

## Lachat Applications: Regulatory Quick Reference Guide

Parameter	Method Number	Range	MDL	Units	EPA NPDES	EPA NPDWR	EPA Method	ISO	Notes
<b>Alkalinity</b>	10-303-31-1-A	10 – 500	2.3	mg CaCO <sub>3</sub> /L	Accepted		310.2		Methyl Orange method
	10-303-31-1-D	1 – 50	0.27	mg CaCO <sub>3</sub> /L	Equivalent		310.2		Methyl Orange method
<b>Ammonia</b>	10-107-06-1-B	0.05 – 5.0	0.007	mg N/L as NH <sub>3</sub>	Accepted		350.1		Alkaline Phenol-based method; 0.2% H <sub>2</sub> SO <sub>4</sub> preserved samples
	10-107-06-1-C	0.01 – 4.0	0.004	mg N/L as NH <sub>3</sub>	Accepted		350.1		Alkaline Phenol-based method; Non-preserved samples
	10-107-06-1-F	10 to 100	1	µg N/L as NH <sub>3</sub>	Equivalent		350.1		Alkaline Phenol-based method; Low-flow method
	10-107-06-1-I	0.1 – 30.0	0.01	mg N/L as NH <sub>3</sub>	Accepted	Accepted	350.1		Alkaline Phenol-based method
	10-107-06-1-J	0.01 – 2.0	0.002	mg N/L as NH <sub>3</sub>	Accepted	Accepted	350.1		Alkaline Phenol-based method; Low-flow method; preserved and non-preserved samples
	10-107-06-1-K	0.2 – 20.0	0.01	mg N/L as NH <sub>3</sub>	Accepted		350.1		Alkaline Phenol-based method; Low-flow method
	10-107-06-1-M	0.01 – 2.0; 0.02 - 20	0.002; 0.011	mg N/L as NH <sub>3</sub>	Equivalent		350.1		Alkaline Phenol-based method; Acid preserved or non-acid preserved samples
	10-107-06-1-O	2 – 500; 0.25 - 10	0.56	µg N/L as NH <sub>3</sub> ; mg N/L as NH <sub>3</sub>	Equivalent		350.1		Alkaline Phenol-based method
	10-107-06-1-X	0.05 – 20.0	0.007	mg N/L as NH <sub>3</sub>	Equivalent		350.1		Alkaline Phenol-based method; MicroDIST®; low-flow method
	10-107-06-2-A	0.10 – 5.0	0.005	mg N/L as NH <sub>3</sub>	Equivalent		350.1		Sodium Salicylate based method
	10-107-06-2-L	0.05 – 20	0.01	mg N/L as NH <sub>3</sub>	Equivalent		350.1		Sodium Salicylate based method; Ultra-High Throughput method: 120 samples / hr
	10-107-06-2-O	10 – 500; 0.25 - 30	1.1; 0.011	µg N/L as NH <sub>3</sub>	Equivalent		350.1		Sodium Salicylate based method
	10-107-06-3-F	1.25 – 100	0.41	µg N/L as NH <sub>3</sub>	Equivalent		350.1		Alkaline Phenol-based method; Uses DCIC for hypochlorite source; QC8500 only; requires 2 cm detector
	10-107-06-5-B	0.10 – 1.0	0.01	mg N/L as NH <sub>3</sub>				11732	Gas diffusion / pH indicator; low-flow method

Parameter	Method Number	Range	MDL	Units	EPA NPDES	EPA NPDWR	EPA Method	ISO	Notes
	10-107-06-5-E	0.1 – 10.0	0.02	mg N/L as NH <sub>3</sub>				11732	Gas diffusion / pH indicator
	10-107-06-5-G	0.1 – 0.9 1 - 9	0.005 0.011	mg N/L as NH <sub>3</sub>				11732	Gas diffusion method
	10-107-06-5-H	10 – 90	1.5	µg N/L as NH <sub>3</sub>				11732	Gas diffusion method
	10-107-06-6-A	0.25 – 20	0.13	mg N/L as NH <sub>3</sub>	Equivalent		350.1		Sodium Salicylate based method; w/ inline distillation; requires inline sample prep module (2 heaters)
	10-107-06-6-B	0.25 – 10	0.066	mg N/L as NH <sub>3</sub>	Equivalent		350.1		Alkaline Phenol-based method; Inline ammonia distillation
	30-107-06-1-A	0.1 – 20.0	NA	mg N/L as NH <sub>3</sub>	Accepted		350.1		Alkaline Phenol-based method; Distillation required
	31-107-06-1-B	5 – 600	0.7	µg N/L as NH <sub>3</sub>	Equivalent		350.1		Alkaline Phenol-based method
	31-107-06-1-F	0.005 – 2.0	0.002	µg N/L as NH <sub>3</sub>	Equivalent		350.1		Alkaline Phenol-based method; Samples w/ 0 – 35 ppt salinity
	31-107-06-1-G	1.25 – 100	0.41	µg N/L as NH <sub>3</sub>	Equivalent		350.1		Alkaline Phenol-based method; QC8500 only; requires 2 cm detector
	31-107-06-1-H	0.25 – 30	0.025	mg N/L as NH <sub>3</sub>	Equivalent		350.1		Alkaline Phenol-based method; High range for seawater; can be used for non-saline as well; Ultra-High Throughput method: ~ 120 injections / hr
	80-107-06-1-A	0.25 - 20 0.1 - 5.0 0.25 - 20	0.0027 0.015 0.05	mg N/L as NH <sub>3</sub>	Equivalent		350.1		Alkaline Phenol-based method; Ultra Low Flow method; must be run alone or with other ULF methods; pump speed is 10
