



# VANTAGE LABORATORY SERVICES, INC.

2025 LAB SCOPE

PETROLEUM

ENVIRONMENTAL

FOOD



ISO17025, AND EMLAP CERTIFIED  
TEXAS MOLD LAB LICENSE #LAB1069

# ABOUT US

**Vantage Laboratory Services, Inc.** is a Houston-based laboratory specializing in testing services for the Petroleum, Environmental, and Food industries. Our mission is to deliver data that is accurate, reliable, and scientifically sound.

We recognize the critical role testing plays in protecting public health, meeting regulatory requirements, and ensuring product quality. That's why we are committed to providing results you can trust. Our laboratory features advanced technology and is operated by a team of skilled, experienced professionals.

At Vantage, we uphold the highest standards of quality and integrity in everything we do—ensuring our clients receive precise, timely, and dependable results every time.

We are ISO17025 and Environmental Microbiology Laboratory Accreditation Program certified (EMLAP).



METHOD NAME	METHOD NUMBER
Anions in Water by IC	ASTM D4327
API Gravity by Hydrometer	ASTM D287
API Gravity by Hydrometer at Elevated Temperature	ASTM D287
Appearance of Clear and Transparent Liquids by Visual Inspection	ASTM E2680
Appearance of Distillate Fuels by Visual Inspection	ASTM D4176
Appearance of Ethanol by Visual Inspection	EN 15769
Appearance of Methanol by Visual Inspection	IMPCA-003
Appearance of Middle Distillate Fuels by Visual Inspection	ASTM D4860
Acid Wash Color of Aromatic Hydrocarbons	ASTM D848
Acidity and Alkalinity of Halogenated Solvents	ASTM D2989
Acidity of Acetone	UOP 809
Acidity of Acrylonitrile	ASTM E1788
Acidity of Aromatic Hydrocarbons	ASTM D847
Acidity of Aviation Turbine Fuels	ASTM D3242 / IP 354
Acidity of Distillation Residue	ASTM D1093
Acidity of Ethanol by Color Indicator Titration	ASTM D7795 / EN 15491 / IP 538
Aromatics in Gasoline by GC-MS	ASTM D5769
Aromatics in Hydrocarbons by GC	UOP 744
Ash Content from Petroleum Products	ASTM D482
Ash Content from Petroleum Products Containing Mineral Matter	IP 223
Ash Content of Glycerin	AOCS Ea 2-38
Asphaltenes in Crude Oil and Petroleum Products	ASTM D6560 / IP 143
Base Number by Potentiometric Hydrochloric Acid Titration	ASTM D4739 / IP 417
Benzene Analysis for Cyclohexane Feedstock by GC	ASTM D5713
Benzene and Toluene in Gasoline by GC	ASTM D3606
Benzene and Total Aromatics in Denatured Fuel Ethanol by GC	ASTM D7576
Benzene and Total Aromatics in Gasoline by GC	ASTM D5580
Benzene in Gasoline by GC	EN 12177 / IP 425

