

THE GEMSTONES OF UNION CARBIDE  
“Absolutely Perfect Diamonds, Emeralds and Rubies”

“ A fine diamond is the most precious and valuable of all gemstones. A gem several carats large is worth more than a comparable gem diamond.

A scientific miracle conceived in the laboratories of Union Carbide.

It was the early 1960”s and Union Carbide found itself the leader in synthetic crystal growth. From their scientific research facilities in Indianapolis, Tonawanda, and East Chicago came modern scientific accomplishments. Man made single crystals of diamonds, emeralds and rubies were produced, to be made into military lasers and sophisticated communication devices. Because diamonds also have a variety of scientific uses, it was perceived as a excellent choice for research project. If indeed the Carbide scientist could create a perfect man made diamond, not only would it be a scientific breakthrough, but also would fit into the growing jewelry products market.

Serious work was begun at the Indianapolis laboratory in 1962 and two years later a nearly perfect diamond was developed. It was produced using the same process the Bell Telephone had used to make synthetic quartz some ten years earlier. Indeed the hydrothermal process, which involves putting a seed plate of diamond in a pressure bomb with an enriched liquid solution at elevated temperatures would yield diamonds as perfect as had ever been produced.