activities. A complete list of the required <b>VOC's</b> that were tested, and results, are available at the Borough office. <b>VOC</b> levels are measured in mg/l's (ppm). The level of detection for each individual test was well below the minimum allowed and in most cases, less than the reportable limit as required by the EPA.</p> <p><b>10 Regulated Inorganic Compounds (IOC's).</b> This testing was done one time, in July of 2016. <b>IOC's</b> pose certain health risks, from increased blood pressure, sugar and cholesterol, liver and kidney damage. Likely sources are discharges from petroleum refineries, fire retardants, erosion from natural deposits and industrial type discharges. A complete list of the required <b>IOC's</b>, and the results, that were tested is available at the Borough Office. <b>IOC</b> levels are measured in mg/l's(ppm). There was very minimal or no detection for all that were tested.</p>									
<b>Additional Testing Notes:</b>									
#1 <b>Total Organic Carbon (TOC)</b> - In 2016 DEP required the Borough to monitor TOC removal on a quarterly basis. Readings are based on ppm of both the raw & finished water in combination with the raw water Alkalinity. A copy of each quarters removal data is on file in our office. All readings were well within the safe reporting limits.									
#2 <b>Revised Total Coliform Rule (RTCR)</b> - In 2016 PA DEP revised the Total Coliform Rule. We are now required to collect samples from three additional sites, two per month instead of one under the prior rule, in the distribution system. No more than (1) sample taken from the distribution system can be Total Coliform-Positive per month, based on the fact that the Borough collects less than (40) samples per year. All samples test results in 2016 = 0 (zero).									