



ENVIRONMENTAL PROTECTION, INC.

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EPI Thermal Welding Research

In February 2002, Fred Rohe and Mark Wolschon traveled to Austin, Texas to participate in thermal welding research at TRI / Environmental, Inc. EPI has been thermally welding PVC geomembrane field seams since 1991. EPI has developed expertise in dual track welding and air-channel testing of PVC.

Our experience with dual track welding has convinced us that air channel testing of PVC dual track welded seams can be done in a manner that will completely ELIMINATE the need for removing destructive samples from perfectly good and acceptable field seams. Destructive sampling requires repair of the liner with methods that are inferior to the original thermal weld.

The PVC Geomembrane Institute is funding research at TRI on thermal welding of PVC geomembranes to establish parameters for welding various

thicknesses of PVC at varying temperatures, and to determine if air channel testing can eliminate destructive sampling of PVC field seams. During the two days at TRI, Mark Wolschon welded 54 different PVC seam variations. In order to establish the variable parameters, three different



welding temperatures with three different welding speeds were selected. These were performed at three different ambient temperatures. These 27 different combinations were

used to weld 30 mil and 40 mil PVC geomembrane.

Each seam was made long enough to allow air channel testing of each of these seam combinations to be done at three different ambient temperatures. This will allow exploration of the effect of ambient temperature on the 162 air channel tests.

If you have any questions, feel free to contact us at 800-OK-LINER or email us your questions or comments.