



nsi lab solutions
protect more. test more.

CRMs for...

- Microbiology
- Chlorine
- Solids
- Nutrients
- BOD
- Elements
- Minerals

Certified Reference Materials
for Water & Wastewater Analysis

dear friends...



Thank you for checking out our new catalog of reference materials and certified reference materials (CRMs) for water and wastewater testing. As you go through this catalog, I think you will come to see that here at NSI Lab Solutions we try to do things differently. We believe that reference materials should not only serve as a traceable link to SI for all of your testing, but also should simplify and reduce the cost of your operation. For each testing category detailed, you will see unique approaches to design and certification that meet our philosophy.

- Maybe your interest is in coliform testing. On pages 1-2 we detail our unique approach to certification of microbiological CRMs using multiple routine analytical methods to establish method specific performance criteria.
- Don't miss our total and free chlorine reference materials packaged in single use Teflon® Snips™. They require no pipets or cumbersome dilution schemes to prepare and are detailed on pages 3-4.
- We designed our Universal Wastewater Standards, detailed on page 9, specifically to simplify reference material management in the small wastewater laboratory. A unique design allows you to QA up to 14 analytes from a single bottle.

Again, thank you for checking out our new catalog. Please don't hesitate to contact me with any questions.

Kind Regards,

A handwritten signature in black ink, appearing to read "Mark".

mark.hammersla@nsilabsolutions.com

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CRMs For Wastewater and Drinking Water Microbiology

“A review of environmental microbiology PT data sets documents that different EPA approved methods tend to yield different results for the same analyte,” according to Mark Hammersla, President of NSI Lab Solutions. “We feel that such commutability issues indicate that a one-size fits all approach to microbiological CRM preparation and certification could be greatly improved upon. “What if, rather than a plain vanilla non-selective certification of CFU count, we expanded our CRM design and certification protocol to include multiple routine environmental methods? We could include this data on the accompanying COA so that our customers would be spared the hassle of determining CRM performance for their methods. We’d do it for them.”

Each microbiological CRM from NSI Lab Solutions is now certified by multiple routine environmental methods when applicable. All



Certified for multiple methods!

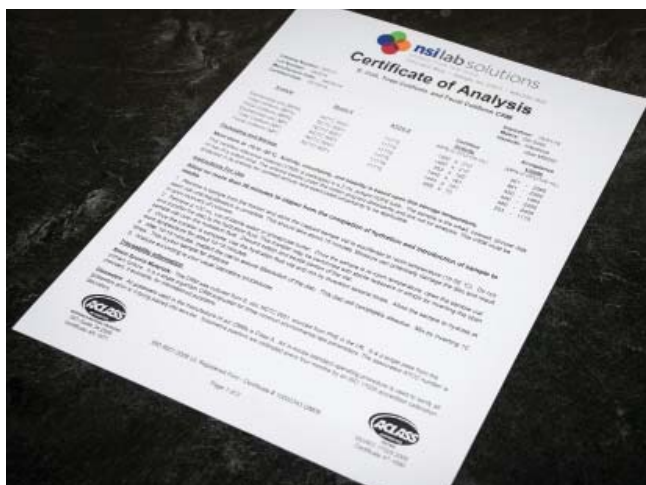
of this data is supplied on the product COA making performance verification in your lab a thing of the past. For example, suppose you purchase our E.coli standard (Part# 9001H) as a positive control for your coliform analysis. The CRM is supplied with certification data for total coliform, fecal coliform and E.coli by both MPN and plate count methods. NSI Lab Solutions calls this technique “establishing commutability so you don’t have to.”

Don’t forget to check out our new multi-organism coliform CRMs for water and wastewater analysis. Certified using 6 different environmental methods, these are the only multi-organism CRMs on the market.

Microcystine LR QC Standard

Formulated between 0.05-1.00 ug/L in reagent water. Designed for Elisa methods.

Part #: 698125mL



We establish commutability so you don't have to.



Product Listings

Except where noted, standards are formulated at 1000-2000 CFU. Actual certified values are listed on an accompanying COA.

Single Organisms	5 Vials Catalog#	20 Vials Catalog#
P. aeruginosa (NCTC 12951)	10662-5X	10662-20X
E. aerogenes (NCTC 10006)	10006-5X	10006-20X
E. coli (NCTC 9001)	9001-5X	9001-20X
Klebsiella, spp (NCTC 08167)	8167-5X	8167-20X
E.faecalis (NCTC 775) - High (1000-1500)	775H-5X	775H-20X
HPC Control* (5-500)	HPCQC-5X	HPCQC-20X

*Certified for HPC by Pour Plate and SimPlate®

Except where noted, standards are formulated at < 200 CFU. Actual certified values are listed on an accompanying COA.

Single Organisms	5 Vials Catalog#	20 Vials Catalog#
P. aeruginosa (NCTC 12951)	10662L-5X	10662L-20X
E. aerogenes (NCTC 10006)	10006L-5X	10006L-20X
E. coli (NCTC 9001)	9001L-5X	9001L-20X
Klebsiella, spp (NCTC 08167)	8167L-5X	8167L-20X
E.faecalis (NCTC 775)	775L-5X	775L-20X
S.bovis (NCTC 8177)	8177L-5X	8177L-20X

Drinking Water Coliform CRM - Multiorganisms

Certified by IDEXX Colilert®, Quanti-Tray®, Colilert-18®, SM 9222B, SM 9222D and SM 9222I. Contains 3 different organisms for realistic assessment of your analytical system. Total Coliform < 200 CFU.

