ABEM

WalkTEM & GroundTEM
PRODUCT RANGE

Groundwater, Minerals & Environmental Survey

HIGH QUALITY INSTRUMENTS FOR RAPID RESISTIVITY MEASUREMENTS

What is TEM?

TEM (Transient Electromagnetic) is a geo-physical technique used to obtain vertical resistivity soundings. The method responds most strongly to conductive bodies making it an ideal choice for targeting groundwater, saline intrusion, clay deposits and large ore bodies.

The GroundTEM

The GroundTEM range is a affordable yet powerful entry-level system. The ABEM GroundTEM i5 and i10 are user-friendly, app-controlled instruments that complement the existing WalkTEM range perfectly.

They make TEM surveys more affordable, less complex, and quicker to deploy, with a one-box lightweight solution.

The ABEM WalkTEM 2

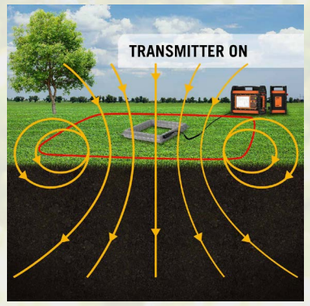
The ABEM WalkTEM 2 is a user-friendly, rapid survey solution that can provide precise resistivity models directly in the field for reconnaissance, mapping, and monitoring projects.

An ABEM WalkTEM 2 consists of a receiver unit (Rx) and a transmitter unit (Tx), connected by a synchronization cable.

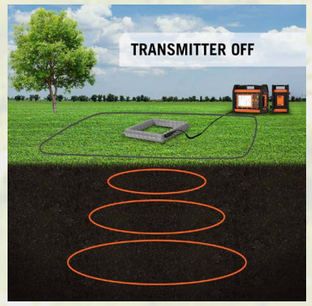
The WalkTEM 2 represents the ultimate scalable system that should fit any customers survey requirements and be adaptable to their future needs, across a broad range of applications.

The TEM Method

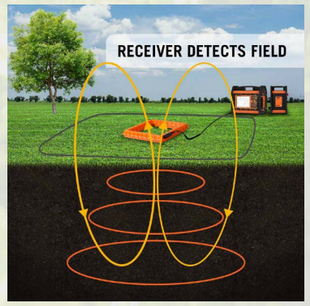
Time domain transient electromagnetics (TEM) is a non-destructive, rapid tool for the search, mapping and monitoring of groundwater, mineral deposits and environmental change. Depths of hundreds of metres can be investigated in minutes and the work can be finished whilst other survey methods would still be setting up.



Current flowing in the TX loop will create a magnetic filed (yellow)



The collapsing magnetic fields creates electrical currents in the ground



Ground currents create a secondary magnetic field recorded by the RX loop

GroundTEM i5

The ABEM GroundTEM is an extremely capable, yet affordable, entry-level TEM system. **The ABEM GroundTEM i5** provides a 5A maximum output through either a 20x20m or 40x40m transmitter loop. A flexible 3x3m, 4-turn receiver coil completes the system. Remote upgrades can be made to go from GroundTEM i5 to GroundTEM i10.

GroundTEM i10

The ABEM GroundTEM i10 has the same transmitter loop and receiver coil options as the GroundTEM i5 but unlocks more power. With a 10A maximum TX current, it allows for deeper measurement, without any increase in size or weight. This unit is a great compromise between power and portability.

WalkTEM 2 RX STD & TX-8

The ABEM WalkTEM 2 comes in two receiver configurations: the WalkTEM 2 RX Standard and the WalkTEM 2 RX Advanced. **The WalkTEM 2 RX Standard** is only compatible with the **WalkTEM 2 TX-8** transmitter, smaller receiver coil (**RC-5**), and the 20m (**TL-400**) and 40m (**TL-1k6**) transmitter loops.

Remote upgrades can be made to go from WalkTEM 2 RX STD to WalkTEM RX ADV and from WalkTEM 2 TX-8 to WalkTEM 2 TX-20.

With the exception of the WalkTEM TX-60, all ABEM TEM instruments are dual-moment. They run low and high current pulses through the transmitter loop in a single measurement cycle to provide the ideal set-up for both shallow and deeper responses; all measurements are combined into a single dataset automatically for processing.

