



Stendafjellet

Rock Quarry and Underground Waste Disposal



Rock bolting cavern wall | Photo: FSG

Stendafjellet is located 8 km south of Bergen city centre, where FSG is operating an underground quarry and crusher plant. Excavated rock volumes are later used as depositing sites for contaminated soil and waste with low organic content. All urban societies are consumers of crushed rock, and produce waste and polluted materials. The operation shows that it is possible to excavate caverns with large vertical dimensions at low costs in area with high level of urban development. The facility has been in operation for about 15 years with economical results enabling the operation to expand, and with full approval by the environmental authorities.

PROJECT	PROJECT TYPE	LOCATION	CLIENT	PERIOD	KEY NUMBERS
Stendafjellet	Rock Quarry and Underground Waste Disposal	Bergen, Norway	Fana Rock and Recycling Holding LTD (FSG)	2000 -	8 rock caverns; 25 m wide; 55 m high; 250 m long 250.000m ³

SCOPE OF WORK

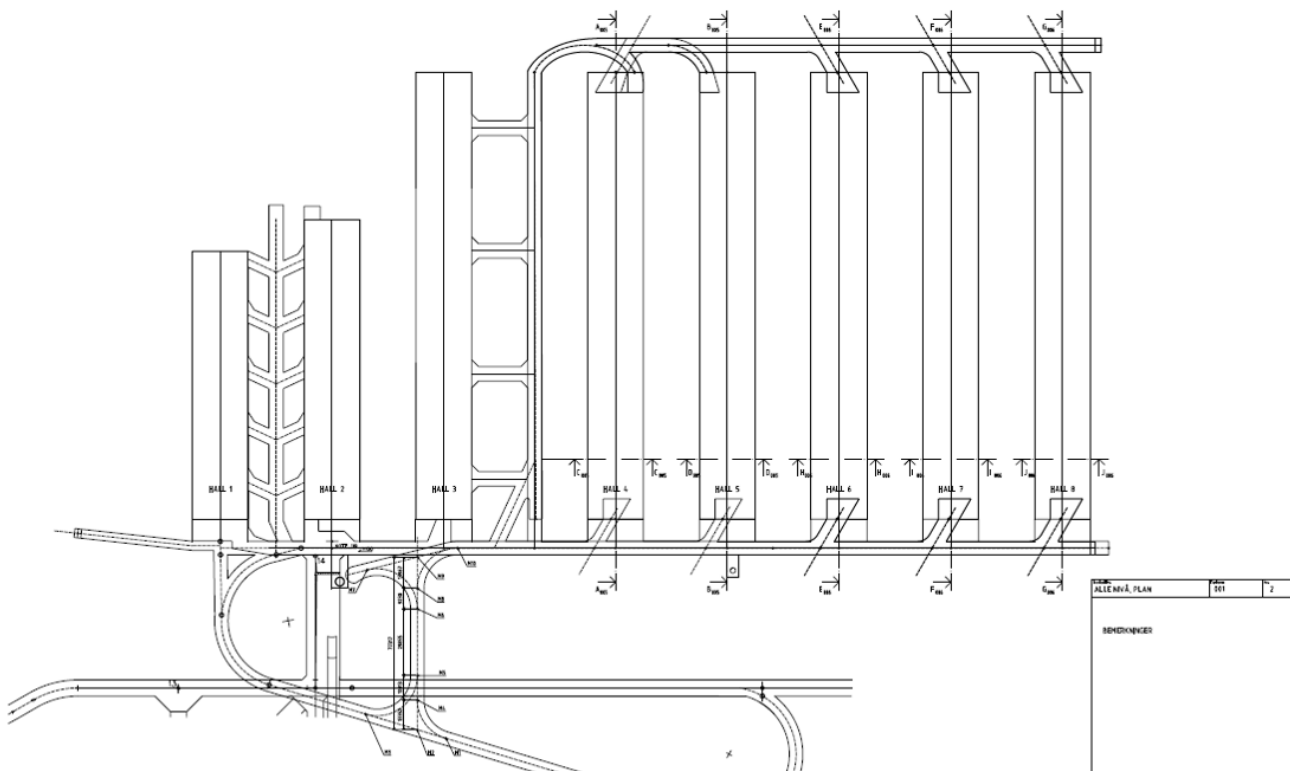
The rock caverns in the Stendafjellet have been built during the last 15 years. The first 5 caverns have very good rock conditions. The last three caverns have successively poorer rock quality due to fracturing. Fracture zones contain swelling clay that require heavier rock support. Caverns are excavated with the drill and blast method. Each hall consists of a top bench + 3 benches with maximum height 13 m. The average permeability of the rock mass is generally low. Groundwater surveillance and testing are established.

OUR SERVICES

- Design and geological supervision
- Groundwater control
- Environmental consultant
- Contract management

DISCIPLINES

- Rock mechanics
- Engineering geology
- Environmental geology



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