

SOIL DEPTH RELATIONSHIP WITH SPECIES COVER AND CONSTANCY IN RECLAMATION¹

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Abstract: Interim reclamation has been conducted as part of routine operations at the Chevron Mining Inc., Questa Mine tailing facility since the 1970s. Native soil borrow material has been placed over areas of inactive tailing deposition at varying depths over the years. In some areas native plant establishment has been allowed to occur, in others, seeding of interim vegetation has taken place. The applications of soil are part of an interim reclamation process and are expected to be representative of conditions for final closure and reclamation. The depth of application varies and provides an opportunity to evaluate the effects of soil depth on vegetation responses. Historically, the relationships of total vegetation cover and depth of soil have been insignificant and have no biological value. In 2010, relationships of soil depth to specific plant species were evaluated. Analyses considered cover values for all plant species and also plant constancy values. Similar to previous years, there are no relationships of any biological significance. The conclusion is that soil depth at this site has a small role in affecting variation in total plant cover, species cover, and species constancy.

Additional Key Words: topsoil, cover soil, reclamation

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