

Data Repository (Supplementary Material)

for

**EPISODIC ARC MIGRATION, CRUSTAL THICKENING, SUBDUCTION EROSION, AND
MAGMATISM IN THE SOUTH-CENTRAL ANDES**

Suzanne Mahlburg Kay, INSTOC, Snee Hall, Cornell University, Ithaca, NY 14853, smk16@Cornell.edu

Estanislao Godoy, SERNAGEOMIN, Casilla 10465, Santiago, Chile, egodoy@sernageomin.cl

Andrew Kurtz, Dept. Earth Sciences, Boston University, Boston, MA 02215, kurtz@bu.edu

ANALYTICAL METHODS

Major element chemical analyses done at Cornell University preformed on fused glasses using the JEOL 733 Superprobe in the Cornell University Materials Science Center (CCMR). Samples with < 60% SiO₂ were melted in a molybdenum strip furnace in an Ar atmosphere, whereas samples with > 60% SiO₂ were mixed with a meta-borate flux and melted in carbon crucibles in air at 1000°C for 30 minutes in a muffle furnace. Microprobe analyses were preformed at 15KV with a current of 15 amp using wavelength dispersive spectrometers. Reported analyses are averages of five 20-30 micron diameter spots. Smithsonian standard Juan de Fuca glass was used as a secondary standard. Analyses on fluxed glasses were normalized to 100%. Trace element analyses done at Cornell University were preformed by Instrumental Neutron Activation Analyses (INAA) at the Ward Reactor Center at Cornell University. Powdered samples (about 0.5 g) were sealed in high-purity silica glass tubes and irradiated in the Cornell Triga reactor at a neutron flux of 5×10^{13} neutrons/cm²/sec for two hours. Gamma ray spectra were acquired using an ORTEC intrinsic Ge coaxial detector (20% efficiency; resolution of 0.7 KeV at 1.33 MeV), a Nuclear Data ADC, and a multichannel analyzer. Samples were counted for a minimum of 2 hours (up to 10) seven and forty days after irradiation. Data were reduced using the Cornell data reduction program. Corrections for peak interferences were made on Ce (for Fe), Nd (for Br), Tb (for

Th), Eu (for Ba), Lu (for U), and Yb (for Th). Whole rock FeO concentrations were used as internal flux monitors and trace element concentrations are proportional to FeO concentrations. FeO concentrations based on INAA counting data and Na₂O concentrations determined by INAA data are cross-checked against whole rock analyses to assure analyses are accurately matched. Priority was given to Na₂O concentrations from INAA analyses. Reported analyses are volatile free as they are proportioned to Fe concentrations from volatile free analyses on glasses. See Kay et al. (1987) for further discussion. Analyses from the US Geological Survey and Chilean SERNAGEOMIN (Servicio Nacional de Geología y Minería, Santiago, Chile) are discussed in the open file report of Godoy (1993).

All isotopic analyses were done at Cornell University on a VG Sector thermal ionization mass spectrometer (TIMS). Sr isotopic ratios were measured on W single filaments using a quadruple collector dynamic procedure. Ratios were normalized to a ⁸⁷Sr/⁸⁶Sr ratio of 0.1194. Nd isotopic analyses were measured on single Re filaments using a quintuple-collector dynamic procedure. Average analytical values for ⁸⁷Sr/⁸⁶Sr for NBS987 were 0.710221 ($\pm .000044$) and ¹⁴³Nd/¹⁴⁴Nd ratios for La Jolla are 0.511888 ($\pm .000055$). ¹⁴³Nd/¹⁴⁴Nd ratios were corrected to a value of 0.511862 for the La Jolla standard and κ_{Nd} was calculated based on a value of -15.15 for La Jolla. Pb isotopic ratios were corrected for mass fractionation based on ratios of ²⁰⁶Pb/²⁰⁴Pb = 16.931, ²⁰⁷Pb/²⁰⁴Pb = 15.485, and ²⁰⁸Pb/²⁰⁴Pb = 36.681 measured on Pb standard NBS SRM981. Ages corrections for ⁸⁷Sr/⁸⁶Sr based on Rb analyses of similar samples (Ba and K used as a guide) when Rb analyses were not available.

REFERENCES CITED

Charrier, R. and Munizaga, F., 1979, Edades K-Ar de volcanitas cenozoicas del sector cordillerano del Río Cachapoal, Chile: Revista Geológica de Chile, v. 7, p. 41-51.

Cuadra, P., 1986, Geocronología K-Ar del yacimiento El Teniente y áreas adyacentes: Revista Geológica de Chile, v. 27, p. 3-26.

Godoy, E., 1993, Geología del Área entre Los Ríos Claro del Maipo y Cachapoal, Informe Final Proyecto CODELCO-SERNAGEOMIN, Subdirección Nacional de Geología y Minería, Open-File report , Santiago, Chile, 68 p.

Kay, S.M., Maksaev, V., Mpodozis, C., Moscoso, R. and Nasi, C., 1987, Probing the evolving Andean lithosphere: middle to late Tertiary magmatic rocks in Chile over the modern zone of subhorizontal subduction (29-31.5°S): Journal of Geophysical Research, v. 92, p. 6173-6189.

Kurtz, A., Kay, S.M., Charrier, R., and Farrar, E., 1997, Geochronology of Miocene plutons and Andean uplift history in the El Teniente Region, Central Chile (34°-35°S): Revista Geológica de Chile, v. 24, p. 75-90.

Data Repository item 2005021

Table DR1. Major and trace element analyses for Coya Machali Formation magmatic rocks..

| Sample | Western Belt | | | | | | | | | | | | Eastern Belt | | | |
|------------------------------------|--------------|-------|--------|-------|-----------|-----------|-----------|-----------|---------|-----------|------------------|----------------|--------------|--------|---------------------|-----------------|
| | CM-3 | CM-11 | CM-13 | CM-9 | CM-8 | CM-12 | CM-6 | CM-1 | CM-5 | CM-2 | CM-7B altered | CM-7A fresh | CM-4 | CM-10 | CME-1A Rio Lenas | CME-1B Alfal |
| SiO ₂ | 48.48 | 50.66 | 51.57 | 54.88 | 56.41 | 56.81 | 58.73 | 59.93 | 59.30 | 61.50 | 60.95 | 59.90 | 66.96 | 66.86 | 55.97 | 55.36 |
| TiO ₂ | 0.66 | 1.24 | 1.16 | 1.55 | 1.20 | 0.92 | 1.34 | 1.26 | 0.92 | 1.08 | 1.16 | 1.15 | 0.75 | 0.58 | 1.27 | 1.56 |
| Al ₂ O ₃ | 20.14 | 18.71 | 19.76 | 15.52 | 17.57 | 17.20 | 15.02 | 15.64 | 17.87 | 15.22 | 16.67 | 16.80 | 16.77 | 15.68 | 18.13 | 15.64 |
| FeO* | 8.22 | 9.51 | 9.90 | 11.73 | 8.06 | 7.96 | 10.31 | 8.66 | 7.73 | 8.84 | 8.13 | 8.19 | 4.72 | 4.49 | 8.76 | 9.87 |
| MnO | 0.25 | 0.23 | 0.13 | 0.21 | 0.14 | 0.16 | 0.15 | 0.22 | 0.19 | 0.21 | 0.16 | 0.20 | 0.06 | 0.15 | 0.15 | 0.20 |
| MgO | 6.79 | 3.70 | 3.79 | 3.23 | 2.38 | 3.49 | 1.68 | 2.41 | 2.76 | 2.73 | 1.93 | 2.49 | 1.18 | 0.90 | 3.21 | 3.31 |
| CaO | 12.36 | 10.30 | 10.26 | 6.25 | 6.61 | 7.77 | 5.76 | 5.55 | 7.02 | 5.02 | 4.33 | 5.23 | 5.64 | 3.68 | 5.09 | 6.67 |
| Na ₂ O | 1.39 | 3.34 | 3.44 | 4.82 | 4.55 | 3.52 | 3.51 | 4.89 | 3.81 | 3.35 | 4.83 | 4.23 | 2.87 | 3.97 | 6.49 | 3.90 |
| K ₂ O | 0.20 | 0.24 | 0.59 | 1.41 | 1.59 | 1.16 | 1.39 | 1.10 | 0.17 | 0.37 | 1.48 | 1.54 | 0.86 | 3.53 | 1.48 | 1.95 |
| P ₂ O ₅ | 0.09 | 0.29 | 0.20 | 0.28 | 0.48 | 0.25 | 0.19 | 0.35 | 0.22 | 0.13 | 0.35 | 0.28 | 0.19 | 0.16 | 0.24 | 0.57 |
| Total | 98.58 | 98.22 | 100.80 | 99.88 | 98.99 | 99.24 | 98.08 | 100.01 | 99.99 | 98.45 | 99.99 | 100.01 | 100.00 | 100.00 | 100.79 | 99.03 |
| La | 2.2 | 12.4 | 8.8 | 14.3 | 21.0 | 10.5 | 12.2 | 11.8 | 9.1 | 9.1 | 13.5 | 13.8 | 22.2 | 27.2 | 16.3 | 25.1 |
| Ce | 6.9 | 30.0 | 21.5 | 32.6 | 49.5 | 24.8 | 28.5 | 29.4 | 22.5 | 21.2 | 32.9 | 33.2 | 54.4 | 64.8 | 40.4 | 60.1 |
| Nd | 4.8 | 18.5 | 12.8 | 21.0 | 31.7 | 15.8 | 17.8 | 21.5 | 13.1 | 14.0 | 20.4 | 20.0 | 28.3 | 29.9 | 24.6 | 38.3 |
| Sm | 1.47 | 4.5 | 3.58 | 5.45 | 7.29 | 4.09 | 4.52 | 5.28 | 3.66 | 3.99 | 5.53 | 5.39 | 7.49 | 6.9 | 5.75 | 9.33 |
| Eu | 0.572 | 1.30 | 1.10 | 1.63 | 2.02 | 1.13 | 1.25 | 1.54 | 1.19 | 1.14 | 1.63 | 1.60 | 2.07 | 1.21 | 1.50 | 2.09 |
| Tb | 0.307 | 0.741 | 0.636 | 0.902 | 1.10 | 0.735 | 0.79 | 0.945 | 0.649 | 0.802 | 0.92 | 1.00 | 1.32 | 1.06 | 0.76 | 1.386 |
| Yb | 1.35 | 2.52 | 2.42 | 3.17 | 3.88 | 2.99 | 2.42 | 3.38 | 2.39 | 3.11 | 3.37 | 3.61 | 4.9 | 4.36 | 2.12 | 4.28 |
| Lu | 0.182 | 0.359 | 0.346 | 0.449 | 0.545 | 0.407 | 0.355 | 0.472 | 0.316 | 0.445 | 0.475 | 0.515 | 0.687 | 0.603 | 0.302 | 0.584 |
| Sr | 341 | 417 | 601 | 440 | 396 | 343 | 298 | 319 | 429 | 302 | 388 | 403 | 340 | 260 | 254 | 399 |
| Ba | 12 | 146 | 220 | 404 | 465 | 335 | 727 | 310 | 146 | 131 | 535 | 494 | 223 | 799 | 433 | 496 |
| Cs | 1.2 | 0.2 | 0.6 | 0.4 | 0.3 | 0.4 | 0.2 | 0.3 | 0.1 | 0.7 | 0.4 | 0.4 | 4 | 0.8 | 0.3 | 4.2 |
| U | 0.8 | 0.6 | 1 | 1.3 | 0.8 | 0.7 | 0.8 | 0.4 | 0.6 | 0.6 | 0.9 | 0.9 | 1.4 | 3.3 | 1.4 | 2 |
| Th | 0.2 | 2.2 | 1.6 | 3.1 | 3.8 | 2.5 | 2.3 | 2.3 | 1.4 | 2.3 | 2.6 | 2.6 | 4.9 | 10.5 | 3.6 | 6.1 |
| Hf | 0.8 | 2.7 | 2.4 | 3.2 | 4.5 | 3.1 | 2.8 | 3.3 | 2.4 | 2.9 | 3.4 | 3.5 | 6.3 | 8.6 | 3.4 | 5.5 |
| Sc | 34 | 32 | 38 | 41 | 23 | 29 | 33 | 30 | 21 | 31 | 29 | 28 | 19 | 13 | 22 | 29 |
| Ta | 0.05 | 0.42 | 0.25 | 0.31 | 0.54 | 0.27 | 0.37 | 0.2 | 0.17 | 0.17 | 0.28 | 0.27 | 0.6 | 0.89 | 0.34 | 0.45 |
| Cr | 190 | 43 | 41 | 3 | 3 | 40 | 26 | 2 | 2 | 11 | 1 | 1 | 0 | 4 | 2 | 21 |
| Ni | 53 | 11 | 6 | 3 | 7 | 13 | 11 | 0 | 0 | 3 | 4 | 4 | 0 | 4 | 8 | 10 |
| Co | 38 | 28 | 31 | 27 | 16 | 23 | 28 | 15 | 17 | 21 | 13 | 13 | 6 | 7 | 22 | 21 |
| FeO/MgO | 1.21 | 2.57 | 2.61 | 3.63 | 3.39 | 2.28 | 6.14 | 3.59 | 2.80 | 3.24 | 4.21 | 3.29 | 4.00 | 4.99 | 2.73 | 2.98 |
| K ₂ O/Na ₂ O | 0.14 | 0.07 | 0.17 | 0.29 | 0.35 | 0.33 | 0.40 | 0.22 | 0.04 | 0.11 | 0.31 | 0.36 | 0.30 | 0.89 | 0.23 | 0.50 |
| Ba/La | 5.6 | 11.8 | 25.0 | 28.3 | 22.1 | 31.9 | 59.6 | 26.3 | 16.1 | 14.5 | 39.6 | 35.8 | 10.0 | 29.4 | 26.6 | 19.8 |
| La/Sm | 1.5 | 2.8 | 2.5 | 2.6 | 2.9 | 2.6 | 2.7 | 2.2 | 2.5 | 2.3 | 2.4 | 2.6 | 3.0 | 3.9 | 2.8 | 2.7 |
| Eu/Eu* | 1.11 | 0.89 | 0.92 | 0.92 | 0.88 | 0.83 | 0.84 | 0.87 | 0.97 | 0.82 | 0.9 | 0.88 | 0.83 | 0.55 | 0.87 | 0.71 |
| Sm/Yb | 1.09 | 1.79 | 1.48 | 1.72 | 1.88 | 1.37 | 1.87 | 1.56 | 1.53 | 1.28 | 1.64 | 1.49 | 1.53 | 1.58 | 2.71 | 2.18 |
| La/Yb | 1.6 | 4.9 | 3.6 | 4.5 | 5.4 | 3.5 | 5.0 | 3.5 | 3.8 | 2.9 | 4.0 | 3.8 | 4.5 | 6.2 | 7.7 | 5.9 |
| Th/La | 0.09 | 0.18 | 0.18 | 0.22 | 0.18 | 0.24 | 0.19 | 0.19 | 0.15 | 0.25 | 0.19 | 0.19 | 0.22 | 0.39 | 0.22 | 0.24 |
| Ba/Ta | 240 | 348 | 880 | 1303 | 861 | 1241 | 1965 | 1550 | 859 | 771 | 1911 | 1830 | 372 | 898 | 1274 | 1102 |
| La/Ta | 43 | 30 | 35 | 46 | 39 | 39 | 33 | 59 | 53 | 53 | 48 | 51 | 37 | 31 | 48 | 56 |
| Th/U | 2.8 | 2.7 | 3.1 | 2.9 | 3.1 | 3.3 | 2.9 | 3.5 | 3.8 | 2.9 | 2.9 | 3.5 | 3.2 | 2.6 | 3.1 | |
| Age (Ma) | | | | | 20.5±0.8 | | | | | | | | 23.2±0.7 | | | 16.1±0.5 |
| Lat | | | | | 34°11.96' | 34°11.79' | 34°15.02' | 34°11.67 | | 34°10.17' | 34°9.93' | 34°9.19' | | | 34°24.65' | 34°24.65' |
| Long | | | | | 70°36.31' | 70°34.65' | 70°33.45' | 70°37.24' | | 70°32.76' | 70°32.55' | 70°32.84' | | | 70°14.34' | 70°14.34' |
| Rancagua/Colon Rd | km 29.6 | Km 20 | | | km 19.6 | km 25.4 | km 26 | km 28.1 | km 11.7 | km 11.7 | km 29.6 | Km 2 | | | | |