Part #: MIC-DWCOL-5 5 vials
Part #: MIC-DWCOL-20 20 vials

Coliform QC Check Kit

4 each of E.coli, klebsiella, spp and Paeruginosa (1000-2000 CFU of each).

Part #: COL-QCK 12 vials

Wastewater Coliform CRM - Multiorganisms

Certified by IDEXX Colilert®, Quanti-Tray®, Colilert-18®, SM 9222B, SM 9222D and SM 9222I. Contains 3 different organisms for realistic assessment of your analytical system. Total Coliform < 2000 CFU.

Part #: MIC-WWCOL-5 5 vials
Part #: MIC-WWCOL-20 20 vials

Colilert®, Quanti-Tray®, and Colilert-18® are registered trademarks of IDEXX Laboratories, Inc.

CRMs and RMs for Total and Free Residual Chlorine

“When we designed our portfolio of Residual Chlorine RMs and CRMs, we wanted them to be really easy to use. We realized that pipetting and cumbersome dilution schemes were impractical in certain water and wastewater testing situations”, said Ewart Morris, Inorganics Technical Manager at NSI Lab Solutions. “To reach this goal, we redesigned the packaging and concentration ranges typically available for chlorine residual reference standards with a focus on ease of use.”

Our new Chlorine Snips™ are the most convenient reference material for residual chlorine analysis on the market. They require no pipets and no glassware other than the instrument cuvette to prepare. Chlorine Snips™ are ideal for use at testing points remote from the fixed base laboratory. To use a Snip™, simply



open the tube with a pair of scissors and transfer its contents to your cuvette and bring to volume with reagent water.

CRMs for residual free chlorine are packaged in flame sealed ampoules. Available at 6 different concentration levels, we've simplified the use by standardizing the dilution scheme for each to always be 1:1000.

Our Chlorine Snips™ and chlorine CRMs are applicable to both drinking water and wastewater testing. Our internal certification protocol includes both total and free residual chlorine with values for both documented on accompanying COA.

As always, if you need a different concentration or dilution scheme, please contact us. It will be our pleasure to help.



Ready in seconds with no pipet.

Snips™

Ultra Low Chlorine Accuracy Check RM
0.100 mg/L, dilutes to 50 mL

QCI-118 25 Tubes

Total Chlorine Accuracy Check RM
1.00 mg/L, dilutes to 25 mL

QCI-123 25 Tubes

Total Chlorine Accuracy Check RM
2.50 mg/L, dilutes to 25 mL

QCI-117 25 Tubes

Chlorine Check RM - Amperometric/Iodometric Titration - 0.100 mg/L, dilutes to 200 mL

QCI-148 25 Tubes

Chlorine Check RM - Amperometric/Iodometric Titration - 1.00 mg/L, dilutes to 200 mL

QCI-149 25 Tubes

Chlorine Check RM - Amperometric/Iodometric Titration - 2.00 mg/L, dilutes to 200 mL

QCI-150 25 Tubes

Ampules

Total Residual Chlorine Concentrate CRM
0.050 mg/L, dilutes to 1:1000

QCI-182 24 Ampules

Total Residual Chlorine Concentrate CRM
0.100 mg/L, dilutes to 1:1000

QCI-183 24 Ampules

Total Residual Chlorine Concentrate CRM
0.500 mg/L, dilutes to 1:1000

QCI-184 24 Ampules

Total Residual Chlorine Concentrate CRM
1.00 mg/L, dilutes to 1:1000

QCI-187 24 Ampules

Total Residual Chlorine Concentrate CRM
1.50 mg/L, dilutes to 1:1000

QCI-188 24 Ampules

Total Residual Chlorine Concentrate CRM
2.00 mg/L, dilutes to 1:1000

QCI-189 24 Ampules

Tech Note: Once the working chlorine standard is prepared, it must be used within 30 minutes. The chlorine source material is volatile and the standard will lose concentration over a short time frame.

Custom concentration/dilution schemes available. Please inquire.

CRMs for Demands Analysis

GGA Snips™ were designed to help reduce the incidence of a non-conforming GGA test in the wastewater lab. Several potential issues with a GGA standard can contribute to the incidence of GGA non-conformance. The design and use of our GGA snip prevents these issues:



- GGA Snips™ are always formulated from certified highest purity chemicals using a validated standardized procedure. This prevents problems that may result from lot to lot variance due to inadequately controlled raw materials.
- GGA Snips™ are analytically certified for formulation accuracy against a NIST SRM assuring you not just of the solution accuracy, but also providing you a valuable link to SI.
- GGA Snips™ are filled to deliver the required volume of standard to an accuracy of 0.5%. This prevents GGA non-conformances due to inaccurate pipetting.

- GGA Snips™ are packaged for single use preventing inadvertent cross-contamination in your lab.
- And finally, GGA Snips™ are sterilized in the tube after packaging. This prevents unrecognized microbial degradation making the GGA snip stable for more than 3 years when stored at room temperature.

We hope you give our CRMs for demands a try. Please don't hesitate to contact us if you need something not listed here. It will be our pleasure to help.

