Mineral Resources and Ore Reserves

Ma'aden
Annual Report
2021

09

Mineral Resources and Ore Reserves

Highlights

In 2021, Maaden operated twelve mines producing seven different minerals, either as sole operator or in joint venture.

Mining progressively depletes the mineral resource base, which is necessary to sustain and grow a mining business. Therefore, Ma'aden depends on the continued success of our exploration programmes to target, discover and evaluate new mineral resources.

Mineral exploration has long lead times. The benefit of several years work was realized when exploration and evaluation programmes completed in 2021 unlocked new opportunities from greenfield and brownfield exploration targets. This investment in exploration has significantly expanded our reported gold, phosphate and magnesite mineral resources.

Ma'aden achieved a significant increase in our reported mineral resources in 2021 with 23% increase in contained gold, a 118% increase in contained phosphate and a 1026% increase in magnesite mineral resources versus December 2020.

The addition of 4 billion tonnes of new phosphate mineral resources was achieved on Ma'aden's exploration licences adjacent to our Al Jalamid and Al Khabra mines. The addition of 616 million tonnes of contained phosphate is a material 118% increase year on year in our reported mineral resources. A total of 70 million tonnes of new gold mineral resources containing 3.9 million ounces from Mahd Adh Dhahab and Humaymah was added to the portfolio after depletion by mining in 2021. This is a significant 23% increase year on year in the contained gold in our mineral resource portfolio.

Our industrial minerals resource portfolio was significantly expanded by the addition of 67 million tonnes of a new magnesite Mineral Resource at the Jabal Rokham exploration licence. This represents a 1026% increase year on year in our magnesite resource base.

The Mineral Resources in Ma'aden's project pipeline are progressively converted into Ore Reserves, which enable the development of large new mines. Two new open pit gold mines at Mansourah and Massarah feeding to a central processing plant are currently under construction. A major gold project at Ar Rjum, centred on the two mineral resources at Umm Naam and Waseemah, is in the feasibility study stage. Evaluation of significant new open pit gold mineral resource is in progress at our Mahd Adh Dhahab underground gold mine, and has the potential to deliver a significant extension of mine life.

Reporting Standards

Mineral Resources and Ore Reserves are key assets of a mining company.

The Ore Reserve and Mineral Resource estimates in this Annual Report were prepared by Competent Persons in accordance with the requirements of (the JORC Code (the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 edition). The JORC Code represents

current global industry best practice for the public reporting of Ore Reserves and Mineral Resources.

The exception is the Jabal Sayid mine, where the estimates were prepared by Qualified Persons in accordance with the Canadian CIM 2014 Definition Standards for Mineral Resources and Mineral Reserves. There are no material differences between CIM 2014 and the JORC Code 2012 standards.

The reporting of Ma'aden's Ore Reserve and Mineral Resource estimates is in accordance with the principles of transparency, materiality and competence in the JORC Code for the estimation, classification, reporting in this annual report.

The Mineral Resources and Ore Reserves terminology used in this Annual Report follows the definitions in the JORC Code. Additional terms are defined in the Glossary section of the annual report.

These Mineral Resources and Ore Reserves estimates are reported at an effective date of 31 December 2020 after depletion by annual mine production and adjustments for changes in commodity prices, technical and economic factors. Previously reported Ma'aden Mineral Resources and Ore Reserves at 31 December 2020 and 31 December 2019 are shown for comparison purposes.

Mineral Resources are reported inclusive of the Mineral Resources converted to Ore Reserves. All estimates are reported on a dry tonnes basis.

Mineral Resource and Ore Reserve estimates are reported by commodity, project, development stage and licence. All estimates are reported as the total for each project. The Ma'aden ownership interest is listed for each project.

Differences in Mineral Resources and Ore Reserves for gold, phosphate and metallurgical bauxite from 31 December 2020 to 31 December 2019 are presented as waterfall charts, which show the starting and closing balances and quantify and describe the causes of the changes.

Metric units are used throughout this report, except for troy ounces, which is common industry usage.

Governance Standards

Ma'aden implemented a system of internal and external reviews to provide assurance that Ore Reserve and Mineral Resource estimates are estimated and reported in accordance with the JORC Code and global mining industry practice.

The principles governing the application of the JORC Code are transparency, materiality and competence. Transparency requires that the reader of a report is provided with sufficient information, in a clear and unambiguous form. Materiality requires public reporting of all relevant information, which investors would reasonably require in the reporting of Mineral Resources or Ore Reserves. Competence requires that the public report of Mineral Resources and Ore Reserves is prepared and certified by suitably qualified and experienced persons, 'Competent Persons'. Mineral Resources and Ore Reserves reported according to the JORC Code must accurately reflect the information and supporting documentation prepared by a Competent Person.

Governance Standards (Continued)

The reported Ore Reserves and Mineral Resources estimated were prepared by or under the supervision of Competent Persons as defined in the JORC Code. All Competent Persons are required to have a minimum of five years relevant experience in the type of mineralisation and in the estimation which they are doing. Each must be a member of a recognised professional body whose members are bound by an enforceable professional code of ethics. Most estimates were prepared by independent Competent Persons, who are not employees of Ma'aden. The estimates which were prepared by Competent Persons who were Ma'aden employees were reviewed and countersigned by independent, external Competent Persons to confirm that the estimates comply with the requirements of the JORC Code. All Competent Persons consented to the inclusion of the estimates in this report of in the form and context in which it appears. The names of the Competent Persons, their membership of a Recognised Professional Organisation and their employer are listed in the relevant section of this report.

Ma'aden formally appointed a Resources and Reserves Committee, which is comprised of suitably experienced and qualified Competent Persons from within Ma'aden. The Committee is responsible for reviewing all annual Mineral Resource and Ore Reserve estimates to provide assurance that these were estimated and reported in accordance with JORC Code. The Committee's membership, authorities and accountabilities are mandated in a company charter approved by the Chief Executive Officer. The Committee reports to the Chief Executive Officer.

The Ma'aden Board approved the publication of the Mineral Resource and Ore Reserve estimates in this report.

Commodity Prices

These Mineral Resource and Ore Reserve estimates are based on long term commodity price forecasts prepared annually by Ma'aden's Business Units.

