

Mining and Mining and Mining and Opportunities in the kingdom of Saudi Arabia









The information in this document is of a general nature and does not constitute or form part of any offer for the sale, issue, or award of, or the solicitation of any offer to buy, apply for, or be issued or awarded any interest in the sites or any other asset, nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever.

Certain information in this document has been reproduced from third-party sources. All such information has not been independently verified. Neither the Ministry of Industry and Mineral Resources (the **Ministry**), the Ministry's consultants and advisors, the Saudi Geological Survey Authority (SGS) takes any responsibility for the accuracy of such information, and no representation or warranty, express or implied, is made as to its fairness, accuracy, correctness, completeness or adequacy.

The information in this document is current only as of its date. It shall not, under any circumstances, create any implication that the information contained herein is correct as of any time subsequent to the date thereof. This document may be updated from time to time, and there is no undertaking by the Ministry or the SGS to publicize such amendments to recipients of this document.

Nothing in this document is to be interpreted as formal legal or tax advice. It should not be relied upon by any person as a substitute for reading the Mining Investment Law and its Implementation Regulations and applicable guidelines.

Investors are encouraged to seek appropriate and independent legal and tax advice relevant to the Mining Investment Law and its Implementing Regulations and any application to obtain a license under the Mining Investment Law (including participation in exploration licensing rounds).

None of the Ministry, the SGS, or any of their respective ministers, executives, employees, affiliates, or representatives makes any representation, warranty or guarantee of any kind, express or implied, as to the accuracy, completeness, or reasonableness of the information contained herein, or any other written or oral communication transmitted or made available to any recipient of this document and expressly disclaims any liability based on or arising from, in whole or in part, such information, errors therein or omissions therefrom.

No representation or warranty is given as to the achievement or reasonableness of any plans, future projections, prospects, or financial returns, and nothing in this document is or should be relied upon as a promise or representation of the future. Each of the Ministry, its consultants and advisors, and the SGS expressly disclaims all liability for any loss or damage that may arise from any person acting on any information and opinions contained in this document or any information that is made available in connection with any further inquiries.

This document contains forward-looking statements. These forward-looking statements are subject to various factors that could cause the results to differ materially from the results expressed or anticipated in these statements. The Ministry has no intention to update or revise forward-looking statements, regardless of whether new information, future events, or any other factors affect the information contained in this document, except where required by law.

This document and the information contained within it are strictly confidential and intended for the recipient's exclusive use and benefit. Distribution of the document to any person other than the recipient and those persons retained to advise the recipient, who agree to maintain the confidentiality of this material and be bound by the limitations outlined herein, is unauthorized. The document may not be copied, reproduced, disseminated, quoted, or referred to, in whole or in part, for any purpose without the express written consent of the Ministry. By receiving this document, you agree to keep the information confidential, not to disclose any of the information contained in this document to any other person, and not to copy, use, publish, record, or reproduce the information in this document without the prior written consent of the Ministry, which may be withheld in its absolute discretion.







Table of **Contents**

| Saudi Arabia: Mining Sector Overview | 04 |
|---|----|
| The Geology of the Kingdom of Saudi Arabia | 06 |
| The Benefits of Investing in Saudi Arabia's Mining Sector | 10 |
| Key Enablement Programs for Mining Success | 13 |
| Infrastructure Network of Saudi Arabia | 15 |
| Belt Exploration Licensing Rounds Overview | 17 |
| Jabal Sayid Mineralized Belt | 18 |
| Al Hajar Gold Site | 20 |
| Competitive Tender Round 6 - Investment Overview | 22 |
| Hazm Shubat | 26 |
| Umm Qusur | 27 |
| Jabal Sabha | 28 |
| Huwaymidan | 29 |
| Wadi Ad Dawsh | 30 |
| Shaib Marqan | 31 |
| Wadi Al Junah | 32 |
| Licenses – General Overview | 33 |
| Future Minerals Forum | 34 |
| Web Links & Contacts | 39 |

Ministry of Industry & Mineral Resources

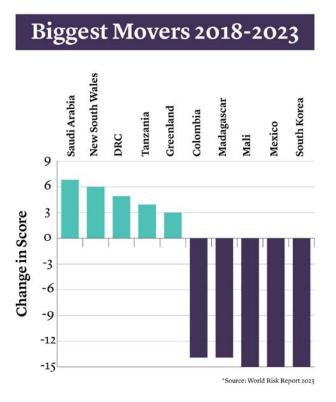
Mining Sector Overview

The Kingdom of Saudi Arabia (the **Kingdom**) has emerged as a prosperous hub of business opportunities, driven by the execution of its ambitious Vision 2030, a coordinated and focused strategic plan that is committed to establishing the country as a leading industrial powerhouse, driving economic growth and global competitiveness, while also seeking to diversify its dependence on oil and gas.

The mining sector is set to become the third pillar of the Kingdom's industrial economy (after oil and gas and petrochemicals), by capitalizing on the Kingdom's huge mineral resources and exponential growth in domestic demand for commodities. To support the achievement of these goals, the Ministry of Industry and Mineral Resources (the **Ministry**) has taken the lead in advancing the mining sector, with aspirations to increase global competitiveness in exploration, mineral extraction, processing and its contribution to the Kingdom's gross domestic product (**GDP**).



The latest annual assessment of mining investment risks from MineHutte and Mining Journal Intelligence recognizes Saudi Arabia for its exceptional mining investment environment.



The recently published World Risk Report 2023, which features MineHutte Risk Ratings, highlights Saudi Arabia as a standout best-performing mining jurisdiction, both regionally and globally. The Kingdom's scores have risen sharply in terms of de-risking mining investments from 2018 to 2023 (five years) to become one of the top 10 countries with the least legal and financial risks - measuring an investor risk of losing the economic benefit of a mineral discovery, corporate taxation, and GDP growth. This follows its sweeping sector reforms designed to attract mining and mineral investment since Saudi Arabia's mining and mineral strategy launched in 2018.







THE GEOLOGY OF THE KINGDOM OF SAUDI ARABIA

The geology of the Kingdom of Saudi Arabia (KSA) can be broadly classified into two provinces. The western side of KSA is dominated by the Arabian Shield, comprising predominantly crystalline igneous and metamorphic rocks of Pre-Cambrian age. The eastern side of the country is predominantly comprised of sedimentary rocks from the Palaeozoic and Mesozoic age. These sedimentary rocks overlie a basal igneous and metamorphic complex, which is the eastern, underlying extension of the Arabian Shield.

The Arabian Shield is the eastern part of the more extensive Arabian-Nubian Shield (ANS). The ANS consists of the Arabian Shield and the Nubian Shield in northeastern Africa, which are separated by the Red Sea. The Red Sea occupies a continental-scale rift system, where seafloor spreading commenced geologically recently, an estimated 13 million years ago (Figure 1).





