Ministry of Industry
& Mineral Resources

Mining and Mineral Opportunities in the kingdom of Saudi Arabia

INVEST SAUDI

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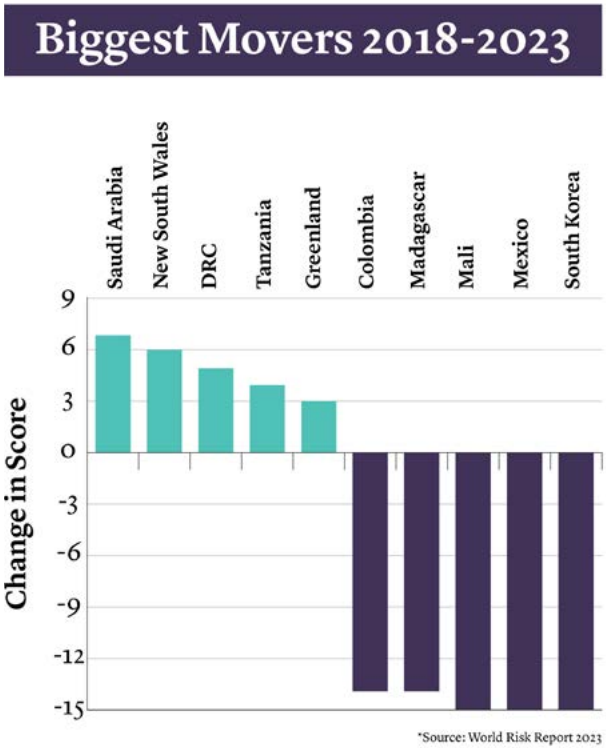
Mining Sector Overview

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.

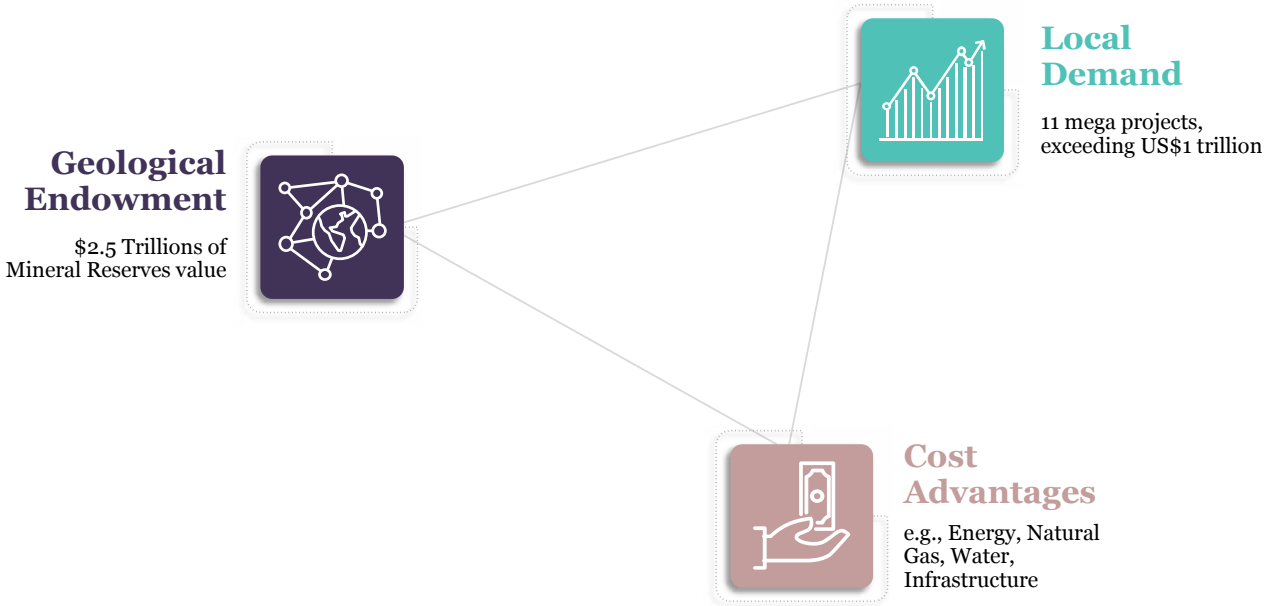


The recently published World Risk Report 2023, which features MineHutte Risk Ratings, highlights Saudi Arabia as a standout best-performing mining jurisdiction, both regionally and globally. The Kingdom's scores have risen sharply in terms of de-risking mining investments from 2018 to 2023 (five years) 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.

KSA, The World's Next Minerals Hub

Overview of mining sector opportunities

Mining Sector in Saudi Arabia is enabled by 3 key pillars...



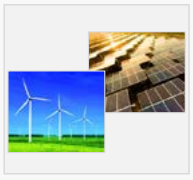
Local Demand

A substantial and rapidly growing demand

Saudi Arabia has large demand for mineral products as indicated by its ranking in mineral consumption...

- **#2** in precious metals
- **#3** in copper
- **#5** in ceramic tile
- **#12** in sodium carbonates
- **#15** in steel and aluminum

...And is expected to have a significant growth across many value chains is rising due to economic and industrial growth

Cars	**+350,000** electric cars by 2030	
Clean, renewable energy and storage	**16** gigawatts of wind energy by 2030 **40** gigawatts of solar energy by 2030	
Manufacturing and mega projects	Localization of **70%** of supply chains	

Copper
Aluminum
Lithium
Cobalt
Nickel
Silicon
Iron

Cost Advantages

Competitive incentives and enablers

Up to 75%	5 Years	30%	20%	100%
Co-funding CAPEX	Royalty fees exemption	Discounts for each local downstream processing up to 90%	Corporate TAX	foreign direct **ownership** allowed

Additional incentives

Salary coverage of up to **30-50 %** for Saudi employees[1]

40+ locations across the Kingdom with competitive land & utility prices

Customs duties exemptions on machinery, equipment, raw materials and spare parts if they are for industrial use

