

**Minimum Water Quality Testing Parameters
Housing and Urban Development
U.S. EPA Drinking Water Recommendations for Private Well Water Quality Testing**

Contaminant	HUD Requirement	MCL ²	CFR ⁴ Citation	Treatment by POU/POE ¹¹	Method Name	EPA ⁵	Analytical ASTM ⁶	Method ¹¹ SM ⁷	Other
Lead (First Draw)	.015 mg/l	TT with Action Level of 0.015 mg/l	141.80 141.81	1. Reverse Osmosis 2. Activated Alumina	1. Atomic Absorption; furnace 2. ICP - Mass Spectrometry 3. Atomic Absorption; platform	200.8 ⁸ 200.8 ⁸	03558-900 ---	31138 ---	--- ---
Nitrate (as Nitrogen)	10 mg/l	10 mg/l	141.82	1. Ion exchange 2. Reverse osmosis 3. Electrodialysis	1. Ion Chromatography 2. Automated Cadmium Reduction 3. Ion Selective Electrode 4. Manual Cadmium Reduction	300.0 ⁹ 353.2 ---	D4327-91 D3887-90A ---	41108 4500-NO ₃ -F 4500-NO ₃ -D 4500-NO ₃ -E	B-1011 ¹⁰ --- 601 ¹¹ ---
Nitrite (as Nitrogen)	1 mg/l	1 mg/l	141.82	1. Ion exchange 2. Reverse osmosis	1. Ion Chromatography 2. Automated Cadmium Reduction 3. Manual Cadmium Reduction 4. Spectrophotometric	300.0 ⁹ 353.2 ---	D4327-91 D3887-90A D3887-90B ---	41108 4500-NO ₂ -F 4500-NO ₂ -E 4500-NO ₂ -B	B-1011 ¹⁰ --- --- ---
Total Nitrate/Nitrite	10 mg/l	10 mg/l	141.82	1. Ion Exchange 2. Reverse Osmosis	As Above	As Above	As Above	As Above	As Above
Total Coliforms	< 10/100 ml	< 10/100 mpn ¹²	(141.83) ⁴	1. Disinfection 2. Reverse Osmosis	1. Total Col. Fermentation Tech. ¹³ 2. Total Col. Membrane Filter Tech. 3. ONPG-MUG (Coli-Alert) ^{13,14} 4. Colisure Test ^{13,14}	---	---	8221A, B, C 8222A, B, C 8223 ---	--- --- --- Colisure ^{14,15}
Fecal Coliforms or E. coli	zero	zero ¹⁵	(141.83) ⁴	1. Disinfection 2. Reverse Osmosis	1. Fecal Coliform: EC test 1. E. coli: EC + MUG test 2. E. coli: Nutrient Agar + MUG Test 3. E. coli: ONPG-MUG (Coli-Alert) 4. E. Coli: Colisure Test ^{13,14}	---	---	---	40 CFR 141.210(S) ¹⁶ 40 CFR 141.210(R) ¹⁶ 40 CFR 141.210(R) ¹⁶ 40 CFR 141.210(R) ¹⁶ Colisure ^{14,15}

CALL EPA'S SAFE DRINKING WATER HOTLINE AT 1-800-426-4791 FOR MORE INFORMATION.