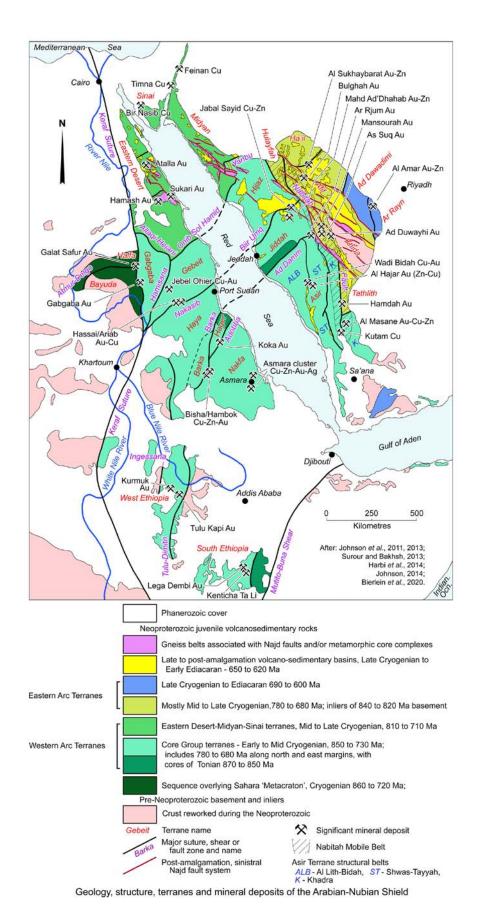


Figure 1 Significant mineral deposits of the Arabian-Nubian Shield

Source: Porter Geodatabase : https://portergeo.com.au/database/display.asp: Arabian Nubian Shield Overview





Both the Arabian Shield and the Nubian Shield consist of multiple terranes which have differing geological and structural characteristics but which were amalgamated by plate tectonics during the Neoproterozoic Era, 1 billion to ~540 Ma (ibid).

The Arabian Shield comprises predominantly deformed meta-volcanic and meta-sedimentary rocks that have been intruded by Neoproterozoic oceanic arc igneous rocks. Subsequently, large volumes of post-orogenic granitic intrusions and unconformable volcano-sedimentary successions have resulted in a relatively complex regional geological framework. Rare pre-Neoproterozoic enclaves crop out in the southwest part of the Arabian Peninsula. The Shield formed through the amalgamation of island arc terranes and multiple oceanic sutures cross-cut the region and has acted as a focus for subsequent deformation.

The Arabian Shield is sub-divided into eleven terranes (Midyan, Hijaz, Hulayfah, Ha'il, Afif, Jiddah, Ad Dawadimi, Ar Rayn, Asir, Tathlith, and the pre-Neoproterozoic Khida terrane)³ separated by major regional faults and shear zones which play an important role in mineral emplacement in the region. These terranes are formed by global tectonic events and various accretions of oceanic crust and continental micro-plates.

The gold and base metal deposits of the Arabian-Nubian Shield, many of which are globally significant, are dated during the Cryogenian Period (850 to ~630 Ma) of the Neoproterozoic (Figure 2). To reiterate, the host terranes are composed of Late Tonian to Cryogenian intra-oceanic magmatic arcs, unconformably overlain by late to post-tectonic marine and terrestrial basins, all intruded by large volumes of granitoid batholiths.

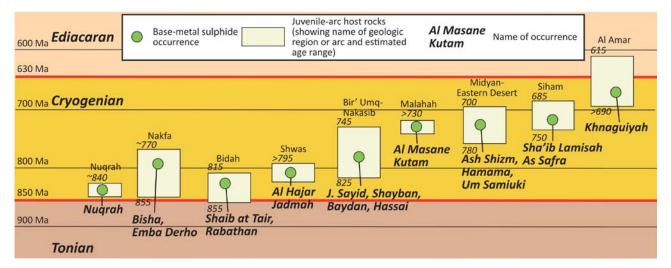


Figure 2 Time spread of mineral deposits of the Arabian-Nubian Shield

Source: Volesky, J.C., Leybourne, M.I., Stern, R.J., Peter, J.M., Layton-Matthews, D., Rice, S. and Johnson, P.R., 2017: Metavolcanic host rocks, mineralization, and gossans of the Shaib al Tair and Rabathan volcanogenic massive sulphide deposits of the Wadi Bidah Mineral District, Saudi Arabia, International Geology Review, 2017 Vol. 59, No. 16, 1975-2002





This complex geological setting is highly prospective for a wide range of metallic deposit types, representative of different parts of the supercontinent cycle, examples of which are found in the project areas. This range includes:

- VHMS/VMS (volcanic-hosted or volcanogenic massive sulphide) deposits, such as Mahd Ad'Dhahab in Saudi Arabia which produced 31,227 oz gold in 2018, and the world-class Bisha Cu-Zn Mine in Eritrea (Total Resource of 68.7 million tons containing 1.49 MOz gold, 71.2 MOz silver, 696.7 kt copper and 3.071 Mt of lead plus zinc),
- Intrusion-related gold systems (IRGS) such as the Ad Duwayhi gold deposit in Saudi Arabia (which in 2018 produced 274,519 oz of gold) and the Sukari gold mine in Egypt (which produced 472,418 oz of gold in 2018),
- Cogenetic VHMS epithermal gold deposits like the Al Amar prospect in Saudi Arabia (Total Reserves in 2019 of 2.77 million tons at 3.26 g/t gold and 3.96% zinc)
- Orogenic gold deposits like the As Suq gold mine in Saudi Arabia (Total Reserves in 2019 of 5.7 million tons at 1.59 g/t gold).

2Stern, R.J. and Johnson, P. (2010) Continental Lithosphere of the Arabian Plate: A Geologic, Petrologic, and Geophysical Synthesis. Earth-Science Reviews, 101, 2967-

3Johnson, P.R., Zoheir, B.A., Ghebreab, W., Stern, R.J., Barrie, C.T. and Hamer, R.D., 2017 - Gold-bearing volcanogenic massive sulfides and orogenic-gold deposits in the Nubian Shield: in S. Afr. J. Geol. v.120

4Porter Geodatabase : https://portergeo.com.au/database/display.asp: Arabian Nubian Shield Overview







The Benefits of Investing in Saudi Arabia's Mining Sector

The full potential of Saudi Arabia's minerals sector stems from three key competitive advantages: geological endowment, local demand, and factor cost advantages. The exploration and mining sector in Saudi Arabia is bolstered by the Kingdom's provision of numerous compelling benefits, including:



Rich mineral endowment

Saudi Arabia estimates its untapped mineral resources comprising lucrative assets with over 52 identified minerals, such as precious metals, base metals, phosphate, and rare earths, valued at US\$2.5 trillion. The Kingdom's geological landscape offers two distinctive provinces rich in mineral resources. In the West lies the Nubian-Arabian Shield, renowned for extensive gold and copper mineralization. The eastern side features sedimentary rocks of various ages, providing a diverse range of mineral resources. These provinces house a plethora of minerals crucial for global industries, from precious and base metals to bauxite and uranium.



