

Pike County Water Authority Table of Primary Drinking Water Contaminants

At high levels some primary contaminants are known to pose a health risks to humans. This table provides a quick glance of any primary contaminant detections.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological			Chlorite (ppm)	1	ND
Total Coliform Bacteria	< 5%	ND	Endothall (ppb)	100	ND
Turbidity (NTU)	TT	ND	Endrin (ppb)	2	ND 0.13
Fecal Coliform & E. coli	0	ND	Epichlorohydrin (ppb)	TT	ND
Fecal Indiators (enterococci or coliphage)	TT	ND	Glyphosate (ppb)	700	ND
Radiological			Heptachlor (ppt)	400	ND
Beta particle and photon (mrem/yr)	4	ND	Heptachlor Epoxide (ppt)	200	ND
Gross Alpha particle (pCi/L)	15	ND	Hexachlorobenzene (ppb)	1	ND
Combined radium 226 & 228 (pCi/L)	5	ND 0.6	Hexachlorocyclopentadiene (ppb)	50	ND
Uranium (ppb)	30	ND	Lindane (ppt)	200	ND
Inorganic			Methoxychlor (ppb)	40	ND
Antimony (ppb)	6	0.50 0.75	Oxamyl [Vydate] (ppb)	200	ND
Arsenic (ppb)	10	ND	Polychlorinated Biphenyls (PCBs)(ppt)	500	ND
Asbestos (MFL)	7	ND	Pentachlorophenol (ppb)	1	ND
Barium (ppm)	2	ND 0.078	Picloram (ppb)	500	ND
Beryllium (ppb)	4	ND	Simazine (ppb)	4	ND
Cadmium (ppb)	5	ND	Toxaphene (ppb)	3	ND
Chromium (ppb)	100	ND 0.17	Benzene (ppb)	5	ND
Copper (ppm) 90 th percentile	AL=1.3	0.0744	CarbonTetrachloride (ppb)	5	ND
Cyanide (ppb)	200	ND	Monochlorobenzene (ppb)	100	ND
Fluoride (ppm)	4	0.091 1.98	Dibromochloropropane (ppt)	200	ND
Lead (ppb) 90 th percentile 2013 results	AL=15	1.1	0-Dichlorobenzene (ppb)	600	ND
Mercury (ppb)	2	ND	Para-dichlorobenzene (ppb)	75	ND
Nickel (ppb)	100	ND	1,2-Dichloroethane (ppb)	5	ND
Nitrate (as N)(ppm)	10	ND	1,1-Dichloroethylene (ppb)	7	ND
Nitrite (as N)(ppm)	1	ND	Cis-1,2-Dichloroethylene (ppb)	70	ND
Total Nitrate/Nitrite (ppm)	10	ND	Trans-1,2-Dichloroethylene (ppb)	100	ND
Selenium (ppb)	50	ND 0.63	Dichloromethane (ppb)	5	ND
Sulfate (ppm)	500	11.5 50.2	1,2-Dichloropropane (ppb)	5	ND
Thallium (ppb)	2	ND 1.6	Ethylbenzene (ppb)	700	.27
Organic Chemicals			Ethylene Dibromide (EDB)(ppt)	50	ND
2,4-D (ppb)	70	ND	Styrene (ppb)	100	ND
2,4,5-TP (Silvex) (ppb)	50	ND	Tetrachloroethylene (ppb)	5	ND
Acrylamide (ppm)	TT	ND	1,2,4-Trichlorobenzene (ppb)	70	ND
Alachlor (ppb)	2	ND	1,1,1-Trichloroethane (ppb)	200	ND
Atrazine (ppb)	3	ND	1,1,2-Trichloroethane (ppb)	5	ND
Benzo(a)pyrene[PHAs] (ppt)	200	ND	Trichloroethylene (TCE)(ppb)	5	ND
Carbofuran (ppb)	40	ND	Total trihalomethanes (TTHM)(ppb)	80	4.9 9.62
Chlordane (ppb)	2	ND	Toluene (ppm)	1	ND
Dalapon (ppb)	200	ND	Vinyl Chloride (ppb)	2	ND
Di-(2-ethylhexyl)adipate (ppb)	400	ND	Chlorine (ppm)	4	1 2.8
Di(2-ethylhexyl)phthlates (ppb)	6	ND	Chlorine dioxide (ppb)	800	ND
Dinoseb (ppb)	7	ND	Bromate (ppb)	10	ND
Diquat (ppb)	20	ND	Total Organic Carbon (TOC)	TT	ND
Dioxin[2,3,7,8-TCDD] (ppq)	30	ND	Xylenes (Total)(ppm)	10	ND
Chloramines (ppm)	4	ND	Haloacetic Acids (HAA5)(ppb)	60	1.11 1.57