Logistics network connecting and enabling all sectors across the Kingdom **Domestically, Regionally and Internationally**

1. With extra 10% for female hires

Hence, an ambitious strategy was developed to make the sector the 3rd pillar of Saudi's industrial growth

Vision 2030 Relation

Objectives &! Targets of KSA Mining Sector

Maximizing the value-added from the kingdom's mineral resources

1

Sector Main Targets

Create growth engines beyond oil and gas

Create high value jobs for Saudi Nationals

2

2030 Macroeconomics Targets

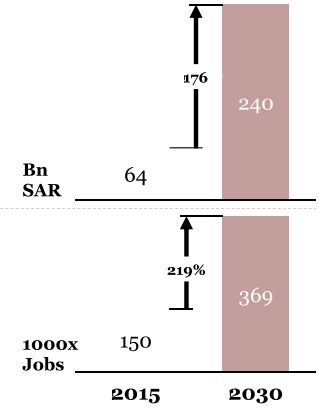
Grow total sector **GDP impact** by **176 bn** SAR

Offering **450 bn SAR** of Investment opportunities by 2030

Create **219.000 new jobs**

3

Full potential scenario



Since its inception, the mining strategy has accomplished substantial results

Launching the general program for the geological survey, one of the largest in the world, covering **700,000 km²** at **a 55% completion rate**

Launching the **electronic platform** for issuing and managing mining licenses for all investors to ensure the **highest levels of reliability and transparency**

Digitized all geological data obtained over more than 80 years and **made available online to all investors**

Activation of the mining investment Law

(One of the most competitive in the world, a third of its articles aimed at achieving sustainability goals)

SAR 170 bn **investments in the metallurgical industries sector**

SAR 80 bn **Investments agreements signed in 2023**

347% **Increase in exploration spending**

554% **increase in licenses issued annually**

Value chain opportunities

Saudi Arabia's ambition is to achieve tremendous growth to become a leading player in several mineral value chains globally

Fertilizers

Among top 3

Increasing production to over 7.5 million tons (P205 basis) to become a top 3 global phosphate producer

Aluminum

Among top 10

Become a top 10 producer of primary aluminium metal and an exporter of high value-added downstream products

Titanium

Among top 3

Increasing sponge production to become a top 5 global titanium metal producer

Copper

3x mining output

Increasing mining output 3 times while creating fully-integrated value chain

Gold

3x mining output

Increasing gold mining output over 3 times relative to today

Iron

2x in production

More than doubling the production of steel to meet full long steel demand and 80%+ self-sufficiency in flat products

Ceramics

Among top 10

Achieve self-sufficiency in ceramic industry across application markets

Inorganic compounds

Pioneer Innovation

Becoming an innovator in inorganic chemical manufacturing

Glass

2x in production

Maintain current net export position in float glass and container glass while achieving self-sufficiency in fiber glass

Other

New value chains

Expansion in new value chains (uranium, rare earth elements, energy transition minerals (Lithium, Cobalt, etc.) Tantalum,, mineral-based catalysts)

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).