<b>METHOD NAME</b>	<b>METHOD NUMBER</b>
Cloud Point of Petroleum Products	ASTM D2500 / EN 23015
Cloud Point of Petroleum Products (Phase Analyzer Method)	ASTM D5773 / IP 446
Cloud Point of Petroleum Products (Small Test Jar Method)	ASTM D7683
Cloud Point of Petroleum Products (Stepped Cooling Method)	ASTM D5771 / IP 444
Cold Filter Plugging Point of Diesel and Heating Fuels	ASTM D6371 / EN 116
Color of Clear Liquids (Platinum-Cobalt Scale)	ASTM D1209
Color of Halogenated Organic Solvents (Platinum-Cobalt Scale)	ASTM D2108
Color of Liquids by Tristimulus Colorimetry (Platinum-Cobalt Scale)	ASTM D5386
Color of Petroleum Products (ASTM Color Scale)	ASTM D1500 / IP 196
Color of Petroleum Products (Saybolt Color Scale)	ASTM D156
Color of Petroleum Products by Automatic Tristimulus Colorimetry (Saybolt and ASTM Color Scales)	ASTM D6045
Compatibility of Residual Fuels by Spot Test	ASTM D4740
Conductivity and Resistivity of Water	ASTM D1125
Conductivity of Aviation and Distillate Fuels	ASTM D2624 / IP 274 / ISO 6297
Conductivity of Liquid Hydrocarbons by Precision Meter	ASTM D4308
Copper Content in Sodium Hydroxide Solution by UV/Vis Spectrophotometry	IAC-102
Copper Corrosion of Aromatic Hydrocarbons	ASTM D849
Copper in Gasoline and Naphtha by Ashing using ICP-AES	UOP 962
Copper Strip Corrosion from LPG	ASTM D1838 / EN ISO 6251
Copper Strip Corrosion of Petroleum Products	ASTM D130 / EN ISO 2160 / IP 154 / ISO 2160
Cumene Analysis by GC	ASTM D3760
Cyclohexane Analysis by GC	ASTM D7266
Density of Wet and Dry Crude Oil by Hydrometer Method	IP 479
Density or Relative Density of Pure Liquid Chemicals	ASTM D3505
Density, Relative Density, and API Gravity of Crude Oils by Densitometer	ASTM D5002
Density, Relative Density, and API Gravity of Liquid Petroleum by Portable Digital Density Meter	ASTM D7777
Density, Relative Density, and API Gravity of Liquids by Densitometer	ASTM D4052
Density, Relative Density, and API Gravity of Liquids by Hydrometer	ASTM D1298

METHOD NAME	METHOD NUMBER
Hydrogen Sulfide in the Vapor Phase Above Residual Fuel Oils	ASTM D5705
Impurities in High Purity Ethylbenzene by GC	ASTM D5060
Impurities in Monocyclic Aromatic Hydrocarbons by GC and External Calibration	ASTM D5917
Impurities in Styrene by GC	UOP 913
Inorganic Chloride and Sulfate Content by IC	EN 15492
Iodine Value	EN 14111
Iron in Trace Quantities Using 1,10-Phenanthroline Method	ASTM E394
Jet Fuel Thermal Oxidation Test (JFTOT) with Visual Tube Rating	ASTM D3241
JFTOT - Thickness Deposit Rating of Heater Tubes by Ellipsometric Tube Rater	ASTM D3241 A3
Light Hydrocarbons in Stabilized Crude Oils by GC	ASTM D7900
Light Hydrocarbons, C2 through C5 Hydrocarbons in Gasolines by GC	ASTM D2427
Low-Temperature Viscosity of Lubricants Measured by Brookfield Viscometer	ASTM D2983
Manganese and Iron in Diesel by ICP-OES	EN 16576
Melting Point of Petroleum Wax	ASTM D87 / IP 55
Mercaptan Sulfur in Petroleum Products by Potentiometric Titration	ASTM D3227
Metals - Aluminum and Silicon in Fuel Oils by Ashing and Fusion using ICP	ASTM D5184
Metals - Calcium, Sodium, Magnesium and Potassium by ICP	EN 14538
Metals - Nickel and Vanadium by Spectrophotometry	IP 285
Metals - Nickel, Vanadium and Iron in Crude and Fuel Oils by Acid Decomposition using ICP	ASTM D5708 B
Metals - Nickel, Vanadium and Iron in Crude and Fuel Oils by Organic Dilution using ICP	ASTM D5708 A
Metals and Contaminants in Lube Oils (Al, Si, V, Ni, Fe, Na, Ca, Zn, P, Ba, B, Cr, Cu, Pb, Mg, Mn, Mo, K, Ag, Sn, Ti) by Organic Dilution using ICP	ASTM D5185
Metals in Crude Oils (Al, Si, V, Ni, Fe, Na, Ca, Zn, P, Ba, B, Cr, Cu, Pb, Mg, Mn, Mo, K, As and Se) by Organic Dilution using ICP	ASTM D7691
Metals in Lubricating Oils (Ca, Zn, P, Ba, B, Cu, Mg and Mo) by Organic Dilution using ICP	ASTM D4951
Metals in Oils (Al, V, No, Fe, Na, Ca, Zn, P, Cr, Cu, Pb, Mg, Mn, Mo, K, Sn, Ti, Co, Li, Pd, Pt and Sr) by Wet Ash using ICP-OES	UOP 389
Metals in Residual Fuels (Al, Si, V, Ni, Fe, Na, Ca, Zn, and P) by Ashing and Fusion using ICP-OES	IP 501
Methanol Content in Biodiesel by GC	EN 14110

