

# FRAUDULENT INSCRIPTION TO MISREPRESENT LAB GROWN DIAMONDS AS NATURAL DIAMONDS

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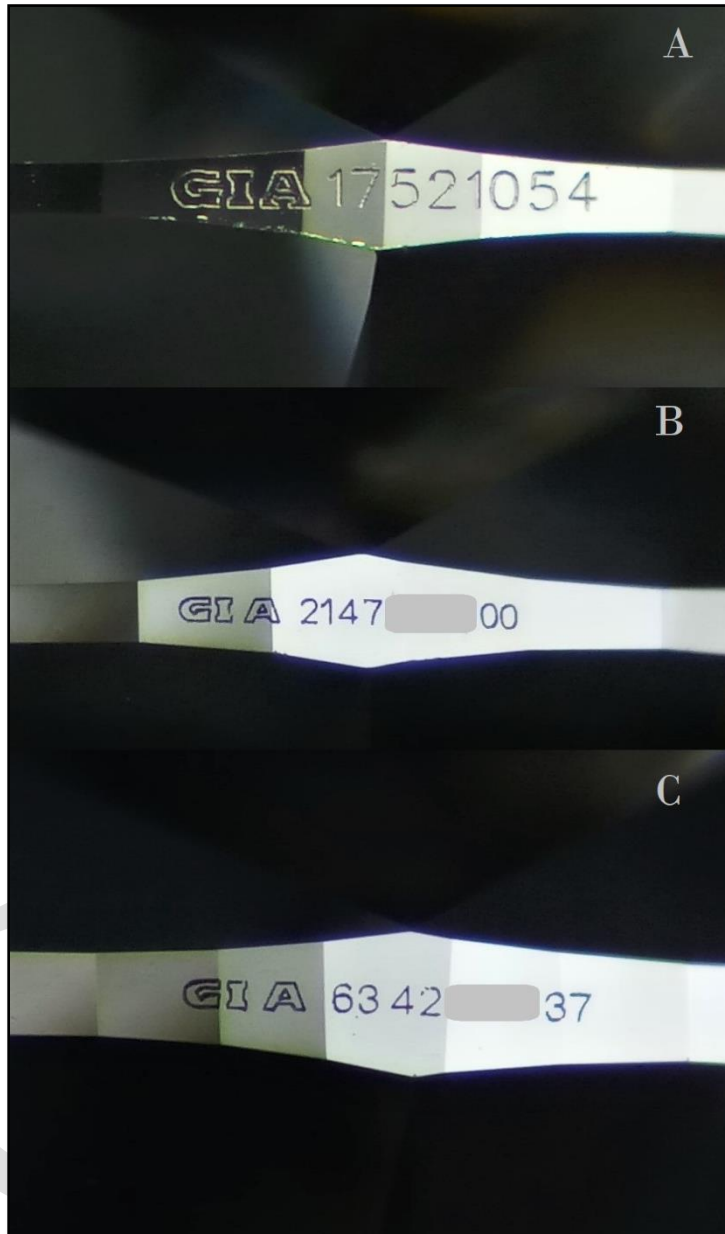


*Lab grown CVD Diamonds, 1.026 ct and 1.055 ct, with fake inscription. Photo by: Aditya Upadhyay*

An utmost authenticity evidence, for a layman, of a diamond is presence of laser inscribed report number over the girdle, which is supposed to be pertaining to inscribed diamond only. Laser inscribed report number over the girdle of diamond is quite small for unaided eyes to analyze, and it's quite illegible even with 10x loupe.

Indian Gemmological Institution - Gem Testing Laboratory, Delhi examined two diamonds (Fig. 1), submitted for identification, 1.026 and 1.055 carats, both diamonds were inscribed with GIA report numbers, 6342\*\*\*\*37 and 2147\*\*\*\*00, respectively. Report numbers (reports issued last year) inscribed on the Lab grown diamonds were found to be associated with Natural Diamonds. (Content/particulars of inscribed report numbers verified from GIA website)

Actual dimensions of both submitted diamonds were almost similar to the dimensions mentioned on the original reports. Actual dimensions of submitted diamonds and dimensions mentioned on the reports were similar enough to easily allege that original diamond identification reports are pertaining to submitted diamonds and hence are the real diamonds, which were later found as Lab Grown Diamonds.

