

STAR DIAMOND CORPORATION

**Star - Orion South Diamond Project
& Fort à la Corne Diamond District**

**Comparison of Trench Cutter
Diamond Results with
Star Underground and LDD**

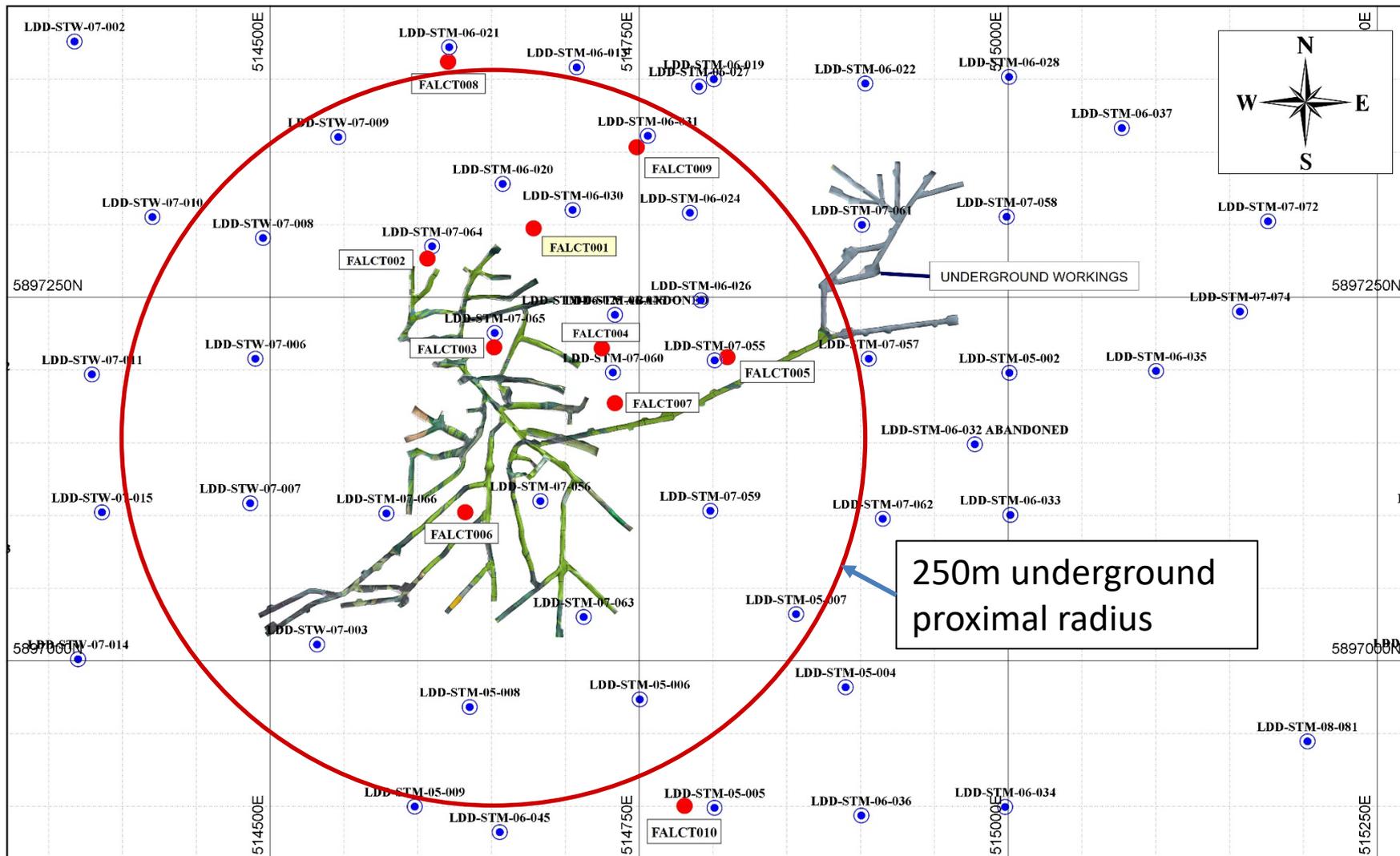


November 2020



Star Trench and LDD Holes

Grid = 50 metres