<b>METHOD NAME</b>	<b>METHOD NUMBER</b>
Methanol Content in Biodiesel by GC	EN 14110
pH of Aqueous Solutions by Glass Electrode	ASTM E70
pH of Water	ASTM D1293
pH of Water Extractions of Halogenated Organic Solvents and Their Admixtures	ASTM D2110
pHe of Ethanol, Denatured Ethanol, and Fuel Ethanol Blends	ASTM D6423
Phenol Analysis by GC	ASTM D6142
Phosphorous Content by ICP	EN 14107
Phosphorous in Gasoline by Spectrophotometry	ASTM D3231 / IP 454
Polymer Content of Styrene Monomer by Spectrophotometry	ASTM D2121
PONA - Hydrocarbon Types in Low Olefinic Gasoline by MS	ASTM D2789
PONA - Hydrocarbon Types in Middle Distillates by MS	ASTM D2425
PONA - Hydrocarbon Types, Oxygenated Compounds by GC-VUV	ASTM D8071
PONA - Hydrocarbon Types, Oxygenated Compounds, and Benzene in Gasoline by GC	ASTM D6839
PONA - Paraffin, Naphthene, and Aromatic Hydrocarbon Type Analysis by Multidimensional GC	ASTM D5443
Pour Point in Crude Petroleum	ASTM D5853 / IP 441
Pour Point of Petroleum Products	ASTM D97
Pour Point of Petroleum Products (Phase Analyzer Method)	ASTM D5949
Refractive Index and Refractive Dispersion of Hydrocarbon Liquids	ASTM D1218
Refractive Index of Viscous Materials	ASTM D1747
Residues in LPG (Low Temp Evaporation)	ASTM D2158 / IP 317
Salt in Crude Oil by Conductivity	IP 265
Salt in Crude Oil by Electrometric Titration	ASTM D3230
Salt in Crude Oil by Volumetric Titration	IP 77
Salt in Crude Oils by Potentiometric Titration	ASTM D6470
Saponification Number of Petroleum Products	ASTM D94
Sediment in Crude/Fuel Oil by Extraction	ASTM D473
Sediment in Crude Oil by Membrane Filtration	ASTM D4807 / IP 483
Silicon in Petroleum Liquids by ICP-OES	UOP 796
Silver Strip Corrosion – Silver Strip Method	ASTM D7671

