

Mark J. Vanarelli, PhD, PE, IntPE, CEng (UK), PG, BCEE, F. ASCE
1413 N. Country Club Circle
Carlsbad, New Mexico 88220
Phone: 720-768-0339
Email: drmarkvanarelli@gmail.com

Professional/Academic Experience

02/2022-Present

**United States Department of Energy, Waste Isolation Pilot Plant (WIPP) –
Carlsbad, New Mexico**

***Mining Engineer SSO – Senior SME (Subject Matter Expert) (GS-14) in
Geomechanics, Ground Control & Support***

I provide senior technical advice and recommendations to the WIPP/CBFO Manager, Assistant Manager, and Director, Facility Engineering Division, on matters pertaining to mining engineering, ground control, mine safety, underground mine construction and drift, back and ribs maintenance, mine shaft and hoist construction and maintenance, surface mining facilities, and systems construction and maintenance, and input and coordinates with other CBFO staff. I serve as the CBFO senior technical specialist and lead underground activities involving WIPP mine operations, and the relationship of nuclear, environmental, health and safety requirements to the WIPP mine operations. I prepare reports, maintain records of technical work accomplishments and coordinate the preparation, presentation and communication of work-related information to other CBFO staff.

Official European Assignment: Bochum, Germany. I visited a steel manufacturing and operations facility to evaluate yielding arches as ground support systems for the WIPP mine. Also, I visited two mines in Poland. Both mines utilized yielding steel arches. One mine was a salt mine in Wieliczka, Poland and another was the Wesola Coal Mine near Katowice, Poland. (Completed July 2023)

Special Assignment: Sanford Research Underground Facility (SURF) in Lead, South Dakota, USA. Performed a Cooperative Agreement Review for extended funding for the facility on a six-membered committee. Review consisted of geological/geo-mechanical assessment of the newly excavated portion of the facility. Site geology consisted of igneous/metamorphic rocks interwoven with sedimentary rocks and various volcanic intrusions. Completed March 8, 2024).

Special Assignment: Idaho National Laboratory (INL) near Idaho Falls, ID. Performed Site Investigation Reviews and Shaft Inspections for INL. I evaluated construction activities of two shafts for small modular reactors (SMR) at the facility. I reviewed structural engineering drawing for compliance with OSHA & MSHA rules and regulations. I performed a geological engineering review for changing subsurface conditions that included unconsolidated sediments and basaltic lava flows. Continued with oversight from May 2026 to present.

“U.S. Department of Energy’s Deep, Geological, Underground Repository for Transuranic Waste at WIPP in Carlsbad, New Mexico, USA”, September 5, 2024.

Colorado School of Mines' Mining Seminar Series. Presentation Webinar Link: <https://www.youtube.com/watch?v=f8m11RmAyrk> and Announcement: <https://mining.mines.edu/wp-content/uploads/sites/28/2024/09/Mark-Vanarelli-PhD.jpg>

03/2000-Present

COVAN Engineering LLC, Westminster, Colorado

President/Principal Engineer (part-time, 5-25 hours/per week between other job assignments.)

My experience and education for the last several years has focused on several areas of mining, civil and natural resources engineering. My expertise is in civil engineering, mining/tunnel engineering, groundwater engineering and geological engineering.

- Managed all engineering work for civil, mining, geological and geotechnical projects. Planned and maintained budgets on various projects.
- Managed and directed the renovation of a jailhouse in Costilla County, Colorado. This work included preparation of contract documents, specifications, and drawings. Drawings for structural, fire protection, electrical designs, etc. were prepared in accordance with local and state building codes.
- Recommended methods to mitigate excessive groundwater buildup in the Leadville mine drainage tunnel.
- Performed environmental site assessments.
- Recommended methods for reclamation of former mine sites.
- Prepare proposals for various business opportunities.
- Prepared feasibility studies.
- Responsible for the overall profit and loss of engineering projects.
- Coordinate meetings with clients and interface with government officials and attorneys.
- Underground Storage Tank/Environmental Evaluations
- Coordinate all business development and marketing efforts.
- Clients include land developers, geotechnical laboratories, local/state agencies and private companies/citizens.

