

Problems and benefits relating to the use of existing drill hole data in assessing new provincial surveys - an under-utilized resource for industry, government, and academia.

ROBIN ADAIR

52 Lexington Lane, Fredericton, New Brunswick E2A 5S6, Canada <radair@zoraydageo.com>

Drill hole data that have been generated largely by mining companies are an under-utilized, but very important source of geoscience information in 3D space for use in context of evaluating new provincial survey data sets. By utilizing collar location data and measurements of the drill hole trajectory, the associated geoscience data have the potential to profoundly impact the effectiveness of new provincial data sets, ultimately leading to improved and more efficient evaluation by experienced geoscientists. Existing local and regional drill hole data add a third dimension to the assessment of new surface information by providing for stronger interpretation of the results in context of the subsurface data and its interpretation. There are hurdles to the ease of using drill hole data from digital assessment reports. The diversity of database formats, structures, and coding systems in the digital assessment files as well as the legacy of how and what data were entered are important issues. Early digital input of drill data revolved around a coded summary of the information which was often filtered by various database structure limitations and input forms/ formats. Further, most drill logs are very descriptive with long text fields that require parsing and coding into an expanded database structure while also retaining the original descriptions and impressions of the author. Historical, hard copy drill information is a challenge, but can be fully utilized subject to the time needed to parse the data and enter it into a functional database, again by an experienced geoscientist. Current industry database formats are fully capable of handling all information generated by the analyses of drill core as well as collection of in situ borehole data. In consideration of these observations, the primary constraints on the validity of historical drill hole data are (1) cartographic location of the holes and (2) the experience of the individual creating/compiling the log and entering the data. Presented are two case studies involving the successful digitization and utilization of historical and recent drill hole information in both grassroots and brownfields settings where surface exposures are greatly limited by till cover. The Somanike Project and the Matagami Area both in the central Abitibi Belt, Quebec, are two examples where hard copy compilation and use of existing digital data can be effectively used to add significantly to the subsurface understanding of above ground surveys. Accompanying these examples are recommendations on submission of digital drill hole data for assessment.