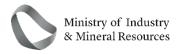


# MAKMAN HEJAB LICENSING ROUND

# **INFORMATION MEMORANDUM**

Publishing Date 1st April 2024







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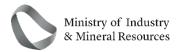
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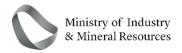
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# Foreword

Economic diversification is the foundation of Saudi Arabia's Vision 2030, and the mining and industrial sectors are critical to the Kingdom of Saudi Arabia's (the "**Kingdom**") strategy, through increasing local production, exports, job opportunities and investments, in line with the Vision 2030 targets.

In August 2019, the Ministry of Industry and Mineral Resources was established as an independent government body with responsibility for regulating the mining sector in the Kingdom. This is a clear representation of the government's priority to develop this sector of the Saudi economy and provide opportunities to local and foreign investors while maximizing their benefits.

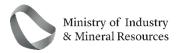
The mining sector is set to become the third pillar of the Kingdom's economy (after oil & gas and chemicals). To enable this sector growth, the Kingdom's mining strategy includes a comprehensive set of initiatives to develop and enhance the mining ecosystem in the Kingdom, including areas such as accelerating exploration by promoting investor protection, clarifying the legal and fiscal regimes and in promoting geodata acquisition and distribution through the Regional Geological Survey Program and the creation of the National Geoscience Database.

The new mining law that came into effect in 2021 targets the exploitation of the Kingdom's mineral resources and the development of its mineral-based manufacturing industry, all of which is expected to reduce imports to the Kingdom by c. \$10 billion and generate more than 200,000 jobs by 2030.

The Kingdom's competitive Licensing Rounds are a continuation of a successful, new chapter in our journey towards unlocking our country's vast mineral resources by fast-tracking exploration activity. The Makman Hejab project is an example of an enticing exploration project with the potential to contribute to the Kingdom's future copper economy.

This Licensing Round will enable the Kingdom to identify the most suitable exploration partners for longterm growth and investment in the mining sector of the Kingdom, and provides interested investors with open access to data relating to the Makman Hejab project.

We look forward to showcasing Makman Hejab on a global stage so that, together, we can create value for our partners and the Kingdom.





# **EXECUTIVE SUMMARY**

As announced on 10<sup>th</sup> January 2024, the Ministry is conducting a competitive licensing round for the exploration of the Makman Hejab site ("**Licensing Round**" or the "**Project**") pursuant to which the Ministry will award the successful bidder ("**Successful Bidder**") an exploration license for the Makman Hejab site ("**Exploration License**"). The Licensing Round is designed as a transparent, standards-based, competitive process, which will result in the selection of the most appropriate licensee for the Makman Hejab site ("**Makman Hejab**" or the "**Site**").

Bidders are hereby invited to submit their best offer for the Exploration License as part of a valid and binding proposal to become a licensee for the Site ("Proposal"). Proposals must be submitted to the Ministry on or before 1<sup>st</sup> May 2024 ("Proposal Submission Deadline") by completing the application form set out in the Ministry's data room ("Application Form") which can be accessed via the data room created on the Ministry's website <u>https://mim.gov.sa/en/initiatives/31907/</u> ("Data Room").

# The Site

The Project is situated in central Saudi Arabia, centered at approximately 24°30 ' N, 44°12 ' E and covering an area of 118 km<sup>2</sup>. The area is 18 km west-northwest of the city of Ad Dawadimi and can be accessed via tracks as well as paved and unpaved roads. Makman Hejab is located within the Ad Dawadimi Terrane along the eastern margin of the Arabian–Nubian Shield and has potential for grassroots exploration in various commodities, most notably intrusion-related gold, as well as silver, zinc, and lead.

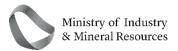
Further details are set out in Section 2 of this Information Memorandum.

# Minimum Qualification Criteria

Bidders must demonstrate that they meet the Minimum Qualification Criteria in order for the Ministry to continue evaluating their respective Proposals, as summarised in the below table and further described in Section 4 of this Information Memorandum.

Whilst the Minimum Qualification Criteria is scored on a 'Pass/ Fail' basis and does not have a weighting score attributed to it, bidders must demonstrate that they satisfy all the Minimum Qualification Criteria in order for their respective Proposals to be evaluated further in this Licensing Round.

Section	Criteria	Description
Technical Ability	Internal Capability	Bidders must demonstrate internal capabilities in mineral exploration.
	Track Record / Examples	Bidders must demonstrate track record experience in VMS or similar style mineralisation including capability in projects through the development cycle and developing exploration projects beyond the discovery stage through pre-feasibility and feasibility studies.





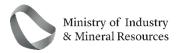
Financial	Exploration	Bidders must have undertaken a minimum expenditure of USD five hundred
Details	Expenditure	thousand (\$500,000) in exploration activities in the last twelve (12) months.
	Exploration Funding	Bidders must demonstrate access to at least USD five hundred thousand (\$500,000) to fund the first three months of any exploration work program to be undertaken in the Kingdom in connection with the Project.

# Scoring Methodology

Proposals submitted by bidders who satisfy all the Minimum Qualification Criteria will be further evaluated by the Ministry and scored in accordance with the following scoring methodology, and as further detailed in Section 5.8 of this Information Memorandum.

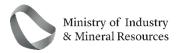
The bidder whose Proposal receives the highest score will be announced as the Successful Bidder for the Site and will be awarded the Exploration License by the Ministry once the legal and regulatory requirements are satisfied.

Section	Criteria	Weighting
Proposed Work Program and Exploration Spend	Proposals will be evaluated on the thoroughness and soundness of the bidder's proposed Work Program for the entire licensed area.	50%
Resource Exploration and Discovery Activities	Proposals will be evaluated on the bidder's experience in relation to focused exploration activities.	20%
Innovation	Proposals will be evaluated based on the innovative solutions and technologies used by the bidder in mineral exploration activities.	10%
Social Impact Management Plan	Proposals will be evaluated on the demonstrated ability to successfully implement social development in and around the Site, and local community expenditure.	20%
Financial Capability	Proposals will be evaluated on the bidder's financial resources, and its capability to fund its Work Program.	Pass/ Fail
Environmental Impact Management Plan	Proposals will be evaluated on the basis of whether the bidder has the demonstrated ability to ensure the protection of the environment.	Pass/ Fail
Corporate and Legal Requirements	Proposals will be evaluated on the basis of the bidder's corporate and legal information.	Pass/ Fail
Performance Financial Guarantee	Proposal will be evaluated on the bidder's commitment to provide a Performance Financial Guarantee if selected as a Successful Bidder.	Pass/ Fail
Model Exploration License	Proposals will be evaluated on the bidder's commitment to accept the terms of the Model Exploration License.	Pass/ Fail





# PART A: GENERAL INFORMATION





# 1. Introduction

The Ministry has launched the Licensing Round with the objective of identifying a Successful Bidder to whom it will award the Exploration License in accordance with the Mining Investment Law (issued by Royal Decree No. M/140 dated 10/19/1441H) ("**Mining Investment Law**") and its Implementing Regulations issued by Ministerial Resolution (3293/1/1444) dated 05/06/1444H ("**Implementing Regulations**"). The Licensing Round is designed as a transparent, standards-based, competitive process, which will result in the selection of the most appropriate licensee for the Site.

Bidders are hereby invited to submit their best offer for the Exploration License as part of a valid and binding Proposal to become a licensee for the Site. Proposals must be submitted to the Ministry on or before the Proposal Submission Deadline.

The Licensing Round requires that the Successful Bidder possesses, demonstrates and dedicates to the Project qualified management personnel and resources, adherence to principles of sustainability and conformity with the laws of the Kingdom. The Successful Bidder will have demonstrated that it is committed to working with the Government to explore the Project in a timely manner to define future options for local and regional economic growth.

To that end, the Ministry suggests that the following points be considered seriously by the bidders in preparing their Proposals:

- 1) A clear commitment to conduct an accelerated exploration programme for the Site along a suitable timeline, coupled with the technical and financial capability to do so; and
- 2) To the extent possible during the exploration period, the provision of employment for the local population with a particular focus on the education and training of those hired locally.

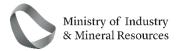
Responses should be unambiguous and include detailed information.

This Information Memorandum is intended to be used by bidders to provide further information on the Site and the Licensing Round. It also sets out the rules for submission of a valid Proposal and participation in subsequent stages of the Licensing Round, as set out in Part B of this Information Memorandum ("**Proposal Submission Rules**").

# 1.1 Makman Hejab Intrusion Related Gold Project

The Project is situated in central Saudi Arabia, centered at approximately 24°30 ' N, 44°12 ' E and covering an area of 118 km2. The area is 18 km west-northwest of the city of Ad Dawadimi and can be accessed via tracks as well as paved and unpaved roads. The Project is located within the Ad Dawadimi Terrane along the eastern margin of the Arabian–Nubian Shield and has potential for grassroots exploration in various commodities, most notably intrusion-related gold, as well as silver, zinc, and lead.

Limited exploration has been undertaken directly within the Project area; however, silver has been mined within the neighboring Ad Dawadimi silver belt and could support metal zoning toward the project area. In





this scenario, the Ad Dawadimi silver belt may represent distal, low-temperature mineralization, with the potential for gold mineralization directly within Makman Hejab.

The accessibility of Makman Hejab provides an exciting opportunity to engage in greenfields gold exploration within the Kingdom.

#### Prospectivity

The Project area is a potential grassroots project for IRGS mineralization, which is a novel style of Au mineralization that has recently been recognized in large Au deposits in Alaska (e.g. Fort Knox). A conceptual model for IRGS distal and proximal mineralization styles from Hart (2007) is given in Figure 1. Most literature discussing IRGS-style mineralization has been published since the 1990s, thereby post-dating the most recent work undertaken at Ad Dawadimi.

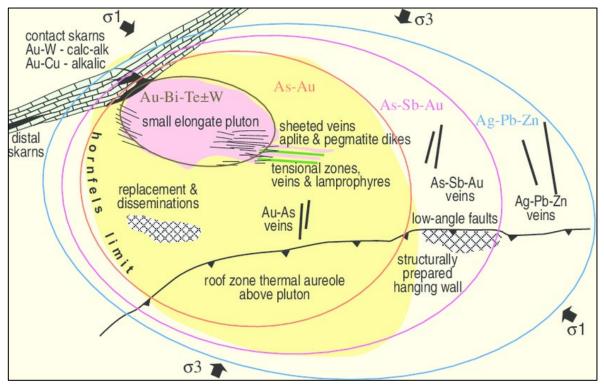


Figure 1: Conceptual model for reduced IRGS distal and proximal mineralization styles

Although previous Au exploration has not been conducted within the Project area, several features characteristic of IRGS deposits have been either noted or speculated at Makman Hejab:

- Presence of stocks, aplites, pegmatites, Sn-W anomalism, and porphyritic textures;
- Diverse range of deposit styles reflecting rapid cooling of fluids—these are derived from cooling plutons rather than metamorphic fluids, as is the case with orogenic Au;
- Distinct metal zoning, with outer Pb-Zn-Ag mineralization and inner Au mineralization;
- Low sulfide contents;
- Post-orogenic granites intrude ancient continental margins, either behind collisional orogens or subduction-related volcanic arcs; and
- Reduced ilmenite series granites with subdued magnetic signatures.



Notably for the latter, no detailed characterization of granites has been conducted in the Project area to date. However, the post-orogenic Najran batholith and related bodies may be causative intrusions for mineralization, which is consistent with the IRGS hypothesis. The Ad Dawadimi silver belt may represent distal, low-temperature mineralization, with the potential for more proximal Au mineralization within Makman Hejab.

Numerous examples of IRGS deposits are recognized globally, with the most renowned being Fort Knox in Alaska. Fort Knox had pre-production reserves of 158.3 Mt @ 0.83 g/t (4.2 Moz) in 1996. In 2019, the mine produced its eight-millionth ounce of Au, and in 2023 it produced 290,651 Au equivalent ounces from 9.9 Mt of heap leach ore. Saudi example being the Ad Duwayhi operation of Ma'aden, which commenced operations in 2016 and produced 174,800 oz of gold in 2022 (Ma'aden website). As of December 31, 2022, Ad Duwayhi had total mineral resources of 27.17 Mt @ 1.77 g/t Au, for 1.54 Moz of reported Au, and total ore reserves of 19.46 Mt @ 1.34 g/t Au, for 0.84 Moz of reported Au. The mine is located in the Afif Terrane, ~270 km south-southwest of Makman Hejab, and is associated with late orogenic to post-orogenic granites with ages of  $659 \pm 7$  and  $646 \pm 11$  Ma (Doebrich et al, 2004).