New mining regime

Significant reforms in the Kingdom have resulted in its regulatory and licensing processes aligning to global benchmarks. These reforms include a streamlined and transparent licensing and permitting process, a modernized mining code, and security of tenure-throughout all stages of exploration and development. The Exploration Licensing Rounds serve as an initiative aimed at enticing the mining sector to invest in mineral projects within Saudi Arabia. For investors seeking a more direct approach, the option to apply for licenses directly through the Ministry is available on a first-come, first-served basis, offering a streamlined licensing process. This includes the ability to issue mining licenses within 120 days and exploration licenses within 90 days.







Growth Trajectory

The Kingdom aims to drive its status as a leading G20 nation by substantially boosting the mining sector's contribution to its GDP, aligning with its ambitious Vision 2030. Standing at USD17 billion in 2015, the goal is to increase this figure to USD64 billion by 2030. Furthermore, the Kingdom projects an increase in exploration spending from approximately USD23 per km² in 2019 to around USD67 per km² by 2030. This endeavor underscores the Kingdom's strategic intent for the mining sector to rise as the third pillar of its industrial economy.



Generous and comprehensive financial support

The Kingdom provides robust support for mineral exploration through initiatives like the **Exploration Enablement Program (EEP)**, aimed at mitigating risks associated with mineral exploration in strategic and critical minerals.

Under the EEP, companies can submit applications for up to 15 exploration licenses, with the first five licenses eligible for a full grant of SAR 7.0 million (~USD 2.0 million) per license. For subsequent licenses, incentives focus on drilling activities, with a grant cap of SAR 4.0 million per license.

The Saudi Industrial Development Fund (SIDF) offers significant co-funding opportunities for mining projects, providing up to 75% of the project CAPEX at an attractive interest rate of 3%. Additionally, there are compelling incentives for midstream stakeholders and downstream processing in sectors such as green steel, aluminum smelting, and battery manufacturing.



National Geological Database (NGD)

The NGD represents a significant advancement in transparency and accessibility of geological information in Saudi Arabia. This database serves as a valuable resource for researchers, industry professionals, and policymakers worldwide, facilitating a better understanding of the Kingdom's geological landscape. The Saudi Geological Survey has cooperated with different International Geological Surveys to further enhance geological data availability. Over the course of 11 years, this partnership will focus on executing detailed geological mapping works for the Arabian Shield region, aiming to provide comprehensive insights into the geological characteristics and resources of this area.







Advanced Infrastructure

Saudi Arabia's advanced infrastructure, coupled with an ambitious pipeline of 11 mega-projects exceeding US\$1 trillion in value until 2030, underscores its commitment to leveraging domestically mined minerals. From transportation networks to new cities, these projects are poised to revolutionize various sectors of the economy while harnessing the nation's mineral resources for continuous development.



Factor Cost Advantages

Saudi Arabia offers significant cost advantages for exploration and mining, including low energy prices (oil, gas, diesel, and electricity), efficient water access despite the arid climate, and competitive labor costs with a well-educated workforce.



Talent Pool

Two-thirds of Saudi Arabia's population is under 35, representing significant future opportunities in emerging sectors, coupled with high government spending on education. This young and highly-educated population has contributed to an experienced and ever-growing talent pool. Companies like SABIC, with over 35,000 employees, Maaden, with over 6,000 employees, and AMAK, with over 500 employees, have successfully developed a robust local workforce in the Kingdom.



Competitive Investment Destination

Saudi Arabia has positioned itself as a competitive investment destination through favorable corporate tax policies and structured royalties. The corporate income tax rate is 20% competitive, and royalties on minerals produced range between 1.5% and 3.5%, depending on the commodity, with a honeymoon period for the first five years of production. The country allows for 100% foreign ownership in many sectors, giving foreigners full control over their operations and profits.

Additionally, Saudi Arabia imposes no constraints on foreign exchange transactions, allowing investors to freely convert and transfer their capital and profits. Combined with a stable and transparent regulatory framework, these factors create a financially attractive and secure environment for both startups and established ventures.

This combination of advantages positions Saudi Arabia as an attractive destination for ventures in the mining sector.





Key Enablement Programs for Mining Success

Exploration Enablement Program (EEP)



In April this year, the Ministry launched a game-changing initiative—the 685 million SAR (equivalent to US\$182 million) Exploration Enablement Program (EEP). This innovative program is specifically tailored for companies holding an active exploration license in the Kingdom in the first 5 years duration of the life of the license (New license), focusing its efforts on greenfield exploration sites.

The primary objective of the EEP is to entice mineral exploration companies to engage in strategic and critical mineral exploration activities within Saudi Arabia. Stimulate and de-risk mineral exploration investment. Enhance detailed innovative data acquisition with world class standards. Identify new areas of high mineral potential on green field areas, which can be prioritized for further exploration and development. Targeting companies with a shorter exploration license duration ensures a concentrated effort on greenfield exploration. Support the development of local talent in the field of exploration in the Kingdom.

The program, allocates an impressive US\$2 million per license capped with 15 applications (licenses) for each company. Designed to span from 2024 to 2030, this initiative is more than just financial backing; it's a strategic partnership aimed at fostering knowledge exchange and mutual growth. The program seeks to deepen geological understanding, ultimately expediting new discoveries within Saudi Arabia. The EEP emerges as a pivotal step towards advancing the mineral exploration landscape in Saudi Arabia.





| Cost Items | Threshold, % | Cap, SAR |
|---|---|--|
| Drilling, Lab Testing and Geoscientific Studies | Up-to-25% of total drilling, lab testing and geoscien-tific studies costs | 4 million (max 15 applications per company) |
| Talent / Labor | Up-to-15% of salary costs of employees' resident in KSA | 1.5 million (max 5 applications per company) |
| Talent / Labor: Additional cash incentive to cover local salary costs beyond HRDF coverage | (70% of total local salary costs in the first 2 years) (100% of total local salary costs post 2 years) | 1.5 million (max 5 applications per company) |
| Total | 20-25% of total costs | 7.0 million |

* Source: Ministry of Industry and Mineral Resources







Infrastructure Network of Saudi Arabia

Infrastructure

Saudi Arabia has historically invested considerable effort in developing a robust transportation network and continues to invest in mega transportation projects. In 2019, the World Economic Forum ranked Saudi Arabia first in road connectivity and 21st in liner shipping connectivity.

