

SOLUBLE SALTS

(Irrigation Water Quality example)

Dominant Cations
(Ions with a positive charge)

Dominant Anions
(Ions with a negative charge)

Calcium  80 ppm

Sulfate  192 ppm

Sodium  115 ppm

Chloride  92 ppm

Magnesium  14 ppm

Bicarbonate  183 ppm

Potassium  8 ppm

Carbonate  6 ppm

Total ppm:

217 ppm (cations) + 473 ppm (anions) = 690 ppm = 690 mg/l (Soluble Salts)

TDS (ppm) = EC (dS/m) x 640, for EC between 0.1 and 5.0 dS/m

TDS (ppm) = EC (dS/m) x 800, for EC > 5.0 dS/m

- > TDS = Total Dissolved Solids
- > ppm = parts per million; mg/l = milligrams/liter (ppm = mg/l)
- > EC = Electrical Conductivity

690 ÷ 640 ≈ 1.08 dS/m (EC)
 (dS/m = mmhos/cm = mS/cm)
 dS/m = deciSiemens/meter
 mmhos/cm = milliMhos/centimeter
 mS/cm = milliSiemens/centimeter
 2.72 x ppm = lbs. of salts/ac-ft
 (2.72 x 690 ppm = 1,877 lbs/ac-ft)

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