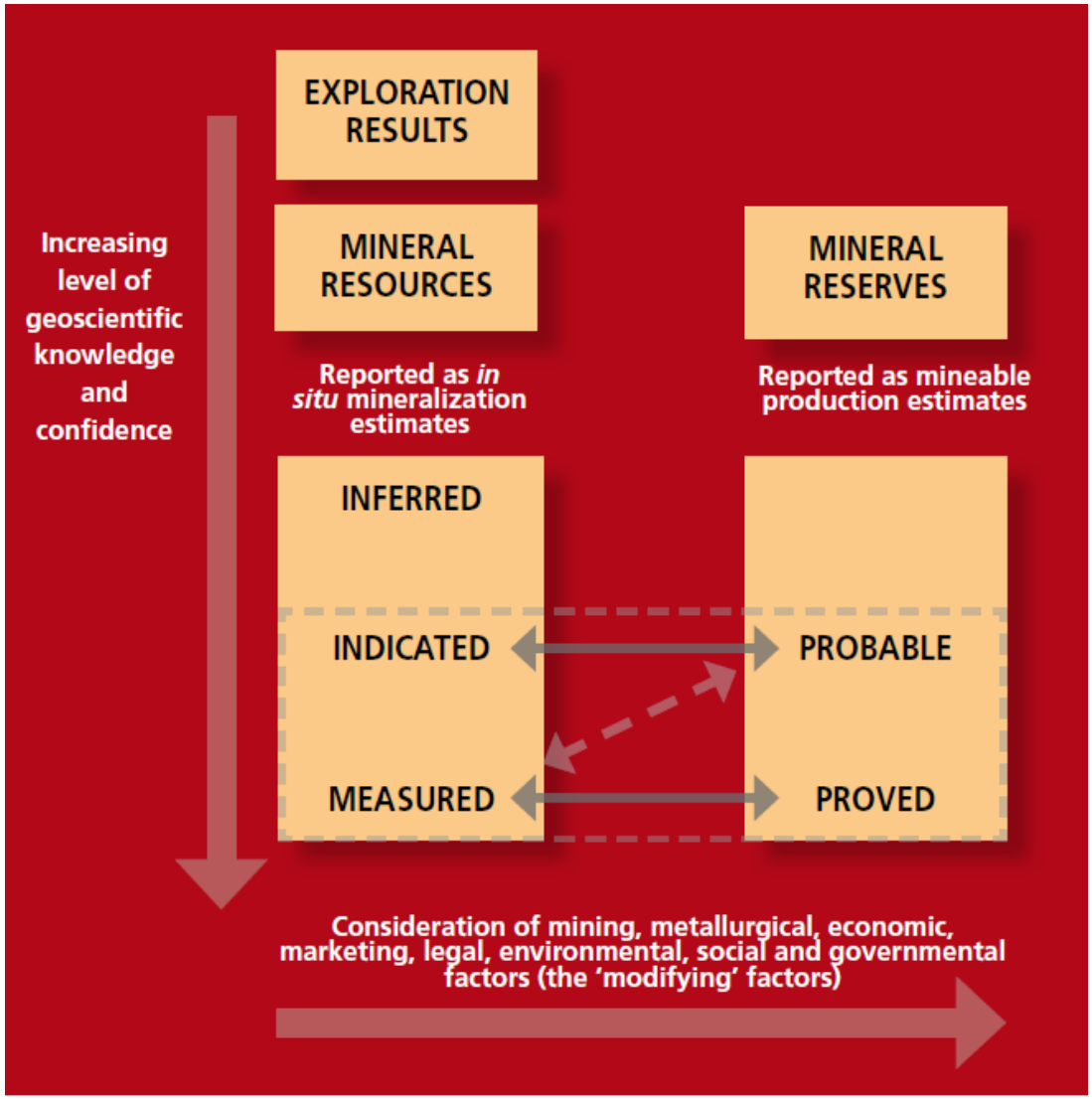
ROCKWELL DIAMONDS INC.

