TOTAL WASTE CAPACITY ASSESSMENT

The basis of calculated soil and topsoil waste intake volumes / tonnages is presented below.

Soil and Stone Capacity (R5 Inorganic Material)

The total volume of mineral soil and stone required for backfilling and restoration purposes at the application site is estimated to be approximately 1,200,000 tonnes.

This intake capacity is derived on the basis of required backfill volumes (determined from 3D volumetric calculation software) of 720,000m³ for the main pit area and 80,000m³ for the northwestern field area (giving a total intake requirement of 800,000m³) and an in-situ compacted density for mineral soil of 1.5 tonnes per cubic metre (1.5t/m³).

Topsoil Capacity (R3 Organic Material)

The total volume of topsoil required for restoration purposes at the application site is estimated to be 36,000 tonnes in total.

This assessment is made on the basis that the area of the application site to be backfilled has a plan footprint of approximately 16 hectares and an assumed final depth of topsoil of 150mm. The resultant topsoil requirement of 24,000m³ is converted to intake tonnage by assuming an in-situ density for topsoil of 1.5 tonnes per cubic metre (1.5t/m³).

