SOIL AND WATER SAMPLING AND ANALYSIS PROGRAM IN KOSOVO

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ABSTRACT

The main objectives of the investigation were to identify contaminated sites caused by Termo Power Plants and their Ash Dumps which is located near the city of Oblic/Obiliq some 10 km to 20 km from Prishtina, the capital of the Republic of Kosovo.

The assignment includes the following major tasks: Sampling and analysis of ground water, surface water, waste water, river sediments and soil, drilling/construction of groundwater monitoring wells and reporting, preparation and related services (e.g. flow rates measuring).

Fig. 1: Map of Dissolved Oxygen in the river Sitnica and tributaries

GEOtest, a.s. was commissioned by the Ministry of the Environment and Spatial Planning of the Republic of Kosovo to perform Soil and Water Sampling and Analysis Program in Kosovo.

The area selected for lignite based power generation and lignite extraction is located near the city of Oblic/Obiliq some 10 km to 20 km from Prishtina, the capital of the Republic of Kosovo.

The assignment includes the following major tasks: Sampling and analysis of ground water, surface water, waste water, river sediments and soil, drilling/construction of groundwater monitoring wells and reporting, preparation and related services (e.g. flow rates measuring).

The results were compared with the limits applicable in the EU and, based on this, sites were identified, in which excessive contamination was detected.

Within the survey, sources of contamination were identified – these are Thermo Power Plants (TPP A, TPP B) and their Ash Dumps, Waste Dump and Mining Area, but also significant local sources of contamination – these
are particularly Romani settlements and plants (operating facilities) in villages and towns, which are located in them (car washes, a fire station, small workshops, car repair shops), non-functional waste management (wastes are gathered chiefly around water streams by bridges and directly in rivers and creeks – waste water) and the lack of WWTPs (sewer lines are also terminated in water streams).

Based on the results of laboratory analyses and the overall view of the site concerned, it is possible to recommend the following steps for sustainable and environmentally sound operation of thermal power plants:

- To equip the existing thermal power plants with more advanced technologies, i.e. to renovate TPP A and TPP B; or to replace the plant(s) with a new plant all in compliance with latest EU standards.
- To improve waste management in the whole area.
- To commence construction of treatment plants of waste industrial and household water.
- To install a network of monitoring boreholes and to carry out their regular monitoring.
- To check landfills for possible leakage.
- To control the correct technology of mining and waste water handling.
- Based on the monitoring actions realize detailed additional survey of hot-spots.
- Based on the additional hot-spots survey plan realize remediation actions where needed.

![Fig. 1: Map of Soil Samples](image-url)

**LITERATURE**


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