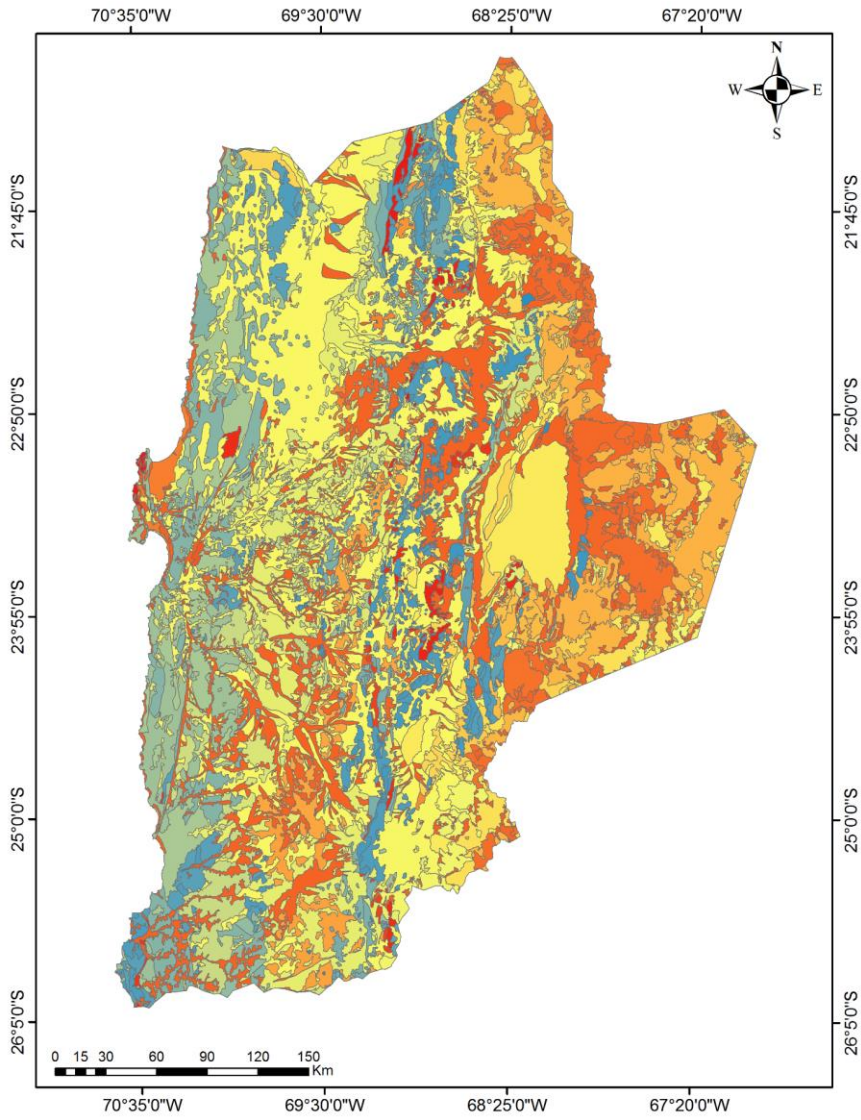


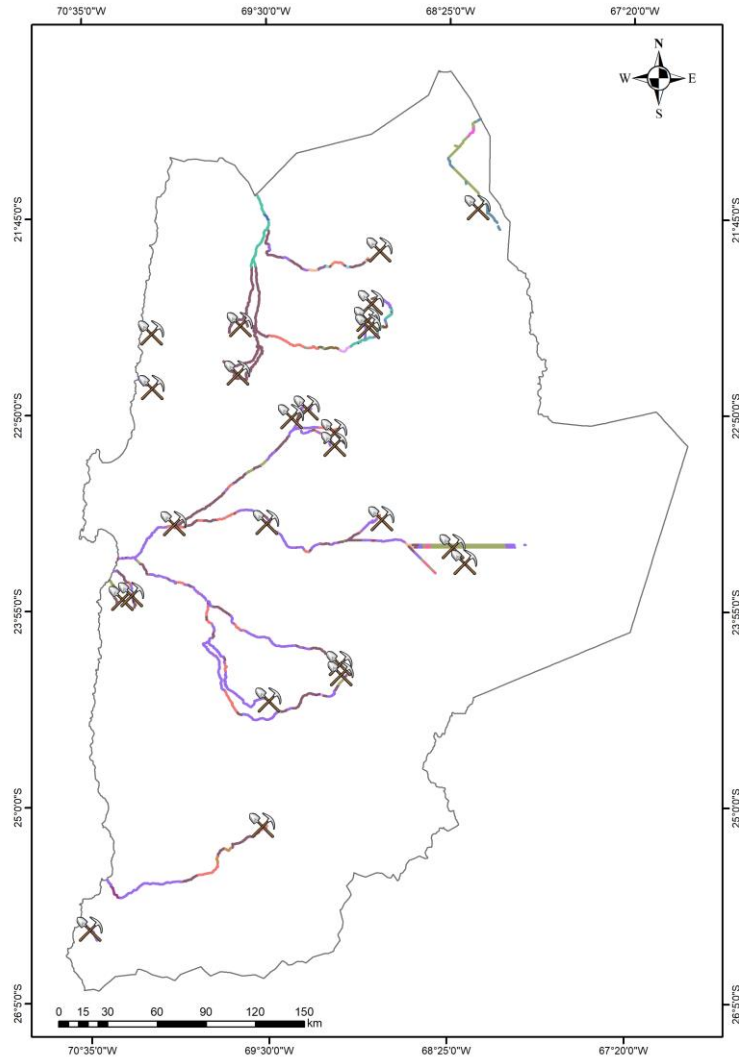
Supplementary Materials



Geology

- | | | |
|---|--|---|
| PEg-Pyroxene and biotite monzodiorites, hornblende granodiorites and monzogranites and biotites etc | Ki1m-Coastal marine sedimentary sequences | P3i-Ignimbrites |
| CP1-Inland and marine sedimentary streams | Kia3-Continental volcanic complexes and sequences | PE1c-Alluvial, river or lake sedimentary sequences |
| CP2-Marine and continental volcanic sequences | KIag-Diorites and monzodiorites of pyroxene and hornblende etc. | PE3a-Acid continental volcanic complexes and sequences |
| CP3-Continental volcanic sequences | KIbg-Monzodiorites and diorites of pyroxene, hornblende and biotite, granodiorites and tonalites | PE3i-Continental volcanic complexes and sequences |
| CPg-Granites, granodiorites, tonalites and diorites, hornblende and biotite, locally muscovite | Ks1c-Alluvial and lacustrine continental sedimentary sequences | PI3i-Pyroclastic deposits |
| DC1-Marine sedimentary sequences, partly transitional | Ks2c-Continental volcanic sedimentary sequences | PP1c-Conglomerates, sandstones, siltstones and clays, generally consolidated etc. |
| DC4-Meta sandstones, phyllites and, to a lesser extent, marbles, cherts etc. | Ks3a-Acid volcanic complexes and sequences | PP1i-Lake sedimentary sequences |
| E2c-Volcano-sedimentary sequences | Ks3i-Continental volcanic sequences | PP1r-Mass removal tanks |
| E3-Sequences and continental volcanic centers | Ksg-Monzodiorites, granodiorites, gabros and diorites of pyroxene, biotite and hornblende | PTrg-Granites, hololeucocraticos, granitic porphids and biotite granodiorites |
| EO1c-Alluvial and fluvial continental sedimentary sequences | M1c-Sedimentary sequences of alluvial, pediment or fluvial fans | Pag-Pyroxene and biotite monzodiorites, granodiorites and hornblende and biotite granites |
| EOp-Granodioritic, monzonitic, dactylic and rhyolitic porphyry of biotite and hornblende etc. | M3av-Volcanic avalanche deposits | PI1m-Marine coastal or estuarine river sequences |
| Eg-Granodiorites, shades and quartz diorites of hornblende and biotite etc. | M3i-Partially eroded volcanic complexes and volcanic sequences | Q1g-Morrenicos, fluvio-glaciales and glaciofluviales deposits |
