Design and Construction of Rock Physics Database for Oil Exploration

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JOGMEC-TRC has been measured rock property (e.g. P and S Wave Velocity, Poisson Raito, etc.) data using many well core sample. It is very important that these measured data are used effectively for statistics analysis, data mining and so on.

These rock property data are stored by several report formats or several format data file till now. It is difficult for us to utilize these data effectively in this situation. Then we started to construct rock physics database and store measured rock property data for corrected data on this study. This database is composed some tables that is country information table, well information table, sample information table, Velocity information table and some data management table. Well information table mainly includes well location data. Sample information table mainly includes corrected depth, lithology, sample shape (length, diameter, and weight), porosity, density and permeability. Velocity information table mainly includes P wave velocity, S wave velocity, P wave impedance, S wave impedance, poisson ratio, young modulus and measurement condition. And this database is constructed by several open source software what are Linux(Operating System), PostgreSQL(Database Management System), Apache(Web Sever) and PHP (Script Language). This paper report about our constructed rock physics database preliminary version.