2009 AASG/USGS Geoscience Data Preservation Techniques Workshop

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Fieldtrips

Ruth Lilly Auxiliary Library Facility
Vaughn W. Nuest, Ruth Lilly Auxiliary Library Facility, Indiana University

The Ruth Lilly Auxiliary Library Facility (ALF) is a high-density shelving facility designed to alleviate space constraints in the Indiana University Libraries. It provides low-cost housing with conservation-level environmental controls for library materials. Low-use materials, archives, manuscripts, as well as rare and fragile materials are transferred to the ALF from many campus library locations. The facility also includes a state-of-the-art preservation laboratory as well as space and staff for accessioning and lending materials from the secure collections vault with a capacity of approximately 2,800,000 bound volumes. The field trip will emphasize the materials handling aspects of large collections of items, with special attention to efficiencies in handling, storing, and accessioning items from such a collection.

IGS Mine Map Preservation Laboratory
Elke Pessl and Rebecca Meyer, Indiana Geological Survey

The Indiana Geological Survey (IGS) has been working for over 20 years to establish a reliable and accurate underground coal mine map system. The Indiana Coal Mine Information System (CMIS) had been built extensively upon photo images of mine maps; thus the accuracy was not always at a level that would allow precise location determination of all underground voids. In response to the 2002 Quecreek Mine disaster in Pennsylvania, the U.S. Mine Safety and Health Administration (MSHA) realized that incomplete and faulty mine maps were to blame – due to the lack of accessibility to the final mine map. To obviate future such events, MSHA and the Office of Surface Mining (OSM) began supporting the development of accurate and readily available underground mine maps for every state. The MSHA/OSM-funded initiative has allowed the IGS research staff to investigate techniques to flatten and stabilize original mine maps; and scan, digitize, orthorectify, georeference, and archive them. The integration of the digital images and associated data into the IGS GIS, and how those data are served to the public

were developed by CMIS staff. The field trip will emphasize the techniques developed through decades of investigations.

IGS Petroleum Database Management System

Charly Zuppann, Indiana Geological Survey

The Petroleum Database Management System (PDMS) is a Web application designed to distribute petroleum-related information from the Indiana Geological Survey (IGS). The database contains information on more than 70,000 petroleum-related wells drilled in Indiana. The data include information on well locations, completion zones, logs, operators, lease names, tests, hydrocarbon shows, samples, cores, geologic formations and tops, and much more. The PDMS is built around three modules: 1) the Well Record Tables; 2) the Map Viewer, which together with the Well Record Tables, provide two interfaces for viewing petroleum well information; and 3) the Fields and Production summaries, which summarize oil, gas, and gas storage fields, and historical oil production.

Well Record Tables. Well data are displayed in tables. Viewing and downloading well records is only possible in the Well Record Tables. The well data are organized in outline form where each well is identified by the IGS ID, a unique number that represents a unique location on the ground. The IGS ID provides the link between the Well Record Tables and the Map Viewer. Each well is subdivided in to a series of "events" that make up the well's history. Data for each well event are contained in subtables that are linked to that event.

Map Viewer. The Map Viewer is an interface that displays interactive maps of petroleum well data. This map viewer is connected to the Well Record Tables when detailed information is needed.

Fields and Production. Summary information on oil, gas, and gas storage fields can be searched for by field name. Field production histories for oil fields are shown in tables and graphs.