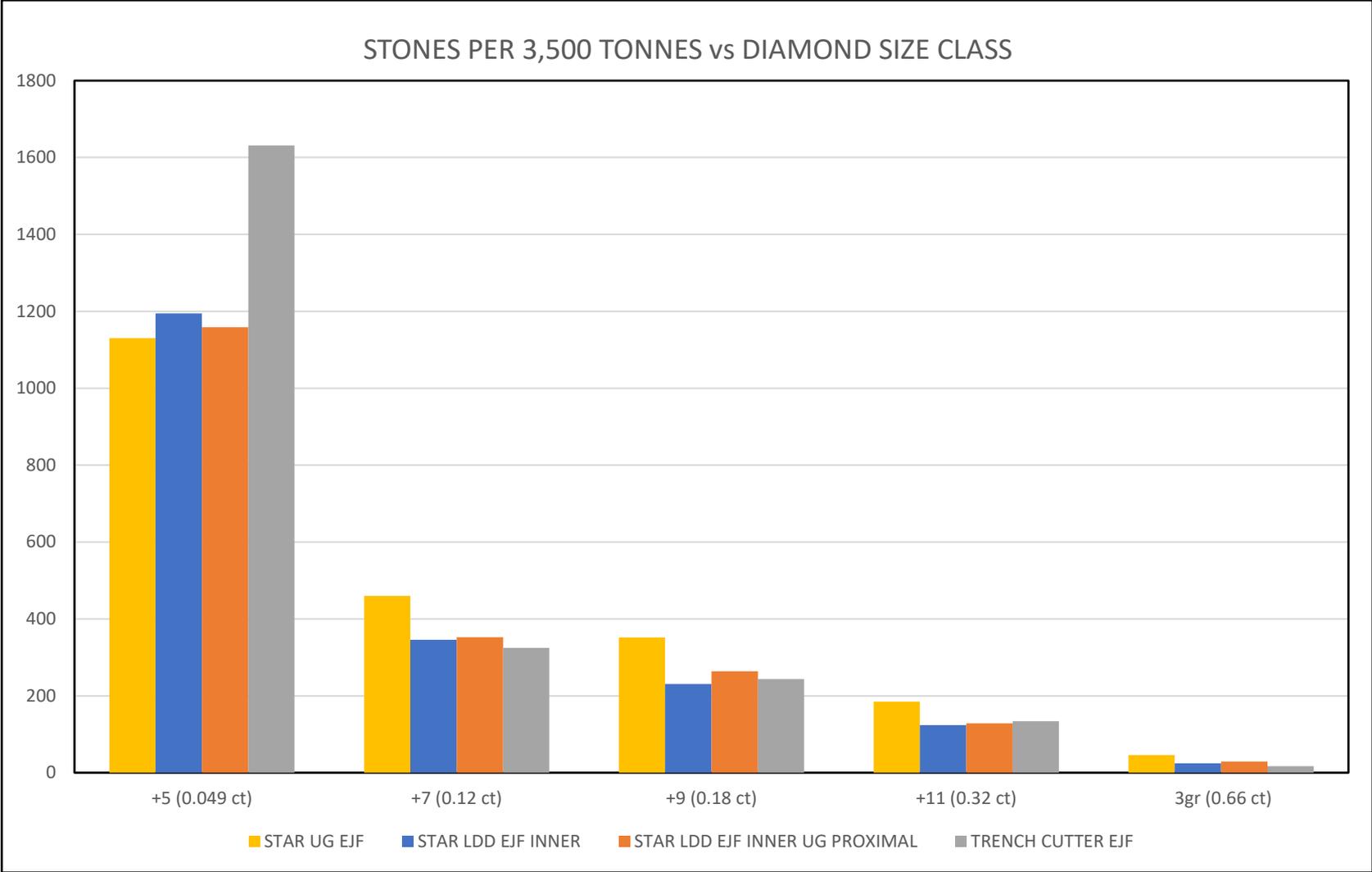


250m underground proximal radius

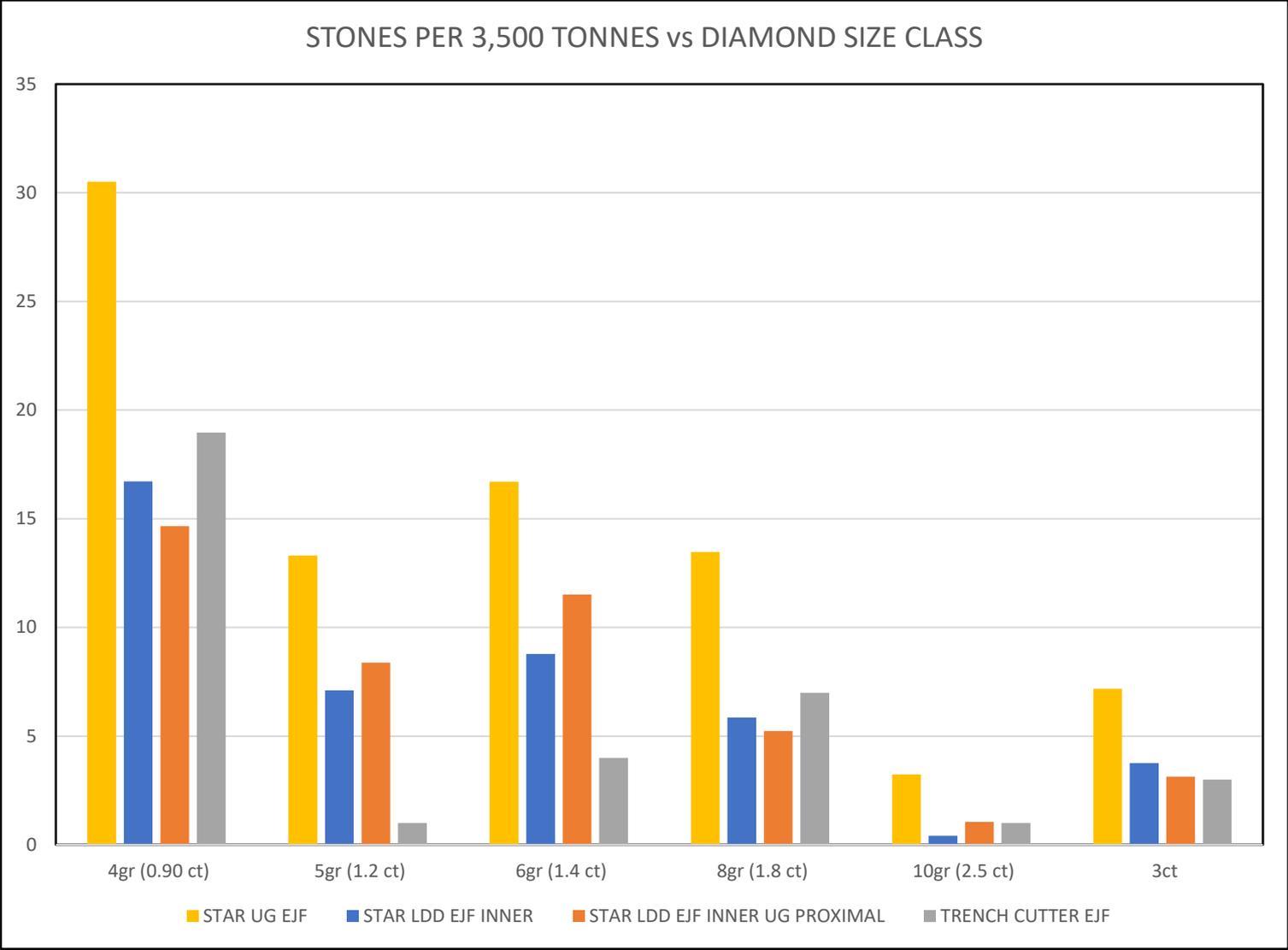
Diamond Results STAR UG, LDD & Trench Cutter