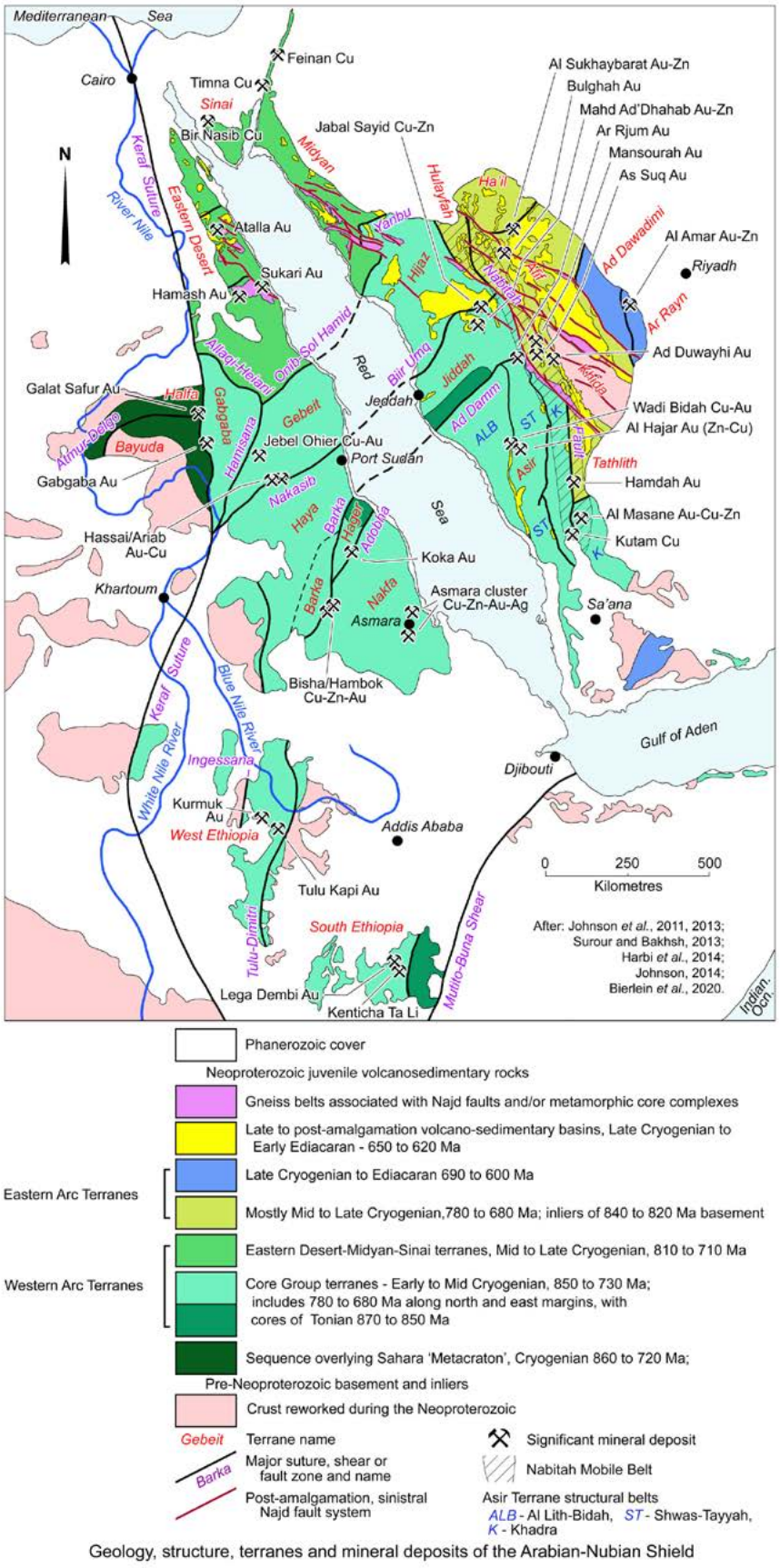


Figure 1 *Significant mineral deposits of the Arabian-Nubian Shield*

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.

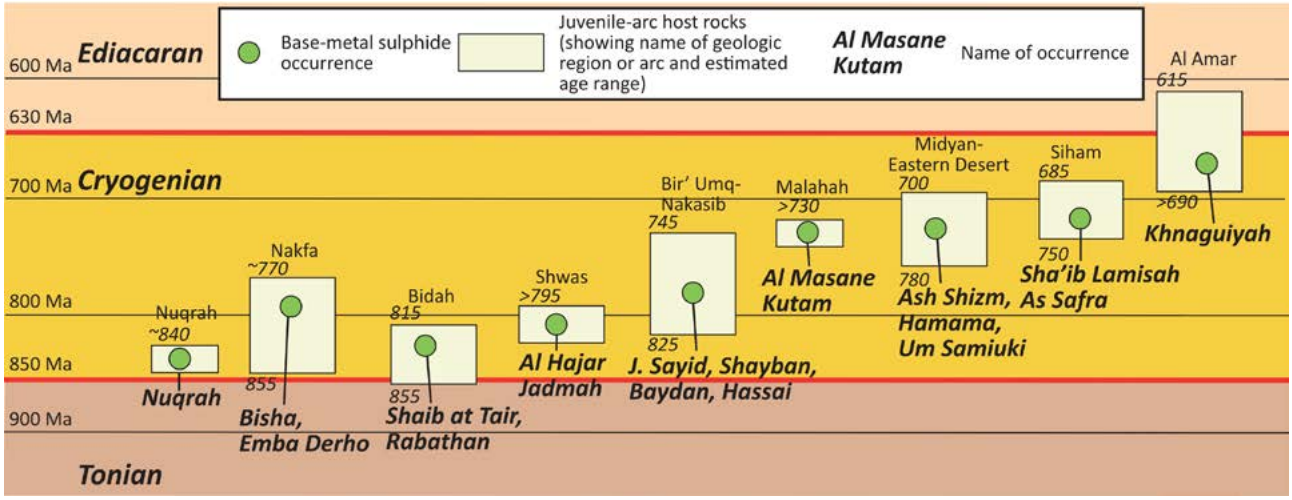


Figure 2 *Time spread of mineral deposits of the Arabian-Nubian Shield*

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 km^2 in 2019 to around USD67 per km^2 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)

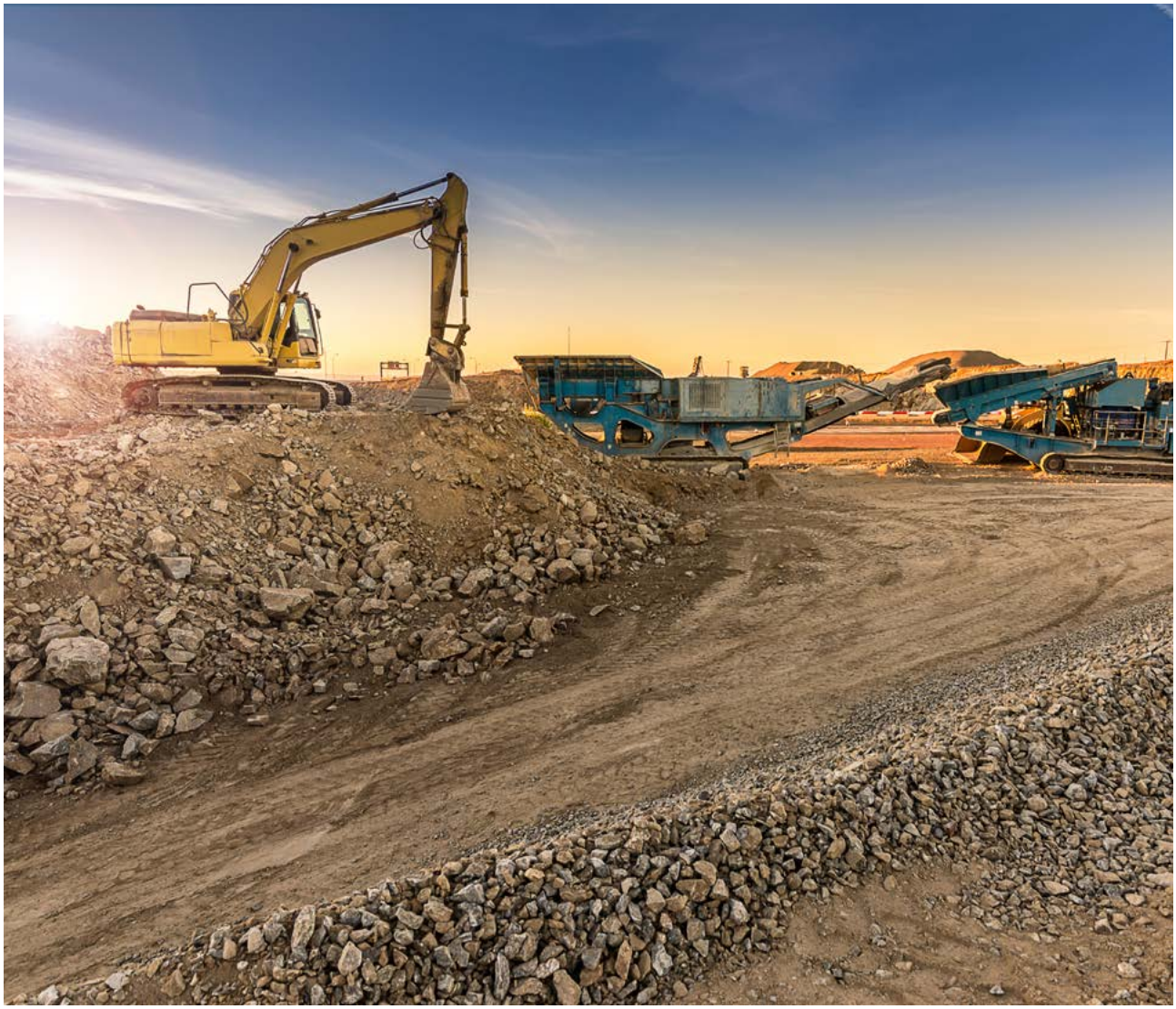
In April this year, the Ministry launched a game-changing initiative—the 685 million SAR (equivalent to US$182 million) Exploration Enablement Program (EEP). This innovative program is specifically tailored for companies holding an active exploration license in the Kingdom in the first 5 years duration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

