



The IuT Group

Worldwide largest landfill remediation project in Sharjah / UAE



The City of Sharjah / UAE is one of the fastest growing cities in the Middle East. It can expand only in one direction, however, as it borders on the sea and on the Emirates of Dubai and Ajman. As the city has grown, the former landfill at University City Road has become part of the urban area. This landfill on an area of 300 ha, with a total volume of 7,5 million m³, was filled with municipal solid waste, construction and demolition waste, industrial and chemical wastes and other refuse. It was practically an old-style dump site and an environmental problem for the surrounding neighbours.

The landfill was closed in 2000, the decision to remediate the site was taken in 2004. The IuT Group took over the remediation contract. The remediation work started a year later after a detailed examination of a 50 by 50 m grid, installation of a chemical laboratory, two SMELL WELL Systems and two sorting plants.

The landfill had to be stabilised before excavation to avoid any contamination and emissions to the surrounding neighbours, which are mainly the University City and private schools.



This stabilisation was carried out with the SMELL WELL System 4-5 days before excavation. The material excavated was treated in sorting plants to produce clean refilling material, eliminate recyclable products like metals and wood from the residue, and compact the remaining fraction to reduce the landfill volume needed. Only a 25% residual fraction went to the new landfill of Sharjah.

The refilling fraction was carefully checked by the site lab and controlled even after refilling and compaction by means of monitoring wells. More than 300 ha have been cleaned and refilled. Construction of the necessary infrastructure (water, electricity, sewage, roads) is in progress. A new highway passes the former landfill and the construction of houses, a shopping mall, an Islamic centre etc. has already started.

This project has been submitted to the Environmental Agency of the United Arab Emirates for being the first CDM project in UAE. It has achieved an effective reduction of carbon emissions by the permanent prevention of methane and carbon dioxide emissions from the old dump site.

Technical details:

Total volume of old dump:	7.5 million m ³
Remediation time:	5 years
Remediation capacity:	up to 9,000 m ³ /day
Volume balance:	
Refilling fraction	53%
Recycling	3%
Residue going to new landfill (after compaction):	25%



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