- The presentation focuses on the diamonds recovered from the EJV kimberlite unit the first four trench cutter holes excavated on the Star Kimberlite
- To date 3,505 tonnes of EJV kimberlite from these four trenches has been processed through the on-site BSP and the diamonds recovered from DMS concentrates and XRT Accepts at the SRC
- 3,500 tonnes has been chosen for the plots in this presentation as it represents the total tonnage of the EJV processed to date from the first four trenches and is also equal to the tonnage recovered from the 48 inch LDD holes proximal to the Star underground, within a 250 metre radius of the center of the Star underground
- To date, FTIR diamond typing has been completed on EJV diamonds for the first three trenches

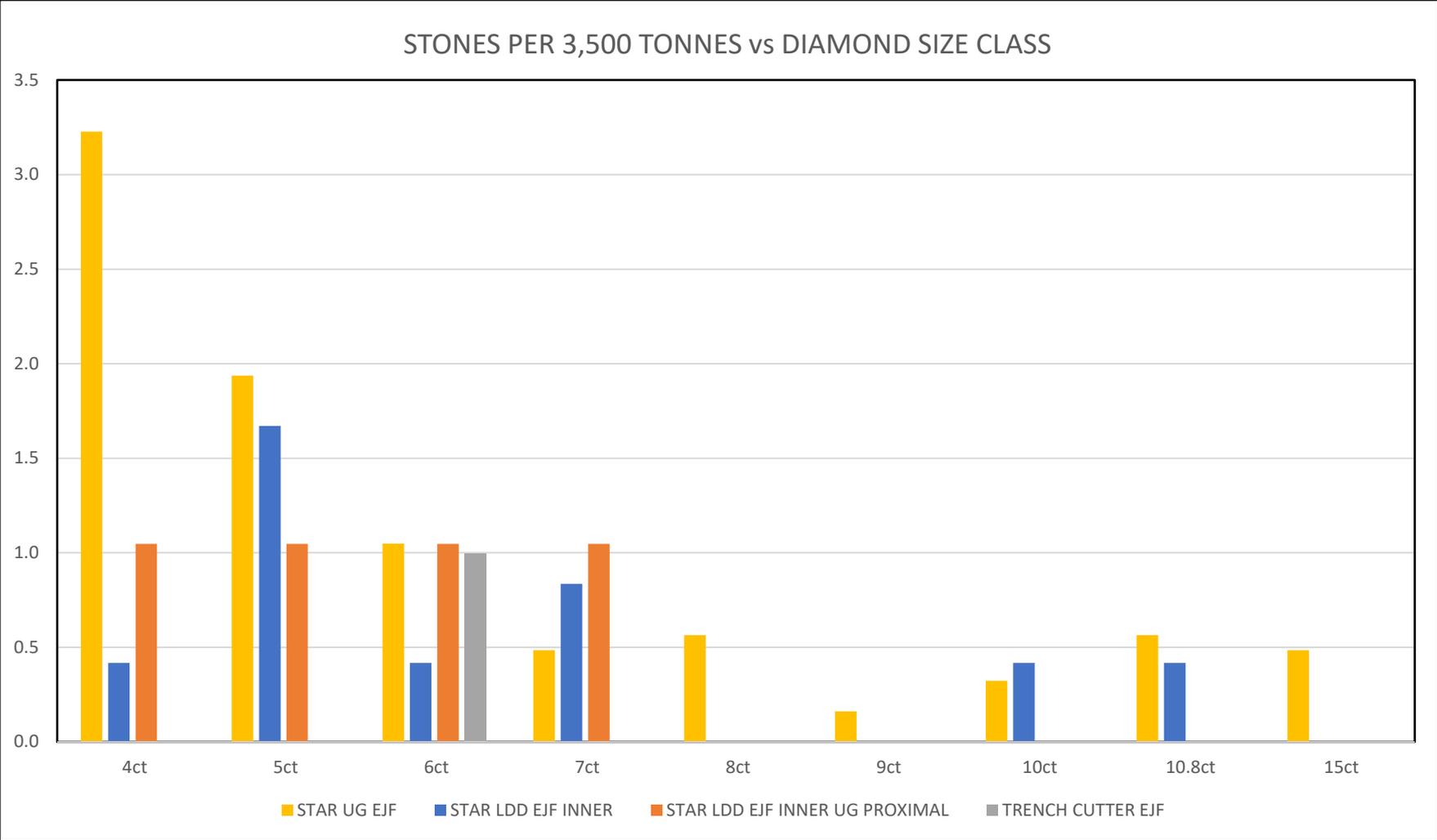
Diamond Results STAR UG, LDD & Trench Cutter