<b>METHOD NAME</b>	<b>METHOD NUMBER</b>
Sulfated Ash from Lubricating Oils and Additives	ASTM D874
Sulfates and Chlorides, Existent and Potential Inorganic Sulfate and Total Inorganic Chloride in Fuel Ethanol by IC (Aqueous Sample Injection)	ASTM D7328
Sulfates and Chlorides, Existent and Potential Sulfate and Inorganic Chloride in Fuel Ethanol by IC (Direct Sample Injection)	ASTM D7319
Sulfates, Inorganic Sulfate in Ethanol by Potentiometric Titration	ASTM D7318
Sulfide Ion in Water	ASTM D4658
Sulfur Compounds in Light Petroleum Liquids by GC-SSD	ASTM D5623
Sulfur Compounds in Natural Gas and Gaseous Fuels by GC-SSD	ASTM D5504
Sulfur in Aromatic Hydrocarbons and Related Chemicals by Ultraviolet Fluorescence	ASTM D7183
Sulfur in Distillates and Residual Oils by X-Ray Fluorescence	UOP 836
Sulfur in Fuel Ethanol by UV Fluorescence	EN 15486
Sulfur in Fuel Ethanol by Wavelength Dispersive X-Ray Fluorescence	EN 15485
UV Absorbance and Absorptivity of Petroleum Products	ASTM D2008
Vapor Pressure of Crude Oil by VPCRx Expansion Method	ASTM D6377 / IP 4811
Vapor Pressure of Gasoline and Gasoline-Oxygenate Blends by Dry Method	ASTM D4953
Vapor Pressure of LPG	ASTM D1267
Vapor Pressure of Petroleum Products by Triple Expansion Method	ASTM D6378
Vapor Pressure, True Vapor Pressure of Petroleum Fuels by Calculation	ASTM D2889
Viscosity Conversion to Saybolt Universal or Saybolt Furol by Calculation from Kinematic Viscosity	ASTM D2161
Viscosity Index by Calculation from Kinematic Viscosity	ASTM D2270 / IP 226 / ISO 2909
Viscosity, Dynamic Viscosity and Density of Liquids by Stabinger Viscometer and the Calculation of Kinematic Viscosity	ASTM D7042
Viscosity, Dynamic Viscosity by Vacuum Capillary	ASTM D2171
Viscosity, Kinematic Viscosity Calculations	ASTM D341
Viscosity, Kinematic Viscosity of Bitumens	ASTM D2170
Viscosity, Kinematic Viscosity of Transparent and Opaque Liquids	ASTM D445
Viscosity, Kinematic Viscosity of Transparent and Opaque Liquids by Automated Houillon Viscometer	ASTM D7279
Viscosity, Kinematic Viscosity of Volatile Liquids	ASTM D4486

<b>METHOD NAME</b>	<b>METHOD NUMBER</b>
Viscosity-Gravity Constant of Petroleum Oils by Calculation	ASTM D2501
Water and Sediment in Crude Oil by Centrifuge	ASTM D4007
PFAS	EPA 537.1 / 1633
Conductivity	EPA 120.1 / SM 2510 B
Residue-filterable (TDS)	EPA 160.1 / SM 2540 C
Residue-non-filterable (TSS)	EPA 160.2 / SM 2540 D
Residue-total (total solids)	EPA 160.3 / SM 2540 B
Anions (Price per Anion)	EPA 300.0
AnionsDW(Price per Anion)	EPA 300.1 / EPA 9056
Nitrate-nitrite	EPA 353.3 / SM 4500-NO3 E
Nitrate as N	SM 4500-NO2 <sup>-</sup> B / EPA 354.1
Ignitability	EPA 1010
Color	EPA 110.2 / SM 2120 B
pH	EPA 150.1 / EPA 9040 / SM 4500-H+B
O&G	EPA 1664
Turbidity	EPA 180.1 / SM 2130 B
Acidity, as CaCO <sub>3</sub>	EPA 305.1 / SM 2310 B (4a)
Alkalinity as CaCO <sub>3</sub>	EPA 310.1 / SM 2320 B
Total residual chlorine	EPA 330.5 / SM 4500-Cl G
Ammonia as N	EPA 350.3 / SM 4500-NH <sub>3</sub> D / EPA 350.3
Total Kjeldahl Nitrogen (TKN)	EPA 351.4 / SM 4500-NH <sub>3</sub> D
Dissolved Oxygen	EPA 360.1 / SM 4500-O G
Chemical Oxygen Demand (COD)	EPA 410.4 / SM 5220 D
Biochemical Oxygen Demand (BOD)	SM 5210 B
Carbonaceous BOD, CBOD	SM 5210 B
Total Organic Carbon (TOC)	EPA 415.1 / SM 5310 B / EPA 9060v
Chromium (VI)	EPA 7196 / SM 3500-Cr B / EPA 7196
Ortho-Phosphorus P	EPA 365.2 / SM 4500-P E
Phosphorus	EPA 365.2 / SM 4500-P E
Silica as SiO <sub>2</sub>	EPA 370.1 / SM 4500-SiO <sub>2</sub> D

