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Why 1D electrical resistivity techniques can results in inaccurate siting of boreholes in hard rock aquifers and why electrical resistivity tomography must be preferred: the example of Benin, West Africa

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Highlights :

- In hard rock area Electrical Profiling (EP) anomalies are often due to clayey zones
- Electrical Sounding (ES) cannot estimate reliably weathered zone thickness
- Electrical Resistivity Tomography (ERT) better estimates weathered zone geometry
- ERT, EP and ES cannot reveal unweathered fractures
- The use of ERT can save money if it improves by 5% borehole success rate

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