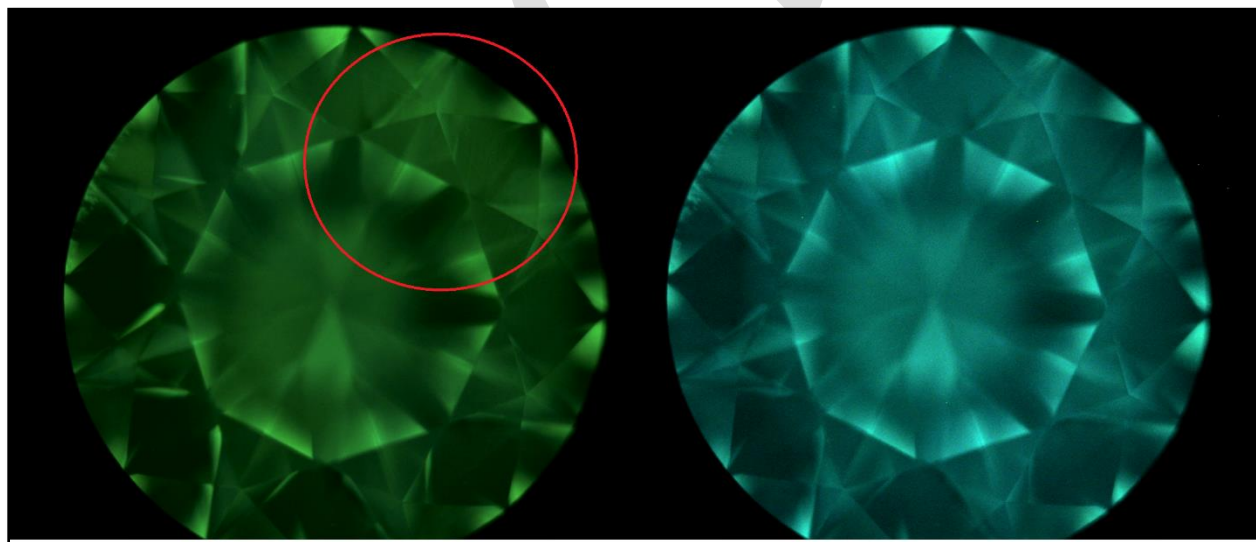


*A: Original inscription on a Natural Diamond; B & C: Fake inscription on Lab grown CVD Diamond.  
NOTE: Difference in font of word "GIA", specially alphabet "A".*

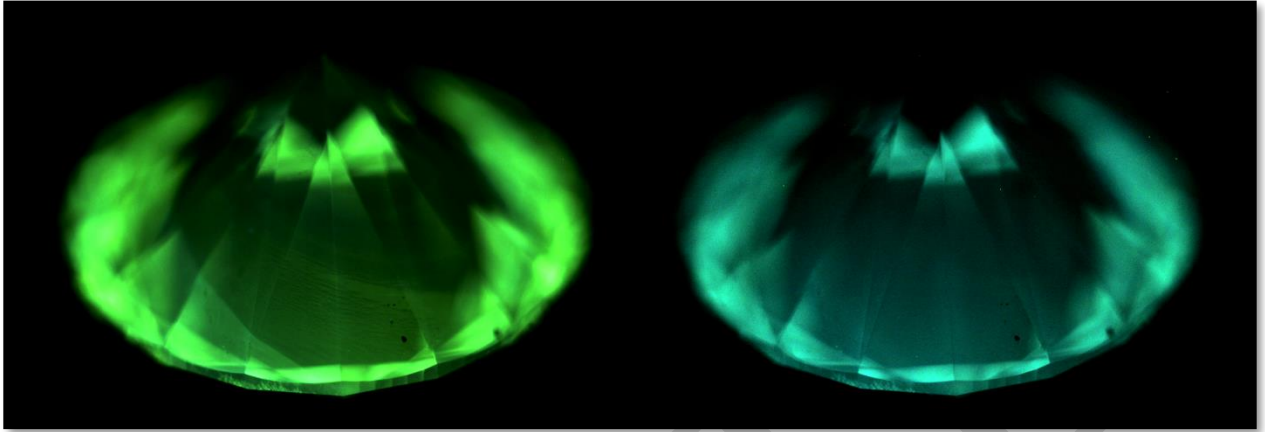
1.026 ct diamond actually measured 6.44 – 6.46 x 3.95 and the measurements mentioned on the related report (as per the report number inscribed on submitted diamond) was 6.44 – 6.48 x 3.98. And 1.055 ct diamond actually measured 6.54 – 6.57 x 3.90 and the measurements mentioned on the related report (as per the report number inscribed on submitted diamond) was 6.54 – 6.59 x 3.94.

Under higher magnification, difference in the font of the original (specimen for reference) and fake inscriptions on submitted diamond, specially "A" alphabet of "GIA", was observed. Forged one appears coarse and lacks finishing.