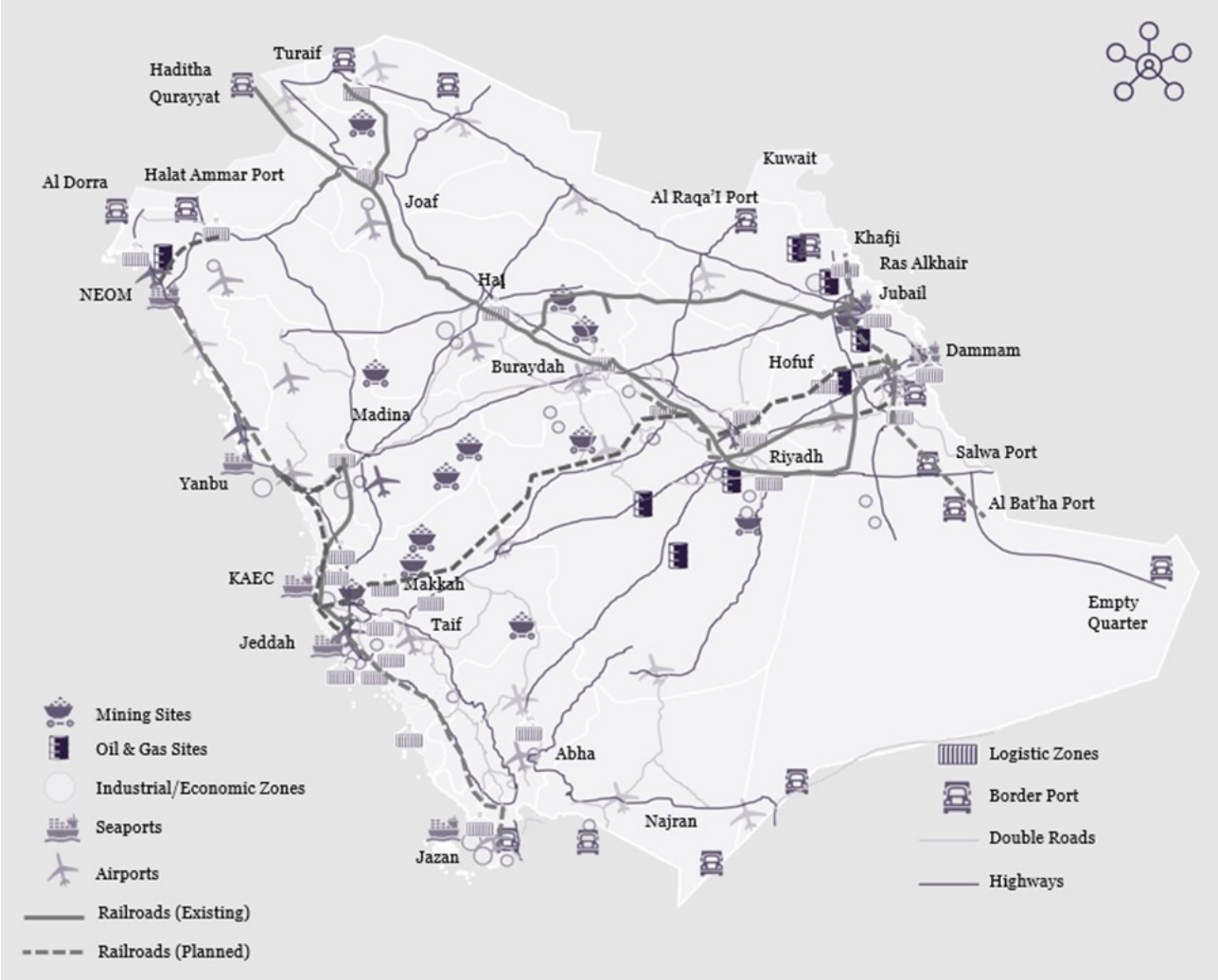


Figure 3 *Infrastructure Network of Saudi Arabia*

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
	0.8 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.

