

Case History no. 15 – Iron and Manganese Removal from Bottled Water

Fluid : Well water
Temperature : Ambient
Working Pressure : 40 – 60 psi
Line size : 1”

A client who bottles water, soft drinks and juices for multinational supermarkets as well as their own brands had sunk a new well to produce bottled water.

Problem:-

The water contained Iron and Manganese and particulate matter in excess of the maximum admissible concentration under EU law.

Solution: -

To remove particulate we supplied a 1 ½” model SS6L-1524 bag filter with reusable polypropylene bags as a pre-filter followed by a 3 round 20” cartridge housing with 10 micron absolute rated hybrid pleated / depth filter.

We also supplied a small Iron / Manganese filter using Crystal Right media.

Jackson turbidity unit

The turbidity of water is measured by lighting a candle under a tall glass tube and filling the tube with the water sample until an observer looking down the tube can no longer see the candle flame through the water. The height of the water column determines the turbidity in Jackson turbidity units, using a table constructed for this purpose.

NTU

Turbidity is an optical property; the scattering and absorption of light of solids suspended in water. In other words, water is turbid if you can't see through it. An instrument called a nephelometer measures turbidity directly by comparing the amount of light transmitted straight through a water sample with the amount scattered at an angle of 90° to one side; the ratio determines the turbidity in NTU's.