Commodity Prices for Ma'aden's December 2021 Resources and Reserves

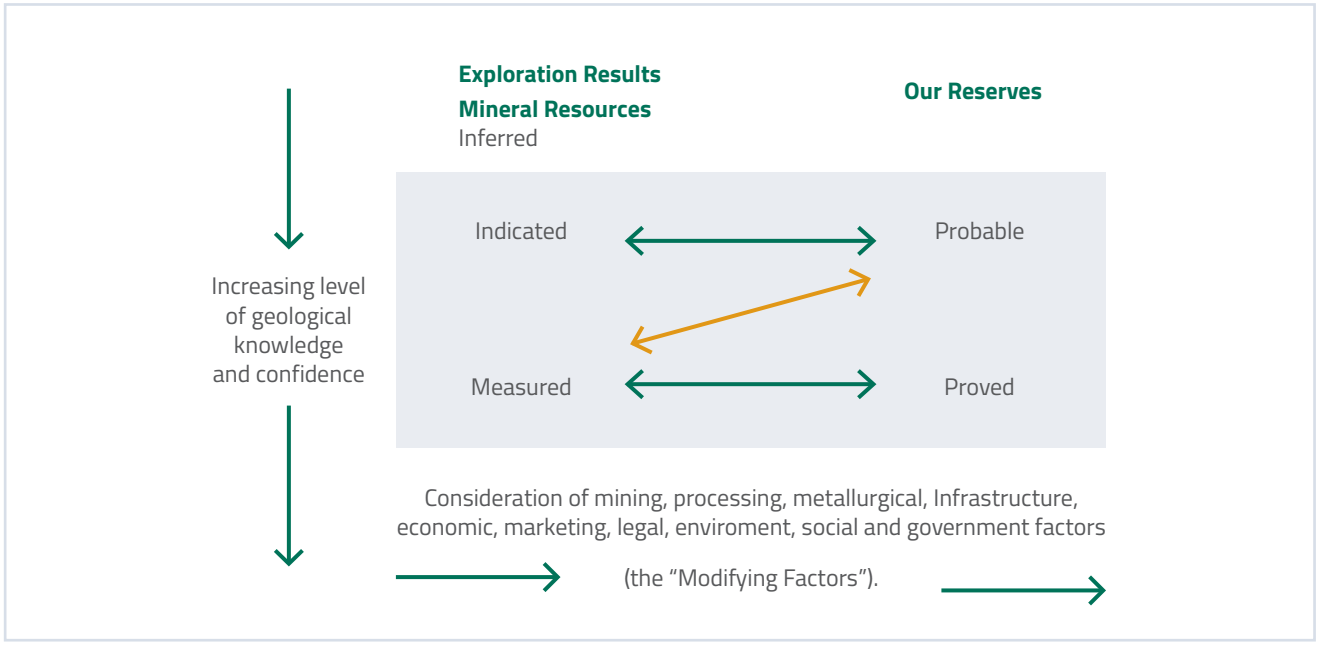
Mineral Commodity	Mineral Resource	Ore Reserve
Gold	$1550/oz	$1300/oz
Silver	$20/oz	$17/oz
Copper	$7550/t	$6300/t
Zinc	$1550/oz	$1300/oz

oz - troy ounce; t - metric tonne

Commodity prices for phosphate, metallurgical bauxite, kaolin and magnesite are not reported as these commodities are processed within Ma'aden's vertically integrated businesses or sold at multiple quality and chemical specifications.

Resource And Reserve Classification

There is an inherent degree of uncertainty in the estimation of Mineral Resources and Ore Reserves when compared with the material when it is ultimately mined and processed. This uncertainty is reflected in the Mineral Resource and Ore Reserve classifications of the JORC Code as shown below.



General relationship between Exploration Results, Mineral Resources and Ore Reserves (from the JORC Code 2012)

Extrapolation of operational performance from small-scale laboratory tests or pilot plants to full-scale production may not prove to be exact in practice and this may affect the Ore Reserves. Changes in assumptions for overburden removal, process plant recoveries and other operational factors may influence the tonnage and grade of an Ore Reserve and adversely affect the economic viability of a project. Volumes, grades and recoveries of Ore Reserves which are mined and processed may not be the same as currently anticipated.

According to the JORC Code, a Mineral Resource must have reasonable prospects for eventual economic extraction. The Competent Person must consider that there is a reasonable expectation that all or part of the Mineral Resources will eventually become Ore Reserves, but there is no guarantee that this will occur subject to further technical and economic scoping, prefeasibility and feasibility studies and future economic conditions. An Ore Reserve must be economically mineable.

The tonnage and grade of the Mineral Resources and Ore Reserves are reported according to the classification system in the JORC Code. The classification reflects the judgement of the Competent Person confidence in the estimate subject to the understanding of the geology, geological continuity, grade variability, and the quantity, distribution, quality and confidence in the geoscientific data and information used to produce the estimate.

Resource And Reserve Classification (Continued)

Mineral Resources and Ore Reserves are subject to change from depletion from mining, additional drilling, improved understanding of the mineralised deposits, and variations in commodity prices, mine production costs, mineral processing costs as well as mining, infrastructure, legal, environmental, social and governmental factors. The year on year changes to the Mineral Resources and Ore Reserves for gold, phosphate and metallurgical bauxite are shown in this annual report in tables and graphs. The Reserve Life stated in the Ore Reserves table is the scheduled extraction period in years in the Life of Mine Plan in the latest Ore Reserve report for the project.

The reported Ore Reserve tonnage and grade is the estimated metal or product as mined at the point of delivery to the processing plant, which follows common international practice. The Ore Reserve table shows the mining and processing methods for each Ore Reserve, forecast metallurgical recovery and forecast recoverable metal or mineral product.

The Mineral Resources and Ore Reserves estimates for phosphate, bauxite and industrial minerals are stated to one decimal place and for gold, copper and zinc to two decimal places. The Mineral Resources and Ore Reserves estimates in their source reports are more precise than are shown in the tables in this report, so minor apparent discrepancies may result if the tabulated figures are summed.

Mining Law

Saudi Arabia recently enacted a new Mining Investment Law and Regulations, which came into effect from 1 January 2021. The new law introduced several significant changes to the previous law for exploration and mining licences including new licence application requirements, new surface rentals for licences and ad valorem production royalty (severance), amongst other changes.

