Precision...Decisions and the Workings in Between the Impact of Psychology and Context on Investment Decisions Howell, John I.¹ (1) Portfolio Decisions, Houston, TX.

Geotechnical and engineering staff expend considerable efforts to define and refine the technical characteristics of E&P opportunities and the associated uncertainties. They routinely go to considerable efforts, using the latest technologies and all their experience to provide robust and detailed descriptions of their investments. Decision makers utilize this information along with their experience and knowledge to make investment decisions. Technical teams often struggle to understand these investment decisions. Technical teams frequently operate under the misconception that all investment decisions are 'rational decisions'.

This paper will explore some of the classical issues that that arise in the gray space between the technical descriptions and the final decisions and illustrate why some decisions appear to be less than rational. These issues have been described by psychologists and economists however this paper will describe them in terms of routine decisions made in the oil and gas industry. Finally, we will describe how decision makers can overcome many of these psychological factors by altering the context they use for their decisions. We will illustrate how many project based decisions can be influenced by the psychological issues where decisions based on a portfolio perspective have greater protection from these classical pitfalls.