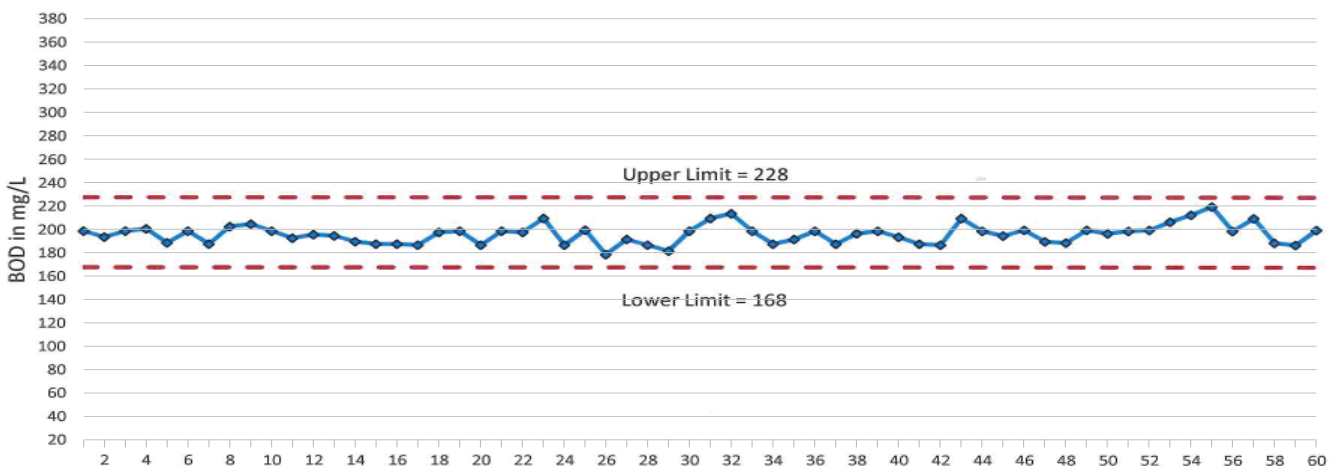


Chart of GGA data generated by large mid-atlantic region WWTP using GGA Snips™



GGA Concentrate Snips™ CRM

Dilutes to 300 mL in BOD bottle

QCI-081SNIP 25 Pack

GGA High Concentration Snips™ CRM

Dilutes to 1000 mL

QCI-081HSNIP 25 Pack

Demand QC - Whole Volume

BOD	15-250 mg/L
CBOD	15-250 mg/L
COD	30-250 mg/L
TOC	6-100 mg/L

QCI-062 1 L
 QCI-062C 4 x 1 L

Demand QC Concentrate CRM

BOD	15-250 mg/L
CBOD	15-250 mg/L
COD	30-250 mg/L
TOC	6-100 mg/L

QCI-026 21 mL

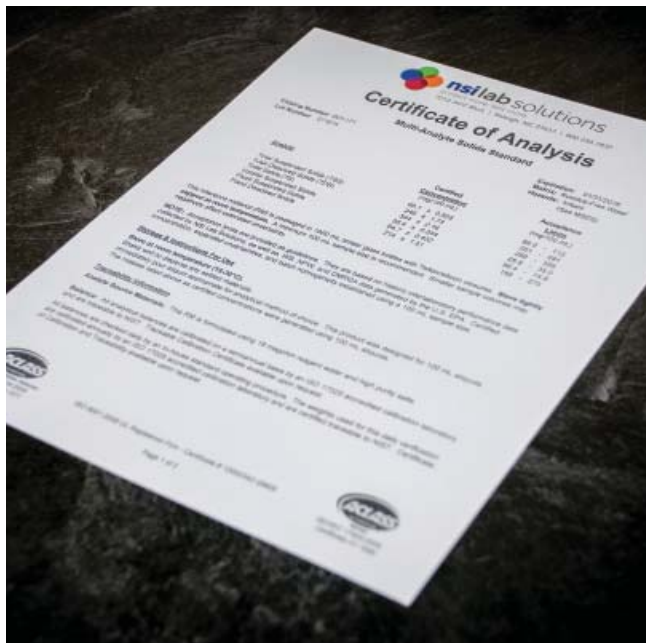
CRMs for Solids Analysis

Use of ISO Guide 34 certified reference materials to QA your routine solids analyses has never made more sense. Our CRMs for solids are simply a good value:

- The value assignments for all of our CRMs are directly traceable to NIST through mass calibrations providing you a direct link to SI for all of your analyses.
- Each of our solids CRMs is verified to work with the methods you use everyday, because we verify each lot's performance with routine environmental methods.
- All of our solids CRMs are easy to implement and use. There is no preparative step, simply shake the bottle well and measure the appropriate aliquot.



- The results generated with our solids CRMs are reproducible lot to lot, because we've standardized and validated our manufacturing process to the smallest detail including raw material grain size.
- Finally, our solids CRMs are inexpensive to use. Each is supplied as a 4 x 1 Liter case and at the higher concentration level, the cost per QA test can be as low as \$1.00.



We hope you'll see the value and give us a try. Again, please don't hesitate to contact us if you need something not listed here. It will be our pleasure to help.

Low-Level Solids CRM

Ready-to-Use Bottles

TDS	90 mg/L
TS	120 mg/L
TSS	30 mg/L

QCI-0574 x 1 L Case

Mid-Level Solids CRM

Ready-to-Use Bottles

TDS	1000 mg/L
TS	1100 mg/L
TSS	100 mg/L

QCI-0554 x 1 L Case

High-Level Solids CRM

Ready-to-Use Bottles

TDS	3000 mg/L
TS	3500 mg/L
TSS	500 mg/L

QCI-055H4 x 1 L Case

Mid-Level Solids Concentrate

Supplied as a homogeneous powder for suspension of 1 gram to 1000 mL. Makes 8 Liters of standard.