	80-107-06-1-B	0.1 - 5.0 0.25 - 20	0.005 0.05	mg N/L as NH <sub>3</sub>	Equivalent		350.1		Ultra Low Flow method; must be run alone or with other ULF methods; pump speed is 10
	80-107-06-1-C	0.01 - 1.0	0.05	mg N/L as NH <sub>3</sub>	Equivalent		350.1		Ultra Low Flow method; must be run alone or with other ULF methods; pump speed is 10
	Chloride	10-117-07-1-A	6 – 300	0.15	mg Cl <sup>-</sup> /L	Accepted	Accepted	USGS I2 187-85	15682
10-117-07-1-B		2.5 – 100	0.5	mg Cl <sup>-</sup> /L	Accepted	Accepted	USGS I2 187-85	15682	
10-117-07-1-C		0.1 – 10.0	0.017	mg Cl <sup>-</sup> /L	Equivalent		USGS I2 187-85		Low-flow method
10-117-07-1-E		5.0 – 2000	0.6	mg Cl <sup>-</sup> /L	Equivalent		USGS I2 187-85		
10-117-07-1-H		2.5 – 100	0.2	mg Cl <sup>-</sup> /L	Accepted		USGS I2 187-85		
10-117-07-1-I		50 – 1000	1	mg Cl <sup>-</sup> /L	Accepted		USGS I2 187-85		Low-flow method
10-117-07-1-K		1.0 - 150	0.277	mg Cl <sup>-</sup> /L	Equivalent		USGS I2 187-85		Ultra High Throughput method; 120 samples per hour
80-117-07-1-A		0.25 - 20 2.5 - 100 6 - 300	0.13 0.2 1.0	mg Cl <sup>-</sup> /L	Equivalent		USGS I2 187-85		Ultra Low Flow method; must be run alone or with other ULF methods; pump speed is 10
Chromium	10-124-13-1-A	0.010 – 0.400	0.004	mg Cr(VI)/L	Accepted		218.4		Hexavalent
	10-124-13-1-B	2 – 200	0.27	µg Cr(VI)/L	Equivalent		218.4		Hexavalent

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	10-141-13-2-A	0.1 – 10	0.028	mg Cr/L				23913	Total
<b>Conductivity</b>	10-302-00-1-A	5.94 – 575	0.5	µS/cm	Accepted		120.1		
	10-302-00-1-B	146.9 – 6667	NA	µS/cm	Accepted		120.1		
<b>Cyanide</b>	10-204-00-1-A	0.005 – 0.5	0.0005	mg CN <sup>-</sup> /L	Accepted	Accepted	335.4		0.25 M NaOH matrix following digestion
	10-204-00-1-B	0.50 – 50.0	NA	mg CN <sup>-</sup> /L	Equivalent		335.4		0.25 M NaOH matrix following digestion
	10-204-00-1-F	50 – 500	NA	mg CN <sup>-</sup> /L	Equivalent		335.4		Low-flow method; 0.25 M NaOH matrix following digestion
	10-204-00-1-I	2 – 100	0.34	µg CN <sup>-</sup> /L				14403	Inline CN; pyridine free; 1,3-dimethylbarbituric acid
	10-204-00-1-X	0.005 – 0.50	0.001	mg CN <sup>-</sup> /L	Approved	Approved	Approved method		MicroDIST <sup>®</sup> method; 0.25 M NaOH matrix following digestion
	10-204-00-1-X2	0.002 – 0.5	0.38	mg CN <sup>-</sup> /L	Equivalent	Accepted	Lachat 10-204-00-1-X		Ultra-High Throughput method: >125 samples / hr.; MicroDIST <sup>®</sup> method
	10-204-00-2-C	2 – 100	0.21	µg CN <sup>-</sup> /L	Equivalent		335.3		Inline CN (total) method
	10-204-00-2-D	5 – 500	0.51	µg CN <sup>-</sup> /L	Equivalent		335.3		Inline CN (total) method
	10-204-00-2-E	2 – 100	0.5	µg CN <sup>-</sup> /L	Equivalent		335.3		Inline CN (total) method; lower recovery of ferricyanide
	10-204-00-5-A	2.0 – 400	0.65	µg CN <sup>-</sup> /L	Equivalent		335.4		Amperometric detection w/ Ligand Exchange
	80-204-00-1-A	0.005 - 0.5	0.001	mg CN <sup>-</sup> /L	Equivalent		335.4		Ultra Low Flow method; must be run alone or with other ULF methods; pump speed is 10
	80-204-00-1-X	0.005 - 0.5	0.001	mg CN <sup>-</sup> /L	Equivalent		Lachat 10-204-00-1-X		Ultra Low Flow method; must be run alone or with other ULF methods; pump speed is 10; distillate uses MicroDIST <sup>®</sup>
<b>Fluoride</b>	10-109-12-2-A	0.10 – 5.0	0.05	mg F <sup>-</sup> /L	Accepted	Accepted	USGS I4 327-85		Ion Selective Electrode
	10-109-12-2-B	1 – 1000	0.14	mg F <sup>-</sup> /L	Equivalent		340.2		Ion Selective Electrode
	10-109-12-2-C	0.10 – 2.0	0.02	mg F <sup>-</sup> /L	Equivalent		340.2		Ion Selective Electrode
	10-109-12-2-D	0.10 – 10.0	0.03	mg F <sup>-</sup> /L	Equivalent		340.2		Ion Selective Electrode
<b>Hardness, Total</b>	10-301-31-1-A	5 – 300	0.331	mg CaCO <sub>3</sub> /L	Accepted		130.1		Calmagite ; 80 samples / hr.