"uncovering the facets of our potential"

RESOURCE-RESERVE ESTIMATION OF ALLUVIAL DIAMOND DEPOSITS

A CASE STUDY OF ROCKWELL DIAMONDS INC.

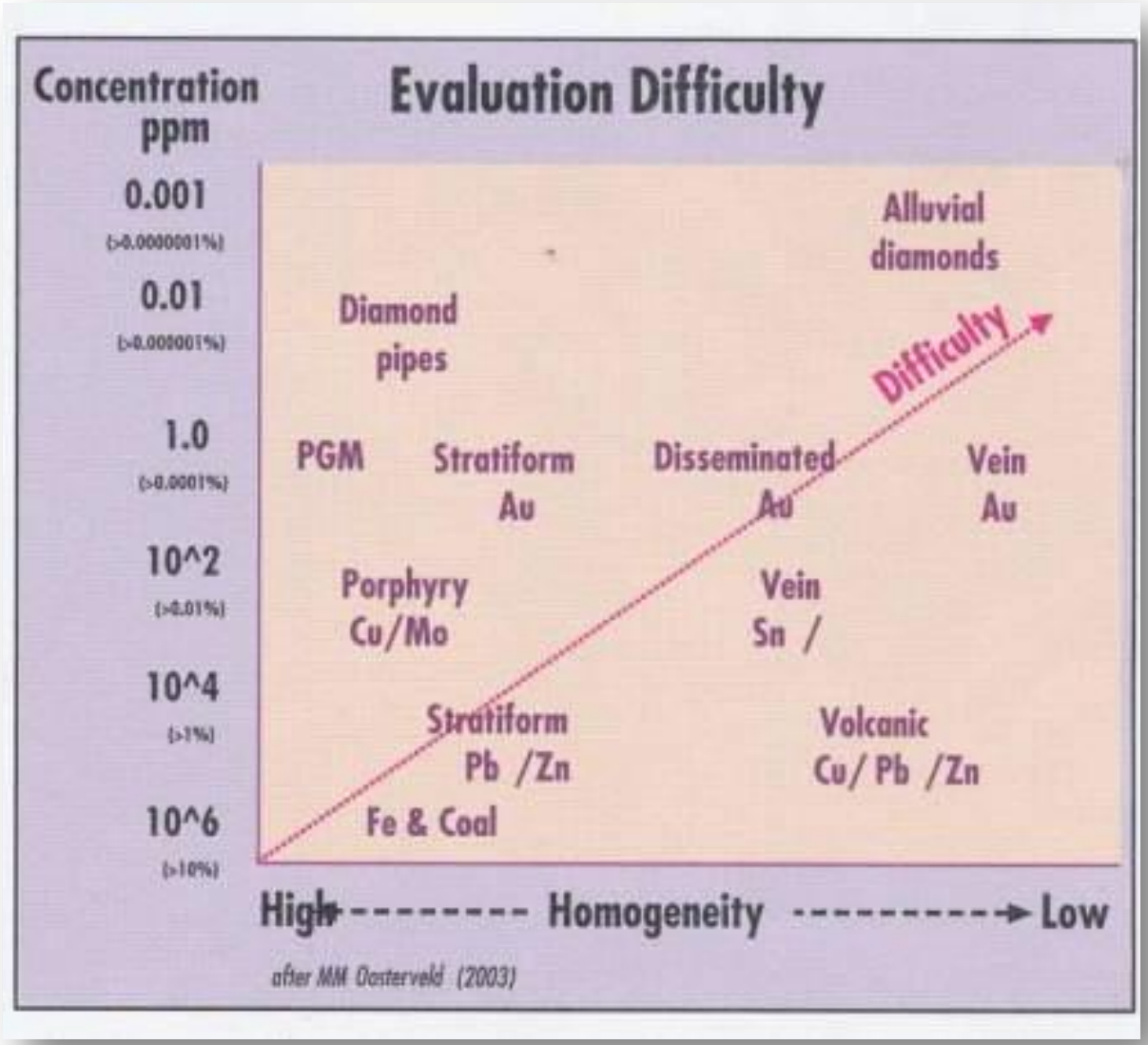
RESOURCES MATRIX (CIM)



The Inferred and Indicated Resource categories used by Rockwell for its alluvial diamond deposits follow the CIM definitions (Rockwell's primary listing is in Canada).

