## CHECKLIST

Authors are responsible for ensuring that the English grammar of their paper is of high technical quality. Please have your paper proofread by a professional English copy editor. Papers that do not meet a minimum standard will be declined before review.
$\square$ doc or docx format no pdfs
5-15 pages, 3 MB maximum file size
Font black, Times New Roman, 10 pt
Paper size and margins as in Table 1ALL lines single spaced. No extra spaces above or below text, figure captions, etc.Paragraphs indented 0.5 inches and fully justified
$\square$ Title page: PAPER TITLE on the 5th line from top margin, BOLD, ALL CAPS, CENTRED. Leave one blank line after title.
$\square$ Author name(s) centred, blank line, then affiliations centred and in italics
$\square$ No headers, footers, page numbers, or footnotes
MAJOR HEADING: bold, all caps, centred (not indented). One blank line above/below headings.
$\square$ Second level heading: bold, sentence case, left justified
$\square$ Third level heading: underlined, not bold, sentence case, left justified
$\square$ Do not number headings
Use em-dashes for ranges (e.g., pp. 33-45, 5-10 mg) and negative signs, NOT hyphens
Figure captions: Centred below figure (not indented). First major word is capitalized. One blank line between figure caption and figure, above figure and below figure caption. No period after caption.
$\square$ Figures are a single object, formatted "in line with text", NOT an assembly of objects that will shift if formatting changes are made
$\square$ Table titles: Centred above table (not indented). First major word is capitalized. No blank line between title and table. One blank line above/below table. No period after table title.
$\square$ Equations: Centred, one blank line above/below equation; equation number in brackets, right justified.
$\square$ DO NOT cite references in text by number, or number the references in the reference list.
$\square$ DO NOT use the Word cross-referencing tool to link figure and table citations in the text to the figures and tables. This introduces an error when the file is converted to pdf

# (10 point size, all caps, bold) begins on $5^{\text {th }}$ line from top margin <br> *J. E. Dutrizac and P. A. Riveros <br> CANMET-MMSL <br> 555 Booth Street, Ottawa, Ontario, Canada K1A 0G1 <br> (*Corresponding author: jdutriza@nrcan.gc.ca <br> V. G. Papangelakis <br> University of Toronto <br> 200 College Street, Toronto, Ontario, Canada M5S 1A4 



This document sets out the requirements for preparing and submitting papers H\&H2020. All papers must conform to these instructions. This "author friendly" document serves as an example (template) of a correctly prepared paper. Abstracts within papers should not exceed 250 words. The abstract is a single paragraph, indented 0.5 inches, and fully justified. Do not include figures, tables or reference citations in abstracts.

## 4 blank lines above <br> keywords

## KEYWORDS

Alphabetize, Keywords, Capitalize first letter in each term, And separate, Terms with commas


## Writing style and spelling

$\rightarrow$ Use clear and concise writing throughout the paper and proper Canadian English spelling.

- Colons and semi-colons: No space before, one space after.
- Dashes: Be consistent throughout. Use hyphens within words (-) and en-dashes for ranges (-).
- SI units: Space between number and unit ( 25 km ).
- Initials: One space between initials (P. A. Riveros).
- Aim for a paper length of 5-15 pages (most are approx. 10 p.), including title page, text, figures, tables, and references.
- Electronic file should not exceed $3 \mathbf{M B}$.

Authors are responsible for ensuring the accuracy of all information in their papers (e.g., proper names of organizations, data, and references). If images (graphs, photograph, etc.) are reproduced from another source, it is the author's responsibility to obtain copyright permission from the original publisher. SI units or acceptable metric equivalents must be used throughout. These instructions will enable you to prepare your paper in an electronic format, ready for submission and peer review. It is essential that these instructions are carefully followed!

## 

Prepare your paper using Word (.doc or .docx). To ensure that your paper has an identical appearance when viewed on almost any computer, avoid using a 2-byte code for Chinese characters.