METHOD NAME	METHOD NUMBER
Sulfide	EPA 376.1 / SM 4500-S <sub>2</sub> <sup>-</sup> F
Sulfite	EPA 377.1 / SM 4500-SO <sub>3</sub> <sup>-</sup> B
Hardness	EPA 130.2 / SM2340C / SM2340B,
Amenable cyanide	EPA 335.1 / SM 4500-CN <sup>-</sup> C,G,H / EPA 9014/EPA 9010
Total cyanide	EPA 335.2 / SM 4500-CN <sup>-</sup> C,D,E,I / EPA 9014/EPA 9010
Total Phenolics	EPA 420.1 / EPA 9065
Metals-ICP (Price per metal)	EPA 200.7 / EPA 6010
Metals-ICPMS(Price per metal)	EPA 200.8 / EPA 6020
Mercury	EPA 245.1 / EPA 7470 / EPA 7471
TCLP (Prep.)	EPA 1311
SPLP (Prep.)	EPA 1312
VOC	EPA 524.2 / EPA 624 / EPA 608.3 / EPA 8260
SVOC	EPA 625 / EPA 624.1 / EPA 8270
PCBs (total)	EPA 8082
Dissolved Gases	EPA RSK 175
Natural Gases	ASTM D1946
HRVOC	Method 18
TPH	TX 1005
Heterotrophic plate count	SM 9215 B
Fecal coliforms (enumeration)	SM 9222 D / SM 9221 C / 9221 E
Total coliforms (enumeration)	SM 9222 B / SM 9223B (MPN)
Escherichia coli (enumeration)	SM 9223 B / SM 9222 B / 9222 G
Total coliforms and E. coli (P/A)	SM 9223 B
Enterococci	SM 9230 C / ASTM D6503
Fecal streptococci	SM 9230 C
Legionella pneumophila	CDC / ISO 11731:2017
General Heterotrophic Bacteria (GHB)	NACE Standard
Sulfate Reducing Bacteria (SRB)	NACE Standard
Iron Reducing Bacteria (IRB)	NACE Standard

aMETHOD NAME	METHOD NUMBER
Acid Producing Bacteria (APB)	NACE Standard
Aerobic Plate Count	AOAC 990.12 / AOAC 2015.13
Cronobacter	FDA BAM Ch. 29
Enterobacteriaceae	AOAC 2003.01 / CMMEF, Ch. 9 (5th ED.)
Escherichia coli	AOAC RI 110402
E. coli O157:H7	AOAC RI 070801 / AOAC RI 020801 (PCR)
Lactic Acid Bacteria	AOAC 990.12 (modified)
Listeria (Environmental)	AOAC RI 030601
Listeria monocytogenes	AOAC RI 020401 / AOAC RI 101102 / AOAC RI 010802 - PCR
Shiga-toxin E. coli (STEC)	AOAC RI 121203 (PCR)
Listeria spp.	AOAC RI 020401 / AOAC RI 101102 / AOAC RI 090701 (PCR)
Salmonella spp.	AOAC RI 080601 / AOAC RI 010803 (PCR)
Staphylococcus aureus	AOAC 2003.07 / AOAC 2003.08 / AOAC 2003.11
Total Coliform	AOAC RI 110401
Total Coliform / E. coli	AOAC 991.14
Yeast / Mold	AOAC 997.02 / AOAC 2014.05
Mold – Spore count	SOP_VLS-064

# Turnaround Time & Surcharges

**All hydrocarbon samples are reported the same day or the next day at no additional cost**

## **Turnaround Time Policy (Apply only to Environmental samples)**

Standard turnaround time for analytical results is 5–7 business days, unless otherwise specified. Day 0 is defined as the day the sample is received by VLS Labs. Samples received after 3:00 PM will be considered as received on the following business day. Final reports will be delivered by 5:00 PM on the confirmed due date.