Diamond Results STAR UG, LDD & Trench Cutter

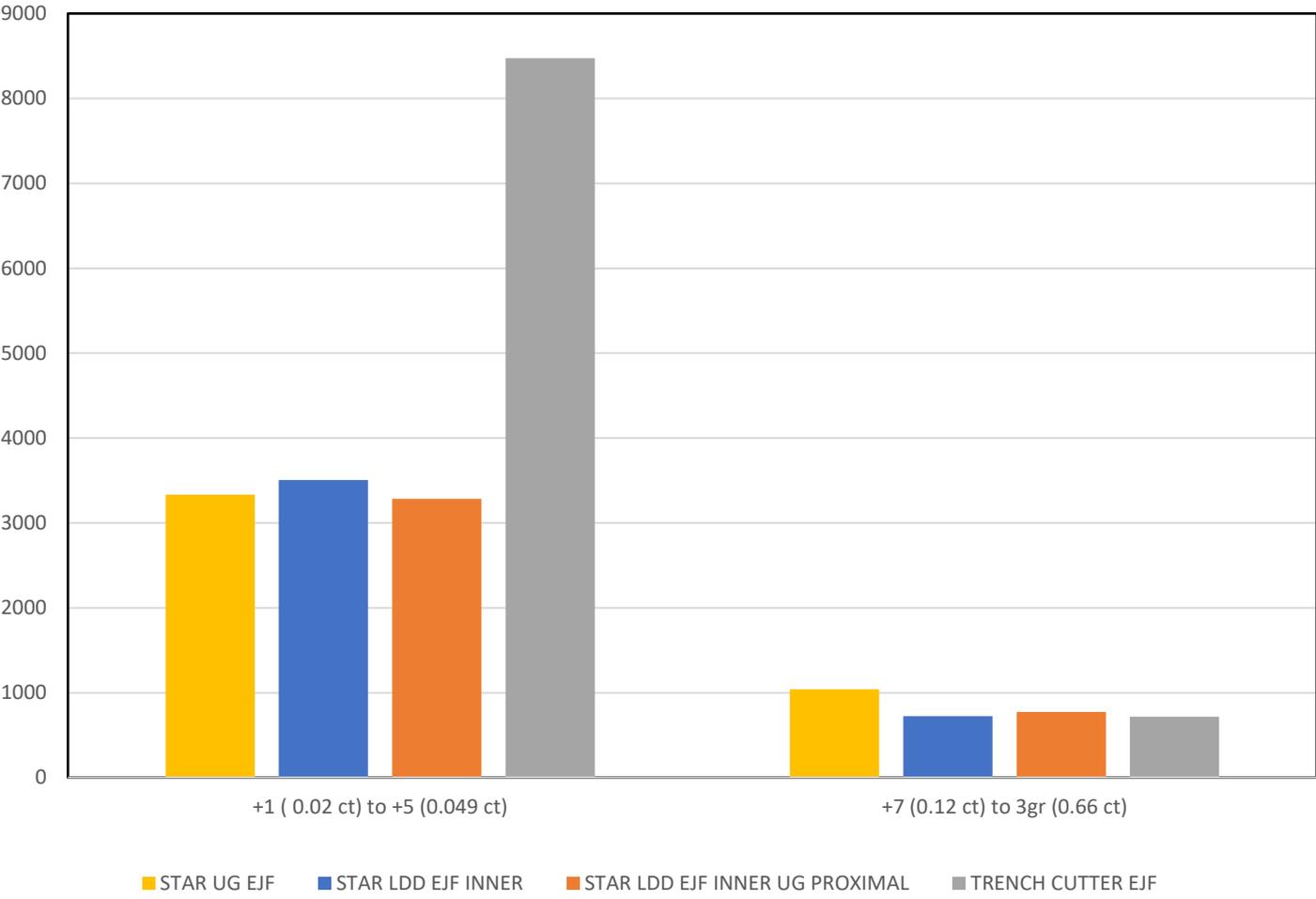


Diamond Results STAR UG, LDD & Trench Cutter

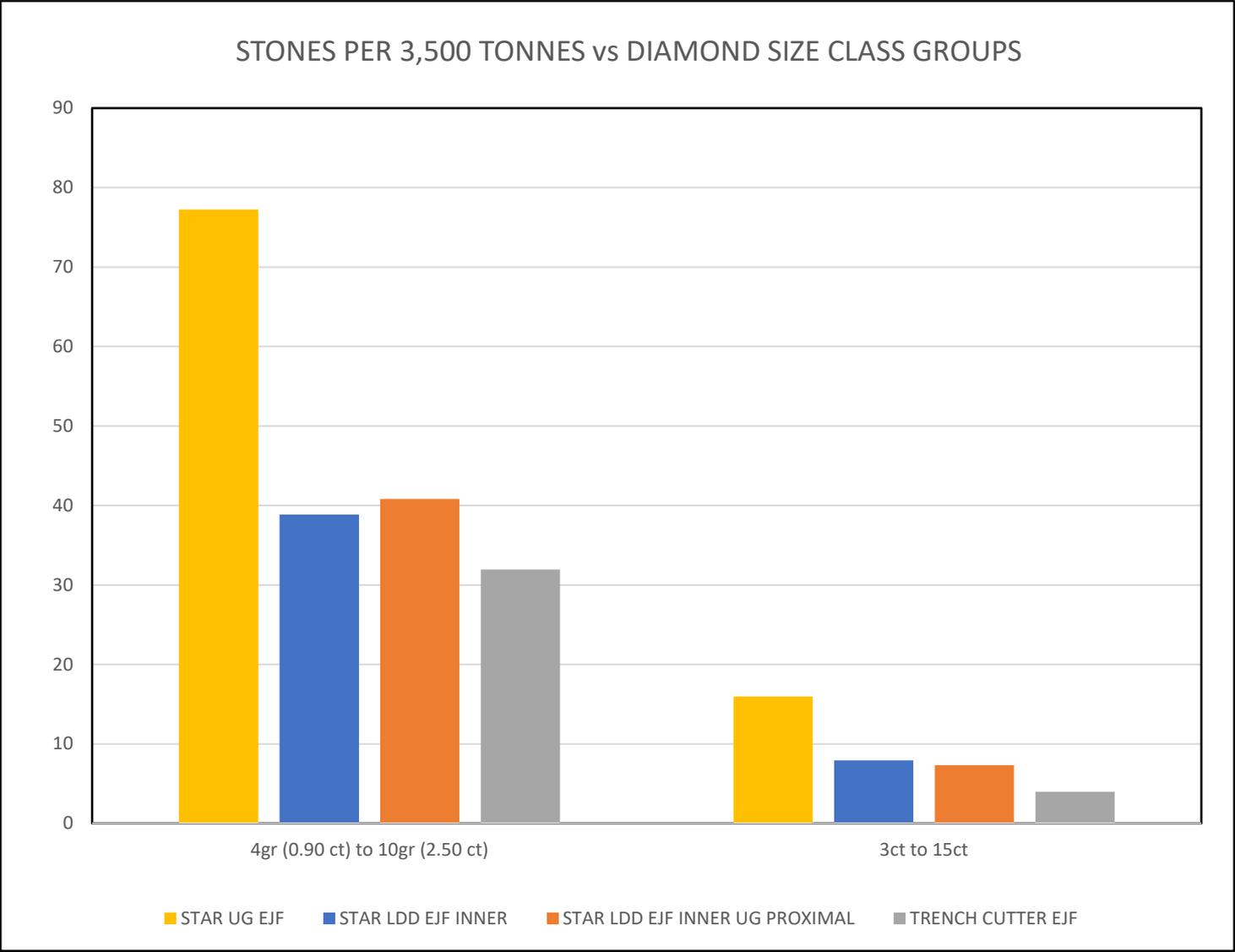


Diamond Results STAR UG, LDD & Trench Cutter

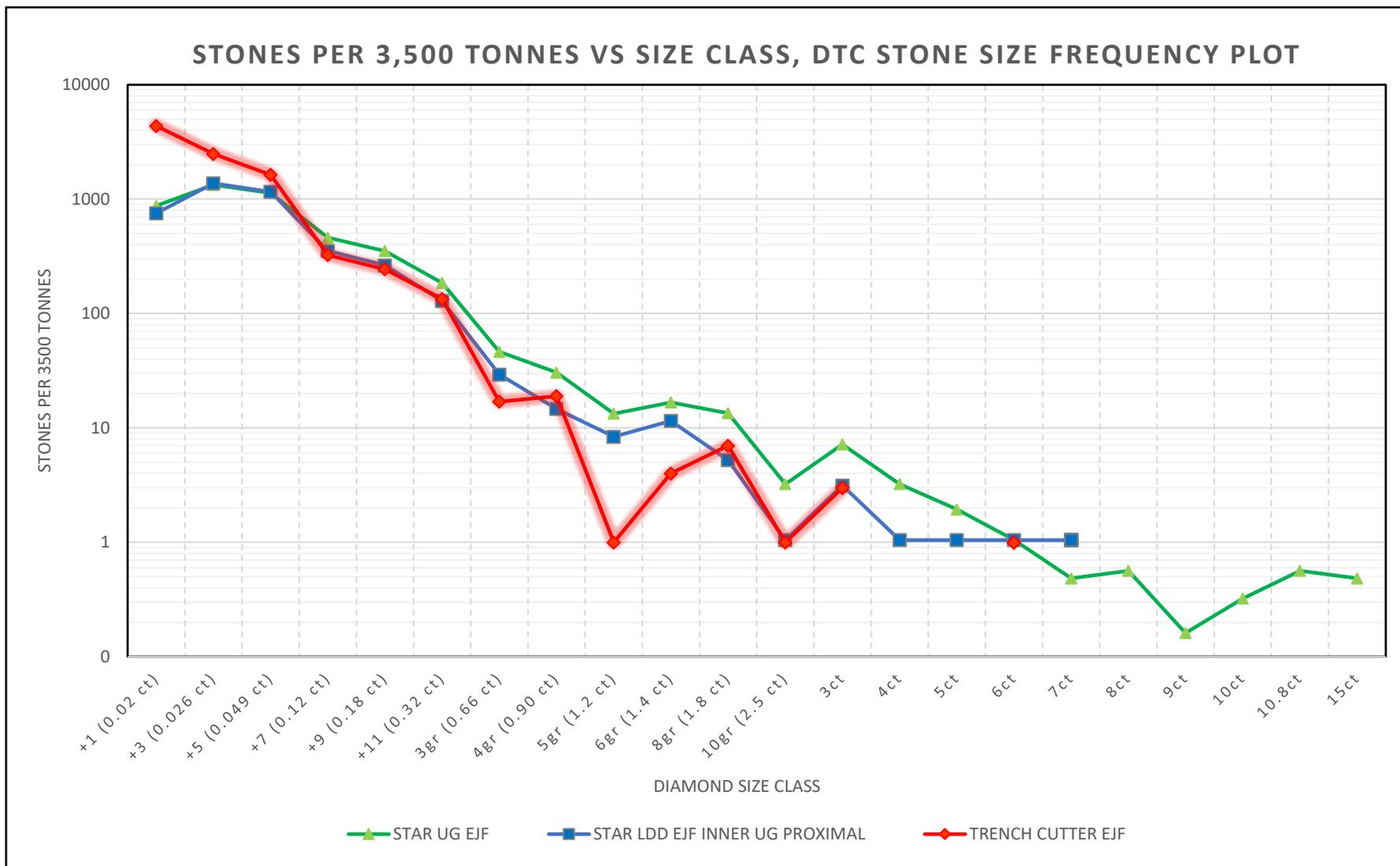
STONES PER 3,500 TONNES vs DIAMOND SIZE CLASS GROUPS



Diamond Results STAR UG LDD & Trench Cutter



Diamond Results STAR UG LDD & Trench Cutter



Diamond Typing Results STAR UG & Trench Cutter

- Diamond typing for the first three trench parcels has an anomalous number of Type IIa Diamonds in the +11 diamond size fraction
- This requires further investigation to assess if this is a result of diamond breakage