TDS	900 mg/L
TS	1000 mg/L
TSS	100 mg/L

QCI-055X 4 x 2.2 grams

Multi-Analyte Solids Standard

A whole volume multi-analyte standard for quality control analysis for 6 solids parameters. Each 100 mL aliquot contains:

Total Solids	300 mg
Total Dissolved Solids	250 mg
Total Suspended Solids	100 mg
Volatile Suspended Solids	31 mg
Fixed Suspended Solids	70 mg
Fixed Dissolved Solids	215 mg

QCI-1714 x 1 L Case

Universal Wastewater Standards

The goal of simplifying the use and management of reference standards in the small wastewater laboratory prompted us to develop our unique Universal Wastewater Standard. With this standard, the wastewater laboratory can QA up to 14 analytes from a single bottle. This reduces the time and hassle of keeping track of multiple standards and multiple COAs. Now available in 4 x 250 mL cases in addition to our popular 4 x 1000 mL case.

The Universal Wastewater standard can be customized to meet your specific needs. If you need a concentration changed or an analyte omitted or added, please don't hesitate to call us. It will be our pleasure to help.



Universal Wastewater Standard Plus

Ready-to-Use Bottles

BOD ₅	198 mg/L
CBOD	163 mg/L
COD	309 mg/L
Conductivity	650 umhos
N-NH ₃	7.50 mg/L
N-NO ₃	3.00 mg/L
pH	6.6 units
P-PO ₄	2.50 mg/L
TDS	600 mg/L
TOC	121 mg/L
Total Solids	800 mg/L
TSS	100 mg/L
TKN	29.0 mg/L
Total P	7.50 mg/L

- QCI-084PLUS.....4 x 1 L
- QCI-084PLUS-2504 x 250mL

Universal Wastewater Standard

Ready-to-Use Bottles

BOD ₅	198 mg/L
CBOD	163 mg/L
COD	309 mg/L
Conductivity	650 umhos
N-NH ₃	7.50 mg/L
N-NO ₃	3.00 mg/L
pH	6.6 units
P-PO ₄	2.50 mg/L
TDS	600 mg/L
TOC	121 mg/L
Total Solids	800 mg/L
TSS	100 mg/L

- QCI-084.....4 x 1 L
- QCI-084-2504 x 250mL

Oil/Grease, Sulfide and Surfactant

Oil and Grease Method 1664 - Recovery Standard (0.2%) Snip™

Single use snip is convenient, easy to use and accurate. Delivers exactly 40 mg of total oil and grease per snip.

QC-003LSNIP.....20 x 10 mL Snips

Oil and Grease

Supplied ready to use as received with total oil and grease formulated in the range of 20-100 mg/L. Specific concentration requests can be accommodated.

QCI-069.....1 Liter
QCI-069C......4 x 1 Liter

LAS (MBAs, Anionic Surfactant)

1000 mg/L, flame-sealed, amber ampule

QCI-054.....10 mL

Nonionic Surfactant

1000 mg/L, flame-sealed, amber ampule

QCI-180.....10 mL

Cationic Surfactant

1000 mg/L, flame-sealed, amber ampule

QCI-181.....10 mL

Oil and Grease Method 1664 - Recovery Standard (0.4%) Snip™

Single use snip is convenient, easy to use and accurate. Delivers exactly 80 mg of total oil and grease per snip.

QC-003SNIP.....20 x 10 mL Snips



Stable Sulfide Standard

1 mg/mL

QCI-147LS.....1.5 mL
QCI-147L.....6 x 1.5 mL

10 mg/mL

QCI-147S.....1.5 mL
QCI-147.....6 x 1.5 mL

Minerals and Nutrients CRMs

Wastewater Minerals QC CRM

Ready-to-Use Bottles

Alkalinity	10-120 mg/L
Conductivity	200-930 umhos
Fluoride	0.3-4 mg/L
Chloride	35-275 mg/L
Potassium	4-40 mg/L
Sodium	6-100 mg/L
Sulfate	5-125 mg/L
TDS	140-650 mg/L

QCI-136	500 mL
QCI-136C	4 x 500 mL

Wastewater Hardness QC CRM

Ready-to-Use Bottles

Calcium	3.5-110 mg/L
Magnesium	2-40 mg/L
Total Hardness	17-440 mg/L
Calcium Hardness	8.7-275 mg/L

QCI-137	250 mL
QCI-137C	4 x 250 mL

Wastewater Simple Nutrients QC CRM

Ready-to-Use Bottles

N-NH ₃	0.65-19 mg/L
N-NO ₃	0.25-40 mg/L
P-PO ₄	0.50-5.5 mg/L

QCI-063	500 mL
QCI-063C	4 x 500 mL
QCI-138	21 mL

Wastewater Complex Nutrients QC CRM

Ready-to-Use Bottles

TKN	1.50-35 mg/L
Total Phosphorus	0.50-10 mg/L

QCI-064	500 mL
QCI-064C	4 x 500 mL
QCI-139	21 mL



pH QC Check CRMs

Ready-to-Use Bottles

	500 mL Catalog#	4 x 500 mL Catalog#
pH4	QCI-112-4	QCI-112-4C
pH5	QCI-112-5	QCI-112-5C
pH6	QCI-112-6	QCI-112-6C
pH7	QCI-112-7	QCI-112-7C
pH8	QCI-112-8	QCI-112-8C
pH9	QCI-112-9	QCI-112-9C
pH10	QCI-112-10	QCI-112-10C

Drinking Water Inorganics QC CRM

Ready-to-Use Bottles

Chloride	20-160 mg/L
Conductivity	130-1300 umhos
Fluoride	1-8 mg/L
Nitrate as N	3-10 mg/L
Nitrate/Nitrite-N	3-10 mg/L
Potassium	10-40 mg/L
Sulfate	25-250 mg/L
TDS	100-1000 mg/L
Alkalinity	25-200 mg/L