Licences

The licence status of each mine and project is shown in the Mineral Resources and Ore Reserves tables.

Exploration licences confer the right to explore and evaluate only, while mining licences give the right to mine and process the material within the licence. Mineral Resource and Ore Reserve estimates are reported within licence applications where Ma'aden has a reasonable expectation that the licence applications will be renewed or granted. However, the decision to grant or renew is at the sole discretion of the relevant government authority.

Definitions

The key definitions from the JORC Code, which are used in this report, are given below.

JORC Code

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 edition (the JORC Code) is an internationally recognised professional code of practice which sets minimum standards for the public reporting of Exploration Results, Mineral Resources and Ore Reserves.

The JORC Code provides a system for the classification and reporting of Mineral Resources and Ore reserves according to the levels of confidence in geological knowledge and technical and economic considerations (as shown in the JORC Code 2012.

Competent Person

A Competent Person is a minerals industry professional who is a Member or Fellow of the Australasian Institute of Mining and Metallurgy, or the Australian Institute of Geoscientists, or of a Recognized Professional Organization, which

is included in a list available on the JORC and Australian Securities Exchange websites. These organisations have enforceable disciplinary processes including the powers to suspend or expel a member. A Competent Person must have a minimum of five years relevant experience in the style of mineralisation or type of deposit under consideration and in the activity, which that person is undertaking.

Exploration Results

Exploration Results include data and information generated by mineral exploration programmes which might be of use to investors, but which do not form part of a declaration of Minerals Resources or Ore Reserves. The reporting of such information is common in the early stages of exploration when the quantity of data available may not be sufficient to allow a reasonable estimate of a Mineral Resource.

Exploration Target

An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade (or quality) relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource. Any such information must be expressed so that it cannot be misrepresented or misconstrued as an estimate of a Mineral Resource or Ore Reserve. There has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Mineral Resource

A Mineral Resource is a concentration or occurrence of material of economic interest in or on the Earth's crust in such form, grade/quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided in order of increasing geological confidence into Inferred, Indicated and Measured categories.

Inferred Mineral Resource

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated from limited geological evidence and sampling. Geological evidence is sufficient to imply, but not verify, geological and grade continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. An Inferred Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that most of an Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

Indicated Mineral Resource

An Indicated Mineral Resource is that part of a Mineral Resource for which the quantity, grade, quality, density, shape and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade/quality continuity between points where data and samples are gathered. An Indicated Mineral Resource has a lower level of confidence than for a Measured Mineral Resource and may be converted to a Probable Ore Reserve only.

Measured Mineral Resource

Measured Mineral Resource is that part of a Mineral Resource for which the quantity, grade, quality, density, shape and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to confirm geological and grade/quality continuity between points where data and samples are gathered. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Ore Reserve or under certain circumstances to a Probable Ore Reserve.

Modifying Factors

Modifying Factors are considerations used to convert Mineral Resources to Ore Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

Ore Reserve

An Ore Reserve is the economically mineable part of a Measured or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level, as appropriate, which Include the application of Modifying Factors. Such studies demonstrate that, at the time of reporting, economic mining and processing could reasonably be justified. The key underlying assumptions and outcomes of the pre-feasibility study or feasibility study must be disclosed at the time of reporting of a new or materially changed Ore Reserve. Ore Reserves are sub-divided in order of increasing confidence into Probable and Proved classifications.

Probable Ore Reserve

A Probable Ore Reserve is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve. A Probable Ore Reserve has a lower level of confidence than a Proved Ore Reserve but is of sufficient quality to serve as the basis for a decision on the development of the deposit.

Proved Ore Reserve

A Proved Ore Reserve is the economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors. A Proved Ore Reserve is the highest confidence category of an Ore Reserve estimate. The style of mineralisation or other factors could mean that Proved Ore Reserves are not achievable in some mineral deposits.

Scoping Study

A Scoping Study is an order of magnitude technical and economic study of the potential viability of a Mineral Resource. It includes appropriate assessment of realistically assumed Modifying Factors together with any other relevant operational factors, which are necessary to demonstrate at the time of reporting that progress to a Pre-Feasibility Study can reasonably be justified.

Pre-Feasibility Study

A Pre-Feasibility Study is a comprehensive study of a range of options for the technical and economic viability of a mineral project, which has advanced to a stage where a preferred method of underground or pit mining is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of

any other relevant factors, which are sufficient for a Competent Person, acting reasonably, to determine if all or part of the Mineral Resources may be converted to an Ore Reserve at the time of reporting. A Pre-Feasibility Study is at a lower confidence level that a Feasibility Study.

Feasibility Study

A Feasibility Study is a comprehensive technical and economic study of the selected development option for a mineral project, which includes appropriately detailed assessments of the applicable Modifying Factors together with any other relevant operational factors and detailed financial analysis which are necessary to demonstrate at the time of reporting that extraction is reasonably justified (economically mineable). The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The confidence level of the study will be higher than that of a Pre-Feasibility Study.

Annual Change Graphs

The definitions in the waterfall graphs showing the quantum and types of changes in the Mineral Resource and Ore Reserves from 31 December 2020 to 31 December 2021 are listed below.

Reserve Life

Reserve life is the remaining years of mining and processing according to the life of mine plan in the 2021 Ore Reserve report.

Grade

Grade is the estimate of the quantity, percentage or quality of a metal or mineral contained within a mineral deposit.

Cutoff grade

Cutoff grade is the grade above or below which the Mineral Resource or Ore Reserve is determined to be economic.

Mining Depletion

Mining depletion is the reduction in the Ore Reserve or Mineral Resource due to annual mine production estimated from mine survey and production reconciliation.

New Data

New data is that which is acquired from new drilling, sampling, chemical analyses, geotechnical, metallurgical, technical and financial studies.

Cost Factors

Cost factors are the operating, capital, processing and transport costs used to estimate the economics of extraction of the Mineral Resource and economic mineability of the Ore Reserve.

Estimation methodology

Estimation methodology is method which is used by the Competent Person to estimate the tonnes, grade, quality or confidence level of the estimates to classify the Mineral Resource or Ore Reserve.

