

2009 Analyses Results for Pueblo's Treated Water Table Part I

Parameter	Units	Primary Standard	Secondary Standard	MCL	MCLG	Range of Detection in Pueblo Water	Pueblo Treated Water Average Level
-----------	-------	------------------	--------------------	-----	------	------------------------------------	------------------------------------

Clarity							
Turbidity	NTU	◆		0.5	0.5	0.07 - 0.21	0.11

Microbiological							
Total Coliform Bacteria	P/A	◆		less than 5% month positive	0	P - A***	A
E. coli Bacteria	P/A	◆		0	0	0	0
Giardia	Oocysts/100 L			N/A	0	ND	ND
Cryptosporidium	Oocysts/100 L			N/A	0	ND	ND

Organic Chemicals							
Total Trihalomethanes □ (Disinfection Byproduct)	µg/L	◆		80		5.65 - 16.02	9.65
Bromodichloromethane--D5	µg/L				0	1.81 - 2.83	2.15
Bromoform--D5	µg/L				0	<0.5	<0.5
Chloroform--D5	µg/L				N/A	3.80 - 13.9	7.4
Dibromochloromethane--D5	µg/L				6	<0.5 - 0.51	<0.5
Total Volatile Organic Compounds(VOCs)*		◆					
Benzene	µg/L	◆		5	0	<0.5	<0.5
Bromobenzene	µg/L			N/A	N/A	<0.5	<0.5
Bromochloromethane	µg/L			N/A	N/A	<0.5	<0.5
Bromomethane	µg/L			N/A	N/A	<0.5	<0.5
n-Butylbenzene	µg/L			N/A	N/A	<0.5	<0.5
sec-Butylbenzene	µg/L			N/A	N/A	<0.5	<0.5
t-Butylbenzene	µg/L			N/A	N/A	<0.5	<0.5
Carbon tetrachloride	µg/L	◆		5	0	<0.5	<0.5
Chlorobenzene	µg/L	◆		100	100	<0.5	<0.5
Chloroethane	µg/L			N/A	N/A	<0.5	<0.5
Chloromethane	µg/L			N/A	N/A	<0.5	<0.5
2-Chlorotoluene	µg/L			N/A	N/A	<0.5	<0.5
4-Chlorotoluene	µg/L			N/A	N/A	<0.5	<0.5
Dibromomethane	µg/L			N/A	N/A	<0.5	<0.5
1,2- Dichlorobenzene	µg/L	◆		600	600	<0.5	<0.5
1,3- Dichlorobenzene	µg/L			N/A	N/A	<0.5	<0.5
1,4- Dichlorobenzene	µg/L	◆		75	75	<0.5	<0.5
Dichlorodifluoromethane	µg/L			N/A	N/A	<0.5	<0.5
1,1- Dichloroethane	µg/L			N/A	N/A	<0.5	<0.5
1,2- Dichloroethane	µg/L	◆		5	0	<0.5	<0.5
1,1- Dichloroethene	µg/L	◆		7	7	<0.5	<0.5
cis-1,2- Dichloroethene	µg/L	◆		70	70	<0.5	<0.5
trans-1,2- Dichloroethene	µg/L	◆		100	100	<0.5	<0.5
1,2- Dichloropropane	µg/L	◆		5	5	<0.5	<0.5
1,3- Dichloropropane	µg/L			N/A	N/A	<0.5	<0.5
2,2- Dichloropropane	µg/L			N/A	N/A	<0.5	<0.5
1,1- Dichloropropene	µg/L			N/A	N/A	<0.5	<0.5
cis-1,3- Dichloropropene	µg/L			N/A	N/A	<0.5	<0.5
trans-1,3- Dichloropropene	µg/L			N/A	N/A	<0.5	<0.5
1,3- Dichloropropene	µg/L			N/A	N/A	<0.5	<0.5
Ethylbenzene	µg/L	◆		700	700	<0.5	<0.5
Hexachlorobutadiene	µg/L			N/A	N/A	<0.5	<0.5
Isopropylbenzene	µg/L			N/A	N/A	<0.5	<0.5
p-Isopropyltoluene	µg/L			N/A	N/A	<0.5	<0.5
Methylene chloride	µg/L	◆		5	0	<0.5	<0.5
Naphthalene	µg/L			N/A	N/A	<0.5	<0.5
n-Propylbenzene	µg/L			N/A	N/A	<0.5	<0.5
Styrene	µg/L	◆		100	100	<0.5	<0.5
1,1,1,2- Tetrachloroethane	µg/L			N/A	N/A	<0.5	<0.5
1,1,2,2- Tetrachloroethane	µg/L			N/A	N/A	<0.5	<0.5
Tetrachloroethene	µg/L			N/A	N/A	<0.5	<0.5
Toluene	µg/L	◆		1000	1000	<0.5	<0.5
1,2,3- Trichlorobenzene	µg/L			N/A	N/A	<0.5	<0.5
1,2,4- Trichlorobenzene	µg/L	◆		70	70	<0.5	<0.5
1,1,1- Trichloroethane	µg/L	◆		200	200	<0.5	<0.5
1,1,2- Trichloroethane	µg/L	◆		5	3	<0.5	<0.5
Trichloroethene	µg/L	◆		5	0	<0.5	<0.5
Trichlorofluoromethane	µg/L			N/A	N/A	<0.5	<0.5
1,2,3- Trichloropropane	µg/L			N/A	N/A	<0.5	<0.5
1,2,4- Trimethylbenzene	µg/L			N/A	N/A	<0.5	<0.5
1,3,5- Trimethylbenzene	µg/L			N/A	N/A	<0.5	<0.5
Vinyl chloride	µg/L	◆		2	0	<0.5	<0.5
m,p- Xylene	µg/L			N/A	N/A	<0.5	<0.5
o-Xylene	µg/L			N/A	N/A	<0.5	<0.5
Xylenes, Total	µg/L	◆		10000	10000	<0.5	<0.5

