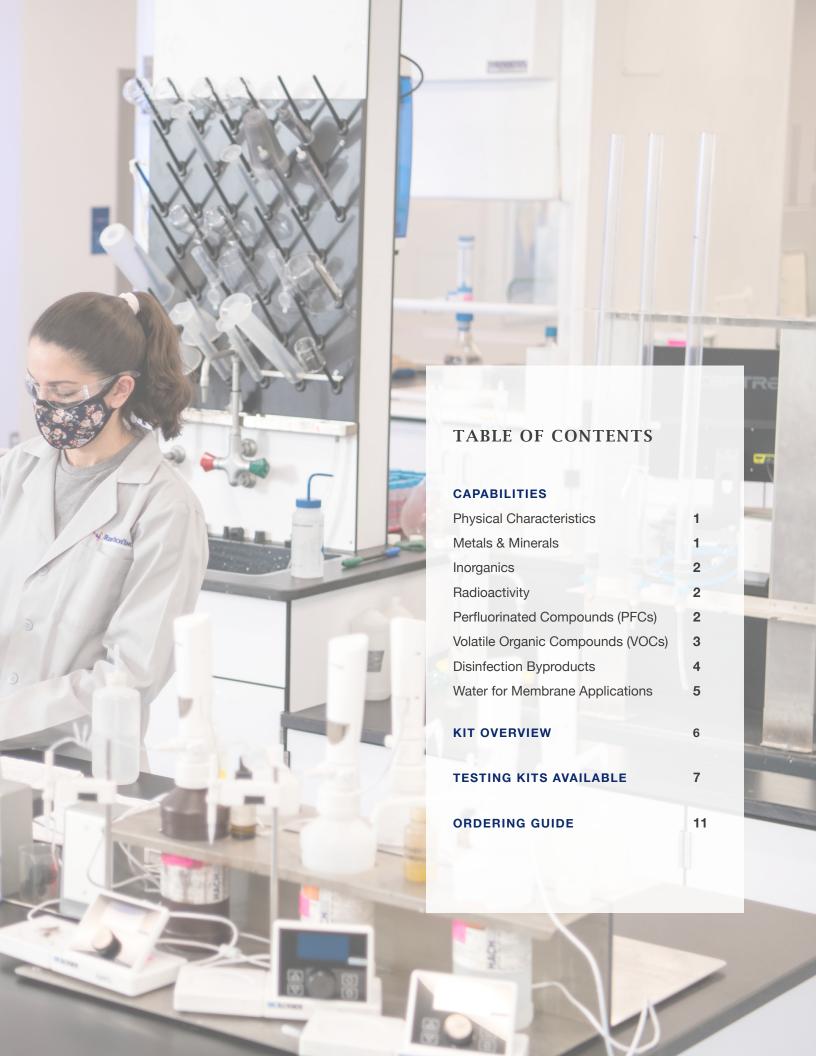




**Water Analysis** 

**CAPABILITIES & PACKAGES** 





# The brightest scientists. The most advanced technology.

We're dedicated to making water healthier to drink and safer to use. So it just makes sense that we would have the brightest minds and most sensitive laboratory equipment in the world needed to measure your water's composition.

Each year, our Lab Services team analyzes thousands of water samples in our 6,000 square foot world-renowned laboratory. Using state-of-the-art instrumentation capable of the most minute detection levels, they provide an unbiased, quantitative analysis of your water and recommend solutions to help it work better for you.

### **Physical Characteristics**

This list of physical characteristics includes a list of nine (9) tests that can be critical in diagnosing water quality problems. These items are analyzed using wet chemistry methods.

| ANALYTE (mg/L)             | MDL  |
|----------------------------|------|
| Alkalinity                 | 20   |
| Color (Pt Co units)        | -    |
| Conductivity (Micromho/cm) | -    |
| LSI (Standard Units)       | -    |
| Odor (TON Units)           | -    |
| pH (Standard Units)        | -    |
| Total Dissolved Solids     | 20   |
| Total Hardness             | 10   |
| Turbidity                  | 0.01 |

#### **Metals & Minerals**

Identify the presence of periodic elements whether naturally occurring or stemming from human influences or industrial processes.

