

BACKGROUND

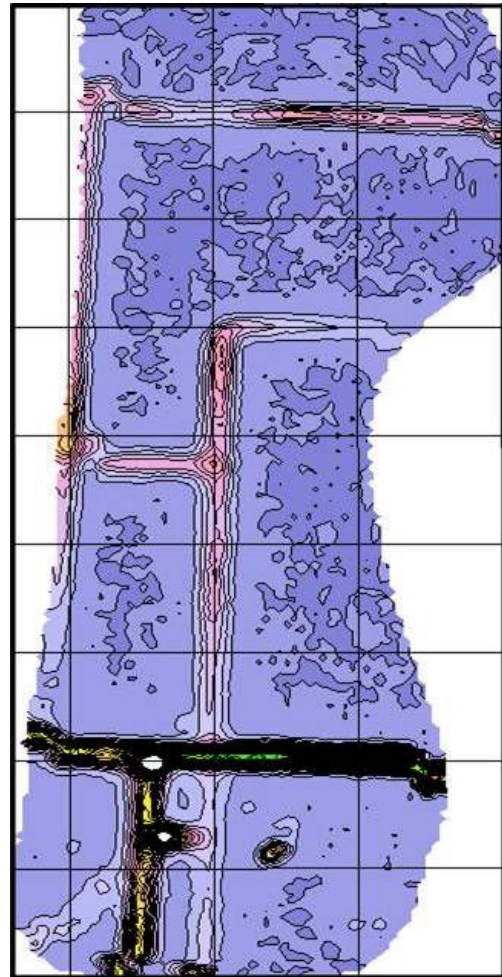
A geophysical investigation was performed at an oil transfer facility to determine the location of existing oil pipelines. Mapping of these utilities was needed in order to eliminate possible interference with new oil transfer pipelines, pumping stations, and building structures prior to construction. Since only metallic pipes existed at the site the UIT MetaVision II[®] technology was selected for cost savings.

SCOPE & RESULTS

Data were collected with the MetaVision II[®] from eleven individual project sites throughout two days; the total area surveyed was approximately 232,450 square feet. The results of the multiple sensor TDEM system were illustrated in 2-D contour plots from which subsurface features were interpreted and recorded. Linear features were compared to the existing utility map of the facility for comparison and verification. The linear features were digitized and the resulting utility location information was tabulated and submitted for inclusion into a CAD drawing of the oil storage facility. Other features detected on the 2-D contour plots, both subsurface targets and above-ground features, were also included in the interpreted results.

METHODOLOGY

UIT's multiple sensor Time Domain Electromagnetic (TDEM) system MetaVision II[®], was employed to non-destructively detect the presence of any metallic subsurface features. The data for each channel were merged and recorded with GPS positioning equipment.



Above: MetaVision II[®] TDEM results from survey area showing linear features detected.