



**TIMOTHY A. ROSS, P.E.**  
**Sr. Vice President and Principal**

**Education**

B.S. (Mining Engineering) Virginia Polytechnic Institute and State University, 1977

**Professional Memberships**

Registered Professional Engineer, States of Alabama, Colorado, Georgia, Idaho, Illinois, Kentucky, Nevada, New Mexico, Utah, Virginia, West Virginia, and Wyoming  
American Institute of Mining, Metallurgical, and Petroleum Engineers  
SME Founding Registered Member  
SME Mining PE Exam Committee Member



**Experience**

- 7/2004–Present Principal and Vice President, Agapito Associates, Inc. Responsible for Agapito Associate, Inc., Golden, CO, office specializing in operations, mine design, ground control and mine engineering for underground mining, highwall mining, surface mining and underground storage caverns. Experienced NI 43-101 qualified person. Worked on mining projects located in the U.S., Canada, Mexico, Columbia, China, Singapore, India, Russia and Thailand. Projects have included copper, gold, industrial mineral, coal, salt and potash mines.
- 7/2002–7/2004 President, NSA Engineering, Inc., Golden, CO. Responsible for all financial and operational aspects of NSA Engineering, Inc., in addition to mining engineering consulting.
- 2001–2002 Vice President of Operations, NSA Engineering, Inc., Golden, CO. Responsible for worldwide seismic imaging operations including data collection, data processing, proposal preparation, and reporting, plus mining engineering consulting.
- 1997–2001 Senior Project Manager/Director of European Operations, NSA Engineering, Inc., Golden, CO. Primarily responsible for providing operations support to mine design and planning projects, participated on projects throughout the U.S., Canada, Australia, South America, and Europe. Conducted projects relative to underground slurry injection system failure and designed a new slurry injection method at a mid-western coal mine, mine design/feasibility for a proposed Canadian underground coal mine, longwall shield failure evaluations, and ground support for limestone mines.
- 1990–1997 Vice President/Mine Manager, Drummond Coal Co., Alabama Mining Operations. Responsible for managing the safety, production, costs, engineering, budgeting, labor relations, and coal preparation for four underground coal mines utilizing continuous miners, continuous haulage, and longwalls and five surface coal mines, utilizing draglines and shovels. Managed major changes to operations including the startup of Shoal Creek

- Mine (a two longwall mine), the conversion of the Mary Lee No. 1 Mine from a continuous miner mine to longwall mine, and two major dragline moves. Negotiated agreements with UMWA locals and participated in programs with the workforce that improved productivity, safety, and cost. As Mine Manager at Mary Lee No. 1 Mine, was responsible for the safety, production, cost, engineering, and coal preparation for this 3.5 million tpy, 42-inch-seam, longwall coal mine.
- 1988–1990 Vice President/Director of Operations, Bright Coal Group, Inc., Summersville, WV. Managed a coal preparation plant, four underground contractor mines, and two surface mine contractors. Improved output of preparation plant by 50% with improved flow sheet design and creative scheduling.
- 1978–1988 Manager of Operations, Donaldson Mine Company, Cedar Grove, WV. Responsible for two underground coal mines that produced over 2 million raw tons per year utilizing continuous miners and mobile roof supports for secondary pillar recovery. As Manager of Administration and Technical Services, was responsible for coal preparation plant, engineering, warehousing, long-range planning, and compiling budgets. As General Mine Foreman, was responsible for a two-section underground coal mine. As Evening Shift Foreman, was responsible for three-unit, mid-seam, underground mine utilizing conventional mining.
- 1976–1978 Section Foreman/Industrial Engineer/Co-op Student, Carbon Fuel Coal Co. As Section Foreman, was responsible for a continuous miner section utilizing continuous haulage in a low seam.
- 1976–1978 Co-op Student, Engineering Department, Union Carbide Corporation.

#### **Selected Publications**

- "Seismic Imaging as a Means for Detecting Underground Mine Voids." 83rd Transportation Research Board Annual Meeting, Washington, D.C., January 2004.
- "Leveraging Existing Infrastructure: Using What is Already in the Ground." Proceedings of 54th Highway Geology Symposium, September 24–26, 2003.
- "Seismic Imaging as a Means to Determine the Extent of Sinkholes: RockVision 3D™ Case Studies." Proceedings of Ninth Multidisciplinary Conference on Sinkholes and Engineering and Environmental Impacts of Karst-ASCE, Huntsville, AL, September 2003.
- "Using Imaging to Accurately Characterized Subsurface Ground Conditions in Civil Construction." Proceedings of Underground Construction 2003, London, England, September 2003.
- "3-D Seismic Tomography for Investigating Karst." Proceedings of Soil and Rock America 2003, Sala de Puerto Rico, June 2003.
- "Geotechnical Methods for Mine Mapping Verification." Presentation to MSHA Conference, Charleston, WV, October 2002.
- "Use of Oriented Video Core Logging and Seismic Tomography on a Highway Rock Excavation." Proceedings of Soil and Rock Slope Stability Seminar, Denver, CO, September 2002.

"Utilization of Ground-Penetrating Radar to Determine Roof Competency in Underground Limestone Mines." Proceedings of 21st International Conference on Ground Control in Mining, Morgantown, WV, August 2002.

"Mine Planning for Longwall and Pillar Retreat Panels Subject to Seam Interaction Effects." Proceedings 19th International Conference on Ground Control in Mining, Morgantown, WV, August 2000.

"Highwall Augering in Ultra-Thick Western Coal Reserves: Unique Geotechnical and Operational Challenges." Proceedings of 18th International Conference on Ground Control in Mining, Morgantown, WV, August 1999.

"Analysis of Panel Stability for Post-Mining Slurry Injection." Proceedings 17th International Conference on Ground Control in Mining, Morgantown, WV, August 1998.

"A Numerical Modeling Approach for Evaluating the Geotechnical Feasibility of Mobile Roof Support Applications." Presented to Southwest Wyoming Chapter, SME, Green River, WY, April 15, 1998.

"Second Mining Utilizing MBL Supports." MINTECH '89, 1989.

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