

Supplementary Table 1. Classification of magmatic chromite deposits

| Type | I: Stratiform | | II: Podiform |
|------------------------------|--|--|--|
| Subtype | A: Layered Intrusion-Hosted | B: Magmatic Conduit-Hosted | |
| System | Periodically-replenished magma chambers | Continuously-replenished magma conduits | Tectonized upper mantle |
| Age | Post-Archean | Archean | Phanerozoic-Mesozoic |
| Setting | Intracratonic | Intracratonic | Ophiolites |
| Magma | Siliceous high-Mg basalt | Low-Mg komatiitic | Basaltic |
| Intrusion Size | Very large | Small(ish) | Large |
| Host Rocks | Peridotite, pyroxenite, gabbro, anorthosite | Dunite, peridotite, pyroxenite, gabbro, anorthosite | Tectonized/serpentinized dunite, harzburgite, wehrlite |
| Form | Laterally-extensive layers | Laterally-extensive layers and lenses | Discontinuous pods, layers, veins, and schlieren |
| Textures | Disseminated, patchy, net, semi-massive, massive | Disseminated, patchy, net, semi-massive, massive | Disseminated, semi-massive, nodular |
| Thickness | Up to 5 m | Up to 100 m | Variable |
| Ore Location | Layers at mafic/ultramafic transition | Varies, but normally within ultramafic portion of intrusion | Upper mantle section of complex |
| Ore-Forming Processes | Magma mixing ± contamination and/or physical transport | Magma mixing ± contamination ± oxidation and/or physical transport | Fractional crystallization and/or magma mixing |
| Examples* | Bushveld, Great Dyke, Stillwater | Black Thor-Blackbird, Kemi, Inyala, Ipueira-Medrado, Sukinda-Nuasahi | Cuba, Iran, New Caledonia, Philippines |

*References in text

Supplemental Table 2. Key Characteristics of Type IB conduit-hosted chromite deposits

| | Chromitite Thickness (m) | Host Unit (m) | Parental Magma | OXIF Country Rocks | Xenoliths |
|-----------------------------------|---|--------------------------|---------------------------|-------------------------------|------------------------|
| Black Thor – Blackbird | up to 100 | 1500 | low-Mg komatiite | yes | BIF, gabbro |
| Inlaya – Rhonda | 10s | 100s | komatiitic | yes | none reported |
| Ipueira- Medrado | 5-8 | 300 | basaltic | none reported | none reported |
| Kemi | 0.5-90, ave 20 | up to 2000 | basaltic | none reported | none reported |
| Peak – Railway Block | 10s | 100s | komatiitic | yes | basalt, BIF |
| Sukinda | 3-4 | up to 400 | SHMB | yes | none reported |
| Uitkomst | up to 6 | ~800 | high-Mg basalt | yes | dolomite, Mag-shale |

OXIF – oxide-facies iron formation. **SHMB** – siliceous high-magnesian basalt. References in text.