

GENERAL

EN-CAS Analytical Laboratories is a fully compliant GLP facility providing analytical laboratory services to the agrochemical, animal health, food safety and life science industries. EN-CAS has been in operation since 1976 applying a wide range of analytical chemistry technologies to various agrochemical, veterinary, and life science problems. As a result, EN-CAS has developed an extensive capability in performing studies requiring the determination of pesticides, herbicides, fungicides, insecticides, veterinary drugs, and related animal treatment, and life sciences products in a variety of complex sample matrices.

EXPERIENCE

Our experience includes:

- Methods development (specializing in trace organic residue analysis in complex biological, environmental, and exposure monitoring media).
 - Comprehensive method modernization and validation studies (Independent EPA PR 96-1, environmental, and FDA-CVM / EEC method verification/validation trials).
 - FDA/USDA interlaboratory method evaluation trials.
 - Supportive analytical for avian and aquatic toxicity studies.
 - Crop, soil, and environmental water residue analyses.
 - Analysis of animal tissue and animal fluids from animal dosing/feeding studies.
 - Human exposure studies of farm and manufacturing workers (including applicator, re-entry, and dislodgeable residue studies).
 - Outdoor, indoor, and aerial spray drift deposition studies.
 - Aquatic dissipation studies.
 - Ground and surface water monitoring studies.
 - Soil dissipation studies.
 - Analytical support for ¹⁴C field metabolism studies.
 - Nationwide Market Basket studies of agrochemical residues in supermarket food commodities.
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- Studies of the effects of consumer practices (rinsing, cooking, etc.) on residues of agrochemicals on fruits and vegetables.
 - Studies of the effects of commercial food processing on agrochemical residues.
 - Studies of pest control residues in food handling establishments. (Food Additive Tolerance studies).
 - Supportive analytical for animal health product development: efficacy, potential human exposure, and toxicology.
 - On-site Quality Assurance and Analytical Field Support.

CLIENTELE

Our clients include many of the major worldwide developers of new agrochemicals and veterinary medicines. Products studied have included organophosphates, triazines, triazoles, sulfonyleureas, pyrethrins, phenoxy herbicides, anti-inflammatory, antibiotic, larvicidal, and other common, as well as developmental crop protection, veterinary, and crop and animal pest control agents.

ORGANIZATION AND STAFF

Our technical staff consists of highly trained and experienced scientists with up to thirty years of laboratory and analytical project management experience.

EN-CAS is organized into four functional sections:

(1) The Analytical and Residue Studies Section

(2) The Quality Assurance Section

Our Quality Assurance Unit (QAU) reports to the Technical Director and ensures that laboratory procedures and technical documentation are performed according to Good Laboratory Practices and good scientific principles. Each of our Quality Assurance personnel has had extensive experience in laboratory testing and procedures prior to joining the QAU.

(3) The Logistics and Administrative Support Services Section

This section oversees the shipping, receiving, pre-preparation, and proper storage of samples and materials, as well as general purchasing and the maintenance of EN-CAS facilities.

(4) The Financial and Personnel Services Section

This section administers the company's financial and personnel functions.

FACILITIES AND EQUIPMENT

The EN-CAS facilities presently include 12,000 square feet of laboratory and office space. We are equipped with a 12,000 cu. Ft., on-site, walk-in freezer building with a generator backup, and also retain a protected local off-site frozen storage facility for overflow and long-term sample storage.

A list of some of our major laboratory equipment follows:

- API/Sciex 365 and API 4000 LC/MS/MS Systems (Ionspray, Turbo Ionspray, APCI and Photospray Sources)
- Hewlett Packard 5970 and 5971 Series GC/MS systems with HP Chemstation Software;
- Four capillary and packed column gas chromatography systems (GC detectors include FID, TCD, FPD, NPD, and ECD);
- Four liquid chromatography systems equipped with UV, Fluorescence, Electrochemical, Refractive Index and Conductivity detectors;
- Postcolumn derivatization for Glyphosate, Carbamate, or Phenol Urea Analyses;
- Two gel permeation chromatography systems;
- Four Zymark Benchmate robotics systems;
- Two Dupont / Sorvall RC5B Superspeed refrigerated centrifuges;
- C14 handling, combustion, and liquid scintillation counting equipment;
- A client-server Water's Millennium32 chromatography data system;
- Customized data acquisition, backup, retrieval, electronic reporting, E-mail, and electronic data transfer systems.

GLP/QA

We have a fully compliant GLP/QA program in place. For GLP studies, 100% of the data and reports generated are audited. In addition, critical phase GLP in-lab and, where appropriate, field site audits are conducted by our QAU. We are regularly audited by client, third party, and regulatory agency auditors (including unannounced audits) and have been given high marks for our QA program in all instances.

Our most recent agency audit was performed by the U.S. Environmental Protection Agency which resulted in no adverse findings noted in either the facility phase or in the three studies which were inspected during the audit.

COMMITMENT TO EXCELLENCE

Since its inception in 1976, EN-CAS has earned a reputation for analytical excellence and exceptional client service. Our continuing goal is to produce studies that will exemplify good science, will stand up to regulatory scrutiny, and that both we and our clients can take pride in.