Please See Next Page for More Information (Table Part II)

2009 Analyses Results for Pueblo's Treated Water Table Part II

Parameter	Units	Primary Standard	Secondary Standard	MCL	MCLG	Range of Detection in Pueblo Water	Pueblo Treated Water Average Level
-----------	-------	------------------	--------------------	-----	------	------------------------------------	------------------------------------

Organic Chemicals (cont'd)							
Haloacetic Acids (Disinfection Byproduct)							
Bromoacetic acid--D5	µg/L	◆		60		9.58 - 21.27	15.31
Dibromoacetic acid--D5	µg/L				N/A	<1.0	<1.0
Dichloroacetic acid--D5	µg/L				0	7.19 - 14.60	10.44
Monochloroacetic acid--D5	µg/L				N/A	<1.0 - 1.54	1.30
Trichloroacetic acid--D5	µg/L				300	2.39 - 6.67	4.22
Pesticides							
Aldrin	µg/L	◆		N/A	N/A	<0.01	<0.01
alpha-Chlordane	µg/L			2	2	<0.01	<0.01
Chlordane	µg/L			2	2	<0.2	<0.2
Dieldrin	µg/L			N/A	N/A	<0.01	<0.01
Endrin	µg/L			2	2	<0.01	<0.01
Hexachlorocyclopentadiene	µg/L			50	50	<0.05	<0.05
Heptachlor	µg/L			0.4	0.4	<0.01	<0.01
Heptachlor epoxide	µg/L			0.2	0.2	<0.01	<0.01
Hexachlorobenzene	µg/L			1	0	<0.02	<0.02
Methoxychlor	µg/L			40	40	<0.05	<0.05
Toxaphene	µg/L			3	0	<0.50	<0.50
gamma-Chlordane	µg/L			2	0	<0.01	<0.01
gamma-BHC	µg/L			N/A	N/A	<0.01	<0.01
1,2-Dibromo-3-chloropropane	µg/L			N/A	N/A	<0.02	<0.02
1,2-Dibromomethane	µg/L			N/A	N/A	<0.02	<0.02
Alachlor	µg/L			2	0	<0.20	<0.20
Atrazine	µg/L			3	3	<0.10	<0.10
Simazine	µg/L			4	4	<0.07	<0.07
PCB-Total	µg/L			0.5	0	<0.10	<0.10
Herbicides							
2,4,-D	µg/L	◆		70	70	<0.10	<0.10
Dicamba	µg/L			N/A	N/A	<0.30	<0.30
Dalapon	µg/L			200	200	<1.0	<1.0
Dinoseb	µg/L			7	7	<0.20	<0.20
Pentachlorophenol	µg/L			1	0	<0.04	<0.04
Picloram	µg/L			500	500	<0.10	<0.10
Silvex	µg/L			50	50	<0.20	<0.20
Butachlor	µg/L			N/A	N/A	<0.10	<0.10
Metolachlor	µg/L			N/A	N/A	<0.10	<0.10
Metribuzin	µg/L			N/A	N/A	<0.10	<0.10
Propachlor	µg/L			N/A	N/A	<0.10	<0.10
Diquat	µg/L			N/A	N/A	<0.40	<0.40
Endothal	µg/L			N/A	N/A	<9.0	<9.0
Glyphosate	µg/L			N/A	N/A	<5.0	<5.0
Carbamate Pesticides							
3-Hydroxycarbofuran	µg/L	◆		N/A	N/A	<0.5	<0.5
Aldicarb	µg/L			3	1	<0.5	<0.5
Aldicarb sulfone	µg/L			2	1	<0.5	<0.5
Aldicarb sulfoxide	µg/L			4	1	<0.5	<0.5
Carbaryl	µg/L			N/A	N/A	<0.5	<0.5
Carbofuran	µg/L			40	40	<0.5	<0.5
Methiocarb	µg/L			N/A	N/A	<0.5	<0.5
Methomyl	µg/L			N/A	N/A	<0.5	<0.5
Oxamyl (Vydate)	µg/L			200	200	<0.5	<0.5
Propoxur	µg/L			N/A	N/A	<0.5	<0.5
Other Organic Chemicals							
Benzo(a)pyrene	µg/L	◆		0.2	0	<0.02	<0.02
Bis(2-ethylhexyl)adipate	µg/L			N/A	N/A	<0.60	<0.60
Bis(2-ethylhexyl)phthalate	µg/L			N/A	N/A	<0.60	<0.60

