TRUSS AND ROOF BOLTING

1. Truss Bolting On-Cycle in Jane Mine—Lower Freeport Seam, R. Bartok, Rochester and Pittsburgh Coal Co. .................................................. (1)

2. Design of a Roof Truss Bolting Plan for Bear Mine, C. P. Mangahas, University of Pittsburgh ................................................................. (11)


LONGWALL MINING

6. An Investigation of Longwall Pillar Stress History, M. E. Schwenker, U. S. Steel Corp. ................................................................. (41)

7. Impact of Horizontal Load on Shield Supports, T. M. Babcock, U. S. Bureau of Mines, Pittsburgh, PA ............................................................. (50)

8. Interaction between Roof and Support on Longwall Faces with Particular Reference to Support Resistance, A. N. Gupta, Central Mining Research Station, India, and J. A. Farmer, University of Arizona ............................................. (58)


10. First Caving and Its Effects—A Case Study, S. M. Heising and J. S. Peng, West Virginia University ................................................................. (83)

11. Combating Dust on Shield Supports on Longwall Mining, W. Stover, Fachhochschule Bergbau, West Germany ................................................................. (94)

COAL PILLAR AND BUMPS

12. Yield Pillar Applications—Impact on Strata Control and Coal Production, E. Martin, S. Schnyder, C. Gembrel, M. Guana, and P. Southerland, CIM Walter Resources, Inc. .................................................. (104)


14. Massive Pillar Failure—Two Case Studies, D. B. C. Tang and E. S. Peng, West Virginia University ................................................................. (117)


16. Destressing Practice in Rockburst-Prone Ground, J. Willan and M. W. Scoble, McGill University, and Y. Pasha, Ontario Ministry of Labor, Canada ........... (135)

DESIGN AND MEASUREMENT

10. Pillar Design--Continuous Miner Butt Section and Longwall Development
    Sections, E. M. Alter, Quarrco Mining Co. .................................. (160)

19. Design Factors in Near-Site Interaction, A. Greenslade and C. Haycock,
    Virginia Polytechnic Institute and State University ....................... (166)

20. Remote Sensing for Roof Control and Mine Planning: An Overview,
    R. F. Yarlene, NASA, Pittsburgh Technical Support Center ............... (178)

    Slous, H. J. A., T. P. Grzeskowksi, Jenny Engineering Corp., and H. A. Nobis,
    West Elk Coal Co. ........................................................................... (179)

22. Computer Monitoring and In Situ Instrumentation Techniques: A Quantitative
    Approach to Scientific Mine Design, B. Gardner, S. J. Ochre, and S. Serata,
    Beha Scientific Engineering, Ind. .................................................. (187)

23. A Sonic Wave Attenuation Technique for Monitoring of Stress Levels,
    P. N. Lim, West Virginia University and E. T. Seilbman, Virginia Polytechnic
    Institute and State University ...................................................... (196)

GEOLOGICAL AND STRESS EFFECTS

24. The Radio Imaging Method (RIM)--A Means of Detecting and Imaging Anomalous
    Geologic Structures in a Coal Seam, J. C. Fry, Ohio Power and Light Co.,
    C. Jordan, Consolidation Coal Co., and L. C. Stolteczek, Stolteczek, Ind. ... (205)

25. Clay Veins: Their Physical Characteristics, Prediction, and Support,
    E. B. Chase, U. S. Bureau of Mines, Pittsburgh, PA ................................ (212)

26. Evaluation of the Point Load Strength for Soft Rock Classification, S. Desi,
    CANMET, Alberta, Canada ............................................................... (220)

27. Ground Control Experiences in a High Horizontal Stress Field at Inland
    Steel Coal Mine No. 2, C. T. Blevins and B. Gibb, Inland Steel Coal Co. .... (227)

28. Horizontal Stresses and Their Impact on Roof Stability at the Neims No. 2
    Mine, J. B. Clark, Clark Seisology and Engineering, Inc. and J. E. Segrovski,
    J & J Coal Co. .................................................................................. (234)

29. Ground Control Problems Associated with Longwall Mining of Developed Pillars,
    T. N. Singh, Central Mining Research Station, India .......................... (235)

SURFACE SUBSIDENCE

30. Geotechnical Aspects of Subsidence over Room and Pillar Mines in Illinois,
    G. S. Marino and T. J. Carding, Universiy of Illinois at Urbana-Champaign . (240)

31. Proposed Criteria for Assessing Subsidence Damage to Surface Structures,
    H. M. Jayasingh and M. H. Singh, Engineering International, Inc. ........... (249)

32. Surface Subsidence in Longwall Mining--A Case Study, A. R. Parrish, Jumlayy
    Mining Co. ...................................................................................... (258)

33. An Integrated Approach to the Monitoring and Modeling of Ground Movements,
    A. Charoumbakass, University of New Brunswark, Canada, D. Q. Chen,
    National Technical University of Surveying and Mapping, China, R. J. Flakel,
    CANMET, Alberta, A. J. Podwo and A. B. J. Karu, University of New Brunswark,
    Canada ............................................................................................... (273)