All analyses at Cornell University. Coya Machali ages from Charrier and Munizaga (1979); ⁴⁰Ar/³⁹Ar plagioclase age on CME-1B from Kay and Kurtz (1995), Table 2 in text.

Data Repository item 2005021

Table DR2. Major and trace element analyses of Farellones Formation magmatic rocks.

Farellones region east of Santiago

| Sample | TF-4 | TF-7 | TF-3 | TF-10 | TF-9 | TF-1 | TF-2 | TF-5 | TF-6 | TF-11 | TF-8 | El Teniente Region | | |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------|----------|----------|
| | | | | | | | | | | | | KET-6 | KET-79/d | TTE-93 |
| SiO ₂ | 50.62 | 52.32 | 53.52 | 55.77 | 58.69 | 59.52 | 59.90 | 59.20 | 60.38 | 60.96 | 74.28 | 56.82 | 54.71 | 57.11 |
| TiO ₂ | 1.06 | 1.05 | 0.98 | 0.95 | 1.43 | 1.22 | 1.04 | 0.70 | 0.98 | 0.90 | 0.33 | 0.97 | 0.80 | 0.84 |
| Al ₂ O ₃ | 19.42 | 18.10 | 18.55 | 18.09 | 15.96 | 17.44 | 17.08 | 18.22 | 18.36 | 16.99 | 14.49 | 18.21 | 19.21 | 18.55 |
| FeO* | 8.32 | 9.37 | 8.81 | 7.72 | 8.32 | 6.79 | 6.66 | 5.51 | 6.01 | 6.51 | 2.05 | 6.50 | 6.70 | 7.05 |
| MnO | 0.14 | 0.25 | 0.21 | 0.17 | 0.23 | 0.17 | 0.14 | 0.11 | 0.28 | 0.15 | 0.16 | 0.13 | 0.13 | 0.14 |
| MgO | 5.41 | 4.96 | 3.14 | 3.74 | 2.28 | 1.83 | 2.40 | 2.56 | 1.01 | 2.29 | 0.37 | 3.95 | 3.58 | 3.01 |
| CaO | 9.61 | 8.77 | 7.34 | 7.20 | 4.84 | 5.18 | 5.70 | 5.65 | 5.19 | 5.84 | 0.86 | 6.51 | 7.73 | 6.76 |
| Na ₂ O | 3.47 | 3.73 | 4.09 | 3.90 | 4.08 | 4.88 | 4.46 | 4.71 | 4.73 | 4.06 | 4.05 | 2.17 | 3.40 | 3.81 |
| K ₂ O | 0.93 | 1.03 | 1.57 | 1.38 | 2.86 | 2.18 | 1.92 | 2.26 | 1.91 | 2.09 | 3.35 | 2.19 | 1.35 | 1.04 |
| P ₂ O ₅ | 0.25 | 0.19 | 0.26 | 0.19 | 0.59 | 0.34 | 0.33 | 0.20 | 0.26 | 0.22 | 0.04 | 0.19 | 0.26 | 0.23 |
| Total | 99.23 | 99.77 | 98.47 | 99.11 | 99.28 | 99.55 | 99.63 | 99.12 | 99.11 | 100.01 | 99.98 | 99.61 | 99.64 | 99.14 |
| La | 9.2 | 11.9 | 13.2 | 13.4 | 36.7 | 20.7 | 19.6 | 14.2 | 18.9 | 15.9 | 20.1 | 12.4 | 16.3 | 9.4 |
| Ce | 22.2 | 28.1 | 31.4 | 30.7 | 86.1 | 46.9 | 46.9 | 30.7 | 46.5 | 35.1 | 38.5 | 26.5 | 33.8 | 21.1 |
| Nd | 13.9 | 16.6 | 19.5 | 18.5 | 53 | 27.6 | 26.6 | 15.8 | 25.6 | 19.4 | 14.5 | 15.6 | 18.1 | 13 |
| Sm | 3.37 | 4.22 | 4.9 | 4.23 | 12.6 | 6.24 | 6.31 | 3.56 | 6.22 | 4.48 | 3.44 | 3.79 | 4.44 | 3.53 |
| Eu | 1.03 | 1.13 | 1.3 | 1.1 | 2.29 | 1.6 | 1.59 | 0.86 | 1.61 | 1.12 | 0.562 | 0.89 | 1.2 | 1.1 |
| Tb | 0.49 | 0.715 | 0.853 | 0.637 | 1.9 | 0.923 | 0.912 | 0.462 | 0.936 | 0.708 | 0.524 | 0.492 | 0.496 | 0.508 |
| Yb | 1.48 | 2.7 | 2.95 | 2.37 | 5.33 | 2.97 | 2.9 | 1.66 | 3.47 | 2.65 | 1.7 | 1.73 | 1.65 | 1.87 |
| Lu | 0.211 | 0.375 | 0.397 | 0.334 | 0.73 | 0.426 | 0.42 | 0.236 | 0.487 | 0.357 | 0.219 | 0.238 | 0.247 | 0.259 |
| Sr | 677 | 439 | 387 | 379 | 313 | 505 | 385 | 529 | 298 | 312 | 188 | 520 | 580 | 570 |
| Ba | 256 | 466 | 524 | 391 | 561 | 551 | 602 | 521 | 571 | 477 | 1906 | 320 | 340 | 260 |
| Cs | 0.2 | 0.7 | 0.5 | 1.2 | 3.4 | 0.8 | 0.9 | 0.8 | 1.1 | 1 | 1.5 | 3 | 0.7 | 0.4 |
| U | 0.4 | 1 | 1.2 | 1.3 | 4.7 | 1.8 | 1.9 | 1.8 | 2.1 | 2.2 | 4.8 | 1.7 | 1 | 0.8 |
| Th | 1.5 | 3.1 | 3.8 | 3.9 | 14.6 | 5.8 | 5.8 | 5.4 | 6.1 | 6.5 | 16.8 | 5.9 | 3.3 | 2.3 |
| Hf | 2 | 3.2 | 3.9 | 3.4 | 10.6 | 4.9 | 4.8 | 3.3 | 5.6 | 4.1 | 5 | 3.8 | 2.7 | 3.8 |
| Sc | 28 | 36 | 29 | 22 | 20 | 20 | 20 | 16 | 19 | 19 | 5 | 21 | 14 | 16 |
| Ta | 0.12 | 0.2 | 0.27 | 0.28 | 0.81 | 0.45 | 0.46 | 0.26 | 0.42 | 0.37 | 0.54 | 0.38 | 0.33 | 0.2 |
| Cr | 54 | 142 | 35 | 15 | 0 | 13 | 13 | 14 | 2 | 5 | 0 | 41 | 16 | 5 |
| Ni | 27 | 21 | 10 | 6 | 6 | 11 | 11 | 7 | 3 | 4 | 1 | 41 | 13 | 3 |
| Co | 32 | 33 | 24 | 24 | 15 | 14 | 15 | 17 | 10 | 17 | 2 | 27 | 25 | 18 |
| FeO/MgO | 1.54 | 1.89 | 2.81 | 2.06 | 3.65 | 3.71 | 2.78 | 2.15 | 5.95 | 2.84 | 5.54 | 1.65 | 1.87 | 2.34 |
| K ₂ O/Na ₂ O | 0.27 | 0.28 | 0.38 | 0.35 | 0.70 | 0.45 | 0.43 | 0.48 | 0.40 | 0.51 | 0.83 | 1.01 | 0.40 | 0.27 |
| Ba/La | 27.8 | 39.2 | 39.7 | 29.2 | 15.3 | 26.6 | 30.7 | 36.7 | 30.2 | 30.0 | 94.8 | 25.8 | 20.9 | 27.7 |
| La/Sm | 2.7 | 2.8 | 2.7 | 3.2 | 2.9 | 3.3 | 3.1 | 4.0 | 3.0 | 3.5 | 5.8 | 3.3 | 3.7 | 2.7 |
| Eu/Eu* | 0.98 | 0.81 | 0.8 | 0.82 | 0.57 | 0.82 | 0.81 | 0.81 | 0.82 | 0.78 | 0.52 | 0.52 | 0.52 | 0.52 |
| Sm/Yb | 2.28 | 1.56 | 1.66 | 1.78 | 2.36 | 2.10 | 2.18 | 2.14 | 1.79 | 1.69 | 2.02 | 2.19 | 2.69 | 1.89 |
| La/Yb | 6.2 | 4.4 | 4.5 | 5.7 | 6.9 | 7.0 | 6.8 | 8.5 | 5.4 | 6.0 | 11.8 | 7.2 | 9.9 | 5.0 |
| Th/La | 0.16 | 0.26 | 0.29 | 0.29 | 0.40 | 0.28 | 0.30 | 0.38 | 0.32 | 0.41 | 0.84 | 0.48 | 0.20 | 0.24 |
| Ba/Ta | 2133 | 2330 | 1941 | 1396 | 693 | 1224 | 1309 | 2007 | 1360 | 1289 | 3530 | 842 | 1030 | 1300 |
| La/Ta | 77 | 60 | 49 | 48 | 45 | 46 | 43 | 55 | 45 | 43 | 37 | 33 | 49 | 47 |
| Th/U | 3.8 | 3.1 | 3.2 | 3.0 | 3.1 | 3.2 | 3.1 | 3.0 | 2.9 | 3.0 | 3.5 | 3.5 | 3.3 | 2.9 |
| Age (Ma) | | | | | | | | | | | | | | 15.2±1.2 |
| Lat. | 33°19.41' | 33°20.25' | 33°19.52' | 33°35.75' | 33°21.59' | 33°31.77' | 33°31.77' | 33°19.50 | 33°19.39' | 33°21.26' | 33°20.81 | 6236.56 | 6243.56 | 6207.2 |
| Long. | 70°16.36' | 70°17.24' | 70°16.63' | 70°29.41' | 70°15.39' | 70°18.94' | 70°18.94' | 70°16.09' | 70°16.29' | 70°19.00' | 70°18.10' | 363.04 | 382.04 | 359.9 |

All analyses at Cornell University. Age of TTE-93 from Table 2 in text. El Teniente Region locations in UTM coordinates

Data Repository item 2005021

Table DR3. Major and trace element analyses of Teniente Volcanic Complex magmatic rocks.

