

Vermont Rural Water Association

Well Camera Inspection Information

Why Would I Need a Well Inspection?

A well camera inspection is intended to aid public water systems in troubleshooting problems and/or to proactively identify potential future problems. Oftentimes, inspections are requested following coliform detections, increased turbidity, decreased yield, or general changes in water chemistry or appearance. The Vermont Rural Water Association is happy to provide this service, free of charge, to member systems who request it and as staff availability permits.

What Should I Expect?

During an inspection, VRWA staff will arrive on site with equipment needed to perform the inspection and record/store the findings. A small, lighted camera tethered to a cable reel will be lowered into the well to a depth deemed appropriate by system personnel and VRWA staff. You will be provided with a copy of the entire inspection video, as well as notes on findings as appropriate.

What are My Responsibilities?

Water system personnel/owners will be responsible for removing the well cap/seal and disconnecting electrical power to the well during the inspection, as well as reinstalling the cap/seal and putting the well back into service once the inspection is complete.

Due to the inherent risk of contamination any time a well cap is removed, it is strongly advised that system personnel shock chlorinate the well to a concentration of 50- 100 ppm prior to putting it back in service to mitigate the threat of contamination.

Helpful Resources

- For a detailed video on well disinfection, see VRWA's "How to Shock Chlorinate a Well" video at: <https://www.youtube.com/watch?v=dN8GzI4XDJM>
- You may also refer to the "How to Calculate Chlorine Dosage for Shock Chlorination" worksheet on the next page.
- For more information, contact info@vtruralwater.org or call 802-660-4988



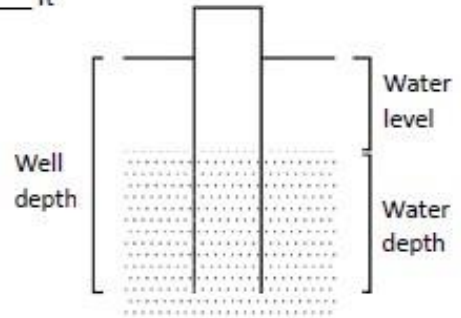
How to Calculate Chlorine Dosage for Shock Chlorination

Step 1

Find the water depth in the well using the following calculation:

$$\underline{\hspace{2cm}} \text{ ft} - \underline{\hspace{2cm}} \text{ ft} = \underline{\hspace{2cm}} \text{ ft}$$

Well depth Water level Water depth



Step 2

Find the number of 10-foot intervals of water in the well

$$\underline{\hspace{2cm}} \text{ ft} \div 10 = \underline{\hspace{2cm}}$$

Water depth # of intervals

Step 3

Find the dosage using the chart below based on the diameter of the well and type of chlorine

Diameter of Well Pipe (inches)	6% Sodium Hypochlorite	12.5% Sodium Hypochlorite	65% Calcium Hypochlorite Tablets	65% Calcium Hypochlorite Powder
2	0.05 cup (2.5 tsp)	0.02 cup (1 tsp)	0.25	0.01 cup (0.5 tsp)
3	0.125 cup (2 Tbsp)	0.06 cup (1 Tbsp)	0.5	0.015 cup (0.75 tsp)
4	0.25 cup	0.12 cup (2 Tbsp)	1	0.025 cup (1.25 tsp)
5	0.33 cup	0.16 cup (8 tsp)	1.25	0.04 cup (2 tsp)
6	0.5 cup	0.25 cup	1.75	0.06 cup (1 Tbsp)
8	1 cup	0.5 cup	3.25	0.09 cup (1.5 Tbsp)
10	1.25 cup	0.6 cup	5	0.12 cup (2 Tbsp)
12	2 cups	1 cup	8	0.18 cup (3 Tbsp)
18	4 cups	2 cups	16	0.5 cup
24	0.5 gallon	4 cups	30	1 cup
36	1 gallon	0.5 gallon	65	2 cup
48	2 gallons	1 gallon	116	3.5 cup

Step 4

Calculate the amount of chlorine to use

$$\underline{\hspace{2cm}} \text{ # of intervals} \times \underline{\hspace{2cm}} \text{ cups Dosage from chart} = \underline{\hspace{2cm}} \text{ cups Amount of chlorine}$$

This provides a chlorine concentration of about 100 ppm.