The Project area is easily accessible and may represent an exciting opportunity to be at the forefront of greenfields Au exploration in the Kingdom of Saudi Arabia.

# 1.2 Structure of this Information Memorandum

This Information Memorandum is structured in two main parts as follows:

#### PART A: GENERAL INFORMATION

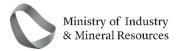
- Section 2 provides information about the Site;
- Section 3 introduces the Data Room, an online resource with further information about the license opportunity, including geological survey data as well as the Application Form to be submitted by bidders as part of their Proposal;

#### PART B: PROPOSAL SUBMISSION RULES

- Section 4 sets out the Minimum Qualification Criteria that bidders must meet in order for their Proposals to be further evaluated for the Project;
- Section 5 sets out the Licencing Round process and Proposal requirements including the criteria and scoring methodology; and
- Section 6 provides additional information regarding participation in the Licensing Round and submission of a Proposal.

# 1.3 Key Dates

The table below sets out the key dates relating to the Licensing Round. All dates set out in this Information Memorandum are subject to change at the Ministry's absolute and sole discretion. Any revised dates will





be notified to bidders through email to the confirmed address(es) submitted by the bidders to the Ministry in their expression of interest submission.

#### Table 1: Key Dates

Date	Process stage
17:00 (Riyadh time) 01 <sup>st</sup> May 2024	Proposal Submission Deadline
23 <sup>rd</sup> May 2024	Announcement of outcome of the Proposal Stage
23 <sup>rd</sup> May 2024	Announcement of the Successful Bidder

The Ministry will be available continuously to support bidders through each stage of the Licensing Round.

# Ministry of Industry & Mineral Resources



# 2. The Site

### 2.1 Location

The Project is located in central Saudi Arabia, centered at approximately 24°30 ' N, 44°12 ' E. The area covers 118 km2 and is approximately 18 km west-northwest of the city of Ad Dawadami, located on the Route 50 highway (1:250,000, sheet 24G, KSA; Figure 2). The Project is approximately 300 km away from Riyadh, and 740 km from Jeddah. Makman Hejab is accessible via tracks as well as paved and unpaved roads. The local topography is typically flat and comprises sand-covered granite plains; however, several small intrusive inselbergs have local relief between 50 and 100 m.

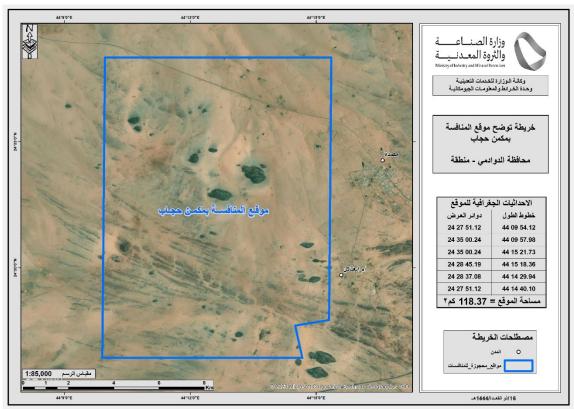
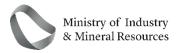


Figure 2: Project location.

Point	Latitude	Longitude
1	24° 27' 51.12	44° 09' 54.12
2	24° 35' 00.24	44° 09' 57.98
3	24° 35' 00.24	44° 15' 21.73
4	24° 28' 45.19	44° 15' 18.36
5	24° 28' 37.08	44° 14' 29.94
6	24° 27' 51.12	44° 14' 40.10

Tahle	• •• Tl	he Site	Coor	dinated





### 2.2 Exploration History

The only detailed record of work within the Project area was for a quartz-sulfide vein (MOD 0150) mapped by the Bureau de Recherches Géologiques et Minière (BRGM) of France in 1965. There is no evidence for any additional sampling elsewhere within the Project area bounds. This is consistent with the difficulties associated with the topography and sand cover in the area. However, some work has been conducted in the Ad Dawadimi silver belt east of the Project. These works will be described, given the proximity and potential relationship between the Ad Dawadimi silver belt and the Project area.

The earliest known mining activity proximal to Makman Hejab is undated but involved artisanal mining of silver (Ag)-lead (Pb)-zinc (Zn) veins in the ~40-km long and ~10-km wide north-south Ad Dawadimi silver belt. Modern mining of the silver belt commenced in 1932 and continued intermittently until 1965, after which the BRGM and the United States Geological Survey (USGS) engaged in exploration work until 1972 (Mytton 1965, Theobald 1965, Eijkelboom 1966a, Eijkelboom 1966b, Kilsgaard 1970, Bois 1971). Work conducted in the Ad Dawadimi silver belt after 1965 was used in the compilation of the 1:250,000 Ad Dawadimi geological map published in 1982 (Ministry of Petroleum and Mineral Resources 1982). The next and most recent phase of fieldwork in the area was between 1983 and 1984 (Georgel, Bobillier et al. 1985).

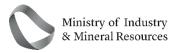
A summary of previous exploration work conducted in Makman Hejab and surrounding regions of the Ad Dawadimi silver belt is provided in Table 3 and summarized below.

#### BRGM

The BRGM mapped a small, shear-hosted quartz-sulphide vein (MOD 0150) in the Site in 1965. The BRGM was also involved in geological mapping and mineral-occurrence cataloging of various map sheets, including Sheet 101 Zone II (SG-JED-A12) and Sheet 101W (BRGM-71 JED 1; Eijkelboom 1966a, Eijkelboom 1966b). Both maps were used in the eventual collation of the Ad Dawadimi 1:250,000 geology map and notes in 1982 (Georgel, Bobillier et al. 1985).

Between 1965 and 1966, the BRGM conducted exploration in the Al Sidriyah and Arjah West workings. This involved diamond drilling, mapping, geochemical sampling, and limited ground and airborne geophysical surveying. Assaying was typically for copper (Cu), Pb, Zn, gold (Au), and Ag (Eijkelboom 1966a, Eijkelboom 1966b). The BRGM revisited Arjah West in the northern part of the Ad Dawadimi Mineral Field in 1983. During this time, Arjah West was reassessed using ground geophysics, trenching, and soil geochemical surveys (3,060 samples on an 80 m x 40 m grid, assayed for Pb, Zn, Cu, arsenic (As), antimony (Sb), molybdenum (Mo), nickel (Ni) and 11 other elements identified by inductively coupled plasma mass spectrometry (ICP–MS). The BRGM highlighted ~22 km of historical workings in the northern part of the field, with these typically being shallow (<2 m) trenches along the strike of veins (Bois 1971).

During 1970–1985, the BRGM digitized and reprocessed results from aeromagnetic surveys flown between 1962 and 1967. The original surveys had a line spacing of 800 m and were flown at 150 m above flat terrain and 300 m above rugged terrain (Georgel, Bobillier et al. 1985).





#### USGS

The USGS commenced geological mapping in areas of the Ad Dawadimi 1:250,000 Quadrangle between 1965 and 1968, including some wadi sampling. At the same time, detailed mapping and drilling began in the ancient Samrah workings in the southern part of the Al Dawadimi Mineral Field. This entailed the drilling of 18 diamond drillholes for 3,624.3 m (Mytton 1965, Theobald 1965).

#### DGMR

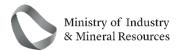
The Saudi Arabian Directorate General for Mineral Resources (DGMR) conducted surveying and sampling over the Ad Dawadimi Silver Belt between 1968 and 1972 (Meaton 1971). This included trenching, geological and topographic mapping, and an induced polarization/self-potential (IP/SP) survey (50 m line spacing, 20 m station spacing). Drilling north of Ad Dawadimi is mentioned, but no results are available.

#### Riofinex

From 1983 to 1984, Riofinex Limited undertook a reassessment of the Samrah workings. This involved mapping at 1:20,000, ground magnetics, resistivity, and limited gravity surveys across 11 prospects.

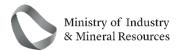
Key Reports	Entity	Location	Activities
BRGM-TR-05- 10 BRGM-TR-05- 10 MAP 1	BRGM 1970-1985 AD 1390-1405 AH	Regional	Digitization and reprocessing of aeromagnetic surveys flown between 1962 and 1967. The original surveys were flow at heights of 150 m (flat terrain) and 300 m (rugged terrain), with a typical line spacing of 800 m.
USGS-TL-2 USGS-TL-28	USGS 1965-1968 AD 1385-1388 AH	Regional	Various stages of geological mapping of areas of the Ad Dawadimi 1:250,000 Quadrangle, including geological mapping and wadi sampling.
			USGS Technical Letters 2 and 28 discuss the general geology, including structure, intrusive complexes, and a brief discussion of ancient workings in the Samrah area (south of Ad Dawadimi in the southern part of the Ad Dawadimi Mineral Field). Approximately 40 ancient workings are mentioned and were mainly worked for Ag. Mines in the Jabal Ardoniyah area in the southwest of the Ad Dawadimi 1:250,000 Quadrangle were also investigated—these mines are ~50 km southwest of the tender area.
USGS SA-106 – sourced from USGS website	USGS 1965-1968 AD 1385-1388 AH	Samrah Workings	Detailed mapping and drilling of the ancient Samrah workings in the southern Al Dawadimi Mineral Field.

Table 3: Summary of past exploration (latest at the top).





Key Reports	Entity	Location	Activities
			This included the drilling of 18 diamond drillholes for 3,624.3 m, with Ag-Au-Pb-Zn mineralization intersected over a strike of ~400 m and to a depth of 220 m. Mineralization was intersected on 10 sections, with 1–2 holes per section. Calculations indicate the average true intersection width was ~1.9 m, with intersection weighted grades of 597 g/t Ag, 0.84 g/t Au, 1.83% Pb, and 6.66% Zn.
			The data are in USGS SA-106, which also includes a "Reserve" estimation and a value per ton mineralization—this does not include Au, which was considered minor.
SG-JED-66 A- 10 SG-JED-66 A-12 BRGM-71-JED- 1 GM-60 A	BRGM 1965-1982 AD 1385-1403 AH	Regional	Geological mapping and mineral-occurrence cataloging of various sheets, defined by 1:100,000 photo mosaics. Mosaics pertinent to this report include Sheet 98 Zone II (SG- JED-66-A10), Sheet 101 Zone II (SG-JED-A12), and Sheet 101W (BRGM-71 JED 1), with a nominal coverage of 44°-45°E and 24°-25°N. The former two are more pertinent to the tender area. Only one mineral occurrence (MODS 0150, a small, shear-hosted quartz-Ag vein) was noted in the tender area. This mapping was used in the collation of the Ad Dawadimi 1:250,000 geology map and notes, published in 1982.
SG-66 A-10 WGM-CR-11-11	BRGM 1965-1966 AD 1385-1386 AH 1984 AD 1405 AH	Al Sidriyah and Arjah West Workings	This work is presented in SG-66 A-10 and included drilling, mapping, geochemical sampling, and ground and airborne electrical geophysical surveying. Drilling of nine diamond drillholes, seven at As Sidriyah (379 m), and two at Arjah (537 m). These included testing electrical geophysical anomalies. Typically narrow and low- to medium-grade intercepts of no economic interest. Intersections of up to 2.90 m @ 55 g/t Ag and 1.80% Zn. Detailed appraisal of the As Sidriyah workings and Arjah West area, in the northern part of
			and Arjah West area, in the northern part of the Ad Dawadimi Mineral Field, included 1:12,500 mapping and drilling, as mentioned