Life of Mine Plan

The Life of Mine Plan is the approved long term plan for the design, development, ore extraction and processing of a mine in the Ore Reserve report prepared by a Competent Person.

Revenue Factors

Revenue factors are changes in the sale prices of the mineral commodity and foreign currency exchange rates used to convert the international market price to the local currency .

Stockpiles

Stockpile changes are annual changes in the tonnage and grade or classification of the Mineral Resource or Ore Reserve classification of ore in temporary storage after mining but before processing.

Glossary of Abbreviations

Al_2O_3	Aluminium oxide, also known as alumina
Au	Gold
CEng	Chartered Engineer of the Institute of Materials, Mining and Metallurgy
CF	Column flotation of phosphate ore
CGeol	Chartered Geologist of the Geological Society of London
CIL	Carbon in leach extraction of gold ore
CIP	Carbon in pulp extraction of gold ore
CPGeo	Chartered Professional (Geology) Australasian Institute of Mining and Metallurgy
CPMin	Chartered Professional (Mining) of the Australasian Institute of Mining and Metallurgy
Cu	Copper
DS	Direct shipping ore
EFG	European Federation of Geologists
EL	Exploration licence
EurGeol	European Geologist member of the European Federation of Geologists
Expl	Exploration
FAusIMM	Fellow of the Australasian Institute of Mining and Metallurgy
FGS	Fellow of the Geological Society of London
FGS (CGeol)	Fellow of the Geological Society of London and Chartered Geologist
FS	Feasibility study
g/t	Grammes per tonne
HL	Heap leach processing of gold ore
lb	Pound (453.6 grammes)
LPZ	Al Jalamid lower phosphate zone
% Ma'aden	Ma'aden share of ownership
MAusIMM	Member of the Australasian Institute of Mining and Metallurgy
MBCC	Ma'aden Barrick Copper Company
MF	Mechanical flotation of gold, copper, zinc and phosphate ores

Glossary of Abbreviations (Continued)

MGBM	Ma'aden Gold and Base Metals Company
MIGI	Member of the Institute of Geologists of Ireland
MIMMM	Member of the Institute of Materials, Mining and Metallurgy
MgO	Magnesium oxide
ML	Mining licence
MLA	Mining licence application
Moz	Million troy ounces
MSAIMM	Member of South African Institute of Mining and Metallurgy
Mt	Million metric tonnes
OP	Open pit mine
oz	Troy ounce (31.104 grammes)
P_2O_5	Phosphorus pentoxide
PFS	Prefeasibility study
PH	Phosphate horizons 1, 2, 3 and 4 at Al Khabra mine
POX	Pressure oxidation processing of gold ore
SC	Screening to separate a fine and coarse ore fraction
SiO_2	Silicon dioxide
SME	Registered Member of the Society for Mining, Metallurgy and Exploration
TAA	Total available alumina (Al_2O_3)
UG	Underground mine
UPZ	Al Jalamid upper phosphate zone
Zn	Zinc

Ore Reserves at 31 December 2020

					31 Dec 2021 Ore Reserves			
					Proved			
Phosphate								
Project	Ma'aden %	Project Stage	Mine Type	Metallurgy	Mt	%P_2O_5	% MgO	
Al Jalamid ML	70%	Mine	OP	SC+MF	150	20.3	3.5	
Project	% Ma'aden	Project Stage		Mine	Mt	%P_2O_5		% SiO_2
Al Khabra ML	60%	Mine	OP	SC+MF	275	17.0		10.0
Umm Wu'al B6 ML	60%	Prefeasibility	OP	MF				
Umm Wu'al B4-5 ML	100%	Prefeasibility	OP	CF	189	15.8		2.6
Umm Wu'al B10-11 ML	100%	Prefeasibility	OP	SC				
Total					**614**	**17.4**		
Metallurgical Bauxite								
Project	Ma'aden %	Project Stage	Mine Type	Metallurgy	Mt	% Al_2O_3	%TAA	% SiO_2
Al Ba'itha ML	75%	Mine	OP	DS	72.0	57.4	50.0	8.0
Industrial Bauxite								
Project	Ma'aden %	Project Stage	Mine Type	Metallurgy	Mt	% Al_2O_3	%TAA	% SiO_2
Az Zabirah ML	100%	Mine	OP	DS	2.6	53.2	40.2	14.9
Kaolin								
Project	Ma'aden %	Project Stage	Mine Type	Metallurgy	Mt	% Al_2O_3		% SiO_2
Az Zabirah ML	100%	Mine	OP	DS	0.5	32.7		40.5
Magnesite								
Project	Ma'aden %	Project Stage	Mine Type	Metallurgy	Mt	% MgO	CaO%	SiO_2
Al Ghazalah ML	100%	Mine	OP	DS	0.3	46.4	1.6	0.6
Gold								
Project	Ma'aden %	Project Stage	Mine Type	Metallurgy	Mt	g/t Au		
Ad Duwayhi ML	100%	Mine	OP	GR+CIL	1.95	3.24		
Bulghah ML	100%	Mine	OP	HL+CIL				
Sukhaybarat ML	100%	Mine	OP	HL+CIL				
As Suq ML	100%	Mine	OP	HL				
Mansourah ML	100%	Construction	OP	MF+POX+CIL	12.40	2.49		
Massarah ML	100%	Construction	OP	MF+POX+CIL	3.10	2.08		
Ar Rjum Waseemah ML	100%	Prefeasibility	OP	CIL	13.30	1.56		
Ar Rjum Umm Naam ML	100%	Prefeasibility	OP	CIL	14.20	1.26		
Project	Ma'aden %	Project Stage	Mine Type	Metallurgy	Mt	g/t Au	% Cu	% Zn
Al Amar ML	100%	Mine	UG	MF+CIL				
Project	Ma'aden %	Project Stage	Mine Type	Metallurgy	Mt	g/t Au	% Cu	% Zn
Mahd Ad Dhahab ML Underground	100%	Mine	UG	MF+CIP	0.16	5.10	0.5	1.3
Total					**45.1**	**1.84**		
Copper								
Project	Ma'aden %	Project Stage	Mine Type	Metallurgy	Mt	% Cu	g/t Au	% Zn
Jabal Sayid ML	50%	Mine	UG	MF	**13**	**2.3**	**0.2**	**0.14**

