

## CALCULATING CONCENTRATIONS

### 1. One filter within the ideal range

$$\text{Colonies} / 100\text{mL} = \frac{\# \text{ colonies} \times 100}{\text{volume plated}}$$

### 2. Two or more filters within range

$$\text{Colonies} / 100\text{mL} = \frac{\text{SUM of counts} \times 100}{\text{SUM of sample volumes filtered}}$$

### 3. All filters have counts < and (or) > the ideal range

- Use the same formula as in example 2
- Code as an estimated value because counts are not within ideal range

### 4. No filters with colonies

- Assume 1 colony at largest volume plated
- Code as "<"

$$\text{Colonies} / 100\text{mL} = \frac{1 \text{ colony} \times 100}{\text{Largest volume plated}}$$

### 5. All filters have colonies too numerous to count (TNTC)

- Assume a maximum count (60, 80, or 100) at the smallest volume plated. Refer to the Ideal ranges of colony counts chart to determine maximum count.
- Code as ">"

$$\text{Colonies}/100\text{mL} = \frac{60, 80, \text{ or } 100 \text{ colonies} \times 100}{\text{Smallest volume plated}}$$