Rockwell does not use the Measured Resource category in its estimations, due to the nature of its deposits. This will be explained in more detail in the course of the presentation.

CHARACTERISTICS OF ALLUVIAL DIAMOND DEPOSITS



Alluvial diamond deposits are typically heterogeneous and low-grade.

Any assumption on grade continuity must be supported by a deep understanding of their geology – sedimentology, stratigraphy, depositional environment and morphotectonic evolution.

Detailed levels of sampling and drilling are critical to resource estimation for alluvial diamond deposits.

CHARACTERISTICS OF ALLUVIAL DIAMOND DEPOSITS

- Low average grades
- Heterogeneity of diamond distribution
- Large average diamond sizes
- Depositional environment
  - Highly dynamic depositional environment
  - Influence of bedrock on diamond concentration
  - Regional environmental fluctuations
- Grade variations
- No “proxy” for diamond grades and distribution

Alluvial diamond deposits are substantially different from other precious or base metal deposits, primarily due to the environment in which they were deposited.

CHARACTERISTICS OF ALLUVIAL DIAMOND DEPOSITS

- Low average grades
  - Measured as number of carats in one hundred cubic metres (ct/100m^3) of ore.
  - Typically less than 2ct/100m^3.

Mine	Average recovered grade for Indicated Resources
Saxendrift	0.45 ct/100m^3 (Marshall & Norton, 2014)*
Wouterspan	0.50 ct/100m^3 (Marshall & Norton, 2014)*
Niewejaarskraal	0.50 ct/100m^3 (Marshall & Norton, 2014)*
Tirisano	1.15 ct/100m^3 (Marshall & Norton, 2014)#

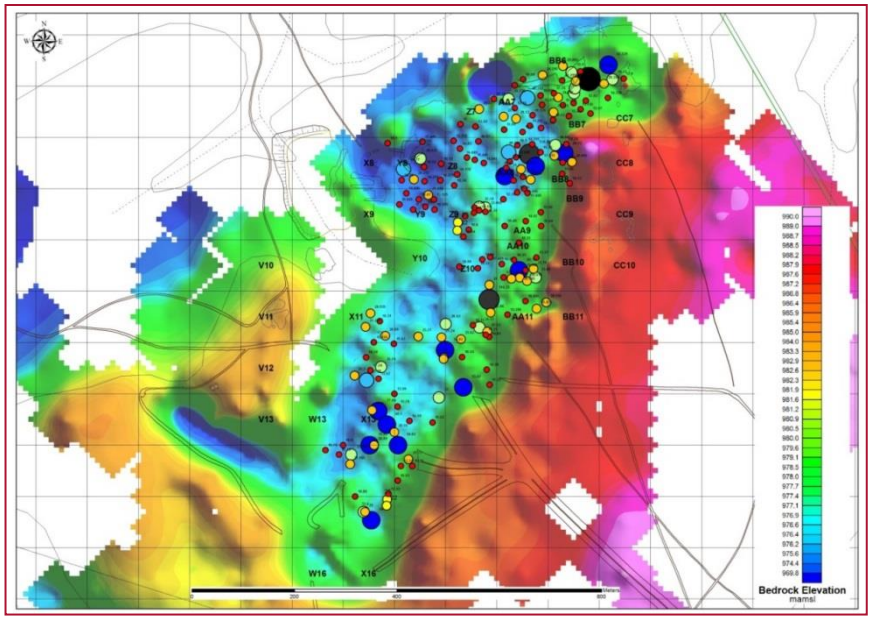
* 6 mm BCOS

2 mm BCOS

Low average grades typical of alluvial diamond deposits require a different approach to sampling and resource estimation.

