



**NMA**

National  
Mining  
Association



# 2026

## Mining Facts





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## Mining Facts

Mine like a  
**CHAMPION**  
Today



## **AN UNPRECEDENTED GLOBAL DEMAND FOR MATERIALS AND ENERGY HAS ARRIVED.**

As nations race to deploy and adopt advanced technologies, strengthen domestic manufacturing, and modernize energy grids, the need for reliable supply chains and reliable energy has intensified. From artificial intelligence and advanced computing to electricity infrastructure and national defense systems, mining remains the foundation of the global economy and America's strategic strength.

And while mining is America's strength, our untapped potential is even greater. We now understand the self-imposed obstacles put in place decades ago when U.S. policy sidelined the development of our own natural resources in favor of foreign sources of minerals. Our investments and inaction strengthened the hold that geopolitical rivals currently have on the world's supply chains.

But perspectives have changed, and the U.S. is now enthusiastically prioritizing supply chain security and energy independence. Lengthy permitting timelines, duplicative regulations and litigation continue to delay responsible mining projects in the United States, but there is renewed momentum in favor of a new path to global leadership.

Bipartisan recognition of mining's strategic importance is now resulting in stronger federal and state initiatives to bolster domestic mining. Americans increasingly understand that materials mined here are developed under some of the world's highest environmental, labor and safety standards — reinforcing that made in America should be mined in America. With the right policies in place, it can be.

# America's Mining

AT A GLANCE



# 493,000

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Number of direct mining industry jobs.

# \$99,000

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Average annual salary for a miner, well above the U.S. average wage of \$76,000.

# 840,000

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Indirect jobs generated by the mining industry.

# \$155B

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Annual U.S. revenues generated through mining.

# 40,000 lbs

Average weight of newly mined materials used by every American each year.

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# Resources for Our Economy



**Mining is the foundation of our economy, providing the materials, manufacturing inputs and power for nearly every industry and product, keeping the lights on and bills low for families and businesses across the U.S.**

The mining industry is supported by hundreds of thousands of hardworking Americans. They are deeply proud of the contributions they make to our country each day, fueling America and supplying the materials that make our high quality of life possible and America a global leader in innovation.

# 398,000

Direct minerals mining jobs

# 95,000

Direct coal mining jobs

# 629,000

Indirect minerals mining jobs

# 211,000

Indirect coal mining jobs

# \$30-\$40B

Estimated savings achieved through coal powered electricity in 2025 when natural gas prices soared

# \$18,000,000,000

Total federal, state and local taxes attributable to mining jobs

\*Employment numbers based on MSHA Q2 2025 employment data and estimates based on historical MSHA Part 50 data, applied to IMPLAN 2018 data economic multipliers (MSHA Q4 2025 preliminary data unavailable until the end of this year due to delays from the government shutdown).

# Resources for Supply Chain Security



**Mined materials are the foundation of our economy, providing essential resources for our manufacturing, defense, energy, technology and medical supply chains. Despite this importance, the U.S. has let domestic production atrophy while our adversaries have improved their global competitive position.**

In 2025, China restricted exports of up to 10 minerals, materials and technologies that are vital to U.S. manufacturing and defense, highlighting in stark terms how exposed our supply chains are to outside manipulation.

# 54

**Number of nonfuel mineral commodities for which imports made up more than one-half of U.S. consumption.**

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# 10

**Number of minerals key to the production of batteries or semiconductors on which China imposed export restrictions in 2025, up from four in 2024.**

# 53%

**Increase in U.S. imports of platinum from Russia in the first half of 2025, compared with the same period in 2024.**

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# #1

**China and Canada are tied as the #1 suppliers of nonfuel mineral commodities for which the United States was more than 50 percent import reliant in 2025.**

# 13

**Number of minerals defined by USGS as critical minerals, for which the U.S. is 100 percent import reliant.**

# Resources for a Better Future

Technologies made possible through, and employed by, mining stimulate innovation, providing the necessary resources for a better life and a better future.

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45

Number of commercial facilities applying carbon capture, utilization and storage (CCUS) to industrial processes, fuel transformation and power generation.

