



WHAT **MINING** MEANS TO **TEXAS**

MINING MAKES OUR 21st CENTURY LIFESTYLE POSSIBLE

Why should mining matter to you and indeed to all Texans? Mining plays a vital role in the production of the goods, services and infrastructure that collectively define the high standards of living we have come to enjoy as Americans. As a developed society, we are fortunate to enjoy the many benefits that lignite/coal, uranium and industrial minerals provide, including low-cost, reliable electricity and the materials necessary to build our homes, schools, hospitals, roads, highways, bridges and airports.

OVERALL ECONOMIC IMPACT

Mining is important for every American, not only because of the raw materials it provides, but also for the positive impact it has on our economy. According to the National Mining Association, the industry provides more than 30,000 direct jobs and close to 60,000 indirect jobs in the state of Texas alone, for a GDP contribution of approximately \$16 billion.* Mining employees earn 17 percent more than the average wage in other fields in the state.** Many of these jobs are located in rural Texas, providing an economic boost to communities that need it most. This enhances quality of life, supports local businesses and schools and contributes tax revenues to local governments.

*"Economic Contributions of U.S. Mining (2021)," National Mining Association

**"Annual Mining Wages vs. All Industries (2021)," National Mining Association



TEXAS MINING INDUSTRY **FAST FACTS**

Lignite/Coal

Lignite is a stable, abundant and affordable source of electricity.

- ★ A soft coal showing traces of plant structure
- ★ Forms by the gradual heating and compression of organic matter by overlying strata
- ★ An **affordable and reliable fuel** for steam-electric power

LIGNITE MINING IN TEXAS

- ★ Surface mining is the predominant form of mining lignite in Texas
- ★ Lignite is removed via surface mining where soil and rock (i.e. overburden) is first removed, exposing the lignite for extraction
- ★ Heavy equipment is required, such as earth-movers and dragline excavators



TEXAS MINING INDUSTRY FAST FACTS

URANIUM

Uranium is a **zero-emission fuel source** with an energy production capacity that typically rivals that of alternative fuel sources.

- ★ A metallic element
- ★ Found in low levels within all rock, soil, water and even plants and animals
- ★ Used in the **production of nuclear power**, which is a clean energy source

URANIUM MINING IN TEXAS

- ★ In-situ recovery (ISR) uses oxygenated water to capture and remove naturally occurring uranium from the ore body; a process that minimizes surface disturbance
- ★ ISR has a long history and a **proven, safe track record**
- ★ Mining uranium in Texas is a good alternative to importing the material from countries with unstable governments

INDUSTRIAL MINERALS (Non-metallic mining)

Industrial minerals provide the materials **necessary to build essential infrastructure** – transportation routes, homes, schools, hospitals and other commercial and industrial facilities.

- ★ Aggregate and clay products, including sand, gravel, clay and limes used in their natural state
- ★ Brick and tile for architectural, paving and landscaping
- ★ Silica for glass, filtration systems, chromatography, foundries and golf course construction

INDUSTRIAL MINERALS MINING IN TEXAS

- ★ Extracted from open-pit quarries
- ★ Mining industrial minerals in Texas reduces the cost of infrastructure development and ensures the availability of needed construction materials



SAFETY IS OUR TOP PRIORITY

At mining operations across the state, safety is always top-of-mind. Member companies strive to achieve a ZERO Mine Safety and Health Administration (MSHA) Non-Fatal Days Lost (NFDL) rating. In fact, the industry has made significant advances in improving the health and safety of its workers and is safer than many other industrial operations.

ENVIRONMENTAL STEWARDSHIP AND AWARD-WINNING RECLAMATION

Texas miners care about the environment. In fact, they do everything they can to utilize advanced technologies that result in minimal disturbances to land, vegetation, water, air and natural habitats. Their mandate is to leave the land as good as and, in many cases – better than – they found it. Their reclamation and restoration programs often exceed state and federal environmental regulations and are subject to an open, comprehensive and exhaustive permitting process. Many of these reclamation programs are award-winning.



Source: Matt Tanner

REGULATION

In Texas, the industry is primarily regulated by the Railroad Commission of Texas (RCT) and the Texas Commission on Environmental Quality (TCEQ). TMRA and its member companies work extremely closely with these regulatory bodies – and the communities in which they mine – to ensure compliance with local, state and federal regulations.

Although TMRA opposes unwarranted regulation that has little or no proven net benefit, it strongly supports policies and efforts that ensure reliable, affordable and increasingly clean energy. We applaud Texas' proven and enviable energy approach, which encourages and promotes a balanced market-driven “all-of-the-above” energy mix – one that includes nuclear, natural gas, renewables AND coal.

THE TRUE STORY OF MINING

TMRA Teacher Workshops provide Texas teachers with science-based education that informs students about the availability, importance and development of natural resources, including lignite/coal, uranium and industrial minerals. The program encourages vocational and professional career choices in earth sciences and related fields, supporting the economic value of Texas mining. More than 1.5 million students have now heard the true story of mining and reclamation, with more than 1,500 teachers attending since 1991 (each reaching approximately 130-150 students annually).



About TMRA

The Texas Mining and Reclamation Association (TMRA) serves as a single voice for the Texas mining industry and exhibits integrity, clarity and vision in its efforts to create a balance between mineral production, environmental protection, economic strength and public welfare. The association educates the public, regulators and policymakers on the value of mining to our state's economy and advocates on issues that include environmental regulation, legislation and public perception.

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