

SOUTH DAKOTA – 2006 Mineral Summary
Production, Exploration and Environmental Issues

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Production

Gold: Gold production and value in South Dakota increased in 2006. Wharf Resources Inc. produced 63,039 ounces of gold in 2006, and was the only company reporting gold production. This represents a slight increase in the amount of gold produced compared to 2005. Wharf is the only large scale gold mine still operating in the state. Gold continued to remain the leading mineral commodity in South Dakota in terms of value. The average price of gold in 2006 was \$603.46, yielding a gross value of about \$38 million. This was 27 percent higher than the 2005 gross value of \$27.8 million. Table 1 compares gold production for 2005 and 2006 from the active large scale gold operations in South Dakota. The mines are surface heap leach operations, with the exception of Homestake.

Table 1 – Gold Production in South Dakota – 2005 and 2006		
Company	2006 Production (ounces)	2005 Production (ounces)
Golden Reward Mining Co., LP	0	0
Homestake Mining Company	0	90
LAC Minerals (USA), LLC	0	79
Wharf Resources (USA), Inc.	63,039	62,470
Total	63,039	62,470
Estimated Value	\$38,041,515	\$27,782,908

Wharf was also the only company to report silver production, which is a by-product of its gold recovery process. A total of 184,444 ounces of silver was recovered in 2006. At an average price of \$11.55, the value of the silver was \$2,130,328. This is an increase from the 166,998 ounces and \$1,222,425 value reported in 2005.

On April 20, 2006, the Board of Minerals and Environment granted Homestake's request for partial release of reclamation liability for 514 acres of affected land at its Open Cut surface mine in Lead. This is the single largest block of acreage the board has ever released from reclamation liability. Under its mining permits, Homestake still has 108 acres that need further reclamation work prior to release of the company's remaining reclamation liability. The board also accepted Homestake's post closure plan and set a 100-year period for post closure care and maintenance. The 100-year period is necessary for long-term water treatment of mine runoff for selenium and total dissolved solids.

Work continued in 2006 on the conversion of the Homestake underground mine into a national underground science laboratory. In May, ownership of the underground mine was transferred from Barrick Gold Inc. to the South Dakota Science and Technology Authority. In June, conceptual designs for a deep underground lab were submitted to the National Science Foundation. The Authority has plans in 2007 to begin rehabilitating the mine shafts and tunnels and pumping water out of the mine in preparation for the interim lab.

There are currently 11 mine permits that cover six large scale gold mining operations in South Dakota. Wharf Resources, the only gold mine still actively mining in South Dakota, holds four of these permits. No new mine permits or mine permit amendments were issued to large scale gold operations in 2006.

Industrial and Other Minerals: Industrial and other mineral production for 2006 is summarized in Table 2. During the 2006 reporting period, 497 companies and individuals had active mine licenses in South Dakota. An operator must obtain a license to mine for sand, gravel, pegmatite minerals, materials used in the process of making cement or lime, and rock to be crushed and used in construction. There were also 36 mine permits that cover mining other minerals such as slate, bentonite, placer gold, and dimension stone.

Table 2 – 2006 Non-Metallic Mineral Production	
Mineral	Production (Tons)
Bentonite	16,300
Dimension Stone	283,971
Gypsum	47,281
Iron Ore	3,847
Limestone	3,973,141
Mica Schist	7,963
Pegmatite Minerals	3,098
Placer Gold Ore	18
Quartzite	3,359,843
Shale	249,974
Slate	3,650
Sand & Gravel	15,605,788

Source: Annual reports submitted by mining companies

Sand and gravel remained the major non-metallic mineral commodity produced during 2006 with 15,605,788 tons reported. Sand and gravel is produced in nearly every county in South Dakota and is used mainly for road construction projects.

Limestone became the second most prolific non-metallic mineral commodity produced during 2006 with 3,973,141 tons reported. Limestone is produced in the Black Hills of western South Dakota and is used primarily in the production of cement and for construction projects. Quartzite production followed closely in third at 3,359,843 tons reported in 2006. It is quarried from four locations in southeastern South Dakota. Most of the quartzite is crushed and used in construction. Some larger blocks are used for rip-rap, railroad ballast, and occasionally for decorative purposes.

A total of 283,971 tons of dimension stone was mined by Dakota Granite Company and Cold Spring Granite Company from quarries near Milbank in northeastern South Dakota. Due to its beauty and distinctive red color, the “mahogany” granite is used primarily for monuments and building construction. Much of it goes to international markets.

Other minerals produced in smaller amounts during 2006 include bentonite, mica schist, pegmatite minerals (feldspar, mica, rose quartz), placer gold, shale, and slate.

Exploration

In 2006, one exploration permit was issued by the department. The permit was granted to GCC Dacotah, a cement production company. GCC Dacotah will explore for limestone reserves within Pennington County in the central Black Hills.

The department received two applications for exploration operations in the Black Hills in 2006. Powertech (USA) Inc. submitted a uranium exploration application in July 2006 for an area in the southern Black Hills located northwest of Edgemont. In January 2007, the Board of Minerals and Environment unanimously approved the uranium exploration permit. Powertech plans to begin exploration operations in spring 2007. Capella Resources Inc. submitted an application to the department for gold exploration in the northern Black Hills. The permit had not been issued by the end of 2006.

Gold exploration activities in South Dakota increased in 2006 compared to the previous year. Wharf Resources Inc. drilled nearly 70 new exploration holes in 2006, and two placer gold operations reported exploration activities.

Environmental Issues

Gilt Edge Mine: EPA continued acid water treatment at the Gilt Edge Superfund Site in 2006. A total of 99.7 million gallons were treated and discharged in 2006, and water treatment will continue in 2007. EPA and the state continue to prepare plans to reclaim the rest of the site, including the mine pits and heap leach pad. A feasibility study outlining reclamation options is scheduled to be completed in October 2007.

New In Situ Leach Mining Regulations Promulgated and Adopted: Due to growing interest in uranium mining and to prepare for the possibility of uranium in situ leach mining operations moving into South Dakota, the 2006 Legislature passed a bill authorizing the Board of Minerals and Environment to promulgate rules for the construction, operation, monitoring, and closure of uranium and other in situ leach mines. In response to this legislation, the Department of Environment and Natural Resources prepared a draft set of rules. On January 18, 2007, the board held a public hearing on new in situ leach mining regulations. The hearing was attended by representatives of the uranium mining industry, environmental organizations, and Native American groups. After considering written and oral comments from the public and the department, the board adopted the rules.