



Jewellery Forensics - Mobile Gemological Services

David Hessels G.G. Graduate Gemologist / Certified gemstone and jewellery appraiser in accordance to DIN EN ISO/IEC 17024

Gemological Report Ref. XX2-SAMPLE-1

Date: 15-01-2020



Specimen:	Natural Spinel
Weight & Clarity:	4,16 ct / Si (Small Inclusions)
Cut:	Modified Cushion / Mixed Cut
Measurements:	9,41 x 9,05 x 6,14 mm
Colour:	Medium Pinkish Red
UV-VIS-Nir -Spectroscopy:	Typical natural Spinel
Photoluminescence-Spectroscopy	Typical spectrum of a natural Spinel showing similarities with Mogok
Treatment:	No indications of heat treatment detected
Inclusions:	Apatite / Zircon Crystals
Geographic Origin:	All findings point towards Mogok, Burma

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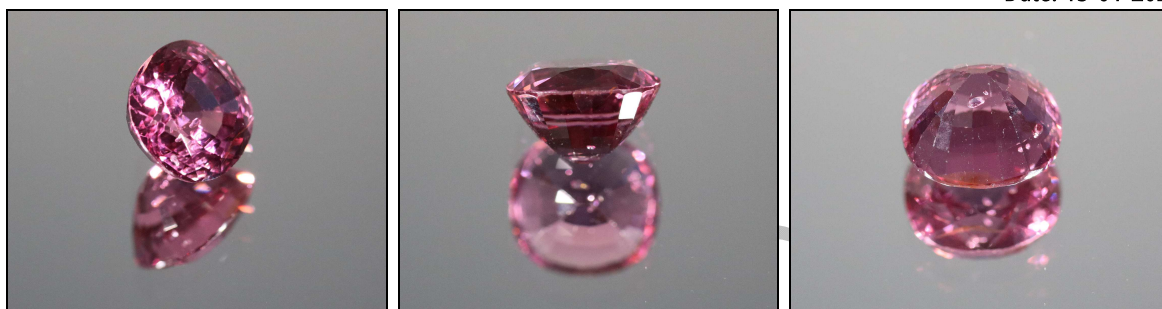


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Gemological Report Ref. XX2-SAMPLE-2

Date: 15-01-2020



Zircon-Crystals as inclusions

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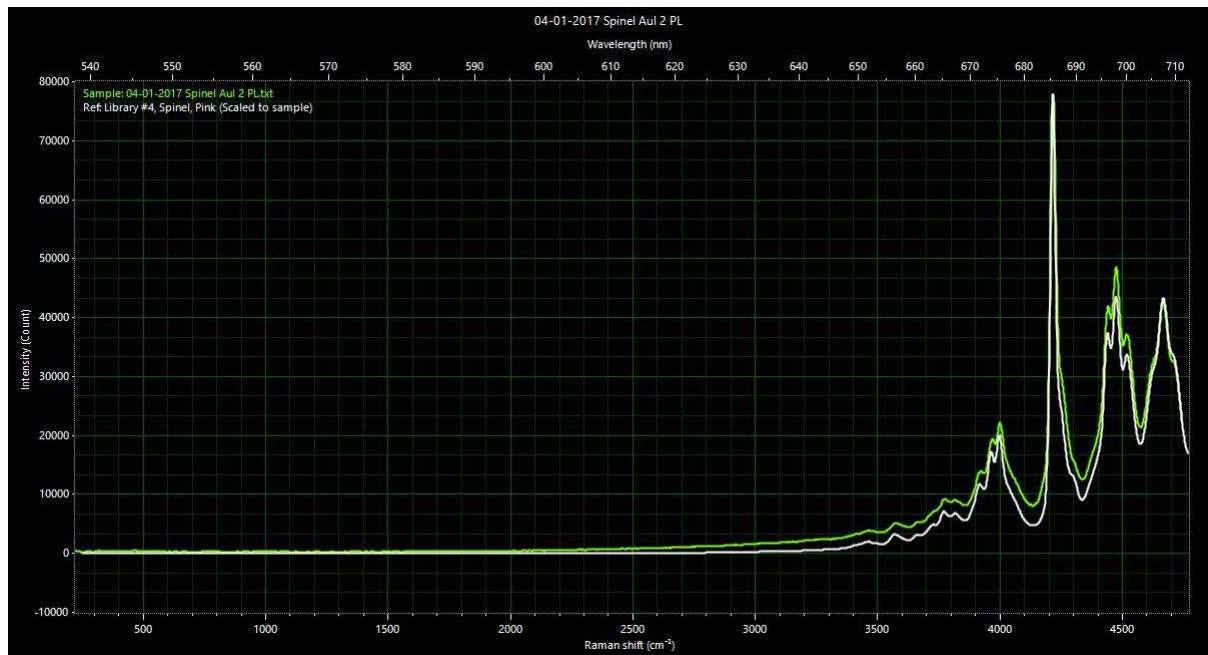


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Gemological Report Ref. XX2-SAMPLE-3

Date: 15-01-2020



Photoluminescence Spectroscopy Database Comparison: Natural Spinel from Mogok Burma