Litigation Support (Expert Witness)

- Consulting Expert for Brannan Companies in Denver, Colorado (2019) for technical review of specifications on the construction of a shaft and associated tunnel. Provided recommendations to legal counsel.
- Expert Witness for White and Steele, P.C., Denver, Colorado. Littleton My Mart vs. Tank Tech, Inc. Case (2020-2021) Evaluated UST restoration and impacts to groundwater. Report Issued February 18, 2021; Case settled March 3, 2021., Case No: 2020CV31756; Claim No. 3002761.
- Expert Witness for MyNatt Springer P.C, Las Cruces New Mexico – Provided Expert Witness evaluation on drilling operations for a Water Supply Well owned by the City of Las Cruces in dispute with KP Ventures Drilling Company. Prepared technical report, deposition and testimonial. Completed assignment September 15, 2023.

5/2019 – 8/2019

Colorado School of Mines, Golden, Colorado

Adjunct Professor - Engineering Department (Part-time, one-month summer assignment over three months)

MNGN300, SUMMER FIELD SESSION

I advised undergraduate and graduate students on operations at several mines/quarries/tunnels in Colorado including:

- Cripple Creek & Victor Gold and Silver Mine (Surface Mine)
- Climax Molybdenum Mine (Surface Mine)
- Climax Water Treatment Facility
- Yule Marble Quarry (Underground Mine/Quarry)
- Glenwood Springs/Hanging Lake Reverse Curve Tunnels
- Mountain Coal Elk Mine LLC (Underground Mine)
- Trapper Coal Mine (Surface Mine)
- Twenty-Mile Coal Mine & Mill (Underground Mine)
- Henderson Mill for Molybdenum.

5/2017 – 8/2018

University of Kurdistan – Hewler (Erbil, Iraq)

Founding Department Head of Civil Engineering (Equivalency: above GS-15)

I was responsible for the development of a new Civil Engineering Department at the University. This department is autonomous with all other engineering departments. I developed a new curriculum program for civil engineering, and I was responsible for recruiting all new faculty to the program. I was responsible for assigning new faculty to courses/modules and monitoring their performance. I was responsible for budgeting and financial management of department funds. I reported directly to UKH's Dean of Science and Engineering. I taught undergraduate and graduate courses in civil, geological, water resources and mining engineering.

2/2017 – 8/2018

University of Kurdistan – Hewler (Erbil, Iraq)

Associate Professor in Mining Engineering

I was an advisor to the Executive Administration of the University. I recommended curriculum changes to improve mineral and mining engineering, water resources engineering and civil engineering programs at the University. I also recommended program changes to aid the administration in acquisition of international engineering accreditation through ABET. Finally, I taught courses in mineral resources engineering and water resources engineering including:

MRE 301, IGNEOUS AND METAMORPHIC PETROLOGY W/LAB (Spring '17)
WRE 306, GROUNDWATER ENGINEERING (Spring '17)
MRE 403, ROCK MECHANICS (Fall '17)
CIE 207, GEOLOGY FOR ENGINEERS (Spring '18)(Civil Program)

2013

Missouri University of Science and Technology, Rolla, MO

Visiting Assistant Professor located in Ar'ar, Saudi Arabia (3-month contract)

Provided technical instruction to 120 operational personnel for Ma'aden Mining Company through a collaboration of Saudi Mining Polytechnic and the Missouri University of Science and Technology. Courses include:

MIN 123, TECHNICAL COMMUNICATIONS IN MINING
MIN 126, INTRODUCTION TO MINING OPERATIONS
MIN 128, INTRODUCTION TO MINING GEOLOGY

