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DEVELOPMENT OF A MINI-COMPUTER METHOD TO DETECT GEOLOGIC FAULTS AND OTHER LINEAR FEATURES FROM LANDSAT IMAGERY FOR MINING PRODUCTION PURPOSES

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This method is a continuation of the work of many previous investigators in the detection of lineaments. It was conceived as a quasi-production method to allow the largest possible number of exploration and mining companies to use this advanced technology in the solution of their immediate problem of locating geologic faults in the vicinity of active or proposed mining areas.

While the programs are easily transferable to larger main-frames, the minicomputer environment was chosen because of the accessibility of this environment to a larger number of the potential users.

The major elements of the method are not new. However, it has been found that slightly curved lineaments are more easily detected due to the manner in which the data must be handled by these smaller systems.

The method has been used in several different areas to date. Although the author has only ground-truthed two of the areas personnaly, in these cases the ground-truth substantiated the lineaments detected by the method.