



Case Study

Envirogrid & Bentotex Clay Liner (GCL)

Location:

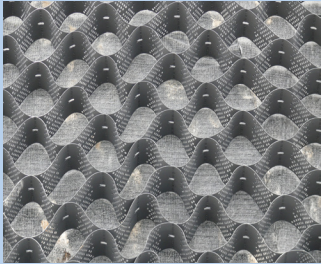
Bourne Estate
Piddlehinton
Dorset

Client:

ECO Sustainable
Solutions Ltd

Project:

Anaerobic Digestion
Plant



Contractor:

Mark Farwell Plant &
Contracting.

MARK FARWELL
PLANT HIRE & CONTRACTORS

Geosynthetic Limited

Fleming Road
Harrowbrook Ind. Est
Hinckley
LE10 3DU
Tel. 01455 617 139
sales@geosyn.co.uk
www.geosyn.co.uk

ECO Sustainable Solutions identified a need locally in Dorset for an anaerobic digestion plant. Geosynthetic's Bentotex Geosynthetic Clay Liner (GCL) 100 was chosen as the containment layer of choice but to make the most use of the available footprint the slope of the batters at the perimeter of the bunded area needed to be > 45°.

This presents a problem with the 300mm of cover required over the Bentotex GCL as it is hard to retain the fill on a slope greater than 30°. To enable the use of Bentotex GCL we put forward a solution that employed the use of our Envirogrid cellular confinement system to provide the slope stabilisation needed to retain the 300mm cover material.

The use of Envirogrid, installed in two 150mm layers, to retain the fill on the slopes means that the perimeter can use topsoil from another sister Eco Sustainable division. This will allow the seeding of the batters to provide a green natural appearance in line with the client's wishes.

The solution to use Bentotex GCL in conjunction with Envirogrid ultimately had far-reaching benefits to both client and contractor:-

- Full site footprint could be utilised



- One contractor could complete the entire installation
- The GCL provides a resilient secondary containment liner
- The desired green finish could be achieved around the site perimeter.

When commissioned and working the plant will produce renewable energy by handling a large percentage of Dorset County's food waste as well as providing high grade fertiliser material to nearby farms.

The benefits of the Envirogrid system in this case are:

*Full site footprint could be utilised,
One contractor could complete the entire installation,
Slope stabilisation,
Re-use of available topsoil,
The desired green finish could be achieved around the site perimeter.*

