Recommended Evaluation Practices (REPs) represent the society of Petroleum Evaluation Engineers' (SPEE) suggested treatment of hypothetical reserve evaluation topics. SPEE recognizes that, due to the varied nature of actual reserve evaluation situations likely to be encountered, these REPs are presented merely as suggested approaches. The REPs are not standards or guidelines. The use of or adherence to this SPEE REP is not required in any situation. The REPs should not be considered a substitute for the evaluator's professional judgment. This REP is subject to future revision(s) by the SPEE.

SPEE Recommended Evaluation Practice #9 – Reporting Multiple Rates of Return

Issue:

Multiple rates of return (internal rate of return or IRR) occur when there is more than one discount rate where the NPV is equal to zero. In a case study included at the SPEE symposium comparing economic software[1], multiple rates of return were not reported by any program as summary data. Some programs report the lower rate of return and some report the larger rate of return. One program reported "N/A" for the rate of return.

Some companies rely on the IRR for comparing investment alternatives. The current practice of reporting only one of the rates of return would be misleading in these cases.

SPEE Recommended Evaluation Practice:

In cases where multiple rates of return exist, the reported economic summary should alert the user of the report that multiple rates of return exist (in lieu of printing a single rate of return). In these cases the summary output should also refer the reader to the present value profile data. A suggested presentation for such an alert on the summary output might be as follows:

IRR: Multiple rates of return may exist, see present value profile plot

[1] SPEE Petroleum Economics Software Symposium 2000, March 2, 2000, Houston, TX

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