20%

Energy density increases achieved in batteries made with nickel, making them smaller, lighter and more powerful.

# 99.8%

Amount of emissions reductions achieved by coal plants since the 1990s.

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# 5x

Growth in lithium demand by 2040.

# 50,000 tons

Amount of copper used in a single hyperscale data center.

# 6x

A typical electric car requires six times the mineral inputs of a conventional car, including 450+ pounds of minerals, including lithium, nickel, copper, manganese, cobalt, graphite and rare earths.

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# 8%


Percent of annual gold consumption used in high tech applications, such as semiconductors.

# 9%

Average borate concentration used in laboratory glassware (beakers, flasks), LED and specialty lighting, and high-performance smartphone and electronics components for added strength.



# **What Resources Play a Key Role in Your State?**



**bentonite, beryllium, boron,  
bromine, cement, coal, cobalt,  
common clays, copper, diatomite,  
feldspar, gemstones, gold,  
greensand marl, gypsum, helium,  
iron ore, kyanite, lead, limestone,  
lithium, magnesium metal,  
manganese, molybdenum, nickel,  
palladium, peat, phosphate,  
platinum-group metals, potash,  
rare earths, salt, sand and gravel,  
silver, soda ash, stone, titanium,  
tripoli, uranium, vanadium,  
wollastonite, zinc, zirconium**

**Alabama**

Coal, cement, stone, lime, sand and gravel, kyanite, common clays

**Alaska**

Coal, cobalt, molybdenum, nickel, zinc, gold, lead, silver, sand and gravel

**Arizona**

Copper, gold, zinc, uranium, lead, molybdenum, sand and gravel, cement, stone, silver, manganese

**Arkansas**

Bromine, stone, cement, gypsum, sand and gravel, lime

**California**

Sand and gravel, stone, cement, boron, gold, rare earths, lithium

**Colorado**

Coal, silver, lead, zinc, uranium, molybdenum, sand and gravel, cement, gold, stone

**Connecticut**

Stone, sand and gravel, common clays, gemstones, vanadium

**Delaware**

Stone, sand and gravel, magnesium, gemstones

**Florida**

Phosphate rock, stone, cement, sand and gravel, zirconium

**Georgia**

Clays, stone, cement, sand and gravel, barite, gemstones, titanium, zirconium

**Hawaii**

Stone, sand and gravel, gemstones

**Idaho**

Phosphate rock, sand and gravel, silver, lead, stone, cobalt, antimony, zinc, gold, tungsten, molybdenum

**Illinois**

Coal, sand and gravel, stone, cement, tripoli

**Indiana**

Coal, stone, cement, lime, sand and gravel

**Iowa**

Stone, cement, gypsum, sand and gravel, lime

**Kansas**

Helium, cement, salt, stone, sand and gravel, gypsum

**Kentucky**

Coal, stone, lime, cement, sand and gravel, common clays

**Louisiana**

Coal, salt, sand and gravel, stone, lime

**Maine**

Sand and gravel, stone, cement

**Maryland**

Coal, cement, stone, sand and gravel

**Massachusetts**

Stone, sand and gravel, lime, common clays

**Michigan**

Iron ore, cobalt, cement, nickel concentrates, stone, sand and gravel, salt

**Minnesota**

Iron ore, sand and gravel, stone, lime, manganese, nickel, copper, cobalt, platinum

