

ISSUE DATE: 04/24/08

PROGRAM INFORMATION BULLETIN NO. P08-09

FROM: MARK E. SKILES 
Director of Technical Support

SUBJECT: Final Reports of Geophysical Mine Void Detection
Demonstration Projects

Who needs this information?

This Program Information Bulletin (PIB) is intended for mine operators, independent contractors, miners' representatives, Mine Safety and Health Administration personnel, and other interested parties.

What is the purpose of this PIB?

This PIB informs the mining industry of new and emerging technologies that may assist mine operators in identifying and locating adjacent underground mine workings where the extent and location may not be well defined. The technologies were recently demonstrated to MSHA, and final reports have been provided discussing the benefits and limitations of each method. The reports can be obtained from the MSHA web page at www.msha.gov, or on a CD available from MSHA. To get a copy of the CD contact Sharon K. Taylor by mail at the National Mine Health and Safety Academy, e-mail taylor.sharon@dol.gov, or phone (304) 256-3257.

Information

In the aftermath of the Quecreek Mine inundation, MSHA received funding of \$10 million dollars devoted to mine mapping and void detection. A portion of these funds was distributed to 13 states to improve mine mapping, referencing, and archiving. The remaining funds were used to sponsor void detection demonstration projects. Fifty-eight proposals were received from a variety of universities, geophysical contractors, and independent research corporations. After thorough review and consideration, fourteen of the most promising projects were funded for demonstration. Peer-reviewed final reports of the projects have been provided to MSHA, and are being disseminated

to the mining industry to increase the awareness of these available methods and technologies and the potential benefits and limitations. While each of the methods and technologies may provide significant benefits to the mining industry, they are intended to supplement other methods available to identify adjacent mine workings such as sufficient drilling of boreholes ahead of mining and exhaustive searches for all sources of information on past mining.

What is the background for this PIB?

There have been many instances of active mines unintentionally cutting into adjacent mines which were not properly identified prior to mining. The location and extent of old workings were often unknown because mine maps were unavailable, or existing maps were incomplete or inaccurate. There is a significant risk of water and gas inundations when cutting into adjacent mine workings, especially abandoned mine workings. Unknown mines can also present a threat to structures, such as waste disposal impoundments. The mining industry must address the serious safety concerns associated with abandoned mines using a variety of methods and techniques. This PIB is intended to increase industry awareness of additional methods for detecting adjacent mine workings and voids.

What is the authority for this PIB?

The Federal Mine Safety and Health Act of 1977; as amended, 30 U.S.C. § 801 et seq.; 30 C.F.R. §§ 75.372, 75.1200, 75.1201, 75.1201-1, 75.1202, 75.1202-1, 75.1203, 77.216-2(a)(14), 77.1200, 77.1201 and 77.1202.

Who are the contact persons for this PIB?

Technical Support
Stanley J. Michalek, 412-386-6974
E-mail: michalek.stanley@dol.gov

Is this PIB on the Internet?

This PIB may be viewed on the Internet by accessing MSHA's home page at <http://www.msha.gov> then choosing "Compliance Info" and "Program Information Bulletins."

Who will receive this PIB?

MSHA Program Policy Manual Holders
Underground Coal Mine Operators
Miners' Representatives
Contractors
Special Interest Groups