31 Dec 2021 Ore Reserves								
Probable				Proved + Probable				
Mt	$\%P_2O_5$	% MgO	$\% SiO_2$	Mt	$\%P_2O_5$	% MgO		Contained Mt P_2O_5
123	18.1	4.5		273	19.3	4.5		52.7
Mt	$\%P_2O_5$		$\% SiO_2$	Mt	$\%P_2O_5$		$\% SiO_2$	Contained Mt P_2O_5
97	16.0		10.2	386	16.7		10.1	64.6
280	16.2		2.3	280	16.2		2.3	45.4
145	15.4		3.0	334	15.6		2.8	52.1
59	18.8		2.7	59	18.8		2.7	11.1
704	**16.6**			**1332**	**16.8**			**226**
Mt	$\% Al_2O_3$	%TAA	$\% SiO_2$	Mt	$\% Al_2O_3$	%TAA	$\% SiO_2$	Contained Mt Bauxite
124.1	55.9	46.6	10.4	196.6	56.4	47.9	9.5	196.6
Mt	$\% Al_2O_3$	%TAA	$\% SiO_2$	Mt	$\% Al_2O_3$	%TAA	$\% SiO_2$	Contained Mt Bauxite
3.5	53.9	41.3	14.6	6.1	53.5	40.7	14.7	6.1
Mt	$\% Al_2O_3$		$\% SiO_2$	Mt	$\% Al_2O_3$		$\% SiO_2$	Contained Mt Kaolin
1.6	35.1		40.5	2.1	34.2		40.4	2.1
Mt	% MgO	CaO%	SiO_2	Mt	% MgO	CaO%	SiO_2	Contained Mt MgO
2.5	43.3	4.0	2.5	2.8	43.8	3.6	2.2	1.24
Mt	g/t Au			Mt	g/t Au			Contained Moz Au
18.1	1.44			20.0	1.61			1.04
33.0	0.86			33.0	0.86			0.91
19.0	0.98			19.0	0.98			0.60
3.5	1.32			3.5	1.32			0.15
15.3	2.6			27.7	2.53			2.25
14.1	2.0			17.2	2.00			1.10
21.00	1.6			34.3	1.57			1.73
11.90	1.5			26.1	1.35			1.13
Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Contained Moz Au
0.90	4.50	0.4	3.8	0.9	4.50	0.40	3.8	0.13
Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Contained Moz Au
0.32	4.13	0.4	1.0	0.48	4.45	0.42	1.1	0.07
137.1	**1.46**			**182.3**	**1.55**			**9.1**
Mt	% Cu	g/t Au	% Zn	Mt	% Cu	g/t Au	% Zn	Contained Mt Cu
13.30	**2.2**	**0.3**	**0.48**	**26**	**2.3**	**0.3**	**0.3**	**0.59**

Ore Reserves at 31 December 2020 (Continued)

	31 Dec 2021 Mine Plan			2021 - 2020 Ore Reserve Changes		
Phosphate						
Project	% Recovery	Recoverable Mt P_2O_5	Reserve Years	Mt	Contained Mt P_2O_5	% Change Mt P_2O_5
Al Jalamid ML	69%	36.3	19	-18.6	-3.1	-6%
Project	% Recovery	Recoverable Mt P_2O_5	Reserve Years	Mt	Contained Mt P_2O_5	% Change Mt P_2O_5
Al Khabra ML	68%	43.9	24	-0.1	0.8	1%
Umm Wu'al B6 ML	70%	31.8	20	-5	0	0%
Umm Wu'al B4-5 ML	91%	47.4	30	0	0	0%
Umm Wu'al B10-11 ML	59%	6.5	17	-23.1	-2.7	-25%
Total	**73%**	**166**		**-46.3**	**-5.1**	**-2%**
Metallurgical Bauxite						
Project	% Recovery	Recoverable Mt Bauxite	Reserve Years	Mt	Contained Mt bauxite	% Change Mt Bauxite
Al Ba'itha ML	100%	197	36	13.2	13.2	7%
Industrial Bauxite						
Project	% Recovery	Recoverable Mt Bauxite	Reserve Years	Mt	Contained Mt bauxite	% Change Mt Bauxite
Az Zabirah ML	100%	6.1	16	-0.5	-0.5	-8%
Kaolin						
Project	% Recovery	Recoverable Mt Kaolin	Reserve Years	Mt	Contained Mt kaolin	% Change Mt Kaolin
Az Zabirah ML	100%	2.1	16	-0.2	-0.2	-10%
Magnesite						
Project	% Recovery	Recoverable Mt MgO	Reserve Years	Mt	Contained Mt MgO	% Change Mt MgO
Al Ghazalah ML	100%	1.24	36	-0.2	-0.1	-8%
Gold						
Project	% Recovery	Recoverable Moz Au	Reserve Years	Mt	Contained Moz Au	% Change Moz Au
Ad Duwayhi ML	95%	0.99	9	-1.2	-0.09	-9%
Bulghah ML	53%	0.48	13	-7.7	-0.14	-15%
Sukhaybarat ML	67%	0.40	8	1.9	-0.01	-2%
As Suq ML	56%	0.08	4	-3.1	-0.13	-89%
Mansourah ML	88%	1.98	11	0	0	0%
Massarah ML	88%	0.97	11	0	0	0%
Ar Rjum Waseemah ML	98%	1.69	10	0	0	0%
Ar Rjum Umm Naam ML	98%	1.11	10	0	0	0%
Project	% Recovery	Recoverable Moz Au	Reserve Years	Mt	Contained Moz Au	% Change Moz Au
Al Amar ML	89%	0.12	4	-0.33	-0.03	-22%
Project	% Recovery	Recoverable Moz Au	Reserve Years	Mt	Contained Moz Au	% Change Moz Au
Mahd Ad Dhahab ML Underground	96%	0.07	3	0.03	-0.04	-59%
Total	**87%**	**7.9**		**-10.4**	**-0.44**	**-5%**
Copper						
Project	% Recovery	Recoverable Mt Cu	Reserve Years	Mt	Contained Mt Cu	% Change Mt Cu
Jabal Sayid ML	92%	0.55	10	**-0.6**	**-0.02**	**-3%**

