



DANIEL SMITH INDUSTRIES LTD

JOB PROFILE

Church Street Carpark Dewatering
Queenstown, New Zealand

Client:	Amalgamated Builders
Design:	Holmes Consultancy, Wellington
Dewatering Sub Contract Value:	\$250,000.00
Contract Period:	August 1999 to March 2000
DSI Project Manager:	Trevor Schimanski

Daniel Smith Industries were subcontracted to Amalgamated Builders to provide dewatering services for an excavation area of 80m x 50m x 5m deep to enable construction of a new underground carpark on the immediate shore line of Lake Wakatipu at Queenstown.

The ground conditions were glacial permeable silts with site water table fluctuating to the same level as the lake being 1 - 1.5m below ground level.

Dewatering was required to a depth of 5m below ground level equaling approximately 4m below normal water table to allow access for the construction of the underground concrete car park.

Daniel Smith Industries installed a perimeter vacuum well point system using 100mm x 50mm diameter Johnson type well screens, installed to a depth of 8m. 3no. Sykes VP 150 E vacuum pumps were connected to a 150mm main line which discharged to a 500mm diameter temporary line to the lake. Pumps were powered by a 275 KVA Deno generator. 1050m³ of water per hour was pumped from the excavation, 24 hours per day, continually for 8 months to hold the water at 5m below ground level.