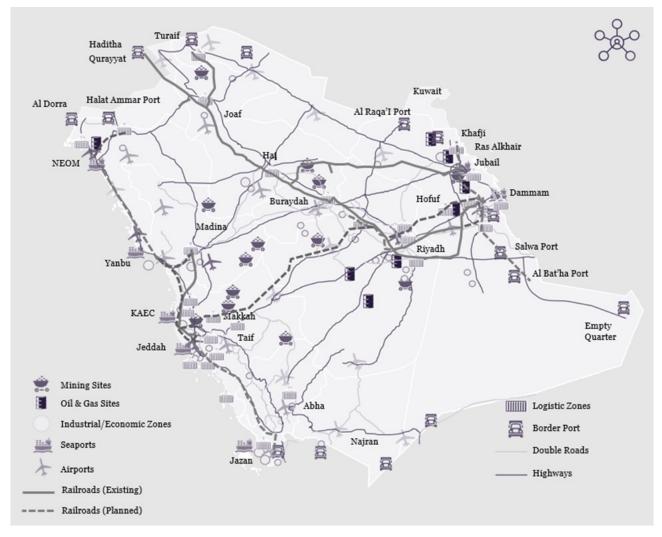


Figure 3 Infrastructure Network of Saudi Arabia *Source:* Ministry of Industry and Mineral Resources





| Highlights | | |
|--|--|--|
| Roads | Railroads | |
| 73,000 km total length of roads in KSA | 2.5 million passengers | |
| 4,900 km of highways | 10.4 millions tons of minerals (North-South) | |
| 14,189 km of double roads | +350k containers (Riyadh-Dammam) | |
| 54,180 km of single roads | | |
| Seaports | Airports | |
| 10 Seaports (for Non-oil trade) | 29 Airports | |
| 9 million containers | 13 international airports | |
| +280 millions tons of goods | 16 domestic airports | |
| | 103.3 million passengers | |
| | o.8 million tons of cargo | |

Table 4 Saudi Arabia Infrastructure







Belt Exploration Licensing Rounds Overview

As part of its proactive approach, the Ministry is extending a formal invitation to local and international exploration entities, urging stakeholders from around the world to seize the potential of Saudi Arabia's vast mineral wealth. Stakeholders will be able to engage with the Kingdom's mining and mineral sector through the upcoming Mineralized Belt Exploration Licensing Rounds, which involve licensing two large Mineralized Belts to successful bidders.

The belts to be offered under the Mineralized Belts Exploration Licensing Rounds are:

- Jabal Sayid mineralized belt: Mineralized belt hosting the largest currently known VMS deposit in Saudi Arabia, with substantial potential for additional discoveries.
- Al Hajar gold-site: A gold-rich site in a prospective geological setting.

| Belt | Commodity | Area (km²) | Region |
|-------------|-----------|------------|----------------|
| Jabal Sayid | Cu, Au | 2,892 | Jiddah Terrane |
| Al Hajar | Au, Cu | 1,896 | Asir Terrane |

These Exploration Licensing Rounds facilitate and expedite the presence and involvement of local and foreign exploration and mining entities in the Kingdom. This partnership opportunity aligns with the Kingdom's aspiration to fully unlock the value of its mineral resources.

Following the pre-qualification round, the Ministry will issue Information Memorandums for both the belts. This will also be the beginning of Proposal Stage for these Belt Exploration License Rounds.

Timelines

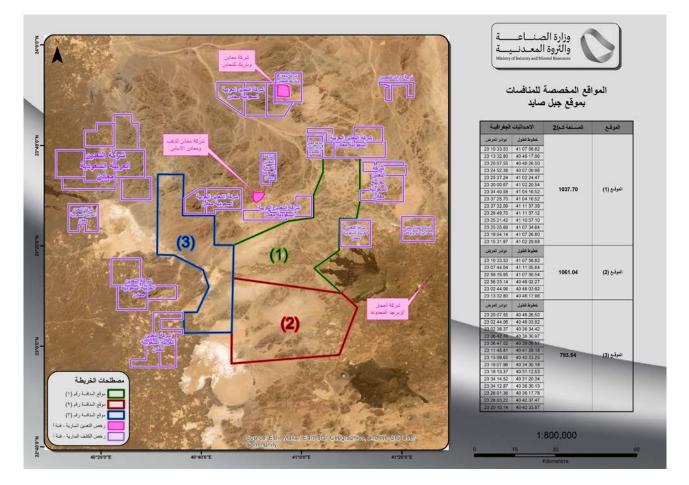
| Target Date | Process Stage |
|---|--|
| June 10 till 23 rd to October 15, 2024 | Pre-qualification Round |
| October 31, 2024 | Publication of Information Memorandums and Invitation to Proposal Stage |
| December 22, 2024 | Proposal Submission Deadline |
| January 9, 2025 | Announcement of Results |





Jabal Sayid Mineralized Belt

Site location and map



The Jabal Sayid Mineralized Belt, located within the northern sector of the Jeddah Terrane, encompasses an area of approximately 9,579 km². The current licensing round focuses on three distinct license areas within the belt:

- Area 1: 1,037.70 km²
- Area 2: 1,061.04 km²
- Area 3: 793.54 km²

The total area available for licensing in this round is 2,892.28 km². The map (provided) illustrates the boundaries of the Jabal Sayid mineralized belt and the location of the three license areas, along with their respective coordinates.





Key Information

| Location: | North east Jeddah city and east Madinah city | |
|-----------------------|---|---------------|
| Commodity: | Zn-Cu-Au | Jabal Sayid |
| Deposit Type: | VMS category | |
| Exploration Activity: | Early Exploration | Yanbu Madinah |

Introduction

The Jabal Sayid mineral belt is located in the northern sector of the Jeddah Terrane and it comprises a bimodal sequence of mafic to felsic volcanics, volcaniclastics and sediments (including black shales) belonging to the Mahd Group (~775 Ma) plus mafic to felsic volcanics of the Arj Group (~785 Ma). This belt is bounded on the west and southeast by Quaternary Harrats Rahat and Kishib respectively and on the north, east and south by older intrusive rocks belonging to the Dhukhr complex (816803- Ma). It covers an area of approximately 9,579 sq. km.

Exploration & Key Minerals Occurences

The Jabal Sayid belt contains two known VMS deposits of which the Jabal Sayid Mine is developed on a large world-class deposit that is currently in production, and the Umm ad Damar deposit that is not yet being exploited at this time. In addition, the belt contains nine other occurrences that do not have a resource figure attached to them.



