

Well Water Contaminants in Davidson County

Contaminant	Drinking Water Standard	Private Well Water Test Results					
		Total wells tested	Number of wells tested above standard	Percentage (%) of wells tested above standard	Minimum	Maximum	Average
Maximum Contaminant Level (MCL)							
Arsenic	10	697	32	4.59%	0.71	100	3.87
Barium	2000	290	0	0%	70.71	400	73.63
Beryllium	4	3	0	0%	2.12	2.12	2.12
Cadmium	5	336	1	0.3%	0.71	7	0.73
Chromium	100	290	0	0%	7.07	20	7.18
Copper	1300	291	1	0.34%	35.36	1410	54.75
Lead	15	695	19	2.73%	3.54	502	5.92
Mercury	2	236	0	0%	0.35	0.7	0.36
Nitrate	10000	193	1	0.52%	707.11	13200	1256
Nitrite	1000	193	0	0%	70.71	70.71	70.71
Selenium	50	290	0	0%	3.54	12	3.6
Uranium	30	1	0	0%	15	15	15
NC 2L Groundwater							
Barium	700	290	0	0%	70.71	400	73.63
Boron	700	0	-	-	-	-	-
Cadmium	2	336	2	0.6%	0.71	7	0.73
Chromium	10	290	3	1.03%	7.07	20	7.18
Cobalt	1	0	-	-	-	-	-
Nickel	100	0	-	-	-	-	-
Zinc*	1000	290	21	7.24%	35.36	81030	846.36
Health Advisory							
Iron*	2500 (DEQ)	291	94	32.3%	70.71	41000	643.25
Manganese*	300 (EPA)	695	160	23.02%	21.21	7850	84.9
Sodium	20000 (EPA)	272	272	100%	2300	160000	14662.5
State Health Goal							
Hexavalent Chromium	0.07	0	-	-	-	-	-
Thallium	0.2	3	3	100%	1.41	1.41	1.41
Vanadium	0.3	0	-	-	-	-	-

Contaminant levels are measured in micrograms per liter (µg/L), which is equal to parts per billion (ppb). Note: Copper and Lead standards are called "Action Levels".

*The EPA also has a nuisance standard for aesthetic effects caused by these contaminants, however, this table uses the health-based standard.

Maximum Contaminant Level (MCL): The highest level of a contaminant that the US EPA allows in drinking water supplied by public utilities. An MCL takes into consideration the best available treatment technology and associated costs along with health risk. More information about MCL standards: <https://bit.ly/epa-MCL>.

NC 2L Groundwater: Set by NC DEQ as the highest level of a contaminant allowed in groundwater, which may be tolerated without creating a threat to human health or which would otherwise make the groundwater unsuitable for its intended best usage, such as a drinking water. Note: Barium, Cadmium, and Chromium have different standards under state and federal regulations; both are included in this table. More information about NC 2L Groundwater standards: <https://bit.ly/nc2Lgw>.

Health Advisory: In the absence of federal standards, the US EPA and state agencies can issue advisories to communicate the level of a contaminant in drinking water at which harmful health and/or aesthetic effects are not anticipated to occur over a specific period of time.

State Health Goal: In the absence of state and federal standards, level established by NC DHHS to communicate to private well users the risk associated with using their well water.

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For more information visit:

<https://sph.unc.edu/superfund-pages/for-communities/>

Eaves LA, Keil AP, Rager JE, George A, Fry RC. Analysis of the novel NCWELL database highlights two decades of co-occurrence of toxic metals in North Carolina private well water: Public health and environmental justice implications. *Sci Total Environ.* 2022 Mar 15;812:151479. doi: [10.1016/j.scitotenv.2021.151479](https://doi.org/10.1016/j.scitotenv.2021.151479). Epub 2021 Nov 9. PMID: 34767890.

