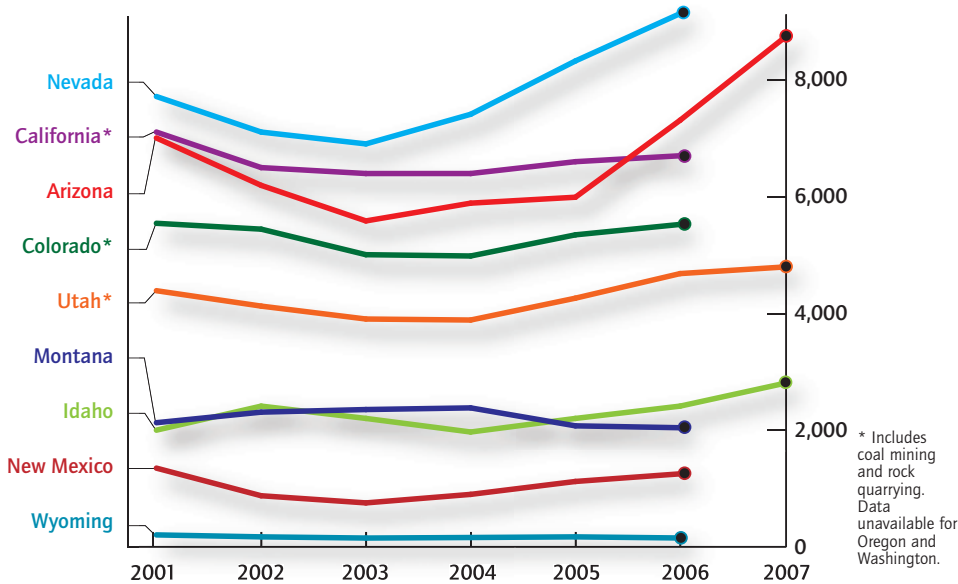
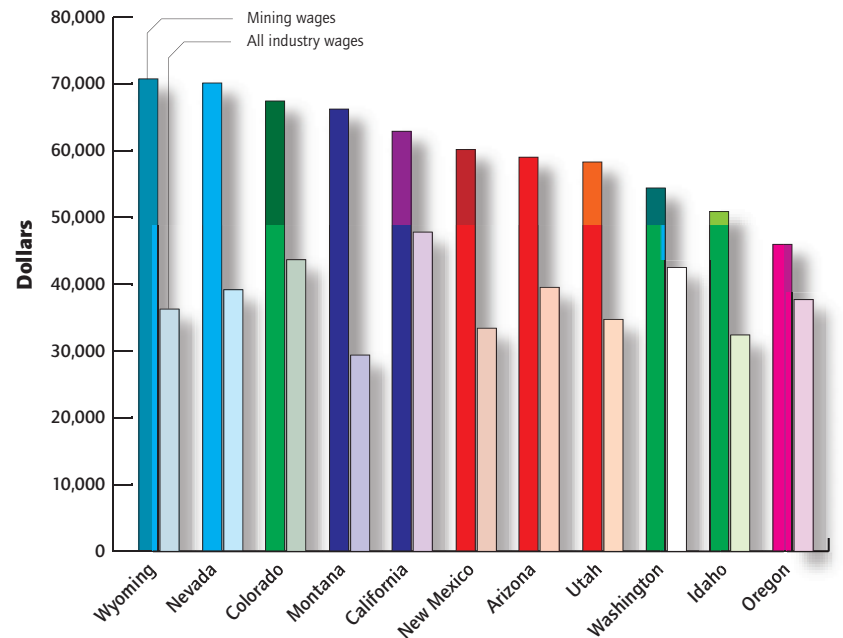


# MINING THE WEST

## METALS MINING WORKFORCE, 2001-2007



## MINING SALARIES



## THE WORLD'S BIGGEST TRUCK

Hardrock miners sure aren't using gold pans and pickaxes anymore. In an industry where efficiency is critical to profit margins, bigger usually means better, and technological thresholds have risen like the price of gold. According to MiningTechnology.com, hauler trucks in the 1950s had an average capacity of 30 tons. By the mid-'80s, 240 tons was standard. But all that became old news in 2003, when German manufacturer Liebherr produced the king of all dump trucks: the T282B. —Francisco Tharp



**1 ENGINE** That thing got a V8? No, silly, it's a 90-liter, 20-cylinder, 20V4000 MTU DD diesel engine rated at 3,650 horsepower. The T282B burns about 50 gallons per hour — enough to drive a diesel Jeep Cherokee Laredo from Denver to Lake Tahoe. With a combustion engine powering two electric motors that turn the rear wheels, it's "more like a huge electric railroad locomotive than a conventional truck," says former Liebherr designer Francis Bartley.