Key Reports	Entity	Location	Activities
			above. These areas are ~10 km east of the Abraq Abbab area. As reported in WGM-CR- 11-11, the BRGM revisited Arjah West in 1984 and conducted further geochemical sampling (3,060 samples on an 80 m x 40 m grid, assayed for Pb, Zn, Cu, As, Sb, Mo, Ni, and 11 other elements by ICP-MS) followed by trenching. This did not extend to Arjah West but defined some other areas of anomalism. Although the Samrah area workings were in areas contracted to be mapped by the BRGM, the economic geology of these workings and those in the Jabal Ardoniyah area were reserved for the USGS.
DGMR-379	DGMR 1968-1972 AD 1388-1392 AH	Ad Diwadimi Mineral Field, inc. Samrah Workings	Surveying and sampling over the Al Dawadimi Silver District. This was part of a counterpart training exercise and included areas north and south of Ad Dawadimi. Work included trenching, geological and topographic mapping, an IP/SP survey (50 m line spacing and 20 m station spacing with negative results); drilling is mentioned in the area north of Ad Dawadimi, but no results are available. Report WGM-CR-11-11 mentions that 12 holes, in addition to the previous USGS drilling, tested 9 sites adjacent to the former Samrah Mine, and an additional 10 intersections were cut from deflections from the previous holes at the Samrah Mine. The work indicates narrow (typically <1 m) breccia veins containing sulfides and more continuous, poorly mineralized quartz veins with some associated breccia veins. Orientations are typically east to northeast and controlled by plunging folds. Drillhole grades of up to 20 oz/t Ag are mentioned, with Ag in veins as well as in epidotized red granite wall rocks associated with quartz stringers. An average strike length of 50 m is mentioned, as well as the potential for an overall package of 6 Mt, albeit including significant low-grade wall rock. A feasibility was completed in 1972 and presented in Open File Report DGMR-



Key Reports	Entity	Location	Activities
			505"
WGM-CR-11-11	Riofinex	Samrah	Reassessment of the Samrah workings,
	1983-1984 AD	Workings	including mapping at 1:20,000, ground magnetics, resistivity, and limited gravity
	1403-1404 AH		surveys over 11 prospects.
WGM-CR-11-11	BRGM	Arjah West	Reassessment of Arjah West and surrounding
	1983 AD		anomalies using ground geophysics, trenching, and soil geochemical surveys.
	1403 AH		

# 2.3 Geology and Mineralisation

#### **Tectonic Overview**

The Project is located on the Arabian Shield within the Ad Dawadimi Terrane, which is prospective for intrusion-related gold system (IRGS) mineralization. The tectonic evolution of the Kingdom is fundamental for the formation of various deposit styles across the region. The Arabian Shield can be divided into two main regions: the Arabian Shield and the Arabian Platform (Figure 3). The Arabian Shield, a segment of the Arabian–Nubian Shield (ANS), separated from the Nubian Shield to the west during rifting and extension in the Red Sea from ~30 Ma (Bosworth 2015, Hamimi, Fowler et al. 2021). The Arabian Platform comprises layered Phanerozoic rocks, with thicknesses of up to 10 km, which were deposited on the Arabian Shield during the Phanerozoic. The rock units and structures of the shield can be tracked beneath the Phanerozoic cover rocks using magnetic anomalies, and they extend up to 300 km laterally from the exposed shield margins (Hamimi, Fowler et al. 2021).



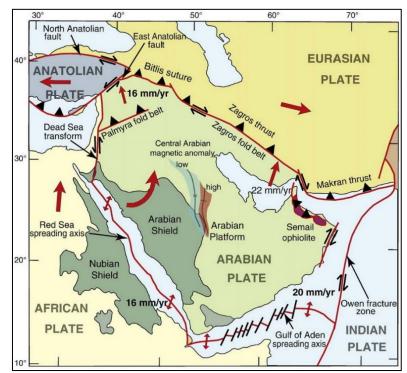
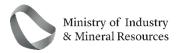


Figure 3: Tectonic framework of the Arabian Peninsula, showing plate boundaries, relative plate motion vectors, and major fault zones (Stern and Johnson 2010).

The ANS underwent a complex geological evolution spanning over 300 Myr (Figure 4) (Stern and Johnson 2010). The juvenile crust of the ANS formed in primitive arc systems throughout the existence of the Mozambique Ocean, which opened as a result of the break-up of the Rodinia supercontinent during 870-800 Ma (Mole, Barnes et al. 2018). The magmatic arcs, ophiolites, and clastic sedimentary rocks forming the ANS, including the Asir Terrane, were accreted on the margin of West Gondwana, gradually accumulating through a series of subduction-related events referred to as the Nabitah Orogeny (Stern and Johnson 2010). At 630–600 Ma, the accretionary margin of West Gondwana collided with East Gondwana, resulting in the formation of a major Neoproterozoic mountain belt, the East Africa-Antarctica Orogen (EAAO) (Stern 1994). The accretion resulted in the formation of tectonostratigraphic terranes that are separated by major north, northwest, and northeast trending suture zones or major northwest trending faults. The suture zones host serpentinized ultramafic rocks, which comprise dismembered ophiolites, along with synorogenic plutonic complexes and transpressional gneissic domes (Nehlig, Genna et al. 2002). This collisional event resulted in the formation of a vast mountain chain comparable to the present-day Alpine–Himalayan range.

The final stages of the EAAO's evolution were marked by movement along continental-scale shear zones (escape tectonics), orogenic collapse, crustal delamination, and the exhumation of gneissic domes and deposition of sediments at 600–550 Ma (Hamimi, Fowler et al. 2021). Following the assembly of the newly amalgamated arc terranes, volcano-sedimentary assemblages were deposited in post-amalgamation basins from ~650 Ma (Figure 5) (Johnson, Andresen et al. 2011).

The Arabian Shield is partially overlain by Phanerozoic rocks, including Lower Paleozoic siliciclastic and Mesozoic–Cenozoic rocks (Haq and Al-Qahtani 2005). These Phanerozoic sedimentary rocks host significant mineral deposits, such as phosphates, evaporites, and potentially stratabound Zn-Pb deposits.





Carbonate replacement-type Zn-Pb-Ag deposits are also developed in the limestones of the Red Sea coast (Taylor, Schulz et al. 2005).

Early Cambrian uplift led to widespread erosion, and subsequent Cambrian–Devonian sequences were typically deposited on a peneplaned platform (Konert, Afifi et al. 2001). Gentle subsidence during the Late Cambrian and Early Ordovician was followed by increased subsidence during the mid-Ordovician, which led to marine transgressions (Sharland, Archer et al. 2001).

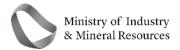
During the Late Ordovician, a glacial episode occurred while the Arabian Shield resided at a relatively high southern latitude. The Plate started to drift northward into lower latitudes in the Early Devonian, reaching tropical environments by the Permian (Konert, Afifi et al. 2001). The Late Silurian saw uplift, broad regression, and stratigraphic gaps on the Arabian Platform (Sharland, Archer et al. 2001).

The Hercynian Orogeny (the Late Devonian–Permian diastrophism in Europe and North America) resulted in multiple phases of compression and block faulting (Konert, Afifi et al. 2001). Back-arc rifting and basaltic eruption occurred in the northern margin of the Arabian Shield. The compression, uplift of central Arabia, and clockwise plate rotation resulted in widespread inversion and erosion, leading to the removal of several kilometers of sediment from uplifted areas (Konert, Afifi et al. 2001).

During the early Permian, another phase of major crustal extension weakened the crust enough to allow sediment load alone to drive subsidence and facilitate the accumulation of thick carbonate sediments in subtropical latitudes. In the late Permian, further rifting and block faulting along the northeastern front of the Arabian Shield resulted in the initiation of continental break-up and the development of a passive margin along most of the northeast boundary of the plate, fronting the newly opened Neo-Tethys Ocean. During this period, sedimentation on the Arabian Platform was dominated by carbonates over a break-up unconformity. Subsidence in the northeastern passive margin of the plate was initially largely post-rift thermal and then replaced by sediment loading (Bishop and Al-Husseini 1995).

Rifting also began in the central Mediterranean during the Early Jurassic, affecting the northern part of the Arabian Shield. Jurassic rifting at the northwestern boundary of the Plate led to the later development of a new passive margin and the creation of accommodation space along the subsiding shelf (Sharland, Archer et al. 2001). The Mediterranean rifting continued into the Early Cretaceous and may have been partially responsible for uplift in western Arabia (Haq and Al-Qahtani 2005).

Before the Eocene, the ANS formed the northernmost corner of the African continental plate, which moved progressively northward toward Eurasia, resulting in the closure of the Tethys Ocean. The Arabian Shield separated from the African Plate with the opening of the Red Sea and the development of the Gulf of Aden rift system at 35–30 Ma. Rifting was centered in the Afar region of Ethiopia, where a mantle plume resulted in volcanism and uplift from ~45 Ma, with peak activity at ~30 Ma (Bellahsen, Faccenna et al. 2003).





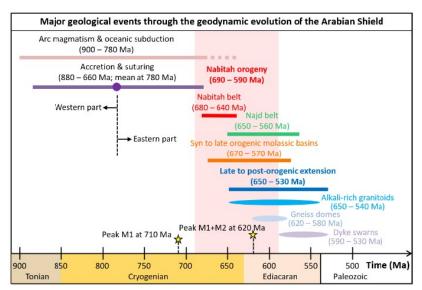
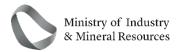


Figure 4: Chronology of major geological events through the geodynamic evolution of the Arabian Shield (Bonnetti, Fontaine et al. 2023).





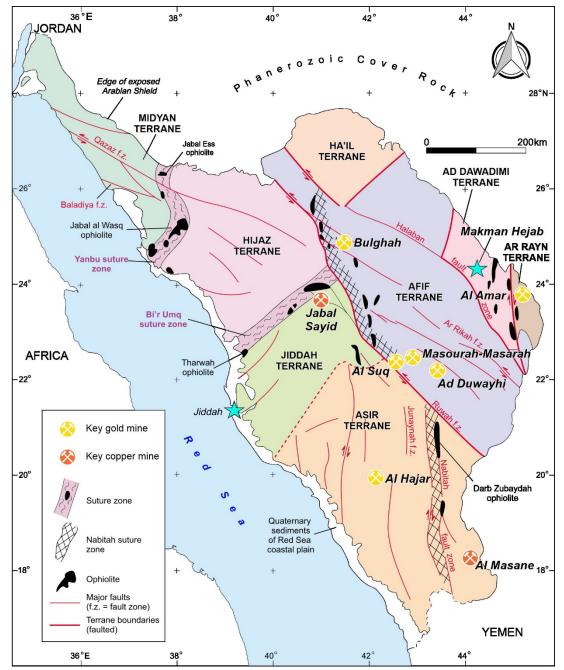
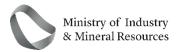


Figure 5: Simplified geological map of the Arabian Shield, showing the locations of key mines within the Kingdom. Major tectonostratigraphic terranes are delineated by sutures and major fault zones. The Makman Hejab Project is located within the Ad Dawadimi Terrane, in the east of the Kingdom. Modified after Gahlan, Asimow et al. (2021).

#### Ad Dawadimi Terrane

The Project area is located in the central Ad Dawadimi Terrane. Ad Dawadimi Terrane is composed of Middle to Late Paleoproterozoic rocks that trend northwest along the eastern margin of the ANS, between the Neoproterozoic Ar Rayn Terrane to the east, and the Paleozoic–Neoproterozoic Afif Terrane to the west (Fig. 4). Within the Arabian Shield, the Ad Dawadimi Terrane is one of the most homogeneous. It is





characterized by the prominent Abt Schist, which is a greenschist-facies metamorphic unit composed of fine-grained sandstones and siltstones. The maximum depositional age of the Abt Schist is ~616 Ma, and the peak metamorphic age is ~613  $\pm$  6 Ma (Lewis 2009). There is evidence that the Abt Schist protolith sediments were derived from late Mesoproterozoic sources (1,154  $\pm$  19 Ma; Lewis 2009). Immobile element data indicate a sedimentary source in the Afif Terrane. The sediments were deposited in a fore-arc environment above a west-dipping subducting slab. Mafic dikes crosscut the dominant foliation of the Ad Dawadimi Terrane, indicating a period of extension after the closure of the basin. Foliation attitudes vary in the eastern and western margins of the terrane. The east is dominated by open, moderately inclined, asymmetrical folds with a sub-horizontal west-southwest vergence and minor south-southeast plunge, whereas the west is predominantly characterized by open, gently to moderately inclined asymmetrical folds with a sub-horizontal west-northwest vergence and a northeast-southwest extensional component (Lewis 2009).

Ad Dawadimi Terrane is best known for the Ad Dawadimi silver belt and the Ar Ridanyah volcanogenic massive sulfide (VMS) belt.

### 2.3.1 Local Geology

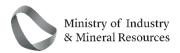
Makman Hejab is largely situated over syn- and post-tectonic granites. The area has a flat magnetic signature and is characterized by a Quaternary cover sequence in the northeast and by older gabbroic basement in the southwest. No additional details about the geology of the area have been sourced, as most work has been concentrated on the Ad Dawadimi silver belt to the east.

