

Crossing the “Value of Information Gap” in the Oil Industry

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ABSTRACT

As an industry, we’ve greatly improved, over the last ten to fifteen years, the number of companies and professionals applying consistent geologic risking and probabilistic prospect valuation methodologies. Now it’s time to cross the “Value of Information Gap” and go from a few visionary users, to many pragmatic practitioners worldwide, improving both exploration and exploitation strategies as a result of better insight on the information we are considering.

This presentation introduces a 13-step pragmatic methodology to value information and real oilfield options. It is built on the premise that the value of information gathered is derived from its ability to change a future decision some of the time, and depends on the interplay of three key factors:

- the extent of the uncertainty involved,
- the monetary impact of the future decision which may change, and
- the accuracy of the information collected.

The ease of use and applicability of the 13-step approach will be illustrated on two real decision problems – one operational and one commercial. The operational example will look at valuing PSDM to discern fractured folds and thereby improve well placement – an interesting case in its use of Value of Information principles, as well as multiple hypothetical maps. The commercial example will consider valuing an option to farm-in to a program, once the first few prospects are drilled – prompting us to think of real options in the same manner as we do information sources.