| ANALYTE (mg/L)   | MDL     |
|------------------|---------|
| Aluminum         | 0.0025  |
| Antimony         | 0.0001  |
| Arsenic          | 0.00005 |
| Barium           | 0.00025 |
| Beryllium        | 0.00025 |
| Cadmium          | 0.0005  |
| Calcium          | 0.005   |
| Chromium (Total) | 0.001   |
| Copper           | 0.001   |
| Iron             | 0.005   |
| Lead             | 0.0006  |
| Lithium          | 0.001   |
| Magnesium        | 0.0025  |
| Manganese        | 0.001   |
| Mercury          | 0.001   |
| Molybdenum       | 0.0001  |
| Nickel           | 0.0005  |
| Phosphorous      | 0.001   |
| Potassium        | 0.001   |
| Selenium         | 0.0005  |
| Silver           | 0.0005  |
| Silica           | 0.05    |
| Sodium           | 0.005   |
| Strontium        | 0.0005  |
| Thallium         | 0.0005  |
| Tin              | 0.0001  |
| Titanium         | 0.0001  |
| Uranium          | 0.001   |
| Vanadium         | 0.0005  |
| Zinc             | 0.0001  |

#### **Inorganic Compounds**

Inorganic compounds can be naturally occurring in water, based upon the localized geological formations. However, many inorganic compounds end up in the water due to agricultural activities and in the case of fluoride may be purposefully added to the water.

| ANALYTE (mg/L)  | MDL   |
|-----------------|-------|
| Bromide         | 0.010 |
| Chloride        | 0.010 |
| Fluoride        | 0.010 |
| Nitrite (as N)  | 0.010 |
| Nitrate (as N)  | 0.010 |
| Ortho-Phosphate | 0.010 |
| Sulfate         | 0.010 |

#### Radiologicals

Radiological contaminants such as radon, radium and uranium in water can impact treatment options, due to potential disposal concerns.

| ANALYTE (pCi/L) | MDL   |
|-----------------|-------|
| Gross Alpha     | 3.000 |
| Gross Beta      | 4.000 |

Our laboratory testing services is approved under our ISO 9001:2015 certification, ensuring we follow a detailed quality assurance plan to maintain the highest possible accuracy and precision. Our on going performance evaluation studies further ensure we continually provide customers with dependable results.

## Per - & Polyfluoroalkyl Substances (PFAS)

Previously referred to as PFCs (Per- and Polyfluorinated chemicals) these compounds are sometimes called "forever chemicals" because of their durability, persistence, and tendency to bioaccumulate in the blood and organs over time. These long-chain, fluorinated organic compounds contain only carbon fluorine bonds and C-C bonds along with other heteroatoms. They are not found naturally in the environment and are therefore (by definition) man-made chemicals or derivatives of man-made chemicals that have broken down.

| ANALYTE (ng/L) MDL 2.8                              |  |
|---|--|
| Hexafluoropropylene oxide dimer acid (GenX)         |  |
| N-ethyl perfluorooctanesulfonamidoacetic acid       |  |
| N-methyl perfluorooctanesulfonamidoacetic acid      |  |
| Perfluorobutanesulfonic acid                        |  |
| Perfluorodecanoic acid                              |  |
| Perfluorododecanoic acid                            |  |
| Perfluoroheptanoic acid                             |  |
| Perfluorohexanesulfonic acid                        |  |
| Perfluorohexanoic acid                              |  |
| Perfluorononanoic acid                              |  |
| Perfluorooctanesulfonic acid                        |  |
| Perfluorooctanoic acid                              |  |
| Perfluorotetradecanoic acid                         |  |
| Perfluorotridecanoic acid                           |  |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid |  |
| 9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid    |  |
| 4,8-Dioxa-3h-perfluorononanoic acid                 |  |
| Perfluoroundecanoic acid (PFUnA)                    |  |

## 3 / CAPABILITIES

## Volatile Organic Compounds (VOCs)

VOCs are organic chemicals that have a high vapor pressure at ambient temperatures, meaning they will volatilize into the air. These are typically industrial solvents and petroleum-based byproducts.

| ANALYTE (mg/L)            | MDL   |
|---------------------------|-------|
| 1,1 Dichloroethane        | 0.001 |
| 1,1 Dichloroethylene      | 0.001 |
| 1,1 Dichloropropene       | 0.001 |
| 1,1,1 Trichloroethane     | 0.001 |
| 1,1,1,2 Tetrachloroethane | 0.001 |
| 1,1,2 Trichloroethane     | 0.001 |
| 1,1,2,2 Tetrachloroethane | 0.001 |
| 1,2 Dichlorobenzene       | 0.001 |
| 1,2 Dichloroethane        | 0.001 |
| 1,2 Dichloropropane       | 0.001 |
| 1,2,3 Trichlorobenzene    | 0.001 |
| 1,2,3 Trichloropropane    | 0.001 |
| 1,2,4 Trichlorobenzene    | 0.001 |
| 1,2,4 Trimethylbenzene    | 0.001 |
| 1,3 Dichlorobenzene       | 0.001 |
| 1,3 Dichloropropane       | 0.001 |
| 1,3,5 Trimethylbenzene    | 0.001 |
| 1,4 Dichlorobenzene       | 0.001 |
| 2 Hexanone                | 0.001 |
| 2,2 Dichloropropane       | 0.001 |
| Acetone                   | 0.001 |
| Benzene                   | 0.001 |
| Bromobenzene              | 0.001 |
| Carbon Tetrachloride      | 0.001 |
| Chlorobenzene             | 0.001 |
| Tin                       | 0.001 |
| Chloromethane             | 0.001 |