**2 DRIVER** Since big haulers like the T282B don't drive on roads (thank goodness), operators don't need a special license. Some heavy machinery experience helps, and you'll need to pass a physical and drug test. Depending on the mining operation, you'll need 40 or more supervised hours in the luxurious cab, too. And yes, the driver's seat has double lumbar support.

**3 BODY** "It's like a two-story house moving down the street," says Rodney Taylor, a former dump truck operator at Utah's Lisbon Valley Mine. At 48 feet long, the Liebherr T282B could steal the parking spots of four VW Beetles —

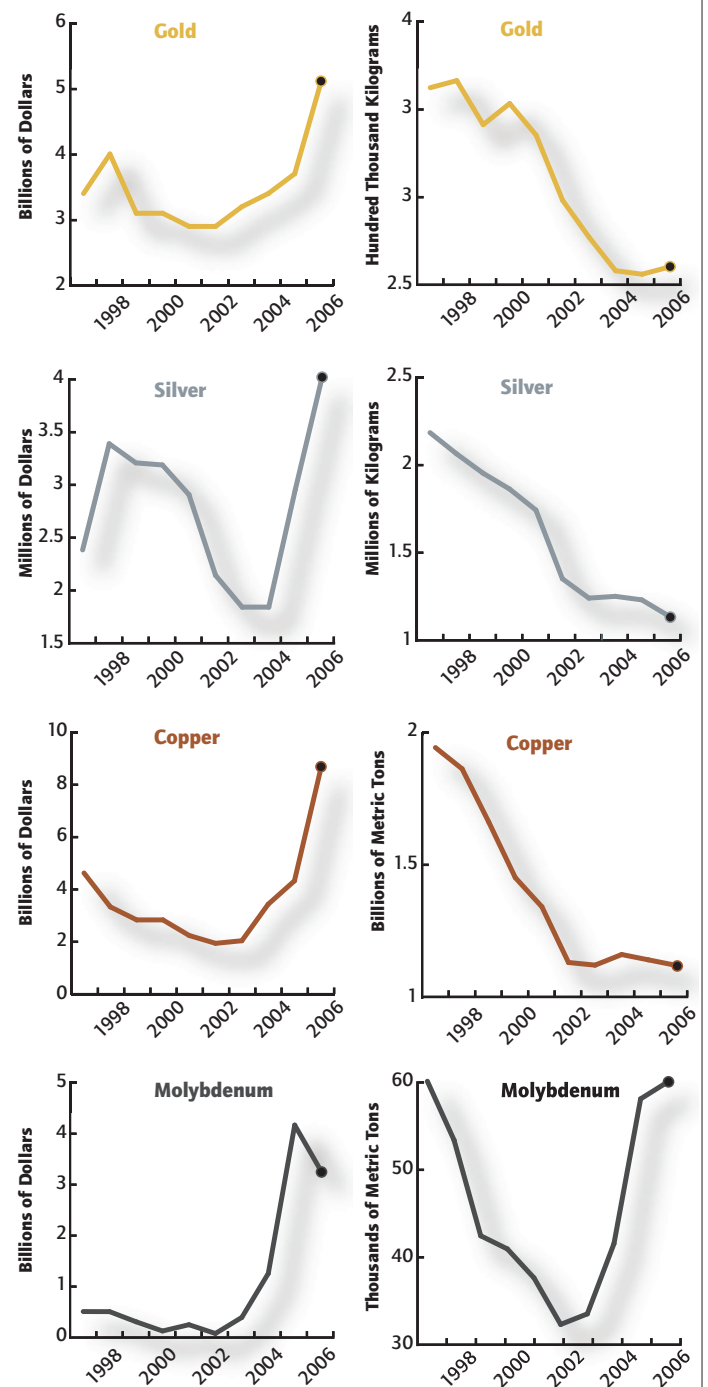
with the help of its side and rear video cameras, that is. With a body like that, no wonder it costs over \$4 million.

**4 CAB** After ascending any of three 17-step staircases, you can enjoy the "spacious, high visibility" operator suite cabin with "plenty of storage," climate control, and insulation against sound, vibration and dust. With an optional CD player, you can crank some Guns N' Roses and give hardrock mining a whole new meaning.

**5 TIRES** The 13-foot-tall tires could squash a pickup like a bug. "The first time I was in (the truck) at a mine, the driver started to drive away and actually ran into the back of a service truck. It seems we mashed it down to the ground. I saw someone yelling, but we didn't feel a thing," Bartley told *New Scientist*.

