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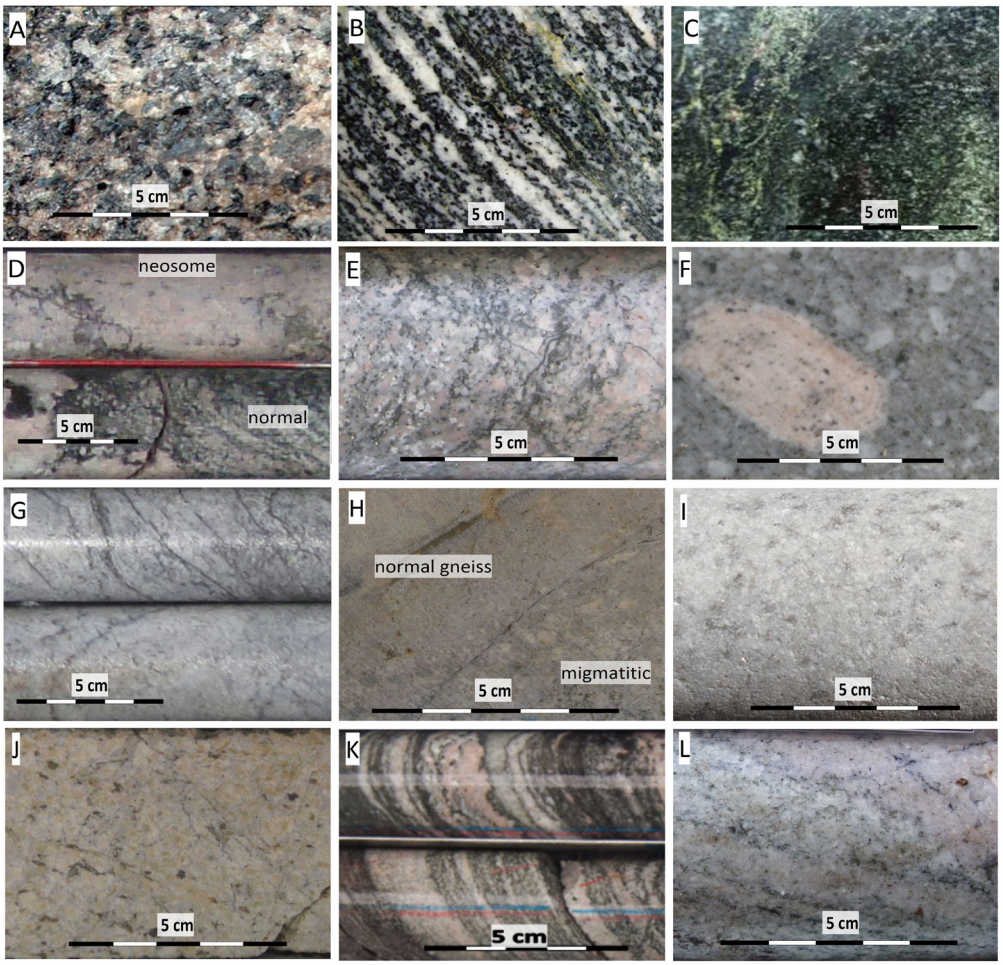
Digital Supplement - Appendix 1

The corridor of mineralization in the California gold district, in the Santander Department of Colombia

Wilson Scarpelli



APPENDIX 1. Gneisses and intrusives of the project area. (A) Magnetite-hornblende gneiss, composed of hornblende, plagioclase, quartz and magnetite, with biotite and other minerals, sub parallel to the foliation (photo A. Bernasconi). (B) Banded magnetite-hornblende gneiss, with hornblende, biotite and magnetite forming the dark bands, and quartz and feldspars the light-colored bands (hole LB.145, 229 m). (C) Massive and foliated magnetite-hornblende gneiss, resembling amphibolites (hole LB.375, 292 m). (D) Partially migmatized magnetite-hornblende gneiss, with leucocratic masses composed of pink porphyritic feldspars, white plagioclase and quartz, in a fine-grained groundmass of quartz and feldspars (hole LB.403, 426 m). (E) Magnetite-hornblende gneiss undergoing recrystallization to granite (hole LB.539, 40 m). (F) El Cuatro granite, with porphyries of pink feldspar, in a mass of medium- to fine-grained plagioclase, quartz and muscovite. (G) Leucocratic gneiss, composed mostly of feldspars and quartz, with a few crystals of accessory muscovite, biotite and chlorite. (H) Partially migmatized leucocratic gneiss. At the lower right, a neosome containing quartz and white feldspars. (I, J) Dikes of quartz-monzonite, with porphyries of quartz and plagioclase, and a fine-grained felsic groundmass (holes CV.02, 188 m and CV.12b, 169 m). (K) Biotite gneiss at La Rosa; partially migmatized, with pink feldspars in the neosome (hole LB.688, 494 m). (L) Aserradero quartzous gneiss, with initial migmatization at the upper right (hole LB.303, 356 m).

