Exploration Data Management at Saudi ARAMCO: Making Data Pay

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During the past five years Saudi Aramco has implemented several initiatives to improve Exploration Data Management. These included design and construction of new data management infrastructure, the development and deployment of indexing and delivery applications, and the indexing, scanning and secure online storage for all legacy data. This effort led to the recovery of much lost and misplaced data and improved accessibility for thousands of seismic up-holes, seismic lines and reports, well logs and well reports, exploration maps, and for thousands of exploration reports and studies.

Saudi Aramco's Data Management strategy was redesigned to support distributed data repositories, a minimum metadata model was applied across different data repositories, and the use of data dictionaries was enhanced and standardized. Indexing and scanning for over 400,000 documents converted hardcopy to over five Terabytes of searchable and retrievable electronic images. This process aided the design and implementation of effective document level security protocols and web-based delivery applications. Applications such as portals to consolidate access to applications which control data, interfaces to support semi-automated data indexing and loading, and map-based search and discovery tools for users were all designed and implemented as part of this data management effort. Data attributing and an Exploration Thesaurus were built to support data storage and discovery. These efforts enhanced Saudi Aramco's ability to supply exploration data rapidly and efficiently to our clients, resulting in faster and easier access of data for our customers.