~ 3,000 km² Belt area to

be allocated



Mines Jabal Sayid and Mahd mines



1954 - 1994 ARGAS, BRGM, USGS and Riofinex explore



150 km Located NE of Madinah



Exploration activates

Geological mapping and Geophysical survey



Nearest airport/ Port

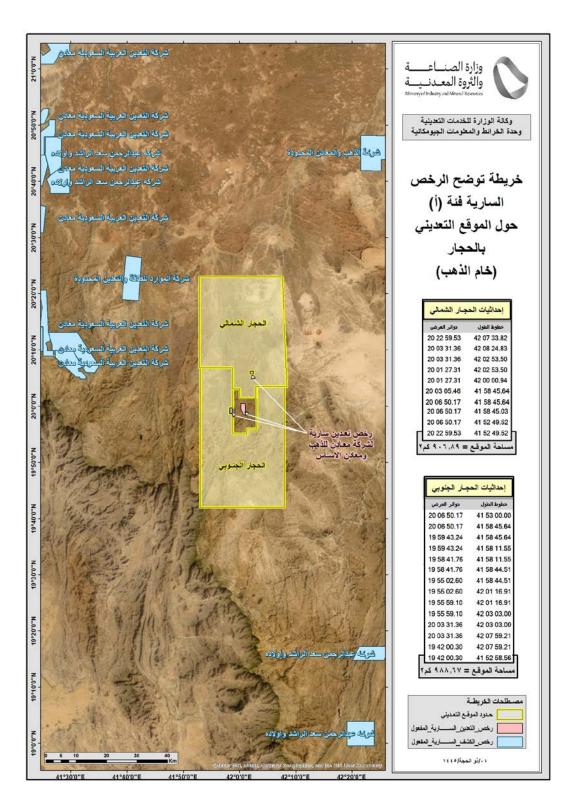
Madinah 150Km Yanbu 350 km





Al Hajar Gold Site

Site location and map







The Al Hajar site is located within the Wadi Shwas VMS Belt, which occupies an area of about 3,893 km² in the Asir Terrane. The Al Hajar site is divided into two distinct license areast:

- Al Hajar North: 906.89 km²
- Al Hajar South: 988.67 km2

The above maps illustrate the precise boundaries and coordinates of these two license areas.

Highlights

The Wadi Shwas VMS Belt occupies an area of about 3,893 km2 in the Asir Terrane, and it is located east of and mostly parallel to the adjacent Wadi Bidah Belt. The belt is underlain by Khutnah Formation sedimentary rocks and Quirshah Formation mafic to intermediate volcanic and volcaniclastic rocks that have been metamorphosed to the greenschist facies. The Quirshah Formation hosts most of the known VMS deposits.

The Wadi Shwas belt contains two main VMS deposits, Al Hajar and Jadmah, the second of which is currently known as Al Qadmah. Both are associated with a large number of lesser prospects (Table 1). Al Hajar is significant for its large amount of gold.





Competitive Tender Round 6 - Investment Overview

The Kingdom of Saudi Arabia (the **Kingdom**) has emerged as a prosperous hub of business opportunities, driven by the execution of its ambitious Vision 2030, a coordinated and focused strategic plan that is committed to establishing the country as a leading industrial powerhouse, driving economic growth and global competitiveness, while also seeking to diversify its dependence on oil and gas. The mining sector is set to become the third pillar of the Kingdom's economy (after oil and gas and petrochemicals), by capitalizing on the Kingdom's huge mineral endowment and exponential growth in domestic demand for commodities. To support the achievement of these goals, the Ministry of Industry and Mineral Resources (the **Ministry**) has taken the lead in advancing the mining sector, with aspirations to increase global competitiveness in exploration, mineral extraction, and processing and its contribution to the Kingdom's gross domestic product (**GDP**).

As part of its proactive approach, the Ministry will be extending a formal invitation to the mining sectors' local and foreign exploration entities, urging stakeholders from around the world to seize the potential of Saudi Arabia's vast mineral wealth. **Stakeholders will have the opportunity to engage with the Kingdom's mining and mineral sector through the upcoming Exploration Licensing Rounds under Competitive Tender Round 6, which involves licensing nine exploration sites to successful bidders (Exploration Licensing Rounds)**.

The upcoming Exploration Licensing Rounds signify the sixth iteration since the Kingdom initiated its inaugural competitive tender in 2022, during which mining, and exploration companies successfully secured new projects in Saudi Arabia.

The proposed sites for the Exploration Licensing Rounds include, **Abraq Abbab**, **Al Numrahniyah**, **Al Khushbi**, **Jabal Sabha**, **Shaib Marqan**, **Umm Qussur**, **Wadi Ad Dawsh (Al Farah)**, **Wadi Al Junah and Wadi Khyam**. The Ministry intends on issuing an Information Memorandum for each Exploration License Round in mid-June 2024.

| Project | Commodity | Area km ² | Region |
|--------------------------|------------------|----------------------|-----------|
| Jabal Sabha | Ag, Pb, Zn (REE) | 171.50 | Ar Riyadh |
| Shaib Marqan | Au (Ag, Cu) | 91.81 | Ar Riyadh |
| Hazm Shubat | Au | 93.00 | Makkah |
| Huimdan | Au | 34.00 | Asir |
| Umm Qusur | Au, Ag (Pb, Zn) | 20.00 | Ar Riyadh |
| Wadi Ad Dawsh (Al Farah) | Au (Ag, Cu) | 157.76 | Asir |
| Wadi Al Junah | Ag Cu (Zn, Au) | 425.37 | Asir |

Table 1: Proposed sites under Competitive Tender Round 6

Source: Ministry of Industry and Mineral Resources; National Geological Database.





Competitive Tender Process

The tender process has been designed to prioritize transparency, adherence to standards, and competitiveness, ultimately leading to the selection of the most suitable licensee for each site. Selection criteria will emphasize:

Work program **50%** Social impact management plan **20%** Innovation **10%** Resource and discovery activities **20%**

Indicative Timeline

Publication of Information Memorandum: Proposal Submission Deadline: Announcement of 6th Round Final Results:

4th of August 2024 1st of September 2024 18th of September 2024

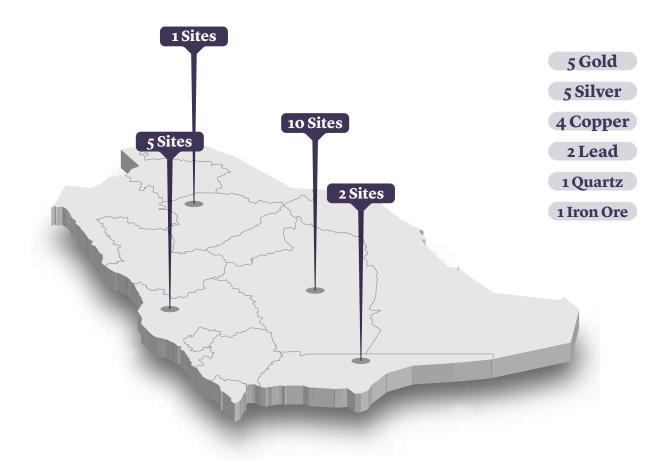






Future Competitive Tender Rounds

The Ministry plans to launch two more competitive tender rounds in the second half of 2024, comprising a total of 18 additional exploration license sites. These competitive tender rounds will cover commodities such as precious metals, base metals and iron ore The announcement of the additional exploration sites will occur throughout the year, bringing the total planned for 2024 to 33 exploration licenses to be issued.





