

Reference projects

Thermal laboratory measurements

Object **Test borehole Koralm-Tunnel Graz-Klagenfurt**: Measuring thermal conductivity, specific heat capacity and radiogenic heat production on 90 rock samples (drilling cores). Client: Arge Koralm AG Zürich, 2000.

Object **Deep Heat Mining Bohrung Otterbach 2, Basel**: Measuring thermal conductivity, specific heat capacity and radiogenic heat production on 30 rock samples (Cuttings and drilling cores). Client: Häring Geoproject Steinmaur, 2001.

Object **Thermal conductivities measurements on rock samples of Canton Ticino**: Measuring thermal conductivity on 26 rock samples as fundamental database for geothermal facilities in Canton Ticino. Client: Instituto di scienze della terra 6952 Canobbio, 2003.

Object **Thermal measurements on bentonite samples**: Measuring thermal conductivity, specific heat capacity on 5 bentonite samples (→nuclear waste storage). Client: Geotechnisches Institut der ETH Zürich, 2004.

Object **Alptransit Gotthard Base tunnel, Thermal measurements on 60 rock samples (sampling in connecting galleries)**: Measuring thermal conductivity, specific heat capacity and rock density. Client: Aerodynamik & Klima ATG (HIB Haerter AG, Bern), 2005- 2009.

Object **Hotel Jana, Postojna Slovenia, Thermal measurements on borehole samples**: Measuring thermal conductivity, specific heat capacity and density on 5 Cutting samples. Client: Geowatt AG, 8050 Zürich, 2005.

Object **Ceneri Alptransit Tunnel**: Measuring thermal conductivity on 4 rock samples. Client: Geowatt AG, 8050 Zürich, 2006.

Object **Test-borehole heat exchanger, Science City-Campus ETH Zürich**: Measuring thermal conductivity, density and porosity on 24 cutting samples as well as geological well logging of 7 boreholes. Client: Geowatt AG, 8050 Zürich, 2007.

Object **Thermal conductivity**: Calibration of in-situ measurements (NIMO-T) together with laboratory measurements as basic tool for geothermal mapping of Canton Zurich and adjacent cantons. Measuring thermal conductivity on 72 cutting samples from 30 heat exchanger boreholes and temperature logging in heat exchanger boreholes. Client: Bundesamt für Energie, Bern, 2008

Object **Projekt SAPHIR, thermal measurements on rock samples**: Measuring thermal conductivity and specific heat capacity on 18 drilling cores. Client: Geologisches Institut der ETH Zürich, 2008.

Object **Geothermal well for greenhouse Schlattigen**, Thermal measurements on cuttings and drilling cores: Measuring thermal conductivity and specific heat capacity on 46 rock samples. Client: Universität Neuenburg, 2012.

Object **Rock samples from Lebanon**, Measuring thermal conductivity on 24 rock samples (Outcrops). Client: Geowatt AG Zürich, 2012.

Geothermal heat pump facilities

Borehole heat exchangers (BHE)

Geological support (lithologic profile descriptions) of more than 800 boreholes ...

Dimensioning of more than 70 BHE fields ...

Object **Neubau Fachhochschulzentrum Bahnhof Nord, 9000 St. Gallen**: Dimensioning of BHE group for heating and cooling. Client: Hochbauamt Kanton St. Gallen, 2004.

Object **Überbauung Engelswisen II, 8180 Bülach**: Dimensioning of BHE group of 36 boreholes for heating . Client: Elektrizitätswerke des Kantons Zürich, 2004.

Object **Überbauung Wolfswinkel, Zürich-Affoltern**: Dimensioning of BHE group for heating. Client: Karl E. Weber Ingenieurbüro für Haustechnik, Oberhasli ZH, 2005.

Object **Neubau Geltenwilenstrasse 16-18, 9000 St. Gallen**: Dimensioning of BHE group for heating and cooling. Client: Bauengineering.com AG, St. Gallen, 2006.

Object **Wohnüberbauung „Am Schlossberg“, Schlossmühlestrasse, 8404 Winterthur**. Dimensioning of BHE group with 24 boreholes for heating. Client: Polartherm AG, 8105 Regensdorf, 2008.

Object **Wohnüberbauung Bombach, 8049 Zürich-Höngg**: Dimensioning of BHE group with 48 boreholes to 325 m depth. Client: HPS Energieconsulting AG, 8703 Erlenbach, 2011.

Object **Wohnüberbauung Paradies, Dangelstrasse 14 – 42, 8038 Zürich**: Dimensioning of BHE group with 48 boreholes to 260 m depth Client: Stadt Zürich, Amt für Hochbauten, 2011.

Object **Wohnüberbauung Albisstrasse 118, 8038 Zürich**. Dimensioning of BHE group with 14 boreholes to 300 m depth. Client: HPS Energieconsulting AG, 8703 Erlenbach, 2011.

