



Biogas Analysis Services

Laboratory Analysis | Sampling Equipment & Supplies | On-site Sampling

Ohio Lumex is a leading source for comprehensive Biogas Analysis Services, including lab analysis and on-site sampling of waste-to-energy, landfill gas, wastewater, and other renewable energy projects. Our Accredited Laboratory offers an all-inclusive range of biogas analysis services performed according to industry methods and standards, including ASTM, ISO, EPA, etc.

Our services apply to a variety of applications at biogas sites working with renewable energy, including RNG interconnection compliance (both startup and ongoing), pipeline integrity, process control, and various research and development efforts.

Applications

- Biogas
- Dairy, Hog and Pig Farms
- Gaseous Fuels
- Landfills
- Natural Gas
- Wastewater Treatment Plants
- Food Waste Digesters (co-digestion)
- Others

Available Services

- Laboratory analysis of biogas composition, including:
 - Methane (CH₄)
 - Carbon Monoxide (CO)
 - Carbon Dioxide (CO₂)
 - Hydrogen (H₂)
 - Nitrogen (N₂)
 - Oxygen (O₂)
 - Mercury (Hg)
 - Ammonia (NH₃)
 - Halocarbons
 - Inorganic Chlorine (Cl) and Fluorine (F)
 - Bacteria (Total Bacteria, SRB, APB, IOB)
 - Odors, Dust and Liquids
 - Aldehydes and Ketones
 - Siloxanes (TMSOL, L2, L3, L4, L5, D3, D4, D5, D6, Total Siloxanes, Total Organic Silicon)
 - Metals in Gas (As, Cu, Sb, Pb, Cd, Cr)
 - Volatile Organic Compounds (VOCs)
 - Semi-Volatile Organic Compounds (SVOC-NDPA)
 - Total and Speciated Sulfur
 - Hydrocarbon Dew point
 - Heating Value, Compressibility, & Relative Density
 - Moisture
 - PCBs and Pesticides
 - Carbon-14
 - Radiological Testing (Gross Alpha and Beta, Radon)
- Weekly sampling system rental, sample cylinder rental, instructions, and supplies to ensure your sampling team delivers quality samples for analysis
- On-site sampling from our certified Field Services team
- The industry's best turnaround time, with expediting options to meet your specific project needs





Biogas Testing Services

Require additional testing? Contact our lab as we may have other services available upon request.

Analyte	General Method(s)	Sampling Method(s)
Major Gases: CO ₂ , CH ₄ , O ₂ , N ₂ , CO, H ₂ , Hydrocarbons (C6+)	<ul style="list-style-type: none"> ASTM D1945, D1946 EPA Method 3C, 18 	<ul style="list-style-type: none"> Passivated High-Pressure Cylinder** Tedlar Bag
Heat Value, Compressibility, & Relative Density	<ul style="list-style-type: none"> ASTM D3588 	<ul style="list-style-type: none"> N/A
Hydrocarbon Dewpoint	<ul style="list-style-type: none"> Peng-Robinson Equation of State 	<ul style="list-style-type: none"> N/A
Total Hg	<ul style="list-style-type: none"> ASTM D5954 	<ul style="list-style-type: none"> Gold Sorbent Traps
Siloxanes and Silanols: TMSOL, L2, L3, L4, L5, D3, D4, D5, D6, Total Siloxanes, Total Organic Silicon	<ul style="list-style-type: none"> ASTM D8230 	<ul style="list-style-type: none"> Siloxane Sorbent Traps** SUMMA Canister Tedlar Bag
Total and Speciated Sulfur: H ₂ S, COS, Mercaptans, Others	<ul style="list-style-type: none"> ASTM D6228, D5504 	<ul style="list-style-type: none"> Passivated High-Pressure Cylinder** Tedlar Bag
Ammonia (NH ₃)	<ul style="list-style-type: none"> NIOSH 6016, Modified OSHA ID-188 	<ul style="list-style-type: none"> NH₃ Sorbent Traps
VOCs (Common Biogas (California)): Ethyl Benzene, Methacrolein, p-Dichlorobenzene, Toluene, Vinyl Chloride	<ul style="list-style-type: none"> EPA TO-15 	<ul style="list-style-type: none"> SUMMA Canister** Tedlar Bag
VOCs (Standard Extended)	<ul style="list-style-type: none"> EPA TO-15 	<ul style="list-style-type: none"> SUMMA Canister** Tedlar Bag
SVOC: N-nitroso-di-N-propylamine (NDPA) <i>Others Available Upon Request</i>	<ul style="list-style-type: none"> Modified EPA 0010 EPA SW-846 Method 8270D 	<ul style="list-style-type: none"> SVOC Sorbent Trap
Inorganic Chlorine and Fluorine	<ul style="list-style-type: none"> EPA 9056A 	<ul style="list-style-type: none"> HCl/HF Sorbent Traps
Halocarbons	<ul style="list-style-type: none"> EPA TO-14 EPA TO-15 	<ul style="list-style-type: none"> Passivated High-Pressure Cylinder (EPA TO-14) SUMMA Canister** (EPA TO-15) Tedlar Bag
Metals: As, Cu, Sb, Pb, Cd, Cr <i>Others Available Upon Request</i>	<ul style="list-style-type: none"> OL-21G* and EPA 6020B Modified EPA Method 29 	<ul style="list-style-type: none"> Metals Sorbent Trap** Impinger Sampling Train
PCBs and Pesticides (Organochlorine)	<ul style="list-style-type: none"> EPA TO-10A 	<ul style="list-style-type: none"> PCBs and Pesticides Sorbent Trap
Bacteria: Total Bacteria, SRB, APB, IOB	<ul style="list-style-type: none"> qPCR Technique 	<ul style="list-style-type: none"> Custom Sampling Apparatus
Moisture	<ul style="list-style-type: none"> ASTM D1142, D5454, D4888 	<ul style="list-style-type: none"> Performed Onsite
Aldehydes and Ketones	<ul style="list-style-type: none"> EPA TO-11A 	<ul style="list-style-type: none"> Aldehyde and Ketone Sorbent Trap
<u>Radiological Testing</u> Gross Alpha and Beta Radon (Rn ²²²) Lead (Pb ²¹⁰)	<ul style="list-style-type: none"> Gross Alpha and Beta: EPA 900.0 Radon (Rn²²²) and Lead (Pb²¹⁰): Gamma Spectrometry 	<ul style="list-style-type: none"> Gross Alpha and Beta: Filter Radon (Rn²²²): Sorbent Trap Lead (Pb²¹⁰): Filter
Odors, Dust, Liquids	<ul style="list-style-type: none"> OL-71* 	<ul style="list-style-type: none"> Sorbent Trap
Carbon-14	<ul style="list-style-type: none"> ASTM D6866 	<ul style="list-style-type: none"> Foil Bag
CNG & LNG Quality Specifications for Motor Vehicle Fuel	<ul style="list-style-type: none"> ASTM D8080 	<ul style="list-style-type: none"> N/A
VFCs and PFAS	<ul style="list-style-type: none"> EPA OTM-50 	<ul style="list-style-type: none"> SUMMA Canister

* Ohio Lumex Method

** Preferred Sampling Apparatus; Recommended for Sample Stability and Sensitivity

Sampling Systems, Equipment and Supplies Available for Purchase or Rent
On-site service is available to perform sampling



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