

Experimental NELAC PT
Fields of Proficiency Testing with PTRLS
Non-Potable Water (NPW)
Effective July 1, 2007

Matrix	EPA Analyte Code	NELAC Analyte Code	Analyte ¹	Conc Range	Acceptance Criteria ^{2,3,4,5}				NELAC PTRL ⁶
					a	b	c	d	
			Misc. Analytes	mg/L					mg/L
NPW		1500	Acidity, as CaCO ₃	650 to 1800	0.9782	6.7633	0.0188	14.2368	560
NPW		1540	Bromide	1.0 to 10		±15% fixed acceptance limit			0.85
NPW		1605	Color	10 to 75 PC units		±10 PC units fixed acceptance limit			9.0
NPW		1965	Settleable solids	5.0 to 100 mL/L	1.0490	-0.3874	0.0718	0.3160	2.8
NPW		1970	Volatile solids	100 to 500	0.9730	-1.6458	0.0109	11.9327	56
NPW		1990	Silica as SiO ₂	50 to 250		±25% fixed acceptance limit			37
NPW		2045	Total Organic Halides (TOX)	300 to 1500 µg/L	0.9597	9.3217	0.0417	21.1383	190
NPW		2055	Turbidity	1.0 to 20 NTU	0.9823	0.0574	0.0373	0.0992	0.63
			Pesticides¹	µg/L					µg/L
NPW		7075	Azinphos-methyl (Guthion)	3.6 to 13.8	0.9225	-0.0223	0.2210	0.4865	0.36
NPW		7410	Diazinon	2.0 to 15	0.9026	0.2226	0.1796	0.0510	0.80
NPW		7535	Endrin ketone	2.0 to 10		±45% fixed acceptance limit			1.1
NPW		7770	Malathion	2.0 to 20	0.9098	-0.1150	0.2117	0.1720	0.20
NPW		7955	Parathion, ethyl	3.0 to 20		±45% fixed acceptance limit			1.6
			Herbicides¹	µg/L					µg/L
NPW		8625	Disulfoton	2.0 to 15	0.8954	0.0165	0.2437	0.0036	0.33
			Volatile Halocarbons¹	µg/L					µg/L
NPW		4630	1,1-Dichloroethane	15 to 150	1.0369	-0.5201	0.1127	0.0775	9.7
NPW		4645	cis-1,2-Dichloroethylene	15 to 150	1.0377	-0.6523	0.0949	0.3468	9.6
NPW		4680	cis-1,3-Dichloropropene	15 to 100		±30% fixed acceptance limit			10
NPW		4860	2-Hexanone	20 to 150	1.0025	-1.6888	0.1558	0.3446	8.0
NPW		5000	Methyl tert-butyl ether (MTBE)	15 to 100	1.0121	0.4001	0.1183	0.6608	8.2
			Acids¹	µg/L					µg/L
NPW		6005	2,6-Dichlorophenol	40 to 190	0.7853	1.0464	0.1383	1.5069	11
			Petroleum Hydrocarbons	µg/L					µg/L
NPW		9369	Diesel range organics (DRO) ⁷	500 to 4000	0.7700	-8.2807	0.1644	32.2339	50
NPW		9408	Gasoline range organics (GRO) ⁸	200 to 4000	1.0682	21.3958	0.2285	2.4231	90

