

Nitrate

- This test detects Nitrate at concentrations of 0.1 to 5 mg/L (ppm)
- The range for this test is 0 to 5 mg/L (ppm)

Time - 15 minutes

Persons - 1

Materials -

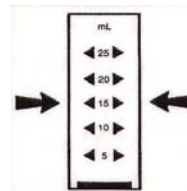
- CHEMets Nitrate Sampling Kits

Sunlight can damage the ampoules in your Nitrogen kit. Keep them shaded at all times.



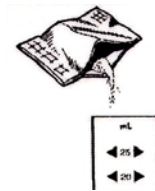
Step 1

1. Pre-rinse collection bottle with stream water.
2. Fill the sample cup to the 15 mL mark with your sample.



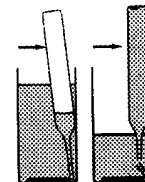
Step 2

1. Empty the contents of one Cadmium Foil Packet into the sample cup. Use caution when handling the Cadmium Packet. Tear it carefully or open with scissors. Do NOT use teeth.
2. Cap the sample cup and shake it vigorously for exactly **3 minutes**.
3. Allow the sample to sit undisturbed for **30 seconds**.



Step 3

1. Place the ampoule in the sample cup.
2. Snap the tip by pressing the ampoule against the side of the cup. The ampoule will fill leaving a small bubble to help mixing.



Step 4

1. Mix the contents of the ampoule by turning it up and down several times, allowing the bubble to travel from end to end each time.
2. Wipe all liquid from the outside of the ampoule.

Step 5

1. Wait **10 minutes** for color development.

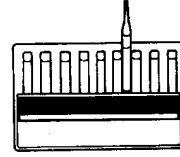
Step 6

1. Use the appropriate comparator to determine the level of nitrate-nitrogen in the sample. For low range, use the tube comparator. For high range use the rack comparator.
 - a. Tube Comparator – Place the ampoule, flat end down into the center tube of the low range comparator. Direct the top comparator



up to the sun or another bright light source while viewing from the bottom. Rotate the comparator until the color standard below the ampoule shows the closest match.

b. Rack Comparator – Hold the rack horizontal while standing underneath a bright light source. Place the ampoule between the color standards moving it from right to left along the comparator rack until the best color match is found.



Step 7

1. Record the number of the best match on the comparator on your Chemical Properties Field Data Sheet. This is your nitrate-nitrogen concentration in mg/liter (ppm).



In Utah:

The maximum concentration of nitrate allowed in drinking water is 10 mg/liter.

The State of Utah considers nitrate concentrations of 4 mg/liter to be an indicator of pollution problems.