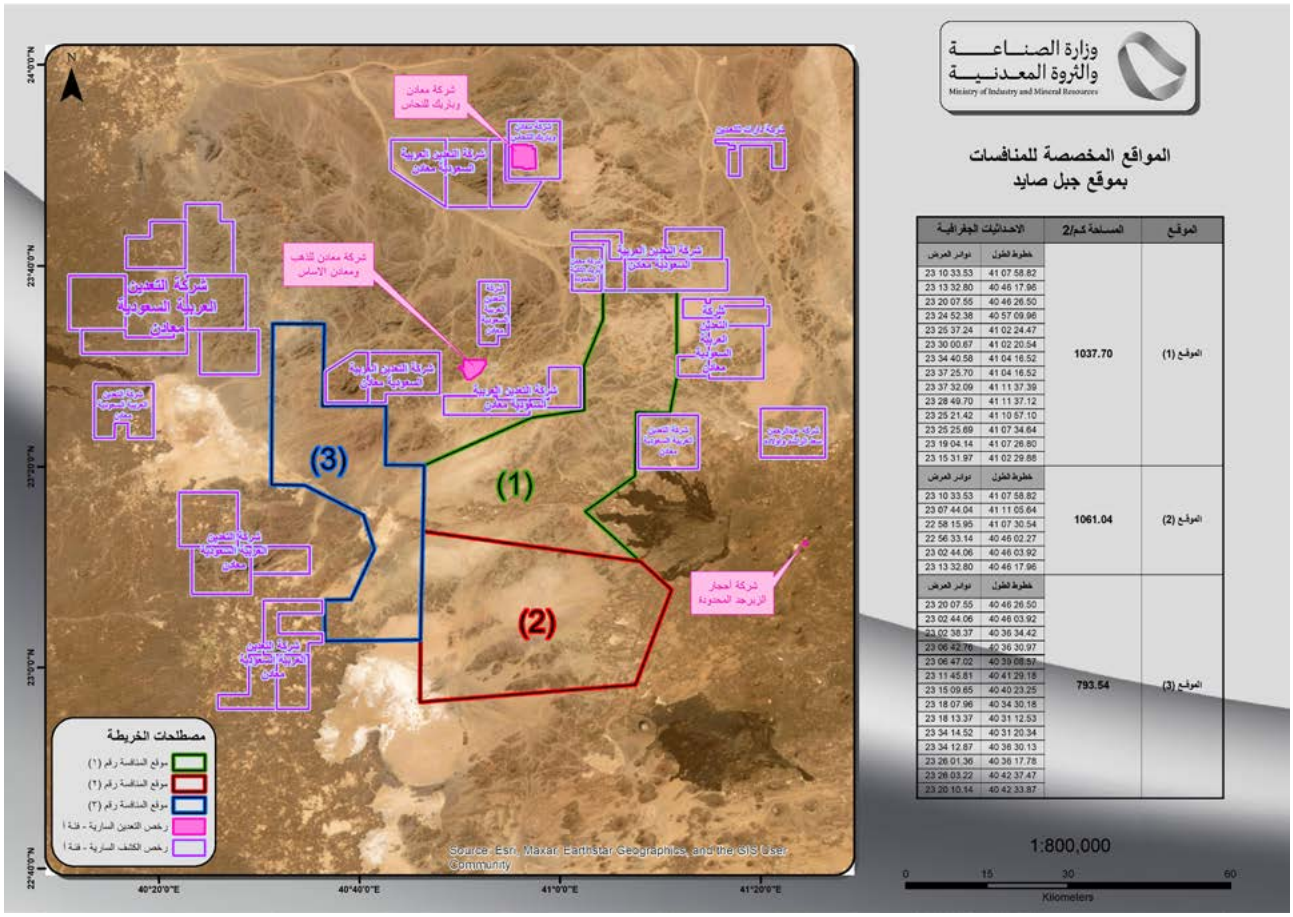
Following the pre-qualification round, the Ministry will issue Information Memorandums for both the belts. This will also be the beginning of Proposal Stage for these Belt Exploration License Rounds.

Timelines

Target Date	Process Stage
June 23 to 15 October, 2024	**Pre-qualification Round**
October 31, 2024	**Publication of Information Memorandums and Invitation to Proposal Stage**
December 21, 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
Deposit Type:	VMS category
Exploration Activity:	Early Exploration