Pike County Water Authority Table of Detected Contaminants

CONTAMINANT	MCLG	MCL	Range		Amount Detected	Likely Source of Contamination	
Radiological	January – December 2009						
Radium 228	0	5	ND	- 0.6	0.6	pCi/L	Erosion of natural deposits
Chemicals	January – December 2016						
Chlorine	MRDLG4	MRDL 4	1	- 2.8	2.8	ppm	Water additive used to control microbes
Haloacetic Acids (HAA5'S) (Stage 2 Results)	0	60	1.11	- 1.57	1.57	ppb	By-product of drinking water chlorination
Total trihalomethanes (TTHM'S) (Stage 2 Results)	0	80	4.9	- 9.62	9.62	ppb	By-product of drinking water chlorination
Chromium (ppb)	100	100	ND	- 0.17	0.17	ppb	Discharge from steel and pulp mills; erosion of natural deposits
Thallium (ppb)	2	2	ND	- 1.6	1.6	ppb	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Selenium (ppb)	50	50	ND	- 0.63	0.63	ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Antimony (ppb)	6	6	0.50	- 0.75	0.75	ppb	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Barium	2	2	ND	- 0.078	0.078	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	4	4	0.091	- 1.98	1.98	ppm	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Sulfate	N/A	500	11.5	- 50.2	50.2	ppm	Naturally occurring in the environment
Endrin	2	2	ND	- ND	0.13	ppb	Residue of banned insecticide
Ethylbenzene	700	700	ND	- ND	0.27	ppb	Discharge from petroleum refineries
Lead 90 th percentile test results	0	AL=15	No. of Sites above action level 0		1.1	ppb	Corrosion of household plumbing systems, erosion of natural deposits
Copper 90 th percentile test results	1.3	AL=1.3	No. of Sites above action level 0		0.0744	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Secondary Contaminants		January – December 2016							
Chloride	N/A	250	4.50	-	16.0	16.0	ppm	Naturally occurring in the environment or as a result of agricultural runoff	
Total Dissolved Solids	N/A	500	130	-	284	284	ppm	Erosion of natural deposits	
Iron	N/A	0.3	ND	-	0.498	0.498	ppm	Erosion of natural deposits	
Copper	N/A	1.0	ND	-	0.024	0.024	ppm	Erosion of natural deposits; leaching from pipes	
Lead	N/A	.015	ND	-	0.73	0.73	ppb	Corrosion of household plumbing systems, erosion of natural deposits.	
Manganese	N/A	0.05	ND	-	0.0053	0.0053	ppm	Erosion of natural deposits	
Zinc	N/A	5	ND	-	0.024	0.024	ppm	Erosion of natural deposits	
Aluminum	N/A	0.2	ND	-	0.0347	0.0347	ppm	Erosion of natural deposits or as a result of treatment with water additives	

Pike County Water Authority Table of Detected Special Contaminants January – December 2016

Carbon Dioxide	0	N/A	109	-	209	209	ppm	Naturally occurring in the environment
pH	0	N/A	7.01	-	8.86	8.86	SU	Naturally occurring in the environment or as a result of treatment with water additives
Sodium	0	N/A	38.1	-	94.4	94.4	ppm	Naturally occurring in the environment
Total Alkalinity	0	N/A	128	-	238	238	ppm	Naturally occurring in the environment
Calcium	N/A	N/A	0.224	-	35.4	35.4	ppm	Erosion of natural deposits
Magnesium	N/A	N/A	ND	-	5.32	5.32	ppm	Erosion of natural deposits
Total Hardness (as CaCO3)	N/A	N/A	ND	-	0.114	0.114	ppm	Naturally occurring in the environment or as a result of treatment with water additives
Specific Conductance	N/A	<500	301	-	620	620	umhos	Naturally occurring in the environment or as a result of treatment with water additives

