

Port Mann Main Water Supply Tunnel



SURREY, BC

Port Mann Main Water Supply Tunnel

COMPLETION DATE

December 2014

VALUE OF CONTRACT

\$150,000,000

OWNER

Greater Vancouver Water District
Allen Mitchell
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CONSULTANT

Jacob Associates
OWNER'S PROJECT MANAGER
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Project Description

Shafts consist of unreinforced slurry walls with structural concrete lining. Tunnel is precast segmental with a steel carrier pipe grouted into the tunnel. Two valve chambers - one either side consisting of shoring, excavation, cast in place concrete, mechanical and electrical.

TUNNEL MINING DIMENSIONS

3.5m Ø x 1000m under the Fraser river

EXCAVATION METHOD

Earth Pressure Balance TBM- pressure up to 6 bar

GEOLOGY

Glacial Till containing a variety of soils ranging from soft to stiff clays and silts, compact to very dense sands and gravels, cobbles to nested boulders.

TUNNEL INITIAL SUPPORT

Precast Concrete Segmental Lining, 250mm thick x 3300mm Ø O.D.

TUNNEL FINAL LINING

Steel Pipe 25mm wall thickness x 2134mm Ø O.D.