| ANALYTE (mg/L)              | MDL   |
|-----------------------------|-------|
| 2 Chlorotoluene             | 0.001 |
| 4 Chlorotoluene             | 0.001 |
| cis 1,2 Dichloroethylene    | 0.001 |
| Dichlorodifluoromethane     | 0.001 |
| Dichloromethane             | 0.001 |
| Ethylbenzene                | 0.001 |
| Ethylene dibromide          | 0.001 |
| Hexachlorobutadiene         | 0.001 |
| Isopropylbenzene            | 0.001 |
| m,p Xylene                  | 0.001 |
| Methyl Tertiary Butyl Ether | 0.001 |
| Methyl Ethyl Ketone         | 0.001 |
| Naphthalene                 | 0.001 |
| n Butylbenzene              | 0.001 |
| n Propylbenzene             | 0.001 |
| o Xylene                    | 0.001 |
| p Isopropyltoluene          | 0.001 |
| sec Butylbenzene            | 0.001 |
| Styrene                     | 0.001 |
| tert Butylbenzene           | 0.001 |
| Tetrachloroethylene         | 0.001 |
| Tetrahydrofuran             | 0.001 |
| Toluene                     | 0.001 |
| trans 1,3 Dichloropropene   | 0.001 |
| Trichloroethylene           | 0.001 |
| Trichlorofluoromethane      | 0.001 |
| Vinyl Chloride              | 0.001 |

## **Disinfection By-Products**

### **Trihalomethanes**

Trihalomethanes are byproducts of disinfection and are formed when chlorine reacts with naturally occurring organic matter already present in water. Trihalomethanes are common in municipal water, but can also be found in wells that have been shock chlorinated or are continuously treated with chlorine.

| ANALYTE (mg/L)       | MDL   |
|----------------------|-------|
| Bromodichloromethane | 0.001 |
| Bromoform            | 0.001 |
| Bromochloromethane   | 0.001 |
| Bromomethane         | 0.001 |
| Chloroform           | 0.001 |
| Dibromochloromethane | 0.001 |
| Dibromochloropropane | 0.001 |
| Dibromomethane       | 0.001 |
| Total THMs           | 0.001 |

#### **Haloacetic Acids**

These are the second most common type of disinfection byproducts. They form by the reaction of chlorine, chlorine dioxide, chloramine or ozone with naturally occurring organic material and bromine that may already be present in the water.

| ANALYTE (mg/L)                   | MDL   |
|----------------------------------|-------|
| Monochloracetic Acid             | 0.001 |
| Dichloroacetic Acid              | 0.001 |
| Monobromoacetic Acid             | 0.001 |
| Trichloroacetic Acid             | 0.001 |
| Dibromoacetic Acid               | 0.001 |
| Total Haloacetic Acids           | 0.001 |
| Bromochloroacetic acid (BCAA)    | 0.001 |
| Bromodichloroacetic acid (BDCAA) | 0.001 |
| Chlorodibromoacetic acid (CDBAA) | 0.001 |
| Tribromoacetic acid (TBAA)       | 0.001 |



## Water for Membrane Applications

When considering membrane technology such as nanofiltration or reverse osmosis for water treatment, a water test is critical to determine which technology may be better suited or if additional pretreatment may be necessary.