Inorganic Chemicals							
Trace Metals							
Aluminum	µg/L		◆	50 - 200	N/A	<25	<25
Antimony	µg/L	◆		6	6	<2.0	<2.0
Arsenic	µg/L	◆		10	0	<2.0	<2.0
Barium	µg/L	◆		2000	2000	58	58
Beryllium	µg/L	◆		4	4	<1.0	<1.0
Cadmium	µg/L	◆		5	5	<0.5	<0.5
Chromium	µg/L	◆		100	100	<5.0	<5.0
Copper	µg/L	AL		1300	1300	<10	<10
Iron	µg/L		◆	300	N/A	<200	<200
Lead	µg/L	AL		15	0	<1.0	<1.0
Manganese	µg/L		◆	50	N/A	<5.0	<5.0
Mercury	µg/L	◆		2	2	<0.134	<0.134
Molybdenum	µg/L			N/A	N/A	<5.0	<5.0
Nickel	µg/L			N/A	N/A	<10	<10
Selenium	µg/L	◆		50	50	4.0	4.0
Silver	µg/L		◆	100	N/A	<0.2	<0.2

Thallium	µg/L	◆		2	0.0005	<1.0	<1.0
Zinc	µg/L		◆	5000	N/A	<5.0	<5.0

Please See Next Page for More Information (Table Part III)

2009 Analyses Results for Pueblo's Treated Water							Table Part III
Parameter	Units	Primary Standard	Secondary Standard	MCL	MCLG	Range of Detection in Pueblo Water	Pueblo Treated Water Average Level
Inorganic Chemicals (cont'd)							
Cations (Salts)							
Calcium	mg/L			N/A	N/A	48	48
Magnesium	mg/L			N/A	N/A	12	12
Potassium	mg/L			N/A	N/A	2.4	2.4
Sodium	mg/L			N/A	N/A	17	17
Additional Parameters							
Alkalinity (as CaCO ₃)	mg/L			N/A	N/A	56 - 100	85
Ammonia (as Nitrogen)	mg/L			N/A	N/A	0.18 - 0.53	0.30
Calcium Hardness (as CaCO ₃)	mg/L			N/A	N/A	74 - 137	113
Chlorine (Total Chloramine)	mg/L	◆		4	4	3.05 - 4.13	3.6
Chloride	mg/L		◆	250	N/A	6.81 - 14.8	10
Conductivity	umho/cm		◆	N/A	N/A	238 - 428	366
Fluoride	mg/L	◆		4,2**	4	0.30 - 1.10	0.94
Total Hardness (as CaCO ₃)	mg/L			N/A	N/A	99 - 183	150
Nitrate (as Nitrogen)	mg/L	◆		10	10	0.17 - 0.28	0.22
Nitrite (as Nitrogen)	mg/L	◆		1	1	<0.05	<0.05
Total Nitrate and Nitrite (as Nitrogen)	mg/L	◆		10	10	0.17 - 0.28	0.22
Ortho-Phosphate (as Phosphorous)	mg/L			N/A	N/A	<0.50	<0.50
pH	units		◆	6.5-8.5	N/A	7.06 - 7.77	7.4
Total Dissolved Solids	mg/L		◆	500	N/A	151 - 268	229
Sulfate	mg/L		◆	250	N/A	49.6 - 111	85.5

Listed above are regulated and unregulated contaminants detected in Pueblo's drinking water in 2009.

All are below regulated levels.

Drinking water produced by the Whitlock Treatment Facility meets all Health and Safety Standards as mandated by the Safe Drinking Water Act and the State of Colorado.

Terms and Definitions Used in the Above Data Table

P/A - Presence/Absence - The determination of whether or not there is bacteria present in a water sample.

Primary Standards - Mandatory Health Related Standards

Secondary Standards - Aesthetic Standards

MCL - Maximum Contaminant Level - The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

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 Disinfection Level - The maximum level of disinfectant residual allowed in a distribution system. Total chlorine (chloramine) in the table was measured at the Treatment Plant. Distribution chlorine levels are lower.

Turbidity - Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our plant's filtration system.

NTU - Nephelometric Turbidity Unit - A unit of measurement of turbidity in water.

Oocysts - A life cycle stage of a parasitic organism.

µg/L - microgram per liter or one part per billion

mg/L - milligram per liter or one part per million

AL - Action Level - Results over the action level require changes in water treatment technique.

< - Less Than

□ - THM and HAA values determined at an average site (D5) in the distribution system.

* Total VOC not including TTHM.

** Public notification is required if fluoride concentration exceeds 2.0 mg/L.

*** There was one positive sample in 2009.

Please contact the Board of Water Works Water Quality Laboratory for any information regarding water quality at (719) 584-0267. Hours are 8:00 am - 4:30 pm Monday through Friday.