	10-301-31-1-B	30 – 800	5.4	mg CaCO <sub>3</sub> /L	Accepted		130.1		Calmagite
	10-301-31-1-C	125 – 1500	17	mg CaCO <sub>3</sub> /L	Equivalent		130.1		Calmagite
	10-107-06-2-D	0.5 – 20	0.07	mg N/L	Accepted		351.2		Kjeldahl digests; Mercury catalyst
	10-107-06-2-E	0.1 – 5.0	0.018	mg N/L	Accepted		351.2		Kjeldahl digests; Mercury catalyst
	10-107-06-2-H	0.1 – 5.0	0.034	mg N/L	Equivalent		351.2		Kjeldahl digests; Copper catalyst
	10-107-06-2-I	0.5 – 20.0	0.1	mg N/L	Equivalent		351.2		Kjeldahl digests; Copper catalyst
	10-107-06-2-K	0.1 – 20.0	0.0093	mg N/L	Equivalent		351.2		Kjeldahl digests; low-flow method; Mercury catalyst
	10-107-06-2-M	0.25 – 25	0.05	mg N/L	Equivalent		351.2		Kjeldahl digests; Copper catalyst

Parameter	Method Number	Range	MDL	Units	EPA NPDES	EPA NPDWR	EPA Method	ISO	Notes
Kjeldahl Nitrogen	10-107-06-2-N	0.5 – 20; 0.1 - 5.0	0.02; 0.04	mg N/L	Equivalent		351.2		Kjeldahl digests; Mercury catalyst; Ultra-High Throughput method: >125 samples / hr.
	10-107-06-2-P	0.25 – 25	0.056	mg N/L	Equivalent		351.2		Kjeldahl digests; Copper catalyst; DI water carrier; Ultra-High Throughput method
	10-107-06-5-F	0.1 – 10.0	0.01	mg N/L				11732	Kjeldahl digests; Gas diffusion; may be used for brackish sample matrix
	10-107-06-6-C	0.5 – 20	0.21	mg N/L	Equivalent		351.2		Kjeldahl digests; Mercury catalyst; Inline distillation
	10-107-06-6-D	0.5 – 20	0.25	mg N/L	Equivalent		351.2		Kjeldahl digests; Copper catalyst; Inline distillation
Nitrate + Nitrite	10-107-04-1-A	0.2 – 20.0	0.01	mg N/L	Accepted	Accepted	353.2		Cd reduction; low-flow method
	10-107-04-1-B	0.002 – 0.10	0.0003	mg N/L	Accepted	Accepted	353.2		Cd reduction
	10-107-04-1-C	0.01 – 2.0	0.002	mg N/L	Accepted	Accepted	353.2		Cd reduction
	10-107-04-1-F	1 – 50.0	0.12	mg N/L	Equivalent		353.2		Cd reduction
	10-107-04-1-H	5 – 80.0	0.027	mg N/L	Equivalent		353.2		Cd reduction; dialysis
	10-107-04-1-J	0.10 – 10.0	0.012	mg N/L	Accepted	Accepted	353.2		Cd reduction; low-flow method
	10-107-04-1-K	0.5 – 5.0	0.059	µM N	Accepted	Accepted	353.2		Cd reduction; low-flow method
	10-107-04-1-L	0.02 – 2.0	0.002	mg N/L	Accepted	Accepted	353.2		Cd reduction; low-flow method
	10-107-04-1-O	0.05 – 10.0	0.007	mg N/L	Accepted	Accepted	353.2		Cd reduction
	10-107-04-1-Q	0.005 – 0.8 0.5 - 10	0.0005 0.022	mg N/L	Equivalent		353.2		Low-flow method; Imidazole buffer; for use w/ non-preserved and aced preserved samples
	10-107-04-1-R	0.002 - 0.25 0.025 – 20	0.0005 0.0012	mg N/L	Equivalent	Accepted	353.2		Ultra-High Throughput method: 120 samples / hr.