CHARACTERISTICS OF ALLUVIAL DIAMOND DEPOSITS

- Large average diamond sizes
  - Average diamond sizes in all of South African inland alluvial diamond deposits range from 0.5 to 2.0 carats/stone.
  - Diamonds form discrete particle deposits of varying size, value and density, as opposed to disseminated particle deposits typical of other mineralisations.

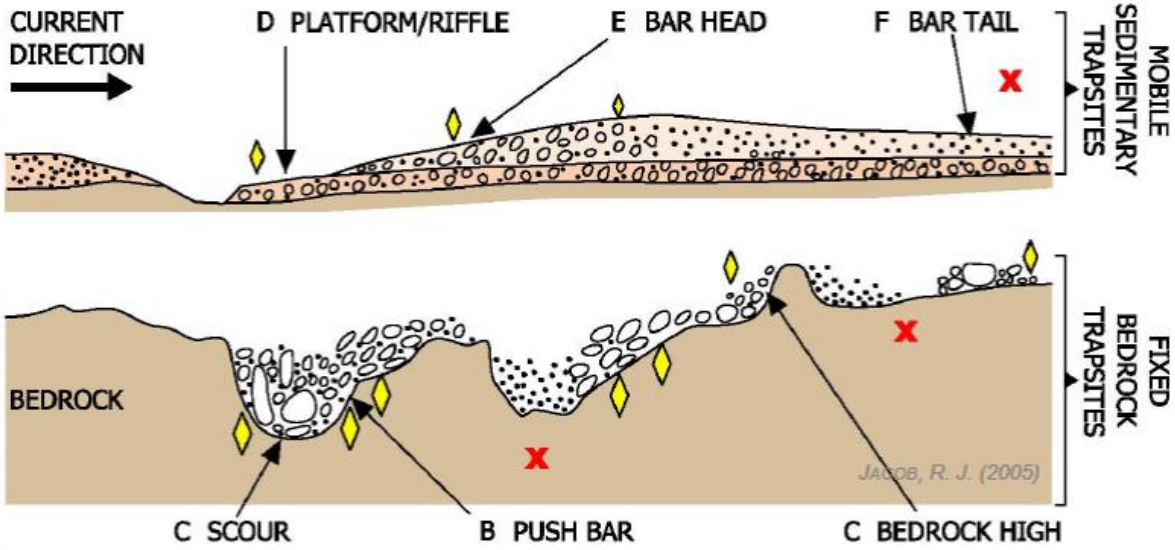


Diamond average stone sizes in inland alluvial deposits are extremely large in comparison to those in primary deposits.

The majority of the value of a parcel of alluvial diamonds may be attributed to a single stone.

CHARACTERISTICS OF ALLUVIAL DIAMOND DEPOSITS

- Depositional environment
  - Highly dynamic and transient depositional environment.
  - Extreme variability at broad (10-100's metres) and local scale (1-10's metres).
  - Variability on a broad scale is due to the multiple sedimentary bar units of coarse and fine material.



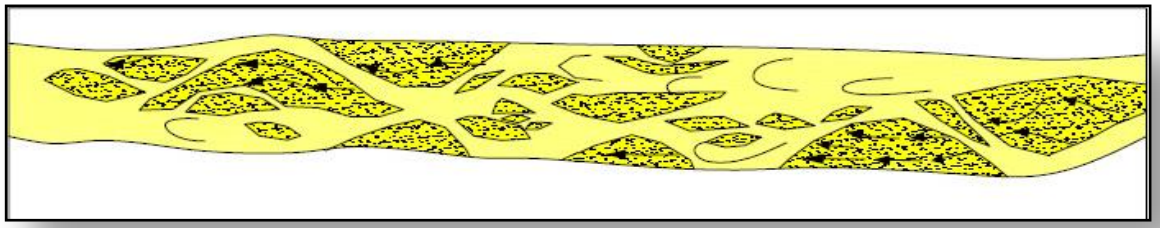
Braided channels are formed and destroyed continuously, producing highly varied depositional assemblages

Sediment units of irregular thickness with evidence of erosion and re-deposition are common features in braided stream deposits.