| Sample | Maqui Chico Group | | | | | | | | "Olla Blanca" | Aravena Center | KET74 | KET69 | KET67 | KET76 | KET-25 | TTE-77 | TTE-72 |
|------------------------------------|-------------------|---------|---------|---------|---------|---------|-------|----------|---------------|----------------|---------|---------|---------|----------|---------|---------|--------|
| | KET-45 | KET-54 | KET-52 | KET-1 | KET-9A | KET-13 | KET-7 | KET-3 | | | | | | | | | |
| SiO ₂ | 50.75 | 56.10 | 56.47 | 59.46 | 62.38 | 62.55 | 70.33 | - | 52.30 | 47.75 | 51.10 | 61.30 | 63.44 | 63.70 | 62.25 | 74.52 | |
| TiO ₂ | 1.05 | 1.17 | 0.93 | 0.93 | 1.60 | 0.65 | 0.42 | - | 1.07 | 0.98 | 1.20 | 0.38 | 0.38 | 0.57 | 0.89 | 0.19 | |
| Al ₂ O ₃ | 19.08 | 17.82 | 18.37 | 17.00 | 15.48 | 15.50 | 15.30 | - | 18.62 | 16.59 | 20.37 | 18.20 | 17.65 | 17.54 | 17.27 | 13.85 | |
| FeO* | 7.69 | 7.54 | 7.02 | 5.51 | 6.98 | 4.58 | 2.83 | - | 6.36 | 7.88 | 8.37 | 3.38 | 3.15 | 4.14 | 4.68 | 1.24 | |
| MnO | 0.13 | 0.15 | 0.17 | 0.10 | 0.15 | 0.10 | 0.08 | - | 0.25 | 0.22 | 0.19 | 0.14 | 0.13 | 0.10 | 0.12 | 0.04 | |
| MgO | 3.48 | 3.28 | 3.45 | 3.12 | 0.58 | 1.71 | 0.70 | - | 4.10 | 2.32 | 2.87 | 0.80 | 0.68 | 1.38 | 1.06 | 0.22 | |
| CaO | 9.18 | 6.27 | 7.17 | 6.10 | 3.15 | 4.55 | 2.27 | - | 8.64 | 9.21 | 10.79 | 3.46 | 3.00 | 3.71 | 3.61 | 1.51 | |
| Na ₂ O | 2.56 | 3.93 | 3.69 | 3.76 | 4.16 | 4.44 | 2.67 | - | 3.47 | 3.04 | 3.13 | 5.41 | 5.99 | 4.34 | 4.25 | 3.80 | |
| K ₂ O | 0.35 | 2.25 | 1.01 | 2.06 | 3.30 | 2.59 | 3.16 | - | 1.98 | 2.14 | 0.37 | 2.65 | 2.01 | 2.86 | 3.71 | 3.54 | |
| P ₂ O ₅ | 0.19 | 0.40 | 0.20 | 0.19 | 0.49 | 0.20 | 0.09 | - | 0.22 | 0.20 | 0.22 | 0.26 | 0.25 | 0.19 | 0.30 | 0.08 | |
| volatiles | 4.98 | 0.67 | 1.16 | 1.48 | 0.95 | 0.54 | 2.06 | - | 2.64 | 8.98 | 0.65 | 3.37 | 2.81 | 1.00 | 1.00 | 0.77 | |
| Total | 99.44 | 99.58 | 99.64 | 99.71 | 99.22 | 97.41 | 99.91 | - | 99.65 | 99.31 | 99.26 | 99.35 | 99.49 | 99.53 | 99.14 | 99.76 | |
| La | 10.7 | 21.4 | 16.0 | 16.1 | 27.1 | 18.3 | 17.0 | 22.3 | 6.3 | 10.0 | 8.8 | 25.9 | 25.0 | 21.4 | 27.4 | 18.5 | |
| Ce | 23.5 | 46.6 | 34.9 | 35.1 | 63.4 | 36.4 | 31.9 | 50.3 | 16.6 | 22.3 | 21.0 | 50.2 | 49.1 | 37.4 | 60.1 | 29.8 | |
| Nd | 14.3 | 26.2 | 20.0 | 18.8 | 36.3 | 16.1 | 13.3 | 30.6 | 15.0 | 14.3 | 14.1 | 23.4 | 22.9 | 19.0 | 32.3 | 10.1 | |
| Sm | 3.83 | 6.75 | 5.1 | 4.34 | 8.67 | 3.96 | 3.01 | 7.8 | 5.22 | 3.94 | 4.17 | 4.80 | 4.81 | 4.33 | 7.86 | 1.82 | |
| Eu | 1.02 | 1.3 | 1.1 | 0.876 | 1.6 | 0.98 | 0.535 | 1.61 | 1.3 | 1.07 | 1.27 | 1.19 | 1.19 | 0.985 | 1.38 | 0.421 | |
| Tb | 0.499 | 0.8 | 0.65 | 0.561 | 1.04 | 0.519 | 0.397 | 0.957 | 0.655 | 0.546 | 0.559 | 0.461 | 0.465 | 0.53 | 1.01 | 0.175 | |
| Yb | 1.54 | 2.33 | 1.9 | 1.98 | 3.09 | 1.98 | 1.71 | 2.73 | 1.87 | 1.76 | 1.81 | 1.64 | 1.66 | 2.08 | 3.5 | 0.85 | |
| Lu | 0.223 | 0.307 | 0.273 | 0.283 | 0.428 | 0.295 | 0.246 | 0.385 | 0.259 | 0.261 | 0.245 | 0.242 | 0.245 | 0.300 | 0.469 | 0.122 | |
| Rb | 12 | 84 | 32 | 102 | 78 | 78 | 120 | 75.7 | 58 | 104 | 8 | 42 | 54 | 104 | 133 | 93 | |
| Sr | 510 | 460 | 470 | 400 | 380 | 150 | 190 | 516 | 540 | 270 | 520 | 580 | 510 | 360 | 340 | 220 | |
| Ba | 140 | 330 | 240 | 414 | 660 | 420 | 510 | 426 | 530 | 520 | 280 | 360 | 370 | 470 | 510 | 510 | |
| Cs | 7.6 | 2.7 | 1.4 | 9.2 | 2.7 | 1.7 | 4 | 7.7 | 1.5 | 8.4 | 0.3 | 7.4 | 5.0 | 12.9 | 11.4 | 5.2 | |
| U | 0.9 | 2.2 | 1.9 | 2.6 | 3.5 | 2.1 | 4.6 | 1.9 | 1.3 | 0.5 | 0.5 | 1.5 | 1.6 | 2.5 | 3.7 | 3.8 | |
| Th | 3.3 | 8.8 | 6.3 | 9.5 | 12.7 | 9.5 | 18.4 | 7.4 | 4.1 | 2.1 | 1.7 | 6.3 | 6.3 | 10.1 | 13.8 | 13 | |
| Hf | 2.5 | 4.3 | 4 | 5.3 | 8.3 | 4 | 4.6 | 6.1 | 3.1 | 2.0 | 2.0 | 4.2 | 4.2 | 4.2 | 10.3 | 6.9 | |
| Sc | 21 | 20 | 18 | 17 | 19 | 10 | 7 | 24 | 22 | 20 | 23 | 3 | 3 | 8 | 12 | 2 | |
| Ta | 0.33 | 0.64 | 0.59 | 0.60 | 1.25 | 0.46 | 0.87 | 0.80 | 0.36 | 0.21 | 0.23 | 0.52 | 0.56 | 0.69 | 0.67 | 0.44 | |
| Cr | 61 | 28 | 38 | 47 | 9 | 5 | 15 | 2 | 41 | 19 | 20 | 9 | 11 | 12 | 5 | 5 | |
| Ni | 127 | 14 | 72 | 47 | 1 | < 1 | 5 | <18 | 17 | 9 | 20 | <1 | 29 | 25 | 1 | 1 | |
| Co | 38 | 38 | 38 | 28 | 39 | 15 | 25 | 40 | 22 | 25 | 44 | 10 | 14 | 21 | 8 | 1 | |
| FeO/MgO | 2.21 | 2.30 | 2.03 | 1.77 | 12.03 | 2.68 | 4.04 | - | 1.55 | 3.40 | 2.92 | 4.23 | 4.64 | 3.00 | 4.42 | 5.64 | |
| K ₂ O/Na ₂ O | 0.14 | 0.57 | 0.27 | 0.55 | 0.79 | 0.58 | 1.18 | - | 0.57 | 0.70 | 0.12 | 0.49 | 0.34 | 0.66 | 0.87 | 0.93 | |
| Ba/La | 13.1 | 15.4 | 15.0 | 25.7 | 24.4 | 23.0 | 30.0 | 19.1 | 83.9 | 51.8 | 31.8 | 13.9 | 14.8 | 22.0 | 18.6 | 27.6 | |
| Rb/Sr | 0.02 | 0.18 | 0.07 | 0.26 | 0.21 | 0.52 | 0.63 | 0.15 | 0.11 | 0.39 | 0.02 | 0.07 | 0.11 | 0.29 | 0.39 | 0.42 | |
| La/Sm | 2.8 | 3.2 | 3.1 | 3.7 | 3.1 | 4.6 | 5.6 | 2.9 | 1.2 | 2.5 | 2.1 | 5.4 | 5.2 | 4.9 | 3.5 | 10.2 | |
| Eu/Eu* | 0.88 | 0.66 | 0.72 | 0.67 | 0.63 | 0.82 | 0.59 | 0.7 | 0.84 | 0.89 | 1.00 | 0.91 | 0.91 | 0.77 | 0.59 | 0.85 | |
| Sm/Yb | 2.49 | 2.90 | 2.68 | 2.19 | 2.81 | 2.00 | 1.76 | 2.86 | 2.79 | 2.24 | 2.30 | 2.93 | 2.90 | 3.28 | 2.94 | 3.45 | |
| La/Yb | 6.9 | 9.2 | 8.4 | 8.1 | 8.8 | 9.2 | 9.9 | 8.2 | 3.4 | 5.7 | 4.9 | 15.8 | 15.1 | 124.7 | 128.1 | 244.3 | |
| Th/La | 0.31 | 0.41 | 0.39 | 0.59 | 0.47 | 0.52 | 1.08 | 0.33 | 0.65 | 0.05 | 0.06 | 0.06 | 0.07 | 0.11 | 0.17 | 0.23 | |
| Ba/Ta | 424 | 516 | 407 | 690 | 528 | 913 | 586 | 533 | 1472 | 2476 | 1217 | 692 | 661 | 1 | 2 | 1 | |
| La/Ta | 32 | 33 | 27 | 27 | 22 | 40 | 20 | 28 | 18 | 48 | 38 | 50 | 45 | 3 | 12 | 6 | |
| Th/U | 3.7 | 4.0 | 3.3 | 3.7 | 3.6 | 4.5 | 4.0 | 3.9 | 3.2 | 0.1 | 1.6 | 0.2 | 0.3 | 0.4 | 0.7 | 0.5 | |
| Age (Ma) | | | | | | | | 10.1±0.8 | | | | | | 12.3±0.5 | | | |
| Lat. UTM | 6237.68 | 6236.96 | 6239.28 | 6241.04 | 6240.96 | 3242.40 | | 6242.52 | 6235.00 | 6240.12 | 6240.88 | 6241.16 | 6240.92 | 6233.92 | 6231.85 | 6231.75 | |
| Long. UTM | 376.12 | 372.88 | 373.32 | 362.56 | 367.28 | 366.76 | | 362.92 | 374.40 | 377.68 | 376.44 | 377.76 | 377.68 | 363.80 | 364.00 | 363.00 | |

All analyses from SERNAGEOMIN and USGS - see Godoy (1993). Ages from Table 2 in text.

Data Repository item 2005021

Table DR4. Major and trace element analyses of Teniente Volcanic Complex magmatic rocks.

