Preserving an Invaluable Geoscience Resource: National, State, and Professional Association Programs for Locating and Preserving Cores

David M. Orchard[1] and
Beverly Blakeney DeJarnett[2]
[1]*ConocoPhillips*
[2]*University of Texas Bureau of Economic Geology*

The Permian Basin Section of the Society of Economic Geology (PBS-SEPM) is addressing the common problem of knowing that core was taken from certain wells but not being able to find it. This effort has goals in common with those of others that are focused on finding and preserving geological data, notably programs of the U.S. Geological Survey (USGS), the University of Texas Bureau of Economic Geology (BEG), the Center for Economic and Energy Diversification (CEED) at the University of Texas Permian Basin, various other state geological surveys, and the American Association of Petroleum Geologists (AAPG).

The committee of the PBS-SEPM has initially focused on finding and publishing links to public and private storage facilities and the means of accessing inventories at those sites. The efforts are broadening to identify the core storage practices of current and past operators in the basin and to track the ownership of cores through the basinôs history of mergers and changes of operatorship.
CEED has collected approximately 13,000 feet of Permian Basin core that it uses as a teaching and research collection. The Center has limited space, and their effort now is to selectively fill in the stratigraphic section that is represented by their cores.

In its role as the State Geological Survey of Texas, BEG has curated cores and cuttings since the 1930ôs. It recognizes that this material represents an invaluable and irreplaceable resource and places great importance on properly preserving it for the long term and making it easily accessible to the public. BEG is building endowments that will allow its facilities to operate well into the future.

AAPGôs committee includes in its mission the promotion, collection and preservation of samples and cores, including related analyses and descriptions. As with the PBS-SEPM, it makes a priority of identifying established repositories and constructing automated linkages between users and the data listings of these archives.
USGS acts as the administrator for the federally funded National Geological and Geophysical Data Preservation Program (NGGDPP), which was authorized as part of the Federal Energy Policy Act of 2005. Its purpose is to establish technical and financial assistance for state surveys and relevant Department of Interior bureaus undertaking various geoscience data preservation projects, including establishing a national data catalog for geoscience data. Although appropriations have fallen far short of the original authorization, many state surveys have applied for and received financial assistance from the NGGDPP over the past three years, resulting in the completion or enhancement of ongoing data preservation projects.

All of these efforts address the fact that cores are simultaneously invaluable, irreplaceable, and perishable and that preservation of core is expensive and often underfunded. Stakeholders in this issue include companies, universities, and governmental entities involved with petroleum and minerals development and environmental and engineering projects. Solutions to the issues surrounding geoscience data preservation include creating partnerships to solve funding problems, identifying and saving endangered cores, and ensuring adequate long-term secure storage.