



The IuT Group

## Construction of Cell 1a at Sajja Landfill in Sharjah / UAE



The City of Sharjah in the United Arab Emirates produces up to 14,000 tons of waste per day. Part of this is already being recycled by a construction and demolition waste recycling plant. Further treatment units are under design and construction.

A key prerequisite for future waste management is an extension of the existing landfill at Sajja. This extension has been designed and constructed in accordance with European standards. The new Cell 1a covers an area of 16,5 ha and can cover a volume of 3,1 Mill m<sup>3</sup> waste. Cell 1a is situated next to the

existing landfill. The construction of this cell was preceded by a detailed survey and careful design to optimise the necessary excavation work and the future landfill volume.

The bottom of the landfill was sealed by a combination of bentonite mineral liner and HDPE geo-membrane. The liner is protected by a layer of geo-textiles on which used tires are placed and filled up with clean gravel.

The new cell features a leachate collection system, side partitions, and provisions for future LFG collection.



Construction work started in summer 2007 with the excavation of previously deposited sewage sludge and waste to create the necessary space. After construction of degassing units for the existing landfill and connecting parts, earthwork and liner work followed.

The handover to the client took place in spring 2008, the first solid waste was delivered to the new cell one month later.



### Technical details:

Total area of landfill Cell 1a:	165.500 m <sup>2</sup>
Total capacity of Cell 1a:	3.100.000 m <sup>3</sup>
Total surface area of Cell 1a:	118.772 m <sup>2</sup>
Maximum elevation:	97.42 m altitude
Surrounding surface level:	64.00 m altitude
Planned operation of Cell 1a:	2008 - 2011



### General contractor:

**Emirates Environmental Technology Co.Llc.**  
P.O. Box 39389  
Sharjah / UAE

T: +971 655 69 663  
F: +971 655 69 668  
E: eet@theiutgroup.com

### Design and supervision:

**IuTCzech spol.s.r.o.**  
Lešetín II/337  
760 01 Zlín  
CZECH REPUBLIC

T: +420 57 721 02 18  
E: iutczech@theiutgroup.com