Radiochemistry

SRC Environmental Analytical Laboratories offers one of the most complete arrays of analytical services in Canada within a single facility. We provide environmental testing for companies in mining, oil and gas, industry and agriculture, as well as consultants, government agencies and research organizations.

The Saskatchewan Research Council is a leader in radiochemistry. We offer special and routine radiochemistry analysis, including:

- Alpha spectroscopy
- Beta Counting
- Gamma spectroscopy
- Delayed neutron counting
- Neutron activation
- Naturally Occurring Radioactive Materials (NORM)
- Agricultural products for export
- Radiological guidelines for drinking water
- Special radioactivity measurements

Customer Care

Contact us regarding your analytical requirements. We can recommend an optimal analytical package for your samples and ensure you have the proper bottles, sample volumes and preservatives. Sample containers and preservatives can be obtained at no cost.

We have extensive experience analyzing a wide range of sample matrices, including:

- Ground and surface water
- Mine effluent and wastewater
- Soil
- Sludge
- Multiphasic samples
- Air
- Biota
- Vegetation
- Building debris
- Mixed and hazardous waste

Reliable Service

- Fast turnaround time
- Direct contact with experts and lab supervisors
- Convenient online results portal

Added Value

- No extra costs for sample containers or kits
- No extra costs for sample handling and storage

Quality at Every Stage

- Technical experts with many years of experience
- Comprehensive quality control and quality assurance program

Environmental Analytical Laboratories
analytical@src.sk.ca
306-933-6932

	Water			Soil/Sediment		
Parameter	**Preservative**	**Sample Size / Container**	**Hold Time**	**Preservative**	**Sample Size / Container**	**Hold Time**
Lead-210	HNO_3 to pH <2	1 L plastic	> 6 months	None	10 to 100 g in jar or bag	NA
Polonium-210	HNO_3 to pH <2	1 L plastic	1 month	None	10 to 100 g in jar or bag	NA
Thorium-228	HNO_3 to pH <2	1 L plastic	> 6 months	None	10 to 100 g in jar or bag	NA
Thorium-230	HNO_3 to pH <2	1 L plastic	> 6 months	None	10 to 100 g in jar or bag	NA
Thorium-232	HNO_3 to pH <2	1 L plastic	> 6 months	None	10 to 100 g in jar or bag	NA
Radium-226	HNO_3 to pH <2	1 L plastic	> 6 months	None	10 to 100 g in jar or bag	NA
Radium-228	HNO_3 to pH <2	1 L plastic	> 6 months	None	10 to 100 g in jar or bag	NA
Radon-222	None	40 mL glass vial	8 days	None	500 g jar	NA
Strontium-90	HNO_3 to pH <2	1 L plastic	> 6 months	None	10 to 100 g in jar or bag	NA
Tritium	None	100 mL plastic	6 months	Not available		
Gross Alpha	HNO_3 to pH <2	1 L plastic	> 6 months	None	10 to 100 g in jar or bag	NA
Gross Beta	HNO_3 to pH <2	1 L plastic	> 6 months	None	10 to 100 g in jar or bag	NA
Gamma Emitters*	HNO_3 to pH <2	500 mL plastic	> 6 months	None	100 g in jar or bag	NA

	Vegetation			Biological Tissue		
Parameter	**Preservative**	**Sample Size / Container**	**Hold Time**	**Preservative**	**Sample Size / Container**	**Hold Time**
Lead-210	None	100 g per radionuclide or 500 g for all, for best detection limits. Smaller samples can be analyzed to higher DLs	NA	None	100 g per radionuclide or 500 g for all, for best detection limits. Smaller samples can be analyzed to higher DLs	NA
Polonium-210	None		NA	None		NA
Thorium-228	None		NA	None		NA
Thorium-230	None		NA	None		NA
Thorium-232	None		NA	None		NA
Radium-226	None		NA	None		NA
Radium-228	None		NA	None		NA
Strontium-90	None	100 g bag	NA	None	10 to 100 g in jar or bag	NA
Gross Alpha	None	10 g bag	NA	None	10 to 100 g in jar or bag	NA
Gross Beta	None	10 g bag	NA	None	10 to 100 g in jar or bag	NA
Gamma Emitters*	None	500 g bag	NA	None	100 g in jar or bag	NA

*Gamma emitters include a large number of natural and man-made isotopes. Please contact the lab with your specific requirements.

Specialty Testing				
Parameter	**Sample type**	**Sample Size / Container**	**Preservative**	**Hold Time**
Radon in air	Air	Alpha track detector	None	1 month
Uranium – Umpire Method	Uranium ore concentrates	100 g glass, vacuum sealed	None	NA
Leak testing	Sealed radioactive sources (e.g., Cs-137, Ni-63)	Swab	None	NA