Project Hydrogeologist

Expertise	Groundwater Modeling, Programming, Data Management, Field Investigations, Contaminant Transport Modeling
Education	M.S. (Hydrology), 2014 Colorado School of Mines, Golden, Colorado, USA
	B.S. (Environmental Science), 2008 University of Tennessee, Knoxville, Tennessee, USA

Professional Experience

2014 – Present	*Itasca Denver, Inc., Lakewood, Colorado* *Project Hydrogeologist*
2012 – 2014	*Colorado School of Mines, Civil and Environmental Engineering, Golden, Colorado* *Research Assistant*
2011 – 2012	*Littlejohn Engineering Associates, Inc., Chattanooga, Tennessee* *Engineering Technician*
2009 – 2011	*Peace Corps, Elias Piña, Dominican Republic* *Environmental Educator*

Project Experience

Groundwater Modeling: Developed and calibrated groundwater flow models for pit-slope stability analysis and dewatering. Constructed groundwater flow models for contaminant transport evaluation using *MODFLOW* within Groundwater Vistas and Visual *MODFLOW*. Provided third-party technical reviews of groundwater flow models for clients involved in litigation. Technical reviews have included reading and writing in technical Spanish.

Contaminant Transport: Provided third party reviews of contaminant transport models of aquifers contaminated with chlorinated organic compounds and conducted screening level assessments using the Environmental Protection Agency's BioScreen tool. Developed an analytical contaminant transport model that was evaluated against field observations and results from *MT3D*. This model is used by the state of Florida to evaluate potential groundwater contamination from on-site wastewater treatment systems.

Field Investigations: Conducted aquifer tests to collect hydrologic parameters via pump tests, slug tests, and tracer tests. Conducted flow and shut-in hydraulic test in underground mine sites. Installed pressure transducers and implemented geophysical surveys.

Data Management and Analysis: Experienced in the development and maintenance of SQL databases for the storage and processing of hydrogeologic data. Developer of the Itasca Hydrologic Observation Data viewer (IHOD), an open source GIS program for viewing and analyzing spatial and temporal hydrogeologic data.

Programming: Experienced in programming with Excel VBA, Python, JAVA Script, and C++ as well as hydrologic modeling programs, including *MODFLOW*, *RT3D*, *MT3DMS*, *SUTRA*, *SEAWAT*, *PEST,* and *Hydrus*.

Leadership: Technical representative for local communities participating in government-sponsored environmental initiatives. Tasks included conducting meetings with local stake holders and communicating project concerns to appropriate governmental officials at all levels, including the Minister of Environment for the Dominican Republic. All communication took place in Spanish.