- Star Diamond personnel were not provided the opportunity to review these typed diamonds prior to their shipment to Antwerp

STAR TRENCH CUTTER EJF SAMPLES												
Diamonds Typed	+11	3GR	4GR	5GR	6GR	8GR	10GR	3CT	4CT	5CT	6CT	TOTAL
Total	104	13	16	0	4	6	0	3	0	0	1	324
TYPE II	45	3	3	0	1	1	0	0	0	0	1	98
% TYPE II	43.3	23.1	18.8	0.0	25.0	16.7	0.0	0.0	0.0	0.0	100.0	30.2
STAR UNDERGROUND EJF SAMPLES												
Diamonds Typed	+11	3GR	4GR	5GR	6GR	8GR	10GR	3CT	4CT	5CT	6CT	TOTAL
Total	2608	200	200	162	189	158	39	71	32	18	12	3689
TYPE II	739	35	52	26	47	38	11	15	8	6	1	978
% TYPE II	28.3	17.5	26.0	16.0	24.9	24.1	28.2	21.1	25.0	33.3	8.3	26.5

Conclusions: Star UG, LDD & Trench Cutter

- There is an under recovery of larger stones (0.90 carats and above) compared to the underground bulk sample and the 48 inch LDD program
- There is a better recovery of the small diamonds in the 0.02 to 0.05 carat range. This adds to the grade of each trench cutter hole compared to the grades of the 48 inch LDD program. This recovery is due to the efficient operation of the DMS cyclone for the limited size range of +1-6 millimetres
- The stone size frequency plot shows that the Trench Cutter has not outperformed (to date) the 48 inch LDD program. In fact it has underperformed in the important larger stone size classes above 0.9 carats
- Diamond typing for EIJ diamonds from the first three trenches has an anomalous number of Type IIa Diamonds in the +11 diamond size fraction, this requires further investigation to assess if this is a result of diamond breakage
- Diamond breakage analysis and typing must continue for all the EIJ samples of the ten trench cutter holes
- All remaining +6mm samples must be crushed and processed before processing is deemed completed
- Audits of the DMS concentrate and float tails must also be completed before the processing is deemed complete
- A selection of large diamond (1 to 15 carats) spikes must be added to the primary feed bin of the BSP for a number of samples to fully audit the potential for the plant for diamond recovery and breakage



STAR
DIAMOND CORPORATION