| Sample | Lower Sewell Group | | | | | | | | | | | | | | | | |
|------------------------------------|--------------------|----------|---------|---------|---------|---------|---------|-------------|---------|---------|---------|---------|---------|---------|----------|---------|----------|
| | KET-154 | KET-157a | KET-150 | KET-156 | TTE-70 | KET-211 | TTE-66 | ET-1 | KET-29 | KET-94 | KET151 | KET176A | KET176A | KET-160 | KET-132C | KET-113 | KET-120A |
| <i>Carro Castillo</i> | | | | | | | | | | | | | | | | | |
| SiO ₂ | 53.36 | 53.42 | 54.68 | 64.63 | 53.59 | 53.88 | 54.50 | 54.80 | 59.90 | 61.33 | 53.28 | 57.72 | 56.72 | 60.31 | 67.19 | 53.66 | 65.00 |
| TiO ₂ | 1.19 | 1.04 | 0.98 | 0.63 | 1.09 | 0.98 | 1.10 | 1.02 | 0.83 | 1.38 | 1.08 | 0.93 | 0.92 | 0.78 | 0.39 | 1.03 | 0.60 |
| Al ₂ O ₃ | 18.79 | 18.93 | 19.69 | 15.51 | 17.45 | 17.41 | 18.44 | 18.40 | 17.96 | 15.82 | 19.26 | 18.76 | 18.13 | 18.14 | 16.93 | 18.64 | 15.87 |
| FeO* | 8.23 | 7.79 | 6.64 | 5.30 | 8.64 | 7.97 | 8.71 | 7.99 | 5.28 | 6.94 | 8.08 | 7.24 | 6.63 | 6.02 | 3.39 | 8.10 | 4.32 |
| MnO | 0.14 | 0.14 | 0.13 | 0.10 | 0.14 | 0.16 | 0.13 | 0.23 | 0.09 | 0.15 | 0.15 | 0.17 | 0.15 | 0.09 | 0.08 | 0.19 | 0.08 |
| MgO | 3.52 | 3.58 | 2.22 | 1.39 | 4.36 | 5.02 | 2.31 | 3.95 | 1.86 | 1.56 | 3.77 | 2.66 | 2.56 | 1.19 | 0.30 | 3.33 | 1.68 |
| CaO | 8.25 | 8.13 | 7.56 | 4.13 | 7.51 | 7.38 | 7.29 | 7.47 | 5.10 | 4.46 | 8.23 | 6.26 | 6.35 | 5.23 | 2.50 | 7.01 | 3.92 |
| Na ₂ O | 4.14 | 4.25 | 4.46 | 3.30 | 3.42 | 3.29 | 3.48 | 4.02 | 4.39 | 4.37 | 3.98 | 4.23 | 4.12 | 5.14 | 4.71 | 4.40 | 4.26 |
| K ₂ O | 1.11 | 1.19 | 1.40 | 2.86 | 1.98 | 1.64 | 2.03 | 1.12 | 2.17 | 2.43 | 1.13 | 1.22 | 1.36 | 1.58 | 2.58 | 1.29 | 2.41 |
| P ₂ O ₅ | 0.24 | 0.21 | 0.27 | 0.16 | 0.26 | 0.18 | 0.24 | 0.19 | 0.20 | 0.39 | 0.25 | 0.22 | 0.21 | 0.31 | 0.16 | 0.30 | 0.14 |
| volatile | 0.53 | 0.59 | 1.05 | 1.01 | 0.90 | - | 0.99 | - | 0.93 | 0.47 | 0.34 | - | 1.95 | 0.72 | 1.27 | 0.92 | - |
| Total | 99.50 | 99.27 | 99.08 | 99.02 | 99.34 | 97.91 | 99.22 | 99.19 | 98.71 | 99.30 | 99.55 | 99.41 | 99.10 | 99.51 | 99.50 | 98.87 | 98.28 |
| La | 13.6 | 13.4 | 16.3 | 18.5 | 15.4 | 14.3 | 15.7 | 13.7 | 13.8 | 26.7 | 13.0 | 15.3 | - | 22.5 | 34.2 | 15.1 | 21.7 |
| Ce | 29.8 | 27.0 | 35.0 | 36.9 | 32.0 | 35.2 | 34.9 | 33.1 | 29.8 | 58.4 | 27.9 | 36.8 | - | 44.6 | 51.2 | 31.9 | 43.3 |
| Nd | 18.4 | 15.6 | 21.4 | 18.3 | 20.1 | 18.9 | 19.8 | 18.4 | 15.5 | 35.6 | 14.9 | 20.3 | - | 25.5 | 28.8 | 18.2 | 20.5 |
| Sm | 4.67 | 4.13 | 5.27 | 4.54 | 5.05 | 4.78 | 5.26 | 4.7 | 3.97 | 9.14 | 4.3 | 4.64 | - | 6.22 | 6.07 | 4.39 | 5.08 |
| Eu | 1.33 | 1.15 | 1.32 | 0.957 | 1.08 | 1.08 | 1.14 | 1.13 | 0.912 | 1.74 | 1.22 | 1.17 | - | 1.35 | 1.29 | 1.2 | 0.91 |
| Tb | 0.608 | 0.538 | 0.682 | 0.633 | 0.671 | 0.699 | 0.72 | 0.737 | 0.53 | 1.14 | 0.583 | 0.585 | - | 0.833 | 0.747 | 0.551 | 0.63 |
| Yb | 1.85 | 1.70 | 2.17 | 2.52 | 2.22 | 2.03 | 2.43 | 2.19 | 1.83 | 3.55 | 1.92 | 1.45 | - | 2.59 | 2.92 | 1.65 | 2.54 |
| Lu | 0.262 | 0.245 | 0.296 | 0.358 | 0.316 | 0.299 | 0.335 | 0.293 | 0.28 | 0.52 | 0.268 | 0.223 | - | 0.345 | 0.412 | 0.22 | 0.376 |
| Rb | 21 | 26 | 28 | 75 | 64 | - | 63 | - | 78 | 52 | 26 | - | - | 48 | 82 | 30 | 70.9 |
| Sr | 520 | 540 | 550 | 270 | 450 | 451 | 470 | 496 | 380 | 510 | 530 | 660 | - | 390 | 260 | 560 | 760 |
| Ba | 270 | 300 | 340 | 370 | 320 | 323 | 350 | 270 | 660 | 560 | 270 | 805 | - | 400 | 550 | 390 | 480 |
| Cs | 0.5 | 0.7 | 0.9 | 2 | 5.8 | 6.8 | 3.1 | 0.8 | 3.6 | 5 | 1.2 | 0.5 | - | 0.7 | 1.3 | 0.7 | 6 |
| U | 0.7 | 0.7 | 0.9 | 2.3 | 1.8 | 1.9 | 1.9 | 2 | 1.9 | 2.5 | 0.9 | 1.3 | - | 3 | 1.7 | 1.1 | 3 |
| Th | 2.4 | 2.7 | 4.2 | 9.1 | 6.9 | 6.4 | 7.1 | 6 | 6.3 | 9.6 | 3 | 4.6 | - | 11.6 | 8.9 | 3.9 | 12.1 |
| Hf | 2.9 | 2.7 | 3.3 | 4.3 | 5.3 | 4.3 | 5.2 | 4.3 | 4.5 | 7.1 | 2.6 | 3.8 | - | 4.6 | 4.8 | 3.5 | 6.2 |
| Sc | 23 | 21 | 19 | 13 | 23 | 23 | 22 | 25 | 15 | 20 | 22 | 14 | - | 14 | 6 | 16 | 11 |
| Ta | 0.3 | 0.23 | 0.26 | 0.38 | 0.33 | 0.29 | 0.37 | 0.29 | 0.68 | 0.64 | 0.25 | 0.28 | - | 0.36 | 0.4 | 0.22 | 0.51 |
| Cr | 21 | 22 | 5 | 23 | 58 | 101 | 32 | 52 | 9 | 12 | 23 | 12 | - | <5 | 14 | <5 | 9 |
| Ni | 21 | 22 | 5 | 23 | 32 | 64 | 25 | 28 | 9 | 12 | 23 | 8 | - | <5 | 3 | 4 | 15 |
| Co | 25 | 24 | 19 | 26 | 28 | 34 | 25 | 22 | 35 | 19 | 26 | 20 | - | 12 | 4 | 20 | 10 |
| FeO/MgO | 2.34 | 2.18 | 2.99 | 3.81 | 1.98 | 1.59 | 3.77 | 2.02 | 2.84 | 4.45 | 2.14 | 2.72 | 2.59 | 5.06 | 11.30 | 2.43 | 2.57 |
| K ₂ O/Na ₂ O | 0.27 | 0.28 | 0.31 | 0.87 | 0.58 | 0.50 | 0.58 | 0.28 | 0.49 | 0.56 | 0.28 | 0.29 | 0.33 | 0.31 | 0.55 | 0.29 | 0.57 |
| Ba/La | 19.9 | 22.4 | 20.9 | 20.0 | 20.8 | 22.6 | 22.3 | 19.7 | 47.8 | 21.0 | 20.8 | 52.6 | - | 17.8 | 16.1 | 25.8 | 22.1 |
| Rb/Sr | 0.04 | 0.05 | 0.05 | 0.28 | 0.14 | - | 0.13 | - | 0.21 | 0.10 | 0.05 | - | - | 0.12 | 0.32 | 0.05 | 0.09 |
| La/Sm | 2.9 | 3.2 | 3.1 | 4.1 | 3.0 | 3.0 | 2.9 | 3.5 | 2.9 | 3.0 | 3.3 | - | 3.6 | 5.6 | 3.4 | 4.3 | |
| Eu/Eu* | 0.95 | 0.93 | 0.84 | 0.69 | 0.71 | 0.72 | 0.71 | 0.75 | 0.76 | 0.64 | 0.93 | 0.85 | - | 0.72 | 0.72 | 0.92 | 0.61 |
| Sm/Yb | 2.52 | 2.43 | 2.43 | 1.80 | 2.27 | 2.35 | 2.16 | 2.15 | 2.17 | 2.57 | 2.24 | 3.20 | - | 2.40 | 2.08 | 2.66 | 2.00 |
| La/Yb | 7.4 | 7.9 | 7.5 | 7.3 | 6.9 | 7.0 | 6.5 | 6.3 | 7.5 | 7.5 | 6.8 | 10.6 | - | 8.7 | 11.7 | 9.2 | 8.5 |
| Th/La | 0.18 | 0.20 | 0.26 | 0.49 | 0.45 | 0.45 | 0.45 | 0.44 | 0.46 | 0.36 | 0.23 | 0.30 | - | 0.52 | 0.26 | 0.26 | 0.56 |
| Ba/Ta | 900 | 1304 | 1308 | 974 | 970 | 1114 | 946 | 931 | 971 | 875 | 1080 | 2875 | - | 1111 | 1375 | 1773 | 941 |
| La/Ta | 45 | 58 | 63 | 49 | 47 | 49 | 42 | 47 | 20 | 42 | 52 | 55 | - | 63 | 86 | 69 | 43 |
| Th/U | 3.4 | 3.9 | 4.7 | 4.0 | 3.8 | 3.4 | 3.7 | 3.0 | 3.3 | 3.8 | 3.3 | 3.5 | - | 3.9 | 5.2 | 3.5 | 4.0 |
| Age | 10.5±0.8 | 10.3±0.8 | | | | | | | 9.9±0.5 | | | | | | | | |
| Lat. UTM | 6215.45 | 6215.45 | 6216.25 | 6215.45 | 6231.15 | 6222.95 | 6230.80 | Quebrada | 6231.64 | 6230.95 | 6218.65 | 6218.65 | 6218.65 | 6218.00 | 6219.30 | 6219.95 | 6219.45 |
| Long. UTM | 373.00 | 373.00 | 369.45 | 373.00 | 362.75 | 361.70 | 362.85 | El Teniente | 364.72 | 368.75 | 370.80 | 370.80 | 370.80 | 373.40 | 377.15 | 378.30 | 378.50 |

Cornell University analyses for ET1 and KET176a. All others from SERNAGEOMIN and USGS (Godoy, 1993). Ages from Table 2 in text. Mapping units as in Godoy (1993).

Data Repository item 2005021

Table DR5a. Major and trace element analyses of Teniente Volcanic Complex magmatic rocks.