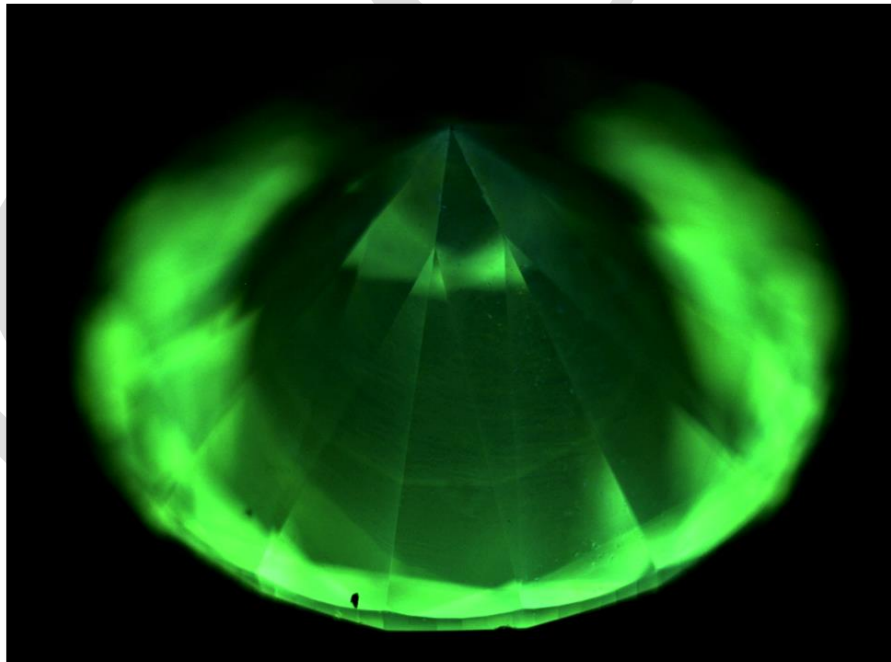
Both submitted diamonds, 1.026 and 1.055 ct, were found to be type 2a diamonds by IR absorption spectroscopy. Under Diamond View, both diamonds showed strong turquoise blue phosphorescence and green fluorescence with typical striation pattern characteristic for CVD Diamonds (Striation pattern in CVD diamond is developed due to its layer by layer growth process). None of the submitted diamonds were having major inclusions, pinpoints were observed in both diamonds under higher magnification. 1.026 ct diamond was having bigger pinpoints appearing like crystallites, although minute to make out their shape. Yellowish green fluorescence of both diamonds was stronger under SWUV comparing to LWUV. Gemmological observations confirmed both submitted diamonds to be Lab grown CVD Diamonds.



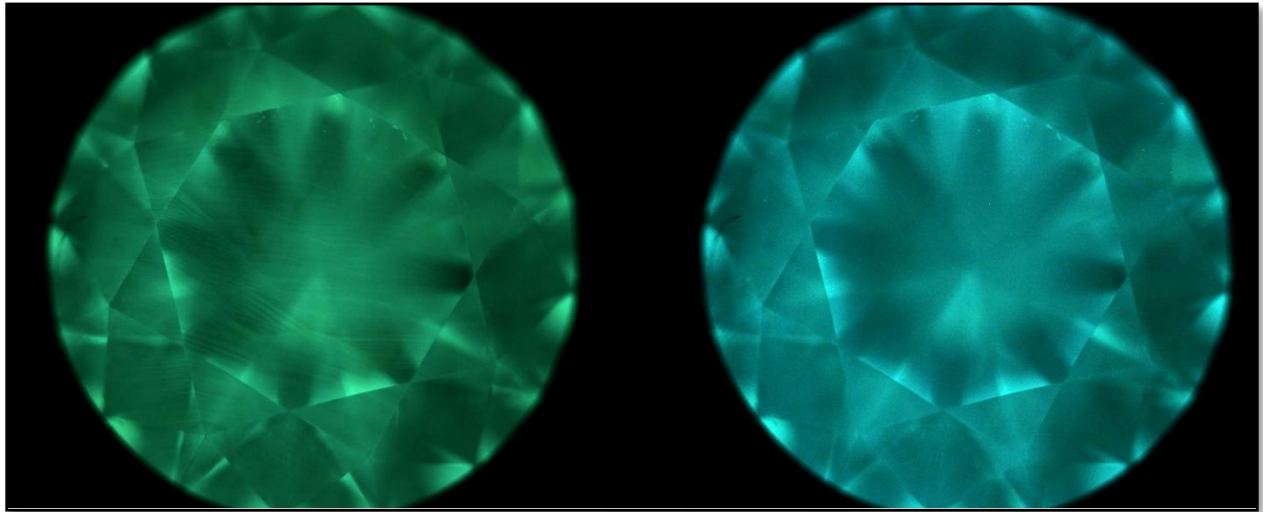
*Diamond view image (crown View) of 1.026 Lab Grown Diamond. Left: Fluorescence image. Right: Phosphorescence image. NOTE: Striation pattern was not distinctively evident in whole diamond, were more prominent in red marked area.*



