

Before the cheque

A one-page board test for exploration programs. Six checks to require, and the same test run on worked numbers.

Over 2012–2021, global mineral exploration returned an estimated **\$0.69 of discovered value per dollar spent**, US\$135b of value against US\$196b of expenditure (Schodde, MinEx Consulting, IMARC Sydney, 31 Oct 2023, slides 22 & 30). A poker machine in an Australian pub must by law return **between 85 and 92 cents** in the dollar, depending on the state. The gap is not geology. It is which cheques get written.

The Six Checks

1 | The probability is written down

P(success) as a number with a stated basis, not “highly prospective”. If nobody will own a number, the board is being asked to approve a feeling.

2 | Success is valued before drilling

What the target is worth if it works, in dollars of added project value, estimated before the rig arrives, not after the intercept.

3 | The expected value is positive

$EV = P \times \text{value if it works} - \text{program cost}$. If EV cannot be computed, the program is not a plan. It is a position.

4 | The kill criterion is agreed in advance

The result that stops the spend, decided before hole one, with the program staged so the decision can actually be taken.

5 | It is the best cheque available

EV per dollar compared across every drill-ready project in the portfolio. Programs are approved against each other, never in isolation.

6 | The new dollar's return is statable

If capital is being raised for the program, the expected return per investor dollar is a sentence the board can say aloud.

If the six checks can't be answered, the program isn't a plan. It's a position.

Requiring the six checks is the board's job. Producing them does not have to be. Rocworth helps boards, brokers and investors of junior explorers put numbers in every blank above. Drill-program valuation, portfolio allocation, and the board papers that carry them.

The same test, run (illustrative figures)

Checks 1–3, 5 | Two Drill-Ready Targets, One Budget

	P (Success)	VALUE (if it works)	COST	EV	EV / \$
Prospect A	15%	\$6.0M	\$0.5M	+\$0.40M	\$1.80
Prospect B	10%	\$3.5M	\$0.5M	–\$0.15M	\$0.70

Both are geologically credible. Ranked by prospectivity alone, B still gets drilled eventually, at an expected 70 cents of value per dollar spent. That is the 69-cent problem, one cheque at a time. **Only A deserves the money.**

Check 4 | Stage it, and agree what stops it

Split A into two \$0.25M stages. Before drilling, the board agrees what stage-1 results would move the 15% prior, and what stops stage 2.

STAGE 1 OUTCOME	CHANCE	UPDATED P	STAGE 2 EV	DECISION
Encouraging	30%	45%	+\$2.45M	Drill on
Discouraging	70%	2%	–\$0.13M	Stop

Program EV rises from +\$0.40M to +\$0.49M. The pre-agreed right to stop is worth roughly \$85k on its own, from the same rocks. Seven times in ten, half the budget is saved for the next-best cheque.

Check 6 | The sentence for new investors

“Your \$500,000 funds Prospect A. The program is expected to return \$1.80 in value for every dollar spent, and we have already agreed the result that would stop us at half the spend.”

Almost no junior explorer can say that sentence. The toolkit behind it, expected value analysis, real options and Bayesian updating, has priced petroleum prospects and venture cheques for decades.

The worked example uses illustrative figures to demonstrate method. It is not a valuation of, or reference to, any actual project or company. Probabilities and values are inputs a board must estimate and own for its own assets. ROCWORTH is a registered trading name of Custom Rock Pty Ltd. All content is general information about decision methods. It is not financial product advice, takes no account of any person's objectives, financial situation or needs, and is not a recommendation concerning any security. Companies and investors should obtain their own professional advice. © 2026.