
CASE STUDY



Solutions for Premium Quality Data

Profiling Exploration Data Sets During A Merger

One of the first concerns during a large Oil and Gas merger is to understand the potential risks and pitfalls of consolidating disparate and incomplete data sets. This large North American Oil and Gas company first looked to understand the quality of two formerly separate seismic data listings before embarking on an integration effort.

THE CHALLENGE

After a merger of two large exploration companies, decide which operational data set is the most complete, consistent and accurate in order to plan a data integration and transformation project.

THE SOLUTION

Expertise and tools to assess the accuracy, completeness and quality of the entire seismic data.

RESULT

A qualitative and quantitative analysis which became a key input to determine the best strategy to integrate the two databases.

TOOLKIT

Professional Services and HealthCheck™

Setting the Stage

devon When two separate E&P firms have merged together, there is great demand for timely merging of proprietary data libraries in order to realize the value from the merger. This is especially true of exploration data assets — a key asset in finding new hydrocarbons. In this case study, Devon Canada knew they had to understand the potential problem before they embarked on a large data consolidation effort.

The Challenge

Understanding in detail the quality and the level of existing standards of the original data is a critical first step before merging two different databases. This is especially true for a mission critical data asset such as seismic data within an E&P company.

The two original companies that formed the new entity used very different seismic survey and inventory databases. The client needed to understand the condition of the two datasets prior to proceeding with consolidating the databases. They required detailed reports to assess data consistency, completeness, and possible duplication within and between the two data sets. In addition the new firm required detailed reports to assess data issues such as units of measure, grid versions, date formats, ownership and shot point survey quality.

The Solution

HealthCheck™ is a service that provides a comprehensive look at a client's seismic data listings to evaluate the quality of the information. The package of reports is a thorough analysis used to determine scope of the problem and rate the quality of the original data.

Without manipulating the original data sets, these automated reports provided seismic specific quality metrics for all the relevant data. The following is a small example of some of the metrics used:



Generic Metrics

- ✓ Consistent Use of Standards
- ✓ Database Integrity
- ✓ Company Name Spellings
- ✓ Missing Data Attributes
- ✓ Unprintable Characters
- ✓ Consistent Date Formats

Exploration Specific Metrics

- ✓ Line Naming Conventions
- ✓ Complete Shot Point Information
- ✓ Valid Geospatial Data
- ✓ Correct Line Lengths
- ✓ Acceptable Elevations
- ✓ Cost of Errors & Omissions
- ✓ Energy Type Consistency
- ✓ Owner / Partnership Consistency
- ✓ Consistent Unit of Measures
- ✓ Completeness of Inventory
- ✓ Possible Line Duplication
- ✓ Invalid Grid Version

The first series of reports provided high-level analytical assessments and comparisons of the two data bases. More detailed metrics were used to identify how compliant the detailed data was to generally-accepted seismic conventions. Finally, the HealthCheck™ suite of comprehensive reports was presented to the stakeholders so that they could determine the best approach for integration.

The Result

The new firm was able to assess the areas of concerns with in the data sets and determine the potential costs. Using the detailed results of the report, they formulated a strategy to continue with integrating and consolidating the two former companies' seismic repositories.

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About DataVera

DataVera is the most sophisticated and complete set of data quality services within the seismic digital data management market.

The service leverages an automated suite of tools enable E&P's to accomplish data quality transformations at a fraction of the cost in a fraction of the time often associated with manual projects.

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