2004-2010

Colorado School of Mines, Golden, Colorado

Adjunct Lecturer – Mining Engineering Department

MNGN321, INTRODUCTION TO ROCK MECHANICS WITH LAB
DCGN 241, ENGINEERING MECHANICS (Statics) – 3 Semesters
CSM 101, FRESHMAN SUCCESS SEMINAR

2010-2011

Knight Piesold and Company, Denver, Colorado

Senior Project Manager

- Managed, supervised and coordinated various projects in mining, geotechnical, hydrological and hydrogeological engineering. Specific projects include *San Cristobal Mine Project, Bolivia, S.A, Bear Lodge Project, Wyoming, USA, N. A, Yanacocha Mine - La Quinua North Waste Dump and Open Pit Project, Peru, S. A., and Middle Modi Hydropower Project, Nepal, Asia.*
- Responsible for a rock slope stability analysis of the open pits at gold and silver mines. The work included identifying discontinuities in the rock mass such as faults, fractures, bedding planes and joints that could reduce the rock strength and lead to instability in the rock mass.
- Identified areas where groundwater inflows could interfere with mine development.
- Recommended field instrumentation for proper monitoring of the rock slopes.
- Developed a rock slope stability course for on-site professionals for the maintenance of field equipment and the on-going analysis of rock slope data. All information collected would be used to evaluate the rock mass quality and determine the Rock Mass Rating (RMR) at specific formations.

- Also, responsible for the Geotechnical and Hydrogeological Investigation Program at a rare earths elements (REEs) deposit. The work includes supervision and coordination of borehole drilling, well installation, rock coring, and packer testing.
- Prepared the proposal, budget, interim and final reports for all programs.
- Conducted a senior technical review of a feasibility design report for the construction of a run-of-the-river dam. This work included a review of the surface and subsurface geology near the dam site and an associated tunnel.
- Chairman of the Health and Safety Committee where I developed plans for the 18001 certification program.

2006-2009 Colorado Division of Water Resources, Denver, Colorado

Professional Engineer

- Evaluated the effects of groundwater pumping from coal-bed methane formations to determine impacts to surface streams.
- Analyzed water court applications to ensure compliance with State Statutes and sound engineering principles followed by submittal of a written consultation report to the court which may include terms and conditions to protect vested water rights, manage the collection and publication of annual diversion records with development of quality control standards and met with the public to provide information on all aspects of water resource engineering and management.
- Answered questions on controversial issues from the public.
- Prepared quality control reviews using engineering judgment to ensure accuracy, consistency and completion of diversion records.
- Reviewed Substitute Water Supply Plans (SWSPs) and Augmentation Plans for Water Court Cases in accordance with state rules, regulations and laws (C.R.S., Title 37).
- Work efforts concentrated in areas of the western slope of Colorado.

1998 - 1999 Baltec Associates, Inc., Armonk, New York

Manager of Engineering Services (Equivalency: above GS-15)

- Provided overall management and technical guidance for the design of wastewater/remediation systems at petroleum bulk fuel distribution terminals and commercial fuel service stations in New York, Massachusetts, and Rhode Island.
- Reviewed designs of aboveground storage tank systems.
- Responsibilities include providing senior technical reviews of all engineering projects and managing six technical professionals (e.g., engineers and geologists) in the performance of all engineering projects.
- Supervised and coordinated soil vapor extraction tests and air sparging tests.

1997-1998 Port Authority of New York and New Jersey, New York City, New York

Consultant

- Managed large-scale petroleum hydrocarbon investigations and remediation programs for bulk fuel farms at Newark International Airport and John F. Kennedy International Airport.
- Responsibilities included developing oil and gas recovery programs.
- Coordinated work effort to develop contract documents and engineering drawings for Newark Monorail System.