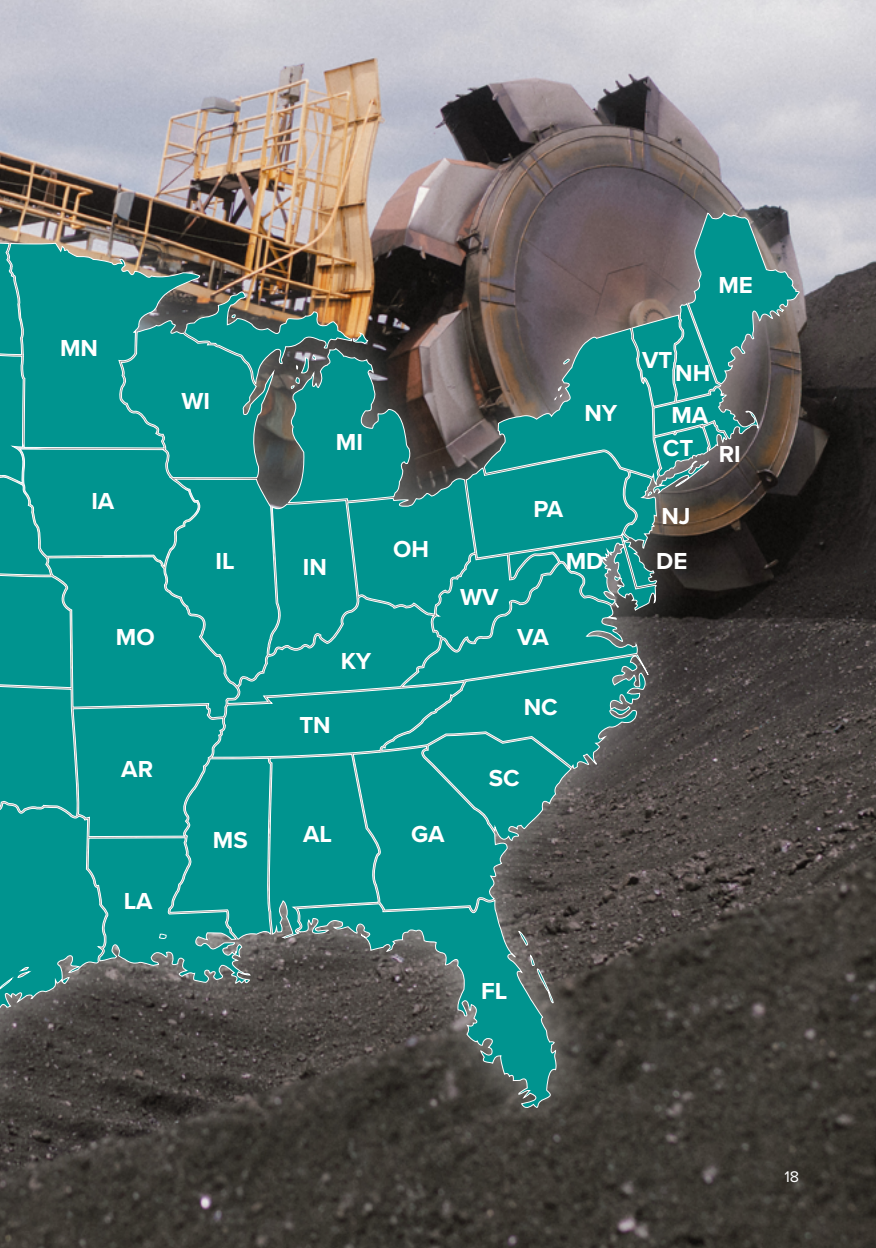
**Mississippi**

Coal, sand and gravel, stone, clays (fuller's earth, ball, bentonite)

**Missouri**

Coal, cement, stone, lead, zinc, lime, sand and gravel, copper





MN

WI

MI

ME

VT

NH

MA

CT

RI

NY

IA

IL

IN

OH

PA

NJ

DE

MD

WV

MO

KY

VA

AR

TN

NC

SC

MS

AL

GA

LA

FL

**Montana**

Coal, silver, gold, zinc, nickel, cobalt, palladium, molybdenum, copper, platinum, gemstones

**Nebraska**

Cement, sand and gravel, stone, lime, uranium, niobium, scandium, titanium

**Nevada**

Copper, gold, silver, lime, diatomite, sand and gravel, stone, gypsum, lithium

**New Hampshire**

Sand and gravel, stone, gemstones

**New Jersey**

Stone, sand and gravel, greensand marl, peat

**New Mexico**

Coal, uranium, zinc, lead, silver, gold, copper, potash, sand and gravel, cement, salt

