

# WDJD-4 D.C. Earth Resistivity&IP Meter



## Power:

- VES - 6600W.
- Resistivity imaging - 1125W

## Function:

- 1D VES Resistivity/IP
- 1D Resistivity/IP Profiling
- SP survey

Support upgrade to 2D Resistivity Tomography System

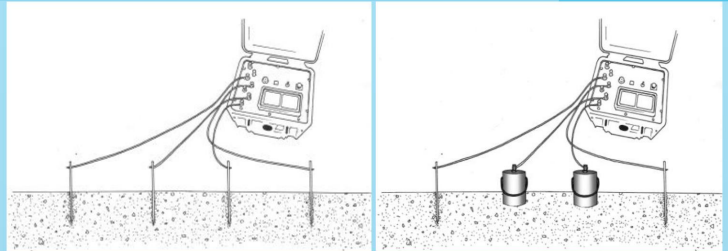
## Applications:

- Underground water inspection
- Engineering geology inspecting as dam base exploration and flood
- Metal source exploration
- Non-metal source exploration
- City geophysical exploration
- Railway and bridge

## Main features:

- Transmitting unit and receiving unit are of all-in-one design, portable and lightweight.
- High anti-interference performance and measuring precision, integrated with multistage wave filtration and signal enhancement technologies.
- Automatically achieving compensation of self-potential, drift and electrode polarization.
- Receiving unit supports transient over-voltage protection, transmitting unit supports over-voltage protection, over-current protection and AB open-circuit protection.
- Measured curve can be plotted on the display directly and clearly.
- Setting working period freely, 10 kinds of common array configurations are available; electrode distance is inputted and array factor could be calculated automatically.
- Earth resistance inspection: Earth condition of the electrodes can be inspected at any time.
- Mass data storage: able to memorize maximum 2200 readings of survey points.
- All parameter and data are under power-failure protection; and thus data will not loss when system shutdown or changing battery.

Vertical electrical sounding (VES) is a geophysical method for investigation of a geological medium. The method is based on the estimation of the electrical conductivity or resistivity of the medium. The estimation is performed based on the measurement of voltage of electrical field induced by the distant grounded electrodes.



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### Receiving

Voltage channel	$\pm 6V, \pm 1\% \pm 1LSB$
Input impedance	$>50M\Omega$
Apparent polarizability precision	$\pm 1\% \pm 1LSB$
SP compensation range	$\pm 1V$
Current channel	6A, 24 bit A/D
Suppression	suppression is over 80dB for 50Hz industrial frequency (common mode interference or differential mode interference)

### Transmitting

Maximum transmitting power	6600W
Maximum voltage range	$\pm 1100V$
Maximum current range	6A
Voltage channel	$\pm 24A, 24$ bit A/D
Input resistance	$\geq 50M\Omega$

### Others

Working temperature	$-10^{\circ}C \sim +50^{\circ}C, 95\%RH$
Storage temperature	$-20^{\circ}C \sim +60^{\circ}C$
Instrument power	internal 12v rechargeable lithium battery or external 12v car battery, for 30 hours continuously work
Overall current	$\leq 55mA$
Weight	$\leq 4.4Kg$
Dimension (L×W×H)	270mm * 246mm * 175mm

## CASE STUDY

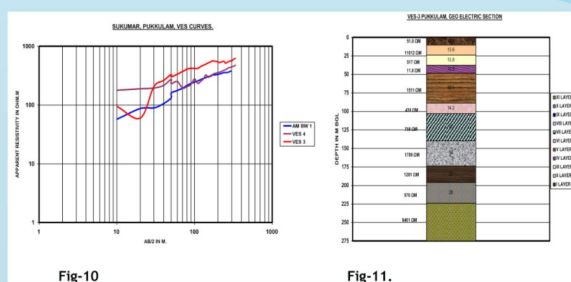


Fig-10

Fig-11.

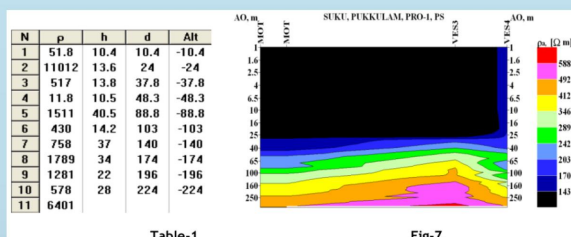


Table-1

Fig-7.

Detect the deep crystalline rock aquifers using 1D VES technique in India

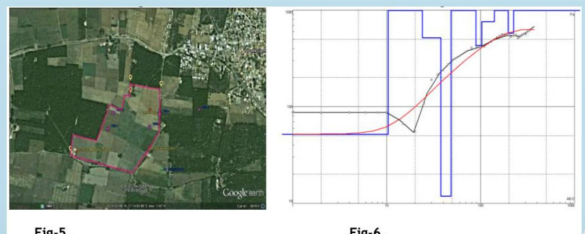


Fig-5.

Fig-6.



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