

NSF Proposed Accuracy Levels Under ANSI 50, 2019, Normative Annex 11

Basic Statistics and Calculated Ranges Based on 6, 12, 18, and 24 Month 20 Aged Disks

Accuracy Levels for Chlorine; Free and Combined. Range of Operation 0 to 10 mg/l

Level	Current Range (ppm)	Current Spec (ppm)	Current Spec %, R. Falk	Proposed Range (ppm), R. Falk	Proposed Spec, R. Falk	Propose Range ppm LaMotte	Proposed Spec LaMotte
L1	0 to 2.8	+/- 0.2	7.1 to infinity	0 to 7	10 % or +/-0.2 ppm, whichever greater	0 -2.5	12% or +/- 0.3
L1	2.8 to 7	+/- 0.7	10 to 25		ELIMINATE SPECIFICATION	2.5 - 10	15%
L1	7 to 10	+/- 1.5	15 to 21	7 to 10	15 %		
L2	0 to 1	+/- 0.3	30 to infinity	0 to 5.5	20 % or +/-0.5 ppm, whichever is greater	0 – 5.5	20 % or ±0.5 ppm
L2	1 to 2.8	+/- 0.5	18 to 50		ELIMINATE SPECIFICATION		
L2	2.8 to 5.5	+/- 1.0	18 to 36		ELIMINATE SPECIFICATION		
L2	5.5 to 10	+/- 2.5	25 to 45	5.5 to 10	25 %	5.5 - 10	25 %
L3	0 to 1	+/- 0.4	40 to infinity	0 to 5.5	30 % or +/-0.5 ppm, whichever is greater	0 – 5.5	30 % or ±0.7 ppm
L3	1 to 2.8	+/- 0.8	29 to 80		ELIMINATE SPECIFICATION		
L3	2.8 to 5.5	+/- 1.5	27 to 54		ELIMINATE SPECIFICATION		
L3	5.5 to 10	+/- 3.5	35 to 64	5.5 to 10	35 %	5.5 - 10	35 %
L3	Strip or Comparator	Within 1 increment of expected value			Within 1 increment of expected value		Within 1 increment of expected value

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Accuracy Levels for Cyanuric Acid; Range of Operation 0 to 240 mg/l

Level	Current Range (ppm)	Current Specification (Percent)	Current Spec %, R. Falk	Proposed Range (ppm), R. Falk	Proposed Spec, R. Falk	Propose Range ppm LaMotte	Proposed Spec LaMotte
L1	0 to 35	+/- 15	0 to 5.3	0 to 35	+/- 15% or +/- 4 ppm whichever is greater	0 - 240	±15 % or ±5 ppm Whichever Is greater
L1	36 to 80	+/- 12	4.3 to 9.6	36 to 80	+/- 12 %		
L1	81 to 120	+/- 10	8.1 to 12	81 to 120	+/- 10 %		
L1	121 to 240	+/- 15	18 to 36	121 to 240	+/- 15 %		
L2	All Solutions	+/- 20	0 to 48	All Solutions	+/- 20 % or +/- 10 ppm, Whichever is greater	All Solutions	+/- 20 % or +/- 10 ppm, Whichever is greater
L3	All Solutions	+/- 50	0 to 140	All Solutions	+/- 50 % or +/- 25 ppm, Whichever is greater	All Solutions	+/- 50 % or +/- 25 ppm, Whichever is greater
L3	Strip or comparator	Within 1 increment of expected value		Strip or comparator	Within 1 increment of expected value	Strip or comparator	Within 1 increment of expected value

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Accuracy Levels for Bromine; Total. Range of Operation 0 to 20 mg/l