## **Expedited Turnaround Surcharges (Apply only to Environmental samples)**

Expedited services are available for an additional charge:

- Same-Day Turnaround: +150% surcharge
- 1-Business Day Turnaround: +100% surcharge
- 2-Business Day Turnaround: +75% surcharge
- 3-Business Day Turnaround: +50% surcharge
- 4-Business Day Turnaround: +25% surcharge

## **Shipping Policy – Outgoing Sampling Kits**

VLS Labs offers complimentary shipping for outgoing kits within the U.S., provided the order is placed at least five (5) business days in advance. This allows for economical shipping methods such as UPS Ground, FedEx Ground, or FedEx Express Saver (3-Day).

For international shipments, clients are responsible for both outbound and return shipping costs.

## **Invoicing and Payment Terms**

All invoices will reflect the pricing outlined in the formal quotation provided by your assigned sales representative or project manager.

Payment Terms: Net 30 days from the date of invoice.

# Sample Pick-Up Charges

SERVICE	RATE
1. Sample Pick-Up & Delivery (within 25 miles)	\$50 flat rate
2. Additional Distance (beyond 25 miles)	\$0.67 per mile

## Request Sample Kit

**CALL # +1-832-391-6736**

E-mail # [Support@vlslab.com](mailto:Support@vlslab.com)



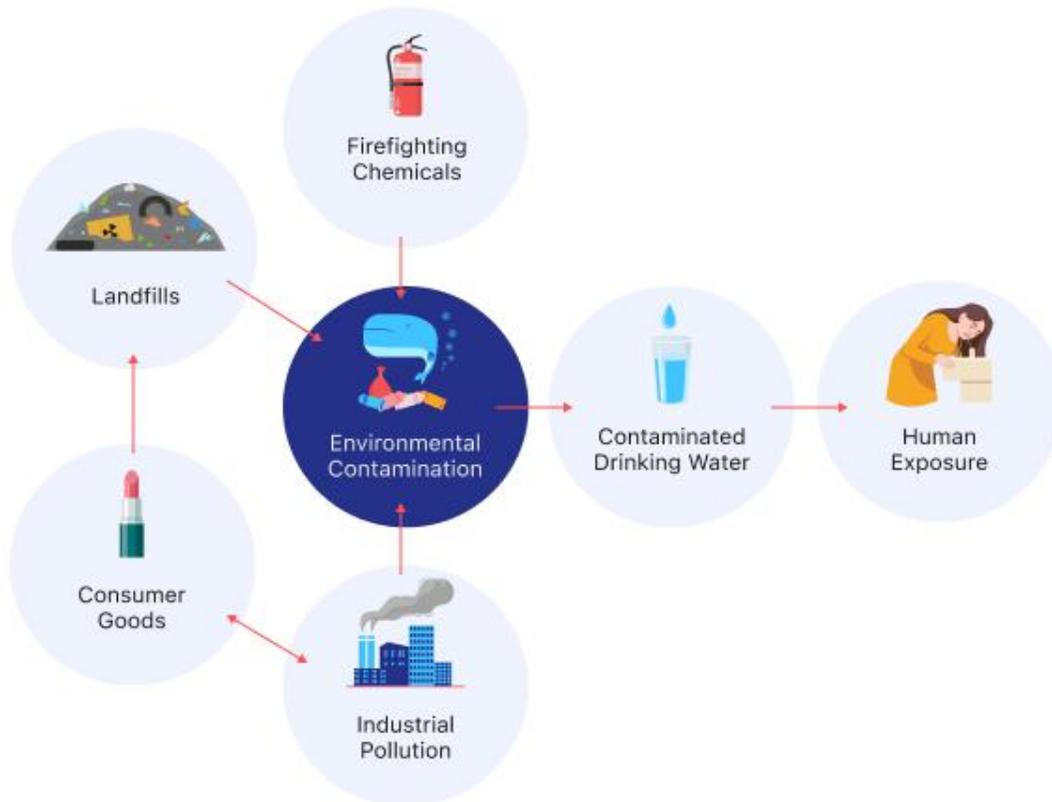
**Vantage Laboratory Services has partnered with Geo-Chem., a global Inspection leader, to offer a comprehensive range of services, including:**