Object **Schulhaus Pächterried, 8105 Regensdorf-Watt**: Dimensioning of BHE group with 9 boreholes to 290 m depth. Client: CM Engineering AG, 8600 Dübendorf, 2013.

Object **MFH-Siedlung Sonnebergstrasse, 8600 Dübendorf**: Dimensioning of BHE group with 22 boreholes to 260 m depth Client: Ewald Spandel, Planungsbüro für Haustechnik, 8173 Neerach, 2013.

Object **Zentrumsüberbauung Kern-Süd, 8610 Uster**: Dimensioning of BHE group with 18 boreholes to 400 m depth and geological support. Client: CM Engineering AG, 8600 Dübendorf, 2014.

Object **Instandstellung Restaurant Albisgütli, 8045 Zürich**. Dimensioning of BHE group with 22 boreholes to 220 m depth Client: CM Engineering AG, 8600 Dübendorf, 2015.

Heat extraction from groundwater

Dimensioning and hydrogeological support of more than 20 groundwater heatpump facilities .

Object **ARA Eglisau**: Dimensioning and hydrogeological support of groundwater well facility for geothermal utilization. Client: Elektrizitätswerke des Kantons Zürich 2003.

Object **Wohnüberbauung Hofacher, 8185 Winkel**: Dimensioning and hydrogeological support of groundwater well facility for geothermal utilization. Client: Elektrizitätswerke des Kantons Zürich 2003.

Object **Amtshaus IV Parkring 4, 8002 Zürich**: Dimensioning and hydrogeological support of groundwater well facility for geothermal utilization (heating and cooling). Client: Amt für Hochbauten der Stadt Zürich, 2007.

Object **Wohnüberbauung Sinfonia, 8604 Volketswil-Kinhausen**. Dimensioning and hydrogeological support of groundwater well facility for geothermal utilization. Client: Elektrizitätswerke des Kantons Zürich, 8002 Zürich, 2010.

Object **Wohnüberbauung Im Gut, 8172 Niederglatt**: Dimensioning and hydrogeological support of groundwater well facility for geothermal utilization. Client: Elektrizitätswerke des Kantons Zürich, 8002 Zürich, 2010.

Object **Business Box Schulstrasse 165+167, 8105 Regensdorf**: Dimensioning and hydrogeological support of groundwater well facility for geothermal utilization (heating and cooling). Client: Nur Immobilien AG, 8704 Herrliberg, 2011.

Object **Wohnüberbauung am Feldweg, 5102 Rapperswil**: Dimensioning and hydrogeological support of groundwater well facility for geothermal utilization. Client: Elektrizitätswerke des Kantons Zürich, 8002 Zürich, 2011.

Object **Accarda Birkenstrasse 21, 8306 Brüttisellen**: Dimensioning and hydrogeological support of groundwater well facility for geothermal utilization (heating and cooling) in artesian groundwater layer. Client: CM Engineering AG, 8600 Dübendorf, 2012.

Object **Dienstleistungsgebäude ‚Brüel‘ & ‚Hotel Obstgarten‘, 8203 Kloten**: Dimensioning and hydrogeological support of groundwater well facility for geothermal utilization (heating and cooling). Client: Huber Energietechnik AG, 8036 Zürich, 2013.

Object **Schützeareal Heinrichstrasse 240, 8005 Zürich**: Dimensioning and hydrogeological support of groundwater well facility for geothermal utilization (heating and cooling). Client: Stadt Zürich, Amt für Hochbauten, 2014.

Hydrogeological research projects

Object **Brandschenkestrasse – Bleicherweg, 8002 Zürich**:
Exploration of deeper groundwater layers in unconsolidated Quaternary rocks. Client: Kanton Zürich, AWEL, Abteilung Gewässerschutz, 2015.

Object **Zürich-Oerlikon, artesian area**: Investigations on existing test boreholes and heat exchanger boreholes. Client: Kanton Zürich, AWEL, Abteilung Gewässerschutz, 2016.

Ground soil (foundation) testing

more than 5 facilities examples

Object **MFH-Überbauung Seebühlstrasse 8185 Winkel**: subsoil investigations for apartment house. Client: Hänni Lanz Partner AG, 8307 Effretikon, 2007.

Object **Im Struppen 1-9/Badenerstrasse 713+717**:
Hydrogeological investigations for subsoil analysis. Client: Halter Generalunternehmung AG, 8005 Zürich, 2002.

Object **Wehtalerstrasse 30 Niederweningen**: subsoil investigations for apartment house. Client: Werubau AG, 8703 Meilen, 2008.

Object **Boglerenstrasse 66 8700 Küsnacht**: subsoil investigations for single-family house. Client: Käferstein & Meister, 8005 Zürich, 2008.

Object **MFH-Überbauung ‚Wey-Areal‘, 5612 Villmergen**: subsoil investigations for apartment houses. Client: Schweizer Bauunternehmung AG, 8370 Sirmach, 2014.