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

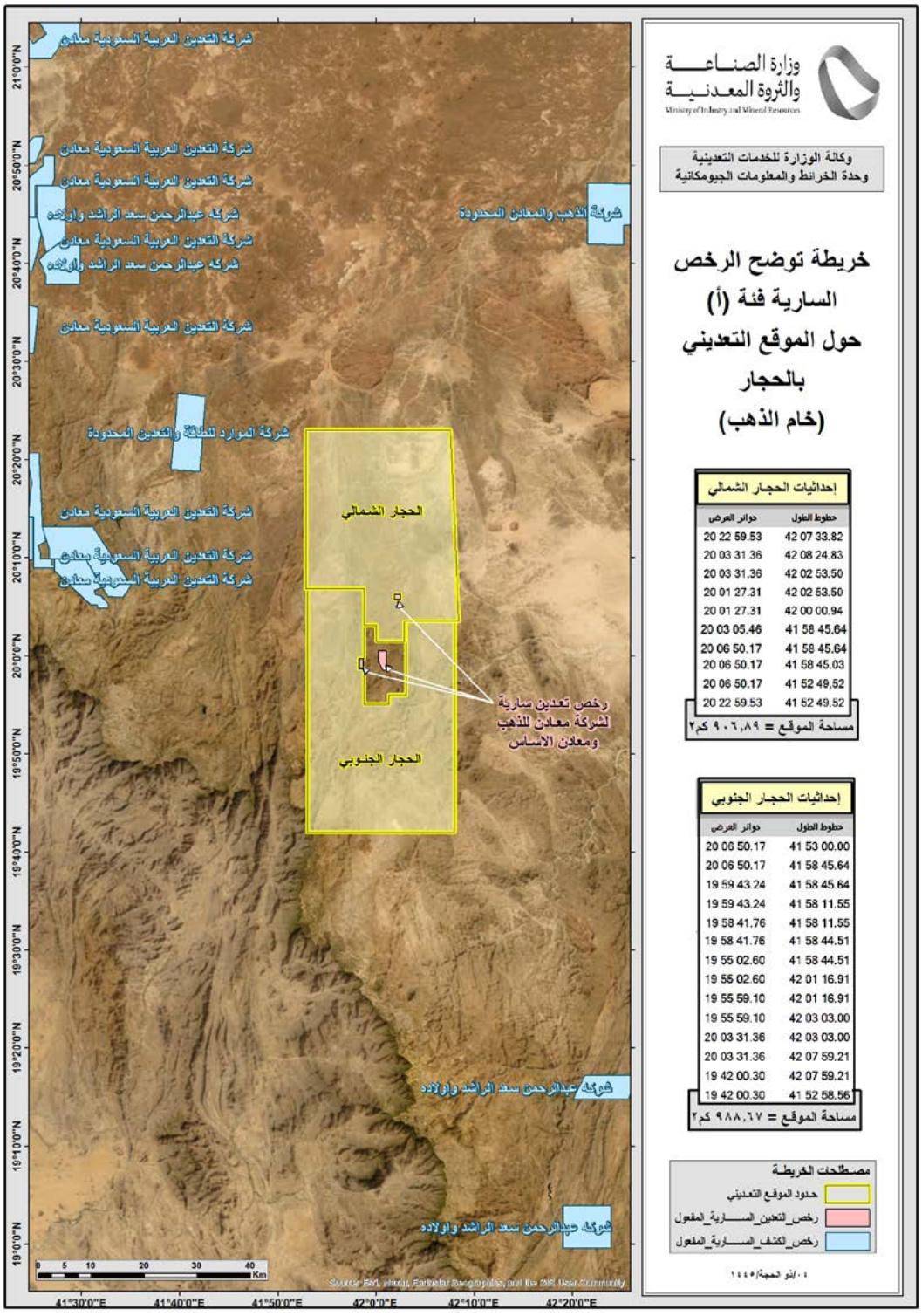
150 km
Located NE of Madinah

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 km^2 in the Asir Terrane. The Al Hajar site is divided into two distinct license areast:

- **Al Hajar North:** 906.89 km^2
- **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 7 - 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 7, 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, **Wadi al Lith, Jabal Baudan, Jabal al Ad Dimah, Jabal al Klah North, Jabal al Klah South and Umm Hijlan (Mamilah).** The Ministry intends on issuing an Information Memorandum for each Exploration License Round in mid-June 2024.

Project	Commodity	Area km²	Region
Wadi al Lith	Au	243.87	Makkah
Jabal Baudan	Au (Cu, Ag)	244.92	Makkah
Jabal al Ad Dimah	Au (Cu, Pb, Zn)	210.90	Makkah
Jabal al Klah North	Ag, Pb, Zn	98.15	Riyadh
Jabal al Klah South	Ag, Pb, Zn	19.21	Riyadh
Umm Hijlan (Mamilah)	Au, Ag (Pb, Zn)	78.4	Makkah
Jabal Sabha	Ag, Pb, Zn	171.50	Riyadh

Table 1: Proposed sites under Competitive Tender Round 7
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:

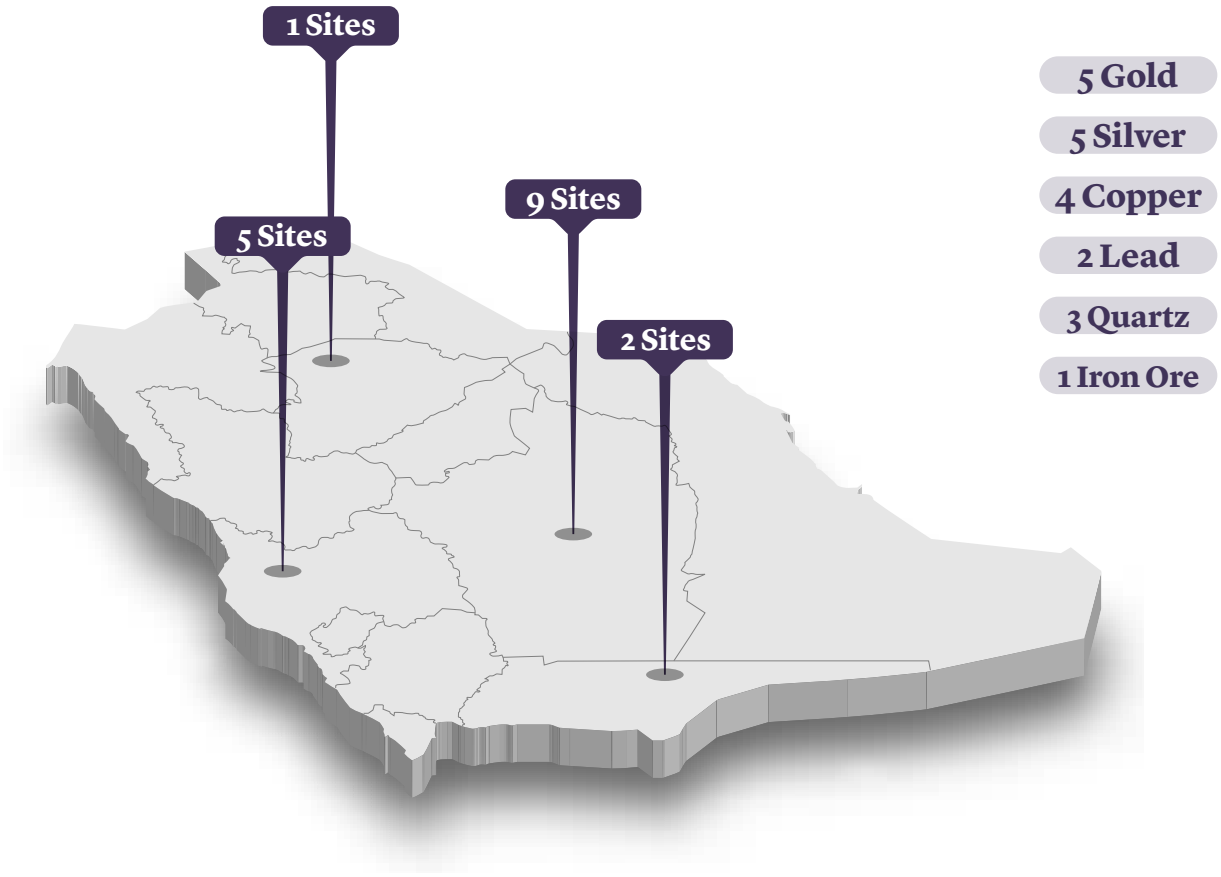
Work program **50%**
Social impact management plan **20%**
Innovation **10%**
Resource and discovery activities **20%**