	10-107-04-2-A	2 – 100	0.1	mg NO <sub>3</sub> /L	Accepted	Accepted	353.1		Hydrazine reduction
	10-107-04-2-B	0.05 – 1.0	0.002	mg N/L	Accepted	Accepted	353.1		Hydrazine reduction
	10-107-04-2-D	0.05 – 7	0.006	mg N/L	Accepted	Accepted	353.1		Hydrazine reduction
	30-107-04-1-A	0.05 – 1.00	0.0029	mg N/L	Accepted		353.2		
	30-107-04-1-C	0.05 – 2.0	0.0029	mg N/L	Equivalent		353.2		Uses 50% ASW as diluents and carrier
	31-107-04-1-A	1.25 – 5.0	0.03	µM N	Equivalent		353.2		Cd reduction
	31-107-04-1-C	5.0 – 50.0	0.12	µM N	Equivalent		353.2		Cd reduction
	31-107-04-1-D	0.5 – 14	0.2	µg N/L	Equivalent		353.2		Cd reduction
	31-107-04-1-E	5 – 400	0.51	µg N/L	Equivalent		353.2		
31-107-04-1-F	0.5 – 14	0.08	µg N/L	Equivalent		353.2		Requires 2 cm detector; QC8500 only	
31-107-04-1-G	0.25 – 10; 0.01 - 1.0	0.05; 0.002	mg N/L	Equivalent		353.2		Ultra-High Throughput method: 120 samples / hr.	
31-107-04-1-H	0.25 – 30	0.025	mg N/L	Equivalent		353.2		High range method; can also be used for non-saline matrices	

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	80-107-04-1-A	0.001 - 0.10 0.01 - 1.0 0.10 - 10.0	0.0002 0.001 0.002	mg N/L	Equivalent		353.2		Ultra Low Flow method; must be run alone or with other ULF methods; pump speed is 10
Nitrite	10-107-05-1-A	0.01 – 10.0	0.005	mg N/L	Equivalent	Accepted	353.2		Nitrite only
	10-107-05-1-B	0.014 – 0.07	0.0004	mg N/L	Equivalent		353.2		Nitrite only; 1.0 – 5 µM N; low-flow method
	10-107-05-1-C	0.02 – 2.0	0.0016	mg N/L	Equivalent		353.2		Nitrite only; low-flow method
	10-107-05-1-O	10 – 1000	4	µg N/L	Equivalent		353.2		Nitrite only; low-flow method
	31-107-05-1-A	1.25 – 5.0	0.02	µM N	Equivalent		353.2		Nitrite only
	31-107-05-1-B	0.1 – 15	0.01	mg N/L	Equivalent		353.2		High range method
	80-107-05-1-A	0.01 - 1.0 0.1 - 10.0	0.002 0.02	mg N/L	Equivalent		353.2		Ultra Low Flow method; must be run alone or with other ULF methods; pump speed is 10
Phenol	10-210-00-1-A	5 – 200	0.6	µg phenol/L	Accepted		420.4		Distilled samples
	10-210-00-1-B	0.05 – 2.0	0.0013	mg phenol/L	Accepted		420.1		Distilled samples; cycle period: 30 s
	10-210-00-1-X	0.005 – 0.2	0.0034	mg phenol/L	Equivalent		420.1		MicroDIST® method
	10-210-00-1-Y	0.5 – 50	0.4	mg phenol/L	Equivalent		420.1		MicroDIST® method
	10-210-00-3-A	2 – 200	0.28	µg phenol/L	Equivalent		420.2		Inline distillation for volatile phenolics; method includes dedicated channel
	10-210-00-3-B	5 – 500 10 - 1000	0.80 2.15	µg phenol/L	Equivalent		420.2		Inline distillation for volatile phenolics; also covers range: 10 – 1000 µg phenol/L; MDL 2.15 µg phenol/L ; method includes dedicated channel; settleable particulate samples are not suitable w/ method
	10-210-00-3-C	2 – 200	0.61	µg phenol/L	Equivalent		420.4		Developed to allow automation of USEPA 420.4
	10-115-01-1-A	0.01 – 2.0	0.002	mg P/L	Accepted	Accepted	365.1		Molybdate based method;
	10-115-01-1-B	0.01 – 0.20	0.0007	mg P/L	Accepted	Accepted	365.1		Molybdate based method;
	10-115-01-1-M	1 – 100	0.1	µg P/L	Accepted	Accepted	365.1		Molybdate based method;
	10-115-01-1-O	1.0 – 20	0.045	mg P/L	Equivalent		365.1		Molybdate based method; Ultra-High Throughput method: 120 samples / hr.