**New York**

Salt, stone, sand and gravel, cement, wollastonite, zinc

**North Carolina**

Stone, phosphate rock, sand and gravel, feldspar, lithium

**North Dakota**

Coal, sand and gravel, stone, lime, common clays

**Ohio**

Coal, stone, salt, sand and gravel, lime, cement

**Oklahoma**

Stone, cement, sand and gravel, helium, gypsum

**Oregon**

Cement, lithium, stone, lime, sand and gravel, common clays

**Pennsylvania**

Coal, stone, cement, lime, sand and gravel

**Rhode Island**

Sand and gravel, stone, gemstones

**South Carolina**

Cement, stone, sand and gravel, gold

**South Dakota**

Gold, cement, sand and gravel, stone, lime, silver, uranium

**Tennessee**

Coal, stone, zinc, cement, sand and gravel, clays

**Texas**

Coal, stone, gypsum, sand and gravel, cement, salt, lime, uranium

**Utah**

Coal, uranium, vanadium, gold, silver, potash, salt, molybdenum, copper, lithium, magnesium metal, beryllium

**Vermont**

Stone, sand and gravel, talc, gemstones

**Virginia**

Coal, stone, cement, sand and gravel, lime, kyanite

**Washington**

Sand and gravel, stone, gold, cement, zinc, diatomite

**West Virginia**

Coal, stone, cement, lime, sand and gravel

**Wisconsin**

Sand and gravel, stone, lime

**Wyoming**

Coal, soda ash, bentonite clays, helium, copper, uranium, sand and gravel, cement, gold

# Resources That Power Our Lives

**Electricity should be accessible and affordable to all.**

Resource diversification — powered by a mix of domestic coal, natural gas, nuclear power, oil and renewable sources — ensures that U.S. households and businesses can minimize market disruptions and reduce reliance on foreign energy sources. New technologies, such as advanced coal power generation and carbon capture and storage, will give Americans energy choices that are aligned with environmental and climate objectives without having to sacrifice reliability or affordability.

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**17%**

**Portion of U.S. electricity that comes from coal.**

**18%**

**Portion of electricity generated from nuclear energy.**

# 29

Number of minerals it takes to deliver electricity to our homes and businesses.

# 85%

Portion of U.S. fossil energy reserves (coal, natural gas and oil) that comes from coal on a BTU basis.

## Electric 18

Aluminum, cobalt, copper, dysprosium, electrical steel, fluorine, gallium, graphite, iridium, lithium, magnesium, neodymium, nickel, platinum, praseodymium, silicon, silicon carbide and terbium make up the “Electric 18” — the minerals key to our energy system.

# \$30–40B

Electricity cost savings to consumers in 2025, thanks to coal, which served as a cost buffer when natural gas prices soared.

# 78%

Projected growth in U.S. power demand by 2050


# 60–70%

Percentage of global cobalt used in rechargeable batteries.

# 15–20g

Amount of silver in a solar panel.

# Resources for America's Infrastructure



## **America's miners play an indispensable role in powering and building our nation.**

From foundations to roofs, power plants to power lines, roads and bridges to communications grids and data storage centers — America's infrastructure projects begin with mining.

Roads, railways, appliances, buildings, stadiums, bridges, airports and other structures are supported by steel — a material dependent on mining. Even structures using concrete employ steel for reinforcement. And copper's flexibility, conformity, thermal and electric conductivity, and resistance to corrosion make it an ideal industrial metal.

# 70%

Portion of the world's steel that requires coal for its production.

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# 42%

Portion of U.S. copper demand that goes to the construction industry.

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# 230 tons

Amount of metallurgical coal used in a single large wind turbine.

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# 50%

Percentage of the world's zinc used as a coating to protect iron and steel from corrosion.

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# 70%

Portion of U.S. nickel consumed to make heat and corrosive resistant alloys.

# 90%

Amount of world's gypsum used for drywall in construction.

# Caring for Our People

## **Ensuring the safety and health of our colleagues is a core value of the mining industry.**

The goal? Zero fatalities and injuries. To achieve our shared goal, we go beyond what is required by regulations. To accelerate the pace of mine safety improvement, the U.S. mining industry has taken voluntary steps to implement best practices that encourage a culture of safety.

By identifying and eliminating potential hazards and deploying state-of-the-art technology, the NMA, its members and respected industry safety and health professionals have developed CORESafety®, an award-winning safety framework that is bringing more miners home safely after every shift, giving mining a lower nonfatal injury and illness record than manufacturing, construction or private industry.



