

# Interior Stockpile Management Adelaide Brighton Cement

**Adelaide Brighton Cement calls on Maptek I-Site™ to accurately record its volumes of cement.** I-Site is used to record both exterior stockpiles and interior held clinker stockpiles.

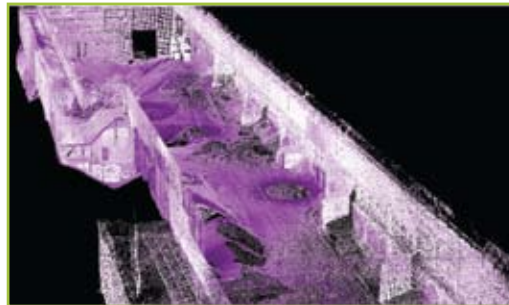


Figure 1: Unfiltered clinker stockpile

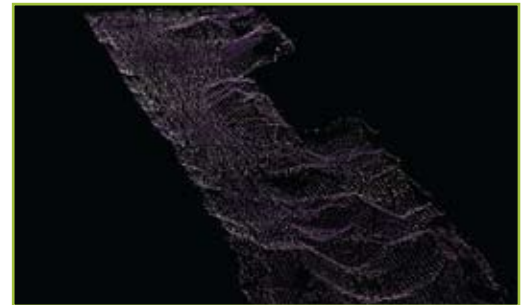


Figure 2: Filtered clinker stockpile

## HIGHLIGHTS

- I-Site used to record both exterior and interior clinker stockpiles
- Challenge comes in scanning locations not easily accessible by foot
- I-Site scanner overcomes these challenges by being versatile and portable
- Removes restriction to conventional tripod setup

While scanning exterior stockpiles is an easy task for I-Site, the challenge comes in scanning inside a dusty shed, from locations not easily accessible by foot and without setting up on a tripod.

These 'clinker' stockpiles are approximately 190 m long by 35 m wide and 18 m high.

To handle this type of work, the I-Site team made two brackets to allow the scanner to be secured from either a stair railing or through hatches cut into an overhead gantry.

There is no need to set up on a conventional tripod and safety considerations are met as operators are not required to climb over the stockpiles.

The scanner is positioned from above, giving the operator maximum penetration of the stockpiles (see Figure 1). This ensures 100% coverage with no shadow zones created by conventional tripod set up. An accurate and detailed model can therefore be created.

To handle this work, the I-Site team made two brackets to allow the scanner to be secured from stair railings or through hatches cut into overhead gantries.

Using I-Site Studio software, unwanted data is easily removed by 'rubberband' selecting points or using filtering tools to mask data. Registering multiple scans without survey control is easy in such circumstances.

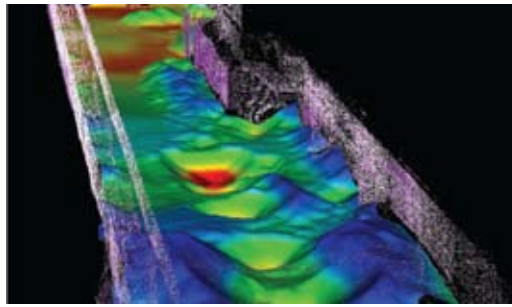


Figure 3: I-Site point data and model

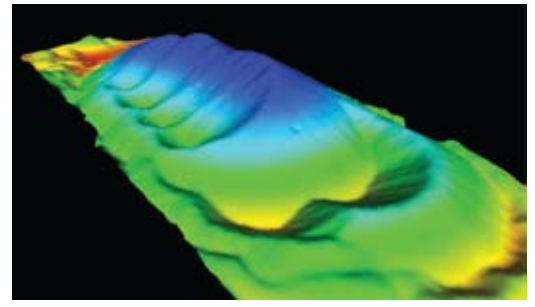


Figure 4: Final triangulation for volume calculations

## TESTIMONIAL

Adelaide Brighton Cement has been using I-Site for many years as an efficient way to get fast accurate volumes of stockpiled materials not normally accessible by any other method.

Using manual multi-point registration coupled with smart surface registration, multiple scans can be located in minutes.

Once the gantry and shed have been removed from the data, a filtering option is run to remove dense point clustering (Figure 2).

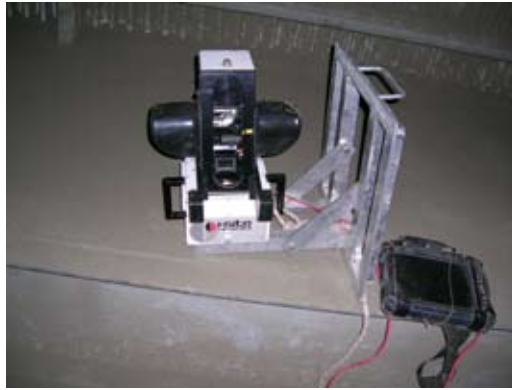


Figure 5: Horizontal hatch bracket

The I-Site scanner can be used under conditions that do not suit conventional surveying.

Modelling can then proceed in a timely manner without sacrificing data integrity (Figure 3).

This model or triangulation is then used with a pre-existing base, or a base created from the I-Site data, to accurately calculate a stockpile volume (Figure 4).

The versatility and portability of I-Site allows users to easily position and locate scans from any angle, removing the need to be restricted to conventional tripod setup.