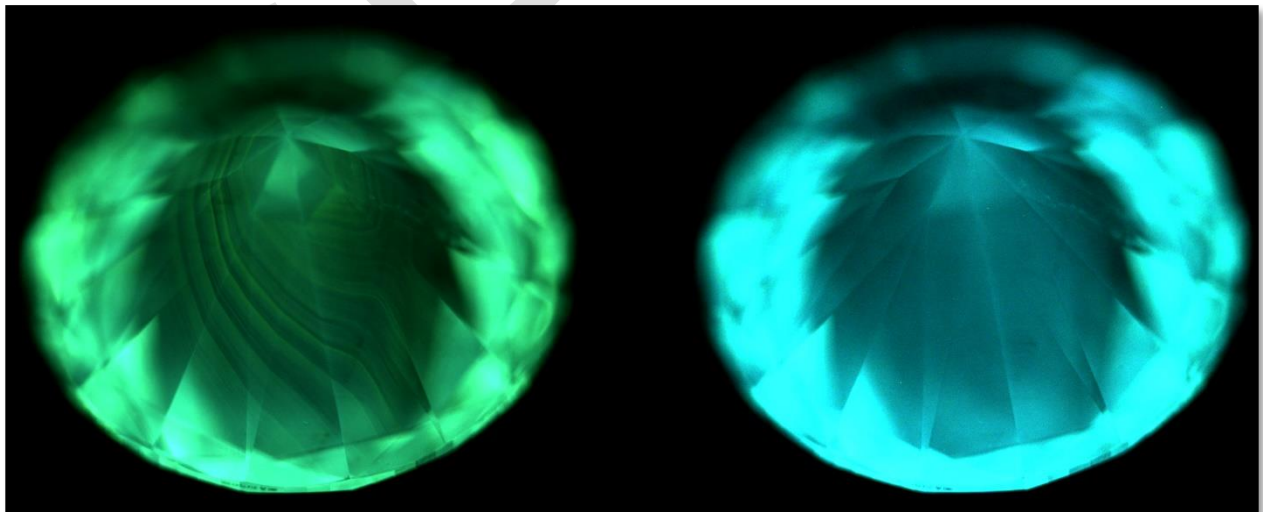
*Diamond View image (pavilion view) of 1.026 ct Lab Grown Diamond. Left: Striation pattern was evident in fluorescence image. Right: Pattern was not evident in phosphorescence view.*



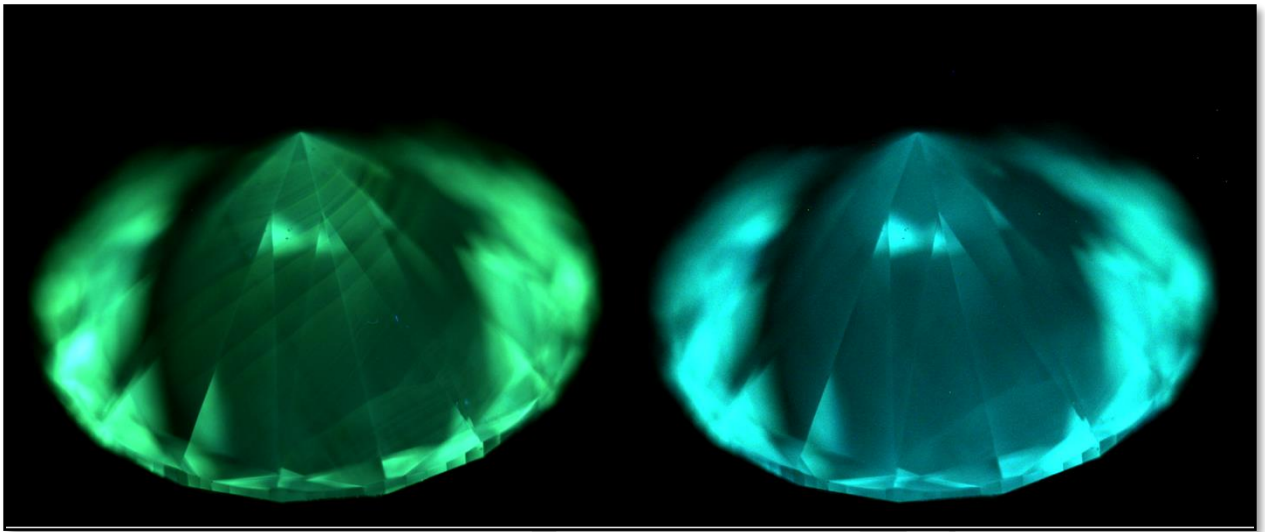
*Diamond View image (pavilion view) of 1.026 ct Lab Grown Diamond. Striation pattern was prominent from pavilion side.*



