

# Farmout Valuation Using Exotic Real Options

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## Abstract

This paper describes a Real Options evaluation of a real-world farmout opportunity in case history format. The Real Options evaluation utilizes exotic options (standard barrier option and cash-or-nothing binary options) borrowed from the financial community and adapted for use in Oil and Gas economic valuations. A Delineate/FO option is constructed to address the question of whether a marginal discovery should be farmed out immediately or be delineated and then farmed out if hurdle reserves are not achieved

The result of the evaluation is that the marginal discovery should be delineated. The option value associated with the upside reserves potential and the ability to farmout the project should the upside not be realized more than offsets the cost of the option (cost of the delineation program). Hence, delineating and maintaining the option to farmout later enhances total project value. The real options approach to valuing the project is also contrasted with a conventional DCF valuation that gives little insight on the farmout question.

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**Keywords:** project valuation, project economics, operator, farmout valuation, rutherford spe 71409, ro valuation, exotic option, correspond, payoff, hurdle reserve

**Subjects:** Asset and Portfolio Management, Project economics/valuation

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