| J1m-Carbonated and clastic marine sedimentary sequences | M3i-Ignimbrites Huasco, Maricunga and Vega Helada | Q3av-Volcanic avalanche deposits |
| J2m-Volcanic and marine sedimentary sequences | MP1i-EI Loa, Vilama and Quillagua Formations | Q3i-Stratovolcanoes and volcanic complexes |
| J3i-Continental and marine volcanic sequences | MP1c-Clastic sedimentary sequences of piedmont, alluvial, colluvial or fluvial | Q3t-Pyroclastic flow tanks |
| JK1-Transitional sedimentary sequences | MP1m-Transgressive marine sedimentary sequences | Qa-Alluvial deposits, subordinately colluvial or lacustrine |
| JK1c-Alluvial, river and wind sedimentary sequences, partly transitional | MQs-Evaporitic deposits | Qan-Deposits of anthropic origin |
| JK3-Volcanic sequences | Mh-Dacitic, andesitic, monzodiorite, and hornblende, pyroxene, and biotite porphyry | Qe-Wind deposits |
| JKg-Punta Negra and Huará-Pozo Almonte batholiths | Ms3i-Volcanic centers and sequences | Qt-Fluvial deposits |
| J1m-Coastal or shelf marine sedimentary sequences | Ms3i-Ignimbrites | Qm-Coastal Deposits |
| JiP-Pluto Flamenco and Caldera-Pajonales | OM1c-Paralytic or alluvial continental sedimentary sequences | Tr10-Alluvial, fluvial and lacustrine continental sedimentary sequences, in part transition |
| Js1m-Coastal marine sedimentary sequences | OM2c-Volcano-sedimentary sequences | Tr1m-Coastal and transitional marine sedimentary sequences |
| Jsg-Quartz monzodiorites, diorites and granodiorites of biotite, pyroxene and hornblende | OM3i-Pyroclastic sequences | Tr1m-Marine and transitional sedimentary sequences |
| KS1m-Platform, littoral or transitional marine sedimentary sequences | OS1m-Marine sedimentary streams | Tr2c-Continental volcanic and sedimentary sequences |
| KT1c-Alluvial and fluvial continental sedimentary sequences | OS3-Igneous and sedimentary complex of the Cordon de Lila | TrJ3-Continental and transitional volcanic sequences |
| KT2-Cerro Totola and Venado Formation Strata | OSg-Leucocratic granites and muscovite and biotite monzogranites, granodiorites etc. | Trg-Leucocratic granules, monzo and sienogranites of biotite and muscovite etc. |
| KTg-Granodiorites, diorites and granite porphyry | P3i-Volcanic centers | pC04-Micaceous, neises, migmattite and, to a lesser extent, schist etc. |
| | | pCP4-Micaceous schists, metabasites, amphibolites, ortoneises etc |

