

Alexander Trapp, M.Sc.

WATER RESOURCES ENGINEER/ HYDROGEOLOGIST



EDUCATION

M.Sc., Water Resources Engineering and Management, University of Stuttgart, 2012

B.Eng., Civil Engineering, University of Applied Sciences, Konstanz, 2009

Paramedic Certification, EMS School Nellinghof, 2005

EXPERIENCE

SUMMARY

Alex Trapp has a M.Sc. in Water Resources Engineering and Management and a B.Eng. in Civil Engineering. He has three years of professional experience in mining hydrogeology and environmental analyses. Alex joined Robertson GeoConsultants Inc. in 2012 as a Water Resources Engineer and again in 2016.

His technical experience includes planning and supervision of drilling programs, hydraulic testing, well installation, and water quality sampling. Alex also has experience in numerical groundwater flow and transport modeling ranging from 1D models for seawater intrusion and seepage analysis to large, complex 3D models in support of mine water management. Furthermore, he has experience in reviewing geotechnical testing and finite strain consolidation modelling for tailings seepage analysis.

PROFESSIONAL HISTORY

2016-present:	Water Resources Engineer, Robertson GeoConsultants Inc.
2014-2015:	Environmental Engineer, GECOS GmbH
2012-2014:	Water Resources Engineer, Robertson GeoConsultants Inc.
2010	Research Assistant, University of Stuttgart
2008	Site Engineer, Zueblin Scandinavia
2002-2005	Emergency Medical Technician, Red Cross Germany

PROJECT EXPERIENCE

MINE PERMITTING AND PRE-FEASIBILITY

Prairie Creek Mine, NWT, Canada (2012 - present) for CZN Corporation

- Supervised overburden and baseline water quality characterization study
- Developed hydrostratigraphic model (GMS)
- Performed 3D numerical groundwater flow modeling (FEFLOW) for mine dewatering and closure planning

Magino Gold Project, Ontario (2013-2014) for SLR Consulting

- Supervised hydrogeological core drilling and hydraulic testing campaign
- Performed 2D vertical numerical modelling (FEFLOW) to estimate seepage from adjacent lake into proposed pit
- Developed conceptual and numerical site-wide 3D groundwater flow model (GMS/MODFLOW)
- Undertook tailings seepage and interception study (FEFLOW)
- Assisted in mine dewatering test planning

San Antonio Gold Project, Mexico (2012-2013) for SLR Consulting

- Constructed 2D numerical density-dependent flow model (FEFLOW) to study the impacts of open pit mining on seawater intrusion

OPERATING MINES AND MILLS/ TAILINGS FACILITIES

El Abra Mine, Chile (2012 - 2013) for ARCADIS Chile

- Reviewed geotechnical material testing and derived parameters relevant for seepage estimation
- Developed integrated seepage model for the life of mine using finite strain consolidation (FSConsol) and spreadsheet modeling
- Estimated basal seepage for post-closure period using unsaturated flow draindown modeling (FEFLOW)

Sierra Gorda, Chile (2012) for Sociedad Contractual Minera

- Performed water balance modeling to determine make-up water requirements for various proposed tailings storage scenarios

Myra Falls Mine, BC (2016 - present) for Nyrstar

- Completed field testing of drain system and performed ground and surface water quality sampling
- Optimized operation of under-drains. Developed site-wide seepage and groundwater interception plan

MINE CLOSURE

Faro Mine, Yukon (2014) for Yukon Government

- Involved in waste rock drilling program.
- Supervised Symmetrix drilling, and monitoring and pumping well installation.
- Performed hydraulic testing

SITE INVESTIGATION AND REMEDIATION

Shell Service Station, BC (2013) for NEXT Environmental

- Assisted in construction quality assurance and performance monitoring of a hydraulic shotcrete barrier and drainage system

SITE ENGINEERING AND PROJECT COORDINATION

Citybanan, Stockholm (2009) for Swedish Transport Authority

- Supervised sheet piling, rock bolt installation, drilling, and rock and jet grouting for tunnel construction
- Site-wide monitoring of groundwater levels

GROUNDWATER DEVELOPMENT

Various Sites (2012-present)

- Design, analysis and interpretation of slug and pumping tests
- Numerical groundwater flow modelling to provide professional opinion on aquifer yields