Prepare your paper on either North American letter ( $8.5 \times 11$ inches) paper or European A4 ( $210 \times 297 \mathrm{~mm}$ ) paper, using the margins in Table 1. DO NOT add page numbers, headers, or footers.

|  | Table 1. Paper margins |  | Table title <br> centred. NOT indented! |
| :--- | :--- | :--- | :--- |
| Margin | Letter $(8.5 \times 11$ inches $)$ | A4 $(210 \times 297 \mathrm{~mm})$ |  |
| Top | $2.90 \mathrm{~cm}(1.14$ inches $)$ | $2.90 \mathrm{~cm}(1.14$ inches $)$ |  |
| Bottom | $2.80 \mathrm{~cm}(1.10$ inches $)$ | $4.60 \mathrm{~cm}(1.81$ inches $)$ |  |
| Left \& right | $3.20 \mathrm{~cm}(1.26$ inches $)$ | $2.90 \mathrm{~cm}(1.14$ inches $)$ |  |
| *Ensure you select the correct paper type (A4 vs. letter) for your margins. |  |  |  |

## Type style and spacing

All headings and text must be typed in black Times New Roman (TNR) font. Use 10-point type size throughout your paper, including the title. Single space all text (no extra lines before or after)

First page
Example of a third-level heading NOT indented!

The first page contains:

- The title of the paper in bold 10-point TNR, all letters in capitals; the title begins on the $5^{\text {th }}$ line from the top margin (i.e., 4 blank lines above).
- The authors' names, separated from the title by a single blank line, centred, in regular TNR, with the first letter of each part of the name capitalized.
- Co-author(s) are placed on the same line and in the same format as the first author, with the names separated by commas, and for the last author, a comma plus "and".
- The author's affiliation and address, immediately below the name, centred and single-spaced, in italics.
- The major heading ABSTRACT, centred, all letters capitalized, in bold.
- The body of the abstract should not exceed 200 words. Use regular TNR, fully justified, separated from the heading ABSTRACT by one blank line and indented.
- The abstract is a single paragraph and does not contain figures or references.
- The major heading KEYWORDS, centred, with all letters capitalized, in bold, separated from the last line of the abstract by four blank lines.
- The list of keywords, not to exceed 10 terms, in regular TNR, left justified, not indented, separated by commas, first letter of first word of the term capitalized, in alphabetical order, and separated from the heading KEYWORDS by one blank line.
- Use keywords that you would use if you were searching for your paper.
- Insert one blank line under the keywords


## Body of paper

The body of the paper begins with the major heading INTRODUCTION, centred, with all letters capitalized, in bold. Separate sections of the main text in accordance with the headings guidelines below.

## Headings

All headings are in 10-point TNR font. Ideally, use three levels of headings: major, second-level, and thirdlevel. DO NOT number headings. Major headings, such as ABSTRACT, INTRODUCTION, EXPERIMENTAL, RESULTS, DISCUSSION, CONCLUSIONS, ACKNOWLEDGMENTS, and REFERENCES are centred (NOT indented), bold, not underlined, and in capital letters. The main text of the paper begins with a major heading (e.g., INTRODUCTION). Subsequent major headings are separated from the text above and below by one blank line; they do not begin a new page unless it is strictly required.

Second-level and third-level headings have the initial letter of the first word capitalized (this is termed sentence case) and positioned at the left margin. Second-level headings are bold. Third-level headings are not bold, but underlined. Both are separated from the text above and below by one blank line.

## Text

Paragraphs are single-spaced ( 6 lines per inch), fully justified, with the first line indented $1.27 \mathrm{~cm}(0.5 \mathrm{inch})$. Paragraphs are separated from each other and from headings, figures, or tables with a blank line.

## Footnotes

Do not use footnotes! Incorporate all required information in the body of the paper.

## Equations and symbols

Simple mathematical expressions and sub- and super-scripted characters, such as $\mathrm{SO}_{4}{ }^{2-}$, are inserted in the text. Do not embed equations as an image. Place equations on separate lines, centred and numbered consecutively in parentheses at the right-hand margin. A blank line precedes and follows each equation. Use a dash rather than a hyphen for the minus sign. Placing equations in tables (with no borders) helps position them correctly.

$$
\begin{gather*}
\mathrm{ZnS}+3 / 2 \mathrm{O}_{2} \rightarrow \mathrm{ZnO}+\mathrm{SO}_{2}  \tag{1}\\
\mathrm{ZnS}+3 / 2 \mathrm{O}_{2}=\mathrm{ZnO}+\mathrm{SO}_{2}  \tag{2}\\
\mathrm{E}=1.23-0.06 \mathrm{pH} \tag{3}
\end{gather*}
$$

## Figures

Insert figures immediately after the paragraph where they are first cited. In the text, refer to the figure by its number, not its relative position. A figure too wide to fit between the margins may be placed in landscape orientation (sideways format), on a page by itself. All figures should be high resolution ( 300 dpi ) when published at $100 \%$. Graphs (Figure 1), line drawings, photographs, and other illustrations are preferable in colour. Lines and lettering must be large enough (minimum 0.35 point thickness) to be legible when printed at $100 \%$. For maps, microstructures and similar figures, place a scale marker on the picture or photograph. Do not use frames around figures. Do not use shaded backgrounds; they do not reproduce well.