Unregulated Contaminants January – December 2016

Bromodichloromethane	N/A	N/A	ND	-	0.00148	0.00148	ppm	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Dibromochloromethane	N/A	N/A	ND	-	0.066	0.066	ppm	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Chloroform	N/A	N/A	ND	-	0.00369	0.00369	ppm	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination

Secondary Drinking Water Standards are guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. ADEM has Secondary Drinking Water Standards established in state regulations applicable to water systems required to monitor for the various components.

Table of Secondary Contaminants

Contaminants	Range		MCL	Contaminants	Range		MCL		
Aluminum	ND	0.0347	PPM	0.2	Manganese	ND	0.0053	PPM	0.05
Chloride	4.50	16.0	PPM	250	Silver	ND		PPM	0.1
Iron	ND	0.498	PPM	0.3	Total Dissolved Solids	130	284	PPM	500
Color	ND		PPM	15.0	Zinc	ND	0.024	PPM	5
Foaming Agents	ND		PPB	500	Copper	ND	0.014	PPM	1
Odor	ND		T.O.N.	3	Lead	ND	0.73	PPB	.015

Table of Special Contaminants

Contaminants	Range		MCL	Contaminants	Range		MCL		
Calcium	0.224	35.4	PPM	N/A	Sodium	38.1	94.4	PPM	N/A
Carbon Dioxide	109	209	PPM	N/A	Sulfate	ND		PPM	250
Magnesium	ND	5.32	PPM	N/A	Specific, Conductance	301	620	PPM	N/A
pH	7.01	8.86	PPM	N/A	Total Hardness (as CaCO3)	ND	0.114	PPM	N/A
Total Alkalinity	128	238	PPM	N/A	Temperture	ND		°C	N/A
Langelier Index	ND		PPM	N/A					

Table of Unregulated Contaminants

CONTAMINANT	AVERAGE	CONTAMINANT	AVERAGE	CONTAMINANT	AVERAGE
1,1 - Dichloropropene	ND	Chloroform	ND 0.00369	1,2,4-Trichlorobenzene	ND
Chloromethane	ND	1,1,2,2-Tetrachloroethane	ND	Chlorodibromomethane	ND
1,1-Dichloroethane	ND	Dibromomethane	ND	1,2,3 - Trichlorobenzene	ND
Dicamba	ND	1,2,3 - Trichloropropane	ND	Dichlorodifluoromethane	ND
1,2,4 - Trimethylbenzene	ND	Dieldrin	ND	1,3 - Dichloropropane	ND
Hexachlorobutadiene	ND	1,3 - Dichloropropene	ND	Isopropylbenzene	ND
1,3,5 - Trimethylbenzene	ND	M-Dichlorobenzene	ND	2,2 - Dichloropropane	ND
Methomyl	ND	3-Hydroxycarbofuran	ND	MTBE	ND
Aldicarb	ND	Aldicarb Sulfone	ND	Aldicarb Sulfoxide	ND
Aldrin	ND	Bromobenzene	ND	Bromochloromethane	ND 0.00148
Bromodichloromethane	ND 0.00148	Bromoform	ND	Bromomethane	ND
Butachlor	ND	Carbaryl	ND	Chloroethane	ND
Metolachlor	ND	Metribuzin	ND	N-Propylbenzene	ND
N - Butylbenzene	ND	Naphthalene	ND	O-Chlorotoluene	ND
P-Chlorotoluene	ND	P-Isopropyltoluene	ND	Propachlor	ND
Sec - Butylbenzene	ND	Tert - Butylbenzene	ND	Fluorotrichloromethane	ND

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.