ISSN: 2595-1939
https://doi.org/10.29396/jgsb.2021.v4.n1.2
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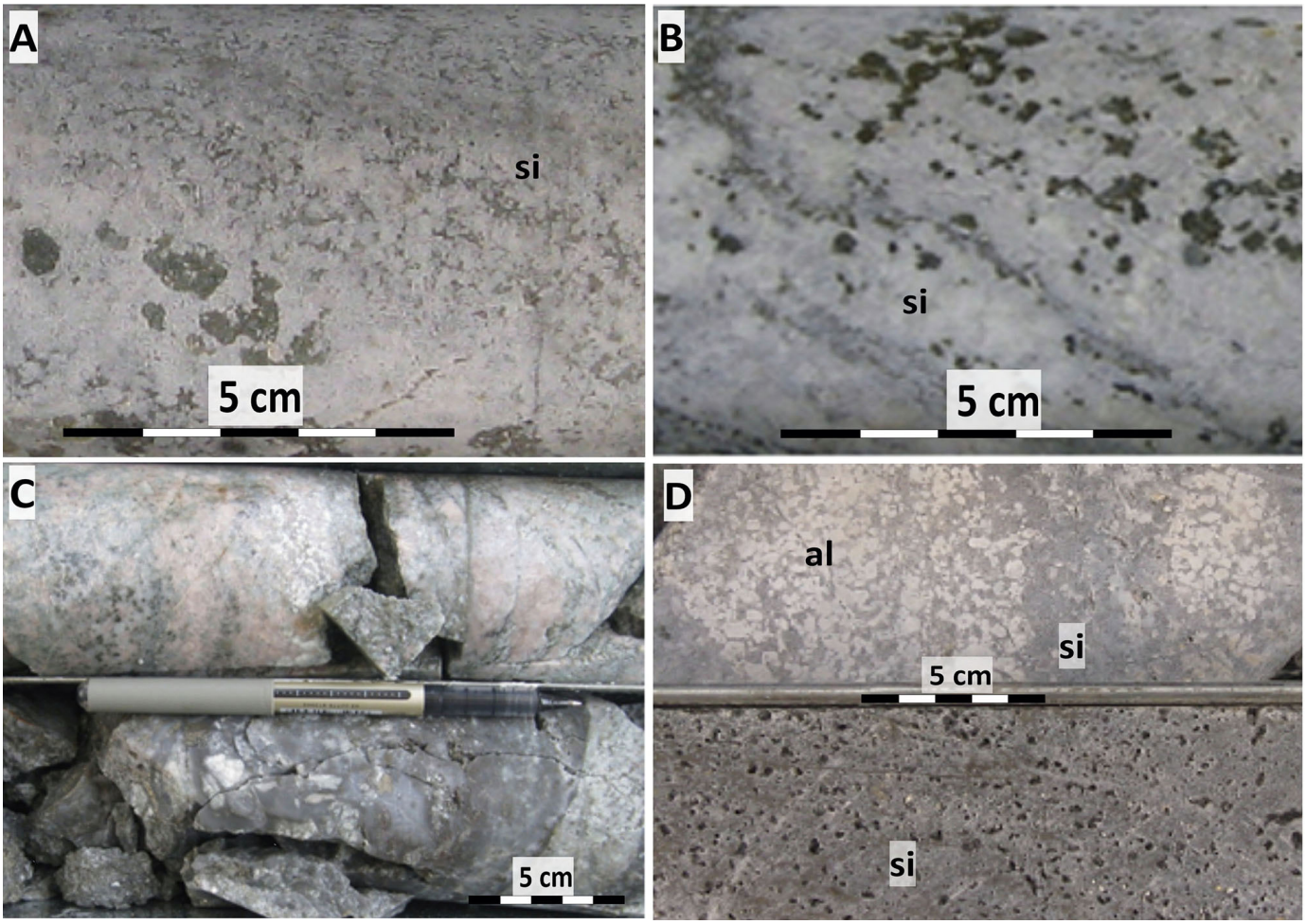