31 Dec 2020 Ore Reserves			
Proved + Probable			
Mt	$\%P_2O_5$	% MgO	Mt P_2O_5
292	19.1	4.0	55.8
Mt	$\%P_2O_5$	% SiO_2	Mt P_2O_5
386	16.5	9.9	63.8
285	16.0	2.3	45.4
334	15.6	2.8	52.1
82	16.9	10.3	13.8
1378	**16.8**		**230.9**
Mt	%TAA	% SiO_2	Mt Bauxite
183.4	48.2	9.3	183.4
Mt	% Al_2O_3	% SiO_2	Mt Bauxite
6.6	53.6	14.7	6.6
Mt	% Al_2O_3	% SiO_2	Mt aolin
2.3	34.2	40.4	2.3
Mt	% MgO	% SiO_2	Mt MgO
3.0	43.8	2.2	1.3
Mt	g/t Au		Moz Au
21.3	1.65		1.13
40.7	0.82		1.05
17.1	1.11		0.61
6.6	1.32		0.28
27.7	2.53		2.25
17.2	2.00		1.10
34.3	1.57		1.73
26.1	1.35		1.13
Mt	g/t Au	% Zn	Moz Au
1.2	4.10	3.7	0.16
Mt	g/t Au	% Cu	Moz Au
0.5	7.54	0.6	0.11
192.7	**1.5**		**9.6**
Mt	% Cu	g/t Au	Mt Cu
24.6	**2.3**	**0.2**	**0.56**

31 Dec 2019 Ore Reserves			
Proved + Probable			
Mt	$\%P_2O_5$	% MgO	Mt P_2O_5
252	19.6	3.5	49.4
Mt	$\%P_2O_5$	% SiO_2	Mt P_2O_5
394	16.5	9.8	65.2
285	16.0	2.3	45.4
334	15.6	2.8	52.1
82	16.9	10.3	13.8
1346	**16.8**		**225.9**
Mt	%TAA	% SiO_2	Mt Bauxite
187.8	48.2	9.2	187.8
Mt	% Al_2O_3	% SiO_2	Mt bauxite
7.0	53.6	14.7	7.0
Mt	% Al_2O_3	% SiO_2	Mt kaolin
2.4	34.3	40.5	2.4
Mt	% MgO	% SiO_2	Mt MgO
2.9	43.4	2.3	1.0
Mt	g/t Au	% Zn	Moz Au
15.3	2.2		1.08
52.4	0.9		1.46
20.0	1.1		0.69
5.3	1.7		0.30
27.7	2.5		2.25
17.2	2.0		1.10
0	0		0
0	0		0
1.5	3.8	4.0	0.19
Mt	g/t Au	% Cu	Moz Au
0.8	5.4	0.3	0.13
140.2	**1.6**		**7.2**
Mt	% Cu	g/t Au	Mt Cu
25.2	**2.3**	**0.2**	**0.58**

31 Dec 2018 Ore Reserves			
Proved + Probable			
Mt	$\%P_2O_5$	% MgO	Mt P_2O_5
265	19.8	3.5	52.5
Mt	$\%P_2O_5$	% SiO_2	Mt P_2O_5
409	16.4	12.4	67.1
285	16.0	2.3	45.4
334	15.6	2.8	52.1
82	16.9	10.3	13.8
1375	**16.8**		**230.9**
Mt	%TAA	% SiO_2	Mt Bauxite
192.2	48.2	9.2	192.2
Mt	% Al_2O_3	% SiO_2	Mt bauxite
7.3	53.6	14.8	7.3
Mt	% Al_2O_3	% SiO_2	Mt kaolin
2.5	34.2	40.4	2.5
Mt	% MgO	% SiO_2	Mt MgO
3.1	43.5	2.2	1.3
Mt	g/t Au	% Zn	Moz Au
19.2	2.4		1.47
56.8	0.9		1.58
20.4	1.1		0.71
5.7	1.0		0.18
27.7	2.5		2.25
17.2	2.0		1.10
0	0		0
0	0		0
2.8	3.3	2.5	0.29
Mt	g/t Au	% Cu	Moz Au
1.0	5.0	0.8	0.16
150.8	**1.6**		**7.8**
Mt	% Cu	g/t Au	Mt Cu
27.1	**2.4**	**0.2**	**0.65**