	10-115-01-1-P	0.05 – 2.00	0.005	mg P/L	Accepted	Accepted	365.1		Molybdate based method; Low-flow method
	10-115-01-1-Q	0.010 – 0.20	0.0003	mg P/L	Accepted	Accepted	365.1		Molybdate based method; Low-flow method
	10-115-01-1-T	0.025 – 2.5	0.005	mg P/L	Accepted	Accepted	365.1		
	10-115-01-1-V	0.01 – 2.0; 0.2 - 20.0	0.0012; 0.0046	mg P/L	Equivalent	Accepted	365.1		Molybdate based method; Ultra-High Throughput method: >125 samples / hr.
	10-115-01-1-W	0.25 – 20	0.046	µg P/L	Equivalent		365.1		Molybdate based method; Requires 2 cm detector; for samples w/ low silicate; QC8500 only

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Phosphate, ortho	10-115-01-1-Y	0.5 – 100	0.164	µg P/L	Equivalent		365.1		Molybdate based method; Requires 2 cm detector; for samples w/ higher silicate; QC8500 only
	31-115-01-1-G	2.0 – 10.0	0.02	µM P	Equivalent		365.1		Molybdate based method; 62 – 310 µg P/L as PO <sub>4</sub> <sup>3-</sup>
	31-115-01-1-H	5 – 400	1	µg P/L	Equivalent		365.1		Molybdate based method; 0.16 – 12.91 µM P
	31-115-01-1-I	1 – 100	0.25	µg P/L	Equivalent		365.1		Molybdate based method; 0.03 – 3.23 µM P
	31-115-01-1-J	0.01 – 2.0; 0.5 - 20.0	0.002; 0.007	mg P/L	Equivalent		365.1		Molybdate based method
	31-115-01-1-W	0.25 – 20	0.46	µg P/L	Equivalent		365.1		Molybdate based method; Requires 2 cm detector; for samples w/ low silicate; QC8500 only
	31-115-01-1-Y	0.5 – 100	0.164	µg P/L	Equivalent		365.1		Molybdate based method; Requires 2 cm detector; for samples w/ higher silicate; QC8500 only
	80-115-01-1-A	0.05 - 2.0 0.25 - 10.0	0.005 0.05	mg P/L	Equivalent		365.1		Ultra Low Flow method; must be run alone or with other ULF methods; pump speed is 10
Phosphorus	10-115-01-1-C	0.1 – 5.0	0.015	mg P/L	Accepted		365.4		Molybdate based method; Total P; Kjeldahl digests; Mercury catalyst
	10-115-01-1-D	0.05 – 0.5	0.002	mg P/L	Accepted		365.4		Molybdate based method; Total P; Kjeldahl digests; Mercury catalyst
	10-115-01-1-E	0.2 – 10.0	0.1	mg P/L	Accepted		365.1		Molybdate based method; Total P; Persulfate digests
	10-115-01-1-F	0.003 – 0.2	0.0009	mg P/L	Accepted		365.1		Molybdate based method; Total P; Persulfate digests
	10-115-01-1-I	0.1 – 5.0	0.007	mg P/L	Equivalent		365.4		Molybdate based method; Ultra-High Throughput method: >100 samples / hr.; Total P; Kjeldahl digests; Mercury catalyst
	10-115-01-2-B	0.10 – 10	0.01	mg P/L	Equivalent		365.4		Molybdate based method; Total P; Kjeldahl digests; Copper catalyst
	10-115-01-3-A	0.1 – 10.0	0.007	mg P/L	Equivalent		365.3		Molybdate based method; Total P; Inline acidic persulfate digest
	10-115-01-3-B	0.1 – 4.0	0.01	mg P/L	Equivalent		365.3		Molybdate based method; Total P; Inline acidic persulfate digest
	10-115-01-3-C	0.05 – 1.0	0.0011	mg P/L	Equivalent		365.3		Molybdate based method; Total P; Inline acidic persulfate digest
	10-115-01-3-E	10 – 500	1.4	µg P/L	Equivalent		365.3		Molybdate based method; Total P; Inline acidic persulfate digest
	10-115-01-3-F	2 – 100	0.42	µg P/L	Equivalent		365.3		Molybdate based method; Total P; Inline acidic persulfate digest

Parameter	Method Number	Range	MDL	Units	EPA NPDES	EPA NPDWR	EPA Method	ISO	Notes
	10-115-01-4-I	0.2 – 20.0	NA	mg P/L	Equivalent		365.3		Molybdate based method; Total P; Persulfate manual digests
	10-115-01-4-S	0.2 – 10	0.002	mg P/L	Equivalent		365.3		Molybdate based method; Total P; Potassium persulfate manual digest; low-flow method
	10-115-01-4-U	0.01 – 0.2	0.0008	mg P/L	Equivalent		365.3		Molybdate based method; Total P; Persulfate manual digests; low-flow method
	31-115-01-3-D	0.050 – 1.0	0.002	mg P/L	Equivalent		365.3		Molybdate based method; Total P; Inline acidic persulfate digests; 1.61 – 32.26 µM P/L
	31-115-01-3-F	2 – 100	0.59	µg P/L	Equivalent		365.3		Molybdate based method; Low level for Total P
	31-115-01-4-A	12.5 – 400	1.66	µg P/L	Equivalent		365.3		Molybdate based method; Acid persulfate manual digest; 0.4 – 12.9 µM P/L
Silicate	10-114-27-1-A	0.2 – 20	0.04	mg SiO <sub>2</sub> /L	Accepted		USGS I2 700-85		Molybdate reactive
	10-114-27-1-B	10 – 100	0.58	µg SiO <sub>2</sub> /L	Equivalent		366.0		Molybdate reactive; Ultra-High Throughput method: 120 samples / hr.