There are several small inselbergs in the northern half of the Site. In addition, a west-northwest trending dike swarm is present near Jabal al Khuwaybiyah in the southern third of the Project area. Two sets of dike swarms can be interpreted in the imaging:

- 1. A southerly set, trending ~285°; and
- 2. A northerly set, trending  $\sim 300^{\circ}$ .

The northerly set is interpreted as having formed later than the southerly set and trends east-southeast for ~15 km toward Ad Dawadimi, where a flexure changes the trend to approximately northeast. Dike widths in the two sets are typically up to 5 m, and each set has distinct color signatures. The flanks of the northern set are brown, and the southern set is typically gray. Dikes in the southern set are locally faulted by northwest trending structures, with strike-slip movements of up to 100 m. Mapping conducted by BRGM indicates metamorphosed gabbro that is partly granitized within the earlier granite.

A prominent feature outside of the area is the Harrat al Ju'lani gabbro intrusion at Jabal Rudayhah, which has a strong magnetic signature.





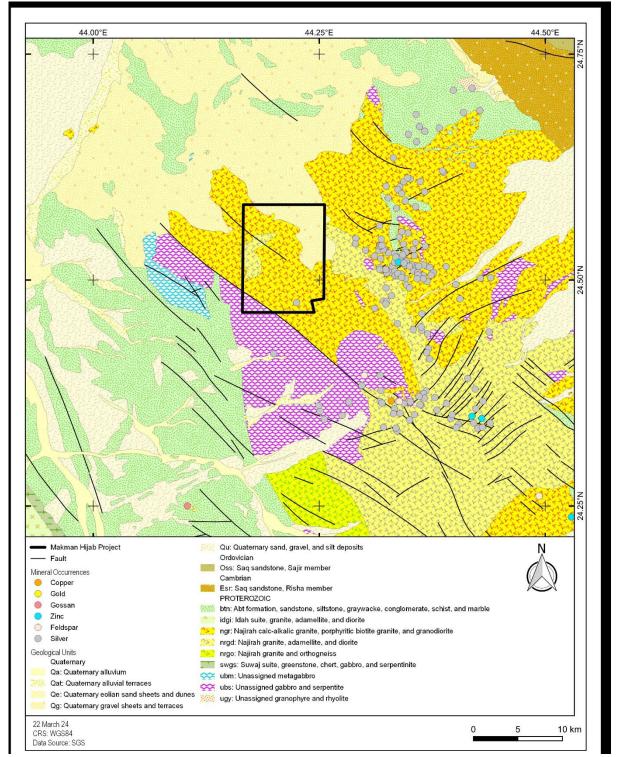
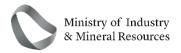


Figure 6: Makman Hejab Project geology and mineral occurrences. Source: NGD and Geological Map of Ad Dawadimi GM-060A 1:250,000 Sheet 1, KSA.





# 2.3.2 Mineralisation

Several hundred mineralization occurrences have been mapped within the Ad Dawadimi Mineral Field (Mytton 1965, Theobald 1965, Eijkelboom 1966a, Kilsgaard 1970, Bois 1971, Meaton 1971). However, most instances are small fracture- and breccia-controlled sulfide-bearing quartz or carbonate veins. The main sulfide constituents are pyrite, galena, and sphalerite, and gangue mineralogy is dominated by quartz, carbonate, ankerite, chlorite, and potassium feldspar. Zones of fine stockwork veining in wall rocks have also been observed. The mineralization style for this area is defined as epigenetic fracture-hosted veining related to proximal granitic intrusions. The primary economic minerals here include Ag, Pb, and Zn; however, elsewhere in the region (e.g. Jabal Hillit), the main metal is Au.

Modern work has been concentrated on the Samrah, As Sidriyah, and West Arjah workings (Kilsgaard 1970, Georgel, Bobillier et al. 1985, Ministry of Petroleum and Mineral Resources 1992). This work demonstrated the typically narrow and variable nature of mineralization, which is largely hosted in northeast trending fractures and horsetail structures. These are interpreted to be conjugates to the main northwest trending fracture sets. Other controls on mineralization include the intersection of structures, dikes boundaries, and contacts between intrusive bodies and other lithologies (i.e. the Abt schists and older gabbros). Mineralization is typically oxidized at the surface, with some depletion in Ag values. The primary economic minerals in the Samrah, As Sidriyah, and West Arjah workings include Ag, Zn, and Pb. However, up to 5 g/t Au has been reported in some rock chips, which at the time was not potentially economic. In addition, geochemical sampling in 1984 demonstrated some tin (Sn) anomalism in association with granites, consistent with the IRGS model. Regional assessments have been undertaken for Sn and tungsten (W); however, there is no record of historical Sn mining.

In the broader Al Ridaniyah area, there are several small Pb-Zn-Ag-bearing stratabound massive sulfide lenses. These are hosted within ophiolite sequences of the Urd Group. In addition, elevated Sn has been noted in one drillhole associated with rhyolite porphyries that intrude the Abt schist at Al Ridaniyah.

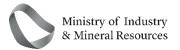
Earlier work assessed the potential of layered gabbroic complexes to host Ni, Cu, and cobalt (Co) mineralization; however, the results were negative.

### 2.3.3 Nearby Occurrences

The area surrounding the Project area is dominated by Ag occurrences. Directly within the Project area, there is a single documented Ag occurrence (MODS 0150), and there are a further four occurrences within 5 km (Table 4). However, within 10 km of the Project area boundary, there are 75 Ag, 1 Cu, and 1 Zn occurrences (Figure 6).

	Table 4: Summary					eral Occi	urrences (MO	JDS)		
MOD	English	Long	Lat DD	Terrane,	Main	Minor	Strat. Unit	Host rocks	Gitology	Min Style
	name	DD		region	Metals	Metals				
MODS	HIDAB AL	44.225	24.475	Ad	Ag	Pb; Zn;	Undifferentiat	biotite	Hydrother	Dissemination;
0150	BAYDATAY			Dawadimi,		Cu	ed	granite;	mal	veins
	N (AD			Riyadh				calc-alkalic		
	DAWADIMI			Region				granite;		
	)							granite;		
								granodiorit		
								e (calc-		

Table 4: Summary of Mineral Occurrences (MODS)





								alkaline plutonic)		
MODS 0815	SHAIB ABU SIDIR (HARRAT JAELANI)	44.1996 9444	24.4184 4444	Ad Dawadimi, Riyadh Region	Ag	Pb	Undifferentiat ed	biotite granite; calc-alkalic granite; granodiorit e (calc- alkaline plutonic)	Hydrother mal	Dissemination
MODS 1357	MUSIDDA H (MUSIDAH)	44.30122 222	24.53294 444	Ad Dawadimi, Riyadh Region	Ag	Pb; Zn	Undifferentiat ed	adamellite; diorite; granite; hornblendit e; quartz	Hydrother mal	Dissemination; veins
MODS 3629	MUSIDDA H -NE2 (MUSIDAH NORTH)	44.29055 556	24.5460 2778	Ad Dawadimi, Riyadh Region	Ag	Cu	Undifferentiat ed	Biotite granite; calc-alkalic granodiorit e (calc- alkaline plutonic); quartz	Unclassifi ed	Dissemination
MODS 3630	MUSIDDA H -NE1 (JABAL AL KHILLAH)	44.29	24.5402 7778	Ad Dawadimi, Riyadh Region	Ag	Au	Undifferentiat ed	adamellite; biotite granite; granodiorit e (calc- alkaline plutonic); hornblendit e; quartz	Unclassifi ed	Dissemination

Source: National Geoscience Database (NGD) of Saudi Arabia

# 2.3.4 Project Mineralisation

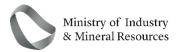
With the exception of a single quartz-sulfide vein mapped by the BRGS (Eijkelboom 1966a, Eijkelboom 1966b), no mineralization has been mapped within the Project area. Inferences for potential mineralization are instead drawn from the Ad Dawadimi silver belt.

# 2.3.5 Nearby Deposits

#### Ar Ridanyah VMS belt

The Ar Ridanyah VMS belt spans an area of ~208 km2 and comprises ~695 Ma volcanic rocks from the Ar Ridanyah Formation of the Abt Group (Eijkelboom 1966b). The belt is partially covered by Phanerozoic and Quaternary cover sequences and could be significantly more extensive than mapped. The Ar Ridanyah VMS belt is located ~30 km east-southeast of the town of Ad Dawadimi. The main Ar Ridanyah deposit (MODS 2070) and related prospects (MODS 2071, 2072, and 3205) are the most explored Pb-Zn-Ag prospects within the broader VMS belt.

A summary of VMS deposits within the Ar Ridanyah VMS Belt was obtained from the Minerals Inventory and Potential Assessment Report (2016) and is shown in Table 5.





		<b>•</b>				(	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
MODS	Name (new)	Name (old)	Main	Longitude	Latitude	Nearest	Potential	Geometry
			Commodity			Town	Ranking	
2072	Ar Ridanyah	Ar Ridanyah	Pb	44.6655	24.3865	Ad	Medium	dd, stratiform
						Duwadimi		
3205	Jibal Rik al Hamar	*Jabal Rik Al	pyrite	41.407111	25.368722	Al	Low	dd
		Hamar				Hinakiyah		
806	Ar Ridanyah NE1	*Ar Ridanyah	Cu	44.695833	24.392222	Ad	Medium	dd, stratiform
		NE1				Duwadimi		
3649	Ar Ridanyah S2	*Ar Ridanyah	Cu	44.661111	24.343889	Ad	Low	undetermined
		S2				Duwadimi		
2070	Ar Ridanyah Nı	*Ar Ridanyah	Zn	44.654361	24.381306	Ad	Medium	lenses,
		N1				Duwadimi		stratabound
2071	Shaib As Safani	*Anomaly B	pyrite	44.729444	24.402222	Ad	Medium	dd, lenses,
						Duwadimi		stratiform

Table 5: VMS deposits within the Ar Ridanyah Mineral Belt (Workman, Hawke et al. 2016).
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The Ar Ridanyah area was mapped by BRGM between 1967 and 1968, with areas of interest subsequently mapped in higher resolution as well as being investigated by ground geophysical survey and diamond drilling (Delfour 1982).

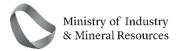
Within the main Ar Ridanyah prospect (MODS 2070), stratabound and stratiform lenses of pyrrhotitesphalerite-galena and pyrrhotite-sphalerite are hosted within a marble unit inside a biotite schist (Eijkelboom 1966b, Elsass 1981). These units strike north and dip to the east. Sulfide lenses occur in association with marble at amphibolite-mica schist contacts and directly overlie disseminated sulfides. Biotite-chlorite alteration is noted. The main gossan includes metamorphic pyrrhotite-sphalerite, as well as minor cassiterite-stannite mineralization in veinlets. In addition, Riofinex identified Sn in prospects adjacent to the primary gossan zone. Two holes were drilled at the main Ar Ridanyah prospect by BRGM in 1967–1968 to explore down dip from the gossan. These holes intersected several calcareous layers that were rich in pyrite, pyrrhotite, and sphalerite. The mineralized interval for hole 1 (AR1) totaled 15.5 m at 6.1% Zn, and for hole 2 (AR2), the mineralized interval was 16 m at 4.5% Zn. Values of Pb, Cu, and Ag were low, and Au was not reported. Subsequent exploration by the BRGM in the 1970s led to estimations of 1.5 Mt of mineralization, averaging 4.65% Zn and 20.0 g/t Ag to a depth of 130 m for the main gossan (Elsass 1981).

The Ar Ridanyah East prospect (MODS 2072) crops out ~1 km northeast of the main prospect (MODS 2070). It is composed of gossanous calcareous tuff and is characterized by amphibole-epidote-calcite-garnet assemblages that contain disseminated pyrite and sphalerite. The best drill intersection gave values of 1.32% Pb and 2.46% Zn over 3 m (Delfour 1982).

Ar Ridanyah anomaly B (MODS 2071) is located ~9 km east-northeast of the main prospect and is situated within the Abt schist. Anomaly C (MODS 3205) is proximal to anomaly B, located ~9 km northeast of the main prospect and situated within the Ar Ridanyah Formation. Anomaly B was explored using ground geophysics, soil geochemistry, and trenching. Fourteen percussion holes (2,022 m) demonstrated the anomaly was the result of pyrrhotite and graphite in a black shale unit. The best drill intersection gave values of 14.0 g/t Ag over 15 m (Delfour 1982).