Overview of Exploration Projects Under Competitive Tender Round 6

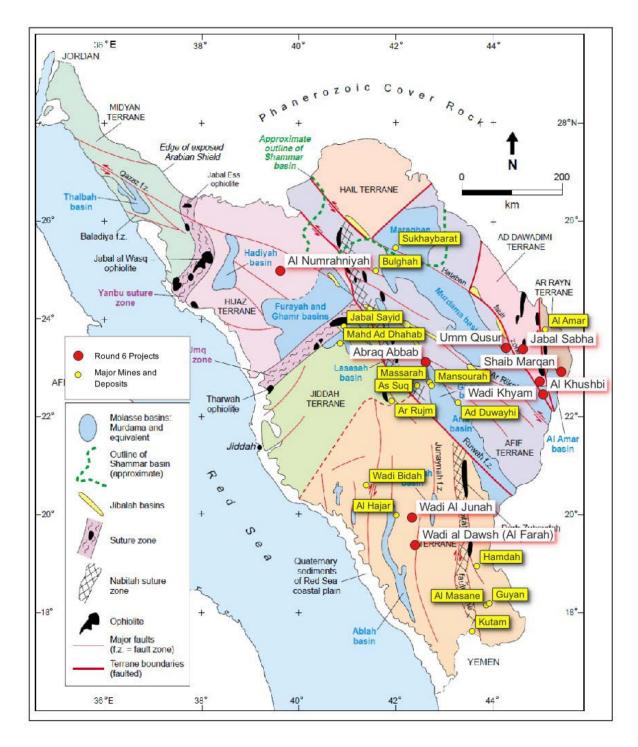


Figure 4: Map of Exploration Projects

Source: Nehlig, P., Genna, A., and Asfirane, F. (2002). A Review of the Pan-African evolution of the Arabian Shield. Geoarabia Vol 7, No 1 pp 103 – 124.





> Hazm Shubat Project

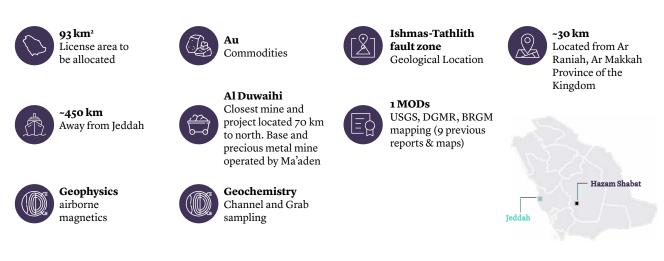


Table 5: Hazm Shubat is an early-stage exploration project.

Source: National Geological Database; Ministry of Industry and Mineral Resources

Highlights

- • Quartz Breccia Zone: 1,000 meters long and approximately 5 meters wide within calcareous amphibolite.
- Initial Samples: Five samples collected by the USGS showing gold values between 0.7 and 23 g/t.
- Geophysical Surveys: Ground magnetic, VLF-EM, and Genie EM (horizontal loop electromagnetic) surveys conducted by the SGS using a 50 x 50 m grid within an area of 1 km by 0.5 km, outlining two conductive zones possibly related to a mafic intrusion
- The Saudi Geological Survey has conducted an exploration program in 2023, data is available in the data room.

Location

The Hazm Shubat project (MODS 1440) in the Makkah region of Saudi Arabia is an exciting prospect for quartz vein gold mineralization. Covering an area of 93.47 km², the project benefits from excellent infrastructure, located about 40 km southeast of Ranyah city via Highway 4245 and approximately 400 km from the port of Jeddah. It is accessible via sealed roads from major highways and is near other significant mines, including Al-Duwaihi (70 km away), Mansourah-Masarah, and Al-Souq mines (around 100 km away). a mineralized structure probably associated with Nabitah faulting is traceable for more than 2 km. Mineralization consists of milky quartz with minor pyrite, galena, hematite and malachite. Initial exploration has been promising, with five samples showing gold values between 0.7 and 23 g/t.





> Umm Qusur Project

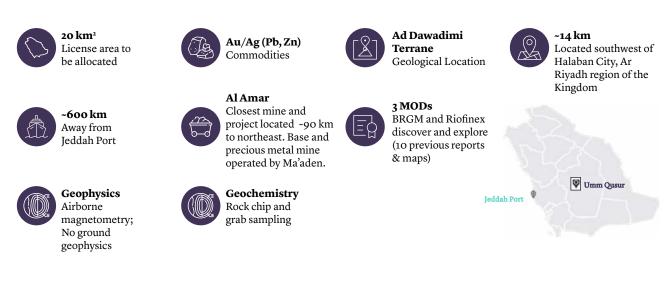


Table 8: Umm Qusur is an early-stage exploration project.

Source: National Geological Database; Ministry of Industry and Mineral Resources

Highlights

- Three mineral occurrences within two parallel gold bearing quartz veins with associated base metal occur along 5.5 km of strike. Grab samples with assays up to 5.85 g/t Au with a strike length of 800 meters.
- Quartz veins in a northwest-trending shear zone in basement granitoids are exposed in ancient workings along 800 m of strike. Panned grab samples of quartz veins and dump rocks returned up to 22.0 g/t Au and 31.4 g/t Ag.
- Drilling intercepts directly north of the tenement returned grades of 3.0 m @ 1.41 g/t Au and the 11 holes drilled along 700 m of strike averaged 3.5 m @ 0.45 g/t Au.
- Umm Qusur is located 90 km southwest of the Al Amar zinc-gold mine.

Location

The Umm Qusur Project area (20.0 km²) is located approximately 14 km southwest of Halaban city, Riyadh Region and 600 km from the port of Jeddah (Figure 8; Table 9). The Project area is accessible by Highway 80 west from Halaban city for 9 km then southwest for approximately 5 km along tracks through flattish terrain interspersed with rocky mesas.