	10-114-27-1-C	2.5 – 100	0.61	µg SiO <sub>2</sub> /L	Equivalent		366.0		Requires 2 cm detector; QC8500 only
	31-114-27-1-A	20 – 100	0.2	µM Si	Equivalent		366.0		Molybdate reactive
	31-114-27-1-B	1.25 – 5.0	0.01	µM Si	Equivalent		366.0		Molybdate reactive; 0.035 – 0.14 mg Si/L
	31-114-27-1-D	10 – 1700	1.43	µg Si/L	Equivalent		366.0		0.36 – 60.52 µM Si
	31-114-27-1-E	2.5 – 100	0.606	µg Si/L	Equivalent		366.0		Requires 2 cm detector; QC8500 only
31-114-27-1-F	0.5 – 30	0.05	µg Si/L	Equivalent		366.0		Ultra high range; salinity range: 0 – 35 ppt; can be used w/ non-saline samples	
Sodium	10-111-32-1-A	5.0 – 300	1.2	mg Na/L	Equivalent		273.1		Flame emission
Sulfate	10-116-10-1-A	3.0 – 300	0.95	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent		375.4		Turbidimetric
	10-116-10-1-C	0.5 – 10.0	0.2	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent		375.4		Turbidimetric
	10-116-10-1-E	10 – 100	0.6	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent		375.4		Turbidimetric
	10-116-10-1-G	50 – 2000	NA	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent		375.4		Turbidimetric; low-flow method
	10-116-10-2-A	5.0 – 100	1.8	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent		375.2		Methyl Thymol Blue method
	10-116-10-2-B	50 – 300	7.2	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent	Accepted	375.2		Methyl Thymol Blue method
	10-116-10-2-E	2 – 40	0.36	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent		375.2		Methyl Thymol Blue method
Sulfide	10-116-29-1-A	0.02 – 2.0	0.005	mg S/L	Equivalent		376.2		MicroDIST® method; Methylene Blue; 0.25 M NaOH
	10-116-29-1-C	25 – 100	0.58	mg S/L	Equivalent		376.2		0.25 M NaOH; distillation required
	10-116-29-3-A	0.01 – 2.0	0.006	mg S/L	Equivalent		375.6		Inline distillation; method includes two dedicated channels
	10-116-29-3-B	1.0 – 10.0	0.2	mg S/L	Equivalent		375.6		Inline distillation; method includes two dedicated channels
Surfactants	10-306-00-1-C	0.010 – 1.0	0.0029	mg/L	Equivalent		425.1		Dual extraction; LAS range: 0.025 – 1.0 mg/L; MDL 0.0078 mg/L

Parameter	Method Number	Range	MDL	Units	EPA NPDES	EPA NPDWR	EPA Method	ISO	Notes
	10-306-00-1-D	0.010 – 1.0	0.0024	mg SDS/L	Equivalent		425.1		Single extraction method
<b>IC Anions; Bromate</b>	10-540-00-1-C	5 – 50	1.15	µg BrO <sub>3</sub> <sup>-</sup> /L		Accepted	300.1		Disinfection byproducts, Run time: 38 min., use Omnion 3.0.
<b>IC Anions; Bromide</b>	10-510-00-1-A1	0.05 – 5.0	0.018	mg Br <sup>-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	100 µL loop, Run time: 11 min.
	10-510-00-1-A2	0.1 – 5	NA	mg Br <sup>-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	High-range method, 100 µL loop, Run time: 11 min.
	10-510-00-1-A3	0.025 – 2.5	0.005	mg Br <sup>-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	Low-range method, 200 µL loop, Run time: 11 min.
	10-510-00-1-A4	0.16 – 3.0	0.02	mg Br <sup>-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	Chloride to Nitrite-N ratio 800:1, Run time: 16 min.
	10-510-00-1-E1	0.05 – 5.0	0.016	mg Br <sup>-</sup> /L	Equivalent	Accepted	300.0		Fast IC, Separation of all seven common anions in 6.5 minutes, Omnion 3.0 only.
	10-510-00-1-E2	0.025 – 2.5	0.015	mg Br <sup>-</sup> /L	Equivalent	Accepted	300.0		Low range.
	10-510-00-1-E3	0.1 – 5	0.038	mg Br <sup>-</sup> /L	Equivalent	Accepted	300.0		High range.