#### **Metals & Minerals**

| ANALYTE (mg/L)            | MDL     |
|---------------------------|---------|
| 1,1 Dichloroethane        | 0.0025  |
| 1,1 Dichloroethylene      | 0.0025  |
| 1,1 Dichloropropene       | 0.00025 |
| 1,1,1 Trichloroethane     | 0.00025 |
| 1,1,1,2 Tetrachloroethane | 0.001   |
| 1,1,2 Trichloroethane     | 0.0005  |
| 1,1,2,2 Tetrachloroethane | 0.005   |
| 1,2 Dichlorobenzene       | 0.001   |
| 1,2 Dichloroethane        | 0.0005  |
| 1,2 Dichloropropane       | 0.005   |
| 1,2,3 Trichlorobenzene    | 0.0006  |
| 1,2,3 Trichloropropane    | 0.0001  |
| 1,2,4 Trichlorobenzene    | 0.0025  |
| 1,2,4 Trimethylbenzene    | 0.001   |
| 1,3 Dichlorobenzene       | 0.0001  |
| 1,3 Dichloropropane       | 0.0005  |
| 1,3,5 Trimethylbenzene    | 0.01    |
| 1,4 Dichlorobenzene       | 0.005   |
| 2 Hexanone                | 0.0005  |
| 2,2 Dichloropropane       | 0.005   |
| Acetone                   | 0.0005  |
| Benzene                   | 0.0005  |
| Bromobenzene              | 0.0001  |
| Carbon Tetrachloride      | 0.001   |
| Chlorobenzene             | 0.0005  |
| Tin                       | 0.0001  |

## **Inorganics**

| ANALYTE (mg/L)  | MDL  |
|-----------------|------|
| Bromide         | 0.01 |
| Chloride        | 0.01 |
| Fluoride        | 0.01 |
| Free Chlorine   | 0.05 |
| Total Chlorine  | 0.1  |
| Nitrate         | 0.01 |
| Nitrite         | 0.01 |
| Ortho-Phosphate | 0.01 |
| Sulfate         | 0.01 |

## **Wet Chemistry Parameters**

| ANALYTE (mg/L)                     | MDL  |
|------------------------------------|------|
| Alkalinity (as CaCO <sub>3</sub> ) | 5    |
| Bicarbonate (as HCO <sub>3</sub> ) | 5    |
| Carbonate (Ca CaCO3)               | 5    |
| Carbon Dioxide                     | 5    |
| Conductivity (µmhos/cm)            | 2    |
| Hardness                           | 0.05 |
| Langlier Index                     | -    |
| pH (Standard Units)                | -    |
| TOC                                | 0.2  |
| Total Dissolved Solids             | 20   |
| Turbidity (NTU)                    | 0.1  |
| Silica (as SiO <sub>2</sub> )      | 0.05 |
| Total Cations as CaCO₃             | -    |
| Total Anions as CaCO₃              | -    |

What's in your water? For your convenience,
ResinTech offers pre-packaged testing kits
for your home or business. We provide the
instructions and containers, you simply fill them
up and send them back to us. We'll do the rest.

|            | TESTING KIT OVERVIEW |                   |                   |                   |
|------------|----------------------|-------------------|-------------------|-------------------|
|            | BASIC                | STANDARD          | DELUXE            | ULTRA             |
| WELL WATER | Physical             | Physical          | Physical          | Physical          |
|            | Inorganics           | Inorganics        | Inorganics        | Inorganics        |
|            | Metals & Minerals    | Metals & Minerals | Metals & Minerals | Metals & Minerals |
|            |                      | VOCs              | VOCs              | VOCs              |
|            |                      |                   | Radiologicals     | Radiologicals     |
|            |                      |                   |                   | PFAS              |

<sup>\*</sup> City Water assessments include corresponding well water assessments (above) in addition to the following:

| ÉR.   | Disinfectants | Disinfectants   | Disinfectants    | - |
|-------|---------------|-----------------|------------------|---|
| Y WAT |               | Trihalomethanes | Trihalomethanes  | - |
| 등     |               |                 | Haloacetic Acids | - |

# Well Water Kits



## Basic Well Water Kit

#### **Tests for:**

- (29) metals and minerals
- (7) other inorganic compounds
- (9) physical

### Includes:

- One (1) 500 ml bottle
- One (1) ice pack

#### Add-Ons Available:

- Radon
- TOC
- Gross Alpha Beta
- Iron Bacteria
- Tannins



## Standard Well Water Kit

#### **Tests for:**

- Everything included in the Basic kit
- Plus (53) volatile organic chemicals

#### Includes:

- One (1) 500 ml bottle
- Two (2) 40 ml vials
- One (1) ice pack

#### Add-Ons Available:

- Radon
- TOC
- Gross Alpha Beta
- Iron Bacteria
- Tannins



## Deluxe Well Water Kit

#### Tests for:

- Everything included in the Standard kit
- Plus Radiological contaminants: gross alpha and beta

#### Includes:

- Two (2) 500 ml bottle
- Two (2) 40 ml vials
- One (1) ice pack

#### Add-Ons Available:

- Radon
- TOC
- Iron Bacteria
- Tannins



## Ultra Well Water Kit

#### Tests for:

- Everything included in the Deluxe kit
- Plus (18) PFAS contaminants including PFOA, PFOS and GenX

