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Date	:	07 June 2017
Subject	:	**Effect of Rock Filla on Mototolo Float**

Introduction

Mototolo Concentrator receives fresh feed from Mototolo Mine Shafts, Borwa and Lebowa. These mines want to introduce Rock Filla as it assists in tamping underground, sealing of ventilation duct and refuge bays and many other applications. As a result this product will be in contact with the ore that will be transported to the plant. It was decided that the product should be first tested at Mototolo Metallurgical Laboratory on a small scale to determine what effect it will have on flotation in the plant.

Methodology

Rougher Feed sample was taken prior to additional of reagents. The sample was brought to the Metallurgical Laboratory and a hot float was conducted immediately in a laboratory Denver flotation machine. Reagents were added in accordance to current reagents regime in the plant and were conditioned as per normal hot floats procedure. Rock Filla was sprayed in the cell after additional of all the reagents were added.

Results observed

Rock Filla agglomerates when introduced into the cell because it is a foam based chemical (Figure 1). Due to this Rock Filla can only be recovered by entrainment. The flotation kinetics were observed to be normal and no negative effects of Rock Filla were observed (Figure 2).

Figure 1 Undissolved Rock Filla

Figure 2 (from left to right) Normal flotation response. After Rock Filla addition. One minute into hot float with Rock Filla.

Recommendation

Mototolo mine can use Rock Filla on their side if they see potential in it as there no negative impact observed during the lab scale flotation.