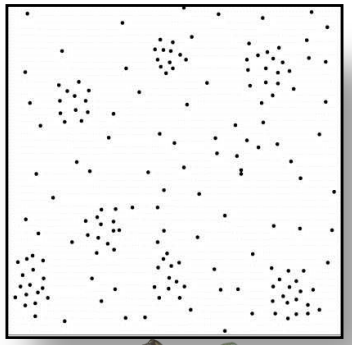
Alluvial diamond deposits are frequently reworked through one or more post-depositional processes.

CHARACTERISTICS OF ALLUVIAL DIAMOND DEPOSITS

- Heterogeneity of diamond distribution
  - A sketch of a typical palaeo fluvial-alluvial system shows coarse gravel bars enriched in diamonds within mostly barren sandy layers.



  - The distribution of diamonds in alluvial deposits can be described as a “random distribution of clusters of points”, where clusters are randomly distributed in space and so are the points in each cluster.



The diamond distribution pattern (grade) of alluvial deposits is such that poor repeatability of sample results is to be expected as the norm.

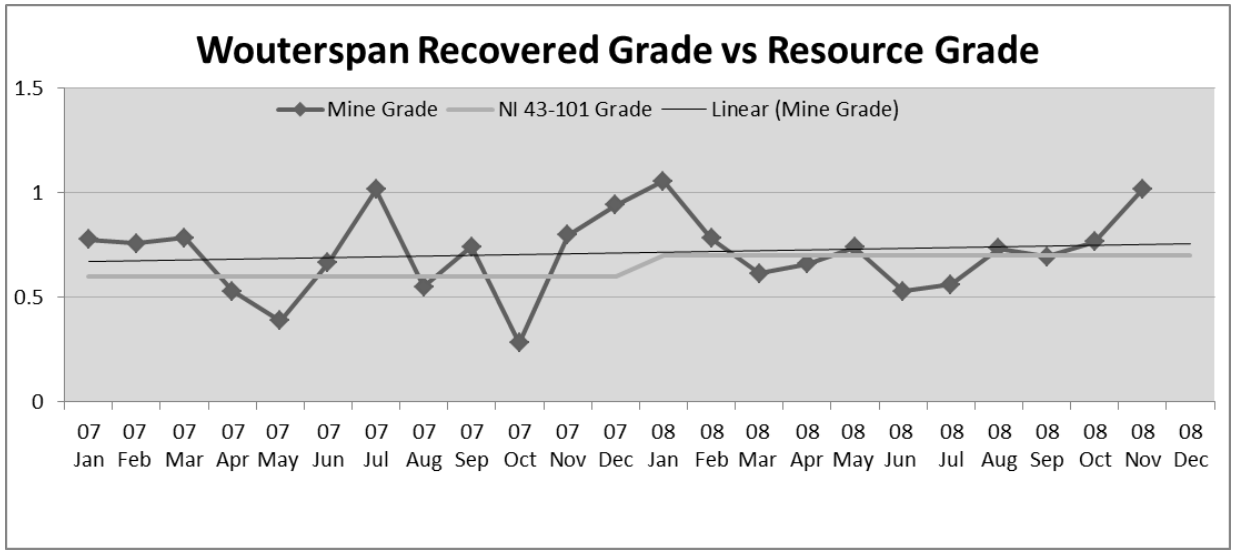
Two adjacent areas may have substantially different grade potential; consequently grades recovered from one operation cannot be applied to another property.

Within a gravel unit, small individual samples may have totally different, non-representative results.

Much larger (bulk) samples provide better estimates of overall grade.

