For corrosion, iron and manganese sequestering, and maintenance, use the following formula:

1. Total Hardness divided by 342. This value will be called A.
2. Add iron and manganese and then divide by 2. This value will be called B.
3. Add values A and B to get the desired ppm PO₄ residual in the system.

For Example:

Total Hardness  278
Iron  0.65
Manganese  0.23

\[
\frac{278}{342} = 0.81 = A \quad \text{and} \quad \frac{(0.65 + 0.23)}{2} = 0.44 = B
\]

\[
A + B = 1.25 \text{ ppm}
\]

This is our desired ppm PO₄ residual in the distribution system.

Now take 1.25 x 4.61 to give us gallons of AQUA MAG® per million gallons of water.

\[
1.25 \times 4.61 = 5.76 \text{ or } 5.8 \text{ gallons AQUA MAG per million gallons of water.}
\]

One may now use the calculated gallons of AQUA MAG per million gallons of water with the flow rate to calculate gallons of AQUA MAG per day.

Suppose a flow rate of 0.75 MGD.

Take gallons of AQUA MAG per million \times 0.75 \text{ MGD (flow rate)} = \text{gallons of AQUA MAG per day}.

5.8 \text{ gallons per million gallons of water} \times 0.75 \text{ MGD} = 4.35 \text{ gallons of AQUA MAG per day.}

This gallons of AQUA MAG per day can now be used to adjust injection pumps accordingly to give the correct dosage of AQUA MAG into the distribution system.

Note: If one does not have a total hardness values and has only calcium and magnesium values, total hardness can be calculated from these two values. If you are unsure how to do this, you may call a Carus Chemical Company Technical Representative at (800) 435-6856 for this information.

If background phosphate is present, this must be accounted for.