

# Characterization Chain of Custody

GLP

Non-GLP

Yes

No

Does Non-GLP Data Support Pesticide Registration?

SEND RESULTS TO: \_\_\_\_\_

BILL TO: \_\_\_\_\_

Contact: \_\_\_\_\_

P.O. Box 510/804 Highway 15 West, Northwood, ND 58267  
 Telephone (701) 587-6010, Fax (701) 587-6013



**Series 1. Soil Characterization – 500 g sample minimum**  
 pH, % organic matter, cation exchange capacity, water holding capacity (1/3 and 15 bar), % sand-silt-clay, texture, bulk density, % total nitrogen, phosphorus and soluble salts.

**Series 2. Soil Characterization – 500 g sample minimum**  
 pH, % organic matter, cation exchange capacity, water holding capacity (1/3 bar), % sand-silt-clay, texture, and bulk density.

**Series 3. Water Characterization – 500 ml sample minimum**  
 pH, calcium, magnesium, sodium, hardness, conductivity, sodium adsorption ratio, total dissolved solids and turbidity.

**Series 4. Water Characterization – 500 ml sample minimum**  
 pH, calcium, magnesium, sodium, hardness, sodium adsorption ratio and conductivity.

Phone: \_\_\_\_\_

Purchase Order Number: \_\_\_\_\_

Date Received \_\_\_\_\_

By \_\_\_\_\_

Protocol/Study \_\_\_\_\_  
 Test Substance \_\_\_\_\_  
 Study Director \_\_\_\_\_  
 Sponsor \_\_\_\_\_  
 Initiation Date \_\_\_\_\_

Study Director's Management \_\_\_\_\_

Nature of Study \_\_\_\_\_ Test System: Soil/Water (circle one)

**For GLP Samples a copy of this COC will be mailed to you when sample is received.**

## AGVISE Use Only

Comments	AGVISE Lab Number	Sample ID	Depth	Requested Test(s)

**Additional analysis on back**

METHOD OF SHIPMENT:

Fed-Ex

UPS

USPS

Other \_\_\_\_\_

Sent by: \_\_\_\_\_

\_\_\_\_\_

Email: \_\_\_\_\_

Date: \_\_\_\_\_

Other Instructions:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Shipment I.D.(s)

\_\_\_\_\_

# GLP Characterization Analysis Available

## Chemical and Physical Properties of Soil

- Soil pH (1:1 Soil/Water)
- Soil pH (KCl)
- Soil pH (CaCl<sub>2</sub> 1:2)
- Soil pH (Saturated Paste)
- Organic Matter (Walkley Black)
- Organic Matter (Loss on Ignition)
- Organic Carbon (Walkley Black)
- Organic Carbon (Combustion)
- Inorganic Matter
- Cation Exchange Capacity (Ca, Mg, Na, K and H by summation)
- Cation Exchange Capacity (by Sodium Saturation)
- Cation Exchange Capacity (by Ammoniacal Displacement)
- Bulk Density (Disturbed)
- Bulk Density (Undisturbed Cores)
- Porosity/Particle Density
- Volatile Solids
- Sand, Silt and Clay (Hydrometer)
- Sand, Silt and Clay (Hydrometer & Sieving)
- Sand, Silt and Clay (Pipette & Sieving)
- % Gravel
- Sand Size
- USDA Textural Class
- International Textural Class
- ADAS Textural Class
- W. German BBA Textural Class
- Water Holding Capacity (Specify: \_\_\_\_\_)
- Undisturbed Water Holding (Specify: \_\_\_\_\_)
- Nitrogen (Analyzer)
- Nitrogen (Ammoniacal-N)
- Nitrogen (Nitrate-N)
- Nitrogen (Nitrite-N)
- Total Phosphorus
- Phosphorus (Olsen)
- Phosphorus (Bray)
- Soluble Salts
- Carbonates
- Redox Potential
- Zinc (DTPA)
- Iron (DTPA)
- Manganese (DTPA)
- Copper (DTPA)
- Anion Exchange Capacity

## Water Relationships

- Saturated Hydraulic Conductivity
- Moisture Percent
- Water Infiltration Rate

## Other

- Morphology (USDA Guidelines) (Non-GLP)
- Clay Mineralogy (Non-GLP)

## Additional Procedures

- Disposal of Foreign Samples
- Rush Analysis

## Biological Properties

- Microbial Biomass Carbon (Fumigation)
- Microbial Biomass Carbon (SIR: Substrate Induced Respiration)
- Solvita Test - Biological Activity Test
- Soil Biomass CO<sub>2</sub> Burst
- Total Plate Count (Aerobic: Fungi, Bacteria & Actinomycetes)
- Total Plate Count (Anaerobic)

## Water Characterization Parameter Available

- Series 5:** pH, Ca, Mg, Na, hardness, sodium adsorption ratio, conductivity, K, carbonate, bicarbonate, NO<sub>3</sub>-N, SO<sub>4</sub>-S, Cl and alkalinity.
- Series 6:** pH, Ca, Mg, Na, hardness, sodium adsorption ratio, conductivity, K, carbonate, bicarbonate, NO<sub>3</sub>-N, SO<sub>4</sub>-S, Cl, turbidity, total dissolved solids and alkalinity.
- Series 7:** Ca, Mg, Na, K, Fe, Zn, Mn, Cu, S, P, hardness, conductivity and sodium adsorption ratio.
- pH
- Calcium
- Magnesium
- Sodium
- Hardness
- Conductivity
- Sodium Adsorption Ratio (SAR)
- Total Dissolved Solids
- Turbidity
- Alkalinity
- Biological Oxygen Demand (BOD)
- Specific Gravity
- Redox Potential
- Total Organic Carbon
- Dissolved Organic Carbon
- Carbonates
- Bicarbonates
- Sulfate-Sulfur
- Nitrogen (Total Kjeldahl)
- Nitrogen (Ammoniacal-N)
- Nitrogen (Nitrate-N)
- Nitrogen (Nitrite-N)
- Suspended Solids
- Dissolved Oxygen
- Total Phosphorus
- Potassium
- Zinc
- Iron
- Manganese
- Copper
- Boron
- Chloride
- Fluoride
- Bromide

## Water Biological Properties

- Total Plate Count (Aerobic: Fungi, Bacteria and Actinomycetes)
- Total Plate Count (Anaerobic)