CHARACTERISTICS OF ALLUVIAL DIAMOND DEPOSITS

- Grade variations
  - Grade within a single alluvial gravel unit may vary from barren to over 100cpht.
  - This is due to a combination of characteristics described above, as well as the high specific gravity of diamonds.
  - Multiple “bulk samples” of 100,000 – 1,000,000 cubic metres across a deposit are required for effective grade estimates.



Any conclusion drawn from the limited information obtained through an individual sample is likely to be flawed.

Multiple samples need to be collected across an alluvial diamond deposit.

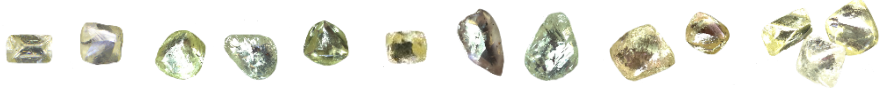
Samples of alluvial gravels need to be much larger than those usually taken from Precious or Base Metal deposits.

CHARACTERISTICS OF ALLUVIAL DIAMOND DEPOSITS

- No “proxy” for alluvial diamond grades and distribution
  - Alluvial diamond deposits are not characterised by the presence of any “indicator” minerals, such as heavy minerals or microdiamonds.
  - There are no associated geochemical signatures that may be used for determining the distribution of mineralisation in an alluvial diamond deposit.
  - Taking smaller samples of other minerals is not an option. A sampling programme needs to sample the actual diamonds within the deposit.

There are no satelite/proxy minerals associated with alluvial diamond deposits that may occur in higher, more easily measurable, concentrations.

The actual diamonds in the alluvial deposit need to be sampled in order for their distribution to be determined.



RESOURCE ESTIMATION IN ROCKWELL

Consolidated Resource/Reserve classification criteria

Procedure		Comments
Desktop Studies	Identification of an "Area of Interest"	Typically the area of interest is in a well-known alluvial diamond area or region with, preferably, a history of past production and diamond sales
Field Studies and identification of Exploration Targets	Geological mapping, Remote sensing studies, and Reconnaissance drilling	To increase confidence in geological model and to obtain historical information regarding diamond grade and value.
Inferred Resource Estimation	Detailed Drilling on 100x100m grid	To establish the nature of the geology (stratigraphy, sedimentology, etc) and to estimate gravel volume
	Bulk-sampling some 0.5% of intended declared resource	To estimate grade
	Recovery of a minimum of 500ct	To estimate diamond value & size frequency
Indicated Resource Estimation	Infill drilling on a close spacing (50x50m)	To improve geological knowledge, construct detailed 3-D resource models and improve the confidence in the estimate of gravel volume
	Further bulk-sampling and initiation of trial-mining	To estimate grade
	Recovery of 3,000 – 5,000cts	To estimate diamond value & size frequency
Probable Reserve Estimation	Continuation of the trial-mining of some 3-5% of the declared reserve	To complete a pre-feasibility study to allow conversion to Probable Reserves