1994-1996 Louis Berger and Associates, Inc., East Orange, New Jersey

Project Manager

- Managed and directed staff professionals in geological and geotechnical engineering projects.
- Responsibilities included review and preparation of final reports, proposals, cost estimates and schedules.
- Prepared feasibility studies.
- Coordinated geotechnical investigations for highway construction projects.
- Planned and maintained budgets on various projects.
- Managed six drill rigs with personnel.
- Collected rock cores and classified samples utilizing RQD methods.
- Performed vane shear tests.
- Projects included highway construction investigations, industrial and military closures (including UST closures/confined space entry) and commercial property transfers.

1992-1994 Handex of New Jersey, Inc., Morganville, New Jersey

Engineer

- Provided technical support to the senior engineering and hydrogeology staff in selecting, designing, installing, and maintaining equipment and systems used in oil and gas recovery programs.
- Responsibilities included supervising the closure of underground storage tank systems.

1989-1992 Clayton Environmental Consultants, Inc., Edison, New Jersey

Hydrogeologist

- Prepared proposals and final reports for environmental site assessments, soil and groundwater investigations/remediation programs.
- Supervised underground storage tank closures and confined space entry.
- Responsibilities included supervising soil remediation programs including landfarming and bioremediation, hollow stem drilling and monitoring well installation and preparing discharge investigative corrective action reports (DICARs) and ECRA submissions.

1987-1989 EBASCO Services, Inc. Lyndhurst, New Jersey

Geological Engineer

- Prepared work and field operation plans on several Superfund (CERCLA) projects.
- Responsibilities included preparing bid specifications for monitoring well installations, geophysical logging and packer testing.
- Performed packer testing on fractured rock systems.
- Estimated hydraulic flow rates of rock systems.
- Coordinated groundwater, surface water, soil and sediment sampling programs.
- Classified soil samples utilizing Unification Classification System and a Modified Burmeister system.

- Supervised air rotary, hollow stem, and roller bit drilling.
- Interpreted geophysical logging such as caliper, gamma, resistivity and spontaneous potential.
- Conducted downhole television camera surveys, pump tests and slug tests.
- Analyzed pump and slug test data to determine hydraulic conductivity of soil formations.

Education

B.S., Geological Sciences, Rutgers University, New Brunswick, NJ, 1983
 B.S./M.E., (Geological Engineer), Colorado School of Mines, Golden, Colorado, 1987
 M.E., Mining and Earth Systems Engineering, Colorado School of Mines, 2002
 PhD, Mining and Earth Systems Engineering, Colorado School of Mines, 2007

PhD Thesis:

Vanarelli, Mark J., 2007, Improvements to the Current State of the Practice in Steady-State, Groundwater Inflow Estimates into Rock Tunnels based on the Application of Statistical Analysis Methods of Packer Test Data obtained from Exploratory Borings During Geotechnical Site Investigations. PhD Thesis (T-6281), Colorado School of Mines. Also available at the U.S. Library of Congress.

Papers:

- **Vanarelli M.J.**, 2008. *Statistical Determinations of Steady-State, Groundwater Inflow in Rock Tunnels for the Radial Flow Condition*. American Society of Civil Engineers/Environmental and Water Resources Institute, Proceedings of the World Environmental & Water Resources Congress 2008, Honolulu, Hawaii; Ahupua'a: Sustainability from the Mountains to the Sea. [https://doi.org/10.1061/40976\(316\)637](https://doi.org/10.1061/40976(316)637)
- Jassim H.M., **Vanarelli M.J.**, Ahmed F.R., Sissakian V.K. and Omar, H.O, 2019. *Portal Landslide Analysis of the New Haibat Sultan Tunnels in Koya, Kurdistan Region, Iraq*, 14th International Conference Underground Construction Prague, Czech Republic, June 3-5, 2019. See www.researchgate.net for full paper.
- Sissakian V.K., **Vanarelli M.J.**, Jassim H.M., Omar H.O and Hamoodi D.A., 2020. *Chert Deposit Used in Cement Production as a Quartz-sand Alternative in the Iraqi Kurdistan Region: An Assessment Study*. Journal of Geotechnical and Geological Engineering 39: 1451–1464. <https://doi.org/10.1007/s10706-020-01568-z>
- **Vanarelli M.J.**, 2020. *A Geostatistical Solution to Estimating Groundwater Inflows in Deep Rock Tunnels with Validation through Case Studies*. Journal of Mining, Metallurgy and Exploration 38:347-357. <https://doi.org/10.1007/s42461-020-00321-7>
- **Vanarelli M.J.**, 2022. *Validation of a Semi-empirical Procedure for Estimating Steady-State, Groundwater Inflows in Shallow Rock Tunnels through Case Study Analyses*. Journal of Transportation Infrastructure Geotechnology. <https://doi.org/10.1007/s40515-022-00262-2>; <https://rdcu.be/cYvgk>
- **Vanarelli M.J.**, 2021. *A Geostatistical Solution to Estimating Groundwater Inflows in Deep Rock*