#### Suwaj porphyry Cu prospect

The Suwaj porphyry Cu prospect is a relatively new prospect being explored by the Saudi Geological Survey (SGS) near the eastern margin of the Arabian Shield. No MODS index has been allocated to the Suwaj prospect, but it is located near the center of a 23-km long north-northwest trending belt. There are 14 Cu





occurrences, all of which have variations of the name "Shaib Ad Dad" or "Shaib Umm Habiyah". Table 6 is taken from the Minerals Inventory and Potential Assessment Report (2016) and summarizes these occurrences.

MODS New Name		Old Name	Main	Loc	ation	Nearest	Ranking	Geometry
			Commodity	Longitude	Latitude	Town		
2298	Shaib Abu Hasak	Jabal Hentag- W	Cu	44.003333	23.912778	Halaban	Low	dd, v
2299	Shaib Umm Habiyah-W	Jabal Hentag- W	Cu	44.075278	23.896944	Halaban	Low	dd, v
2300	Shaib Ad Dob-NW	Jabal Hentag- W	Cu	44.092972	23.88675	Halaban	Low	dd, v
2301	Shaib Umm Habiyah-E	Jabal Hentag- W	Cu	44.101917	23.882556	Halaban	Low	dd, v
2302	Shaib Ad Dab-SE	Jabal Hentag- W	Cu	44.0925	23.8575	Halaban	Low	dd, v
2303	Shaib Ad Dab-SE 1	Jabal Hentag- W	Cu	44.101833	23.861056	Halaban	Low	dd, v
2304	Shaib Ad Dab-SE 3	Jabal Hentag- W	Cu	44.110167	23.859056	Halaban	Low	dd, v
2305	Shaib Ad Dab-SE 4	Jabal Hentag- W	Cu	44.117889	23.854417	Halaban	Low	dd, v
2306	Shaib Abu Salam-N	Jabal Hentag- W	Cu	44.1225	23.805083	Halaban	Low	dd, v
2307	As Sahamiyah	Jabal Hentag- W	Cu	44.098333	23.788222	Halaban	Low	dd, v
2308	Shaib Abu Salam-S	Jabal Hentag- W	Cu	44.135833	23.761111	Halaban	Low	dd, v
2309	Nufayyid Qaradan	Jabal Hentag- W	Cu	44.151556	23.733528	Halaban	Low	dd, v
2310	Rawdat Qararah Al Gharbiyah	Jabal Hentag-S	Cu	44.090556	23.730278	Halaban	Low	dd, v
2311	Jabal Al Ghuthayra	Jabal Hentag- W	Cu	44.043778	23.729083	Halaban	Low	dd, v

Table 6: Porphyry Cu occurrences in the Suwaj prospect (Workman, Hawke et al. 2016).

Occurrences of Cu in the Suwaj prospect are within the area of the former Jabal Hentag prospects, which were discovered by the BRGM in 1969 during reconnaissance geological mapping (Bois 1971). Here, hydrothermal Cu mineralization is present along siliceous veins in fractures within diorite and granodiorite and within an ophiolite complex.

The main area of mineralization is within the Shaib Abu Hasak ancient workings (MODS 2298), where ultramafic rocks are intruded by dikes of microdiorite/andesite and quartz veins. Mineralization consists of visible pyrite and minor galena in association with siliceous fracture zones. Rocks are typically hematized and silicified. Maximum values of 2 g/t Au and 5 g/t Ag have been obtained (Bois 1971). Surrounding prospects are hosted within variable settings, namely calc-alkaline granodiorite, andesite, diorite, conglomerate, metabasalt, and sandstone. Results from these prospects have not been reported.

More recent work by the SGS in the Wadi Al Ghuthayra Project area in 2011 reported Cu mineralization over a 600 m x 600 m area. On average, these samples had 1,939 ppm Cu, with 14 samples exceeding 3,000 ppm Cu and one sample exceeding 1% Cu. Contents of Cu typically have weak correlations to Mo, lithium (Li), scandium (Sc), thorium (Th), and some REEs. No samples measured more than trace amounts of Au (<0.02 ppm), and the average Ag value was 0.32 ppm, with a maximum of 5.9 ppm. The average Pb value was 12 ppm (range = 2–22 ppm), and the average Zn value was 42 ppm (range = 13–151 ppm). REE contents were low. As of 2016, work by the SGS in the Suwaj Project area was ongoing (Workman, Hawke et al. 2016).



#### Samrah epithermal vein-type Ag deposit

The Samrah Prospect comprises a series of widely scattered Ag prospects and ancient mines (MODS 0145 to 0149, 0745, 0756, 0803, 0805, 0808, 0810, 0847, 0848, and 0854). The main prospect (MODS 0145) is situated at a latitude of 44°23 ' E and a longitude of 24°20 ' N. Most additional prospects are within 5 km of this central prospect, although there are 45 sites in total within 10 km of Samrah. Sites within 5 km are summarized in the Minerals Inventory and Potential Assessment Report (2016) and given below in Table 7.

MODS	Name (new)	Name (old)	Main Commodity	Longitude	Latitude	Nearest Town	Potential Ranking	Geometry
145	Samrah	Samrah District	Ag	44-333194	24.357556	Dawadimi	Medium	dd, v
3647	Hadabat Umm Ruqaybah- W	Jabal Umm Ar Ragabah	Ag	44.332083	24.352028	Dawadimi	Very low	uncertain
797	Hadabat Umm Ruqaybah- E	Umm Ergabah	Ag	44-3395	24.352444	Dawadimi	Medium	dd
747	Samrah-NW	Jabal Abiad	Ag	44.337111	24.3655	Dawadimi	Very low	dd, v
746	Samrah-SW	Samrah	Ag	44.343694	24.363222	Dawadimi	Very low	dd
4148	Abal Abu Hufur-SE	Siliceous Zone-NW,	Ag	44-319444	24.363889	Dawadimi	Low	v
745	Hadabat Umm Ruqaybah- NE1	Samrah	Ag	44.348861	24.365306	Dawadimi	High	v
748	Abal Abu Hufur	Samrah	Ag	44-317333	24.365611	Dawadimi	Very low	dd, v
756	Samrah-E	Samrah	Ag	44.350806	24.365194	Dawadimi	Medium	v
4482	Hudaybat Ar Rajajil-W	Sahrah District	Ag	44.351111	24.345833	Dawadimi	Very low	v
851	Hadabat Al Uwayja-SE	Jabal Al Aouejah	Ag	44-335	24.336111	Dawadimi	Very low	dd, v
744	Hadabat Umm Ruqaybah- SE	Samrah	Ag	44.355361	24.351	Dawadimi	Medium	dd, v
750	Hadabat Al Uwayja	Jabal Al Aouejah	Ag	44.321167	24.337056	Dawadimi	Medium	dd
850	Hadabat Al Uwayja	Jabal Al Aouejah	Ag	44.336028	24.332861	Dawadimi	Very low	dd
144	Hidab Rudayhat	Jabal Ar Radahat	Ag	44.318306	24.377722	Dawadimi	Medium	dd, v
810	Samrah-NE2	Samrah-E	Ag	44.361611	24.361889	Dawadimi	Medium	dd
808	Samrah-SW	Samrah-SE-E	Ag	44.362806	24.361611	Dawadimi	Medium	dd, v
849	Samrah-NE3	Samrah	Ag	44.360556	24.371111	Dawadimi	Very low	dd, v
803	Samrah-NE6	Samierah	Ag	44.363778	24.373833	Dawadimi	Medium	dd
805	Samrah-NE1	Samrah-E	Ag	44.36675	24.36925	Dawadimi	Medium	dd
804	Samrah-NE4	Samrah	Ag	44.366028	24.373861	Dawadimi	Undefined	dd
139	Al Gilani	Sidriyah	Ag	44-3175	24.394444	Dawadimi	Medium	dd, v
802	Samrah-NE7	Samrah	Ag	44.368139	24.37725	Dawadimi	Medium	dd, v
852	Hadabat Al Maslukhah-NE	Jabal Ar Radahat	Ag	44.297222	24.383333	Dawadimi	Very low	dd, v
148	Samrah-NE4	Samrah	Ag	44.377972	24.369944	Dawadimi	Medium	dd, v

Table 7: Epithermal Ag prospects	within 5 km of the Samrah Prosp	ect (Workman, Hawke et al. 2016).

The majority of the Samrah Prospect Area overlies the Dawadimi-Najirah Batholotic Complex and layered volcano-sedimentary sequences. Layered sequences comprise albite-sericite-chlorite schist, slate, phyllite, conglomerate, and arenite. Mineralization is structurally controlled by northeast shearing and east-west



tensile fractures within granite. Four generations of sphalerite, pyrite, galena, and chalcopyrite veining have been mapped in silicified breccia zones, where galena is typically in the center of veins and sphalerite occurs at the margins. Additional minor minerals include hematite, magnetite, and arsenopyrite, as well as Ag-bearing minerals such as polybasite, freibergite, pyrargyrite, stromeyerite, and acanthite. Along with having economic levels of Ag, these deposits are also recognized for their substantial base metal values. Deposits are classified as epithermal polymetallic veins.

Thirty-two dump samples collected by the USGS between 1950 and 1965 averaged 229 g/t Ag. Resource figures from 18 cored holes across a strike of 400 m (average depth = 179 m) range from 230,000 to 301,000 tons. Grades of 5.0%-5.3% Zn, 0.9%-1.64% Pb, and 411-750 g/t Ag were returned (Kilsgaard 1970).

Reassessment of resources by the BRGM in 1976 resulted in an estimation of 278,000 tons, averaging 5.12% Zn, 1.64% Pb, and 651 g/t Ag.

# 2.3.6 Exploration Data

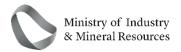
#### **Regional Geophysical Data**

Diverse geophysical data covering almost the entire Kingdom were available. Some of the data compilation included surveys flown by the USGS that are still used for interpretation today; however, many areas have been re-surveyed since 2006. Table 8 summarizes the acquisition parameters of various airborne geophysical surveys. RSC accessed various data compilations primarily as processed grids to assess the quality of the data. The compilations are composed of surveys stitched together rather than merged and blended, which reduces the overall quality of the data. Line spacings vary between 300 m and 2,500 m, which is evident in the compilations despite gridding to a consistent cell size. All data analyzed by RSC were only available in basic corrected form (i.e. reduced to pole, first vertical derivative) and as images (i.e. geotiffs). To produce enhancements and filter the data to highlight attributes, original grid data are necessary.

Table 8: Overview of available geophysical data.							
Survey Name	Method	Coverage (km <sup>2</sup> )	Line Spacing (m)	Grid size (m)			
Arabian Shield Magnetic Compilation	Magnetic	Compilation	300-2,500	200			
Habla, Sukhaybarat, Najadi/Shabah and Najadi/Quartz Hill	Magnetic, EM and Radiometric	952	200	50 (magnetic and radiometric)			
Al Hajar	Magnetic, EM	748	250	no information available			
Wadi Bidah, Hamdah	Magnetic, EM	4,236	250-300	50			

#### Magnetic Data

The magnetic data (total magnetic intensity, TMI) were provided alongside reduction to pole (RTP), the first vertical derivative (1VD), analytical signal (AS), and tilt derivative enhancements. The compilation





grids have been stitched together rather than blended, so the individual surveys are delineated, which gives the appearance of a change in resolution (Figure 7). This does not necessarily hinder interpretation; however, a coherent blended grid would allow further enhancements of the dataset without creating edge artifacts within the data during processing. RSC notes that an RTP magnetic grid may not reflect the location of source bodies owing to the Kingdom's location relative to the magnetic equator. There appears to be discord between the analytical signal and RTP grids, implying that a reduction to equator (RTE) may have provided better results for accurately locating source bodies.