Notes

1. HUD requirement is based on EPA's MCL (Maximum Contaminant Level). Where other contaminants of local concern or occurrence are tested for the HUD requirement shall be the same as EPA's MCL for that contaminant.
2. MCL stands for Maximum Contaminant Level. This is level at which public water supplies are required to take action.
3. POU/PDE stands for Point of Use/Point of Entry devices. Devices should meet 3rd Party Certification standards such as NSF International. For information on NSF International certified devices, write them at 3475 Plymouth Road, P.O. Box 1400, Ann Arbor, MI 48106 or call them at (313) 769-8010.
4. CFR stands for Title 40 Code of Federal Regulations. CFR citations only apply to Maximum Contaminant Levels for the contaminants. Citations for MCLGs and analytical methodology are located elsewhere in the CFR. CFR citations only apply to Maximum Contaminant Levels for the contaminants. Citations for MCLGs and analytical methodology are located elsewhere in the CFR. The MCLs for total coliform, fecal coliforms, and *ecoli*, which are found in 40 CFR 141.83, are somewhat different than the levels recommended in this document since this assumes a single sample.
5. Unless otherwise noted, EPA methods are described in Methods for Chemical Analysis of Water and Wastes (EPA 800/4-78-020), available from the National Technical Information Service (NTIS) at 1-800-553-NTIS. (PB84-12887/452).
6. ASTM stands for American Society of Testing and Materials. ASTM methods are described in Annual Book of ASTM Standards, available from the American Society for Testing and Materials at (215) 289-2832. (Vol. 11.01, 1984 edition/\$79).
7. SM stands for Standard Methods. SM methods are described in Standard Methods for the Examination of Water and Wastewater, 18th ed., 1982. Available from the American Water Works Association at 1-800-928-7337. (100821/180).
8. 200.8 and 200.9 are described in Methods for the Determination of Metals in Environmental Samples (EPA 800/4-91-010), available from EPA's Office of Research and Development at (513) 589-7562.
9. 300.0 is described in Determination of Inorganic Anions in Water by Ion Chromatography (EPA 800/R-93-100), EPA's Environmental Monitoring Systems Laboratory, Revision 2.1, August 1993. Available from EPA's Office of Research and Development at (513) 589-7562.
10. B-1011 is entitled "Waters Test Method for Determination of Nitrate/Nitrite in Water Using Single Column Ion Chromatography." This method is listed as Method A-107 and described in Waters Innovative Methods for Ion Analysis (WAT10, Part 22340, 1991, available from Waters Corp., Milford, MA, at 1-800-252-4752. (Order by title, \$283).
11. For 801, the procedure shall be done in accordance with the Technical Bulletin 601: "Standard Method of Test for Nitrate in Drinking Water," July 1984, PN 221890-001, Analytical Technology, Inc. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from ATI Orion, 528 Main Street, Boston, MA 02128. Copies may be inspected at EPA's Water Docket (401 M Street, SW, Washington, DC 20460) or at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC 20402.
12. Density of total coliforms should be less than 10 organisms/100 ml water sample. (This value is not the MCL, because the MCL is based on the results of more than one sample.)
13. Method should be used in five or ten tube Most Probable Number format.
14. ONPG-MUG test (Colliert test) can be obtained from IDEXX Laboratories, One IDEXX Drive, Westbrook, Maine 04092 (phone 1-800-548-8733). Colisure test can be obtained from the Millipore Corp., Technical Services Dept., 80 Ashby Road, Bedford, Massachusetts 01730 (phone 1-800-845-5478).
15. Each total coliform-positive colony or culture tube should be tested for either fecal coliforms or *E. coli*. If this test is performed, a separate water sample for fecal coliform/*E. coli* testing is not needed.
16. Contact Safe Drinking Water Hotline for cited CFR or FR material or other information at 1-800-428-4781.
17. Effective December 25, 1994.
18. Must conform to the requirements of ML 92-18.

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Contaminant	HUD	MCI~	CFR~	Treatment by~
Nitrate (as Nitrogen)	1mg/l	1mg/l	141.62	1. Ion exchange 2. Reverse osmosis 3. Electrodialysis
Nitrate (as Nitrogen)	1 mg/l			1. Ion Chroma 2. Automated 3. Ion Select
Total Coliforms	< 10/100 ml	< 10/100	(141.63)	1 Total Col Fer 2 Total Col Mem 3 ONPG- MUG (Co 4 Colisure Test
Total Nitrate/Nitrite	10 mg/l			2 Reverse Osmosis
				1 Disinfection 2 Reverse Osmosis

Fecal-Coliforms or E.coli zero 1141 B31 1 Disinfection zero 2 Rwno Osmosis 1 Fecal coliforms EC 1 est

1 E eob EC MUG 1 sl
 2. E eol illiiri ni Auu-UUG 1osl
 3 E eol ONPG MUG 1Cola-rt1
 4 E Coli Colisun T~1

CALL EPA'S SAFE DRINKING WATER HOTLINE AT 18004264791 FOR MORE INFORMATION.