Tunnels with Validation through Case Studies. Special Extended Abstract/Summary, SME Mining Engineering Magazine, Vol. 73, No. 4, pg. 42-44, April 2021. See www.researchgate.net for full paper.

- Sissakian V.K., Jassim H.M., **Vanarelli M.J.** and Omar, H.O, 2021. *Slope Stability Analysis of Haibat Sultan Road Cut, Northern Iraq Using a Field Method*. Iraqi Geological Journal, 54(1F), 98-109. <https://doi.org/10.46717/igj.54.1F.9ms-2021-06-29>
- **Vanarelli M.J.** *Steady-State, Groundwater Inflows in Deep Rock Tunnels*. Rapid Excavation and Tunneling Conference (RETC) Proceedings, pg. 594-606, June 13-16, 2021, Las Vegas, NV, USA. See www.researchgate.net for full paper.
- Sissakian V.K., Jassim H.M., **Vanarelli M.J.**, and Omer H.O, 2024. *Comparative Analysis for Bejerman Versus Kinematic Methods for Slope Stability Analysis*. Iraqi Geological Journal, 57 (2C), 43-49. <https://doi.org/10.46717/igj.57.2C.4ms-2024-9-12>
- Jassim H.M., Sissakian V.K., **Vanarelli M.J.**, Jassim A.M., Basheer T. and Omar, H.O, 2025 Discover Minerals (Journal), *Magnetic Separation Studies on Asnawa Iron Ore, Penjween, Northeast Iraq*. <https://doi.org/10.1007/s44346-025-00012-5>; <https://rdcu.be/eUaK2>

Reference in Orcid ID: 0000-0003-1473-6791

Degree Supervision Completed at the University of Kurdistan Hewler:

Mohammed Jabbar Taheer, Senior Student Project, “*Case Study Review of Environmental Impacts from Mining Operations in the World and Recommendations for Mining Development in the Kurdistan Region*”, July 2018.

Oral Presentations:

“Development of a Country: the Kurdistan Region of Iraq”, presented at the Mining Engineering Department Seminar, Colorado School of Mines, April 3, 2019.

“Steady-State, Groundwater Inflows in Deep Rock Tunnels”, presented at the Rapid Excavation and Tunneling Conference, June 14, 2021, Las Vegas, NV, USA.

Professional Registrations/Certifications

- Licensed Professional Engineer (**PE**, since 1996) –New Mexico (#27955- Mining, Civil & Geol. Eng.), Nevada (#31843 - Mining, Civil, & Geological Eng.), South Dakota (Civil), Colorado (Civil), Pennsylvania (Civil), & New Jersey (Civil-Initial Licensure); USA.
- Model Law Engineer (**MLE**) – NCEES Record- Approved October 2023
- International Professional Engineer (**IntPE**) - International Registry for Professional Engineers (IRPE) and governed by the International Professional Engineers Agreement (IPEA) and secured through NCEES Record- Approved October 2024.
- Institution of Civil Engineers – Member (**MICE**), United Kingdom, Europe. Approved July 2025
- Chartered Engineer (**CEng**) (#722813)– Engineering Council (United Kingdom, Europe) – Institution of Civil Engineers (ICE) –September 2025.
- Licensed Professional Geologist (**PG**) (1992-Pres.) – PA (#1549), KY, IL, and WY; USA

