

Plates and cassettes were marked and tracked. A matrix file may produce clean data when a specific cassette and set of plates are used, but can produce insufficient data when a different cassette and/or set of plates are used. It may be that each cassette fits into the sequencer slightly differently, causing the laser to obtain different results. Therefore, the gel plates and cassettes were labeled, and a tracking form was created. Before a run, the scientist would record the plate set number, the cassette number, and the sequencer used on the tracking form. After the run, the scientist would record whether the data obtained was clean or showed pull-up or high background noise. We eventually saw a pattern and were able to pair specific plates, cassettes and sequencers to produce better results.

It is recommended that new matrix files for each 377 sequencer be created quarterly. In some cases, poor data collected has been successfully re-evaluated using these new matrices.