



## GEMMOLOGICAL REPORT

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**Report Number**  
21040006 / 1 and 2

**Colour**  
red

**Date**  
15 April 2021

**Species**  
Natural corundum

**Item**  
Two faceted gemstones

**Variety**  
Ruby

**Weight**  
1) 5.01 ct  
2) 5.06 ct

**Origin**  
Mozambique

**Shape**  
octagonal

**Condition**  
No indications of heating (NTE).

**Cut**  
modified brilliant cut / step cut

**Comments**  
See Information Sheet(s).

Important notes and limitations on the reverse.

**Measurements**  
1) 12.52 x 6.48 x 5.47 mm  
2) 12.53 x 6.50 x 5.31 mm

**Transparency**  
transparent

Lidia Bellomo

Dr. Wenxing Xu





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## GEMSTONE RATING

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21040006 / 1

4 August 2022

Variety:  
Ruby



Weight:  
5.01 ct

Scan QR-Code for more information



Gübelin Gem Lab  
Lucerne Hong Kong New York  
[www.gubelingemlab.com](http://www.gubelingemlab.com)

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## GEMSTONE RATING

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21040006 / 2

4 August 2022

Variety:  
Ruby



Weight:  
5.06 ct

Scan QR-Code for more information



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## INFORMATION SHEET

to Report No. 21040006 / 1 and 2

### Rubies from Mozambique

Mozambique is located in South Eastern Africa, bordered by the Indian Ocean on the East and in the North by Tanzania, Malawi and Zambia. In the West and South it is bordering Zimbabwe, South Africa and Swaziland. Mozambique is divided by the majestic Zambezi River. While the low lands to the South of the Zambezi River are mainly sedimentary, the highlands in the North are dominated by rocks belonging to the Precambrian crystalline basement, which is intersected by the famous gem-rich Mozambique Belt running North - South through East Africa.

Mozambique has always been an important source of coloured stones such as tourmaline, aquamarine and garnet. Corundum has been known in Mozambique since the Portuguese colonial times, but only since September 2008 larger amounts of rubies entered the market. These come from two new mines in the Msawizi area of Niassa Province and Montepuez in the Cabo Delgado Province.

Information Sheets are intended to provide information supplementary to the contents of the Report and comment on, for instance, the type of gemstone, the geographic origin and the presence or absence of treatments. By definition, Information Sheets are purely informative in nature; they consist of a standard text and are issued for all types of stones of that particular category. Information Sheets, therefore, do not imply a certain quality or rarity of the stone described in the Gübelin Gem Lab Report which it is attached to.

## INFORMATION SHEET

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### Unheated rubies

Large rubies of gem-quality are rarely found in nature. Not only is a delicate mineralogical balance essential for this red variety of corundum to be formed deep within the earth, but specific geological conditions as well as adequate pressure and temperature must also be present. Furthermore, the sufficient supply of a rare combination of chemical elements, such as aluminium and chromium, are yet another necessity required for the formation of rubies.

Over the past decades, various heating techniques, as well as the use of chemical additives, have been introduced to increase the supply of rubies resembling the high-quality untreated specimens. The aim of these treatments was and still is to improve the visual appearance of the gemstones.

Prior to the advent of modern heating techniques, rough rubies were cut and polished retaining the quality that nature had originally endowed them with. Therefore, in earlier times, rubies with obvious imperfections were considered and accepted as the norm. However, the expectations with respect to quality (colour and transparency) rose steadily.

The demand for natural, unheated rubies kept growing while the supply of such gems remains highly limited, making natural rubies of gem-quality from all major sources, such as Burma (Myanmar), Mozambique, Madagascar, Kenya, Tanzania, Vietnam, Afghanistan and Tajikistan, difficult to find.

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