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**40%**

Percentage by which injuries have been reduced in the last 15 years.

**70%**

Percentage by which fatalities have decreased in the last 15 years.

# Caring for the Environment

**Natural resources are at the heart of mining — environmental stewardship is imperative.**

Today's mining projects begin with extensive environmental and engineering studies, public involvement in major decision-making and compliance with scores of state and federal laws and regulations governing every facet of the environment, from wildlife habitat protection to complying with strict water quality standards. They end with land reclamation that transforms sites for recreation, wildlife enhancement and other local community needs.

Building on the extraordinary environmental progress made in recent decades, the industry is committed to advancing technologies that make the use of our resources cleaner and more efficient. Today's technologies are making combustion of coal more efficient while reducing emissions. And ongoing advancements in high efficiency, low emission (HELE) coal technologies and carbon capture and storage (CCS) hold promise for the future.

# 3.3M

Number of acres of mined land that have been restored by U.S. mining companies, returning the lands to their natural conditions for wildlife habitats or to serve local communities with new sites for schools, hospitals or infrastructure projects.

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# \$11+B

Amount the U.S. mining industry has paid to reclaim mines that were abandoned prior to laws requiring reclamation.

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# \$100+B

Amount coal plant owners have invested in advanced emissions control technologies over the last 20 years.

# Speaking of Mining: Key Industry Terms

**Alloy:** A substance with metallic qualities that is composed of two or more chemical elements, of which at least one is an elemental metal.

**Anthracite:** See “ranks of coal.”

**Auger mining:** Form of underground mining that uses an auger (rotary drill) to penetrate, break and transport drilled material onto a waiting conveyor belt. Usually employed to recover remaining material in deep overburden areas that cannot be reached economically by further contour or area mining.

**Base metals:** Any of the non-precious metals. Copper, lead and zinc are usually considered the primary base metals, but tin, aluminum and magnesium are also among those important to modern society.

**Bioreaching:** Addition of naturally occurring bacteria to extract or remove a soluble substance from ore.

**Bituminous coal:** See “ranks of coal.”

**Bond:** A prerequisite for obtaining a mining permit, companies must post a reclamation bond to ensure sufficient funds to restore a site in the event a company fails to complete the reclamation plan approved in the permit.

**Btu:** British thermal unit. This is a measure of the energy required to raise the temperature of one pound of water one degree Fahrenheit. On average, coal contains about 20 million Btu per ton.

**Bullion:** Mixture of gold and silver in cast bars. Also called doré.

**Captive mine:** A mine whose resource is used largely or totally by its owners or a subsidiary operation.

**Clean coal technologies:** A number of innovative technologies designed to reduce emissions and use coal in a more efficient manner. These include processes applied before, during and after combustion, and involve those which change coal into a gas or liquid.

**Coal seam:** A bed or stratum of coal. Usually applies to a large deposit.

**Coke:** A hard, dry carbon substance produced by heating coal to a very high temperature in the absence of air. Coke is used in the manufacture of iron and steel.

**Concentrate:** The result of separating ore or metal from its containing rock or earth.

**Continuous miner/mining:** A mining machine and technique that removes coal from the face and loads it onto cars or conveyors without the use of cutting machines, drills or explosives and without interrupting the loading process. Can be highly automated and operated by remote control.

**Conventional mining:** A deep mining method that includes inserting explosives in a seam, blasting the seam and removing the material onto a conveyor or shuttle car. Accounts for about 9 percent of total underground coal production.

**Demonstrated reserves:** Deposits that are potentially minable on an economic basis with existing technology.

**Dragline:** A large excavation machine used in the surface mining process to remove overburden (see “overburden”). The dragline has a large bucket suspended from the end of a huge boom (275 feet long or larger) that is capable of scooping up vast amounts of overburden as it is dragged across the excavation area. The dragline, which can “walk” on huge pontoon-like “feet,” is one of the largest land-based machines in the world.

**Drift mine:** A mine entered directly through a horizontal opening drilled into the side of a hill or mountain. This mining method is used in hilly or mountainous areas.