Indicative Timeline

Publication of Information Memorandum:	14th October 2024
Proposal Submission Deadline:	8th December 2024
Announcement of 7th Round Final Results:	26st December 2024

Future Competitive Tender Rounds

The Ministry plans to launch one more competitive tender round in the second half of 2024, comprising a total of 17 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 7

Wadi Al Lith

243.87 km²
License area to be allocated

(Cu, Au, Zn)
Commodities

Asir Terrane
Geological Location

~150 km
Jeddah

~160 km
Away from Jeddah Seaport

Exploration activities
Geological mapping, Geophysical Survey and stream sediment sampling

1 MOD
USGS and Riofir

Deposit Type
VMS Category

Table 8:

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

Location & Geology

- Wadi al Lith is located along the western red sea coastal plain, 200km south of Jeddah, the area consists of rugged mountainous terrain.
- The area is dissected by several wadi which flow southward to the red sea. The area underlain by the late Proterozoic volcanics, volcaniclastic and sedimentary layered rocks as narrow northeast trending belts later intruded by the younger plutonic rocks ranging in composition from gabbro to diorite to granite.

Previous Exploration Work

- Aeromagnetic Surveys have been conducted in the region which have been digitized, compiled & assessed by BRGM between 1970-1980 to identify potential areas.
- Additionally, Riofinex in 1985 along with USGS in 1966 & 1981 carried out Regional & Geochemical Reconnaissance for stratigraphic co-relation & interpretation of sample assay values.

Mineralization and Prospectivity

- The mineralization at Wadi al Lith area was found to be in association with siliceous volcanic rocks. It appears as massive pyrite and occasionally as massive ironstone. The mineral prospecting program completed in the area outlined several areas of siliceous volcanic rocks which inferred to constitute an attractive environment for the development of volcanogenic massive sulfide deposits (VMS).

Jabal Baudan

244.92 km²
License area to be allocated

(Cu,Au,Zn)
Commodities

Asir Terrane
Geological Location

~150 km
Jeddah

~160 km
Away from Jeddah SeaPort

Exploration activities
Geological mapping
Geophysical Survey and stream sediment sampling

1 MOD
USGS & Riofinex

Deposit Type
VMS

Table 11:

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

Location & Geology

- Jabal Baudan is located along the western red sea coastal plain, 177 km south of Jeddah, the area consists of rugged mountainous terrain. The area is dissected by several wadi which flow southward to the red sea.
- The area underlain by the late Proterozoic volcanics, volcaniclastic and sedimentary layered rocks as narrow northeast trending belts later intruded by the younger plutonic rocks ranging in composition from gabbro to diorite to granite.

Previous Exploration Work

- Aeromagnetic Surveys have been conducted in the region which have been digitized, compiled & assessed by BRGM between 1970-1980 to identify potential areas.
- Additionally, Riofinex in 1985 along with USGS in 1966 & 1981 carried out Regional & Geochemical Reconnaissance for stratigraphic co-relation & interpretation of sample assay values.

Mineralization and Prospectivity

- The mineralization at Jabal Baudan share the same characteristics found in Wadi al Lith, the mineralization is in association with siliceous volcanic rocks. It appears as massive pyrite and occasionally as massive ironstone.
- The mineral prospecting program completed in the area outlined several areas of siliceous volcanic rocks which inferred to constitute an attractive environment for the development of volcanogenic massive sulfide deposits (VMS).

Jabal al Ad Dimah Project

210.90 km²
License area to be allocated

(Cu,Au,Zn)
Commodities

Asir Terrane
Geological Location

~150 km
Jeddah

~160 km
Away from Jeddah SeaPort

Exploration activities
Geological mapping
Geophysical Survey and stream sediment sampling

1 MOD
USGS & Riofinex

Deposit Type
VMS

Table 14:
Source: National Geological Database; Ministry of Industry and Mineral Resources

Location & Geology

- Jabal al Ad Dimah is located along the western red sea coastal plain, 195 km south of Jeddah, the area consists of rugged mountainous terrain. The area is dissected by several wadi which flow southward to the red sea.
- The geology of Ad Dimah consist of late Proterozoic volcaniclastic and sedimentary layered rocks later intruded by the younger plutonic rocks ranging in composition from diorite to granite.

Previous Exploration Work

- Aeromagnetic Surveys have been conducted in the region which have been digitized, compiled & assessed by BRGM between 1970-1980 to identify potential areas.
- Additionally, Riofinex in 1985 along with USGS in 1966 & 1981 carried out Regional & Geochemical Reconnaissance for stratigraphic co-relation & interpretation of sample assay values.

Mineralization and Prospectivity

- The zinc mineralization at Ad Dimah area were found to show a bi-modal distribution, the higher values occurring over areas underlain by rocks of the diorite complex. Several sediment samples also show anomalous Nb, Ce, Y, Ta and Th values.
- The mineral prospecting program completed in the area outlined several areas of siliceous volcanic rocks which inferred to constitute an attractive environment for the development of volcanogenic massive sulfide deposits (VMS).

