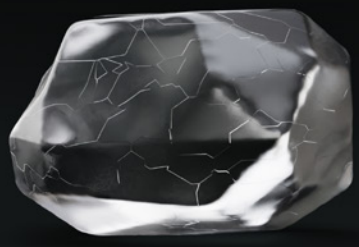
STARK
RESOURCES

SAVE LARGE DIAMONDS
with intelligent configurations
through RFID tracing.

RFID Large Diamond Protection

SMALL BREAKS, BIG LO$$:
Results by numbers

$53, 000, 000
LESEDI LA RONA
1 111 ct



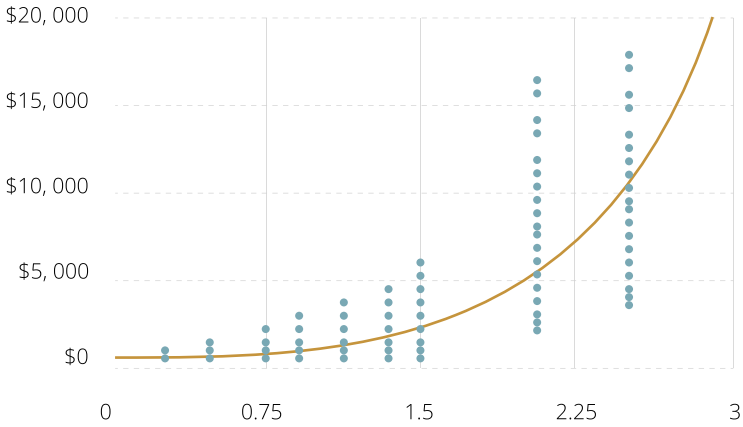
$19, 500, 000
SEWELÔ DIAMOND
1 758 ct

$63, 000, 000
CONSTELLATION
813 ct

SHOW ME THE CARATS

The pricing of rough diamonds is closely tied to their weight, with **larger diamonds** commanding **exponentially higher prices** due to their rarity and potential value. As the weight of a diamond increases, so does its price per carat, leading to a dramatic escalation in overall value.