QCI-041 500 mL
 QCI-041C 4 x 500 mL

Drinking Water Orthophosphate QC CRM

(0.5 - 5.5mg/L)

QCI-141 21 mL concentrate

Drinking Water Hardness QC CRM

Ready-to-Use Bottles

Calcium	30-90 mg/L
Magnesium	2-20 mg/L
Sodium	12-50 mg/L
Calcium Hardness	75-225 mg/L
Total Hardness	83-307 mg/L

QCI-145 250 mL
 QCI-145C 4 x 250 mL

Drinking Water Nitrite-N QC CRM

(0.4 - 2.0mg/L)

QCI-140 21 mL concentrate

Drinking Water Fluoride QC CRM

(1 - 8mg/L)

QCI-170 250 mL



Turbidity QC Check Solutions

	500 mL Catalog#	4 x 500 mL Catalog#
100 NTU	QCI-152	QCI-152C
50 NTU	QCI-153	QCI-153C
25 NTU	QCI-154	QCI-154C
10 NTU	QCI-155	QCI-155C
5 NTU	QCI-156	QCI-156C

Wet Chemistry CRMs



Product	125 mL Catalog#	500 mL Catalog#
Alkalinity - CRM	IS-012	IS-012-500
N-NH ₃ - CRM	IS-002	IS-002-500
NH ₃ - CRM	IS-003	IS-003-500
Boron - CRM	IS-023	IS-023-500
Bromate - CRM	IS-030	IS-030-500
Bromide - CRM	IS-019	IS-019-500
Chlorate - CRM	IS-032	IS-032-500
Perchlorate - CRM	IS-027	IS-027-500
Chloride - CRM	IS-013	IS-013-500
Chlorite - CRM	IS-031	IS-031-500
COD - CRM	IS-001	IS-001-500
Cr (VI)-CRM	IS-025	IS-025-500
Cyanide (complex)	IS-024	IS-024-500
Free Cyanide	IS-029	IS-029-500
Fluoride - CRM	IS-016	IS-016-500
Total Hardness - CRM	IS-017	IS-017-500
NO ₃ - CRM	IS-005	IS-005-500
N-NO ₃ - CRM	IS-011	IS-011-500
NO ₂ - CRM	IS-004	IS-004-500
N-NO ₂ - CRM	IS-010	IS-010-500
Phenols	IS-035	IS-035-500
Total Phosphorus - CRM	IS-006	IS-006-500
PO ₄ - CRM	IS-007	IS-007-500
P-PO ₄ - CRM	IS-008	IS-008-500
Silica	IS-021	IS-021-500
SO ₄ - CRM	IS-015	IS-015-500
TKN - CRM	IS-009	IS-009-500
TOC - CRM	IS-026	IS-026-500
TOX*	IS-022	

*Supplied in ampules only.

Single Analyte CRMs

1000 mg/L	Catalog Number
Ammonium	IC-001
Barium	IC-003
Bromate	IC-004
Bromide	IC-007
Calcium	IC-008
Chromate*	IC-009
Chlorate	IC-010
Chloride	IC-013
Chlorite	IC-016
Cyanide	IC-019
Fluoride	IC-022
Lithium	IC-023
Magnesium	IC-024
Nitrate	IC-025
Nitrate-Nitrogen	IC-028
Nitrite	IC-031
Nitrite-Nitrogen	IC-034
Perchlorate	IC-037
Phosphate	IC-040
Phosphate-Phosphorus	IC-043
Potassium	IC-042
Sodium	IC-046
Sulfate	IC-049
Thiocyanate*	IC-050
Iodide*	IC-051

*Not included in our ISO 34 scope.

6 Cation CRM

Ammonium	400 mg/L
Potassium	200 mg/L
Calcium	1000 mg/L
Sodium	200 mg/L
Lithium	50 mg/L
Magnesium	200 mg/L

IC-6-1 125 mL

5 Anion CRM

Fluoride	20 mg/L
Phosphate	150 mg/L
Chloride	30 mg/L
Sulfate	150 mg/L
Nitrate	100 mg/L

IC-5-1 125 mL

7 Anion CRM 1

Fluoride	20 mg/L
Nitrate	100 mg/L
Chloride	30 mg/L
Phosphate	150 mg/L
Nitrite	100 mg/L
Sulfate	150 mg/L
Bromide	100 mg/L

IC-7-1 125 mL

7 Anion CRM 2

Fluoride	20 mg/L
Nitrate	100 mg/L
Chloride	100 mg/L
Phosphate	200 mg/L
Nitrite	100 mg/L
Sulfate	100 mg/L
Bromide	100 mg/L

IC-7-2 125 mL

Eluent Concentrates — Improve Productivity with Single-Use Teflon® Snips™

Eluent Solution Concentrate (100x)*	Concentration	25 Pack Catalog Number	50 Pack Catalog Number
Carbonate/bicarbonate	0.18M/0.17M	EL-001-25	EL-001-50
Carbonate/bicarbonate	0.22M/0.28M	EL-002-25	EL-002-50
Carbonate/bicarbonate	0.30M/0.24M	EL-003-25	EL-003-50
Carbonate/bicarbonate	0.35M/0.10M	EL-004-25	EL-004-50
Carbonate/bicarbonate	0.45M/0.08M	EL-005-25	EL-005-50
Carbonate/bicarbonate	0.45M/0.14M	EL-006-25	EL-006-50
Carbonate/bicarbonate	0.80M/0.10M	EL-007-25	EL-007-50
Carbonate	0.50M	EL-008-25	EL-008-50
Bicarbonate	0.50M	EL-009-25	EL-009-50

*Each Snip makes 1L of eluent.