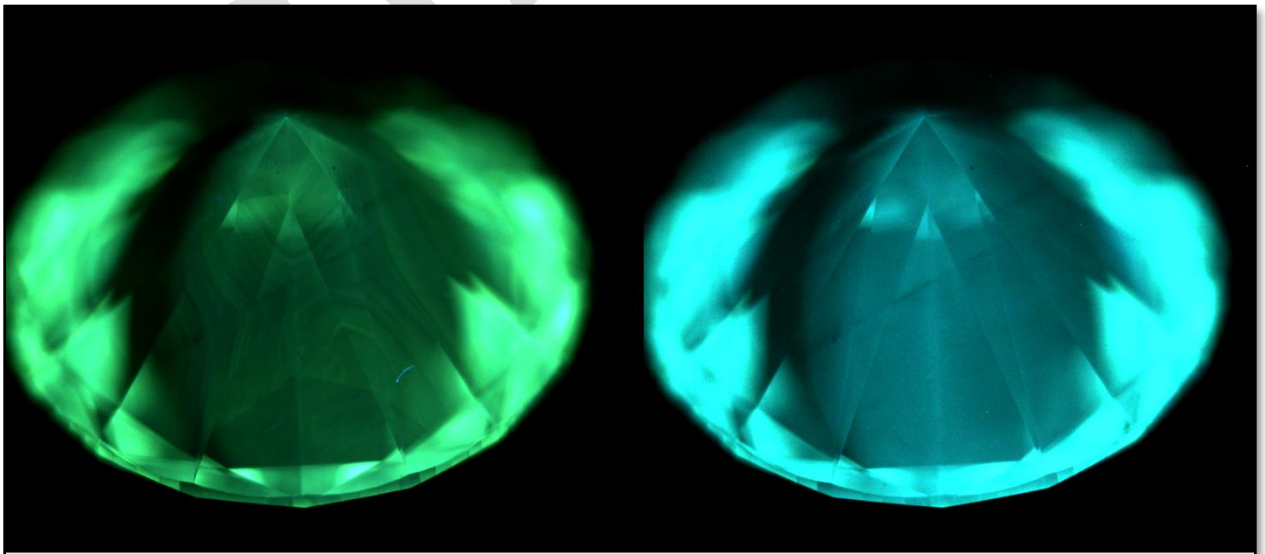
*Diamond view image (crown View) of 1.055 Lab Grown Diamond. Left: Fluorescence image. Right: Phosphorescence image. NOTE: Striation pattern was distinctively evident in whole diamond, and not evident in phosphorescence view.*



*Diamond View image (pavilion view) of 1.055 ct Lab Grown Diamond. Left: Striation pattern was evident in fluorescence image. Right: Pattern was not evident in phosphorescence view.*



*Diamond View image (pavilion view) of 1.055 ct Lab Grown Diamond. Left: Striation pattern was evident in fluorescence image. Right: Faint traces of striation pattern was evident in phosphorescence view from this direction.*



*Diamond View image (pavilion view) of 1.055 ct Lab Grown Diamond. Left: Striation pattern was evident in fluorescence image. Right: Faint traces of striation pattern was evident in phosphorescence view from this direction.*

It concluded by the microscopic and other gemmological analysis, that report numbers inscribed on the submitted diamonds are not associated with them. Report numbers inscribed on the submitted diamonds belongs to some other natural diamonds (as checked from GIA website), and to dupe, lab grown diamonds were duplicated w.r.t. its dimensions and weight as mentioned on the reports of Natural diamonds, of which report numbers are inscribed on submitted Lab grown CVD diamonds.

It is suggested to not to invest in diamond mere on the basis of inscribed report number, original report must be checked along with diamond.

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*\* Stone's Courtesy: Mr. Atul Jain (Almas Jewels Pvt. Ltd, Delhi)*