



Client
TSK Electronica



Location
Lome, Togo



Period
March – April 2019

Kékéli Power Plant GSI

TSK has been contracted to construct a thermal power plant in Lomé, Togo. The proposed power plant is known as the Kékéli Efficient Power Thermal Plant and is a combined cycle plant which will be developed inside an approximately 31,500m² area. When completed, the power plant is expected to generate 65MW of electricity.

To understand the ground condition of the site, TSK commissioned PMI Marine and Construction Services Limited (PMI) to carry out the Geotechnical Site Investigation to evaluate the subsurface geotechnical condition of the site as well as give design recommendations

The Scope of Work included:

- 10 No Boreholes each to a maximum depth of 30m below ground level (BGL)
- SPT was conducted at 2m intervals at less than 5 BGL and 3m interval subsequently
- Undisturbed sampling in suitable material at 3m intervals
- 4 No Piezometer each to 30m BGL
- 2 No downhole Seismic tests at 1m intervals
- 10 No test pits to termination depth of 4m or refusal
- Test pit sampling at each layer

- Laboratory tests
- 8 No Plate load tests
- Geophysical studies:
 - 4 No electrical resistivity tomography
 - 4 No electrical test pit
- Reporting and design recommendation



PMI Resources on Site:

- 200kN Geomil truck mounted CPTu rig.
- Fraste Hydraulic Rotary Core/Percussion Drilling Rig.
- Excavator CAT 308C.

Contract Execution

PMI executed the complete geotechnical and geophysical investigation within the required time frame.

Wherever possible, borehole drilling and geophysical tests were conducted simultaneously to ensure fast delivery of results.

At the end of the campaign, all soil samples were analysed in specialized laboratories in Ghana, under supervision of a PMI engineer and test results were shared with the Client.

PMI provided a factual report, as well as an interpretive reporting with design recommendations.

