



SERVICES OFFERED

- ▶ Leaf enclosure studies to determine the types and quantities of site-specific terpenes
- ▶ Measurement of site-specific Biogenic Volatile Organic Compounds (BVOCs)
- ▶ Development of gas-phase emission rates for all strain/site-specific terpenes
- ▶ Predict gas-phase concentrations using EPA-approved air quality models
- ▶ Analysis of site-specific BVOC contributions to indoor and outdoor air quality
- ▶ Custom modeling of site-specific atmospheric emissions to determine contribution (or lack thereof) to air quality concerns
- ▶ Continuously expanding database of strain-specific terpene profiles
- ▶ Expert witness consulting and testimony

LAB CAPABILITIES

Our state-of-the-art trace gas analysis laboratory provides a suite of multimodal analytic capabilities enabling highly sensitive detection of more than 200 plant volatiles including terpenoids and organic sulfur, oxygen, and nitrogen compounds. Following EPA protocols, identification and quantification are based on comparison with NIST authentic standards for more than 100 compounds and can be extended to additional compounds on request.

Lab specifications, including a list of equipment, can be found on www.pac-enviro.com.



RESEARCH LEADERSHIP



Dr. William Vizuete, our Chief Scientific Officer (CSO), has over 20 years of experience in atmospheric chemistry, air-quality modeling and research for various industries. For the past six years, Dr. Vizuete has led

a team of cannabis industry experts focused on site-specific research to increase overall knowledge of cannabis emissions, educate local communities and improve the tools and methods that stakeholders use to evaluate the environmental impacts of cultivation and processing. Dr. Vizuete is a sought-after expert witness and frequent speaker on topics of interest to cannabis cultivators, regulators, the scientific community and concerned citizens.



Dr. Alex Guenther, our Senior Scientist, is an international leader with over 35 years of experience in atmospheric plant volatiles integrated research who has published more than 300 peer-

reviewed scientific articles in leading international journals. Dr. Guenther's air quality and emissions models, such as his Model of Emissions of Gases and Aerosols from Nature (MEGAN), are widely utilized by industry, academia, and regulatory agencies such as the EPA. Dr. Guenther's decades of experience and insight help cultivators and policymakers better understand the environmental impacts of cannabis cultivation and processing.