	10-540-00-1-C	10 – 100	2.01	µg Br <sup>-</sup> /L		Accepted	300.1		Disinfection byproducts, Run time: 38 min., use Omnion 3.0.
<b>IC Anions; Chlorate</b>	10-540-00-1-C	20 – 200	5	µg ClO <sub>3</sub> <sup>-</sup> /L		Accepted	300.1		Disinfection byproducts, Run time: 38 min., use Omnion 3.0.
<b>IC Anions; Chloride</b>	10-510-00-1-A1	0.5 – 50.0	0.004	mg Cl <sup>-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	100 µL loop, Run time: 11 min.
	10-510-00-1-A2	2 – 100	NA	mg Cl <sup>-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	High-range method, 100 µL loop, Run time: 11 min.
	10-510-00-1-A3	0.25 – 25	0.012	mg Cl <sup>-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	Low-range method, 200 µL loop, Run time: 11 min.
	10-510-00-1-A4	32 – 600	NA	mg Cl <sup>-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	Chloride to Nitrite-N ratio 800:1, Run time: 16 min.
	10-510-00-1-E1	0.5 – 50	0.029	mg Cl <sup>-</sup> /L	Equivalent	Accepted	300.0		Fast IC, Separation of all seven common anions in 6.5 minutes, Omnion 3.0 only.
	10-510-00-1-E2	0.015 – 2.5	0.006	mg Cl <sup>-</sup> /L	Equivalent	Accepted	300.0		Low range.
	10-510-00-1-E3	2.0 – 100	0.016	mg Cl <sup>-</sup> /L	Equivalent	Accepted	300.0		High range.
	10-511-00-1-A1	1.0 – 100	0.004	mg Cl <sup>-</sup> /L	Equivalent	Accepted	300.0		Rapid IC for anions, 50 µL loop, Run time: 4 min.
	10-511-00-1-A2	1.5 – 150	0.01	mg Cl <sup>-</sup> /L	Equivalent	Accepted	300.0		High-range method, 25 µL loop, Run time: 4 min.
<b>IC Anions; Chlorite</b>	10-540-00-1-C	5 – 50	2.61	µg ClO <sub>2</sub> <sup>-</sup> /L		Accepted	300.1		Disinfection byproducts, Run time: 38 min., use Omnion 3.0.
<b>IC Anions; Fluoride</b>	10-510-00-1-A1	0.05 – 5.0	0.004	mg F <sup>-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	100 µL loop, Run time: 11 min.
	10-510-00-1-A2	0.2 – 10	NA	mg F <sup>-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	High-range method, 100 µL loop, Run time: 11 min.
	10-510-00-1-A3	0.025 – 2.5	0.004	mg F <sup>-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	Low-range method, 200 µL loop, Run time: 11 min.



Parameter	Method Number	Range	MDL	Units	EPA NPDES	EPA NPDWR	EPA Method	ISO	Notes
<b>IC Anions; Fluoride</b>	10-510-00-1-A4	0.04 – 0.75	0.008	mg F/L	Equivalent	Accepted	300.0	10304-1 10304-2	Chloride to Nitrite-N ratio 800:1, Run time: 16 min.
	10-510-00-1-E1	0.05 – 5.0	0.004	mg F/L	Equivalent	Accepted	300.0		Fast IC, Separation of all seven common anions in 6.5 minutes, Omnion 3.0 only.
	10-510-00-1-E2	0.025 – 2.5	0.003	mg F/L	Equivalent	Accepted	300.0		Low range.
	10-510-00-1-E3	0.2 – 10.0	0.016	mg F/L	Equivalent	Accepted	300.0		High range.
<b>IC Anions; Nitrate</b>	10-510-00-1-A1	0.05 – 5.0	0.004	mg NO <sub>3</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0	10304-1 10304-2	100 µL loop, Run time: 11 min.
	10-510-00-1-A2	0.2 – 10	NA	mg NO <sub>3</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0	10304-1 10304-2	High-range method, 100 µL loop, Run time: 11 min.
	10-510-00-1-A3	0.025 – 2.5	0.002	mg NO <sub>3</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0	10304-1 10304-2	Low-range method, 200 µL loop, Run time: 11 min.
	10-510-00-1-A4	0.04 – 0.75	0.005	mg NO <sub>3</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0	10304-1 10304-2	Chloride to Nitrite-N ratio 800:1, Run time: 16 min.
	10-510-00-1-E1	0.05 – 5.0	0.008	mg NO <sub>3</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0		Fast IC, Separation of all seven common anions in 6.5 minutes, Omnion 3.0 only.
	10-510-00-1-E2	0.025 – 2.5	0.0048	mg NO <sub>3</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0		Low range.
	10-510-00-1-E3	0.2 – 10.0	0.029	mg NO <sub>3</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0		High range.
	10-511-00-1-A1	0.2 – 20.0	0.003	mg NO <sub>3</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0		Rapid IC for anions, 50 µL loop, Run time: 4 min.
	10-511-00-1-A2	0.25 – 25	0.005	mg NO <sub>3</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0		High-range method, 25 µL loop, Run time: 4 min.
