

## FEATURE OF TECHNICAL SERVICE

### Subject

Executive and constructive design of the geomorphological and hydraulic arrangement of the Val Rogno landfill with geological-geotechnical-structural assistance in the works and preliminary, executive and constructive design for the Val Riso landfill.

### Carried out by

SGAI S.r.l. di E. Forlani & C.

### Client

PONTENOSSA S.p.a.

### Service length

2000 - 2009

## VAL ROGNO AND VAL RISO LANDFILL – Description of the interventions

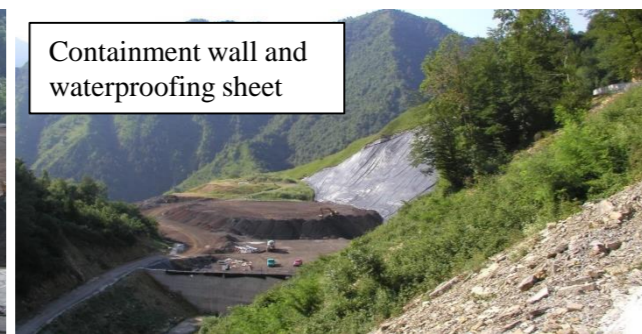
As part of the executive design for the geomorphological and hydraulic arrangement of the Val Rogno landfill, SGAI S.r.l. studied the following interventions: extension of the spillway, extension of the road tunnel, intervention for the construction of the new bed of the Rogno stream in the open air, rolling basins and dissipators; landfill bottom preparation, construction of drainage systems and leachate control, waterproofing of the container, hydraulic arrangement of the riverbed upstream of the landfill with bridles; definitive gutter channel, construction of guard ditches for collecting water from the slopes during construction; access road to the new riverbed; metric calculations for the works to be performed; structural practices.

As part of the completion and arrangement of the Val Riso sludge accumulation, SGAI S.r.l. carried out the preliminary executive and construction design services. Specifically, the waterproofing of the bottom and the perishing of the entire landfill was carried out by injection of manchettes and plastic bulkhead with water-cement and bentonite jet grouting. Furthermore, the hydraulic regulation and environmental recovery interventions of the site were studied. Various works were designed and monitoring tests were carried out to verify the results of the intervention.

### VAL ROGNO LANDFILL - Photographic documentation



View of the landfill



Containment wall and waterproofing sheet

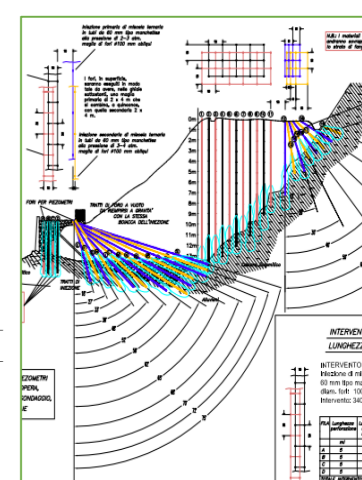
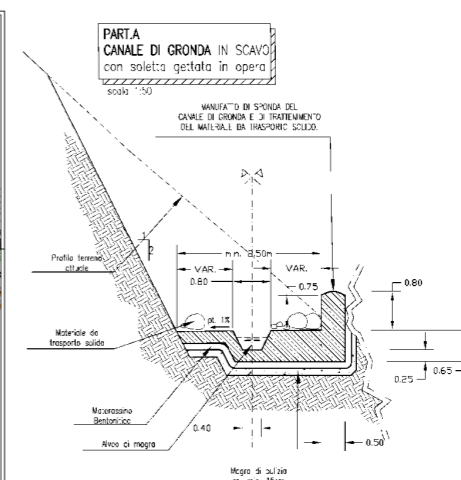
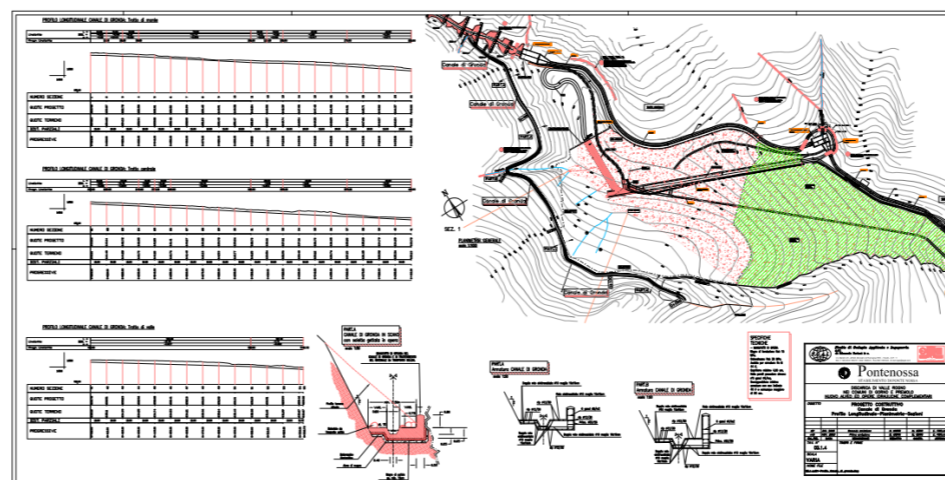


