

Site Investigation and Risk Assessment of a Serbian Landfill Site (1)

Problem:

A leading international cement and aggregate provider were concerned about the environmental liability associated with a cement plant located in the Balkans, as there was a landfill site near the plant which had been used to dump various wastes over the years. The company had purchased the cement plant from the state and as a result they had inherited the environmental liabilities associated with the site. A local environmental company had carried out a superficial site investigation which identified potential contamination at the site and as a result the company were very concerned about any future environmental implications.



Scoping:

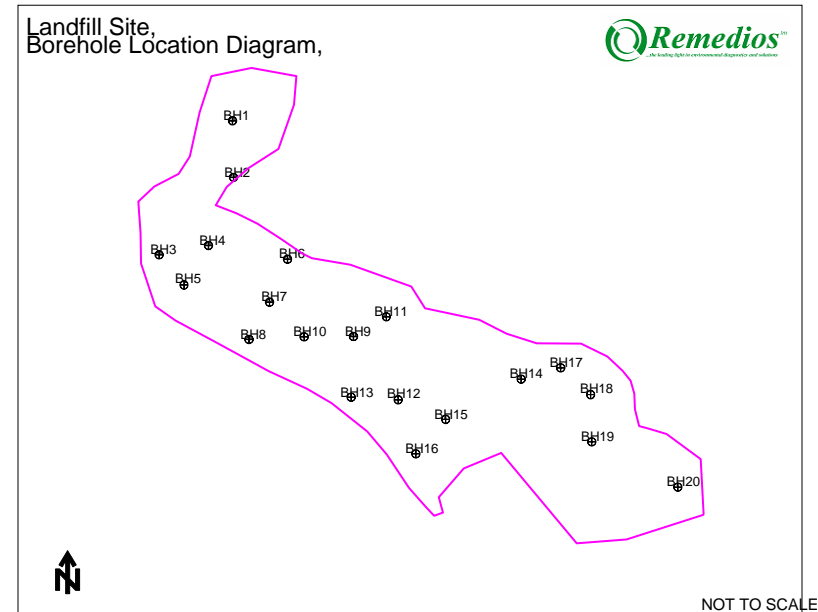
Remedios reviewed the previous site investigation report and identified deficiencies. Remedios also visited the site to carry out a scoping exercise. The previous report had made assumptions based on very few data points. One of the recommendations by the previous environmental company was to invest in a membrane to cover the landfill site in order to be protective of human health.

Remedios visited the site and carried out a scoping exercise. Remedios came to the conclusion that the recommendations in the previous report were based on too few sampling points and were not risk based.

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Site Investigation:

Remedios recommended that a full investigation was carried out on the landfill site in order to adequately assess the environmental issues associated with the site. Remedios installed a total of 20 deep groundwater boreholes across the site and retrieved soil and groundwater samples for analysis. The site investigation was carried out in accordance with BS10175: Investigation of potentially contaminated sites in order to maintain high standards.



Solution:

Remedios carried out a detailed risk assessment of the soil and groundwater samples. The results of the soil and groundwater risk assessments showed that there was minimal contamination in the site and groundwater samples. Remedios produced a report that was compliant with UK legislation (in the absence of local legislation). Remedios visited the site and presented the results of the report and submitted recommendations as to the way forward. Due to the nature of the site Remedios recommended that routine monitoring of the existing boreholes should be carried out in order to be proactive in terms of any future liability and demonstrate best practice.

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Training:

In order to make a use of local resources for future monitoring of the landfill site, Remedios carried out a groundwater training course for the staff at the plant. This was a sustainable approach adopted by Remedios as it allowed annual monitoring of the site to be carried at minimal cost to the client. This is an example where Remedios have “added value” to a project.



Outcome

Remedios delivered a bespoke solution to client which limited the environmental liability associated with a potentially polluting site. By assessing risks in a methodical manner, Remedios were able design and implement an investigation strategy that directly assessed the conditions at the landfill site. By providing training to the site staff and remotely project managing monitoring events, Remedios were able to provide a cost effective solution to the client. The client now feels as though they have this particular “environmental worry” under control and they are much more comfortable about it.