# DROP TEST TOTAL CHELANT (1 drop = 2 or 5 ppm EDTA)

### **COMPONENTS:**

1 x 4027 Funnel, 58 mm, plastic

1 x 5050 Instruction

1 x 6009 Filter Paper, 9.0 cm, #610, 100/box

1 x 9198LB Sample Tube, Graduated (25 mL) w/ cap & blue dot, plastic

1 x R-0735LB-C Hydrochloric Acid .6N, 2 oz w/ light blue cap, DB

1 x R-0911-I Total 1 x R-0912-C Total

Total Chelant Indicator Powder, 10 g
Total Chelant Titrating Solution, 2 oz, DB

TO ORDER REPLACEMENT PARTS AND REAGENTS CALL TOLL-FREE 800-TEST KIT (800-837-8548).

### PROCEDURE:

# CAREFULLY READ AND FOLLOW PRECAUTIONS ON REAGENT LABELS. KEEP REAGENTS AWAY FROM CHILDREN.

NOTE: When dispensing reagents from dropper bottles, **always** hold bottle in a vertical position.

#### **Total Chelant Test**

### For 1 drop = 2 ppm EDTA

- 1. Filter water to be tested to clarify.
- NOTE: Run a blank with chelant-free water. Normal blank requires about 2 drops R-0912 Total Chelant Titrating Solution to reach endpoint.
- 2. Rinse and fill 25 mL sample tube (#9198LB) to 25 mL mark with water to be tested.
- 3. Add 1 dipper R-0911 Total Chelant Indicator Powder. Swirl until dissolved. If sample turns yellow (Fig. 1), add 1 drop R-0735LB Hydrochloric Acid .6N. If sample turns violet blue (Fig. 2), add R-0735LB Hydrochloric Acid .6N dropwise, swirling after each drop, until color changes from violet blue to yellow. Add 1 more drop R-0735LB Hydrochloric Acid .6N.
- 4. Add R-0912 Total Chelant Titrating Solution dropwise, swirling and counting after each drop, until color changes from yellow to violet blue (Fig 2.).

 Subtract drops of R-0912 Total Chelant Titrating Solution in blank from drops used in sample (Step 4). Multiply by 2. Record as parts per million (ppm) total chelant as EDTA (ethylenediaminetetraacetic acid).

## For 1 drop = 5 ppm EDTA

1. Filter water to be tested to clarify.

NOTE: Run a blank with chelant-free water. Normal blank requires about 2 drops R-0912 Total Chelant Titrating Solution to reach endpoint.

- 2. Rinse and fill 25 mL sample tube (#9198LB) to 10 mL mark with water to be tested.
- 3. Add 1 dipper R-0911 Total Chelant Indicator Powder. Swirl until dissolved. If sample turns yellow (Fig. 1), add 1 drop R-0735LB Hydrochloric Acid .6N. If sample turns violet blue (Fig. 2), add R-0735LB Hydrochloric Acid .6N dropwise, swirling after each drop, until color changes from violet blue to yellow. Add 1 more drop R-0735LB Hydrochloric Acid .6N.
- Add R-0912 Total Chelant Titrating Solution dropwise, swirling and counting after each drop, until color changes from yellow to violet blue (Fig. 2).
- 5. Subtract drops of R-0912 Total Chelant Titrating Solution in blank from drops used in sample (Step 4). Multiply by 5. Record as parts per million (ppm) total chelant as EDTA (ethylenediaminetetraacetic acid).

NOTE: If total chelant levels are unusually high, indicator color transition may be from yellow to red. Repeat test using sample diluted (1:1) with chelant-free water. Multiply final result by 2. Record as parts per million (ppm) total chelant as EDTA (ethylenediaminetetraacetic acid).



Fig. 1



Fig. 2

