The Facility

The Core Research Center (CRC) of the U.S. Geological Survey (USGS), located at the Denver Federal Center in Lakewood, Colo., currently houses rock core from more than 8,500 boreholes representing about 1.7 million feet of rock core from 35 States and cuttings from 54,000 boreholes representing 238 million feet of drilling in 28 States. Although most of the boreholes are located in the Rocky Mountain region, the geologic and geographic diversity of samples have helped the CRC become one of the largest and most heavily used public core repositories in the United States.

Many of the boreholes represented in the collection were drilled for energy and mineral exploration, and many of the cores and cuttings were donated to the CRC by private companies in these industries. Some cores and cuttings were collected by the USGS along with other government agencies. Approximately one-half of the cores are slabbed and photographed. More than 18,000 thin sections and a large volume of analytical data from the cores and cuttings are also accessible. A growing collection of digital images of the cores are also becoming available on the CRC Web site.

Visitors and Tours

Cores and cuttings are available for viewing by appointment only. Tours of the CRC are available for school groups and private parties. Tour size is limited to 30 individuals. Call (303) 202–4851 or send an e-mail to *crc@usgs.gov* to reserve table space or to schedule a tour.

USGS scientist examining a core sample in the core examination room

Entrance S–25 of Building 810 of the Denver Federal Center

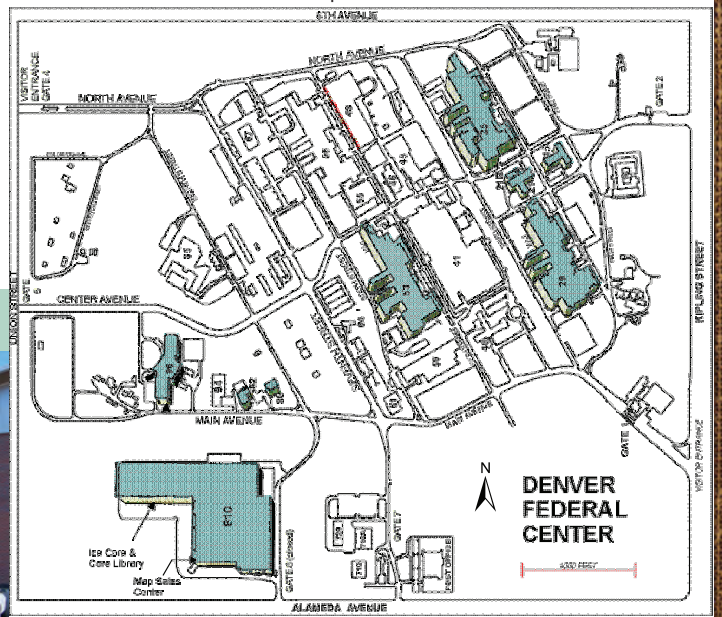
Hours

The Core Research Center is open to the public Monday through Friday, from 8:30 a.m. to 4:30 p.m., but is closed for all Federal holidays.

For more information, contact

Core Research Center
Box 25046, MS 975
Building 810, Entrance S–25
Denver Federal Center
Lakewood, CO 80225
Telephone: (303) 202–4851
Fax: (303) 202–4856
E-mail: *crc@usgs.gov*
Internet: *http://geology.cr.usgs.gov/crc/*

Denver Federal Center street map



Core Research Center

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Core Examination Room

The CRC offers an environment for core examination and sampling. A large, well-lit, climate-controlled core examination room provides space to examine up to 1,700 feet of slabbed core at one time. Binocular microscopes, ultraviolet lights, and hydrochloric acid are available in the room as well. A separate cuttings examination room has microscopes and other examination equipment for those interested in viewing the large cuttings collection. In addition, a lecture hall and a small library and conference room are available. Use of these facilities is by appointment only.

Additional Services

CRC provides:

- Facilities for core workshops and symposia sponsored by educational and nonprofit organizations as well as government agencies
- Printed and digital photographs and photographic negatives of selected cores
- Petrographic microscopes for thin section examination
- Analytical data on cores for viewing and (or) copying

In addition, the CRC has many full-diameter cores. Visitors can arrange for slabbing services through a commercial company; CRC staff approval is required.

Core Research Center Mission

To preserve valuable rock core material for use by scientists from government, industry, academia, and the public, the U.S. Geological Survey established a permanent rock core storage and research facility in Lakewood, Colorado, in 1974.

Special Collections

Other unique collections housed at the facility include:

Amstrat Cuttings. The American Stratigraphic Company (Amstrat) donated its entire collection of drill cuttings to the CRC in 1993. This collection represents more than 54,000 boreholes and 238 million feet of drilling from 28 States, most of which are in the Rocky Mountain region.

Oil Shale. This is a collection of cores drilled from the Green River Formation mostly on public lands of western Colorado, eastern Utah, and southwestern Wyoming.

Cajon Pass. This core was drilled adjacent to the San Andreas Fault near Cajon Pass, Calif. The purpose was to determine the amount of stress driving fault motions and how much resistance to plate motion results from contact of the two plates along the fault.

Hawaii Scientific Drilling Program. The program yielded a 3,400-foot core drilled through the overlapping lava flows of the Mauna Loa and Mauna Kea volcanoes of Hawaii.

USGS Yellowstone Drilling Program. This is a collection of 13 individually identified cores drilled at various sites in the hot spring and geyser basins of Yellowstone National Park. The goal of the program was to study and model the complex high-temperature geothermal systems.

Manson Impact Structure. This is a small group of cores drilled by the USGS and the Iowa Geological Survey as a joint venture to study the Manson Impact Structure in north-central Iowa.

National Uranium Resource Evaluation. This collection of cores and cuttings was collected throughout the United States to evaluate the uranium resources of the United States.

Pacific Enewetak Atoll Crater Exploration. This is a group of 33 cores collected by the U.S. Department of Defense and the USGS to better understand the dynamic properties of strategic-scale nuclear bursts and their effect on geologic structures.

Castle Pines and Kiowa Cores. These two cores were collected to study rock formations and aquifer systems of the Denver Basin. The Denver Museum of Nature and Science, the USGS, and other collaborators drilled the Kiowa core, while the Castle Pines North Metropolitan District, the USGS, and other collaborators drilled the Castle Pines core.

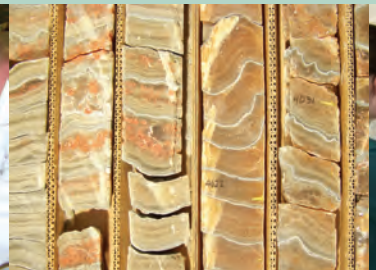
Additional information about CRC collections is available at the CRC Web site.

USGS technician transporting core samples

Forklift operator retrieving samples from the warehouse

USGS technician sawing a core sample

Slabbed core samples



USGS technician reviewing thin sections under a microscope

USGS scientist testing core samples