

contents of the PGG database

petrography geochemistry geophysical logs mineralogy stratigraphy

This database contains petrographic, geochemical, and geophysical data for volcanic, sedimentary, and plutonic rocks of the 10,000 square kilometer southwestern Nevada volcanic field ([SWNVF](#)), which includes the entire Nevada Test Site (NTS). The database complies with protocols of Structured Query Language (SQL), allowing construction of relationships among these data, from micrometer-diameter spots chemically analyzed by microprobe within individual mineral grains, to stratigraphic identities for rock columns within drill holes, and outcrop up to 4 km thick. For descriptions of database tables, including the number of records within each table, see "Downloads from the PGG database" via the homepage.

- **Locations** - All data reference a location via the *loc_id*, described in database table *location*.
- **Samples and splits** - All petrographic and geochemical data reference samples via the *sam_id*. Geophysical data and geologic intervals, in contrast, do not reference samples. The database describes *sam_ids* in database table *sample*. Splits define specific portions of samples used for petrographic or geochemical analyses, as described below.
- **Petrographic and mineralogic analyses** - Petrographic analyses include standard and photomap-documented analyses.
 - The database describes *split_ids* in database table *pa_split* for petrographic splits in table *pa_measure*.
 - The database describes individual grain components in database table *ma_gr_measure* and individual clasts in database table *ma_clast_measure* from petrographic splits with photomap-documented petrographic analyses. Detailed petrographic analyses are based primarily on these data.
 - The database describes quantitative and qualitative microprobe analyses in database table *probe_rep*. Quantitative analyses are provided in database table *probe_measure*; qualitative analyses are used to ascertain or confirm the identity of grain components.
 - The database describes analyses for bulk mineralogy by X-ray diffraction analysis (XRD) in database table *xrd_split*, with analyses provided in table *xrd_measure*.
- **Chemical analyses and age dates** - The database describes *split_ids* in database table *ca_split*, with chemical analyses provided in database table *ca_measure*. Analyses, which include almost all elements of the periodic table, were obtained primarily by X-ray fluorescence (XRF) and neutron activation analysis (NAA). The database describes age dates in database table *age_measure*.
- **Layers within vertical rock columns (geologic intervals)** - The database defines the stratigraphic assignment for layers within NTS drill holes in database table *strat_int*, the lithology in *lith_int*, the alteration in *alt_int*, and fractures and lithophysal zones in *frac_physae_int*. These definitions, termed geologic intervals, are comprehensive for all of the Pahute Mesa testing area of the NTS, and for the southern half of the Yucca Flat area.
- **Geophysical (log) data** - The database provides individual log analyses (runs) in database table *geophys_int*. Most runs represent unique combinations of drill hole (*loc_id*) and log type (*log_type_code*), but many multiple runs repeat measurements for a log type that overlap in depth partially or in entirety with a single drill hole. Almost all logs were obtained from the eastern half of the Pahute Mesa testing area

of the NTS, and for the southern half of the Yucca Flat area.



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[Home](#)