#### Includes:

- Four (4) zippered bags (for PFAS bottles)
- Two (2) 500 ml bottles
- Two (2) 250 ml bottles
- Two (2) 40 ml vials
- One (1) pair nitrile gloves
- Two (2) bags for ice

#### Add-Ons Available:

- Coliform Bacteria
- Radon
- TOC
- Iron Bacteria
- Tannins

# **City Water Kits**



## **Basic City Water Kit**

#### Tests for:

- (29) metals and minerals
- (7) other inorganic compounds
- (9) physical plus (3) disinfectants

#### Includes:

- One (1) 500 ml plastic bottle
- One (1) gel ice pack
- One (1) Free Chlorine test strip
- One (1) Total Chlorine test strip
- One (1) Chlorine Test Color Comparator

#### Add-Ons Available:

- Coliform Bacteria
- Radon
- TOC
- Gross Alpha Beta
- Iron Bacteria
- Tannins



# Standard City Water Kit

#### Tests for:

- Everything included in the Basic kit
- Plus (53) volatile organic chemicals
   & (10) Disinfection Byproducts

#### Includes:

- One (1) 500 ml plastic bottle
- Two (2) 40 ml VOA vials
- One (1) 50 ml plastic beaker
- One (1) gel ice pack
- One (1) Free Chlorine test strip
- One (1) Total Chlorine test strip
- One (1) Chlorine Test Color Comparator

#### Add-Ons Available:

- Coliform Bacteria
- Radon
- TOC
- Gross Alpha Beta
- Iron Bacteria
- Tannins



## **Deluxe City Water Kit**

#### Tests for:

- Everything included in the Standard kit
- Plus (5) more Disinfection Byproducts

#### Includes:

- One (1) 500 ml plastic bottle
- Two (2) 40 ml VOA vials
- Two (2) 60 ml glass amber vials
- One (1) 50 ml plastic beaker
- One (1) gel ice pack
- One (1) Free Chlorine test strip
- One (1) Total Chlorine test strip
- One (1) Chlorine Test Color Comparator

## Add-Ons Available:

- Coliform Bacteria
- Radon
- TOC
- Gross Alpha Beta
- Iron Bacteria
- Tannins

#### **Additional Kits Available:**

Contact us for more information.

# Water for Membrane Applications:

When considering membrane technology such as nanofiltration or reverse osmosis for water treatment, a water test is critical to determine which technology may be better suited or if additional pretreatment may be necessary.

## **PFAS List:**

ResinTech will quantify the presence of up to 18 of the most common compounds, including PFOA, PFOS and Gen X.

### PFOS & PFOA:

ResinTech will quantify the presence of the two most common compounds (PFOA and PFOS).

## **Custom Kits**

If you know exactly what you're looking for, you can choose tests a la carte and ResinTech will create a custom kit to suit your specific needs.

#### **Turnaround Times:**

Most analysis is done within 5 business days, with the exception of tests that include radiologicals and iron or sulfate-reducing bacteria which usually can be reported within 10 business days.

#### **Expedites:**

Samples can be expedited based upon the volume of samples in the lab and the analysis requested. Additional charges do apply.

- 50% upcharge for 3 business days.
- 100% upcharge for 2 business days or less.

#### Who to Contact

If you have questions about results or what test should be ordered, bulk orders pricing etc., contact:

#### **MARIANNE METZGER**

LABORATORY SALES

PHONE 216.678.0185

EMAIL mmetzger@resintech.com

## Benefits of Buying in Bulk

#### We do the work. You take the credit!

The faster you identify what wrong with your customer's water, the faster you can recommend a solution. Imagine the customer impression you make when the packaging and documentation all carry your company logo. Having your own, branded kits on hand facilitates customer momentum through your sales funnel and helps close more sales. We're here to help with custom branded test kits, fast turnarounds, and detailed reporting.

Annual commitments of greater than fifty (50) kits per month receive free white labeling. Ask for details!



#### **WATER SAMPLES MUST BE NON-HAZARDOUS**

ResinTech lab services cannot accept solutions that are classified as Hazardous or contain high concentrations of solvents, acids, bases, radionuclides etc. Please call for confirmation if there are any questions.

Our laboratory services don't end at just water. We also offer ion exchange resin analysis from the most basic physical tests to identifying process solutions and predicting operating costs. Ask us about our other services.





#### **ABOUT RESINTECH**

ResinTech has been a global leader in the field of ion exchange for water purification since its founding in 1986. The company has since expanded to the manufacture of water purification cartridges and lab water systems; resin regeneration and wastewater treatment services; reverse osmosis membrane restoration; and provide world-class lab services for resin and water analysis.

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