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	Analyte	Analyte			a	b	c	d	
	Code	Code							
			Low Level PAHs¹	µg/L					µg/L
NPW		5500	Acenaphthene	2.0 to 10	0.8607	-0.0908	0.0631	0.3302	0.26
NPW		5505	Acenaphthylene	2.0 to 10	0.8469	-0.0392	0.1019	0.0899	0.77
NPW		5555	Anthracene	0.5 to 2.0	0.8151	0.0194	0.1714	0.0115	0.13
NPW		5575	Benzo(a)anthracene	0.3 to 2.0	0.8522	0.0273	0.0543	0.0405	0.11
NPW		5580	Benzo(a)pyrene	0.5 to 2.0	0.7556	0.1048	0.0956	0.0600	0.16
NPW		5585	Benzo(b)fluoranthene	0.3 to 2.0	0.7717	0.0825	0.1286	0.0093	0.17
NPW		5590	Benzo(g,h,i)perylene	0.3 to 2.0	0.8053	0.0322	0.1605	0.0011	0.12
NPW		5600	Benzo(k)fluoranthene	0.3 to 2.0	0.8841	-0.0021	0.0895	0.0273	0.10
NPW		5855	Chrysene	0.3 to 2.0	0.9181	0.0114	0.1133	0.0081	0.16
NPW		5895	Dibenz(a,h)anthracene	0.5 to 2.0	0.7914	0.0640	0.1377	0.0520	0.10
NPW		6265	Fluoranthene	0.3 to 2.0	0.8938	0.0038	0.0873	0.0225	0.12
NPW		6270	Fluorene	2.0 to 10	0.7919	0.0758	0.1063	0.1035	0.71
NPW		6315	Indeno(1,2,3-cd)pyrene	0.5 to 2.0	0.8210	0.0421	0.1293	0.0018	0.25
NPW		5005	Naphthalene	2.0 to 10	0.6998	0.1654	0.0745	0.2825	0.27
NPW		6615	Phenanthrene	0.3 to 2.0	0.8150	0.0542	0.0985	0.0232	0.14
NPW		6665	Pyrene	0.3 to 2.0	0.8757	0.0222	0.0809	0.0252	0.13
			Low Level Nitroaromatic and Nitroamines¹	µg/L					µg/L
NPW		9306	4-Amino-2,6-dinitrotoluene	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		9303	2-Amino-4,6-dinitrotoluene	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		6160	1,3-Dinitrobenzene	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		6185	2,4-Dinitrotoluene	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		6190	2,6-Dinitrotoluene	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		9522	HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine)	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		5015	Nitrobenzene	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		9507	2-Nitrotoluene	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		9510	3-Nitrotoluene	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		9513	4-Nitrotoluene	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		9432	RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine)	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		6415	Tetryl (methyl-2,4,6-trinitrophenylnitramine)	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		6885	1,3,5-Trinitrobenzene	1.0 to 20		±45% fixed acceptance limit			0.55
NPW		9651	2,4,6-Trinitrotoluene	1.0 to 20		±45% fixed acceptance limit			0.55

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	Analyte Code	Analyte Code			a	b	c	d	
1) For volatiles, pesticides, acids, herbicides, PAHs and Nitroaromatics/Nitramines standards, providers must include a minimum number of analytes using the same criteria described in Chapter 2, Appendix B, Section B.1.2.									
2) The acceptance criteria found in the EPA's <i>National Standards for Water Proficiency Testing Studies</i> are incorporated herein by reference. Acceptance criteria for FOTs not included in the <i>National Standards</i> are presented in this table. Acceptance limits are set at the Mean \pm 3 SD (Mean = a*T + b; SD = c*T + d where T is the assigned value).									
3) If the lower acceptance limit generated using the criteria contained in this table is less than (<) 10% of the assigned value, the lower acceptance limits are set at 10% of the assigned value with the exception of microbiology analytes.									
4) If the lower acceptance limit generated using the criteria contained in this table is greater than 90% of the assigned value, the lower acceptance limits are set at 90% of the assigned value with the exception of microbiology analytes.									
5) If the upper acceptance limit generated using the criteria contained in this table is less than 110% of the assigned value, the upper acceptance limits are set at 110% of the assigned value with the exception of microbiology analytes.									
6) NELAC Proficiency Testing Reporting Limits (PTRLs) are provided as guidance to laboratories analyzing NELAC PT samples. These levels are the lowest acceptable results that could be obtained from the lowest spike level for each analyte. The laboratory should report any positive result down to the PTRL. It is recognized that in some cases (especially for analytes that typically exhibit low recovery) the PTRL may be below the standard laboratory reporting limit. However, the laboratory should use a method that is sensitive enough to generate results at the PTRL shown. NELAC PTRLs are also provided as guidance to PT Providers. At a minimum for all analytes with an assigned value equal to "0", the PT Provider should verify that the sample does not contain the analyte at a concentration greater than or equal to the PTRL.									
7) Diesel Range Organics (DRO) per solvent extraction followed by chromatographic analysis. DRO is defined as the carbon range between C ₀ and C ₂₈ .									
8) Gasoline Range Organics (GRO) per purge-and-trap extraction followed by chromatographic analysis. GRO is defined as the carbon range between C ₅ and C ₁₀ .									