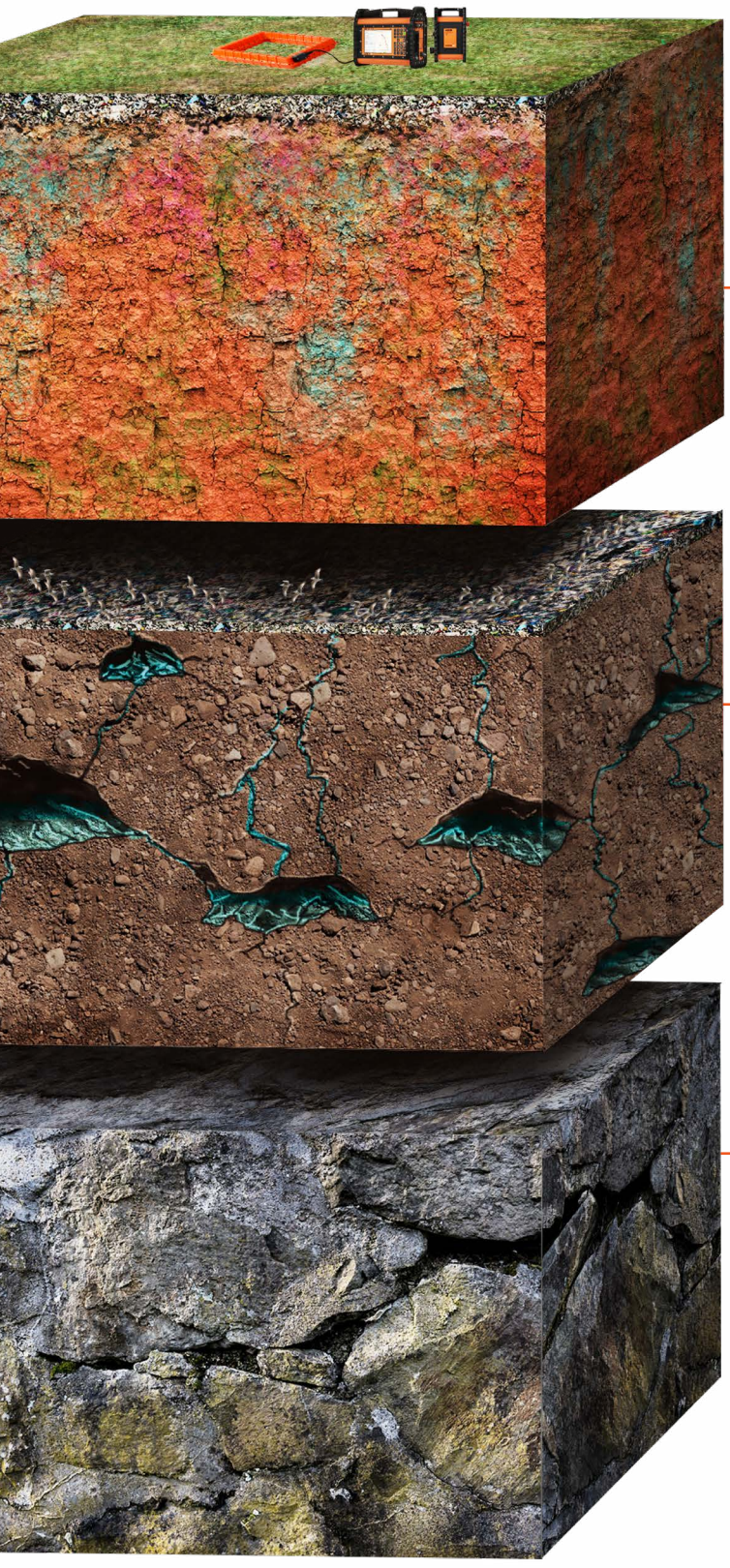
WalkTEM 2 RX ADV & TX-20

The ABEM WalkTEM 2 RX Advanced benefits from:

- TX Waveform analysis (only an option on the RX Standard)
- 2 input channels (only 1 channel on the RX Standard)
- Onboard inversion
- Compatibility with all WalkTEM TX loops and RX coils

WalkTEM 2 RX ADV & TX-60

The ABEM WalkTEM 2 Advanced is compatible with the **WalkTEM TX-60.** The WalkTEM TX-60 is a high-power, actively cooled transmitter for deep surveys. The TX-60 has a maximum output of 60A or 5kW.



Search, map, monitor

Environmental

TEM provides a rapid means of surveying for a wide range of environmental applications from identifying potentially hazardous clay units within a geological sequence, to mapping and monitoring dynamic features such as permafrost thickness or potential pollutants.

Groundwater

A high sensitivity to conductive materials makes TEM extremely useful in groundwater studies, for example differentiating between fresh, brackish and saline deposits, monitoring drawdown and recharge of an aquifer, or simply estimating its extents by building up profiles or grids of soundings.

Minerals

TEM responds well to conductive mineral bodies. With multi-component measurements and the ability to determine chargeability from IP effects in TEM data (using Aarhus SPIA TEM), the WalkTEM 2 is a powerful tool in the search for new mineral deposits.

GUIDELINEGEO

GUIDELINE GEO has been in the geophysics business since 1923 and is the global leader in near-surface geotechnology. Our advanced technology ensures practical solutions to everyday, societal, and global problems. We deliver total solutions in the technological fields of ground penetrating radar, seismic, geoelectrical and electromagnetic measurement. The Guideline Geo AB share (GGEO) is listed on Nasdaq First North Growth Market. We are a Swedish company with international offices and regional partners serving clients in over 100 countries.

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