| Sample | Upper Sewell Group | | | | | | | Sewell Mapping Unit 5 (Mantancillas-Manantiales) | | | | | | | |
|---|--------------------|---------------|---------|---------|---------|---------|--|--|---------|---------|---------|---------|---------|---------|---------|
| | KET39 | ET-6 | KET-66b | TTE-82 | TTE-83 | TTE-85 | KET-8 | KET110 | KET138 | KET134 | KET163c | KET137 | KET139 | KET140 | KET141 |
| Upper Part of Undifferentiated Sewell Complex | | | | | | | Sewell Mapping Unit 5 (Mantancillas-Manantiales) | | | | | | | | |
| SiO ₂ | 54.77 | 54.97 | 56.93 | 59.58 | 59.43 | 63.98 | 63.66 | 55.39 | 57.55 | 58.81 | 57.51 | 60.07 | 59.73 | 60.40 | 60.21 |
| TiO ₂ | 0.93 | 0.94 | 0.93 | 0.78 | 0.78 | 0.53 | 0.63 | 0.93 | 0.88 | 0.72 | 0.81 | 0.72 | 0.70 | 0.73 | 0.75 |
| Al ₂ O ₃ | 17.65 | 19.18 | 19.40 | 18.22 | 17.26 | 15.94 | 15.50 | 18.27 | 18.30 | 18.47 | 17.61 | 17.43 | 19.62 | 17.83 | 17.71 |
| FeO* | 6.45 | 7.57 | 6.29 | 5.68 | 6.00 | 3.97 | 4.38 | 6.59 | 6.50 | 5.61 | 5.98 | 5.34 | 5.03 | 5.21 | 5.31 |
| MnO | 0.10 | 0.11 | 0.08 | 0.15 | 0.10 | 0.12 | 0.13 | 0.14 | 0.10 | 0.06 | 0.10 | 0.13 | 0.06 | 0.09 | 0.12 |
| MgO | 3.55 | 3.79 | 2.30 | 1.48 | 2.25 | 1.19 | 0.66 | 3.96 | 2.67 | 2.59 | 3.45 | 2.24 | 1.61 | 2.16 | 2.45 |
| CaO | 8.09 | 7.65 | 6.60 | 5.31 | 5.67 | 3.70 | 3.97 | 7.41 | 6.32 | 5.83 | 6.37 | 5.12 | 5.19 | 5.75 | 5.83 |
| Na ₂ O | 3.44 | 4.34 | 3.77 | 3.95 | 4.01 | 3.73 | 4.69 | 4.26 | 4.45 | 4.19 | 3.63 | 4.33 | 4.36 | 4.35 | 4.77 |
| K ₂ O | 0.32 | 1.07 | 1.14 | 2.25 | 2.27 | 2.84 | 2.73 | 1.40 | 1.63 | 1.97 | 1.89 | 2.26 | 2.23 | 2.13 | 1.59 |
| P ₂ O ₅ | 0.22 | 0.22 | 0.19 | 0.25 | 0.20 | 0.14 | 0.19 | 0.23 | 0.19 | 0.18 | 0.18 | 0.18 | 0.17 | 0.18 | 0.19 |
| volatile | 4.02 | | 1.66 | 1.43 | 1.23 | 3.32 | 0.96 | 0.75 | 0.87 | 0.91 | 2.10 | 1.64 | 0.81 | 0.80 | 0.85 |
| Total | 99.54 | 99.84 | 99.29 | 99.08 | 99.20 | 99.46 | 97.50 | 99.33 | 99.46 | 99.34 | 99.63 | 99.46 | 99.51 | 99.63 | 99.78 |
| La | 15.7 | 12.3 | 24.6 | 18.7 | 26.9 | 27.2 | 27.9 | 13.6 | 15.0 | 16.4 | 14.8 | 18.3 | 19.5 | 17.5 | 17.2 |
| Ce | 33.1 | 28.6 | 27 | 35.9 | 34.3 | 50.8 | 53.5 | 29.6 | 31.0 | 33.8 | 29.7 | 38.5 | 39.4 | 36.0 | 35.7 |
| Nd | 17 | 16.7 | 33.3 | 20.8 | 31.3 | 25.4 | 26.7 | 16 | 17.3 | 17.8 | 16.4 | 20.7 | 21.2 | 18.4 | 19.5 |
| Sm | 4.27 | 3.65 | 7.56 | 4.63 | 6.72 | 5.36 | 6.15 | 4.01 | 4 | 4.04 | 3.53 | 4.64 | 4.61 | 4.15 | 4.21 |
| Eu | 1.05 | 1.04 | 1.69 | 1.13 | 1.46 | 1.01 | 1.23 | 1.01 | 1.02 | 0.975 | 0.969 | 1.04 | 1.04 | 0.932 | 1.01 |
| Tb | 0.48 | 0.464 | 0.81 | 0.493 | 0.738 | 0.636 | 0.721 | 0.443 | 0.461 | 0.449 | 0.412 | 0.513 | 0.508 | 0.446 | 0.463 |
| Yb | 1.5 | 1.2 | 2.31 | 1.58 | 2.32 | 2.52 | 2.67 | 1.29 | 1.38 | 1.36 | 1.36 | 1.6 | 1.48 | 1.5 | 1.46 |
| Lu | 0.21 | 0.166 | 0.316 | 0.208 | 0.314 | 0.349 | 0.378 | 0.18 | 0.188 | 0.201 | 0.173 | 0.213 | 0.219 | 0.202 | 0.198 |
| Rb | 6 | - | 64 | 60 | 74 | 56 | 118 | 36 | 51 | 63 | 43 | 75 | 68 | 73 | 68 |
| Sr | 790 | 656 | 580 | 530 | 580 | 440 | 330 | 580 | 570 | 570 | 500 | 580 | 540 | 500 | 570 |
| Ba | 230 | 376 | 510 | 430 | 460 | 910 | 440 | 350 | 390 | 410 | 500 | 430 | 490 | 440 | 440 |
| Cs | 2.7 | 0.6 | 4.7 | 2.7 | 3.8 | 4.9 | 2.2 | 0.9 | 1.8 | 2.1 | 3 | 1.9 | 2.9 | 2.5 | 3.8 |
| U | 1.5 | 0.5 | 1.1 | 2.2 | 2.2 | 3.1 | 2.4 | 1.2 | 1.3 | 1.8 | 1.3 | 2.1 | 2.2 | 2.2 | 1.8 |
| Th | 5.8 | 2.2 | 4.1 | 8 | 7.8 | 10.5 | 10.5 | 4 | 5.2 | 6.6 | 5.4 | 8.2 | 7.9 | 8 | 6.8 |
| Hf | 3 | 2.5 | 2.4 | 5.1 | 4.3 | 9 | 4.3 | 3 | 3.3 | 3.6 | 3.1 | 4.2 | 4.3 | 4.2 | 3.8 |
| Sc | 18 | 17 | 17 | 13 | 12 | 9 | 9 | 17 | 15 | 12 | 15 | 11 | 11 | 11 | 11 |
| Ta | 0.33 | 0.17 | 0.37 | 0.34 | 0.28 | 0.48 | 0.54 | 0.39 | 0.28 | 0.32 | 0.27 | 0.39 | 0.37 | 0.35 | 0.33 |
| Cr | 67 | 12 | 53 | 66 | 14 | 19 | 7 | 85 | 60 | 13 | 73 | 14 | 126 | 12 | 23 |
| Ni | 25 | 28 | 51 | 25 | 9 | 5 | <1 | 85 | 60 | 13 | 28 | 12 | 126 | 12 | 23 |
| Co | 24 | 28 | 31 | 19 | 18 | 9 | 18 | 32 | 22 | 17 | 21 | 19 | 15 | 16 | 16 |
| FeO/MgO | 1.82 | 2.00 | 2.73 | 3.84 | 2.67 | 3.34 | 6.64 | 1.66 | 2.43 | 2.17 | 1.73 | 2.38 | 3.12 | 2.41 | 2.17 |
| K ₂ O/Na ₂ O | 0.09 | 0.25 | 0.30 | 0.57 | 0.57 | 0.76 | 0.58 | 0.33 | 0.37 | 0.47 | 0.52 | 0.52 | 0.51 | 0.49 | 0.33 |
| Ba/La | 14.6 | 30.6 | 20.7 | 23.0 | 17.1 | 33.5 | 15.8 | 25.7 | 26.0 | 25.0 | 33.8 | 23.5 | 25.1 | 25.6 | |
| Rb/Sr | 0.01 | - | 0.11 | 0.11 | 0.13 | 0.13 | 0.36 | 0.06 | 0.09 | 0.11 | 0.09 | 0.13 | 0.13 | 0.15 | 0.12 |
| La/Sm | 3.7 | 3.4 | 3.3 | 4.0 | 4.0 | 5.1 | 4.5 | 3.4 | 3.8 | 4.1 | 4.2 | 3.9 | 4.2 | 4.2 | 4.1 |
| Eu/Eu* | 0.86 | 0.96 | 0.79 | 0.87 | 0.77 | 0.65 | 0.69 | 0.88 | 0.88 | 0.85 | 0.95 | 0.79 | 0.79 | 0.8 | 0.85 |
| Sm/Yb | 2.85 | 3.04 | 3.27 | 2.93 | 2.90 | 2.13 | 2.30 | 3.11 | 2.90 | 2.97 | 2.60 | 2.90 | 3.11 | 2.77 | 2.88 |
| La/Yb | 10.5 | 10.3 | 10.6 | 11.8 | 11.6 | 10.8 | 10.4 | 10.5 | 10.9 | 12.1 | 10.9 | 11.4 | 13.2 | 11.7 | 11.8 |
| Th/La | 0.37 | 0.18 | 0.17 | 0.43 | 0.29 | 0.39 | 0.38 | 0.29 | 0.35 | 0.40 | 0.36 | 0.45 | 0.41 | 0.46 | 0.40 |
| Ba/Ta | 697 | 2212 | 1378 | 1265 | 1643 | 1896 | 815 | 897 | 1393 | 1281 | 1852 | 1103 | 1324 | 1257 | 1333 |
| La/Ta | 48 | 72 | 66 | 55 | 96 | 57 | 52 | 35 | 54 | 51 | 55 | 47 | 53 | 50 | 52 |
| Th/U | 3.9 | 4.4 | 3.7 | 3.6 | 3.5 | 3.4 | 4.4 | 3.3 | 4.0 | 3.7 | 4.2 | 3.9 | 3.6 | 3.6 | 3.8 |
| Age | | | | | | | | 9.2±0.7 | | | | | | | 9.3 |
| Lat. UTM | 6236.15 | | 6230.70 | 6231.75 | 6227.35 | 6223.30 | 6241.56 | 6220.95 | 6224.85 | 6219.70 | 6222.00 | 6224.65 | 6221.55 | 6221.75 | 6221.45 |
| Long. UTM | 377.00 | 'alcetone-Sev | 366.65 | 366.25 | 363.75 | 359.90 | 367.72 | 378.50 | 376.00 | 377.05 | 371.00 | 375.75 | 376.60 | 376.50 | |

Cornell University analyses for ET6. All others from SERNAGEOMIN and USGS - see Godoy (1993). Age from Table 2 in text.

Data Repository item 2005021

Table DR5b. Major and trace element analyses of Teniente Volcanic Complex magmatic rocks.