CRMs for Elements by ICP

Single Element CRMs

Product	1000 ug/mL		10000 ug/mL	
	125 mL	500mL	125 mL	500mL
Aluminum - HNO ₃	TM-001L	TM-001L-5	TM-001H	TM-001H-5
Antimony - HNO ₃ /Tart Acid	TM-002L	TM-002L-5	TM-002H	TM-002H-5
Arsenic - HNO ₃	TM-003L	TM-003L-5	TM-003H	TM-003H-5
Barium - HNO ₃	TM-004L	TM-004L-5	TM-004H	TM-004H-5
Beryllium - HNO ₃	TM-005L	TM-005L-5	TM-005H	TM-005H-5
Boron - Water	TM-028L	TM-028L-5	TM-028H	TM-028H-5
Cadmium - HNO ₃	TM-006L	TM-006L-5	TM-006H	TM-006H-5
Calcium - HNO ₃	TM-024L	TM-024L-5	TM-024H	TM-024H-5
Chromium - HNO ₃	TM-007L	TM-007L-5	TM-007H	TM-007H-5
Cobalt - HNO ₃	TM-008L	TM-008L-5	TM-008H	TM-008H-5
Copper - HNO ₃	TM-009L	TM-009L-5	TM-009H	TM-009H-5
Iron - HNO ₃	TM-010L	TM-010L-5	TM-010H	TM-010H-5
Lead - HNO ₃	TM-011L	TM-011L-5	TM-011H	TM-011H-5
Lithium - HNO ₃	TM-048L	TM-048L-5	TM-048H	TM-048H-5
Magnesium - HNO ₃	TM-026L	TM-026L-5	TM-026H	TM-026H-5
Manganese - HNO ₃	TM-012L	TM-012L-5	TM-012H	TM-012H-5
Mercury - HNO ₃	TM-022L	TM-022L-5	TM-022H	TM-022H-5
Molybdenum Water/HNO ₃	TM-013L	TM-013L-5	TM-013H	TM-013H-5
Nickel - HNO ₃	TM-014L	TM-014L-5	TM-014H	TM-014H-5
Potassium - HNO ₃	TM-025L	TM-025L-5	TM-025H	TM-025H-5
Selenium - HNO ₃	TM-015L	TM-015L-5	TM-015H	TM-015H-5
Silver - HNO ₃	TM-023L	TM-023L-5	TM-023H	TM-023H-5
Sodium - Water	TM-027L	TM-027L-5	TM-027H	TM-027H-5
Strontium - HNO ₃	TM-016L	TM-016L-5	TM-016H	TM-016H-5
Thallium - HNO ₃	TM-017L	TM-017L-5	TM-017H	TM-017H-5
Tin - HNO ₃	TM-018L	TM-018L-5	TM-018H	TM-018H-5
Titanium - HNO ₃	TM-019L	TM-019L-5	TM-019H	TM-019H-5
Vanadium - HNO ₃	TM-020L	TM-020L-5	TM-020H	TM-020H-5
Zinc - HNO	TM-021L	TM-021L-5	TM-021H	TM-021H-5
Sulfur - Water	TM-056L	TM-056L-5	TM-056H	TM-056H-5
Phosphorus - Water	TM-074L	TM-074L-5	TM-074H	TM-074H-5
Silicon - HNO ₃	TM-054L	TM-054L-5	TM-054H	TM-054H-5
Yttrium - HNO ₃ *	TM-080L	TM-080L-5	TM-080H	TM-080H-5
Scandium - HNO ₃ *	TM-078L	TM-078L-5	NA	NA

*Not included in our ISO 34 scope.





ICP QC Standard 1 CRM

Ag	25 ug/mL	K	500 ug/mL
Al	100 ug/mL	Li	100 ug/mL
As	200 ug/mL	Mg	100 ug/mL
B	100 ug/mL	Mn	100 ug/mL
Ba	100 ug/mL	Na	100 ug/mL
Be	100 ug/mL	Ni	100 ug/mL
Ca	100 ug/mL	P	500 ug/mL
Cd	100 ug/mL	Pb	200 ug/mL
Ce	100 ug/mL	Se	100 ug/mL
Co	100 ug/mL	Sr	100 ug/mL
Cr	100 ug/mL	Tl	500 ug/mL
Cu	100 ug/mL	V	100 ug/mL
Fe	100 ug/mL	Zn	100 ug/mL
Hg	200 ug/mL		

At specified concentrations in dil HNO₃

ICPQC-1 125 mL

ICP QC Standard 2 CRM

Mo	100 ug/mL	Sb	200 ug/mL
SiO ₂	500 ug/mL	Sn	500 ug/mL
Ti	100 ug/mL		

At specified concentrations in dil HNO₃/tr HF

ICPQC-2 125 mL

ICP QC Standard 26 CRM

Ag	100 ug/mL	Mg	100 ug/mL
Al	100 ug/mL	Mn	100 ug/mL
As	100 ug/mL	Mo	100 ug/mL
B	100 ug/mL	Na	100 ug/mL
Ba	100 ug/mL	Ni	100 ug/mL
Be	100 ug/mL	Pb	100 ug/mL
Ca	100 ug/mL	Sb	100 ug/mL
Cd	100 ug/mL	Se	100 ug/mL
Co	100 ug/mL	Si	50 ug/mL
Cr	100 ug/mL	Ti	100 ug/mL
Cu	100 ug/mL	Tl	100 ug/mL
Fe	100 ug/mL	V	100 ug/mL
K	1000 ug/mL	Zn	100 ug/mL