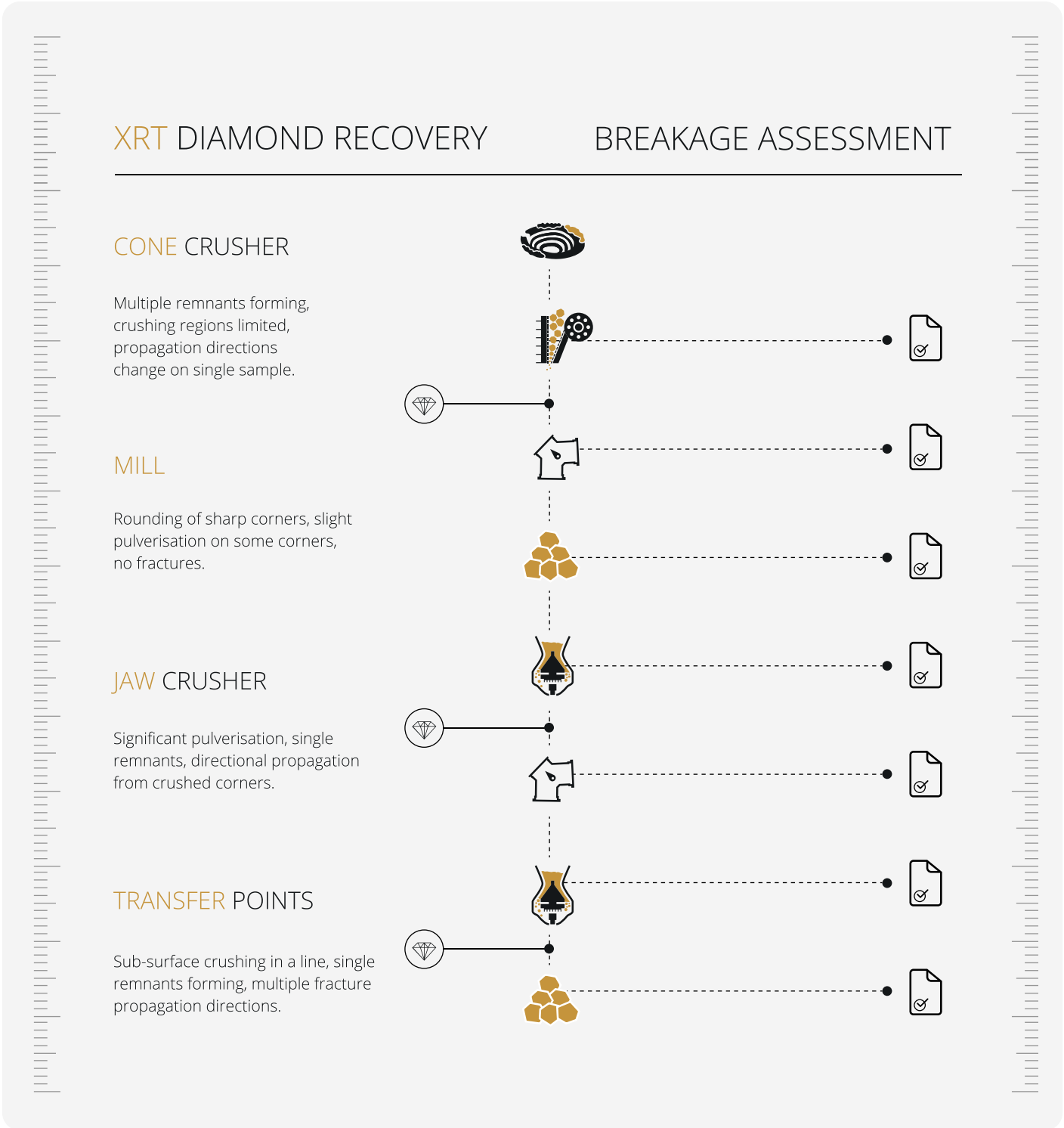
This non-linear relationship between weight and price reflects the scarcity of larger diamonds in nature, as well as the increased demand for these exceptional gems in the market. Consequently, the discovery of a sizeable rough diamond in a mine is a highly sought-after event, as it signifies the potential for significant profit and prestige in the world of precious stones.



ROUND CUT DIAMOND EARNINGS: PRICE (USD) VS WEIGHT (CT)

HIGH RISK IDENTIFICATION:

Damage/breakage patterns associated with each equipment type

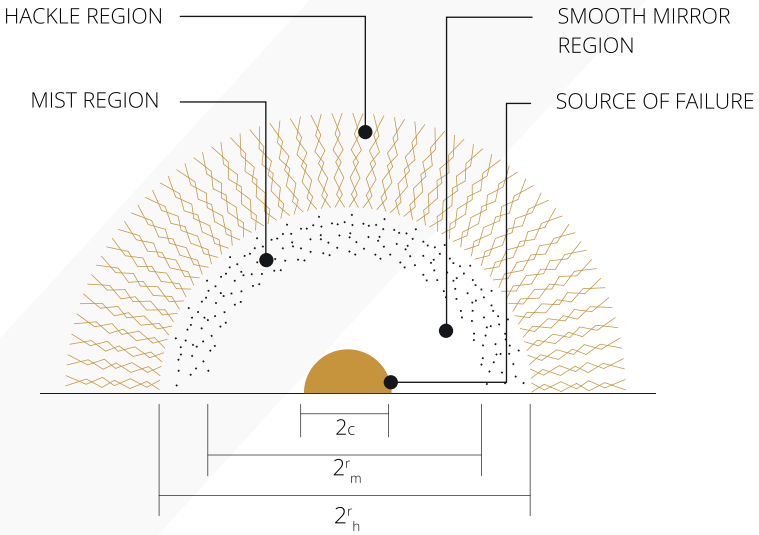


INCREASE SURVIVAL RATE:
CRASH TEST DUMMIES FOR DIAMONDS

PROPRIETARY DIAMOND SIMULANT COMPOUND DEVELOPED IN COLLABORATION WITH THE CSIR & UNIVERSITY OF PRETORIA

Compound suitability confirmation.
Fracture similarity to hard minerals such as DIAMONDS and also hard ceramics.