| Sample | KET144 | KET126a | KET208 Cerro Durazno Unit | KET207 | KET205 | KET-167 | KET171 Quebrada Negra | KET170 | KET146 Aguas Frias | KET65 altered Olla Blanca Group - not on plots in paper. | KET64 | KET56 | OB79 | OB120 | OB141-5 | OB64-6 | |
|------------------------------------|---------|---------|------------------------------|---------|---------|---------|--------------------------|---------|-----------------------|---|---------|---------|---------|---------|---------|---------|------|
| SiO ₂ | 63.38 | 57.25 | 54.17 | 58.76 | 62.93 | 52.00 | 55.47 | 54.92 | 63.31 | 56.01 | 60.30 | 71.10 | 67.86 | 72.32 | 71.36 | 73.32 | |
| TiO ₂ | 0.56 | 0.81 | 1.07 | 0.86 | 0.68 | 1.13 | 0.8 | 0.86 | 0.56 | 1.10 | 1.12 | 0.47 | 0.48 | 0.42 | 0.43 | 0.43 | |
| Al ₂ O ₃ | 16.29 | 18.23 | 18.49 | 18.49 | 17.29 | 17.47 | 19.04 | 20.16 | 16.5 | 17.44 | 16.06 | 15.76 | 16.02 | 14.72 | 14.19 | 14.15 | |
| FeO* | 4.08 | 5.76 | 8.01 | 5.36 | 4.86 | 7.05 | 7.92 | 7.92 | 4.07 | 6.70 | 6.19 | 1.97 | 3.27 | 2.03 | 2.84 | 2.98 | |
| MnO | 0.08 | 0.15 | 0.09 | 0.08 | 0.08 | 0.14 | 0.15 | 0.18 | 0.08 | 0.12 | 0.12 | 0.01 | 0.03 | 0.03 | 0.05 | 0.01 | |
| MgO | 2.01 | 3.34 | 5.10 | 2.60 | 2.11 | 5.83 | 3.51 | 2.41 | 1.96 | 3.00 | 2.59 | 0.27 | 0.63 | 0.43 | 0.86 | 0.85 | |
| CaO | 4.67 | 6.77 | 8.24 | 6.56 | 5.59 | 7.28 | 7.14 | 8.49 | 4.64 | 6.13 | 4.49 | 0.39 | 0.22 | 0.31 | 0.98 | 0.26 | |
| Na ₂ O | 3.55 | 4.30 | 4.08 | 4.48 | 4.09 | 5.06 | 3.92 | 3.87 | 3.55 | 3.53 | 3.98 | 4.00 | 0.09 | 0.10 | 0.63 | 0.06 | |
| K ₂ O | 2.68 | 0.73 | 0.93 | 1.96 | 2.41 | 0.83 | 1.12 | 0.3 | 2.61 | 1.69 | 3.03 | 4.34 | 5.59 | 5.73 | 4.89 | 3.60 | |
| P ₂ O ₅ | 0.14 | 0.25 | 0.22 | 0.08 | 0.17 | 0.23 | 0.2 | 0.26 | 0.14 | 0.27 | 0.26 | 0.11 | 0.11 | 0.12 | 0.10 | 0.10 | |
| volatile | 2.12 | 1.75 | | | | | 2.42 | 1.24 | | 2.14 | 3.51 | 1.02 | 1.02 | 5.17 | 3.15 | 3.03 | 3.79 |
| Total | 99.56 | 99.34 | 100.40 | 99.23 | 100.21 | 99.44 | 100.51 | 99.37 | 99.56 | 99.50 | 99.16 | 99.44 | 99.47 | 99.36 | 99.36 | 99.55 | |
| La | 13.9 | 15.9 | 11.6 | 18.7 | 16.5 | 15.3 | 12.6 | 15 | 13.8 | 20.1 | 25.4 | 28.3 | - | - | - | - | |
| Ce | 30.1 | 33.5 | 27.3 | 40.0 | 36.1 | 32.3 | 29 | 33.8 | 30.3 | 44.1 | 56.0 | 49.4 | - | - | - | - | |
| Nd | 12.4 | 18.1 | 16.8 | 25.5 | 18.5 | 20.2 | 15.4 | 17.5 | 12.9 | 23.8 | 30.6 | 31.9 | - | - | - | - | |
| Sm | 2.95 | 4.01 | 3.89 | 4.83 | 3.84 | 4.67 | 3.81 | 4.22 | 3.06 | 6.20 | 7.70 | 7.85 | - | - | - | - | |
| Eu | 0.697 | 1 | 1.11 | 1.21 | 0.88 | 1.29 | 1.1 | 1.2 | 0.711 | 1.12 | 1.28 | 0.855 | - | - | - | - | |
| Tb | 0.406 | 0.448 | 0.446 | 0.605 | 0.497 | 0.57 | 0.518 | 0.553 | 0.404 | 0.746 | 0.943 | 0.995 | - | - | - | - | |
| Yb | 1.08 | 1.42 | 0.967 | 1.67 | 1.29 | 1.44 | 1.4 | 1.58 | 1.09 | 2.08 | 2.95 | 4.2 | - | - | - | - | |
| Lu | 0.154 | 0.179 | 0.131 | 0.243 | 0.189 | 0.203 | 0.182 | 0.224 | 0.132 | 0.312 | 0.423 | 0.622 | - | - | - | - | |
| Rb | 99 | 44 | - | - | 22 | - | - | 110 | 90 | 114 | 164 | 213 | 225 | 195 | 163 | | |
| Sr | 393 | 620 | 712 | 621 | 493 | 530 | 486 | 533 | 454 | 290 | 260 | 150 | 90 | 60 | 132 | 40 | |
| Ba | 484 | 360 | 374 | 511 | 529 | 320 | 344 | 214 | 493 | 500 | 370 | 380 | 580 | 510 | 490 | 100 | |
| Pb | 9 | | | | | | | 11 | 8 | 10 | | | | | | | |
| Cs | 8.5 | 10.9 | 1.2 | 2.6 | 3.7 | 0.6 | 1.2 | 0.1 | 8.9 | 3.4 | 2.8 | 9.6 | - | - | - | - | |
| U | 3.4 | 1.4 | 0.6 | 2.2 | 1.9 | 0.7 | 1.6 | 1.1 | 3.6 | 2.4 | 3.6 | 5 | - | - | - | - | |
| Th | 10.7 | 5.8 | 1.8 | 7.2 | 10 | 2.7 | 4.7 | 3.3 | 11.4 | 9.4 | 13.4 | 20.3 | - | - | - | - | |
| Hf | 3.6 | 3.5 | 2.2 | 4.3 | 4.2 | 3.2 | 2.3 | 2.6 | 3.7 | 5.7 | 8.3 | 10.8 | - | - | - | - | |
| Sc | 10 | 13 | 20 | 15 | 13 | 23 | 17 | 19 | 10 | 18 | 18 | 7 | - | - | - | - | |
| Ta | 0.32 | 0.27 | 0.12 | 0.33 | 0.36 | 0.24 | 0.17 | 0.15 | 0.34 | 0.50 | 0.74 | 1.09 | - | - | - | - | |
| Cr | 19 | 33 | 130 | 31 | 28 | 149 | 14 | 22 | 21 | 26 | 41 | 7 | < 5 | < 5 | < 5 | < 5 | |
| Ni | 11 | 33 | 76 | 22 | 21 | 149 | 15 | 16 | 12 | 13 | 41 | 22 | < 1 | < 1 | < 1 | < 1 | |
| Co | 14 | 18 | 32 | 18 | 15 | 28 | 24 | 25 | 13 | 27 | 19 | 18 | - | - | - | - | |
| FeO/MgO | 2.03 | 1.72 | 1.57 | 2.06 | 2.30 | 1.21 | 2.26 | 3.29 | 2.08 | 2.23 | 2.39 | 7.30 | 5.19 | 4.72 | 3.30 | 3.51 | |
| K ₂ O/Na ₂ O | 0.75 | 0.17 | 0.23 | 0.44 | 0.59 | 0.16 | 0.29 | 0.08 | 0.74 | 0.48 | 0.76 | 1.09 | 62.11 | 57.30 | 7.76 | 60.00 | |
| Ba/La | 34.8 | 22.6 | 32.2 | 27.3 | 32.1 | 20.9 | 27.3 | 14.2 | 35.7 | 0.4 | 0.4 | 13.4 | - | - | - | - | |
| Rb/Sr | 0.25 | 0.07 | - | - | - | - | - | - | 0.24 | 0.58 | 0.70 | 1.09 | 2.37 | 3.75 | 1.48 | 4.08 | |
| La/Sm | 4.7 | 4.0 | 3.0 | 3.9 | 4.3 | 3.3 | 3.3 | 3.6 | 4.5 | 3.2 | 3.3 | 3.6 | - | - | - | - | |
| Eu/Eu* | 0.77 | 0.88 | 0.99 | 0.84 | 0.76 | 0.94 | 0.94 | 0.94 | 0.77 | 0.62 | 0.52 | 0.37 | - | - | - | - | |
| Sm/Yb | 2.73 | 2.82 | 4.02 | 2.89 | 2.98 | 3.24 | 2.72 | 2.67 | 2.81 | 2.98 | 2.61 | 1.87 | - | - | - | - | |
| La/Yb | 12.9 | 11.2 | 12.0 | 11.2 | 12.8 | 10.6 | 9.0 | 9.5 | 12.7 | 9.7 | 8.6 | 6.7 | - | - | - | - | |
| Th/La | 0.77 | 0.36 | 0.16 | 0.39 | 0.61 | 0.18 | 0.37 | 0.22 | 0.83 | 0.47 | 0.53 | 0.72 | - | - | - | - | |
| Ba/Ta | 1513 | 1333 | 3117 | 1548 | 1469 | 1333 | 2024 | 1427 | 1450 | 992 | 501 | 349 | - | - | - | - | |
| La/Ta | 43 | 59 | 97 | 57 | 46 | 64 | 74 | 100 | 41 | 40 | 34 | 26 | - | - | - | - | |
| Th/U | 3.1 | 4.1 | 3.0 | 3.3 | 5.3 | 3.9 | 2.9 | 3.0 | 3.2 | 3.9 | 3.7 | 4.1 | - | - | - | - | |
| Age | 6.5±1.7 | | | | | | 7.8±0.4 | | | | | | | | | | |
| Lat. UTM | 6225.05 | 6219.85 | 6222.35 | 6222.90 | 6222.80 | 6220.50 | 6225.55 | 6225.75 | 6218.95 | 6231.00 | 6230.95 | 6231.16 | 6231.16 | 6231.16 | 6231.16 | 6231.16 | |
| Long. UTM | 375.75 | 379.00 | 367.40 | 367.10 | 368.35 | 382.05 | 380.25 | 379.55 | 368.85 | 370.90 | 370.75 | 370.92 | 370.92 | 370.92 | 370.92 | 370.92 | |

Cornell University analyses for KET144, KET208, KET 207, KET205. Others from SERNAGEOMIN and USGS - see Godoy (1993). Ages from Table 2 in text.

Data Repository item 2005021

Table DR6. Major and trace element analyses of unassigned samples.

| Sample | Undifferentiated Intrusive Units | | | |
|--|----------------------------------|---------|--------|---------|
| | KET-92-3 | TTE-89 | TTE-90 | TTE-92 |
| Extensively altered - not on plots in paper. | | | | |
| SiO ₂ | 55.82 | 56.59 | 61.11 | 59.80 |
| TiO ₂ | 1.62 | 1.22 | 1.17 | 1.20 |
| Al ₂ O ₃ | 16.98 | 16.92 | 16.25 | 16.40 |
| FeO* | 8.41 | 6.39 | 5.57 | 6.03 |
| MnO | 0.16 | 0.12 | 0.13 | 0.12 |
| MgO | 2.97 | 3.24 | 1.60 | 2.21 |
| CaO | 6.39 | 5.22 | 4.87 | 4.61 |
| Na ₂ O | 4.21 | 2.90 | 4.21 | 4.56 |
| K ₂ O | 1.92 | 1.44 | 3.05 | 2.42 |
| P ₂ O ₅ | 0.44 | 0.29 | 0.31 | 0.28 |
| volatile | 0.95 | 5.10 | 1.20 | 1.65 |
| Total | 99.87 | 99.43 | 99.47 | 99.28 |
| La | - | 23 | 22.6 | 22.7 |
| Ce | - | 44.7 | 48.8 | 50 |
| Nd | - | 27 | 28.2 | 26.4 |
| Sm | - | 6.75 | 6.53 | 6.42 |
| Eu | - | 1.38 | 1.34 | 1.3 |
| Tb | - | 0.873 | 0.82 | 0.836 |
| Yb | - | 3.02 | 2.49 | 2.78 |
| Lu | - | 0.411 | 0.328 | 0.383 |
| Rb | 74 | 56 | 112 | 106 |
| Sr | 470 | 390 | 400 | 370 |
| Ba | 470 | 330 | 410 | 490 |
| Cs | - | 7 | 4.6 | 8.2 |
| U | - | 3.1 | 3 | 3.1 |
| Th | - | 10.7 | 12 | 11.9 |
| Hf | - | 7.6 | 8.6 | 9.8 |
| Sc | - | 18 | 17 | 17 |
| Ta | - | 0.5 | 0.58 | 0.58 |
| Cr | < 5 | 23 | 17 | 12 |
| Ni | < 5 | 8 | 6 | 5 |
| Co | - | 13 | 13 | 13 |
| FeO/MgO | 2.83 | 1.97 | 3.48 | 2.73 |
| K ₂ O/Na ₂ O | 0.46 | 0.50 | 0.72 | 0.53 |
| Ba/La | - | 13.4 | 13.4 | 13.4 |
| Rb/Sr | - | 0.14 | 0.28 | 0.29 |
| La/Sm | - | 3.6 | 3.6 | 3.6 |
| Eu/Eu* | - | 0.68 | 0.69 | 1.87 |
| Sm/Yb | - | 1.87 | 1.87 | 6.7 |
| La/Yb | - | 6.7 | 6.7 | 0.72 |
| Ba/Th | - | 0.72 | 0.72 | 349 |
| Ba/Ta | - | 349 | 349 | 26 |
| La/Ta | - | 46 | 39 | 39 |
| Th/U | - | 3.5 | 4.0 | 3.8 |
| Age | | | | |
| Lat. UTM | 6232.3 | 6211.35 | 6211.1 | 6210.25 |
| Long. UTM | 368.45 | 360.2 | 360.15 | 360.5 |

All analyses from SERNAGEOMIN and USGS - see Godoy (1993).

Data Repository item 2005021

Table DR7. Major and trace element analyses of "Teniente Porphyry" and clasts in Braden Breccia.

