

Headrace Tunnel UMA OYA Multipurpose Project

Banderawela, Srilanka

DYRAABA TUNNEL

Project aim

145 mil.cu. of water transfer for irrigation of dried area in S-E of Srilanka

Construction Costs

Construction Headrace TU: approx. USD 135 million

Project Schedule

Design: 2013
Construction: will be started in 2013

Project Description, Construction Headrace

Headrace tunnel between Dyraaba dam to valve chamber and powerhouse shaft, circular profile

Length: 15650 m
Curve radius: Straight
Gradient: 1% and 0.2 %

Method of Excavation

Double Shield TBM \varnothing 4.30 m

Geology

Leucocratic Feldspar Gneisses, Charnockitic Gneisses, undifferentiated, Garnet Gneisses, Quartz-rich Gneisses to pure Quartzites, Marbles and Calc-Silicate Gneisses

Max. overburden: 700 m

Our Services

Detail design, including
General method statement, TBM selection, preparation of TBM specifications
Design of site installation and site pavement and cradle for TBM installation in two portals
Trench design of portal (geometry and stability)
Engineering geology and geological hazards considering TBM tunnelling
Haulage system design
Disassembly detail design
Design of all technical services like transport, ventilation, drainage, water supply, compressed air
Segment factory: type selection and mould estimation
Backfill grouting
Monitoring plan
Preparation of detailed list of equipments and consumables

Client and Contact Person

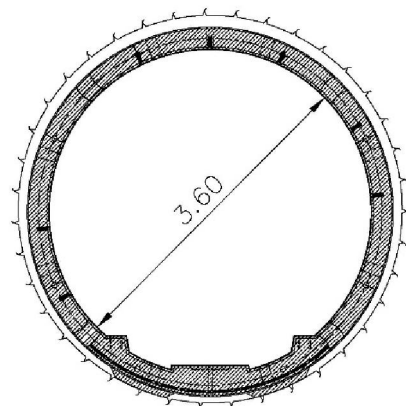
Farab Co. (Energy & Water Projects)
Mr. Mostajer Haghighi (Project Director)
Mr. Foroutan (Head of Engg. Dept.)



Project master plan



Assembly of first TBM at exit of Dyraaba headrace Tunnel



Cross-section of 4-piece honeycomb segmental lining