CARBONATE-HOSTED NONSULPHIDE Zn-Pb DEPOSITS, SALMO DISTRICT, British Columbia, Canada

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**Geological Setting**

The Salmo District in southwestern British Columbia is host to a diverse suite of intracrustal, extracrustal, and volcanic-hosted Zn-Pb deposits, with a particular emphasis on carbonate-hosted nonsulphide deposits. These deposits are characterized by the presence of lead oxide minerals such as cerussite, and the absence of sulphide minerals.

**Main lead-bearing minerals**

- Hematite: Fe₂O₃, red to nearly black, typically dull, coatings, stains, fracture filings. Approx. 75%.
- Nonsulphide ("oxide") and bluish: vitreous/resinous, 3.9-4.2, 5.5, massive, granular, prismatic; fluorescent green in short UV, vitreous/resinous, 3.9-4.2, 5.5, massive, granular, prismatic; fluorescent green in short UV.

**Origin of the CHNSBM mineralization in the Salmo Area**

- Initial concentrations: Hitzman et al. (2003).

**Exploration Considerations**

- **Key Parameters for the Selection of Favorable Exploration Areas**
  - Faulting
  - Vein systems
  - Limestone contacts
  - Sedimentary rocks
  - Metamorphic rocks
  - Metamorphic core complexes

- **Exploration Tools to Consider**
  - Arched loop electromagnetic (ALEM)
  - Induced polarization (IP)
  - Ground magnetic methods
  - Short-wave infrared spectroscopy

**Acknowledgments**

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