At specified concentrations in dil HNO₃/tr HF

ICPQC-26 125 mL

Method 200.7 - 7 Element QC CRM

Ag	100 ug/mL	K	1000 ug/mL
Al	100 ug/mL	Na	100 ug/mL
B	100 ug/mL	Si	50 ug/mL
Ba	100 ug/mL		

At specified concentrations in dil HNO₃/tr HF

ICPQC-7 125 mL

ICP QC Standard 19 CRM

As	100 ug/mL	Mo	100 ug/mL
Be	100 ug/mL	Ni	100 ug/mL
Ca	100 ug/mL	Pb	100 ug/mL
Cd	100 ug/mL	Sb	100 ug/mL
Co	100 ug/mL	Se	100 ug/mL
Cr	100 ug/mL	Ti	100 ug/mL
Cu	100 ug/mL	Tl	100 ug/mL
Fe	100 ug/mL	V	100 ug/mL
Mg	100 ug/mL	Zn	100 ug/mL
Mn	100 ug/mL		

At specified concentrations in dil HNO₃/tr HF

ICPQC-19 125 mL

ICP QC Standard 28 CRM

Ag	100 ug/mL	Mg	100 ug/mL
Al	100 ug/mL	Mn	100 ug/mL
As	100 ug/mL	Mo	100 ug/mL
B	100 ug/mL	Na	100 ug/mL
Ba	100 ug/mL	Ni	100 ug/mL
Be	100 ug/mL	Pb	100 ug/mL
Ca	100 ug/mL	Sb	100 ug/mL
Cd	100 ug/mL	Se	100 ug/mL
Co	100 ug/mL	Si	50 ug/mL
Cr	100 ug/mL	Sr	100 ug/mL
Cu	100 ug/mL	Ti	100 ug/mL
Fe	100 ug/mL	Tl	100 ug/mL
K	1000 ug/mL	V	100 ug/mL
Li	100 ug/mL	Zn	100 ug/mL

At specified concentrations in dil HNO₃/tr HF

ICPQC-28 125 mL

Method 200.7-21 Element QC CRM

As	100 ug/mL	Mo	100 ug/mL
Be	100 ug/mL	Ni	100 ug/mL
Ca	100 ug/mL	Pb	100 ug/mL
Cd	100 ug/mL	Sb	100 ug/mL
Co	100 ug/mL	Se	100 ug/mL
Cr	100 ug/mL	Sr	100 ug/mL
Cu	100 ug/mL	Ti	100 ug/mL
Fe	100 ug/mL	Tl	100 ug/mL
Li	100 ug/mL	V	100 ug/mL
Mg	100 ug/mL	Zn	100 ug/mL
Mn	100 ug/mL		

At specified concentrations in dil HNO₃/tr HF

ICPQC-21 125 mL

Method 200.7-26 Element QC CRM

Ag	25 ug/mL	K	500 ug/mL
Al	100 ug/mL	Li	100 ug/mL
As	200 ug/mL	Mg	100 ug/mL
B	100 ug/mL	Mn	100 ug/mL
Ba	100 ug/mL	Na	100 ug/mL
Be	100 ug/mL	Ni	100 ug/mL
Ca	100 ug/mL	P	500 ug/mL
Cd	100 ug/mL	Pb	100 ug/mL
Ce	100 ug/mL	Se	100 ug/mL
Co	100 ug/mL	Sr	100 ug/mL
Cr	100 ug/mL	Tl	100 ug/mL
Cu	100 ug/mL	V	100 ug/mL
Fe	100 ug/mL	Zn	100 ug/mL

At specified concentrations in dil HNO₃

QC BLEND-26 125 mL

See www.nsilabsolutions.com
for a full listing of ICP CRMs.

CRMs for Volatile Organics

VOC CRM (54 Components)

1,1,1,2-Tetrachloroethane	1,3-Dichloropropane	Dichloromethane
1,1,1-Trichloroethane	1,4-Dichlorobenzene	Ethylbenzene
1,1,2,2-Tetrachloroethane	2,2-Dichloropropane	Hexachlorobutadiene
1,1,2-Trichloroethane	2-Chlorotoluene	Isopropyl benzene
1,1-Dichloroethane	4-Chlorotoluene	m-Xylene
1,1-Dichloroethylene	4-Isopropyltoluene	n-Butylbenzene
1,1-Dichloropropylene	Benzene	n-Propylbenzene
1,2,3-Trichlorobenzene	Bromobenzene	Naphthalene
1,2,3-Trichloropropane	Bromochloromethane	o-Xylene
1,2,4-Trichlorobenzene	Bromoform	p-Xylene
1,2,4-Trimethylbenzene	Carbon tetrachloride	sec-Butylbenzene
1,2-Dibromo-3-chloropropane	Chlorobenzene	Styrene
1,2-Dibromoethane	Chlorodibromomethane	tert-Butylbenzene
1,2-Dichlorobenzene	Chloroform	Tetrachloroethylene
1,2-Dichloroethane	cis-1,2-Dichloroethylene	Toluene
1,2-Dichloropropane	cis-1,3-Dichloropropylene	trans-1,2-Dichloroethylene
1,3,5-Trimethylbenzene	Dibromomethane	trans-1,3-Dichloropropylene
1,3-Dichlorobenzene	Dichlorobromomethane	Trichloroethylene
C-349H 1.5 mL	2000 ug/mL in PT Methanol
C-349HP 4 x 1.5 mL	
C-349HTP10 x 1.5 mL	

