

PILOT TRIALS IN DEVELOPMENT OF PROCESS WATER TREATMENT

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Treatment of process water from a production plant is necessary to capture residual organics and dissolved metal ions in the stream. A multistage treatment was developed which includes operations at a lower pH target to remove the bulk of the organics, and at a higher pH target in order to remove the metal ions as metal hydroxides. At both of these two stages the process stream is first gravity settled to afford a sludge layer, then the sludge layer is filtered to capture the solids.

This study covers laboratory and pilot scale investigations of both the lower and upper pH stages of the process, including batch settling trials, media screening trials, and pilot scale filter press trials. A high level outline of the envisioned process flow is also presented.