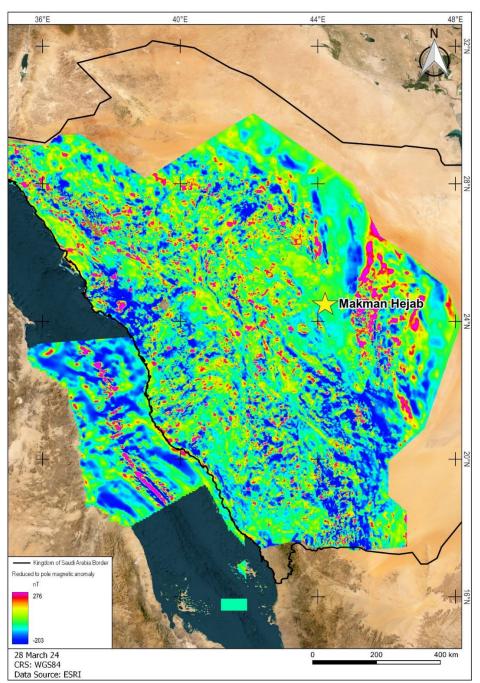
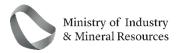


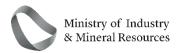
Figure 7: Magnetic data compilation available across the Kingdom.





#### Gravity Data

Gravity data coverage was limited to imaging swaths of the western KSA and a thin section of the eastern coast (Figure 8). The data resolution was low (1,000 m) compared with the resolution of targets expected to be generated in this report. No further corrections or enhancements of the data were available to RSC beyond a Bouguer correction and free-air correction. Although there are some small-scale trends in the data, including these data in a regional study is problematic because the coverage is limited and often perpendicular to the structural trends of the region. However, gravity data highlighting the density contrasts between various lithologies at a resolution suitable for the target are likely particularly useful here.





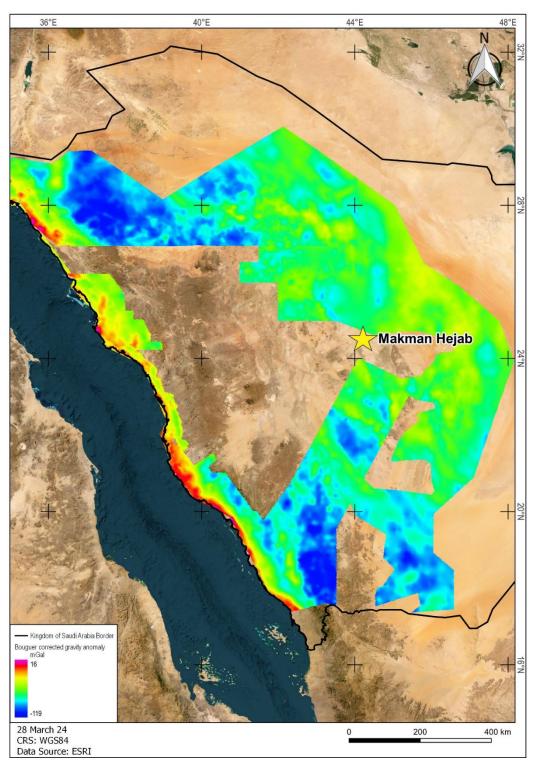
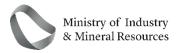


Figure 8: Gravity data coverage of the Kingdom.





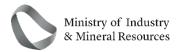
# 3. Data Room Overview

Technical and other data is hosted in the Data Room (<u>https://mim.gov.sa/en/initiatives/31907/</u>) and can be accessed through the Ministry's website or any other link provided by the Ministry.

### **TECHNICAL INFORMATION**

The technical information folder in the Data Room includes the files described in the table below and will remain open to bidders until the award of the Exploration License.

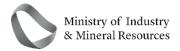
	Т	able 9: File Ov	erview
Key Reports	Entity	Location	Activities
BRGM-TR-05-10 BRGM-TR-05-10 MAP 1	BRGM 1970-1985 AD 1390-1405 AH	Regional	Digitization and reprocessing of aeromagnetic surveys flown between 1962 and 1967. The original surveys were flow at heights of 150 m (flat terrain) and 300 m (rugged terrain), with a typical line spacing of 800 m.
USGS-TL-2 USGS-TL-28	USGS 1965-1968 AD 1385-1388 AH	Regional	Various stages of geological mapping of areas of the Ad Dawadimi 1:250,000 Quadrangle, including geological mapping and wadi sampling.
			USGS Technical Letters 2 and 28 discuss the general geology, including structure, intrusive complexes, and a brief discussion of ancient workings in the Samrah area (south of Ad Dawadimi in the southern part of the Ad Dawadimi Mineral Field). Approximately 40 ancient workings are mentioned and were mainly worked for Ag. Mines in the Jabal Ardoniyah area in the southwest of the Ad Dawadimi 1:250,000 Quadrangle were also investigated—these mines are ~50 km southwest of the tender area.
USGS SA-106 – sourced from USGS website	USGS 1965-1968 AD 1385-1388 AH	Samrah Workings	Detailed mapping and drilling of the ancient Samrah workings in the southern Al Dawadimi Mineral Field. This included the drilling of 18 diamond drillholes for 3,624.3 m, with Ag-Au-Pb-Zn
			mineralization intersected over a strike of ~400 m and to a depth of 220 m. Mineralization was intersected on 10 sections, with 1-2 holes per section.





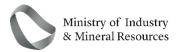
Key Reports	Entity	Location	Activities
			Calculations indicate the average true intersection width was ~1.9 m,
			with intersection weighted grades of 597 g/t Ag, 0.84 g/t Au, 1.83% Pb, and 6.66% Zn.
			The data are in USGS SA-106, which also includes a "Reserve" estimation and a value per ton mineralization—this does not include Au, which was considered minor.
SG-JED-66 A-10	BRGM	Regional	Geological mapping and mineral-occurrence
SG-JED-66 A-12	1965-1982 AD		cataloging of various sheets, defined by 1:100,000 photo mosaics. Mosaics pertinent
BRGM-71-JED-1	1385-1403 AH		to this report include Sheet 98 Zone II (SG-
GM-60 A			JED-66-A10), Sheet 101 Zone II (SG-JED-A12), and Sheet 101W (BRGM-71 JED 1), with a nominal coverage of 44°-45°E and 24°-25°N. The former two are more pertinent to the tender area.
			Only one mineral occurrence (MODS 0150, a small, shear-hosted quartz-Ag vein) was noted in the tender area.
			This mapping was used in the collation of the Ad Dawadimi 1:250,000 geology map and notes, published in 1982.

SG-66 A-10 WGM-CR-11-11	BRGM 1965-1966 AD 1385-1386 AH 1984 AD 1405 AH	Al Sidriyah and Arjah West Workings	This work is presented in SG-66 A-10 and included drilling, mapping, geochemical sampling, and ground and airborne electrical geophysical surveying. Drilling of nine diamond drillholes, seven at As Sidriyah (379 m), and two at Arjah (537 m). These included testing electrical geophysical anomalies. Typically narrow and low- to medium-grade intercepts of no economic interest. Intersections of up to 2.90 m @ 55 g/t Ag and 1.80% Zn.
			Detailed appraisal of the As Sidriyah workings and Arjah West area, in the northern part of
			the Ad Dawadimi Mineral Field, included





Key Reports	Entity	Location	Activities
			1:12,500 mapping and drilling, as mentioned above. These areas are ~10 km east of the Abraq Abbab area. As reported in WGM-CR- 11-11, the BRGM revisited Arjah West in 1984 and conducted further geochemical sampling (3,060 samples on an 80 m x 40 m grid, assayed for Pb, Zn, Cu, As, Sb, Mo, Ni, and 11 other elements by ICP-MS) followed by trenching. This did not extend to Arjah West but defined some other areas of anomalism. Although the Samrah area workings were in areas contracted to be mapped by the BRGM, the economic geology of these workings and those in the Jabal Ardoniyah area were reserved for the USGS.
DGMR-379	DGMR 1968-1972 AD 1388-1392 AH	Ad Diwadimi Mineral Field, inc. Samrah Workings	<ul> <li>Surveying and sampling over the Al Dawadimi</li> <li>Silver District. This was part of a counterpart training exercise and included areas north and south of Ad Dawadimi. Work included trenching, geological and topographic mapping, an IP/SP survey (50 m line spacing and 20 m station spacing with negative results); drilling is mentioned in the area north of Ad Dawadimi, but no results are available.</li> <li>Report WGM-CR-11-11 mentions that 12 holes, in addition to the previous USGS drilling, tested 9 sites adjacent to the former Samrah Mine, and an additional 10 intersections were cut from deflections from the previous holes at the Samrah Mine.</li> <li>The work indicates narrow (typically &lt;1 m) breccia veins containing sulfides and more continuous, poorly mineralized quartz veins with some associated breccia veins.</li> <li>Orientations are typically east to northeast and controlled by plunging folds.</li> <li>Drillhole grades of up to 20 oz/t Ag are mentioned, with Ag in veins as well as in epidotized red granite wall rocks associated with quartz stringers. An average strike length</li> </ul>



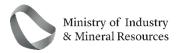


Key Reports	Entity	Location	Activities
			of 50 m is mentioned, as well as the potential for an overall package of 6 Mt, albeit including significant low-grade wall rock.
			A feasibility was completed in 1972 and presented in Open File Report DGMR- 505"
WGM-CR-11-11	Riofinex 1983-1984 AD 1403-1404 AH	Samrah Workings	Reassessment of the Samrah workings, including mapping at 1:20,000, ground magnetics, resistivity, and limited gravity surveys over 11 prospects.
WGM-CR-11-11	BRGM 1983 AD 1403 AH	Arjah West	Reassessment of Arjah West and surrounding anomalies using ground geophysics, trenching, and soil geochemical surveys.

#### APPLICATION FORM

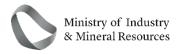
The Data Room includes the Application Form that must be completed by bidders as part of their Proposal. The Application Form includes the below sections as referenced in this Information Memorandum.

Section	Description
Section A	Proposal Cover Letter
Section B	Minimum Qualification Criteria
Section C	Technical Requirements
Section D	Resource Exploration and Discovery Activities
Section E	Innovation
Section F	Social Impact Management Plan
Section G	Environmental Impact Management Plan
Section H	Financial Information Requirements
Section I	Corporate and Legal Requirements
Appendix 1	Model Exploration License
Appendix 2	Form of Statement of Confirmation (to be used for Consortium submissions only)





# PART B: PROPOSAL SUBMISSION RULES





# 4. Minimum Qualification Criteria

Bidders must demonstrate that they meet the below minimum technical and financial criteria ("**Minimum Qualification Criteria**") in order for the Ministry to continue evaluating their respective Proposals. Bidders must provide responses relating to the Minimum Qualification Criteria in accordance with the form set out in Section B of the Application Form.

The below Minimum Qualification Criteria will be evaluated on a "Pass/Fail" basis. Bidders who do not pass <u>all</u> the Minimum Qualification Criteria or do not provide the supporting documents required by the Ministry in relation to any or all of such criteria will be disqualified from the Licensing Round and their Proposal will not be evaluated any further.

As such, bidders are encouraged to consider the Minimum Qualification Criteria and exercise their own judgment in ensuring that they meet such criteria and are able to provide the supporting documents before they proceed with preparing their Proposal for the Project. The Ministry is not liable to any bidder who submits a Proposal and following evaluation by the Ministry, such bidder is deemed unqualified for the Project for any reason including not satisfying the Minimum Qualification Criteria and is therefore disqualified from the Licensing Round.

For the avoidance of doubt, where the bidder is a Consortium (as defined in Section 5.13), the technical and financial criteria may be satisfied by separate (and not all) Consortium members. The identity of the relevant Consortium member satisfying the relevant requirement must be indicated clearly in the relevant section and response.

#### PART A: TECHNICAL CAPABILITY

#### 1. Internal Capability

Bidders must demonstrate internal capabilities in mineral exploration, and are encouraged to demonstrate the following experience in relation to their personnel:

- access to and ability to appoint, as required, sufficient qualified and experienced geoscientists to carry out the exploration work program as agreed with the Ministry to be undertaken by the bidder, if successful, following the award of the Exploration License, the requirements for which are set out in Section C of the Application Form ("**Work Program**").
- base metals and/ or precious metals experience; and
- ability to develop (or manage the development of) assets through pre-feasibility and feasibility studies.

Bidders must provide CVs of proposed staff for the Projects (including the exploration manager) and are encouraged to demonstrate the following experience in relation to its personnel:

- access to and ability to appoint, as required, sufficient qualified and experienced geoscientists to carry out the Work Program;
- base metals experience; and



*– ability to develop (or manage the development of) assets through pre-feasibility and feasibility studies to construction and operation.* 

#### 2. Track Record / Examples

Bidders must demonstrate the following in relation to their past relevant experience:

- a track record of at least one greenfield site and/or two brownfield sites;
- experience in volcanogenic massive sulphide (VMS) or similar style mineralisation;
- capability in base metal/ precious metal projects through the development cycle, from discovery to preliminary economic assessment, via feasibility studies; and
- capability in developing exploration projects beyond the discovery stage.

