

# MEASURING DECOMPOSITION USING SODA LIME DATA FORM 1: SOIL MOISTURE CONTENT

Complete one form for each soil sample.

Name(s) \_\_\_\_\_

Date \_\_\_\_\_

Soil sample ID number \_\_\_\_\_

Soil sampling location \_\_\_\_\_

Type of area sampled (e.g., forest, schoolyard) \_\_\_\_\_

Date soil sample was collected \_\_\_\_\_

Description of soil sample (e.g., number and size of rocks and roots in sample; was the soil very wet or very dry?)  
\_\_\_\_\_  
\_\_\_\_\_

Was the soil sample well mixed? \_\_\_\_\_

Date and time soil subsample placed in drying oven \_\_\_\_\_

Date and time soil subsample removed from drying oven \_\_\_\_\_

OR time and power level required to dry subsample in microwave  
\_\_\_\_\_

## Protocol 4b, Part 1. Determine percent moisture, using a subsample

Step 1.\*

Weight of beaker = \_\_\_\_\_ g

Step 2.\*

Wet wt of soil = combined wt of beaker and soil - wt of beaker  
= \_\_\_\_\_ g - \_\_\_\_\_ g  
= \_\_\_\_\_ g

Step 4.\*

Dry wt of soil subsample = combined wt of beaker and soil after drying - wt of beaker  
= \_\_\_\_\_ g - \_\_\_\_\_ g  
= \_\_\_\_\_ g

\* Step numbers refer to those in the Part 1 procedure, starting on p. 95.

Step 5.\*

$$\text{Moisture content} = \frac{\text{wet wt} - \text{dry wt}}{\text{wet wt}} = \frac{\text{g} - \text{g}}{\text{g}}$$

**Moisture content = \_\_\_\_\_**

*This figure is highlighted because it will be used in calculations on other data forms. It is expressed in decimal form for use in other calculations.*

### **Protocol 4b, Part 2. Adjust total sample to 50% moisture, if needed**

Step 1.\*

Total soil wt = \_\_\_\_\_ g

Step 2.\*

$$\begin{aligned} \text{Actual water wt of full sample} &= \text{total soil wt of full sample} \times \text{moisture content of subsample} \\ &= \text{_____ g} \times \text{_____} \\ &= \text{_____ g} \end{aligned}$$

Step 3.\*

$$\begin{aligned} \text{Dry wt of full sample} &= \text{total soil wt of full sample} - \text{actual water wt of full sample} \\ &= \text{_____ g} - \text{_____ g} \\ &= \text{_____ g} \end{aligned}$$

Step 4.\*

$$\begin{aligned} \text{Wt of water to be added} &= \text{desired water wt} - \text{actual water wt} \\ &= \text{_____ g} - \text{_____ g} \\ &= \text{_____ g} \end{aligned}$$

\* Step numbers refer to those in the Part 1 procedure, starting on p. 95 and the Part 2 procedure on p. 96.