| Sample | Outcrop and clasts from Braden Breccia within El Teniente Mine | | | | | | | Braden Breccia in El Teniente Mine | | | |
|------------------------------------|--|--|-----------------|-----------------|---|------------------|------------------|---|---------------------------------|----------------------|--------|
| | ET-14A clast | ET-3 clast | ET-12A clast | ET-12C clast | ET-10 outcrop | ET-11 outcrop | ET-4 "Latite" | KET-89 Laguna La Huifa | ET-17 " Sewell Granodiorite" | ET-9 Sewell clast | ET-13 |
| SiO ₂ | 63.66 | 65.75 | 67.09 | 67.24 | 68.59 | 69.75 | 66.74 | 67.27 | 67.13 | 73.63 | 53.33 |
| TiO ₂ | 0.70 | 0.76 | 0.47 | 0.42 | 0.39 | 0.37 | 0.43 | 0.42 | 0.49 | 0.34 | 1.23 |
| Al ₂ O ₃ | 16.18 | 17.92 | 17.59 | 17.09 | 17.27 | 16.73 | 17.57 | 17.46 | 17.68 | 16.25 | 21.53 |
| FeO* | 6.16 | 4.09 | 3.42 | 2.53 | 2.17 | 0.64 | 2.52 | 2.69 | 2.83 | 3.17 | 9.29 |
| MnO | 0.42 | 0.44 | 0.25 | 0.31 | 0.02 | 0.04 | 0.02 | 0.04 | 0.12 | 0.04 | 0.55 |
| MgO | 2.74 | 1.40 | 1.44 | 0.82 | 0.93 | 0.73 | 1.27 | 0.96 | 1.39 | 0.62 | 6.09 |
| CaO | 3.93 | 1.17 | 3.06 | 5.03 | 2.61 | 3.09 | 4.17 | 3.00 | 2.65 | 0.14 | 0.92 |
| Na ₂ O | 3.66 | 0.86 | 3.60 | 2.41 | 5.19 | 5.05 | 5.09 | 5.68 | 5.32 | 0.54 | 2.92 |
| K ₂ O | 2.37 | 7.44 | 2.92 | 4.02 | 2.68 | 3.46 | 2.03 | 2.32 | 2.21 | 5.25 | 0.49 |
| P ₂ O ₅ | 0.18 | 0.16 | 0.17 | 0.15 | 0.15 | 0.13 | 0.16 | 0.16 | 0.19 | 0.02 | 4.33 |
| Total | 100.00 | 99.99 | 100.01 | 100.02 | 100.00 | 99.99 | 100.00 | 100.00 | 100.01 | 100.00 | 100.68 |
| La | 17.9 | 23.6 | 17.6 | 18.3 | 16.0 | 6.9 | 14.7 | 11.9 | 9.99 | 16.6 | 8.96 |
| Ce | 39.7 | 55.7 | 41.0 | 41.0 | 33.3 | 13.4 | 31.3 | 26.4 | 22.3 | 34.1 | 20.4 |
| Nd | 20.7 | 23.4 | 20.6 | 20.7 | 13.8 | 6.67 | 15.3 | 13.1 | 11.4 | 13.3 | 10.8 |
| Sm | 4.52 | 4.33 | 3.89 | 3.69 | 2.40 | 1.40 | 2.53 | 2.29 | 2.10 | 2.03 | 2.69 |
| Eu | 1.09 | 0.95 | 0.87 | 0.94 | 0.529 | 0.458 | 0.63 | 0.659 | 0.585 | 0.533 | 0.793 |
| Tb | 0.459 | 0.502 | 0.283 | 0.271 | 0.166 | 0.127 | 0.215 | 0.212 | 0.158 | 0.186 | 0.442 |
| Yb | 0.928 | 0.963 | 0.472 | 0.416 | 0.259 | 0.369 | 0.50 | 0.487 | 0.285 | 0.406 | 1.50 |
| Lu | 0.122 | 0.225 | 0.053 | 0.051 | 0.036 | 0.048 | 0.056 | 0.064 | 0.038 | 0.058 | 0.228 |
| Rb | - | - | - | - | - | - | - | 47 | - | - | - |
| Sr | 390 | 437 | 514 | 341 | 617 | 430 | 798 | 800 | 580 | 27 | 128 |
| Ba | 291 | 3095 | 577 | 871 | 842 | 780 | 763 | 732 | 597 | 636 | 499 |
| Cs | 3.4 | 9.9 | 5.8 | 6.4 | 6.2 | 9 | 3.8 | 1.5 | 6.3 | 7.2 | 7.1 |
| U | 2.8 | 4.4 | 1.4 | 1.5 | 1.3 | 1.8 | 1.8 | 1.3 | 1.4 | 1.5 | 2.2 |
| Th | 8.1 | 11.9 | 3 | 3.5 | 4.2 | 4.3 | 4.0 | 4.1 | 3.4 | 4.3 | 4.5 |
| Hf | 3.1 | 3.6 | 2.9 | 2.8 | 2.9 | 3.3 | 3.4 | 3 | 2.9 | 3.1 | 3.4 |
| Sc | 17 | 14 | 4 | 4 | 3 | 3 | 5 | 4 | 4 | 3 | 35 |
| Ta | 0.26 | 0.3 | 0.17 | 0.17 | 0.19 | 0.21 | 0.16 | 0.24 | 0.18 | 0.24 | 0.22 |
| Cr | 23 | 18 | 15 | 11 | 4 | 3 | 9 | 24 | 12 | 8 | 150 |
| Ni | 18 | 11 | 9 | 5 | 4 | 2 | 7 | 12 | 10 | 5 | 61 |
| Co | 20 | 2 | 4 | 2 | 4 | 2 | 6 | 8 | 2 | 8 | 24 |
| FeO/MgO | 2.25 | 2.92 | 2.38 | 3.09 | 2.33 | 0.88 | 1.99 | 2.80 | 2.04 | 5.11 | 1.53 |
| K ₂ O/Na ₂ O | 0.65 | 8.65 | 0.81 | 1.67 | 0.52 | 0.69 | 0.40 | 0.41 | 0.42 | 9.72 | 0.17 |
| Ba/La | 16.3 | 131.1 | 32.8 | 47.6 | 52.6 | 113.9 | 51.9 | 61.5 | 59.8 | 38.3 | 55.7 |
| Rb/Sr | - | - | - | - | - | - | - | 0.06 | - | - | - |
| La/Sm | 4.0 | 5.5 | 4.5 | 5.0 | 6.7 | 4.9 | 5.8 | 5.2 | 4.8 | 8.2 | 3.3 |
| Eu/Eu* | 0.87 | 0.76 | 0.90 | 1.03 | 0.91 | 1.23 | 0.95 | 1.07 | 1.10 | 0.98 | 0.91 |
| Sm/Yb | 4.87 | 4.50 | 8.24 | 8.87 | 9.27 | 3.79 | 5.11 | 4.70 | 7.37 | 5.00 | 1.79 |
| La/Yb | 19.3 | 24.5 | 37.3 | 44.0 | 61.8 | 18.6 | 29.7 | 24.4 | 35.1 | 40.9 | 6.0 |
| Th/La | 0.45 | 0.50 | 0.17 | 0.19 | 0.26 | 0.63 | 0.27 | 0.34 | 0.34 | 0.26 | 0.50 |
| Ba/Ta | 1119 | 10317 | 3394 | 5124 | 4432 | 3714 | 4731 | 3050 | 3317 | 2650 | 2268 |
| La/Ta | 69 | 79 | 104 | 108 | 84 | 33 | 91 | 50 | 56 | 69 | 41 |
| Th/U | 2.9 | 2.7 | 2.1 | 2.3 | 3.2 | 2.4 | 2.2 | 3.2 | 2.4 | 2.9 | 2.0 |
| Age | | | | | | | 10.6±0.7 | | | | |
| Location | ET14A - 50 m south of intersection XC2AS with pique B | | | | ET4 - XC85S | | 6230.20 | ET-17 level 4, UCL XC7 intersection calle 25L | | | |
| | ET3 - XC77S | | | | ET-10drift 35R, 22 meters north of S4333, level 5 | | | ET-9 waterfall, Camino Aqua Amarga | | | |
| | ET12A- XC85S | ET12C - cross of XC2AN and acceso pique B, level 5 | | | | | | ET-13 level 4, elevator, west side, pique B | | | |
| | | | | | ET11-drift 43R and SC31, level 5 | | | | | | |

All analyses at Cornell University analyses for KET89 by SERNAGEOMIN and USGS - see Godoy (1993). Age from Table 2 in text.

Data Repository item 2005021

Table DR8. Major and trace element analyses of "Late Hornblende Dikes" samples.

| Sample | KET142b | KET169 | TTE71 | ET-2 | ET-5 |
|------------------------------------|---------|---------|---------|--------------------------|--------|
| SiO ₂ | 55.81 | 56.81 | 60.46 | 58.28 | 64.72 |
| TiO ₂ | 0.93 | 0.90 | 0.82 | 0.92 | 0.65 |
| Al ₂ O ₃ | 16.86 | 19.44 | 17.35 | 17.61 | 17.45 |
| FeO* | 5.76 | 6.66 | 4.65 | 5.34 | 3.85 |
| MnO | 0.10 | 0.13 | 0.08 | 0.16 | 0.04 |
| MgO | 5.25 | 1.89 | 2.74 | 3.46 | 1.52 |
| CaO | 6.86 | 6.67 | 5.41 | 7.96 | 4.85 |
| Na ₂ O | 4.43 | 4.18 | 4.89 | 3.76 | 4.69 |
| K ₂ O | 1.67 | 1.49 | 2.02 | 2.19 | 2.01 |
| P ₂ O ₅ | 0.25 | 0.22 | 0.26 | 0.31 | 0.22 |
| volatile | 1.52 | 1.22 | 0.76 | - | - |
| Total | 99.44 | 99.61 | 99.44 | 99.99 | 100.00 |
| La | 17.6 | 17.2 | 23.5 | 17.9 | 17.4 |
| Ce | 37.6 | 38.4 | 47.9 | 41.8 | 39.0 |
| Nd | 19.5 | 21.2 | 25.6 | 22.0 | 20.1 |
| Sm | 4.35 | 4.49 | 5.02 | 4.24 | 3.90 |
| Eu | 1.13 | 1.26 | 1.20 | 1.12 | 1.00 |
| Tb | 0.394 | 0.454 | 0.466 | 0.408 | 0.404 |
| Yb | 1.21 | 0.67 | 1.28 | 0.825 | 0.857 |
| Lu | 0.146 | 0.09 | 0.149 | 0.109 | 0.113 |
| Rb | 36 | 34 | 39 | - | - |
| Sr | 860 | 600 | 920 | 762 | 867 |
| Ba | 520 | 440 | 580 | 461 | 654 |
| Cs | 0.5 | 0.4 | 1 | 15.6 | 3.2 |
| U | 0.6 | 0.8 | 1 | 0.7 | 1.3 |
| Th | 2.6 | 3.8 | 4.4 | 2.6 | 3.3 |
| Hf | 3.2 | 3.1 | 5.6 | 3.6 | 3.4 |
| Sc | 16 | 6 | 10 | 12 | 9 |
| Ta | 0.31 | 0.26 | 0.36 | 0.23 | 0.3 |
| Cr | 200 | 17 | 74 | 77 | 39 |
| Ni | 82 | 12 | 35 | 49 | 35 |
| Co | 23 | 21 | 18 | 19 | 12 |
| FeO/MgO | 0.01 | 0.02 | 0.01 | 0.02 | 0.01 |
| K ₂ O/Na ₂ O | 0.15 | 0.15 | 0.13 | 0.14 | 0.11 |
| Ba/La | 29.5 | 25.6 | 24.7 | 25.8 | 37.6 |
| Rb/Sr | 0.04 | 0.06 | 0.04 | - | - |
| La/Sm | 4.0 | 3.8 | 4.7 | 4.2 | 4.5 |
| Eu/Eu* | 0.98 | 1.02 | 0.89 | 0.97 | 0.92 |
| Sm/Yb | 3.60 | 6.70 | 3.92 | 5.14 | 4.55 |
| La/Yb | 14.5 | 25.7 | 18.4 | 21.7 | 20.3 |
| Th/La | 0.15 | 0.22 | 0.19 | 0.15 | 0.19 |
| Ba/Ta | 1677 | 1692 | 1611 | 2004 | 2180 |
| La/Ta | 57 | 66 | 65 | 78 | 58 |
| Th/U | 4.3 | 4.8 | 4.4 | 3.7 | 2.5 |
| Age (Ma) | 3.1±0.8 | | | 2.9±0.6 | |
| Lat. UTM | 6223.90 | 6225.20 | 6231.00 | ET2 - XC77 - mine | |
| Long. UTM | 375.30 | 377.85 | 361.60 | ET-5 - km 5 Caletones Rd | |

Cornell University analyses for ET2 and ET5. Others from SERNAGEOMIN and USGS - see Godoy (1993). Age of ET-5 is from sample 17 in Cuadra (1986). KET142b from Table 2 in text.

Data Repository item 2005021

Table DR 9a. Major and trace elements of plutonic units.