Bidders must include the following in relation to each project:

- details of minerals being explored;
- any significant reliance upon third-party sub-contractors;
- details of any geophysical surveying conducted;
- details of any relevant technologies used; and
- *details of any geological activity including mapping and drilling (diamond drilling and reverse drilling).*

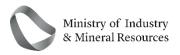
#### PART B: FINANCIAL CAPACITY

#### 3. Exploration Expenditure

Bidders must have undertaken a minimum expenditure of USD five hundred thousand (\$500,000) in exploration activities in the last twelve (12) months, and be able to provide suitable evidence of this.

#### 4. Exploration Funding

Bidders must demonstrate access to at least USD five hundred thousand (\$500,000) to fund the first three months of the Work Program to be undertaken in the Kingdom in connection with the Project.





# 5. Licensing Round Process and Proposal Requirements

#### 5.1 Overview of Licensing Round

After the announcement of made by the Ministry in January 2024 in relation to the launch of the next series of the exploration licensing rounds, prospective bidders were invited to submit a nonbinding expressions of interest confirming their interest in participating in licensing rounds launched by the Ministry in the year 2024. Prospective bidders are now invited to participate in the subsequent stage of Makman Hejab Licensing Round by submitting a Proposal in response to this Information Memorandum.

# Bidders are hereby invited to submit their best offer for the Exploration License as part of a valid and binding Proposal.

It should be noted that all bidders must satisfy the Minimum Qualification Criteria set out in Section 4 of this Information Memorandum in order for the remainder of their Proposal to be considered and evaluated by the Ministry.

Bidders who do not satisfy all the Minimum Qualification Criteria or do not provide the supporting documents required by the Ministry will be disqualified from the Licensing Round and their Proposal will not be evaluated any further.

As such, bidders are encouraged to consider the Minimum Qualification Criteria and exercise their own judgment in ensuring that they meet such criteria and are able to provide the supporting documents before they proceed with preparing their Proposal for the Project. The Ministry is not liable to any bidder who submits a proposal and following evaluation by the Ministry, such bidder is deemed unqualified for the Project and will therefore disqualify from the Licensing Round.

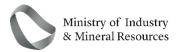
The Proposal stage will identify a single Successful Bidder. The Ministry may then proceed to final discussions with the Successful Bidder, with an expectation that an Exploration License will be awarded to that bidder as quickly as possible.

#### 5.2 Proposals

Bidders participating in the Licensing Round should submit a complete Proposal by the Proposal Submission Deadline. The Proposal must be prepared using the Application Form included in the Data Room.

Proposals will be assessed and scored based on a number of criteria, including technical and commercial terms and environmental and social impact management plans, including commitment to local communities development.

The bidder whose Proposal receives the highest score following evaluation will be declared as the Successful Bidder for the Site and will be awarded the Exploration License by the Ministry once the legal and regulatory requirements are satisfied.





If the Ministry selects a single Successful Bidder, they will proceed directly to the final stage of the Licensing Round. In this case, the relevant Successful Bidder will be invited by the Ministry to proceed straight to conclusion of the final terms of its Proposal. The second highest scoring bidder in such circumstances shall be the "**Reserve Bidder**".

## 5.3 Model Exploration License

Bidders will be required to confirm in as part of the Proposal Cover Letter (Section 1 of the Application Form) that they accept the terms and conditions of the model exploration license in the form set out as Appendix 1 of the Application Form ("**Model Exploration License**").

Bidders are advised that the terms of the Model Exploration License are non-negotiable, and this should be taken into account in the course of preparing their submissions.

#### 5.4 Performance Financial Guarantee

Bidders will be required to confirm in the Application Form and particularly in the Proposal Cover Letter (Section 1 of the Application Form) that, if they are announced as the Successful Bidder, they will provide a performance financial guarantee in favor of the Ministry to guarantee the Successful Bidder's due and punctual performance of the Work Program submitted as part of its Proposal ("**Performance Financial Guarantee**").

The Successful Bidder must submit a Performance Financial Guarantee within the timeline specified by the Ministry (not to be less than 30 days) from when it is announced as the Successful Bidder. The Performance Financial Guarantee must be for an amount equal to at least fifteen per cent. (15%) of the Successful Bidder's projected expenditure throughout the Work Program.

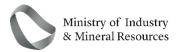
The Performance Financial Guarantee should take the form of an irrevocable on demand bank guarantee, in accordance with the forms approved by the Saudi Central Bank.

The Performance Financial Guarantee shall be provided by a bank licensed to operate in the Kingdom and made in favour of the Ministry and with a validity period of not less than thirty (30) months from the Exploration License issuance date, renewable automatically on a rolling basis for one (1) year periods throughout the term of the Exploration License.

The Performance Financial Guarantee may be called upon by the Ministry at any time during the term of the Exploration License in the event that the relevant Licensee fails to meet the agreed performance requirements and targets as set out in the Work Program.

#### 5.5 Social Impact Management Plan

Bidders must submit a social impact management plan ("**Social Impact Management Plan**"), identifying proposed contributions to the local community, and how the applicant will address the communities' needs and mitigate any negative impacts. The form of the Social Impact Management Plan to be submitted by bidders is set out in Section G of the Application Form.





#### 5.6 Environmental Impact Management Plan

Bidders must submit an environmental impact management plan ("**Environmental Impact Management Plan**") in accordance with the form set out in Section H of the Application Form.

#### 5.7 Proposals Evaluation

The Proposal stage evaluates both the technical and financial aspects of each submission. This analysis will look at the bidder's capabilities, as well as its plans and proposed investments with regards to the exploration and possible development of the Site including community engagement and employment and training opportunities for the Local Communities.

It should be noted that pursuant to the Implementation Regulations, Local Communities for the purposes of preparing Proposals means natural persons who permanently reside in communities within one hundred (100) kilometers from the Site. Please refer to the Mining Investment Law and its Implementing Regulations for the further clarify on the definition of Local Communities.

When submitting any Proposal, bidders are to always adhere to the Proposal Submission Rules and this Information Memorandum. Proposals that are not compliant with the requirements to this Information Memorandum, or are incomplete, may be rejected by the Ministry. All Proposals must be received by the Ministry by the Proposal Submission Deadline.

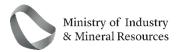
The bidder whose Proposal receives the highest score will be announced as the Successful Bidder for the Site and will be awarded the Exploration License by the Ministry once the legal and regulatory requirements are satisfied.

#### 5.8 Scoring Methodology

Each Proposal shall be assessed by the evaluation Committee in accordance with the scoring method set out in the following table.

Section	Criteria	Weighting
Proposed Work Program and Exploration Spend	Proposals will be evaluated on the thoroughness and soundness of the bidder's proposed Work Program for the entire area and the knowledge and understanding of the regional and license area geology, including stage planning, contingency planning and whether the bidder has the ability to attain the objectives in a timely manner. Bidders must address the requirements set out in Part 1.1 of Section C of the Application Form.	50%
Resource Exploration and Discovery Activities	Proposals will be evaluated on the bidder's experience in relation to focused exploration activities, based on its responses to the information required in Section D of the Application Form.	20%

#### Table 10: Scoring Criteria Weighting



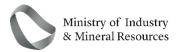


Section	Criteria	Weighting
Innovation	Proposals will be evaluated based on the innovative solutions and technologies used by the bidder in mineral exploration activities and discovery of mineral potential in base metals, based on the responses provided by bidders to the information required in Section E of the Application Form.	10%
Financial Capability	Proposals will be evaluated on the bidder's financial resources, and its capability to fund its Work Program and other proposed expenditure, in accordance with the form and requirements set out in Section F of the Application Form. Each bidder should provide an outline of its potential financing plan for the first two license years to support such funding requirements.	Pass/ Fail
Social Impact Management Plan	Proposals will be evaluated on the basis of whether the bidder has the demonstrated ability to successfully implement social development in and around the Site, as well as their proposed local community expenditure based on its responses to the information required in Section G of the Application Form.	20%
Environmental Impact Management Plan	Proposals will be evaluated on the basis of whether the bidder has the demonstrated ability to ensure the protection of the environment based on its responses to the information received in the form set out in Section H of the Application Form.	Pass/ Fail
Corporate and Legal Requirements	Proposals will be evaluated on the basis of the bidder's corporate and legal information regarding the structure, activities and litigation history of the bidder and its group, as set out in Section I of the Application Form.	Pass/ Fail
Performance Financial Guarantee	Proposal will be evaluated on the bidder's commitment to provide a Performance Financial Guarantee if selected as a Successful Bidder.	Pass/ Fail
Model Exploration License	Proposals will be evaluated on the bidder's commitment to accept the terms of the Model Exploration License.	Pass/ Fail

# 5.9 Final Satisfaction of Legal and Regulatory Requirements Stage

The announcement of the Successful Bidder will be made promptly after the Evaluation Committee<sup>1</sup> has concluded its evaluation of the Proposals. Following the announcement, the Ministry will invite the Successful Bidder into final discussions and conclusions on the details of any proposed Work Program,

<sup>&</sup>lt;sup>1</sup> The evaluation committee appointed by the Ministry to assess the Proposals, comprising of experts in mining, environmental, legal, and commercial matters





Environmental Impact Management Plan or Social Impact Management Plan, to the extent that the Ministry believes any such discussions are required.

#### 5.10 Award of Exploration License

Once a Successful Bidder is selected, the Ministry may seek to clarify with the Successful Bidder certain final points on the Successful Bidder's Work Program, the Environmental Impact Management Plan and the Social Impact Management Plan.

If discussions are concluded successfully, and subject to the satisfaction of all legal and regulatory requirements (including issuance and delivery of the Performance Financial Guarantee) the Ministry shall award the Exploration License to that Successful Bidder.

In the event that the final discussions referred to above are not successfully concluded with the Successful Bidder, the Ministry shall have the right to approach the Reserve Bidder to enter into such discussions.

If, subject to the satisfaction of all legal and regulatory requirements (including issuance and delivery of the Performance Financial Guarantee) the Reserve Bidder becomes the Successful Bidder, the Ministry shall award the Exploration License to that Successful Bidder.

If no agreement is reached with either the Successful Bidder or the Reserve Bidder, the Ministry reserves the right to approach such other bidders who have submitted a valid and binding Proposal as it sees fit.

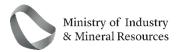
#### 5.11 Bidders' Information Requests and Clarifications

Bidders may wish to raise clarifications or request further information concerning this Information Memorandum.

All clarification and information requests concerning this Information Memorandum must be written in Arabic or English and submitted via email to miningbidding@mim.gov.sa no later than 21<sup>st</sup> April 2024 ("**Information Request Deadline**").

Bidders should not contact any person within, or associated with, the Ministry or the Government, or persons associated with their Project advisors, in connection with any requests for additional information or clarifications relating to this Information Memorandum, except via email as set out above.

To the extent possible, such information requests shall receive written responses by email communication as soon as practicable and where the question is of relevance to all bidders, the question and response will be distributed to all bidders may not respond to information requests submitted after the Information Request Deadline. The Ministry may, in its sole and absolute discretion, delete or remove any of the clarifications or request for further information if in the Ministry's view the clarification or request will result in any confusion in respect of the Information Memorandum or contains indications to certain items such as costs and prices.





#### 5.12 Bidder Site Visits

In the event a bidder wishes to visit the Site in advance of submitting its Proposal, such bidder may liaise with the Ministry to arrange a site visit by sending a request via miningbidding@mim.gov.sa.

#### 5.13 Consortium Proposals

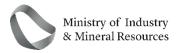
Bidders may form a consortium (including as a joint venture, special purpose vehicle with multiple shareholders or other similar arrangements) ("**Consortium**") and the lead consortium member should be identified in the Proposal ("**Lead Consortium Member**"). Responses must enable the Ministry to assess the overall Consortium.

For the avoidance of doubt, the Consortium does not necessarily need to include a KSA national partner or KSA incorporated entities; however, Consortium members should note that, pursuant to Article 17 of the Implementation Regulations, the members of the Consortium that are part of a successful bid for the Project are required to incorporate a legal entity in KSA, with the shareholdings of each member in that legal entity being equal to the members' interests in the Consortium. The Exploration License is then required to be issued to the KSA-incorporated legal entity, within the period prescribed by the Ministry.

