

What is a Well?

Trudy Curtis

PPDM Association, Calgary

curtist@ppdm.org

Summary

E&P operators, commercial data vendors, software providers and regulatory agencies have different definitions of a “well”, the components of a well, and the relationships between them. These different definitions hamper industry’s ability to exchange and integrate data smoothly and to establish consistent workflows.

Introduction

Today, many Exploration and Production companies are creating internal definitions that describe the life cycle of a well, the components of a well, and how they will represent the status of wells. In some cases, internal standards for plot symbols are being created. These internal standards improve internal operating efficiencies, and help departments communicate with each other efficiently. However, internal standards don’t resolve problems when a company needs to communicate effectively with many regulatory agencies, partners, software products or the general public.

Additional benefits can be realized when information about how wells are defined and described can be standardized across our industry. The Professional Petroleum Data Management Association (PPDM Association), has worked collaboratively with industry to develop such standards in a not for profit, vendor neutral framework. To date, close to \$100 Million in industry effort has been expended to develop standards such as the PPDM Data Model, often used in a Master Data Management or Data Warehouse strategy.

Method

The PPDM Association’s membership funded a project to develop baseline definitions for the principal components of a well and to illustrate the relationships between these over the lifecycle of typical well configurations. The baseline was then used to perform an in-depth comparison against the well and wellbore definitions adopted by key industry data providers in the US and Canada. This comparison illustrates the challenges and potential pitfalls associated with integrating data from multiple sources without a common understanding of the components and terms involved.

Results

Significant variations in how wells are defined and created have been found. These differences can result in assumptions or generalizations that may have substantial impacts on analysis and planning activities. Industry participants have found that this information helps clarify communications, eases training and education for new staff and provides an invaluable resource for information gathering.

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