**Electrostatic precipitator:** An electrical device used in removing particles (see “fly ash”) from combustion gases prior to release from a power plant’s stack.

**Excavator:** A large number of power operated digging and loading machines, used increasingly in open-pit mining and quarrying.

**Face:** The surface where mining work is occurring.

**Flotation:** Separating ore from waste materials by floating away the materials of lower specific gravity, while the heavier materials sink.

**Fluidized-bed combustion:** Process to remove sulfur from coal combustion and limit the formation of nitrogen oxides (see “clean coal technologies”). The process involves suspending crushed coal and limestone in the bottom of a boiler by an upward stream of hot air. While the coal is burned in this liquid-like mixture, sulfur from combustion gases combines with the limestone to form a solid compound recovered with the ash.

**Fly ash:** Particles of ash entrained in gases resulting from the combustion of fuel. At coal-fired power plants, fly ash is captured by special equipment, usually either electrostatic precipitators or baghouses. Fly ash and other forms of coal ash are useful by-products — about 25 million tons are used each year in major concrete projects, such as highway construction.

**Fossil fuel:** Fuel such as coal, crude oil or natural gas, formed from the fossil remains of organic material.

**Gasification:** Any of various processes by which coal is turned into low, medium or high-Btu gas.

**General Mining Law:** The primary statute that governs the right to mine locatable minerals on unappropriated public domain lands. Though enacted in 1872, it has been amended many times.

**Hardrock minerals:** Locatable minerals that are neither leasable minerals (coal, oil, phosphate, etc.) nor saleable mineral materials (sand and gravel, etc.). Hardrock minerals include copper, lead, zinc, magnesium, nickel, tungsten, gold, silver, bentonite, barite, feldspar, fluor spar and uranium.

**Highwall:** Unexcavated face of exposed overburden and coal in a surface mine or in a face or bank on the uphill side of a contour mine excavation.

**In situ gasification:** The gasification of underground coal deposits through partial combustion.

**Leaching:** The action of percolating liquid in order to remove the soluble parts. For example, cyanide leaching of gold is a process where a weak cyanide solution is percolated through low-grade ore heaped on an impermeable liner. Gold is then extracted from the liquid in a closed-loop system.

**Lignite:** See “ranks of coal.”

**Liquefaction:** The process of converting coal into a synthetic liquid fuel, similar in nature to crude oil and/or refined products, such as gasoline.

**Locatable minerals:** Those minerals — primarily metallic — that can be claimed and mined on public lands under the General Mining Law of 1872; these do not include coal, oil, phosphate sodium, sulfur, or sand and gravel.

**Longwall miner/mining:** A deep mining machine and technique that uses a steel plow or rotating drum, which is pulled mechanically back-and-forth across a long face of coal to loosen it and collect the product on a conveyor for removal from the mine.

**Metallic minerals:** Minerals with a high specific gravity and metallic luster, such as titanium, rutile, tungsten, uranium, tin, lead and iron. In general, metallic minerals are good conductors of heat and electricity.

**Metallurgical coal:** Various grades of coal suitable for carbonization to make coke for steel manufacturing.

#### **Minerals:**

*Scientific:* naturally formed inorganic solids (elements or chemical compounds) with a limited range in chemical composition and with orderly internal atomic arrangements that determine crystalline structure and physical properties.

*Legal:* organic or inorganic substances occurring naturally, with characteristics and economic uses that bring them within the purview of mineral laws; substances that may be obtained under the applicable laws from public lands by purchase, lease or claim.

**Mining claim:** That portion of the public mineral lands that a person may claim for mining purposes in accordance with the General Mining Law of 1872, as amended. There are four types of mining claims: lode, placer, millsites and tunnel sites. Only tunnel sites may not be patented under current law.

**Mountaintop mining:** A method of surface mining practiced in the Appalachian coal fields of the eastern United States. Mountaintop mining allows the mine operator to completely remove layers of dirt and rock covering a coal seam, making the entire deposit economical for extraction. Valley fill — the depositing of rock and dirt from the surface mine into adjacent valleys — is a practice that is not unique to the mining industry; hundreds of valley fills were constructed throughout the country during the building of the Interstate Highway System.

