



ENVIRONMENTAL PROTECTION, INC.

# the LINER LETTER

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## Air Channel Testing Research

In our previous letter, we told you about EPI participating in thermal welding research at TRI / Environmental, Inc. in Austin, TX. Mark Wolschon welded 54 different seams using various combinations of welder speed, welding temperature, ambient temperature and material thickness. Nip roller pressure was held constant for all test welds. These welds were made using a Leister Twinny hot air welding machine. Air channel testing of these seams is continuing at this time.

Each seam is divided into

ambient temperatures; cool, warm and hot. This will result in 162 individual tests. The same number of samples were welded with a hot wedge welding machine which will provide 162 more variations of the tests, for a grand total of 325 separate samples.



Initial testing done by Rick

Thomas at TRI found a 40 mil PVC seam that withstood >130 psi of air pressure. When failure finally occurred, the 40 mil thick PVC geomembrane material ruptured, and this hot air welded seam did not peel at this tremendous air channel pressure.



3 sections for peel testing and air channel testing at three different

At EPI we believe that we can produce dual track welded PVC seams that can be air channel tested over their entire length, at a pressure and duration that will preclude the requirement for any destructive peel testing. Stay tuned for results of this research, which already promise to be very interesting. **Tip:** Use Ctrl ++ to zoom in on photos; Ctrl + - to zoom out.