TYPICAL DIAMOND FRACTURE DESCRIPTION



CRUSHING DAMAGE:
Region where the material was pulverised, usually due to point contact at right angles to the surface.

SPALLING DAMAGE:
Removal of a small section from the surface due to an oblique application of force.

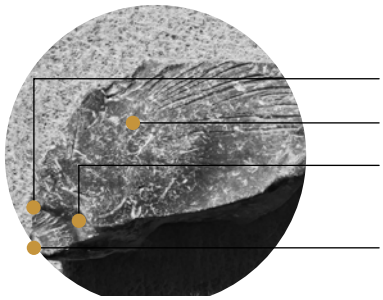
MIRROR REGION:
Region of crack propagation, featureless. This region is followed by the mist region, which is a smooth region with some surface detail.

RIPPLE LINES AND HACKLE REGION:
Radial lines in the hackle region, pointing to the origin.

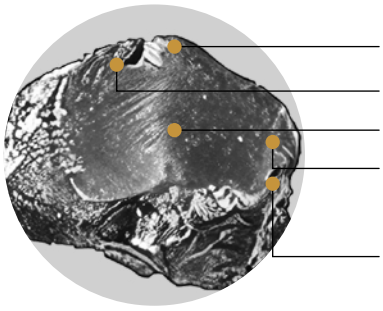
OBSERVED CHARACTERISTICS:

Diamond breakage risk identification & breakage reduction

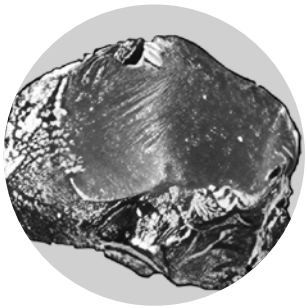
TYPICAL FRACTOGRAPHIC FEATURES OF FRACTURED SIMULANT



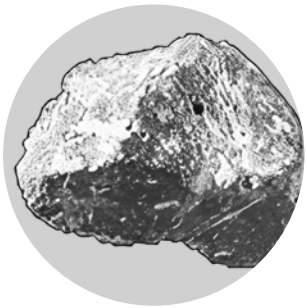
TYPICAL FRACTOGRAPHIC FEATURES OF SIMULANTS FROM CURRENT GROUP



TYPICAL FRACTOGRAPHIC FEATURES OF FRACTURED SIMULANTS AFTER PASSING THROUGH CONE CRUSHER

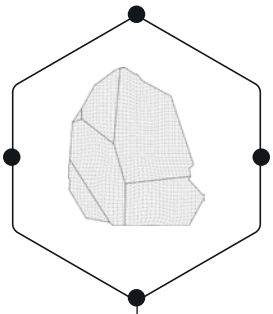


FRACTURED SURFACE



UNAFFECTED SURFACE

LARGE DIAMOND PROTECTION SOLUTIONS



BROKEN DIAMONDS

APPROPRIATE IDENTIFICATION OF HIGH-RISK DIAMOND BREAKAGE AREAS:

+ Pebble crushing and tertiary crushing (extracting diamonds post primary crushing). RFID diamond breakage simulants.
+ Diamond detection within kimberlite.

UNDER RECOVERY OF DIAMONDS, POOR DIAMOND DEPORTMENT

DEPORTMENT OF DIAMONDS

+ DMS, XRT/XRL sorting
+ Screening efficiencies in real-time.

THEFT RISKS

THEFT REDUCTION THROUGH RFID SECURITY

+ Real-time residence time tracking of diamond path.

STARK
RESOURCES

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GET IN TOUCH!