| Sample Pluton | Old Plutonic Complex | | | | Teniente Plutonic Complex (older group) | | | | Teniente Plutonic Complex (younger group) | | | | Teniente Plutonic C | | | | |
|------------------------------------|----------------------|--------------------|------------------------|--------------------|---|------------------|------------------|-------------------------|---|--------------------|-----------|------------------------|---------------------|--------------------|-----------|-----------|--|
| | ETP-1 La Obra | ETP-17 S. Rengo | ETP-10a Alfalfalito | ETP-5 Lago Yeso | ETP-2A San Gabriel | ETP-4 Romeral | ETP-3 Melosas | ETP-6A C° Cortaderal | ETP-6B C° Cortaderal | ETP-6C KET-158c | KET-123 | ETP-13 Mina Juanita | ETP-9 Carlota | ETP-12 Extravio | | | |
| SiO ₂ | 70.86 | 65.04 | 61.75 | 67.85 | 68.29 | 58.63 | 69.20 | 60.04 | 57.99 | 61.44 | 57.09 | 65.15 | 66.61 | 64.87 | 62.87 | 61.62 | |
| TiO ₂ | 0.35 | 0.62 | 0.89 | 0.43 | 0.48 | 0.82 | 0.44 | 0.91 | 0.85 | 1.05 | 0.82 | 0.87 | 0.57 | 0.64 | 0.81 | 0.81 | |
| Al ₂ O ₃ | 14.43 | 16.43 | 16.74 | 16.44 | 15.35 | 16.73 | 15.05 | 17.30 | 18.75 | 16.70 | 19.08 | 15.57 | 15.89 | 16.17 | 16.32 | 16.53 | |
| FeO* | 2.95 | 4.11 | 5.85 | 2.37 | 3.19 | 5.70 | 2.99 | 5.85 | 6.98 | 5.34 | 5.68 | 4.43 | 3.30 | 4.13 | 5.04 | 5.56 | |
| MnO | 0.11 | 0.10 | 0.07 | 0.06 | 0.08 | 0.15 | 0.04 | 0.08 | 0.12 | 0.07 | 0.12 | 0.10 | 0.06 | 0.07 | 0.04 | 0.10 | |
| MgO | 1.17 | 1.87 | 2.11 | 1.14 | 1.60 | 4.33 | 1.46 | 2.77 | 2.49 | 2.53 | 2.96 | 0.95 | 1.00 | 1.69 | 2.41 | 3.05 | |
| CaO | 3.08 | 4.02 | 4.27 | 4.03 | 3.26 | 6.42 | 3.12 | 5.77 | 6.35 | 5.66 | 7.46 | 2.24 | 2.46 | 3.47 | 4.92 | 5.63 | |
| Na ₂ O | 3.55 | 4.35 | 4.33 | 5.63 | 4.08 | 4.87 | 4.02 | 4.15 | 4.14 | 4.48 | 5.07 | 5.60 | 4.15 | 4.14 | 3.78 | 3.82 | |
| K ₂ O | 3.25 | 3.27 | 3.78 | 1.80 | 3.51 | 2.17 | 3.49 | 2.81 | 2.03 | 2.45 | 1.43 | 3.13 | 4.89 | 4.65 | 3.62 | 2.65 | |
| P ₂ O ₅ | 0.23 | 0.18 | 0.21 | 0.25 | 0.18 | 0.19 | 0.20 | 0.33 | 0.30 | 0.27 | 0.28 | 0.22 | 0.12 | 0.15 | 0.20 | 0.27 | |
| Volatiles | | | | | | | | | | | | | 1.14 | 0.47 | | | |
| Total | 99.98 | 99.99 | 100.00 | 100.00 | 100.02 | 100.01 | 100.01 | 100.00 | 100.00 | 99.99 | 99.99 | 99.40 | 99.52 | 99.98 | 100.01 | 100.04 | |
| La | 10.0 | 22.8 | 38.4 | 14.4 | 18.2 | 18.7 | 20.2 | 19.9 | 34.5 | 35.4 | 24.6 | 25.4 | 25.3 | 24.3 | 19.0 | 17.4 | |
| Ce | 23.2 | 43.0 | 77.7 | 33.0 | 38.8 | 44.2 | 39.2 | 47.4 | 71.3 | 78.7 | 62.2 | 53.7 | 53.5 | 55.0 | 42.9 | 40.1 | |
| Nd | 12.9 | 17.9 | 33.4 | 14.4 | 14.9 | 25.4 | 15.5 | 24.9 | 29.5 | 34.3 | 28.7 | 29.9 | 28.0 | 26.0 | 20.3 | 19.8 | |
| Sm | 3.21 | 3.95 | 7.19 | 3.14 | 3.52 | 5.43 | 3.22 | 5.97 | 5.78 | 6.89 | 5.72 | 7.31 | 5.88 | 6.48 | 4.95 | 4.54 | |
| Eu | 0.562 | 0.788 | 1.19 | 0.629 | 0.648 | 0.65 | 0.566 | 1.08 | 1.25 | 1.16 | 1.32 | 1.64 | 0.83 | 0.842 | 0.794 | 0.889 | |
| Tb | 0.615 | 0.527 | 0.936 | 0.347 | 0.516 | 0.598 | 0.402 | 0.74 | 0.71 | 0.842 | 0.74 | 0.992 | 0.74 | 0.984 | 0.693 | 0.599 | |
| Yb | 2.35 | 1.5 | 2.58 | 1.22 | 1.3 | 1.79 | 0.987 | 2.32 | 2.23 | 2.43 | 2.02 | 3.62 | 3.13 | 2.86 | 1.9 | 1.55 | |
| Lu | 0.32 | 0.205 | 0.333 | 0.159 | 0.144 | 0.223 | 0.118 | 0.301 | 0.296 | 0.343 | 0.282 | 0.509 | 0.44 | 0.391 | 0.244 | 0.207 | |
| Rb | - | - | - | - | - | - | - | - | - | - | - | 85 | 176 | - | - | - | |
| Sr | 199 | 393 | 513 | 429 | 414 | 337 | 429 | 464 | 477 | 333 | 495 | 240 | 233 | 247 | 367 | 476 | |
| Ba | 603 | 624 | 809 | 414 | 670 | 567 | 697 | 546 | 374 | 443 | 377 | 650 | 520 | 545 | 438 | 489 | |
| Cs | 8.3 | 3 | 1.8 | 1.3 | 6.3 | 15.7 | 3.6 | 2.4 | 4.1 | 1.1 | 1.6 | 2.4 | 3.5 | 2.3 | 5.3 | 6.1 | |
| U | 2.6 | 2.1 | 4.5 | 4 | 6.5 | 4.1 | 4.9 | 5.7 | 1.2 | 4.8 | 2.9 | 1.8 | 5 | 6.1 | 4.3 | 2.8 | |
| Th | 11.2 | 8.7 | 13.7 | 11.1 | 18.5 | 6.4 | 14.9 | 16.3 | 4.6 | 16.3 | 3.1 | 6.7 | 22 | 19.4 | 13.5 | 9.5 | |
| Hf | 4.4 | 5.1 | 9.6 | 4.2 | 5 | 3 | 3.9 | 6.8 | 3.8 | 6.8 | 2.9 | 6.6 | 12 | 7.8 | 7.4 | 5.1 | |
| Sc | 8 | 9 | 14 | 5 | 6 | 15 | 6 | 16 | 16 | 16 | 15 | 13 | 8 | 11 | 12 | 14 | |
| Ta | 0.32 | 0.38 | 0.86 | 0.41 | 0.59 | 0.35 | 0.52 | 0.6 | 0.25 | 0.53 | 0.19 | 0.62 | 0.72 | 0.61 | 0.49 | 0.34 | |
| Cr | 8 | 18 | 21 | 0 | 21 | 188 | 25 | 15 | 3 | 22 | 5 | <5 | 12 | 10 | 27 | 35 | |
| Ni | 3 | 10 | 18 | 3 | 13 | 37 | 14 | 15 | 7 | 18 | 5 | 3 | 4 | 8 | 108 | 17 | |
| Co | 7 | 11 | 11 | 5 | 9 | 21 | 8 | 19 | 14 | 15 | 12 | 7 | 6 | 9 | 15 | 18 | |
| FeO/MgO | 2.52 | 2.20 | 2.77 | 2.08 | 1.99 | 1.32 | 2.05 | 2.11 | 2.80 | 2.11 | 1.92 | 4.66 | 3.30 | 2.44 | 2.09 | 1.82 | |
| K ₂ O/Na ₂ O | 0.92 | 0.75 | 0.87 | 0.32 | 0.86 | 0.45 | 0.87 | 0.68 | 0.49 | 0.55 | 0.28 | 0.56 | 1.18 | 1.12 | 0.96 | 0.69 | |
| Ba/La | 60.3 | 27.4 | 21.1 | 28.8 | 36.8 | 30.3 | 34.5 | 27.4 | 10.8 | 12.5 | 15.3 | 25.6 | 20.6 | 22.4 | 23.1 | 28.1 | |
| La/Sm | 3.12 | 5.77 | 5.34 | 4.59 | 5.17 | 3.44 | 6.27 | 3.33 | 5.97 | 5.14 | 4.30 | 3.47 | 4.30 | 3.75 | 3.84 | 3.83 | |
| Eu/Eu* | 0.51 | 0.66 | 0.55 | 0.71 | 0.59 | 0.42 | 0.59 | 0.61 | 0.74 | 0.57 | 0.77 | 0.74 | 0.48 | 0.41 | 0.52 | 0.65 | |
| Sm/Yb | 1.37 | 2.63 | 2.79 | 2.57 | 2.71 | 3.03 | 3.26 | 2.57 | 2.59 | 2.84 | 2.83 | 2.02 | 1.88 | 2.27 | 2.61 | 2.93 | |
| La/Yb | 4.3 | 15.2 | 14.9 | 11.8 | 14.0 | 10.4 | 20.5 | 8.6 | 15.5 | 14.6 | 12.2 | 7.0 | 8.1 | 8.5 | 10.0 | 11.2 | |
| Th/La | 1.12 | 0.38 | 0.36 | 0.77 | 1.02 | 0.34 | 0.74 | 0.82 | 0.13 | 0.46 | 0.13 | 0.26 | 0.87 | 0.80 | 0.71 | 0.55 | |
| Ba/Ta | 1884 | 1642 | 941 | 1010 | 1136 | 1620 | 1340 | 910 | 1496 | 836 | 1984 | 1048 | 722 | 893 | 894 | 1438 | |
| La/Ta | 31 | 60 | 45 | 35 | 31 | 53 | 39 | 33 | 138 | 67 | 129 | 41 | 35 | 40 | 39 | 51 | |
| Th/U | 4.3 | 4.1 | 3.0 | 2.8 | 2.8 | 1.6 | 3.0 | 2.9 | 3.8 | 3.4 | 1.1 | 3.7 | 4.4 | 3.2 | 3.1 | 3.4 | |
| Age | 19.6±0.5 | 16.2±1.2 | 12.3±0.2 | 12.4±2.5 | 11.4±0.2 | | 11.3±0.3 | | | | | 9.8±0.4 | 9.3±0.4 | | 8.7±0.3 | | |
| Lat. | 33°35.75' | 34°33.48' | 34°5.14' | 33°39.11' | 33°47.13 | 33°48.64' | 33°49.46' | 34°22.69' | 34°22.69' | 34°22.69' | 6214.3 | 6213.1 | 34°13.36' | 33°54.80' | 34°2.31' | | |
| Long. | 70°29.41' | 70°32.45' | 70°7.21' | 70°3.87' | 70°13.26' | 70°13.26' | 70°12.57' | 70°12.92' | 70°19.87' | 70°19.87' | 70°19.87' | 372.55 | 377.45 | 70°19.32' | 70°20.09' | 70°16.35' | |

All analyses at Cornell University except KET123.

⁴⁰Ar/³⁹Ar ages from Kurtz et al. (1997). ETP-17 and ETP-5 on hornblende, others on biotite. K/Ar age on KET123 from Table 2 in text.

Data Repository item 2005021

Table DR9b. Major and trace elements of plutonic units.

| Sample Name | Teniente Plutonic Complex (younger group) | | | Young Plutonic Complex | | | |
|------------------------------------|---|------------|------------|------------------------|-----------|-------------|----------------|
| | ETP-8A | ETP-8B | ETP-7 | ETP-11 | ETP-14 | ETP-16 | ETP-15 |
| | Estero Crucero | Nacimiento | Cortaderal | Jeria | Las Leñas | C° Catedral | Cruz de Piedra |
| SiO ₂ | 69.73 | 59.16 | 66.21 | 62.83 | 64.40 | 59.31 | 68.56 |
| TiO ₂ | 0.35 | 0.84 | 0.57 | 0.69 | 0.55 | 0.85 | 0.43 |
| Al ₂ O ₃ | 15.81 | 16.90 | 16.06 | 17.07 | 16.59 | 17.51 | 16.51 |
| FeO* | 2.60 | 6.62 | 3.71 | 4.13 | 3.84 | 7.28 | 2.63 |
| MnO | 0.06 | 0.12 | 0.04 | 0.11 | 0.04 | 0.15 | 0.04 |
| MgO | 0.91 | 3.73 | 1.85 | 2.90 | 2.65 | 3.47 | 1.43 |
| CaO | 2.86 | 6.50 | 4.03 | 5.97 | 4.71 | 4.23 | 2.39 |
| Na ₂ O | 4.13 | 3.70 | 3.85 | 4.60 | 4.26 | 4.69 | 6.34 |
| K ₂ O | 3.30 | 2.22 | 3.44 | 1.45 | 2.80 | 2.27 | 1.49 |
| P ₂ O ₅ | 0.25 | 0.22 | 0.24 | 0.25 | 0.16 | 0.23 | 0.18 |
| Total | 100.00 | 100.01 | 100.00 | 100.00 | 100.00 | 99.99 | 100.00 |
| La | 28.9 | 21.3 | 27.4 | 17.8 | 25.2 | 22.4 | 33.7 |
| Ce | 63.7 | 48.1 | 62.3 | 37.9 | 51.0 | 47.6 | 71.8 |
| Nd | 25.9 | 25.6 | 26.3 | 18.1 | 22.5 | 24.8 | 31.0 |
| Sm | 5.07 | 5.9 | 5.46 | 3.54 | 3.88 | 4.98 | 4.83 |
| Eu | 0.838 | 1.09 | 0.86 | 0.861 | 0.829 | 1.18 | 0.84 |
| Tb | 0.57 | 0.773 | 0.74 | 0.404 | 0.444 | 0.612 | 0.401 |
| Yb | 1.38 | 2.15 | 1.88 | 1.08 | 1.39 | 1.57 | 1.1 |
| Lu | 0.175 | 0.291 | 0.22 | 0.156 | 0.184 | 0.225 | 0.152 |
| Rb | - | - | - | - | - | - | - |
| Sr | 359 | 457 | 453 | 682 | 583 | 392 | 251 |
| Ba | 598 | 417 | 695 | 601 | 667 | 564 | 740 |
| Cs | 4.4 | 4.5 | 4.1 | 0.6 | 2.8 | 1.5 | 2.2 |
| U | 4.7 | 3.7 | 7.7 | 0.9 | 2.4 | 3.3 | 2.3 |
| Th | 13.5 | 10.8 | 23.3 | 3.8 | 9.8 | 5.7 | 6.6 |
| Hf | 4.1 | 4.9 | 5.4 | 3.9 | 4.8 | 4.1 | 3.8 |
| Sc | 4 | 17 | 9 | 10 | 10 | 13 | 5 |
| Ta | 0.79 | 0.53 | 0.72 | 0.4 | 0.86 | 0.64 | 0.4 |
| Cr | 5 | 74 | 19 | 38 | 72 | 24 | 26 |
| Ni | 5 | 34 | 12 | 17 | 26 | 13 | 10 |
| Co | 4 | 22 | 11 | 11 | 13 | 21 | 5 |
| FeO/MgO | 2.86 | 1.77 | 2.01 | 1.42 | 1.45 | 2.10 | 1.84 |
| K ₂ O/Na ₂ O | 0.80 | 0.60 | 0.89 | 0.32 | 0.66 | 0.48 | 0.24 |
| Ba/La | 20.7 | 19.6 | 25.4 | 33.8 | 26.5 | 25.2 | 22.0 |
| La/Sm | 5.70 | 3.61 | 5.02 | 5.03 | 6.49 | 4.50 | 6.98 |
| Eu/Eu* | 0.58 | 0.61 | 0.52 | 0.85 | 0.74 | 0.80 | 0.67 |
| Sm/Yb | 3.67 | 2.74 | 2.90 | 3.28 | 2.79 | 3.17 | 4.39 |
| La/Yb | 20.9 | 9.9 | 14.6 | 16.5 | 18.1 | 14.3 | 30.6 |
| Th/La | 0.47 | 0.51 | 0.85 | 0.21 | 0.39 | 0.25 | 0.20 |
| Ba/Ta | 757 | 787 | 965 | 1503 | 776 | 881 | 1850 |
| La/Ta | 37 | 40 | 38 | 45 | 29 | 35 | 84 |
| Th/U | 2.9 | 2.9 | 3.0 | 4 | 4.1 | 1.7 | 2.9 |
| Age | | 8.8±0.1 | 8.4±0.3 | 6.6±0.1 | 5.5±0.02 | | |
| Lat. | 34°12.18' | 34°26.54' | 34°35.81' | 34°0.63 | 34°12.18' | 34°24.12' | 34°13.51' |
| Long. | 69°55.59' | 70°8.07' | 70°14.18' | 70°1.13' | 69°55.59' | 70°3.4' | 70°4.58' |

All analyses at Cornell University.

⁴⁰Ar/³⁹Ar biotite ages from Kurtz et al. (1997).