**Non-metallic minerals:** Minerals (carbon, diamond, coals, bitumen, asphalt, boron, sulfur, rock salt, etc.) that lack the properties of the metallic minerals.

**Non-renewable resources:** Resources that are not replaced or regenerated naturally within a reasonable period of time, such as fossil fuels or minerals.

**Open pit:** A mine or excavation open to the surface. Refers primarily to mines of metal ores; distinguished from coal surface mines.

**Ore:** Rock that contains important minerals, including metals.

**Outcrop:** Coal that appears at or near the surface.

**Overburden:** Layers of earth and rock covering a coal seam or mineral deposit.

**Patent:** A government deed; a document that conveys legal title to public lands to the patentee.

**Placer deposit:** An alluvial marine or glacial deposit resulting from the crumbling and erosion of solid rocks, and often containing valuable minerals.

**Portal:** Entrance to a mine.

**Preparation plant:** A facility, usually located on a mine site, which crushes, sizes and washes material prior to shipment.

**Ranks of coal:** The classification of coal by degree of hardness, moisture and heat content. The major ranks, from lowest to highest quality, are lignite, subbituminous, bituminous and anthracite.

**Reclamation:** The restoration of land and environmental values to a mining site after mining occurs.

**Recoverable reserves:** Portion of reserves that can be economically and physically mined using current techniques after allowing for normal mining losses.

**Reserves:** Known identified resources from which a usable commodity can be technologically, economically and legally extracted using current mining techniques.

**Rock dusting:** The process of coating tunnels in deep mines with powdered limestone to dilute potentially unhealthy or dangerous concentrations of dust and minimize fire hazards.

**Roof bolting:** A method of supporting the ceilings of underground mines by inserting long steel bolts into holes bored into the strata forming the roof.

**Scrubber:** Any of several forms of chemical/physical devices that remove sulfur compounds formed during coal combustion. Technically known as flue gas desulfurization systems, they combine the sulfur in gaseous emissions with another chemical medium to form an inert sludge.

**Slope mine:** A mine with an opening that slopes upward or downward to the seam. It must also have adjoining vertical shafts for air ventilation and emergency use.

**Smelter:** A furnace in which raw materials are melted, and metals are separated from impurities.

**Stope:** An excavation from which ore has been removed in a series of steps.

**Strategic minerals:** Those minerals considered essential for a country's economic and defense needs, such as metals for defense weapons, satellite communications, automobile parts and medical instruments.

**Subbituminous coal:** See "ranks of coal."

**Surface mine:** A mine in which the coal lies near the surface and can be extracted by removing the covering layer of overburden.

**Tailings:** The waste material left over after hardrock mining and milling processes have been completed.

**Tipple:** A surface processing structure for cleaning and sizing coal and automatically loading it onto rail cars or trucks for movement to market.

**Underground mine:** Also known as a deep mine. Usually located several hundred feet below the earth's surface, materials are removed mechanically and transferred by shuttle car or conveyor to the surface.

**Unit train:** A long train of between 60 and 150 or more hopper cars, carrying only coal between a single mine and destination. A typical unit train can carry at least 10,000 tons of coal in a single shipment.

**AMERICA'S MINING INDUSTRY SUPPLIES THE ESSENTIAL MATERIALS NECESSARY FOR NEARLY EVERY SECTOR OF OUR ECONOMY — FROM TECHNOLOGY AND HEALTHCARE TO ENERGY, TRANSPORTATION, INFRASTRUCTURE AND NATIONAL SECURITY.**

The National Mining Association (NMA) is the only national trade organization that serves as the voice of the U.S. mining industry and the hundreds of thousands of American workers it employs before Congress, the federal agencies, the judiciary and the media, advocating for public policies that will help America fully and responsibly utilize its vast natural resources. We work to ensure America has secure and reliable supply chains, abundant and affordable energy, and the American-sourced materials necessary for U.S. manufacturing, national security and economic security, all delivered under world-leading environmental, safety and labor standards.

Headquartered in Washington, D.C., the NMA has a membership of more than 250 companies and organizations involved in every aspect of mining, from producers and equipment manufacturers to service providers.

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