**6 LOAD** This 255-ton modern-day mule can carry 400 tons of ore, putting it at over 650 tons fully loaded. And the good news is, the T282B won't nibble at your arm, and it only gets stubborn if you run out of diesel — or tip it over, in which case you just go grab the nearest crane.

## METALS REVENUE AND PRODUCTION, 1997-2006



COURTESY OF LIEBHERR MINING EQUIPMENT COMPANY

**IDAHO**

The old silver-mining town of Kellogg in northern Idaho, declared a Superfund site in 1983, is remaking itself as a ski destination. Five years ago, a home cost \$30,000. Now, a new condo – built with a “mining theme” – fetches as much as \$800,000, putting it slightly out of the range of most miners. The Sunshine Silver Mine just east of Kellogg – scene of one of the worst mining disasters in U.S. history – reopened in 2007 after six years of dormancy. In 2005, the Golden Chest Mine, east of the historic gold mining district of Murray, also reopened.



COURTESY SILVER MOUNTAIN SKI RESORT

SOURCES: ASSOCIATED PRESS; STERLING MINING COMPANY, NEW JERSEY MINING COMPANY, METALINE CONTACT MINES, AND WALLACE-ID.COM

**MONTANA**

The Troy Mine in northwestern Montana reopened in December 2004. Revett Minerals employs about 300 workers and processes roughly 6,500 tons of copper- and silver-bearing ore per day, about two-thirds of what it produced when Asarco shut it down in 1993. Production will continue for the next three to five years, until the ore body is depleted. Revett Minerals' controversial Rock Creek Mine may begin digging for silver and copper by the end of next summer in the Cabinet Mountains Wilderness. It's estimated that the proposed mine could yield 10,000 tons of ore each day for 20 years.

SOURCES: THE MISSOULIAN, REVETT MINERALS



COURTESY ROYAL GOLD

**37 tons**

Amount of low-grade ore that must be mined to produce 1 ounce of gold.

**\$906 and \$651**

Price of an ounce of gold on Feb. 7, 2008, and price one year earlier.

**\$316**

Gross profit per ounce of gold made by Phoenix-based Freeport-McMoRan when gold is selling at \$566 per ounce.

**\$52 billion**

Estimated cost to reclaim the thousands of abandoned hardrock mines that litter the country.

**\$18.4 billion**

Operational profits posted by multinational mining giant BHP-Billiton last year.

**52 million**

Tons of greenhouse gases emitted in '06-'07 by BHP-Billiton operations.

**\$1 billion**

Cost to clean up the Coeur d'Alene mine site in Idaho.

**\$3.13**

Price of a pound of copper in January 2008.

**\$2.44**

Gross profit Freeport-McMoRan says it earns on each pound of copper sold at that price.

**1.2 billion**

Pounds of copper Freeport-McMoRan sold in 2006.

**1.3 cents**

Cost in February 2008 of making a penny, which since 1982 has been 97.5 percent zinc and 2.5 percent copper. (The penny hasn't been pure copper since 1837.)

SOURCES: FREEPORT-MCMORAN COPPER AND GOLD INC. 2006 ANNUAL REPORT; BHP BILLITON 2007 ANNUAL REPORT; KITCO; EPA; EARTHWORKS; BUREAU OF LABOR STATISTICS; U.S. MINT.

**WASHINGTON**

Idaho General Mines, motivated by rising copper prices, has proposed a copper mine along the northern boundary of Mount St. Helens National Volcanic Monument. The company envisions a \$400 million operation lasting for 30-40 years. The BLM is reviewing the company's application. SOURCE: SIERRA CLUB

