

## Events

We will be exhibiting at :



### Topic: Sustainability with Coletanche

Sustainability and optimization of natural resources have become important components of civil and environmental projects as again evidenced by the 2011 National Research Council publication on behalf of the US EPA addressing sustainability. The bituminous geomembrane Coletanche, because of some inherent material and mechanical properties, can help project owners and project managers better meet their goals for sustainability and resource preservation as demonstrated in the following applications.

## Regulatory News



Certified to NSF/ANSI 61



### COLETANCHE® is certified :

- for use in potable water installations per NSF Standard 61 (valid on Coletanche ES2 and ES3)

### Our Factory is certified :

- ISO 14001 : Every day , it strives to reduce the environmental impact of its activities by sorting waste, recycling and limiting potential damage to the environment.

## Lining Earthen Canals



### COLETANCHE® can be used because:

- It has a density greater than one and will not float in the canal
- It can be installed and welded under water
- With its low Manning coefficient it facilitates water flow.

◀ Earthen canal in Imperial County California

Leakage rate for a 100-ft. wide and 3-ft. deep earthen canal can range from 500 to 750 gallons per day (GPD) per foot of canal depending on soil type or approximately 3,000 to 4,500 acre-feet per year per mile. Lining the canal with Coletanche would reduce these losses to near Zero. The savings in water will pay for the installation of the Coletanche in few years and will generate benefits for years long afterwards.

## Landfill Cover for Sensitive Area in Northern California



### COLETANCHE® could be used because:

- It has a density greater than one and will not float in the tidal wetland
- It can remain exposed to the elements
- Its high puncture resistance allowed placement directly on subgrade.

◀ Edge of landfill within tidal zone

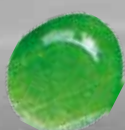
### The site bordering the Suisin Bay in Northern California presents unique challenges:

- The landfill was built by pushing waste into a tidal wetland
- There is limited access to the site
- Construction season is subject to numerous unannounced 'stop and go' events
- Community is opposed to trucks traffic

The design approved by US EPA and US Corps of Engineers calls for a partially exposed cover using Coletanche ES2. Three acres of COLETANCHE® will remain exposed and will be within the tidal influence zone and subjected to weather and tides. Over the balance of the cover (nine acres), the Coletanche ES2 will be placed directly on subgrade and covered with a geocomposite and 18 inches of soil. Use of Coletanche ES2 eliminated the need for a cushion geotextile and allowed a reduced soil cover. By reducing soil import, 1,350 truck trip or 67,500 driven miles were eliminated, thereby, reducing emission by 90 metric tons of CO2. This important argument pleased and appeased the community opposition.

## COLETANCHE® will be installed in major projects worldwide:

- Protective barrier under ballast for the high speed train **in Europe**
- Cover of tailings **in Asia**
- Waste water pond at a treatment plant **in North America**
- Tailing dam and reservoir system, cover for mine waste, liner for a heap leach pad, and an impervious barrier under filter dam **in South America**



For more technical information or to organize a brown bag presentation please contact Axter Coletanche Inc.  
 2000 Peel st. - # 670 - Montreal, QC H3A 2W5 - Canada  
 Phone : 514 903 1912 - Fax : 514 903 6821 - Email : info@axtercoletanche.com  
 www.coletanche.com