Figure 1. Effect of iron concentration on precipitate mass

Figure and caption centred, NOT indented

Figures, especially photographs and SEM images, can significantly increase the electronic file size. Make every effort to reduce the size of the electronic files of your photomicrographs and other graphics. For example, add figures using the "Insert-Picture" function. For Excel charts, use the "Copy-Paste Special-Picture" sequence.

Number figures consecutively with Arabic numerals. A caption comprising the word "Figure," the figure number, a period, a space, and the figure title in 10 -point TNR, must be centred below each figure. A single blank line is used to separate a figure from its caption. Separate each figure and caption from the adjacent text with one blank line. Do not use a period at the end of the figure caption.

## Tables

Insert tables immediately after the paragraph where they are first cited. In the text, refer to a table by its number, not its relative position. Large tables may be placed in landscape orientation on a page by itself. Avoid splitting a table onto two pages. Number tables consecutively using Arabic numerals and centre the title above the table. The word "Table" is followed by the table number, a period, and the title. There is no line space between the title and the table itself.

Table-wide lines (horizontal $1 / 2$ point thickness) separate the title from the column headings, the column headings from the body of the table, and the table from the following text. Avoid using vertical lines and horizontal lines between rows of data. Table row spacing is at the discretion of the author(s). Separate each table from the adjacent text with one blank line.

Table 2. Electron microprobe analyses of sphalerite grains in the Kidd Creek "C" concentrate

| Element | Average content (wt\%) | Range (wt\%) |
| :--- | :--- | :--- |
| Zn | 60.8 | $59.6-63.3$ |
| S | 3.31 | $33.6-33.5$ |

## REFERENCES

## Citations in the text

Do not cite references in the text using numbers. Use the " $\&$ " symbol in bracketed citations and "and" when the author names are part of the sentence. Cite all authors of papers with more than 2 authors the first time, then use "et al." thereafter. Exception: if 6 or more authors, use "et al." in all cases. Separate references cited in the text with semi-colons and place them in chronological order (earliest to most recent). Here are some examples:
Smith (2018) noted that...
Smith and Jones (2018) were the first to demonstrate...
Smith, Jones, and Foster (2018) detected....
After the first text citation above, Smith et al. (2018) detected...
Oxygen and temperature profiles were positively correlated (Smith, 2018)
Oxygen and temperature profiles were positively correlated (Smith \& Jones, 2018)
Oxygen and temperature profiles were positively correlated (Smith, Jones, \& Foster, 2018; Carmichael, 2019).
After the first text citation above, use (Smith et al., 2018).

## The reference list

American Psychological Association (APA) referencing style must be employed. Do not number references, instead alphabetize by last name of first author. The reference list includes only publications cited in the text, figures, and tables. The following examples show reference formats for journal articles, chapters, theses, books, and conference proceedings.

Ang, T., Yang, Y., Huang, Z., Zhang, B., \& Qiu, G. (2004). Leaching kinetics of pyrolusite from manganese-silver ores in the presence of hydrogen peroxide. Hydrometallurgy, 72(1-2), 129-138. https://doi.org/10.1016/S0304-386X(03)00136-1

Brummer, R. K., \& Andrieux, P. (2008). Risk: quantitative decision making under technical uncertainty - evaluating probability of occurrence and cost of failures. In J. Hadjigeorgiou (Ed.), Strategic vs. tactical approaches in mining (pp. 173-183).

Champagne, P. (2007). Sustainable development: Enhancing host-country capacity (Unpublished master's thesis). Edwin University, Cardiff, Wales.

Perry, R. H., \& Chilton, C. H. (1973). Chemical engineers' handbook (5th ed.). New York: McGraw-Hill.
Twigge-Molecey, C. (2003). Knowledge, technology and profit. Proceedings of the 5th International Conference on Copper, Santiago, Chile, 41-57.