Proposals submitted by Consortiums must include the following:

- 1. Details of the arrangement to establish the consortium (maximum 500 words).
- 2. Proposed percentage shareholding and governance rights of each member in the Consortium.
- 3. The elements of the Proposal and the wider Project for which will each Consortium member be responsible.
- 4. Confirmation statement signed by all proposed members of the consortium (in the form set out as Appendix 2 of the Application Form).

In responding to the Minimum Qualification Criteria on behalf of the Consortium, technical and financial requirements may be satisfied by separate (and not all) Consortium members. The identity of the relevant Consortium member satisfying the relevant requirement must be indicated clearly in the relevant response.





# 6. Other Terms of the Proposal Submission Rules

#### 6.1 Documents and Information

This Information Memorandum is and shall remain the property of the Ministry and is provided to the bidders solely for the purpose of preparing and submitting their Proposal.

The provisions of this section shall also apply to Proposals and all other documents submitted by the bidders in relation to their Proposals, and the Ministry will not be under any obligation to return to the bidders any bid, document or any information provided along therewith.

## 6.2 Proposal Submission Rules

Submissions must be received no later than the Proposal Submission Deadline and shall be deemed to be the bidder's binding offer with respect to the award of the Exploration License.

Bidders are required to prepare their Proposals in the English language and submit their Proposal electronically via email to miningbidding@mim.gov.sa.

The Ministry will provide written acknowledgement of receipt of each submission, indicating the time and date of such receipt, as soon as is reasonably practicable.

The Ministry may, in its sole discretion, extend the Proposal Submission Deadline, by issuing an amendment to the Proposal Submission Rules that is made available to all bidders.

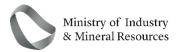
#### 6.3 Costs of Proposal

The bidders shall be responsible for all costs and expenses associated with the preparation of their Proposal and their participation in the Licensing Round. The Ministry will not be responsible or in any way liable for such costs and/or expenses, regardless of the outcome of the Licensing Round.

#### 6.4 Verification of information by the Bidders

By submitting a Proposal, each bidder is deemed to have:

- (1) made a complete and careful examination of the Information Memorandum and unconditionally and irrevocably agreed and accepted the terms thereof;
- (2) reviewed all relevant information provided by the Ministry or SGS as may be relevant to the Proposal;
- (3) undertaken their own review of any information provided in the Data Room and which is publicly available, taken any professional advice they deem appropriate and accepted the risks of inadequacy, error or mistake of the information provided in this Information Memorandum or furnished by or on behalf of the Ministry relating to any of the matters related to the Licensing Round;





- (4) satisfied itself on all matters regarding the Licensing Round and the submission of the Proposal, in accordance with this Information Memorandum and the Mining Regime (including in relation to the performance of any obligations);
- (5) acknowledged and agreed that inadequacy, lack of completeness or incorrectness of information provided in this Information Memorandum shall not be a basis for any claim for compensation, damages, extension of time for performance of its obligations and loss of profits from the Ministry, or a ground for termination of the Exploration License by the Successful Bidder; and
- (6) agreed to be bound by and to comply with the terms of the undertakings provided by it.

The Ministry shall not be liable for any omission, mistake or error in respect of any of the information provided or on account of any matter or thing arising out of or concerning or relating to the Information Memorandum or the linked documents, including any error or mistake therein or in any information or data given by the Ministry.

## 6.5 Information Requests, Verification by the Ministry and Disqualification

The Ministry reserves the right to verify all statements, information and documents submitted by the bidder in response to the Information Memorandum, and to request any further information it requires in order to make an informed assessment of any Proposal. The bidder shall, when so required by the Ministry, make available all such information, evidence and documents as may be reasonably requested by the Ministry. A bidder is encouraged to provide a written response to such request or clarification promptly and in all cases, within five (5) business days. Any such verification or lack of such verification by the Ministry shall not relieve the bidder of its obligations or liabilities hereunder or under the Mining Investment Law and its Implementing Regulations nor will it affect any rights of the Ministry thereunder.

The Ministry reserves the right to reject any Proposal in the event that any of the following occurs:

- a. at any time a misrepresentation is made by the relevant bidder or the Ministry becomes aware of any such misrepresentation;
- b. the bidder does not provide, within the time specified by the Ministry, any supplemental information requested by the Ministry to complete its evaluation of the Proposal; or
- c. any act or omission of the bidder which results in violation of or non-compliance with this Information Memorandum, or any other document referred to therein or issued pursuant thereto or the Mining Regime and any other applicable laws relevant for the award process.

Any rejection of a Proposal under the above terms may lead to a disqualification of the bidder for bidding in any stage of the Licensing Round or any other Licensing Round(s) conducted by the Ministry for a period of five (5) years commencing from the submission date of the Proposal or any other earlier date specified by the Ministry.



# 6.6 Non-Compliant Proposals

Notwithstanding Section 6.5, bidders may submit non-compliant Proposals which depart from the terms set out in this Information Memorandum, including without limitation, the various requirements set out in Section 5. However bidders are advised that in evaluating Proposals, preference will be given to compliant Proposals and any non-compliant Proposals will only be considered when there is demonstrable and substantial commercial or technical benefit to the Kingdom, such assessment to be made solely at the Ministry's discretion.

## 6.7 Amendments to this Information Memorandum

At any time prior to the Proposal Submission Deadline, the Ministry may, for any reason, whether on its own initiative or in response to clarifications requested by a bidder, amend this Information Memorandum.

Any amendment to this Information Memorandum shall be made in writing and shall be made available to all bidders. Any such amendment and shall be deemed as an integral part of this Information Memorandum.

In order to provide the bidders reasonable time to take into account any such amendment, or for any other reason, the Ministry may, in its sole discretion, extend the Proposal Submission Deadline.

#### 6.8 Modifications/Substitutions/Withdrawal of Proposals

A bidder may modify, substitute or withdraw its Proposal after submission, but prior to the Proposal Submission Deadline.

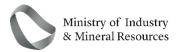
No Proposal shall be modified, substituted or withdrawn by the bidder on or after the Proposal Submission Deadline, unless the modification, substitution or withdrawal has been expressly requested by the Ministry.

# 6.9 Rejection of Proposals

Notwithstanding anything contained in this Information Memorandum, the Ministry reserves the right to reject any Proposal and/ or to annul or elect not to proceed with the Licensing Round and reject all Proposals at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefor.

Without prejudice to the generality of the foregoing, the Ministry reserves the right to reject any Proposal based on any conditions specified in this Information Memorandum, including without limitation, the following:

- a. the relevant Proposal has not been submitted with all the information and details listed as being required in this Information Memorandum; or
- b. the relevant Proposal is incompliant with the terms of this Information Memorandum.





## 6.10 Validity of the Proposals

A Proposal must be and remain valid for a period of one hundred and eighty (180) days from the Proposal Submission Deadline.

If the Successful Bidder is not announced within of one hundred and eight (180) days from the Proposal Submission Deadline, the Licensing Round shall be annulled.

## 6.11 Changes affecting Bidders

Upon submission of the Proposal, any changes of information which have been submitted by the bidder must be immediately communicated to the Ministry.

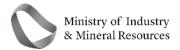
#### 6.12 Fraud and Corrupt Practices

Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Licensing Round and subsequent to the grant of the Exploration License. Notwithstanding anything to the contrary contained herein, the Ministry may elect to reject a Proposal and/or revoke the Exploration License, without being liable in any manner whatsoever to the bidder, Reserve Bidder, or the Successful Bidder, as the case may be (each a "**Relevant Bidder**"), if the Ministry determines that the Relevant Bidder has, directly or indirectly or through an agent, engaged in Corrupt Practices, Fraudulent Practice, Coercive Practice, Undesirable Practice or Restrictive Practice as part of the Licensing Round.

Without prejudice to the rights of the Ministry hereinabove and the rights and remedies which the Ministry may have under the Exploration License, or otherwise if a Relevant Bidder is found by the Ministry to have directly or indirectly or through an agent, engaged or indulged in any Corrupt Practices, Fraudulent Practices, Coercive Practices, Undesirable Practices or Restrictive Practices during the award process, or after the grant of the Exploration License, such Relevant Bidder shall not be eligible to participate in any Licensing Round undertaken by the Ministry for a period of five (5) years from the date the Ministry becomes aware of the same.

For the purposes of this Information Memorandum, the following terms shall have the meaning hereinafter respectively assigned to them:

**Corrupt Practice** means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Licensing Round (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Ministry who is or has been associated in any manner, directly or indirectly, with the Licensing Round, or at any time prior to the expiry of 1 (one) year from the date such official resigns or retires from or otherwise ceases to be in the service of the Ministry, shall be deemed to constitute influencing the actions of a person connected with the award process);





Fraudulent Practices	means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the award process;	
Coercive Practices	means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person's participation or action in the award process;	
Undesirable Practice	means	
	i. establishing contact with any person connected with or employed or engaged by the Ministry with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the award process; or	
	ii. violating of the Mining Regime or any other applicable laws; and	
Restrictive Practice	means forming a cartel or arriving at any understanding or arrangement among other bidders with the objective of restricting or manipulating a full and fair competition in the award process.	

#### 6.13 Correspondence

Unless otherwise provided in this Information Memorandum, all communications and correspondence from bidders to the Ministry in connection with the Licensing Round prior to the award of the Exploration License must be in English and submitted via email to miningbidding@mim.gov.sa.

For the avoidance of doubt, clarifications relating to the Information Memorandum should be sent by bidders to the Ministry in accordance with Section 5.11.

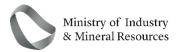
# 6.14 Governing law

The Licensing Round shall be governed by, and construed in accordance with, the laws of the Kingdom.

# 6.15 Rights of the Ministry

The Ministry, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to:

- a. suspend and/ or cancel the Licensing Round and/or amend and/or supplement the award process or modify the dates or other terms and conditions relating thereto;
- b. consult with any bidder as it may deem fit in connection with the Licensing Round;
- c. seek clarification of any Proposal, to interview, or to hold discussions with any bidder at any time after the Proposal Submission Deadline;





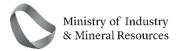
- d. retain any information and/ or evidence submitted to the Ministry by, on behalf of, and/ or in relation to any bidder; and/or
- e. independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any bidder.
- f. establish the rules and procedures governing the bid preparation, submission, evaluation, and selection processes;
- g. cancel or modify the terms and conditions of Proposal Submission Rules and/or cancel the evaluation process at any stage;
- h. select the Successful Bidder and Reserve Bidder;
- i. appoint an Evaluation Committee;
- j. use the Transaction Advisory Team and/or any third-party consultants to assist with any aspect of the Proposal submission, evaluation, selection, and/or negotiation processes; or
- k. waive any deficiency, irregularity, or omission in any Proposal provided that such waiver does not materially affect the substance or validity of the tender process as outlined in this Information Memorandum.

By submitting a Proposal, a bidder agrees to release the Ministry, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection with the Licensing Round and waive, to the fullest extent permitted by applicable law, any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or in future.

#### 6.16 Bidder Acknowledgements

In addition to the acknowledgments set out in Section 6.4, by submitting a Proposal, each bidder acknowledges the following:

- a. neither the Ministry nor its representatives makes any express or implied representation or warranty as to the completeness, accuracy, currency, reliability or suitability of this Information Memorandum and none of such persons will have any liability to the bidder or its representatives relating to or arising from their use of any information or for any errors therein or omissions therefrom nor will they be obliged to update or correct any inaccuracy in the information or otherwise provide additional information;
- b. reliance upon or use of the information contained in this Information Memorandum is at the sole risk of the bidder and its representatives;
- c. the Ministry will not be under any legal obligation or have any liability to the bidder of any nature whatsoever by virtue of the instructions in this Information Memorandum;





- d. the Ministry will not be deemed to have accepted any offer, and no contract or agreement with respect to the Site would be deemed to be entered between the Ministry and any bidder, unless and until the Exploration License has been executed by the Ministry and awarded to the Successful Bidder; and
- e. the Ministry has the right at any time and in its absolute discretion to terminate, change or delay the award process and terms and the Ministry will not be obliged to accept any or the highest or best offer and may, at any time and in its absolute discretion, request that the bidder return or destroy any document or information provided to it in connection with this Information Memorandum.