> Jabal Sabha Project

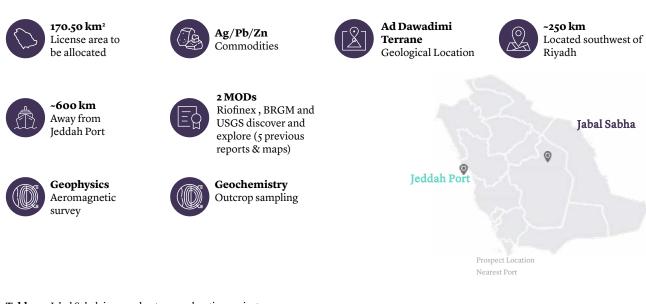


Table 11: Jabal Sabah is an early-stage exploration project.

 Source: National Geological Database; Ministry of Industry and Mineral Resources

Highlights

- Samples assayed returned values up to 34.2 g/t Ag, 3.2%Pb, 0.67% Zn.
- Radioactive granites with counts of **1,500 c/s** were recorded, indicating the presence of fractionated intrusives potentially hosting REE.
- Project area is accessible by sealed roads connected to major highways.

Location

The Jabal Sabha project area (171.5 km²) is located in the central part of Saudi Arabia, approximately 650km from the Red Sea and 600km from the Arabian Gulf.

The northern two-thirds of the project area is covered by sand dunes, with isolated outcrops of pyroxenite and gabbro, while the southern portion is dominated by a large granitic pluton that is popular with hikers due to the commanding views offered from the peaks which rise to an elevation of 1,006 m with a prominence of 52 m.





> Huwaymidan Project



34 km² License area to be allocated







Ar Rjum Closest mine located 35 to 45~ km away Gold mines*





Asir Terrane

Geological Location

USGS and BRGM discover and explore (7 previous report & Maps)



~10 km

Located North of

Table 14: Al Khushbi is an early-stage exploration project. Source: National Geological Database; Ministry of Industry and Mineral Resources

Highlights

- Location: 8 km from Al Mouaih city and 24 km northwest of Ar Rjum mine.
- Geological Features: Quartz veins and stringer zones, part of the Nabitah orogenic zone. •
- **Recent Exploration:**
 - RC Drilling Program: 27 holes totaling 2,640 meters.
 - Soil Sampling Program: 200-meter profile spacing and 50-meter stations on each control line.
- Historical Workings: North-south trending ancient workings with significant gold assays from mine dumps.

Location

The Huwaymidan (MODS 3304) project, located in the Makkah region of Saudi Arabia, covers an area of 9.58 km² and is considered prospective for gold orogenic mineralization. Situated 8 km from Al Mouaih city and 24 km northwest of the Ar Rjum mine, this project shows significant potential for economic gold deposits. The geological setting includes quartz veins and stringer zones within the Nabitah orogenic zone, and features altered, sheared, and foliated metavolcanic rocks with significant gold assays obtained from samples collected from mine dumps.

Recent exploration efforts have been promising, with an RC drilling program comprising 27 holes totaling 2,640 meters and a follow-up soil sampling program using a grid with 200-meter profile spacing and 50-meter stations on each control line. The project's proximity to existing infrastructure and significant mining operations, along with the presence of ancient workings, highlights its potential as a valuable gold exploration target in Saudi Arabia.





> Wadi Ad Dawsh (Al Farah) Project



Highlights

- Two ancient workings along 17 km of structural strike identified significant gold, silver and copper mineralization retuning grades of **13.8** g/t Au, **31.4** g/t Ag, **0.24%** Pb.
- Follow up trenching showed anomalous gold in the quartz veins and wall rock at surface.
- Work to date indicates that the style of mineralisation is quartz vein gold in altered shear zones along intrusive contacts, with affinities to **Shear Zone Type Gold Deposits**.
- Very limited exploration with previous exploration were limited to geological mapping of the ancient workings, surface channel and grab sampling and limited reconnaissance sampling along strike.

Location

The Wadi Ad Dawsh (Al Farah) Project, 157.76 km² in area, is located 36 km northeast of Al Namas city and approximately 400 km by road northeast of the Port of Jazan, within the Jabal Al Hasir (Asir) region of the Kingdom. The project area is accessible via good-quality regional roads to Al Namas then by roads and tracks to and within the project. The area is mountainous with the prospects located between 1300m and 1500m AMSL and is dissected by north-south ridges and drainage systems with local relief up to 100 m which makes access in an east-west direction difficult.





> Shaib Marqan Project

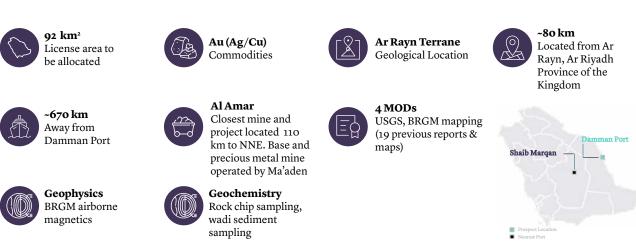


Table 24: Shaib Marqan is an early-stage exploration project.

 Source: National Geological Database; Ministry of Industry and Mineral Resources

Highlights

- Considered highly prospective for orogenic vein hosted gold mineralization and very under explored.
- At least 22 ancient workings over quartz veins noted in the area, with 50 vein and wall rock samples averaging ~5.8 g/t Au, with a maximum of 40 g/t.
- Veins have lengths of up to 300 m, with widths of up to 10 m being reported.
- Road 5977 passes along the eastern boundary of the area, with access into the block via wadis and some compound access tracks.

Location

The Shaib Marqan project is in central Saudi Arabia, centered at approximately 22°55' N, 45°24'E and covering an area of ~92 km². The area is 275 km by road SW of Riyadh. Ar Rayn is the nearest major center, however there are a few settlements, including Hafirat Sumakh along road 5977 near the project.





> Wadi Al Junah Project



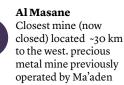
425.37 km² License area to be allocated

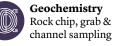


~480-500 km Equidistant by road from Jazan or Jeddah Port



Geophysics Airborne magnetometry; No ground geophysics Ag, Cu, Zn (Au) Commodities







3 MODs Riofinex , BRGM and USGS discover and explore (9 previous reports & maps)

Asir Terrane





~20 km

Located west of

Bishah City, Asir

Figure 26: Wadi Al Junah is an early-stage exploration project. Source: National Geological Database; Ministry of Industry and Mineral Resources

Highlights

- Significant copper, silver, zinc and gold mineralization identified in 3 ancient workings along 22 km of structural strike. Limited exploration to date with no geophysics or drilling completed.
- At the Haniyat (Wadi Al Junah) mineral occurrence, 37 samples (5 m rock chip and grab samples) showed maximum values of **0.30 g/t Au**, **11.0 g/t Ag**, **1.36% Cu and 1.20% Zn**.
- Assay results **averaged 0.7% Cu and 0.6% Zn** for six samples across a 25 m interval of the strongest silicification and malachite staining.
- A single grab sample taken at each of the two mineral occurrences at Wadi Ta'al assayed up to **0.44 g/t** Au, 160 g/t Ag and 1.53% Cu.
- The work to date indicates that the style of mineralization is base metal sulphides with silver and gold in altered shear zones along intrusive contacts, with affinities to Shear Zone Type Gold Deposits.