APPENDIX 2. Alunitization and silicification of the magnetite-hornblende gneiss. (A and B) Silicification of the gneiss along its foliation, marked by lines of remnants of magnetite and chlorite pseudomorphs after hornblende (hole LB.537, 105 m). These remnant structures represent planes of weakness that favored the brecciation. (C) Above, a mass of alunite replacing the gneiss is partially silicified, and, below, after intense silicification, the leaching of remnants of alunite resulted in small cavities, commonly occupied by quartz geodes, some auriferous (hole LB.204, 198 m; al: alunite, si: silica). (D) The migmatized gneiss, above, and with a 10-cm-thick silicified and brecciated band, below; the clasts of the breccia are angular (hole LB.539, 62 m).

ISSN: 2595-1939
https://doi.org/10.29396/jgsb.2021.v4.n1.2
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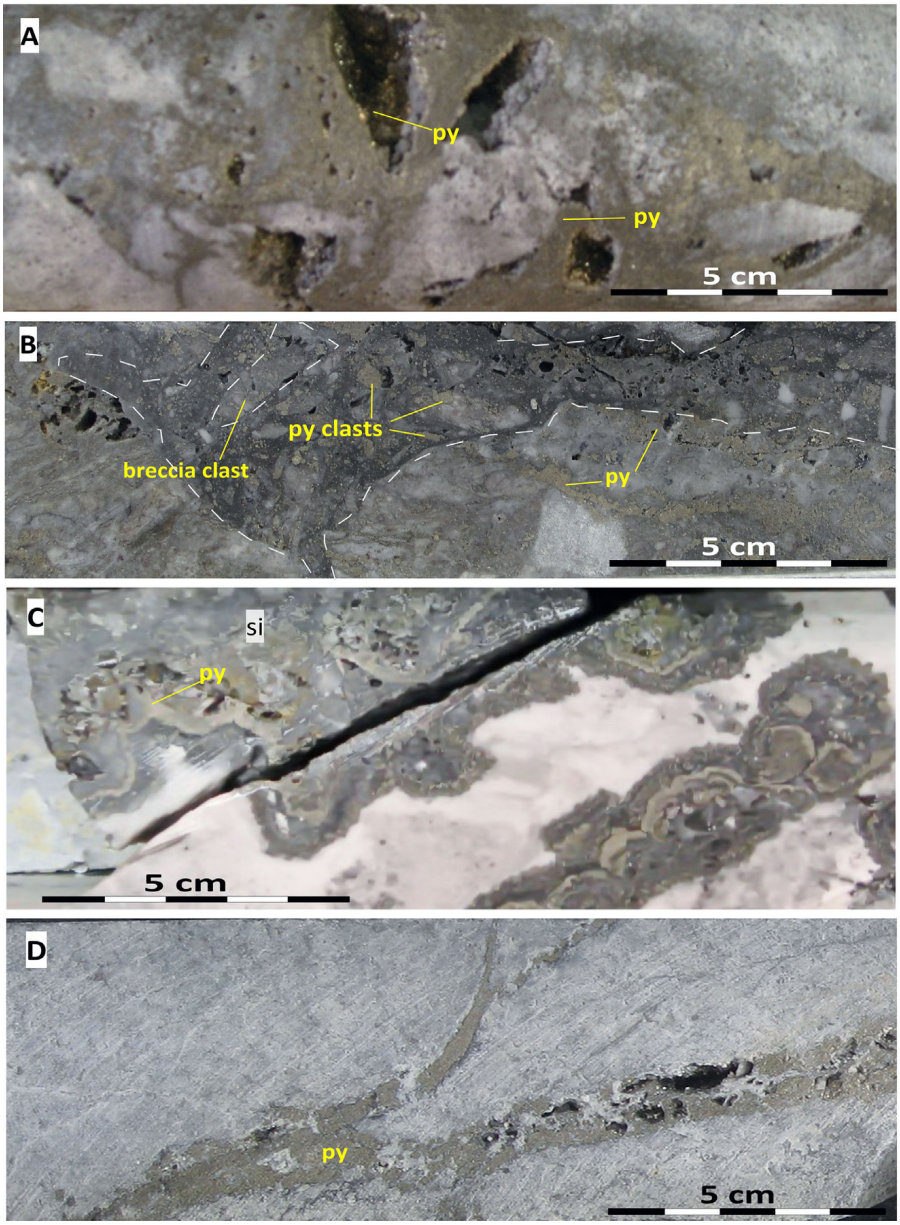
Digital Supplement - Appendix 3



