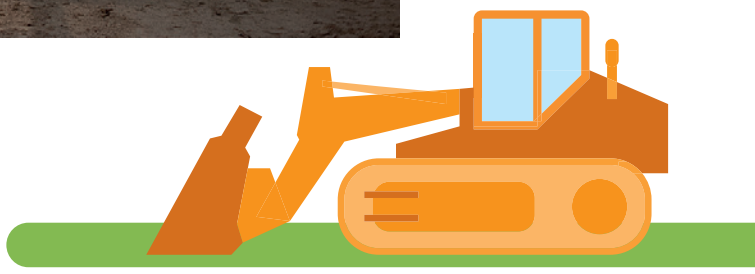
MAKING MINES AND QUARRIES SAFE



ECT

SOILS, PROJECTS, LIFE

THE WORK
ECT works in land development, in a 'circular economy' for excavated soil.

THE COMMITMENT
ECT reuses excavated soil to make mines and quarries safe.

THE NUMBERS
Every year, ECT handles 15 million tonnes of soil, plants 10,000 trees, and welcomes nearly 500 children for ecological and educational activities.

THE TEAMS
ECT employs a workforce of 190 people in the Île-de-France region, spread over fifteen operational sites.

A COMPLETE RANGE OF SERVICES
A UNIQUE EXPERTISE IN BACKFILLING

A COMPLETE PARTNERSHIP

ECT's expertise allows it to offer these services to mine and quarry operators:

- Handling the process for obtaining authorisation to backfill, with the twin goals of bringing in the greatest volume of soil while optimising the diversity of the types of soil used,
- Handling all the operational aspects of backfilling a mine or quarry (safety, productivity, traceability and environmental),
- Managing commercial relations with operators in the construction & public works sector to negotiate the terms whereby soil is provided,
- Logistical management of soil including setting up a backhaul.

SAFE CONDITIONS FOR TWIN ASPECTS OF WORK

ECT adapts its work to the operational conditions set out in the licence granted by the public authorities: Facilitation of mining operations, quality of materials, compaction required.
ECT arranges for full traceability of the flow of materials entering the site (grid plan) and of the quality of materials used as backfill.
ECT's work is a joint project, in that the company:

- Adopts the mine or quarry's safety procedures,
- Anticipates and adapts the phases of backfilling to the mine or quarry's extraction activities.

ADDITIONAL REVENUES

Bringing in the materials needed for backfilling becomes a source of revenue for the operator of the mine or quarry, and at the same time it ensures that the mine or quarry is made safe.
Backfilling is a 100% effective alternative to demolishing or caving-in galleries:

- Better control over the future stability of the site,
- It's a source of revenue and not a cost item.

Gallery being backfilled

BACKFILLING SUBTERRANEAN GALLERIES AND MAKING THEM SAFE

Packing a gallery

ECT's expertise gives it the ability to carry out, in coordination with the mine or quarry operator, operations for receiving materials for the zones to be backfilled, and preliminary works for making the galleries safe before backfilling. ECT is also able to install lighting and underground canteen facilities.

Depending how high the gallery is, ECT uses various techniques for backfilling:

- Direct packing of the gallery. This means creating a ramp up to the roof of the gallery and backfilling in such a way as to leave a residual cavity only a few centimetres high,
- Horizontal backfilling in successive passes, so as to make the base of the pillars safe before direct packing.

BACKFILLING QUARRIES AND MAKING THEM SAFE

For several years now, ECT has had all the necessary expertise for backfilling quarries so as to:

- Define the geotechnical stability of outdoor backfill, creating landforms and slopes to achieve this in accordance with best practice,
- Backfill very high elevations (> 100 metres high) with successive terraced embankments,
- Organise unloading zones that are safe despite steep inclines.

Quarry

REHABILITATING A MINE OR QUARRY AT THE END OF ITS LIFE

Once the mine or quarry has been made safe, it can be given value and a useful role in many ways: green spaces, environmental mitigation zones, biodiversity zones, sites for renewable energy. ECT has developed expertise and a range of partnerships that enable it to carry out land developments of this kind.

INNOVATION FOR MORE EFFICIENT WORKING

Unloading dock

—BUILD AN EXTERNAL UNLOADING DOCK

On the Placo® site at Vaujours, ECT has installed an external unloading dock. It's a 100% win: win project for all the stakeholders.
This dock saves time. Unloading materials her takes only 8 minutes (instead of 45 minutes). Specialist 'pusher' trucks transport the materials to the mine galleries; safety in the mine is enhanced.

—DEVELOP BACKHAULING

Backfilling a gypsum mine creates the opportunity for establishing backhauls by making the return journey laden with extracted raw materials. This solution is even more cost-effective because it fits into the existing flow logistics.

KEY FIGURES

15 million
tonnes of excavated materials handled annually

190 staff

15
sites regularly in operation in the Île-de-France region, of which one-third are mines or quarries

The photos were taken at the Placo® site at Vaujours(93), at Cormeilles-en-Parisis (95) and at Baillet-en-France (95).

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