Location

The Wadi Al Junah Project, 425.37 km² in area, is located 20 km west of Bisha within the western Jabal Al Hasir (Asir) region of the Kingdom of Saudi Arabia ("KSA") and is equidistant by road from Jazan or Jeddah ports, approximately 480 to 500 km. The project area is well connected via an extensive road network, with Highway 30 from Qal'at Bishah (Bisha) to Al Theniah and Tabalah through the northern parts of the project area and Highway 3610 to Al Gafrat in the south of the project. There are some secondary roads and rugged tracks through parts of the project area. The area is in the east-tilted plateau of northern Asir with elevations over 1,160 m and is dissected by northwest-southeast ridges and drainage systems with local relief up to 80 m which may make access in an east-west direction difficult.





Licenses - General Overview

The Ministry may grant the following types of licenses, subject to the satisfaction of legal and regulatory requirements and procedures:

| Type of License | Description | Term | Renewal |
|---------------------------|---|---|---|
| Reconnaissance License | Allows the license holder to undertake a geological survey to find evidence of the existence of minerals and ores prior to undertaking exploration activities. | Not more than 2 years. | May be renewed once only and for a period not exceeding 2 years. |
| Exploration License | Allows the license holder to conduct an extensive search for deposits on any site using appropriate methods, to determine the presence, extent, quantity, quality and mining viability of such deposits. | Class A or B minerals: 5 years. Class C minerals: 1 year | Class A or B licenses: renewable for further 5 year periods up to a maximum of 15 years. Class C licenses are non-re- newable. |
| Exploitation License | Allows the license holder to extract ores and minerals from the relevant site by mining or quarrying, including any direct or indirect activity required to achieve this purpose. | 30 years | Up to further 30 years. |

Minimum Expenditure for Exploration Licenses

Exploration license holders are subject to minimum annual expenditure requirements, commencing at SAR 750 per square kilometre (or fraction of a square kilometre) and escalating annually as shown in the table below:

| License Year | Amount (in SAR) per km2 or fraction of km ² |
|--------------|--|
| 1 | 750 |
| 2 | 1,500 |
| and 4 3 | 3,000 |
| and 6 5 | 4,500 |
| and 8 7 | 5,600 |
| to 15 9 | 7,500 |

Source: mining law and regulation https://taadeen.sa/en/law-and-regulations



موتمر التمحيــن الدولي

FUTURE MINERALS

Ministerial Roundtable

14 January 2025

Conference and Exhibition

15-16 January 2025

Riyadh, Saudi Arabia, King Abdulaziz International Conference Center





Ministerial Roundtable



The opening event of the Future Minerals Forum 2025 will once again be the Ministerial Roundtable (MRT), a meeting of senior government representatives from around the world to collaborate in finding common ground to develop resilient mineral supply chains.

The MRT is a government-led platform, created by Saudi Arabia, for seeking to work together to produce the minerals the world needs for the energy transition.

Our 2025 meeting will bring together more of the mineral host and customer countries' most eminent government representatives than ever to further regional collaboration on the sustainable development of the minerals and mining industry. At the Roundtable they will discuss the huge untapped potential of this emerging area and explore how critical minerals can become a major development driver in their countries.

Previous meetings of the Roundtable have shown the historic significance of the event and that it is now regarded as the primary place where global action on minerals is formulated. Just as the Future Minerals Forum is the only truly global forum for shaping the future of minerals, the Ministerial Roundtable is the only government-level gathering to focus on the subject. Together, its participants show that the world's energy ambition is matched by their commitment to bringing meaningful change to mineral production so that it can bring social and economic prosperity to their countries.







This next meeting will take forward the actions agreed at the previous meeting, at which – amongst many others – governments supported the development of a regional Sustainable Future Minerals Framework and acknowledged efforts by international organizations to consolidate sustainability standards in the minerals sector.

It will also hear updates on the creation of the Mineral Innovation and Acceleration Park in Riyadh – the first phase in the creation of a global network of centers of excellence aimed at building capacity.

The Ministerial Roundtable 2025 will demonstrate the power of partnership and



the progress that can be achieved by collaboration and coordination between governments and their partners from the private sector and civil society.

The World's Largest Ministerial Gathering for Minerals and Metals







Overview of the Future Minerals Forum

The Future Minerals Forum (FMF), held in Riyadh, Saudi Arabia, is now well established as the leading global platform for shaping the future of critical and strategic minerals. These can power a sustainable future and deliver lasting value to the countries in which they are produced and processed.

Marking its fourth year, and bigger than ever before, the FMF is a government-led, multistakeholder initiative, convening governments, businesses and other stakeholders from Africa, West and Central Asia, and the rest of the world, to enable the creation of resilient and responsible minerals value chains.

The Government of Saudi Arabia created the Future Minerals Forum as part of its efforts to expand sustainable mineral and metal exploration, extraction and processing in the Kingdom and around the world in ways that benefit everyone.







FMF strategic goals are:

- To enable the development of resilient and responsible minerals and metals industries in the minerals 'super region' of Africa, West and Central Asia and other host countries, by attracting investment, deploying digital and other advanced technologies, and applying high standards for sustainability performance.
- To place the region at the center of a global conversation on the future supply of critical and strategic minerals.

This region not only has a vast mineral endowment but is a large and growing market, with access to capital. It represents a canvas on which to develop modern mining industries that meet ever higher societal expectations on sustainability.

But such a huge task requires collaboration on a grand scale - hence the creation of the FMF.

It provides a platform for experts – everyone from senior government officials to major mining company CEOs, cutting edge technology businesses and NGOs – to collaborate on defining what the region requires.

Over the course of its ground-breaking four years, the Forum has moved well beyond mere discussions and is focused on action, with initiatives underway to enhance cooperation and coordination in the mineral sector, develop centers of excellence to help build capacity and become part of minerals strategies in the super region.



Web Links & Contacts

Below are web links to Saudi Arabia's investment ecosystem:

| Ministry of Industry and Mineral Resources | mim.gov.sa |
|--|---------------------------------|
| Saudi Geological Survey | sgs.gov.sa |
| Saudi Invest | investsaudi.sa |
| National Geological Database | ngp.sgs.org.sa |
| Taadeen | mining.smsc.sa |
| Future Minerals Forum | www.futuremineralsforum.com |
| For inquiries | miningbidding@mim.gov.sa |
| Incentive | ExplorationIncentive@mim.gov.sa |



Ministry of Industry & Mineral Resources