Jabal al Klah North Project

98.15 km²
License area to be allocated

(Ag, Pb, Zn)
Commodities

Ad Dawadimi Terrane
Geological Location

~320 km
Riyadh

~350 km
Away from Jeddah Port

Nearest Mine
Al Amar mine Ma'aden

13 MODs
1954 – 1994 ARGAS, BRGM, USGS and Riofinex

Deposit Type
VMS Category

Exploration activities
Geological mapping, Geophysical Survey, Soil sampling, Trenching

Table 17:
Source: National Geological Database; Ministry of Industry and Mineral Resources

Location & Geology

- Jabal al khalh is part of Ad Dawadimi silver district which located at the eastern part of the Arabian Shield, 750 km northeast of Jeddah and 320 km from Riyadh. The Ad Dawadimi district compromise a complex granite batholith (granite and granodiorite) bounded by north-trending faults. To the east, the Ar Ridaniyah reverse fault is marked by ultrabasic rocks.

Previous Exploration Work

- BRGM explored the region in 1965 through detailed geological mapping & sampling along with alluvial prospecting for heavy minerals and drilling program.
- Companies like ARGAS & Riofinex have explored the area in 1968 & 1984 through geological surveys and geochemical sampling to examine potential mineralized areas
- BRGM further explored the region in 1985 by conducting geochemical & geological reconnaissance to evaluate the potential occurrence of silver mineralization belt in the region

Mineralization and Prospectivity

- The Pb-Zn-Ag mineralization, which occurs in silicic breccia and has been sheared into eye-shaped lenticular bodies, is believed to be primarily controlled by hydrothermal activity along the central axis of the batholith. Significant silver grades varied from 55 to 360 g/t appear to exist only in open fractures.

Jabal al Klah South Project

19.21 km²
License area to be allocated

(Ag, Pb, Zn)
Commodities

Ad Dawadimi Terrane
Geological Location

~320 km
Away from Riyadh

~632 km
Away from Jeddah Seaport

7 MODs
1954 – 1994 ARGAS, BRGM, USGS and Riofinex

Deposit Type
VMS

Exploration activities
Geological mapping
Geophysical Survey, Soil sampling, Trenching

Table 17:
Source: National Geological Database; Ministry of Industry and Mineral Resources

Location & Geology

- Jabal al khalh is part of Ad Dawadimi silver district which located at the eastern part of the Arabian Shield, 750 km northeast of Jeddah and 320 km from Riyadh.
- The Ad Dawadimi district compromise a complex granite batholith (granite and granodiorite) bounded by north-trending faults. To the east, the Ar Ridaniyah reverse fault is marked by ultrabasic rocks.

Previous Exploration Work

- BRGM explored the region in 1965 through detailed geological mapping & sampling along with alluvial prospecting for heavy minerals and drilling program.
- Companies like ARGAS & Riofinex have explored the area in 1968 & 1984 through geological surveys and geochemical sampling to examine potential mineralized areas
- BRGM further explored the region in 1985 by conducting geochemical & geological reconnaissance to evaluate the potential occurrence of silver mineralization belt in the region

Mineralization and Prospectivity

- The Pb-Zn-Ag mineralization, which occurs in silicic breccia and has been sheared into eye-shaped lenticular bodies, is believed to be primarily controlled by hydrothermal activity along the central axis of the batholith. Significant silver grades varied from 55 to 360 g/t appear to exist only in open fractures.

Umm Hijlan (Mamilah) Project

78.4 km²
License area to be allocated

(Au , Pb, Cu)
Commodities

Ar Dawadimi
Geological Location

~98 km
Located from Taif

~266 km
Away from Jeddah SeaPort

Exploration activities
Geological mapping, Geophysical Survey, Soil sampling, Trenching, Drilling

5 MODs
USGS, BRGM and Riofinex

Deposit Type
Orogenic Gold

Table 24:
Source: National Geological Database; Ministry of Industry and Mineral Resources

Location & Geology

- The Ma'milah project is located 90 km southeast of At Ta'if, on the north Side of Wadi Al Khumrah, at lat 21°03'N. and long 41°18'E.
- The project can be reached by following the asphalt-surfaced At Ta'if-Al Bahah highway 88 km southeast from At Ta'if. Ma'milah geology consist of metasedimentary and metavolcanic rocks of basaltic- andesitic composition, representing the northern end of the Wadi Bidah greenstone belt.

Previous Exploration Work

- SAMS, in 1936 conducted geochemical prospecting the region to identify potential gold prospects in the region
- DGMR, subsequently conducted detailed geochemical sampling in 1967 to enhance the geological information available for the identified gold prospects
- In 1976, USGS conducted detailed mapping and core drilling in the area for delineation of gold mineralization zone
- Riofinex conducted exploration program in the identified potential zones from 1979-1982 focusing on geochemical & geological prospecting.
- BRGM in 1986, re-investigated the high potential gold mineralized area

Mineralization and Prospectivity

- Mineralization at Ma'milah consists of sulphide boxworks and sparse pyrite, pyrrhotite and chalcopyrite in metagreywacke, mafic tuff and chert.
- Analysis showed anomalous Cu and Zn, and best gold values of 24 g/t and 25 g/t.

Jabal Sabha Project

170.50 km²
License area to be allocated

(Ag/Pb/Zn)
Commodities

Ad Dawadimi Terrane
Geological Location

~250 km
Located southwest of Riyadh

~600 km
Away from Jeddah Port

2 MODs
Riofinex , BRGM and USGS discover and explore (5 previous reports & maps)

Geophysics
Aeromagnetic survey

Geochemistry
Outcrop sampling

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.

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-renewable.
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 km²
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

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
For inquiries	miningbidding@mim.gov.sa
Incentive	ExplorationIncentive@mim.gov.sa

Ministry of Industry
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