- Cargo inspection
- Loss control
- Marine surveys
- Custody Transfer inspection
- De-ballasting Monitoring
- On hire/Off Hire Survey
- Blending
- Additives Service
- Vessel Tank Inspections
- Vessel Tank Inspections
- Inter Tank Transfer
- Operations Doping Operations
- De-slopping Operations
- Supervision of Loading
- Discharge Supervision
- Loss Minimization
- Investigation of Loss/Shortage
- Draft Survey
- ROB survey
- Sampling
- Stock Verification
- Pipeline Inspections
- Tank inspection

# PFAS TESTING

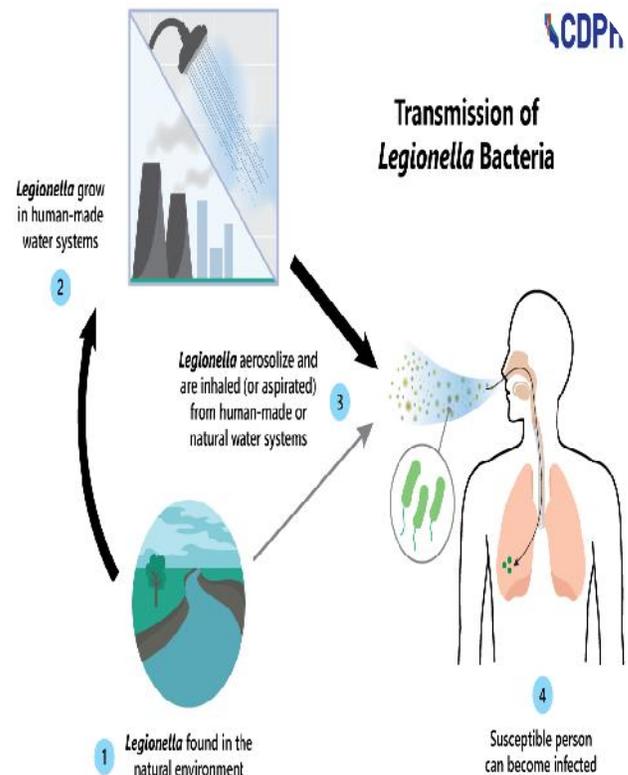
Vantage Laboratory Services, Inc. (VLS Lab) offers advanced **PFAS testing** capabilities to support environmental and public health protection. With growing regulatory attention on PFAS—often called “forever chemicals” due to their persistence in the environment—VLS Lab provides high-quality testing services for drinking water, groundwater, soil, and other environmental matrices. Our laboratory is fully equipped and follows strict QA/QC protocols to deliver precise, defensible results. By combining technical expertise with reliable turnaround times, VLS Lab helps clients identify, monitor, and mitigate PFAS contamination risks in their projects and facilities.

