A 10,000m2 cell at a landfill site with extremely steep sides in Switzerland is currently being lined by hydraulic asphalt engineering experts WALO. The company is using its own specialist machinery and highly skilled operating team to line the slopes with Dense Asphaltic Concrete (DAC), formulated in its laboratory in Zurich to a design mix specific to the project.

The Lostallo landfill site, covering an area of around 30,000m2 is located in the district of Moesa in the Italian area of Switzerland. The new cell, Cell 5, has slopes of 1:1.5, meaning that the sides have very extreme slopes.

WALO was selected for this project as it has specific and proven technical expertise in working on very steep slopes around the world and also because environmental protection of the site is particularly crucial in a country where environmental issues are of paramount importance. Groundwater at landfill sites is always vulnerable to contamination from leachate and gases, which are found in most solid waste landfill deposits. WALO's DAC is a highly robust barrier lining system, impermeable to both of these contaminants and so was the ideal choice for the complete containment of landfill waste at Lostallo.

The WALO team began by levelling the base and sides of the cell with an excavator and placing a foundation layer by bulldozer. The bulldozer was secured for working on the extreme slopes by one of WALO's 60 tonne winches. Next the clay layer, also known as the geological barrier (k>5x10-8 m/s), some 7-800mm thick, was placed in four layers by WALO's asphalt paver and main winch. The two bituminous layers - the Asphaltic Binder Layer and the DAC - were also installed by WALO's winch and paver and compacted by rollers on winches.

Work commenced in the spring and will be completed by August 2013.

Commenting on the project, Managing Director of WALO UK, David Wilson, said:

"The double challenge presented by this project - the very steep slopes and the environmental considerations, made it perfect for WALO to showcase its expertise in both these fields. Our highly robust DAC will provide decades of impermeable sealing at this site.