Volatiles CRM with Gases (61 Components)

1,1,1,2-Tetrachloroethane	2-Chlorotoluene	Isopropyl benzene
1,1,1-Trichloroethane	4-Chlorotoluene	m-Xylene
1,1,2,2-Tetrachloroethane	4-Isopropyltoluene	Methyl-tert-butyl ether (MTBE)
1,1,2-Trichloroethane	Benzene	Methyl bromide
1,1-Dichloroethane	Bromobenzene	Methyl chloride
1,1-Dichloroethylene	Bromochloromethane	n-Butylbenzene
1,1-Dichloropropylene	Bromoform	n-Propylbenzene
1,2,3-Trichlorobenzene	Carbon tetrachloride	Naphthalene
1,2,3-Trichloropropane	Chlorobenzene	o-Xylene
1,2,4-Trichlorobenzene	Chlorodibromomethane	p-Xylene
1,2,4-Trimethylbenzene	Chloroethane	sec-Butylbenzene
1,2-Dibromo-3-chloropropane	Chloroform	Styrene
1,2-Dibromoethane	cis-1,2-Dichloroethylene	tert-Butylbenzene
1,2-Dichlorobenzene	cis-1,3-Dichloropropylene	Tetrachloroethylene
1,2-Dichloroethane	Dibromomethane	Toluene
1,2-Dichloropropane	Dichlorobromomethane	trans-1,2-Dichloroethylene
1,3,5-Trimethylbenzene	Dichlorodifluoromethane	trans-1,3-Dichloropropylene
1,3-Dichlorobenzene	Dichloromethane	Trichloroethylene
1,3-Dichloropropane	Ethylbenzene	Vinyl chloride
1,4-Dichlorobenzene	Fluorotrichloromethane	
2,2-Dichloropropane	Hexachlorobutadiene	
C-350H 1.5 mL	1000 ug/mL in PT Methanol
C-350HP 4 x 1.5 mL	
C-350HTP10 x 1.5 mL	

Drinking Water VOC CRM (73 Components)

1,1,1,2-Tetrachloroethane	4-Isopropyltoluene	Methacrylate
1,1,1-Trichloroethane	Acrylonitrile	Methacrylonitrile
1,1,2,2-Tetrachloroethane	Allyl chloride	Methyl-tert-butyl ether (MTBE)
1,1,2-Trichloroethane	Benzene	Methylene chloride
1,1-Dichloroethane	Bromobenzene	Methyl methacrylate
1,1-Dichloroethylene	Bromochloromethane	n-Butylbenzene
1,1-Dichloropropylene	Bromodichloromethane	n-Propylbenzene
1,2,3-Trichlorobenzene	Bromoform	Naphthalene
1,2,3-Trichloropropane	Carbon disulfide	Nitrobenzene
1,2,4-Trichlorobenzene	Carbon tetrachloride	o-Xylene
1,2,4-Trimethylbenzene	Chloroacetonitrile	p-Xylene
1,2-Dibromo-3-chloropropane	Chlorobenzene	Pentachloroethane
1,2-Dibromoethane	Chlorodibromomethane	Propionitrile
1,2-Dichlorobenzene	Chloroform	sec-Butylbenzene
1,2-Dichloroethane	cis-1,2-Dichloroethylene	Styrene
1,2-Dichloropropane	cis-1,3-Dichloropropylene	tert-Butylbenzene
1,3,5-Trimethylbenzene	Dibromomethane	Tetrachloroethylene
1,3-Dichlorobenzene	Diethyl ether	Tetrahydrofuran
1,3-Dichloropropane	Ethylbenzene	Toluene
1,4-Dichlorobenzene	Ethyl methacrylate	trans-1,2-Dichloro-2-butene
1-Chlorobutane	Hexachlorobutadiene	trans-1,2-Dichloroethylene
2,2-Dichloropropane	Hexachloroethane	trans-1,3-Dichloropropylene
2-Chlorotoluene	Iodomethane	Trichloroethylene
2-Nitropropane	Isopropylbenzene	
4-Chlorotoluene	m-Xylene	

C-716 1.5 mL
 C-716P 4 x 1.5 mL
 C-716TP 10 x 1.5 mL

2000 ug/mL in PT Methanol



Gasses CRM

Chloroethane
Dichlorodifluoromethane
Fluorotrichloromethane
Methyl bromide
Methyl chloride
Vinyl chloride

C-303H	1.5 mL
C-303HP	4 x 1.5 mL
C-303HTP	10 x 1.5 mL

*2000 ug/mL in Methanol***Trihalomethanes - CRM**

Bromoform	Chloroform
Chlorodibromomethane	Dichlorobromomethane

<i>200 ug/mL in Methanol</i>	C-388L	1.5 mL
	C-388LP	4 x 1.5 mL

<i>2000 ug/mL in Methanol</i>	C-388	1.5 mL
	C-388P	4 x 1.5 mL

Internal Standard CRM

Chlorobenzene-d5
1,4-Dichlorobenzene-d4
Fluorobenzene

C-441	1.5 mL
C-441P	4 x 1.5 mL
C-441TP	10 x 1.5 mL

*2500 ug/mL in Methanol***Surrogate CRM**

4-Bromofluorobenzene
Dibromofluoromethane
1,2-Dichloroethane-d4
Toluene-d8

C-440	1.5 mL
C-440P	4 x 1.5 mL
C-440TP	10 x 1.5 mL

2500 ug/mL in Methanol

See **www.nsilabsolutions.com**
for a full listing of Organic CRMs.



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