Level	Current Range (ppm)	Current Specification (ppm)	Proposed Range (ppm), R. Falk	Proposed Spec, R. Falk	Propose Range ppm LaMotte	Proposed Spec LaMotte
L1	0 to 6	+/- 0.2	0 to 14	10 % or +/-0.4 ppm, whichever greater	0 – 5.5 ppm	12% or ±0.7 ppm, whichever is greater
L1	6 to 14	+/- 1.4		ELIMINATE SPECIFICATION		
L1	14 to 20	+/- 3.0	14 to 20	15 %	5.5 - 22	15 %
L2	0 to 6	+/- 0.3	0 to 5.5	20 % or +/- 1.0ppm, whichever is greater	0 – 5.5 ppm	20 % or ± 1.1ppm, whichever is greater
L2	6 to 12	+/- 2.0		ELIMINATE SPECIFICATION		
L2	12 to 20	+/- 3.0	12 to 20	25 %	5.5 - 22	25 %
L3	0 to 12	+/- 0.4	0 to 12	30 % or +/-2.0 ppm, whichever is greater	0 – 5.5 ppm	30 % or +/-2.0 ppm, whichever is greater
L3	12 to 20	+/- 3.5	12 to 20	35 %	5.5 - 22	35 %
L3	Strip or Comparator	Within 1 increment of expected value		Within 1 increment of expected value		Within 1 increment of expected value

Accuracy Levels for Hardness. Range of Operation 0 to 1, 100 mg/l as CaCO₃

Level	Current Range (ppm)	Current Specification (percent)	Proposed Spec, R. Falk	Proposed Spec LaMotte
L1	All Solutions	+/- 5	5 % or +/-5 ppm, whichever greater	15 % or ±15 ppm, whichever greater
L2	All Solutions	+/- 10	10 % or +/-10 ppm, whichever is greater	25 % or ±25 ppm, whichever is greater
L3	All Solutions	+/- 50	50 % or +/-50 ppm, whichever is greater	50 % or +/-50 ppm, whichever is greater
L3	Strip or Comparator	Within 1 increment of expected value	Within 1 increment of expected value	Within 1 increment of expected value

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Accuracy Levels for Alkalinity. Range of Operation 30 to 220 mg/l as CaCO₃

Level	Current Range (ppm)	Current Specification (percent)	Proposed Spec, R. Falk	Proposed Spec LaMotte
L1	40 to 200	+/- 10	5 % or +/-5 ppm, whichever greater	15 % or ±15 ppm, whichever greater
L2	40 to 200	+/- 20	20 % or +/-20 ppm, whichever is greater	25 % or ±25 ppm, whichever is greater
L3	40 to 200	+/- 50	50 % or +/-50 ppm, whichever is greater	50 % or +/-50 ppm, whichever is greater
L3	Strip or Comparator	Within 1 increment of expected value	Within 1 increment of expected value	Within 1 increment of expected value

Accuracy Levels for TDS. Range of Operation 3 to 4,400 mg/l

Level	Current Range (ppm)	Current Specification (percent)	Proposed Spec, R. Falk	Proposed Spec LaMotte
L1	All Solutions	+/- 5	5 % or +/-50 ppm, whichever greater	10 % or ± 100 ppm, whichever greater
L2	All Solutions	+/- 10	10 % or +/-100 ppm, whichever is greater	25 % or ± 250 ppm, whichever is greater
L3	All Solutions	+/- 50	50 % or +/-500 ppm, whichever is greater	50 % or ± 500 ppm, whichever is greater
L3	Strip or Comparator	Within 1 increment of expected value	Within 1 increment of expected value	Within 1 increment of expected value

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Accuracy Levels for Salinity. Range of Operation 0 to 7,150 mg/l

Level	Current Range (ppm)	Current Specification (percent)	Proposed Spec, R. Falk	Proposed Spec LaMotte
L1	All Solutions	+/- 5	5 % or +/-50 ppm, whichever greater	10 % or \pm 100 ppm, whichever greater
L2	All Solutions	+/- 10	10 % or +/-100 ppm, whichever is greater	25 % or \pm 250 ppm, whichever is greater
L3	All Solutions	+/- 50	50 % or +/-500 ppm, whichever is greater	50 % or \pm 500 ppm, whichever is greater
L3	Strip or Comparator	Within 1 increment of expected value	Within 1 increment of expected value	Within 1 increment of expected value