Mineral Resources At 31 December 2021

31 Dec 2021 Mineral Resources							
				Measured			
Phosphate							
Project	% Ma'aden	Project Stage	Mine	Mt	$\%P_2O_5$	% MgO	$\% SiO_2$
Al Jalamid ML	70%	Mine	OP	386	18.3	5.2	2.0
Al Jalamid EL	100%	Exploration	OP				
Project	% Ma'aden	Project Stage	Mine	Mt	$\%P_2O_5$	% MgO	$\% SiO_2$
Al Khabra ML	60%	Mine	OP	283	16.7		9.9
Umm Wu'al B6 ML	60%	Prefeasibility	OP				
Umm Wu'al B4-5 ML	100%	Prefeasibility	OP	177	16.9		2.2
Umm Wu'al B10-11 ML	100%	Prefeasibility	OP	29	20.4		8.0
Umm Wu'al EL	100%	Exploration	OP				
Total				**875**	**17.6**		**4.8**
Metallurgical Bauxite							
Project	% Ma'aden	Project Stage	Mine	Mt	$\% Al_2O_3$	%TAA	$\% SiO_2$
Al Ba'itha ML	75%	Mine	OP	80	57.3	49.8	8.1
Az Zabirah ML	75%	Mine	OP	12	58.0	48.6	10.9
Az Zabirah Central MLA	100%	Exploration	OP				
Az Zabirah North EL	100%	Exploration	OP				
Total				**92**	**57.4**	**49.7**	**8.5**
Industrial Bauxite							
Project	% Ma'aden	Project Stage	Mine	Mt	$\% Al_2O_3$	%TAA	$\% SiO_2$
Az Zabirah ML	100%	Mine	OP	6	50.8	35.1	18.0
Az Zabirah Central MLA	100%	Exploration	OP				
Az Zabirah North EL	100%	Exploration	OP				
Total				**6**	**50.8**	**35.1**	**18.0**
Kaolin							
Project	% Ma'aden	Project Stage	Mine	Mt	$\% Al_2O_3$		$\% SiO_2$
Az Zabirah ML	100%	Mine	OP	7	36.1		41.0
Az Zabirah Central MLA	100%	Exploration	OP				
Az Zabirah North EL	100%	Exploration	OP				
Total				**7**	**36.1**		**41.0**
Magnesite							
Project	% Ma'aden	Project Stage	Mine	Mt	% MgO	CaO%	SiO_2
Al Ghazalah ML	100%	Mine	OP	0.5	46.2	1.7	0.7
Jabal Rokham EL	100%	Exploration	OP				
Total				**0.5**	**46.2**	**1.7**	**0.7**
Gold							
Project	% Ma'aden	Project Stage	Mine	Mt	g/t Au		
Ad Duwayhi ML	100%	Mine	OP+SP	1.7	4.0		
Bulghah ML	100%	Mine	OP				
Humaymah ML	100%	Mine	OP				
Sukhaybarat ML	100%	Mine	OP				
As Suq ML	100%	Mine	OP+SP				
Mansourah ML	100%	Construction	OP	14.8	2.3		
Massarah ML	100%	Construction	OP	4.3	1.7		
Ar Rjum Waseemah ML	100%	Feasibility	OP	14.0	1.6		
Ar Rjum Umm Naam + Ghazal ML	100%	Feasibility	OP	15.0	1.3		
Bir Tawilah EL	100%	Exploration	OP				
Jabal Ghadarah EL	100%	Exploration	OP				
Project	% Ma'aden	Project Stage	Mine	Mt	g/t Au	% Cu	% Zn
Al Amar ML	100%	Mine	UG				
Project	% Ma'aden	Project Stage	Mine	Mt	g/t Au	% Cu	% Zn
Mahd Ad Dhahab ML Underground	100%	Mine	UG	1.4	13.5	0.8	2.5
Mahd Ad Dhahab ML Open Pit	100%	Prefeasibility	OP	14.3	2.7	0.3	0.9
Total				**65**	**2.2**		
Copper							
Project	% Ma'aden	Project Stage	Mine	Mt	g/t Au	% Cu	% Zn
Jabal Sayid ML	50%	Mine	UG	**13**	**0.2**	**2.6**	

31 Dec 2021 Mineral Resources

Indicated				Inferred				Measured + Indicated + Inferred				
Mt	%P_2O_5	% MgO	% SiO_2	Mt	%P_2O_5	% MgO	% SiO2	Mt	%P_2O_5	% MgO	% SiO_2	Contained Mt P_2O_5
91	18.5	5.4	1.7	5	17.9	7.2	1.2	482	18.3	5.3	1.9	88
289	19.1	6.6	2.7	1400	16.3	6.5	2.4	1689	16.8	6.5	2.5	284
Mt	%P_2O_5	% MgO	% SiO_2	Mt	%P_2O_5		% SiO_2	Mt	%P_2O_5	% MgO	% SiO_2	Contained Mt P_2O_5
108	15.5		10.1	7	17.6		18.2	398	16.4		10.1	65
473	16.7	0.2	2.2					473	16.7	0.2	2.2	79
150	16.8		2.6	96	16.3		3.6	424	16.7		2.7	71
39	19.1		8.6	213	18.5		9.3	281	18.8		9.1	53
				3275	15.1		8.1	3275	15.1		8.1	495
1151	**17.4**		**2.8**	**4995**	**15.6**		**5.8**	**7021**	**16.2**		**5.3**	**1135**
Mt	% Al_2O_3	%TAA	% SiO_2	Mt	% Al_2O_3	%TAA	% SiO_2	Mt	% Al_2O_3	%TAA	% SiO_2	Contained Mt Bauxite
133	57.7	49.8	8.6	3	58.7	48.3	11.7	216	57.8	49.8	8.5	216
17	57.3	46.6	12.2	11	57.0	46.3	12.3	40	57.4	47.1	11.8	40
11	51.1	46.9	10.9	31	50.4	46.5	9.4	42	50.7	46.6	9.7	42
				13	50.5	46.8	9.7	13	50.5	46.8	9.7	13
160	**57.2**	**49.3**	**9.2**	**57**	**52.1**	**46.6**	**10.1**	**311**	**56.5**	**48.9**	**9.1**	**311**
Mt	% Al_2O_3	%TAA	% SiO_2	Mt	% Al_2O_3	%TAA	% SiO_2	Mt	% Al_2O_3	%TAA	% SiO_2	Contained Mt Bauxite
17	51.5	35.4	18.5	6	52.6	36.4	18.6	29	51.6	35.6	18.4	29
22	51.1		17.5	21	50.4		16.1	43	50.7		16.8	43
				46	50.5		14.7	46	50.5		14.7	46
39	**51.3**		**17.9**	**73**	**50.6**		**15.4**	**118**	**50.8**		**16.4**	**118**
Mt	% Al_2O_3		% SiO_2	Mt	% Al_2O_3		% SiO_2	Mt	% Al_2O_3		% SiO_2	Contained Mt Kaolin
16	36.8		41.5	8	38.4		41.0	31	37.1		41.3	31
17	36.6		39.7	9	35.7		40.6	25	36.3		40.0	25
				19	35.3		40.6	19	35.3		40.6	19
33	**36.7**		**40.6**	**36**	**36.1**		**40.7**	**76**	**36.4**		**40.7**	**76**
Mt	% MgO	CaO%	SiO_2	Mt	% MgO	CaO%	% SiO_2	Mt	% MgO	CaO%	% SiO_2	Contained Mt MgO
3.4	43.2	4.1	2.6	2.0	44.2	3.7	1.6	6	43.8	3.6	2.1	2.6
				67.4	40.7	4.6	6.3	67	40.7	4.6	6.3	27.4
3.4	**43.2**	**4.1**	**2.6**	**69**	**40.8**	**4.6**	**6.2**	**73**	**40.9**	**4.5**	**6.0**	**30**
Mt	g/t Au			Mt	g/t Au			Mt	g/t Au			Contained Moz Au
14.3	1.2			5.7	1.9			27.3	1.8			1.62
42.5	0.9			10.8	0.9			53.2	0.9			1.55
37.2	0.9			0.5	0.8			37.6	0.9			1.05
19.1	1.1			0.9	1.5			20.0	1.1			0.73
3.9	1.5			0.9	1.6			4.8	1.5			0.23
30.3	1.9			4.7	2.2			49.8	2.0			3.26
38.1	1.6			4.5	0.9			46.9	1.5			2.30
31.7	1.6			2.0	1.2			47.6	1.6			2.43
18.5	1.4			0.6	1.4			34.0	1.4			1.50
				49.0	0.9			49.0	0.9			1.35
				5.7	1.0			5.7	1.0			0.18
Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Contained Moz Au
2.7	4.7	0.4	4.1	0.5	5.2	0.4	4.9	3.2	4.8	0.4	4.40	0.50
Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Contained Moz Au
1.6	11.4	0.7	1.9	0.6	13.9	0.7	1.8	3.6	12.6	0.8	2.14	1.44
20.5	1.8	0.2	0.6	17.0	1.1	0.2	0.4	51.7	1.8	0.2	0.60	3.05
260	**1.5**			**103**	**1.1**			**431**	**1.5**			**21.2**
Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Mt	g/t Au	% Cu	% Zn	Contained Mt Cu
16	**0.4**	**2.2**		**2**	**0.5**	**1.3**		**31**	**0.3**	**2.3**		**0.72**

