Subject: Soil Mitigation

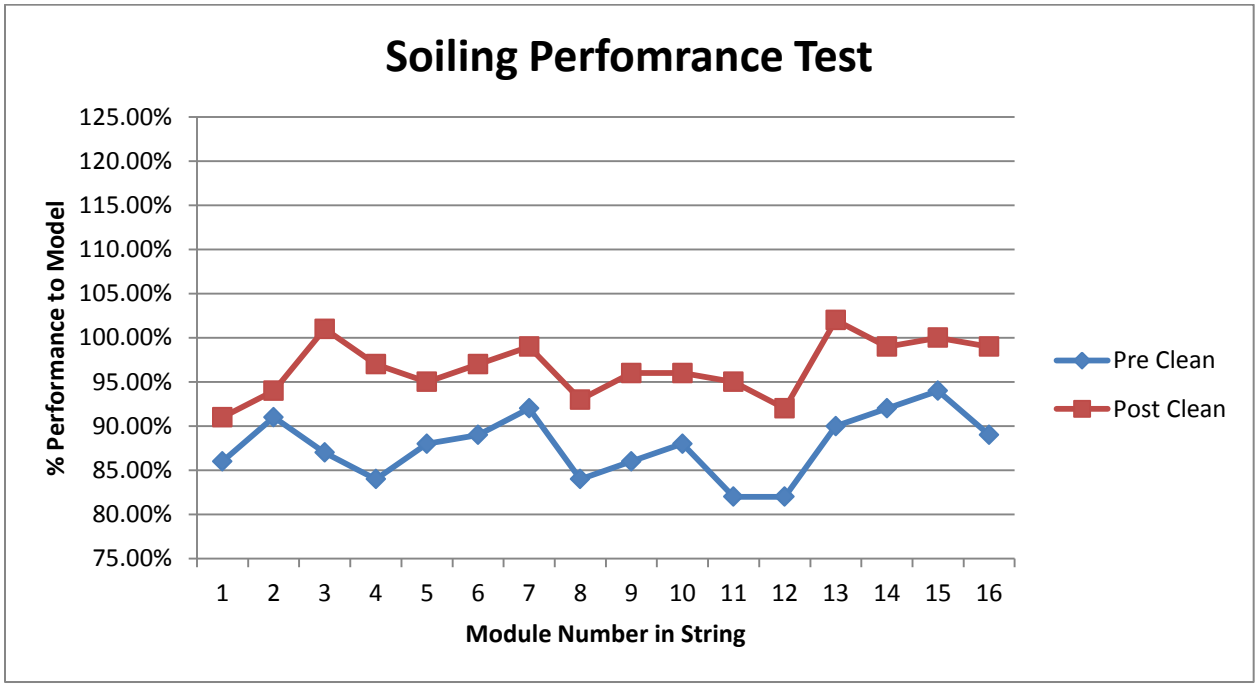
Prepared For: Anonymous Customer

Prepared By: Michelle Propst, Performance Engineer

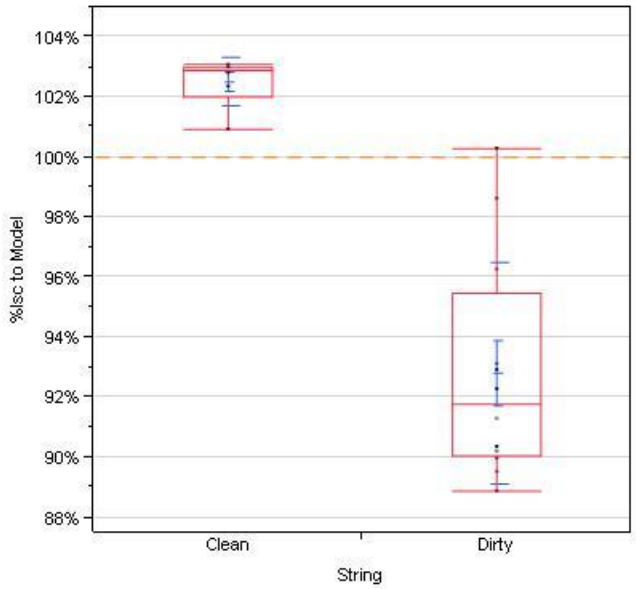
Date: June 2012

Summary:

The primary objective of this site evaluation was to determine the effect of soiling on the site performance. The customer is concerned about the need for soil mitigation and panel cleansing needs. We were informed that the panels had been cleaned six months prior to our evaluation. The customer was on a six month rinse-cleaning schedule. The site location is a dusty desert environment. We took an IV curve test of a soiled string in module order of positive to negative. We then proceeded to clean the modules and retest.



Our results showed an average 8.875% gain in panel performance to model after panel cleansing. This was due to the isc loss and mismatch from excessive soil particulate, deposited on the panels. This loss and subsequent mismatch, kept the string from mpp.



Recommendations:

The customer should increase panel cleansing frequency to quarterly. The customer should clean evenly among the sections to minimize mismatch. In such a heavy soiling environment, we recommend investigation into soil mitigation coatings to offset frequency.