The Nevada Bureau of Mines and Geology (NBMG) sample catalog is a consolidation of the lists of a number of small NBMG rock sample collections accumulated mostly by NBMG personnel, the Thomas P. Nolan Tonopah collection, the oil and gas and geothermal cuttings and core collection, the mineral exploration sample collection, NBMG mineral resource inventory collection, NBMG geochemical sampling and characterization project collections, samples collected from some Yucca Mountain studies, and a few miscellaneous collections.

Samples that have been analyzed are linked to their geochemical data. The geochemical data is listed in three tables. In each table, the samples were analyzed by different methods and not for all the same sets of elements. One table contains the data from over 4,000 samples collected from mines and prospects around the state in the 1980s and early 1990s as part of cooperative agreements between the NBMG and the U. S. Bureau of Land Management to evaluate mineral resources. A second table contains the data from over 400 samples collected from unmineralized sites covered by the Winnemucca 30’ x 60’ Quadrangle as part of the NBMG Geochemical Sampling and Characterization program, which analyzed samples for the background geochemistry when mineralization was not present. A third table contains the combined geochemical data from several sets of samples collected to add to or to supplement the collections that make up the first table noted above. It also contains the geochemical data from some samples with analyses in the first table but reanalyzed. The sources of these geochemical data can be found in the column entitled: NBMG INFORMATION SOURCE.

For more information, please contact: David A. Davis, NBMG Geologic Information Specialist; e-mail: ddavis@unr.edu; phone: 775-784-6691 x 133.

**DESCRIPTION OF FIELD HEADINGS FOR THE NBMG SAMPLE CATALOG**

**INDEX, 6-NO., LETTER:** Sample accession numbers. The letter prefix denotes the various original collections. Prefixes starting with “MR” denote mineral resource samples. Prefixes starting with “X” denote samples collected for purposes other than mineral resource data, though some of these may still be useful for mineral exploration. An attempt was made to make any original sample number part of the accession number.

**MRDS:** NBMG dimension stone study collection.

**MREX:** NBMG sample library. MR refers to mineral resource (though a few samples were not collected with this in mind) and is part of the prefix for several other mostly mineral resource collections.

**MRFF:** Fossil fuels – mostly oil and gas well cuttings and some core. The State of Nevada requires two sets of cuttings to be turned in upon completion of an oil well.
MRGT: Geothermal - mostly geothermal well cuttings and some core. The State of Nevada requires a set of cuttings to be turned in upon completion of a geothermal well.

MRHB: Harold F. Bonham, Jr., (retired NBMG geologist) collection of miscellaneous samples.

MRHS: Harold K. Stager (retired USGS geologist) collection of miscellaneous, mostly tungsten, samples.

MRJS: John H. Schilling (former NBMG Director) molybdenum collection. Not all samples in this collection are of molybdenum minerals.

MRKP: Keith G. Papke (former NBMG Industrial Minerals Geologist) collections. These collections include sets for barite, clay, fluorspar, gypsum, talc, and zeolite.

MRLG: Larry J. Garside (NBMG geologist) uranium collection

MRLV: Las Vegas Valley Water District water well cuttings.

MRMX: MX ICBM Project water well cuttings.

MRRM: Joseph V. Tingley (former NBMG geologist) Round Mountain collection.

MRTN: Thomas B. Nolan Tonopah collection

NBMG: Nevada Bureau of Mines and Geology sample collection from mines, prospects, and mineral deposits and occurrences. Most of these samples have geochemical analyses.

XSHP: Project Shoal core.

XGSW: Geochemical sampling and characterization project, Winnemucca 1:100,000 topographic map. Most of these samples have geochemical analyses.

SAMPLE: Sample and/or collection site name.

COMMODITY: List of commodities a mineral source sample was collected for.

TYPE: What the sample is, such as: chip board, concentrate, core, cuttings, dust, hand sample, thin section, plug, or pulp.

BUILDING: Building the samples are in such as:

    NCS – North Core Shack
SCS – South Core Shack

SEM – Scrugham Engineering and Mines Building

Stead – Core storage at Stead

DRAWER/ROOM/ROW/BOX: Location of the sample within the building.

NUMBER OF BOXES: Number of boxes containing the sample. Core and cuttings commonly have more than one box.

LOCATION: Original location information, other legal descriptions, reported with sample.

UTMn, UTMe, NAD, ZONE: Any UTMs measured for collection site. All are from Zone 11, and most are NAD 27.

TWP, RNG, SEC, QSEC, MERIDIAN: Legal description (township, range, section, quarter section) when known.


100K QUADRANGLE: 30’ x 60’ topographic quadrangle the sample site is located on.

QUADRANGLE: 7.5 minute or 15 minute topographic quadrangle the sample site is located on.

COUNTY, STATE, COUNTRY: Political area that contains the site location.

DATE: Date the sample was collected or the well was completed.

COLLECTOR/COMPANY/DONOR: Source of the acquisition.

PROJECT/PERMIT NOS.: Project name or oil and gas or geothermal permit number that the sample was collected under.

WELL: Oil and gas, water, or geothermal well or mineral exploration drill hole designation.

FORMATION: Geologic formation the sample was collected from.
GEOLOGIC AGE: Geologic age of the sample.

OTHER NUMBER: Any other number used in the past to identify the sample.

COLL NUMBER: Any number the sample had in the collection the sample was in originally.

NOTES: Any remarks or other information involving the sample. These may include whether or not the sample has been skeletonized, if logs are available, the cutting intervals, owner name changes, etc.

NBMG INFORMATION SOURCE: Nevada Bureau of Mines and Geology publications that Contain information on the sample. See NBMG PUBLICATIONS below for list of publications.

ANALYZED: Link to any chemical information the Nevada Bureau of Mines and Geology has analyzed the sample for. Original tables and metadata involving the analyses can usually be found in the publication noted in the NBMG INFORMATION SOURCE column.

LINKS: Links to other information concerning the sample.

DESCRIPTION OF FIELD HEADINGS FOR ANALYSES OF SOME SAMPLES IN THE NBMG SAMPLE CATALOG

INDEX: Sample accession numbers.

SAMPLE NUMBER: Original sample number.

LAB NUMBER: Number assigned by laboratory. Few samples have this number.

ELEMENT: Element analyzed for using the standard chemical symbol. Some samples were also measured for LOI (Loss on Ignition) and Density.

UNITs: The units the geochemistry was reported in. These mostly include ppm (parts per million) and percent (%). The data for the few in which Density was measured are reported in grams per cubic centimeter (g/cc).

METHOD: The methods used for analyzing the samples. This was not reported for all elements. Also, the detection limits and error range were not always obvious, but when reported, can be found in the NBMG publications listed in the NBMG INFORMATION SOURCE column. The methods include:

AA: Atomic Absorption

Air Picnometer
BO2 Fus.: Lithium Metaborate Fusion
Cold Vap: Cold Vapor Atomic Absorption
DC Plasma: Direct Coupled Plasma Optical Emission Spectrometer
GFAA: Graphite Furnace Atomic Absorption
Gravimetric
ICP: Inductively Coupled Plasma Optical Emission Spectrometer
INAA: Instrumental Neutron Activation Analysis
Leco: Brand name method for analyzing sulfur and carbon
Spectrograph
XRF: X-ray Fluorescence

LABORATORY: The laboratory, when reported, that did the analyses. These include:

ACME: Acme Analytical Laboratories, Ltd.
USGS: U. S. Geological Survey
USML: U. S. Mineral Laboratories

NBMG PUBLICATIONS