ROCKWELL'S RESERVE ESTIMATION

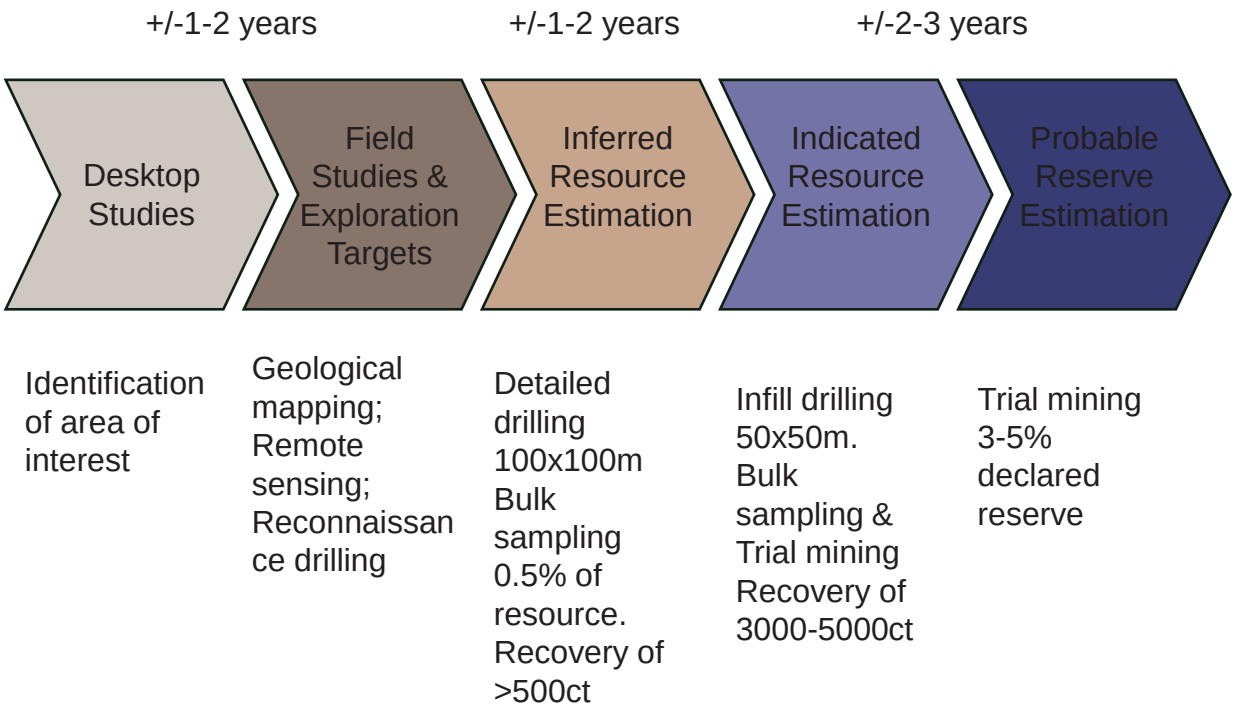
- The conversion of a Mineral Resource to a Mineral Reserve demands that either a Pre-Feasibility or Feasibility Study has been completed on the deposit.
- The following variables are generally considered in Pre-Feasibility and Feasibility Studies:
  - Resource volumes (Life of Mine) and grade
  - Mining and Production rates
  - Revenue
  - Operating Costs and Fees
  - Capital Costs
  - Taxes and royalties
  - Depreciation, interest and residual value
- For alluvial diamond deposits, most of these modifying factors are considered from the start of the exploration programme and updated through the bulk-sampling and trial-mining phases.

Pre-Feasibility and Feasibility Studies typically determine the extent to which the estimates of Mineral Resources may be mined economically.

Such studies also look at how the impact of various environmental, legal, financial, socio-economic, and marketing issues (together known as the "modifying factors") materially affect the commerciality of the deposit.

Due to lifespan of trial mining phase, Pre-Feasibility Studies are typically conducted in-house

ROCKWELL'S MINERAL RESOURCE EVALUATION



Rockwell's classification and estimation procedure reflects accurately the peculiar nature of its alluvial diamond deposits.

Rockwell continually reconciles recovered grades with estimated resource/reserve grades on all of it operations.

Where Indicated Resources or Provable Reserves are estimated, it is expected that the recovered grades be witih 15% of the estimated sample grades.

CONCLUSIONS

- Rockwell has considerable geological information and knowledge and excellent mining data for the deposits it is mining and has created detailed and extensive geological and diamond databases.
- The deposits and their depositional regimes are well understood, having been mined for well over 100 years.
- The different alluvial deposits on which Rockwell operates have distinct geological characteristics and diamond populations - these populations can be easily characterized in respect of diamond size frequency studies as well as average sales prices in relation to size frequency characteristics
- Good correlation exists between predicted or sample grade and actual grades recovered in the trial-mining operations.

As a listed, professionally operated listed diamond exploration and mining company, Rockwell undertakes rigorous and robust evaluation studies of its deposits.

Rockwell has developed resource classification procedures that are premised on internationally accepted classification systems.