

BACKGROUND

The town of Buckeye requested geophysical imaging and land surveying to locate and map all existing burial plots in the Louis B. Hazelton cemetery in Buckeye, Arizona. The purpose was to identify open, saleable plots still remaining in the cemetery.

SCOPE & RESULTS

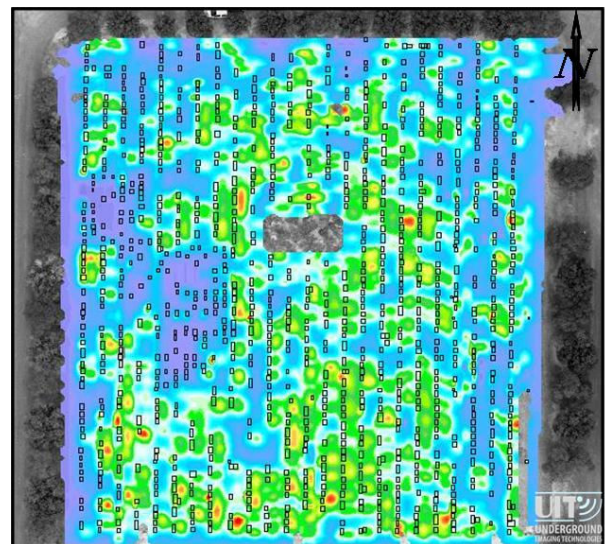
The geophysical investigation was performed over a ten acre survey area. The entire cemetery was surveyed in two field days, obtaining approximately 16 million GPR data traces and 250,000 EMI data points. Of the 6,720 available grave sites 4,844 plots were found to be occupied. Numerous unmarked, unknown grave sites were found within the cemetery limits. Additionally, several utility lines were mapped within the limits of the cemetery.

METHODOLOGY

The UIT 14 channel TerraVision II® ground penetrating radar system, and MetaVision II® a multi-sensor time domain electromagnetic induction unit were towed in tandem to collect data over the survey area. A Navcom global positioning device was used to continuously track instrument positions to decimeter accuracy. GPR, TDEM, and GPS data were integrated with the UIT DAS software. Final results were obtained by overlaying air photography, survey plates and geophysical data within the proprietary SPADE® software.



Above: TerraVision II® GPR and MetaVision II® TDEM systems used together to collect data.



Above: Lighter shaded areas represent zones of higher amplitude response due to disturbed soil. Headstones are overlaid on the EM data.