<b>IC Anions; Nitrite</b>	10-510-00-1-A1	0.05 – 5.0	0.008	mg NO <sub>2</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0	10304-1 10304-2	100 µL loop, Run time: 11 min.
	10-510-00-1-A2	0.1 – 5	NA	mg NO <sub>2</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0	10304-1 10304-2	High-range method, 100 µL loop, Run time: 11 min.
	10-510-00-1-A3	0.025 – 2.5	0.005	mg NO <sub>2</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0	10304-1 10304-2	Low-range method, 200 µL loop, Run time: 11 min.
	10-510-00-1-A4	0.04 – 0.75	0.02	mg NO <sub>2</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0	10304-1 10304-2	Chloride to Nitrite-N ratio 800:1, Run time: 16 min.
	10-510-00-1-E1	0.05 – 5.0	0.033	mg NO <sub>2</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0		Fast IC, Separation of all seven common anions in 6.5 minutes, Omnion 3.0 only.
	10-510-00-1-E2	0.025 – 2.5	0.0048	mg NO <sub>2</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0		Low range.
	10-510-00-1-E3	0.1 – 5.0	0.01	mg NO <sub>2</sub> <sup>-</sup> - N/L	Equivalent	Accepted	300.0		High range.
<b>IC Anions;</b>	10-510-00-1-A1	0.05 – 5.0	0.012	mg HPO <sub>4</sub> <sup>2-</sup> - P/L	Equivalent	Accepted	300.0	10304-1 10304-2	100 µL loop, Run time: 11 min.
	10-510-00-1-A2	0.2 – 10	NA	mg HPO <sub>4</sub> <sup>2-</sup> - P/L	Equivalent	Accepted	300.0	10304-1 10304-2	High-range method, 100 µL loop, Run time: 11 min.
	10-510-00-1-A3	0.025 – 2.5	0.003	mg HPO <sub>4</sub> <sup>2-</sup> - P/L	Equivalent	Accepted	300.0	10304-1 10304-2	Low-range method, 200 µL loop, Run time: 11 min.
	10-510-00-1-A4	0.10 – 1.875	0.02	mg HPO <sub>4</sub> <sup>2-</sup> - P/L	Equivalent	Accepted	300.0	10304-1 10304-2	Chloride to Nitrite-N ratio 800:1, Run time: 16 min.

Parameter	Method Number	Range	MDL	Units	EPA NPDES	EPA NPDWR	EPA Method	ISO	Notes
<b>Phosphate, ortho</b>	10-510-00-1-E1	0.05 – 5.0	0.015	mg HPO <sub>4</sub> <sup>2-</sup> - P/L	Equivalent	Accepted	300.0		Fast IC, Separation of all seven common anions in 6.5 minutes, Omnion 3.0 only.
	10-510-00-1-E2	0.025 – 2.5	0.0098	mg HPO <sub>4</sub> <sup>2-</sup> - P/L	Equivalent	Accepted	300.0		Low range.
	10-510-00-1-E3	0.2 – 10.0	0.034	mg HPO <sub>4</sub> <sup>2-</sup> - P/L	Equivalent	Accepted	300.0		High range.
	10-511-00-1-A1	0.05 – 5.0	0.006	mg HPO <sub>4</sub> <sup>2-</sup> - P/L	Equivalent	Accepted	300.0		Rapid IC for anions, 50 µL loop, Run time: 4 min.
	10-511-00-1-A2	0.1 – 10	0.016	mg HPO <sub>4</sub> <sup>2-</sup> - P/L	Equivalent	Accepted	300.0		High-range method, 25 µL loop, Run time: 4 min.
<b>IC Anions; Sulfate</b>	10-510-00-1-A1	1.0 – 100	0.012	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	100 µL loop, Run time: 11 min.
	10-510-00-1-A2	4 – 200	NA	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	High-range method, 100 µL loop, Run time: 11 min.
	10-510-00-1-A3	0.5 – 50	0.003	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	Low-range method, 200 µL loop, Run time: 11 min.
	10-510-00-1-A4	32 – 600	NA	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent	Accepted	300.0	10304-1 10304-2	Chloride to Nitrite-N ratio 800:1, Run time: 16 min.
	10-510-00-1-E1	1.0 – 100	0.02	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent	Accepted	300.0		Fast IC, Separation of all seven common anions in 6.5 minutes, Omnion 3.0 only.
	10-510-00-1-E2	0.5 – 50	0.02	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent	Accepted	300.0		Low range.
	10-510-00-1-E3	4.0 – 200	0.144	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent	Accepted	300.0		High range.
	10-511-00-1-A1	1.0 – 100	0.014	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent	Accepted	300.0		Rapid IC for anions, 50 µL loop, Run time: 4 min.
	10-511-00-1-A2	2.5 – 250	0.04	mg SO <sub>4</sub> <sup>2-</sup> /L	Equivalent	Accepted	300.0		High-range method, 25 µL loop, Run time: 4 min.