APPENDIX 3. Mascota-type veins. (A and B) Superposed brecciation, silicification and sulfidation, with sulfides and auriferous geodes of quartz between the clasts and new silica. (C) Large cavity with superposed bands of sulfides and silica. (D) Feeder zone of Mascota-type veins. Sulfide-rich fractures with silica, sulfides and geodes of quartz (hole LB.623, 375 m).

ISSN: 2595-1939
https://doi.org/10.29396/jgsb.2021.v4.n1.2
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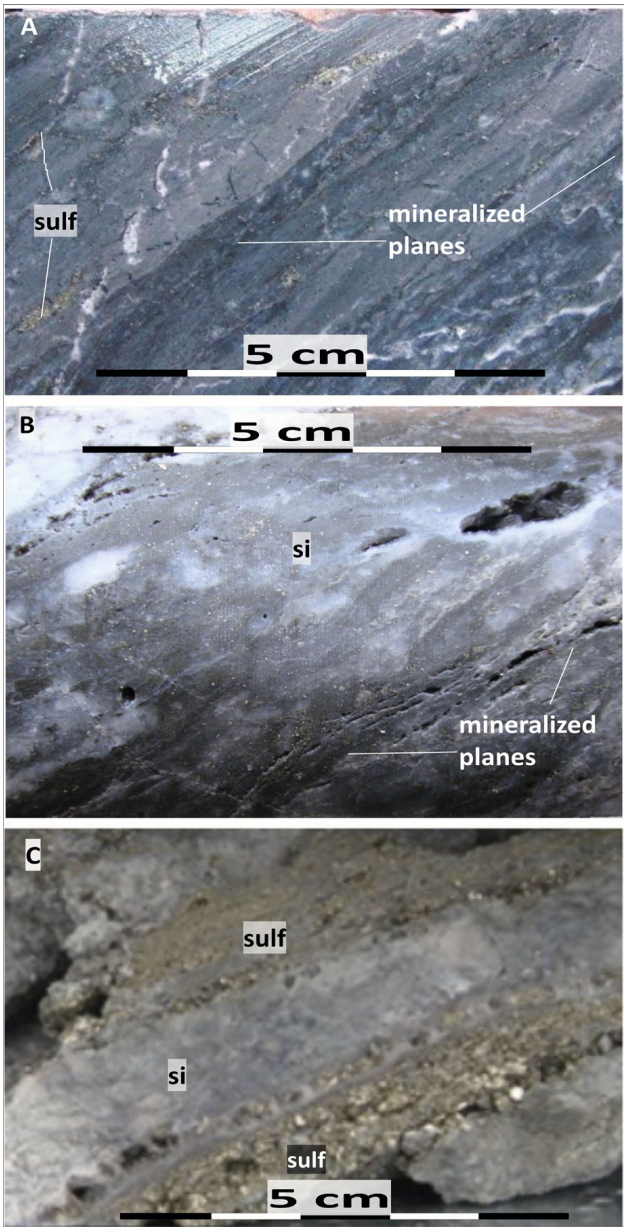

APPENDIX 4. Gigante-type veins. Mineralization in fault planes of the La Baja Fault Zone. They are characterized by mylonitization, planar texture, round and corroded clasts of silica, with sulfides and geodes elongated along the planar structures (holes LB.489, 343 m, LB.351, 262 m and LB.643, 268 m).