- OSHA HAZWOPER 40-hour operator training certification – September 1987
- OSHA HAZWOPER 8-hour supervisor level training certification – 1992, 1994 & 1997.
- MSHA 24-hour Surface Non-Metal/Metal Mining Certification (renewed 2016)
- MSHA 40-hour Underground Non-Metal/Metal Mining Certification (5023) – June 2022
- MSHA 8-hour Underground Non-Metal/Metal Mining Cert. (5023) Refresher May 2023.
- Board Certified Environmental Engineer (**BCEE** (Haz. Waste Mgmt. & Site Remediation), 2002) – American Academy of Environmental Engineers & Scientists (AAEES)
- Diplomate, Water Resources Engineer (**DWRE**, 2009) – American Academy of Water Resources Engineers (ASCE affiliate)
- American Society of Civil Engineers (ASCE since 1997) – **Fellow, ASCE** (#342191)
- Certified Professional Hydrogeologist (**PHG**) (1995-2008) – American Institute of Hydrology.

Professional Affiliations

American Rock Mechanics Association - Member
 Society of Mining, Metallurgical and Exploration (SME-AIME) – Member#04168305
 International Society of Rock Mechanics (ISRM) - Member
 American Academy of Environmental Engineers & Scientists (AAEES) Member (#10011)
 American Academy of Water Resources Engineers (AAWRE) – Founding Member#470
 National Society of Professional Engineers – Member

Voluntary Contributions/Awards

Reviewed technical papers for the following journals:

- ASCE, Journal of Hydrologic Engineering (11)
- ASCE, Journal of Geotechnical and Geo-environmental Engineering (2)
- Quarterly Journal for Engineering Geology and Hydrogeology (3) – London, United Kingdom (Elsevier)
- Geotechnical and Geological Engineering Journal (1) – Netherlands (Springer)
- Iraqi Geological Journal (1) – Baghdad, Iraq. Certificate of Reviewing; Indexed in Scopus.
- Geomatics, Natural Hazards & Risk (1)
- SME, Journal of Mining, Metallurgy and Exploration (2), USA
- Transportation Infrastructure Geotechnology (1)

ABET EAC Program Evaluator (also known as an ABET Expert) Since 2005 – in six (6) disciplines including Mining, Civil, Construction, Geological, Environmental and Water Resources Engineering.

Personally, I will have conducted nineteen (19) ABET visits as of the end of 2022, both nationally and internationally for **ASCE**, **SME-AIME** and **AAEES**. ABET was formerly referred to as the Accreditation Board for Engineering and Technology; it was established in 1932. EAC refers to the Engineering Accreditation Commission within ABET. Internationally, I have conducted

engineering accreditation visits to programs in Saudi Arabia, Turkey, and Indonesia.

Programs reviewed include:

- University of Colorado, Boulder – ABET Program Observer, 2005
- South Dakota School of Mines and Technology – ABET Program Evaluator, 2006
- University of California at Irvine – ABET Program Evaluator, 2007
- United States Military Academy, West Point, NY – ABET Program Evaluator, 2008
- Gannon University, Erie, Pennsylvania – ABET Program Evaluator, 2011
- St. Francis University, Loretto, Pennsylvania – ABET Program Evaluator, 2012
- Utah State University, Logan, Utah - ABET Expert, 2014
- Oregon State University, Corvallis, Oregon - ABET Expert, 2014
- King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia - ABET Expert, 2015
- Islamic University, Yogyakarta, Indonesia – ABET Expert, 2016
- Istanbul Technical University, Istanbul, Turkey – ABET Expert 2017
- University of Florida, Gainesville – ABET Expert 2018
- Carnegie Mellon University, Pittsburgh, PA – ABET Expert 2018
- Northeastern University, Boston, Massachusetts – ABET Expert 2019
- Worcester Polytechnic Institute, Massachusetts – ABET Expert 2020
- Nacional de Ingenieria Universidad, Lima, Peru – ABET Expert 2021
- University of Delaware, Newark, DE – ABET Expert 2022
- Metropolitan State University, Denver, CO – ABET Expert (2023).