UV-VIS-NIR Spectroscopy Database Comparison Natural Spinel Pink

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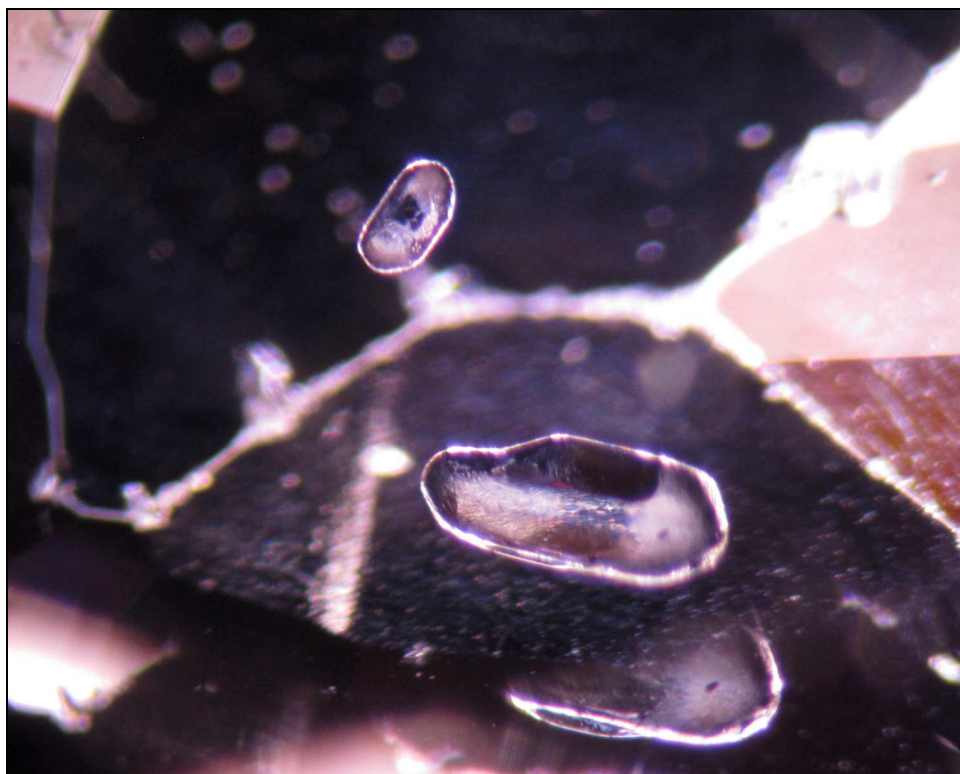


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Gemological Report Ref. XX12-SAMPLE-4

Date: 15-01-2020



This Gemological report has been conducted to international gemological standards, and all colour, origin and clarity statements are based on the findings of a trained and experienced certified gemologist using the latest equipment, but may nevertheless vary slightly from other laboratories. A gemstone may be treated or manipulated at any given time. New scientific findings are being published at regular intervals, therefore the findings in this report reflect the scientific standards of the date this report was issued.

Soest / Date 15-01-2020

Reference Number: XX2-Sample

Signed

David Hessels G.G.
Graduate Gemologist

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Gemological Report Ref. XX2-SAMPLE-5

All colour, clarity and geographical origin statements are based on the findings of a trained and experienced certified gemologist using the latest equipment, but may nevertheless vary slightly from other laboratories. Opinions tend to vary, depending on known references, opinions by staff and advances in technological testing equipment. This Gemological report is not a guarantee regarding the value, as these can vary according to demand. Please note that gemstones may be treated at any time, therefore this report is valid in accordance to the findings of the date mentioned. New scientific findings are being published at regular intervals, therefore the findings in this report reflect the scientific standards of the date this report was issued.

This appraisal has been executed in accordance with German law, and has been done with the utmost care and in all conscience. All documented notations and photographs are archived for the owner for a period of minimum 5 years.

Equipment used

Gemological Microscope (Zeiss / Eickhorst Gemmaster LED)
Grading Light Eickhorst (5500 und 6500 Kelvin)
Spectroscope Krüss KL12-1504 (Optical) With Base
Dichroscope
Proportionscope
Idealscope
Refractometer Eickhorst SR 0.01
Reflectometer Hanneman
Diamond Tester Presidium & Others
Colour Grading Masterset D-P
Raman- und Photoluminescence Spectrometer (Laser 532 nm)
GemmoSphere UV-VIS-NIR Spectrometer
Stereo-Zoom Microscope by Krüss

Digital Diamond Guage
Various scales (Kern, Sartorius, Tanita)
Rough Diamond Callipers
Gold Testing Kit
GIA Daylight Dock
Diamond Loupe - 1/10 mm Scale
Polariscope
SSEF HPHT-Spotter
Gem Filters (Including Hanneman)
Short & Longwave UV Light (Eickhorst Multispec UV-AC)
10 x Lupe (achromatic and aplanatic) Leica, Zeiss, Swiss-Axe
Cold Light Source With Fibre Optics (By Peter Groeneboom FGA)
Canon G12 / Canon EOS 750 with Zeiss Tube Adapter

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