



Forensic Services for Fire and Arson

Proud to offer Arson Forensic Testing Services

Our Forensic Sciences Laboratory meets all requirements of RG-Forensic (Standards Council of Canada Requirements and Guidance for the Accreditation of Forensic Testing Laboratories) for the analysis of ignitable liquid residues ensuring you receive the highest quality results.

Our laboratory has supported a variety of origin and cause investigators in complex environments and situations, including for law enforcement when legally defensible results are a must.

The "Service Beyond Analysis" motto has truly come forward with this specialized laboratory delivering quality and timely service to the industry.

Fast TAT

With one of the industry's fastest turnaround times AGAT offers standard 10-14 business days for regular service and can deliver rush analysis results when you need information in a hurry.

Expert Analysis

Our Lead Chemist, Dr. Ron Brockbank, has over 25 years' experience analyzing a wide range of sample and matrix types. Our laboratory staff are certified analysts, and their continued certification remain up-to-date through participation in proficiency testing programs and training.

Local Service

AGAT Laboratories Arson Investigations Testing Laboratory offers the only commercial laboratory service in Western Canada for Arson Forensics. However, AGAT Laboratories has depots across Canada that can be used as sample drop-off and supply pick-up locations. This equates to shorter sample delivery times, faster results, and expedited investigation closures for you and your team.



Preservation of Evidence Samples & Sample Extracts

Forensics laboratories must ensure that fire debris samples, liquid samples, and sample extracts are preserved in accordance with ASTM E2451 to ensure sample integrity in the event of possible reanalysis. Samples are properly labeled for ease of retrieval and traceability. AGAT has developed a fully documented chain-of-custody procedure for sample intake, logging, processing and long-term storage.

Extracts and Liquid Samples

Vials should be tightly sealed with PTFE-Silicone-PTFE (triple layer) cap to eliminate or minimize evaporation, and stored in a locked fridge at $4 \pm 3^{\circ}\text{C}$.

Fire Debris Samples

Samples are tightly sealed to prevent cross contamination, and stored in a locked freezer at $\leq -10^{\circ}\text{C}$ to ensure integrity of the sample.

Appropriate handling and analysis of fire debris samples must be followed to ensure optimum recovery of ILR. All processes and results are subject to strict scrutiny in a Court of Law. Appropriate sample containers must be used, and proper sample storage, security, and sample chain-of-custody records must be maintained.

Importance of the trip blank and comparison sample(s) provide for better control of sample collection/transport process and interpretation of analytical results. All steps associated with the handling, processing and analysis of fire debris samples must be considered.

Industry Leading Instrumentation

One-dimensional gas chromatography (1D GC) is commonly used in fire debris analysis, but it has limitations when dealing with complex samples. Since it analyzes everything in a single dimension, it often results in overlapping peaks, making it hard to distinguish ignitable liquids from other substances, such as residues from the substrate.

Fire debris samples in general are very complex sample types and no one sample is the same leading to innumerable different interference types that can occur due to the many different substrates that can combust.

AGAT Laboratories has setup two-dimensional gas chromatography (2D GC) for ILR analysis as an additional offering when interferences are observed. With the second dimension separation interferences can be drastically reduced allowing for more conclusive and thorough identifications of ignitable liquids from fire debris samples.

Contact Information

Our Forensic Services Laboratory is located at 2420 42nd Avenue NE in Calgary, Alberta. To arrange a tour of our facility, or to arrange pick up of sampling supplies, please contact us at **403-736-5300** or email at **info@agatlabs.com**.