ABET ANSAC Alternate Team Chair/Commissioner (5-year term) (July 2022)

ABET ANSAC Team Chair/Commissioner’s Training (July 2022)

ASCE Committee of Accreditation Operations – Member, (4-year term) Appointed October 2019. **Chair-Elect 2020-2021. Chair 2021-2022. (Equivalency: above GS-15)**

The Committee on Accreditation Operations focuses on the recruitment, training, evaluation, and assignment of program evaluators for the accreditation of architectural, civil, and construction engineering programs and architectural engineering, civil engineering, and construction engineering technology programs; and the implementation of the associated ABET program criteria. Completed.

ASCE Committee of Accreditation – Member, (1-year term) Appointed October 2021. (Equivalency: above GS-15)

The Committee of Accreditation coordinates ASCE’s participation in ABET governance and ABET’s development of strategic accreditation priorities; monitors and influences the substance of ABET accreditation policies, procedures, and criteria to support ASCE’s strategic plans, policies, and initiatives; through the Committee on Accreditation Operations (COAO), administers ASCE’s participation in the ABET accreditation of engineering and engineering technology programs in curricular areas for which ASCE is a

Lead, Co-Lead, or Cooperating Society; in collaboration with the COAO, develops, updates, and implements ASCE's policies and procedures for participation in ABET accreditation, ensure that all program criteria for which ASCE is the Lead Society are reflected in the Committee on Education's long-term schedule for updating and implementing criteria; and identifies and recruits ASCE representatives to serve on the ABET Board of Delegates and ABET Area Delegations, and recommend these nominees to the Committee on Education for approval.

AAEES Engineering Education Committee - Member, Appointed Jan. 2013 (3-year term), Completed.

Henry Dewitt Smith Scholarship - Sole Recipient for the 2005-2006 academic year by the American Institute of Mining, Metallurgical and Petroleum Engineers (AIME), Littleton, Colorado.

Federal Energy Regulatory Commission's (FERC) Plan Determination for the proposed 2.5-megawatt run-of-river Massena Grasse River Hydroelectric Project in New York State. Third Member on a Study Dispute Resolution Panel. December 11-13, 2007.

Fellow, American Society of Civil Engineers (F. ASCE, since 2020).

Computer Skills

Vulcan Basics and Plotting & Vulcan Open Pit Design/Blasting by Maptek, Rocscience (Phase 2, SWEDGE, SLIDE, DIPS), SLOPE/W, SEEP/W, @RISK Monte Carlo Simulation Program, STERIONET, CRSP, STABR, SLOPE1, GOLDNAIL, MODFLOW2000, SURFER, MOVER, BIOSLURP, BIO F&T, MT3D, GWVista, UCODE, GEOSTAT, MathCad, Microsoft Word, MS Excel, MS Project 2000, MS PowerPoint; plus many software tools no longer in common use.

Countries Visited: I enjoy traveling to various parts of the world. I have traveled to Poland, Germany, Czech Republic, Austria, Switzerland, Italy, Belgium, Netherlands, England (U.K.), Greece, Turkey, Russia, Australia, Canada, Mexico, Bolivia, Peru, Chile, Kazakhstan, China, Mongolia, Kurdistan-Iraq, Egypt, Singapore, Indonesia, and Saudi Arabia. I have worked in Bolivia, Peru, Kurdistan Region-Iraq, Saudi Arabia, Poland, Germany and the United States of America.

Languages: English, Spanish (basic)

All work is full-time, 40 hours per week unless otherwise noted.

[Last Updated: June 27, 2026](#)