## Cycle of PFAS Water Contamination

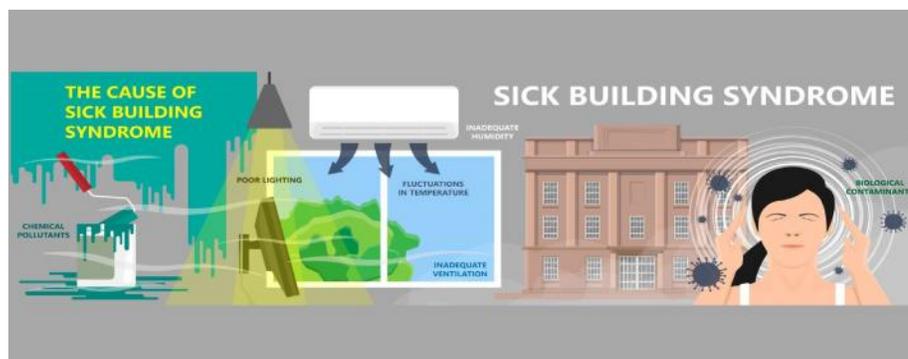


# LEGIONELLA & MOLD TESTING

**Legionella Testing** – Legionella bacteria, commonly found in water systems such as cooling towers, plumbing networks, and healthcare facilities, pose an emerging public health risk due to their ability to cause severe respiratory illnesses, including Legionnaires' disease. With rising awareness and stricter regulations, early detection and monitoring are critical to protect occupants in offices, hospitals, and industrial settings. VLS Lab offers **AIHA-accredited Legionella testing** using both **CDC ELITE and ISO methodologies**, ensuring precise and defensible results. Our accredited capabilities help clients stay compliant while minimizing health risks, supported by reliable turnaround times and expert guidance.

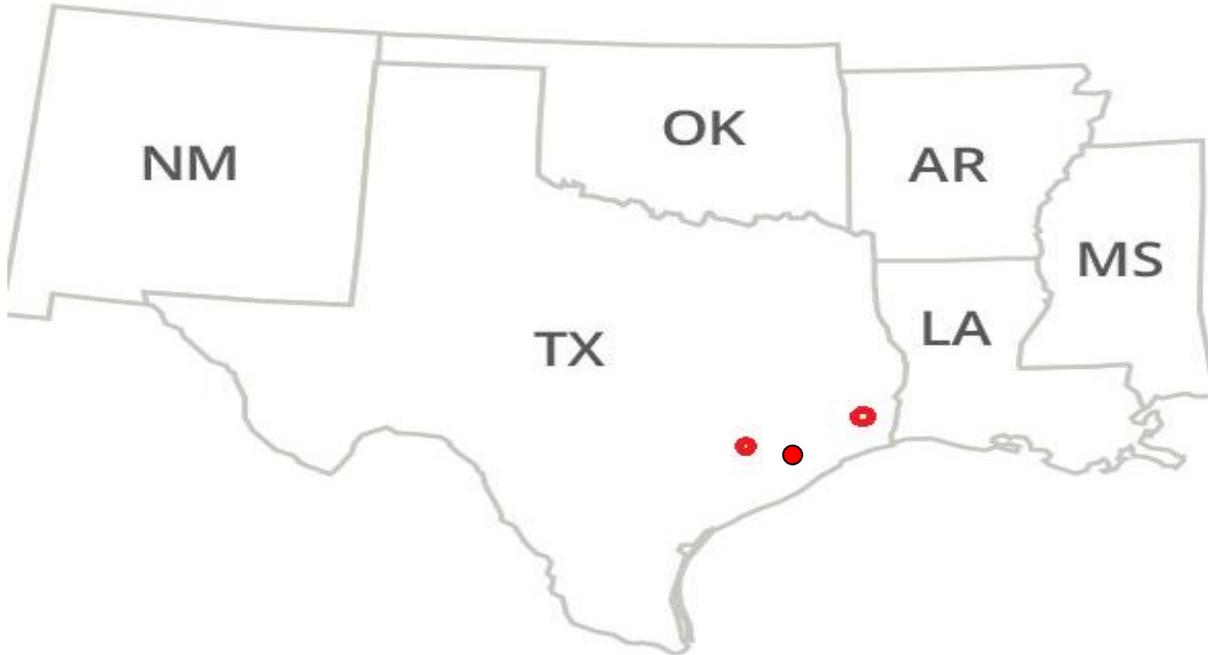


**Mold Spore Testing** – Mold contamination is another growing concern, particularly in humid environments where airborne spores can trigger respiratory issues, allergies, and long-term building damage. VLS Lab provides comprehensive mold spore testing services, accredited by AIHA and licensed under the Texas Mold Laboratory License (#LAB1069). Our testing covers both air and bulk samples, offering rapid and accurate results to support remediation decisions and regulatory compliance. With quicker turnaround times, VLS Lab ensures clients receive timely data to protect occupant health, improve indoor air quality, and maintain safe, mold-free environments.



# Vantage Laboratory Services, Inc.

## Location Map



### **Houston**

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