

Scram Tailings Mineland Reclamation 3-year Case Study and Recommendations¹

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Abstract: Minnesota's robust reclamation standards have proven results in the taconite mining industry. Reclamation of overburden spoils, lean ore spoils and fine tailings from taconite production has generally been successful on the Iron Range, using a low input standard reclamation practice. However, new breakthroughs in iron ore scam mining technologies are producing fine and coarse tailings that have not been encountered nor reclaimed in northern Minnesota.³ This presentation is the culmination of three years of innovative research to investigate potential successful reclamation strategies for scam mining tailings in Minnesota. This presentation will focus on the results of the 3-year study (2016-2018) by briefly summarizing Phase I (Year 1 research proposal and bench scale results), subsequent Phase II (design and Year 2 field trial results), and finally the Phase III (Year 3 results and reclamation recommendations). The research program will also describe collaboration between private industry and a public agency to provide research funding support. This paper should align with Technical Sessions Revegetation, Soils and Overburden, and/or Refuse and Tailings.

Additional Key Words: native vegetation, soil, ecological restoration, mine closure, Chisholm, Minnesota.

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 3. Work reported here was conducted near 47° 28' 07.5" N; 92° 50' 23.5" W.