

## **Steep Cut Slope Composting: *Field Trials and Evaluation* Implementation Report**

Compost has been used for the purpose of enhancing the development of plant cover on steep slopes associated with MDT road construction for well over 10 years. During this time, varying application rates and application methods have been utilized in an effort to maximize the benefits with the minimal amount of compost.

The second and final phase of the compost research conducted by WTI and the Reclamation Research Group tested 2 application rates and several methods of compost retention techniques.

The results of the study and findings of the principal investigators verified the benefits of compost in establishing desirable plant growth, and provided an objective evaluation of the most economical and effective means of retaining the compost on the slope for long enough duration for the vegetation to fully utilize the benefits afforded by the compost.

Briefly, the study showed that compost applied at a thickness of ½ inch, coupled with the application of a guar-based hydraulic tackifier provided acceptable results.

Prior to the completion of this research, MDT had awarded numerous independent contracts to reseed and recompost steep cut and fill slopes on construction projects where the initial reclamation efforts failed. Using the recommended application rate of ½ inch, we have seen 100% success in establishing targeted levels of plant cover.

Based on the success of the work to date, general road reconstruction project specifications now contain seeding special provisions that call for compost use at the recommended rate of 65 cubic yards per acre – which is equivalent to a thickness of ½ inch.

It should be mentioned that most of the reclamation contractors who conduct work on MDT projects have now either purchased or have available the type of equipment that is necessary to apply compost in the volumes recommended in the report.

Recent bid tabulations show that contractors are submitting bids of between \$60 and \$80 per cubic yard to furnish and apply the compost – which is roughly equivalent to \$4000 to \$6000 per acre.