

# TESCAN. SEM-EDX...

The Mineral Science group within XPS Process Mineralogy maintain and operate a variable pressure TESCAN VEGA scanning electron microscope equipped with:

- Oxford INCA x-ray microanalysis system. This system is light element capable and includes quantitative EDX and automated features for physical measurements [ size, shape etc. ] plus x-ray composition data.
- YAG backscatter electron detector for compositional imaging in grey shades.
- Variable pressure mode. This allows imaging and qualitative x-ray microanalysis of unprepared samples in a positive pressure environment which controls sample charging. Where carbon is of interest in the sample, normal carbon coating would bias the measurement, thus uncoated samples can be examined.

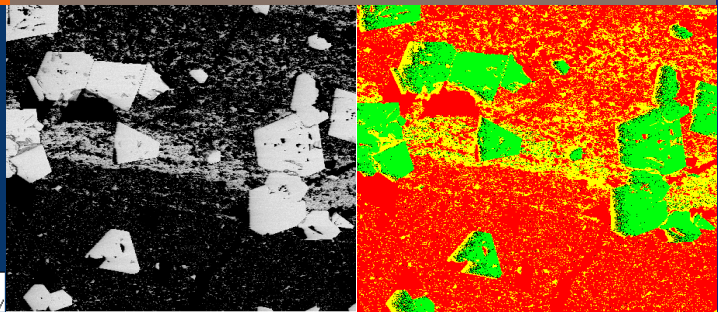
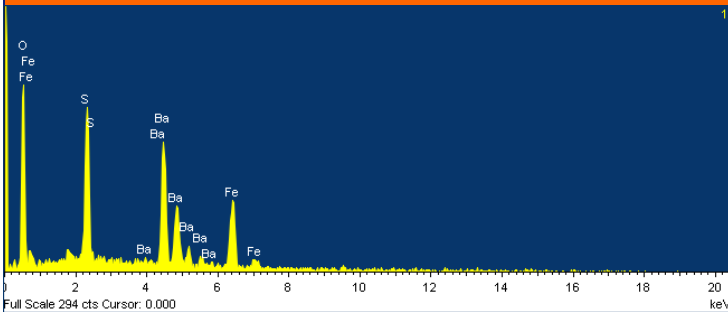
## Practical Applications

Xstrata Process Support has extensive experience in ore characterization, plant and lab support. The TESCAN SEM\_EDX system provides initial rapid analyses before more advanced methods are employed. Applications are diverse and include:

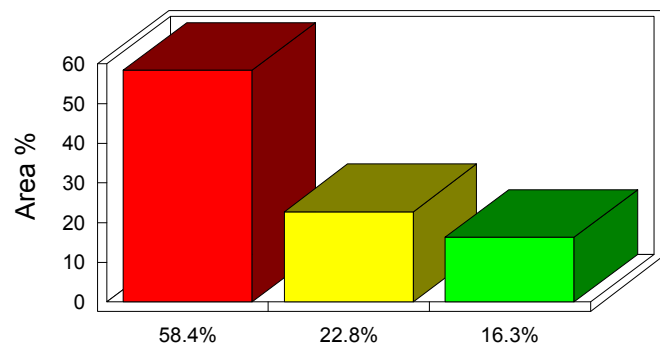
- Environmental samples; dust, filters
- Health; "asbestos" checks
- Basic ore and process mineralogy
- Particle morphology

## Key Advantages:

- Secondary and Backscattered electron images
- Qualitative and quantitative wt% phase compositions
- Basic Modal mineralogy
- Detailed topographic images
- Grain sizes for suitable minerals
- X-ray distribution maps
- Grey shade images
- False Colour images



Area Measurements



For further information on XPS SEM-EDX services please contact:

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