



Memorandum

To: Rob Zuber, DRMS
From: Brock Bowles, DRMS
Cc: Jared Ebert, Amy Eschberger
Date: April 18, 2024
Subject: TR-02 adequacy review for Brandstadt Rock Pit, File No. M-1986-004

The operator of the Brandstadt Rock Pit submitted soil analysis data to determine if the soil can support the vegetation of the current reclamation plan.

The soil data contained the analysis of four soil samples (samples 2, 3, 6 & 7) taken in the reclaimed area. The reclaimed area is 3.5 acres in size which equates to 1 sample per acre. A map was included with the TR2 application showing the location of the sample points. The sample locations are equally distributed across the site and are representative of the reclaimed area. Samples 2, 3, 6 & 7 were analyzed individually and combined for a composite analysis of the reclaimed area.

The following chart shows measured values for the soil pH and soluble salts.

<u>Reclaimed area</u>	
Soil pH	8.4 – strongly alkaline
Soluble salts (mmho/cm)	9.5 – very high

The soil pH and soluble salts are two key parameters that have a significant effect on seed germination and plant growth. Both parameters in the reclaimed area are beyond the range that most plants can tolerate. It is not practical to expect the soil of the reclaimed area to support a diverse, effective and long-lasting vegetative cover that is capable of self-generating.

