

Coal and Tabular Mine Ventilation: Concepts and Planning

Short Course | March 19 - 21, 2024 | Clovis, CA, USA



Use engineering tools to optimize ventilation systems

This course is for engineers and other mine technical personnel responsible for ventilation systems. It is important for engineers to be able to make adequate and educated assumptions when designing or evaluating a ventilation system based on modeling. We will review the foundations of mine ventilation sciences and examine how to bridge these into practical applications for measurement and design.

The course will present a robust methodology for ventilation system design and assessment, including ventilation planning, application of computer models, and assessments of system efficiency, health and safety, and risks. This will include a discussion on the effective application and limitations of ventilation models for the study of systems. The course will also discuss common mistakes made when developing a ventilation study or designing a ventilation system. Course emphasis will be on application of engineering tools to mine ventilation design for coal and other tabular deposit mines.

Register: smontanez@srk.com | www.srk.com

Topics to be covered will include:

- Introduction to Mine Ventilation
- Principles of Underground Ventilation
- Basic Fan Information
- Principles of Mine Ventilation Planning
- Ventilation Survey Techniques
- Ventilation Survey Planning
- Ventilation Thermodynamics
- Natural Ventilation Pressure
- Ventilation Economics
- Future Ventilation Planning and Considerations
- Ventilation Monitoring
- Fire Modeling Concepts
- Example Problems:
 - Future projections
 - Determining a new shaft location
 - Determining number of entries
- Modeling of Ventilation Systems
 - Software description
 - Basic use/functions of the software
 - Example model set up/balancing/correlation
 - Future projections

Instructors



Keith Wallace *MSc, SME-AIME*
Corporate Consultant (Mine Ventilation)
kwallace@srk.com

With over 35 years of underground ventilation experience, Keith leads a team designing ventilation systems for mines worldwide. He's active in the ventilation community, serving on committees and

editing symposiums. Keith has worked with major mining companies and contributed to the Waste Isolation Project Plant (WIPP) since 1988. He's also developed ventilation software and received the 2012 Howard L. Hartman Award for his contributions.

This course will be taught with assistance from the following Mine Ventilation engineers:

Brian Prosser *BSc, PE, SME-AIME*
Principal Consultant (Mine Ventilation)
bprosser@srk.com

John Bowling *MSc, PE, SME-AIME*
Principal Consultant (Mine Ventilation)
jbowling@srk.com

Jon Fox *PhD, SME-AIME*
Senior Consultant (Mine Ventilation)
jfox@srk.com

Nathan Wineinger *BSc, EIT, SME-AIME*
Senior Consultant (Mine Ventilation)
nwineinger@srk.com