Figure S1. Geological map of the Antofagasta region.



Legend



Mines

Rivers and Lithology

Code and Name

- CP3-Continental volcanic sequences
- CPg-Granites, granodiorites, tonalites and diorites, hornblende and biotite, locally muscovite
- DC4-Meta sandstones, phyllites and, to a lesser extent, marbles, cherts etc.
- E3-Sequences and continental volcanic centers
- EO1c-Alluvial and fluvial continental sedimentary sequences
- Eg-Granodiorites, shades and quartz diorites of hornblende and biotite etc.
- J1m-Carbonated and clastic marine sedimentary sequences
- J2m-Volcanic and marine sedimentary sequences
- J3i-Continental and marine volcanic sequences
- JK1c-Alluvial, river and wind sedimentary sequences, partly transitional
- Jsg-Quartz monzodiorites, diorites and granodiorites of biotite, pyroxene and hornblende
- KT1c-Alluvial and fluvial continental sedimentary sequences
- Ki1m-Coastal marine sedimentary sequences
- Kia3-Continental volcanic complexes and sequences
- Kiag-Diorites and monzodiorites of pyroxene and hornblende etc.

- Ks3a-Acid volcanic complexes and sequences
- Ks3i-Continental volcanic sequences
- Ksg-Monzodiorites, granodiorites, gabros and diorites of pyroxene, biotite and hornblende
- M1c-Sedimentary sequences of alluvial, pediment or fluvial fans
- M3i-Partially eroded volcanic complexes and volcanic sequences
- MP11-EI Loa, Vilama and Quillagua Formations
- MP1c-Clastic sedimentary sequences of piedmont, alluvial, colluvial or fluvial
- MQs-Evaporitic deposits
- OM1c-Paralytic or alluvial continental sedimentary sequences
- P3i-Volcanic centers
- PE3a-Acid continental volcanic complexes and sequences
- PE3i-Continental volcanic complexes and sequences
- PP11c-Conglomerates, sandstones, siltstones and clays, generally consolidated etc.
- Pag-Pyroxene and biotite monzodiorites, granodiorites and hornblende and biotite granites
- PI1m-Marine coastal or estuarine river sequences
- Q3av-Volcanic avalanche deposits
- Qa-Alluvial deposits, subordinately colluvial or lacustrine
- Qan-Deposits of anthropic origin
- Qm-Coastal Deposits
- Tr1m-Coastal and transitional marine sedimentary sequences
- pCO4-Micaceous, neises, migmatite and, to a lesser extent, schist etc.

Figure S2. Map of mines and river divided by geological unit.