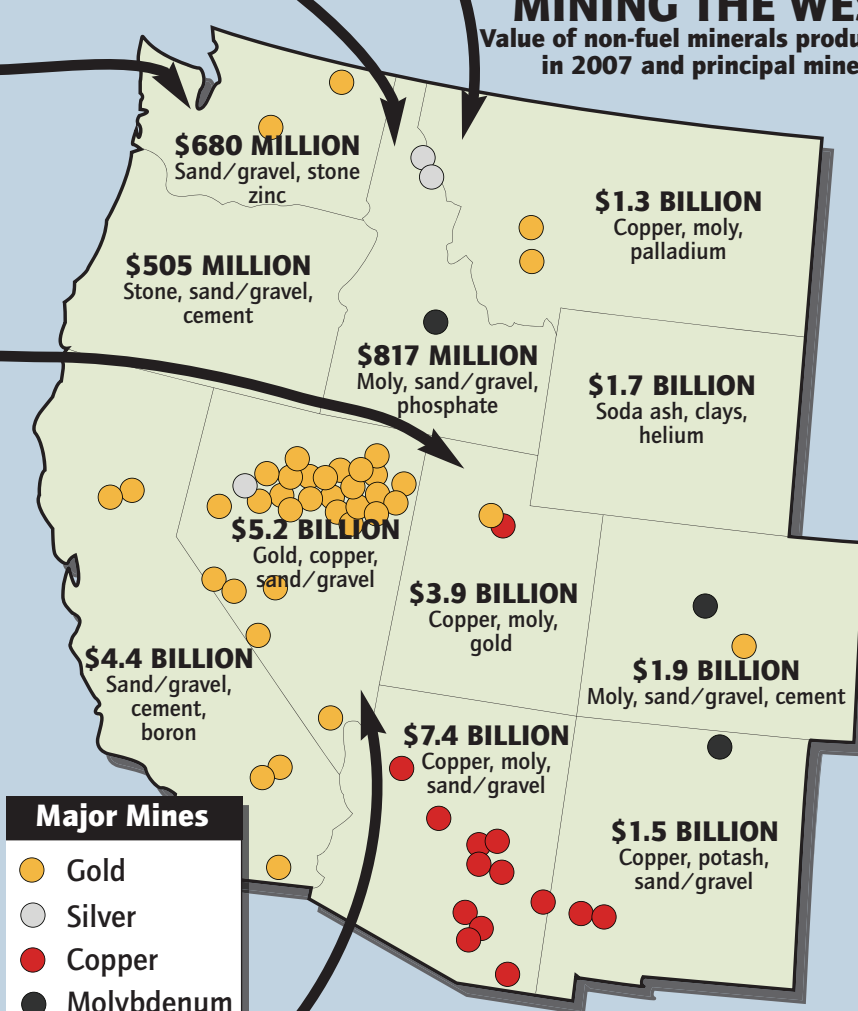
**UTAH**



NASA EARTH OBSERVATORY

The Bingham Canyon Mine outside Salt Lake City has produced 16 million tons of copper – more than any mine in history. At almost 3 miles wide and a mile deep it can be seen by astronauts on the space shuttle. Kennecott Copper, part of the Rio Tinto mining group, owns the mine. Rio Tinto is headquartered in the UK, but also maintains executive offices in Australia. Aluminum Corp. of China bought a stake in the company in early February 2008. And BHP Billiton Ltd., the world's largest mining company, is attempting a hostile takeover.

**MINING THE WEST**  
Value of non-fuel minerals produced in 2007 and principal minerals

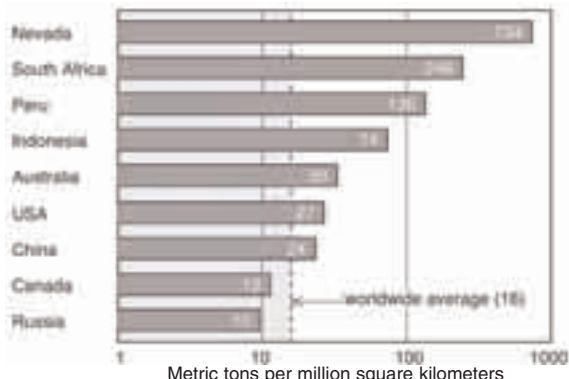


**Major Mines**

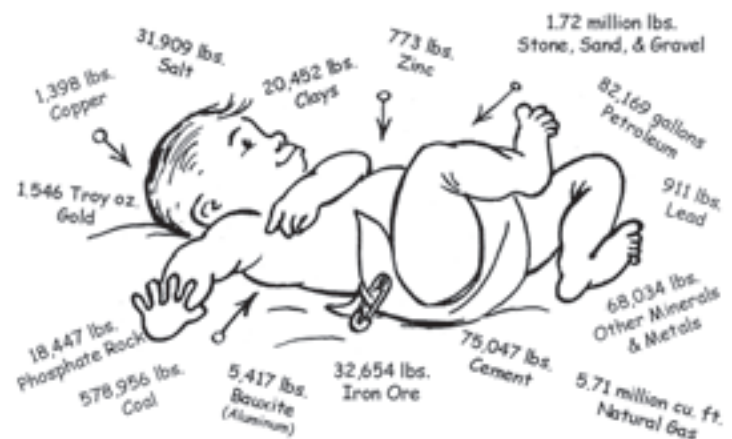
- Gold
- Silver
- Copper
- Molybdenum

**NEVADA**

**NEVADA'S GOLD PRODUCTION COMPARED TO MAJOR WORLD PRODUCERS**



**From iPods to automobiles: A lifetime of consumption**



3.7 million pounds of minerals, metals and fuels in one American's lifetime

MINERAL INFORMATION INSTITUTE

SOURCES: KENNECOTT UTAH COPPER, RIO TINTO, NEW YORK TIMES