

## 1. Why is confirmation drilling required?

Similar to the medical industry where scanning data is calibrated via biopsies or the oil industry where geophysics is calibrated with borehole data, Aestus' imaging data need to be calibrated (via targeted drilling) to contaminant concentrations, geology, and bioactivity levels

## 2. Does Aestus do the confirmation drilling work?

No, Aestus leaves this part of the process to our clients that have local site drilling and laboratory experience and are typically closer to the site to perform this work more cost effectively

## 3. How many drilling locations should I budget for?

All sites are different, but empirically Aestus experiences the need for approximately 6-8 locations for up to ~20 GeoTrax Survey™ images. Aestus typically recommends 2-3 soil and groundwater samples per targeted confirmation drilling location.

## 4. Can I just install soil borings and not complete them as wells?

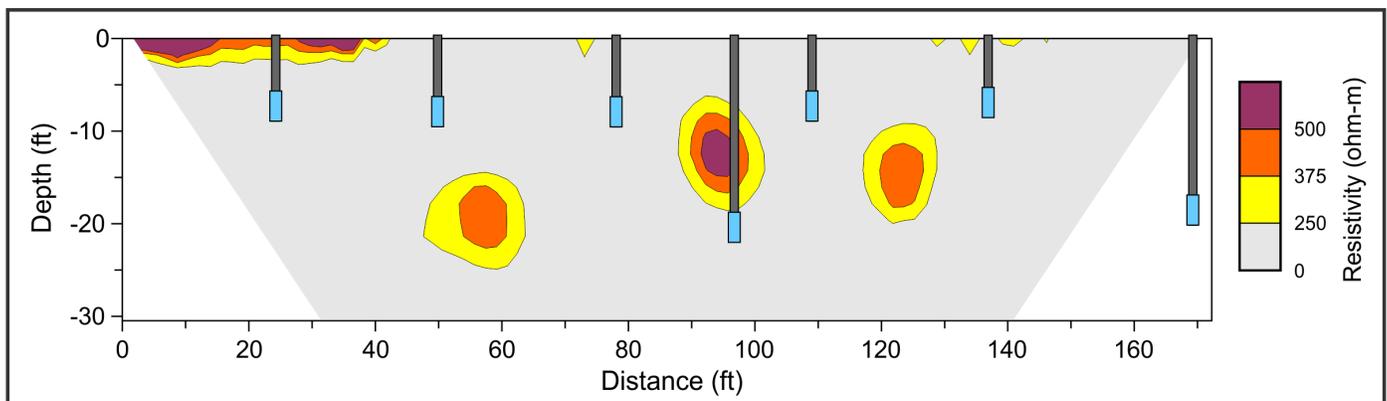
Typically, Aestus recommends installing monitoring wells to better assess groundwater chemistry and presence/absence of NAPL, especially in fine grained media (since it often times takes months for NAPL to show up in wells screened in clays for instance). Most sites are regulatory driven by groundwater concentrations, so avoiding potential false negatives is important. An iterative discussion of confirmation drilling is recommended.

## 5. When should I schedule confirmation drilling?

Approximately 8-10 weeks after the last day of Aestus field work which is just after Aestus' Interim Report is submitted with specific suggestions regarding drilling locations and sample intervals. This allows for data integration and discussions of confirmation drilling plans.

## 6. What should I analyze for?

Aestus provides recommendations on sampling protocols that allow confirmation of GeoTrax Survey image results based on attaining regulatory endpoints. A table of confirmation drilling locations and analytes is provided for each project.



*Resistive drilling targets at a previously remediated gasoline site. The 5 shallow borings were all nondetect for impacts, while the resistive targets were sampled and were impacted (Halihan et al., 2005).*

**Discover how Aestus can provide you with better data to make better decisions and improve your results.**