



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

LAND & SEAS LABORATORY
(Formerly known as The New Frontier Research and Frontier Fare Testing)
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BIOLOGICAL

Valid To: January 31, 2024

Certificate Number: 4816.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following microbial tests on agricultural products (produce, meats, cannabis), and environmental samples (sponges, surface swabs and water):

<u>Test Description</u>	<u>Reference(s)</u>	<u>Test Method</u>	<u>Analyte(s)</u>
Real-Time PCR Identification	BioRad iQ-Check STEC VirX Kit AOAC # 121203	7.7.1	• Shigatoxin-releasing <i>Escherichia coli</i> (STEC)
	BioRad iQ-Check <i>Salmonella</i> Kit AOAC # 010803	7.7.2	• <i>Salmonella</i> spp.
	BioRad iQ-Check <i>Listeria</i> Real Time PCR Kits AOAC # 010802 and #090701	7.7.3	• <i>Listeria</i> spp. • <i>Listeria monocytogenes</i>
Colorimetric Identification	Hygeina InSite <i>L. mono</i> AOAC # 061802	7.7.8	• <i>Listeria</i> spp.
Detection and Enumeration by Culture	3M Petrifilm Rapid Yeast and Mold Count (RYM) Plate AOAC # 100401	7.7.12	• Yeast • Mold
	3M Petrifilm Rapid Aerobic Count (RAC) Plate AOAC #121403	7.7.13	• Aerobic bacteria
	3M Petrifilm Rapid <i>E. coli</i> / Coliform Count (REC) Plate AOAC #051801	7.7.14	• <i>E. coli</i> • Coliforms
	3M AQHC Petrifilm Plate	7.7.17	• Heterotrophic bacteria

In recognition of the successful completion of the A2LA evaluation process accreditation is granted to this laboratory to perform the following tests on clinical samples of animal origin that includes blood, feces, body fluids, wound, urine, tissues, or samples from other body systems, and environmental samples:

<u>Test Description</u>	<u>Reference</u>	<u>Test Method</u>	<u>Analytes</u>
Blood Chemistry	Abaxis/VETSCAN VS2 Chemistry Analyzer	7.9.1	<ul style="list-style-type: none"> • Alanine Aminotransferase (ALT) • Albumin (ALB) • Alkaline Phosphatase (ALP) • Amylase (AMY) • Aspartate Aminotransferase (AST) • Bile Acids (BA) • Calculated Globulin (GLOB) • Canine Heartworm Antigen (CHW) • Chloride (Cl-) • Cholesterol (CHOL) • Creatine Kinase (CK) • Creatinine (CRE) • Gamma Glutamyl Transferase (GGT) • Glucose (GLU) • Magnesium (Mg) • Phosphorus (PHOS) • Potassium (K +) • Sodium (Na+) • Thyroxine (T4) • Total Bilirubin (TBIL) • Total Calcium (Ca++) • Total Carbon Dioxide (tCO2) • Total Protein (TP) • Urea Nitrogen (BUN) • Uric Acid (UA) •
Hematology	Abaxis/VETSCAN HM5 Hematology Analyzer	7.9.2	<ul style="list-style-type: none"> • Basophil Count (BAS) • Basophil Percentage (BAS%) • Eosinophil Count (EOS) • Eosinophil Percentage (EOS%) • Hematocrit (HCT) • Hemoglobin (HGB) • Lymphocyte Count (LYM) • Lymphocyte Percentage (LYM%) • Mean Corpuscular Hemoglobin (MCH) • Mean Corpuscular Hemoglobin Conc. (MCHC) • Mean Corpuscular Volume (MCV) • Mean Platelet Volume (MPV) • Monocyte Count (MON) • Monocyte Percentage (MON%) • Neutrophil Count (NEU) • Neutrophil Percentage (NEU%) • Platelet Count (PLT) • Platelet Crit (PCT) • Platelet Distribution Width, Coefficient (PDWc)

<u>Test Description</u>	<u>Reference</u>	<u>Test Method</u>	<u>Analytes</u>
Hematology (cont'd)	Abaxis/VETSCAN HM5 Hematology Analyzer	7.9.2	<ul style="list-style-type: none"> • Platelet Distribution Width, SD (PDW) • Red Blood Cell Count (RBC) • Red Cell Distribution Width, Coefficient (RDWc) • Red Cell Distribution Width, SD (RDWs) • Total White Blood Cell Count (WBC)
Culture and Sensitivity Testing	VITEK 2 Analyzer	7.9.3	<ul style="list-style-type: none"> • 21341 – Gram Negative Bacteria • 21342 – Gram Positive Bacteria • 21347 – Anaerobic + Corynebacteria Bacteria

CHEMICAL

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on cannabis, cannabis concentrates, and cannabis-infused products:

<u>Test Description</u>	<u>Reference</u>	<u>Test Method</u>	<u>Analytes</u>
Cannabinoid Identification and Quantitation by HPLC-UV, HPLC- PDA	In-House Method	7.8.1	<ul style="list-style-type: none"> • CBC • CBD • CBDA • CBDV • CBG • CBGA • CBN • d8-THC • d9-THC • THCA • THCV • THCVA



Accredited Laboratory

A2LA has accredited

LAND & SEAS LABORATORY

Wasilla, AK

for technical competence in the field of

Biological Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 15th day of June 2022.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 4816.02
Valid to January 31, 2024
Revised on January 31, 2024

For the tests to which this accreditation applies, please refer to the laboratory's Biological Scope of Accreditation.