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Claus G Lehr* (cglehr@math.upenn.edu), Department of Mathematics, 209 S 33rd Street, Philadelphia, PA 19104. *Reduction of wildly ramified covers of curves*. Preliminary report.

Let R be a finite extension of $W(k)$ the ring of Witt vectors over a field k of positive characteristic p and $K = \text{frac}(R)$. We consider p -cyclic (wildly) ramified covers X of the projective line over K and ask when does X have good reduction or more generally what is its stable reduction. In some cases the answers can be given explicitly in terms of the branch cycle description of the cover; in general the results will be algorithms. The strategy is to start with an R -model for the projective K -line and to find its normalization in the function field of X , i.e. finding equations for it. (Received September 26, 2000)