Stone bridles for the regulation of the T. Rogno



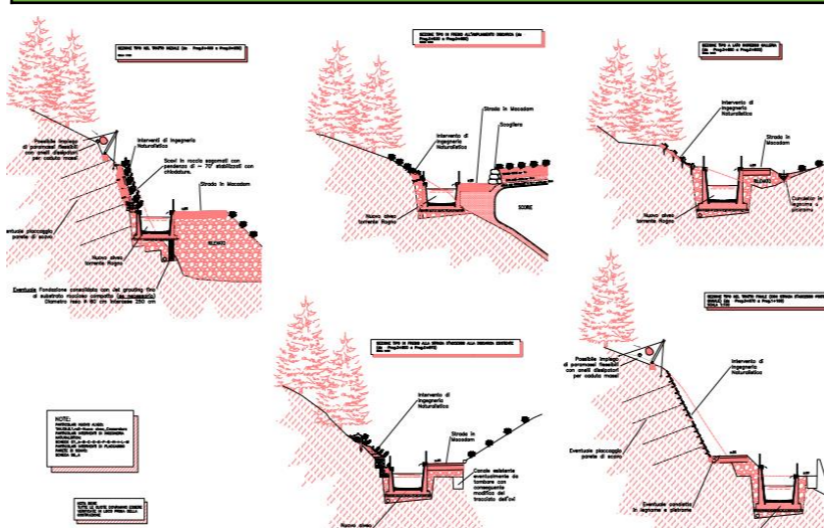
Retaining wall, artificial tunnel and gutter channel

### VAL ROGNO LANDFILL – Gutter channel

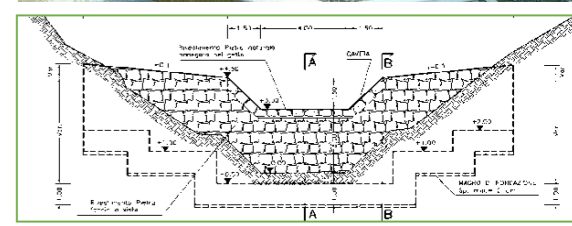


### Injections

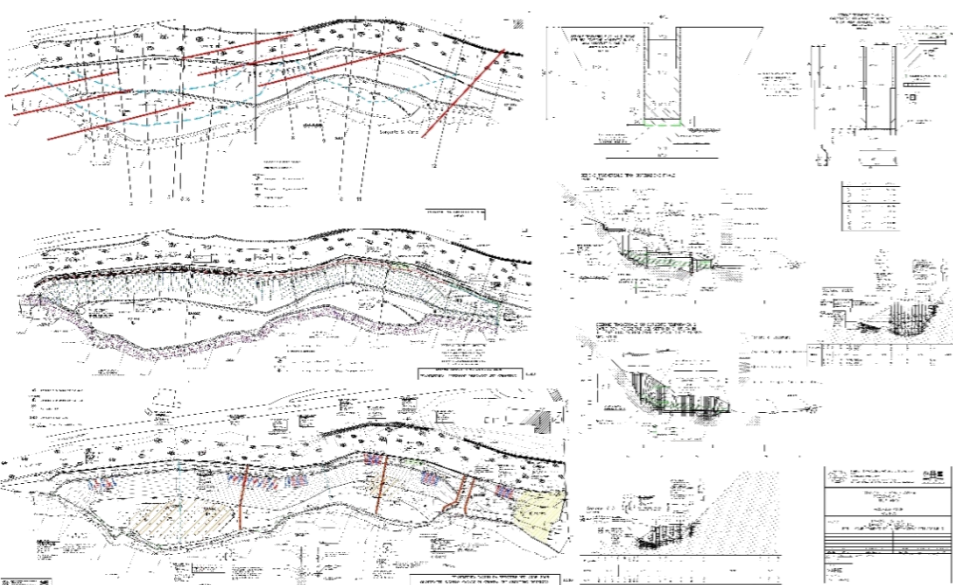
### Stepped channel of the new riverbed of the T. Rogno



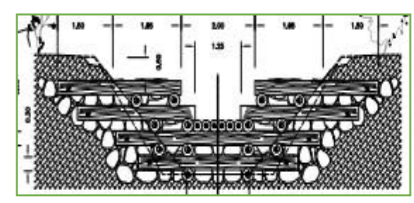
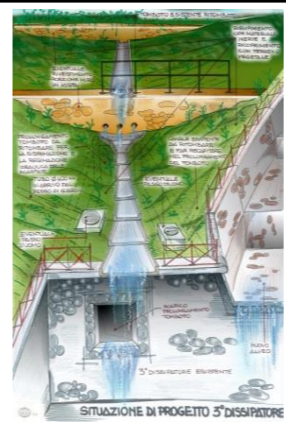
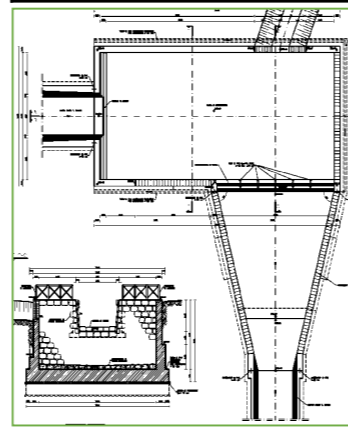
### Transverse bridles and longitudinal piling



### VAL RISO LANDFILL - Excerpts of tables and photographic documentation



### Hydraulic dissipator



WATERS, MINERAL WATERS,  
ENVIRONMENTAL GEOLOGY