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https://doi.org/10.29396/jgsb.2021.v4.n1.2
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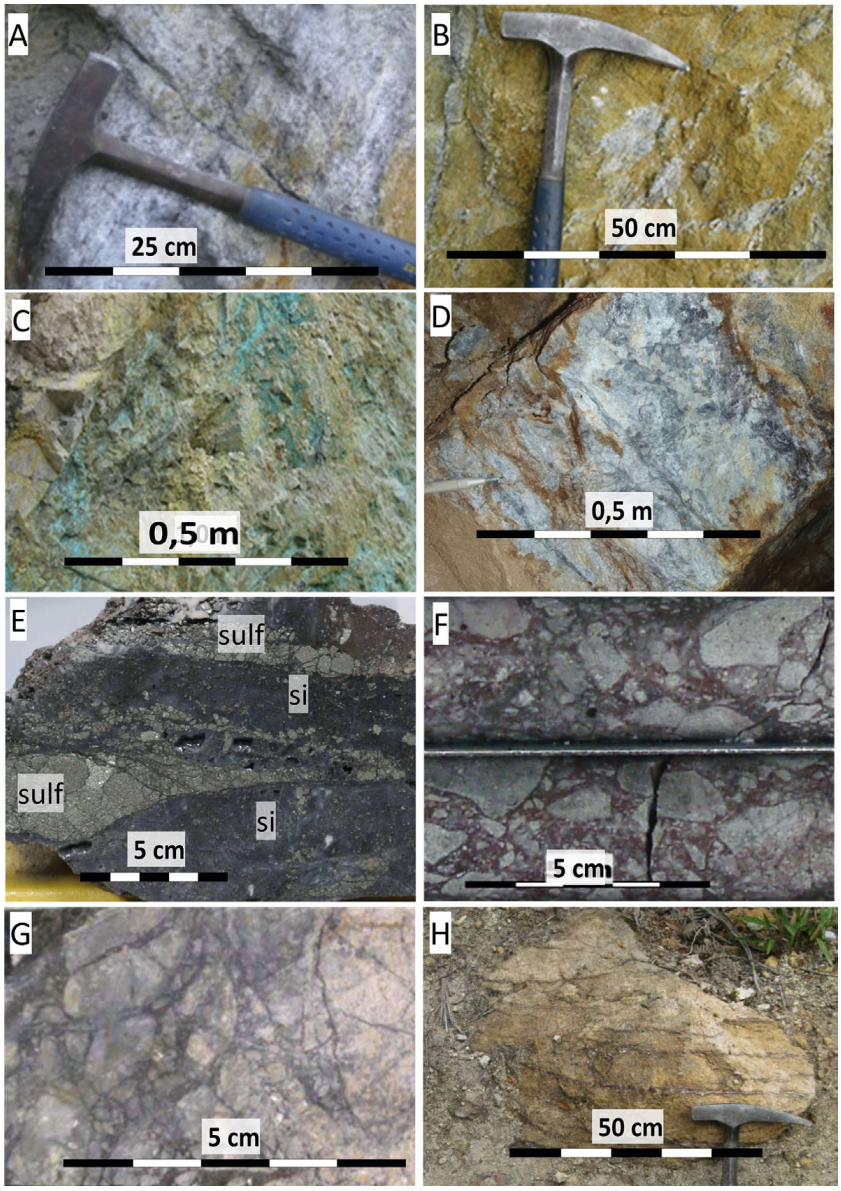

APPENDIX 5. Other types of mineralization. Near Angostura, leucocratic gneiss mineralized in narrow veinlets (A), with a veneer of secondary iron oxides (B), and with malachite (C). (D) Tabular vein of auriferous quartz, near La Rosa. (E) Tabular vein with a section with silica and massive sulfides at Machuca. (F) The Avispaíto brecciated oreshoot, developed on the Aserradero paragneiss (hole LB.429, 184 m). (G) Outcrop of the El Cuatro granite with veinlets of silica and sulfides parallel to the direction of Mascota-type veins in the underlain gneisses. (H) Brecciated base of the El Cuatro granite, with impregnation of silver-bearing sulfides between the clasts.

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