Mineral Resources At 31 December 2021 (Continued)

	2021 - 2020 Mineral Resource Changes			31 Dec 2020 Mineral Resources			
	Annual Mineral Resource Change			Measured + Indicated + Inferred			
Phosphate							
Project	Mt	Contained Mt P_2O_5	% Change Mt P_2O_5	Mt	% P_2O_5	% MgO	Mt P_2O_5
Al Jalamid ML	109	17	24%	373	19.1	4.0	71
Al Jalamid EL	986	155	120%	703	18.4	6.1	129
Project	Mt	Contained Mt P_2O_5	% Change Mt P_2O_5	Mt	% P_2O_5	% SiO_2	Mt P_2O_5
Al Khabra ML	-16	-2.6	-4%	414	16.4	10.0	68
Umm Wu'al B6 ML	0	0	0%	473	16.7	2.2	79
Umm Wu'al B4-5 ML	0	0	0%	424	16.7	2.7	71
Umm Wu'al B10-11 ML	-36	-7	-11%	317	18.7	9.1	59.3
Umm Wu'al EL	3032	454	1106%	243	16.9		41
Total	**4074**	**616**	**118%**	**2963**	**17.6**		**522**
Metallurgical Bauxite							
Project	Mt	Contained Mt Bauxite	% Change Mt Bauxite	Mt	%TAA	% SiO_2	Mt Bauxite
Al Ba'itha ML	-17	-17	-7%	233	49.8	8.5	233
Az Zabirah ML	0	0	0%	40	47.1	11.8	40
Az Zabirah Central MLA	0	0	0%	42	46.6	9.7	42
Az Zabirah North EL	0	0	0%	13	46.8	9.7	13
Total	**-17**	**-17**	**-5.4%**	**328**	**48.9**	**9.0**	**328**
Industrial Bauxite							
Project	Mt	Contained Mt Bauxite	% Change Mt Bauxite	Mt	% Al_2O_3	% SiO_2	Mt Bauxite
Az Zabirah ML	-1	-1	-3%	30	51.6	18.4	30
Az Zabirah Central MLA	0	0	0%	43	50.7	16.8	43
Az Zabirah North EL	0	0	0%	46	50.5	14.7	46
Total	**-1**	**-1**	**-0.8%**	**119**	**50.9**	**17.3**	**119**
Kaolin							
Project	Mt	Contained Mt Kaolin	% Change Mt Kaolin	Mt	% Al_2O_3	% % SiO_2	Mt Kaolin
Az Zabirah ML	0	0	0%	31	37.1	41	31
Az Zabirah Central MLA	0	0	0%	25	36.3	40	25
Az Zabirah North EL	0	0.3	2%	19	35.3	41	19
Total	**0**	**0.3**	**-1%**	**76**	**36.3**	**41**	**76**
Magnesite							
Project	Mt	Contained Mt MgO	% Change Mt MgO	Mt	% MgO	% SiO2	Mt MgO
Al Ghazalah ML	-0.2	-0.1	-4%	6.1	43.86	2	2.7
Jabal Rokham EL	67.4	27.4	New				
Total	**67.2**	**27.4**	**1026%**	**6.1**	**43.9**	**2.1**	**2.7**
Gold							
Project	Mt	Contained Moz Au	% Change Moz Au	Mt	g/t Au		Moz Au
Ad Duwayhi ML	-1.4	-0.05	-3%	28.7	1.82		1.7
Bulghah ML	-8.6	-0.21	-12%	61.8	0.89		1.8
Humaymah ML	37.6	1.05	New				
Sukhaybarat ML	-0.8	-0.11	-13%	20.8	1.26		0.8
As Suq ML	-5.2	-0.21	-48%	10.0	1.40		0.4
Mansourah ML	0	0	0%	49.8	2.00		3.3
Massarah ML	0	0	0%	46.9	1.50		2.3
Ar Rjum Waseemah ML	0	0	0%	47.6	1.59		2.4
Ar Rjum Umm Naam + Ghazal ML	0	0	0%	34.0	1.36		1.5
Bir Tawilah EL	0	0	0%	49.0	0.85		1.3
Jabal Ghadarah EL	0	0	0%	5.7	1.00		0.2
Project	Mt	Contained Moz Au	% Change Moz Au	Mt	g/t Au	% Zn	Moz Au
Al Amar ML	-0.14	-0.02	-4%	3.4	4.80	4.5	0.5
Project	Mt	Contained Moz Au	% Change Moz Au	Mt	g/t Au	% Cu	Moz Au
Mahd Ad Dhahab ML Underground	0.6	0.5	46%	3.0	10.40	0.76	1.0
Mahd Ad Dhahab ML Open Pit	51.7	3.0	New	0			0
Total	**70.4**	**3.9**	**23%**	**361**	**1.5**		**17.2**
Copper							
Project	Mt	Mt Cu		Mt	% Cu	g/t Au	Mt Cu
Jabal Sayid ML	**-2.1**	**0.01**	**1.4%**	**33.5**	**2.13**	**0.31**	**0.71**

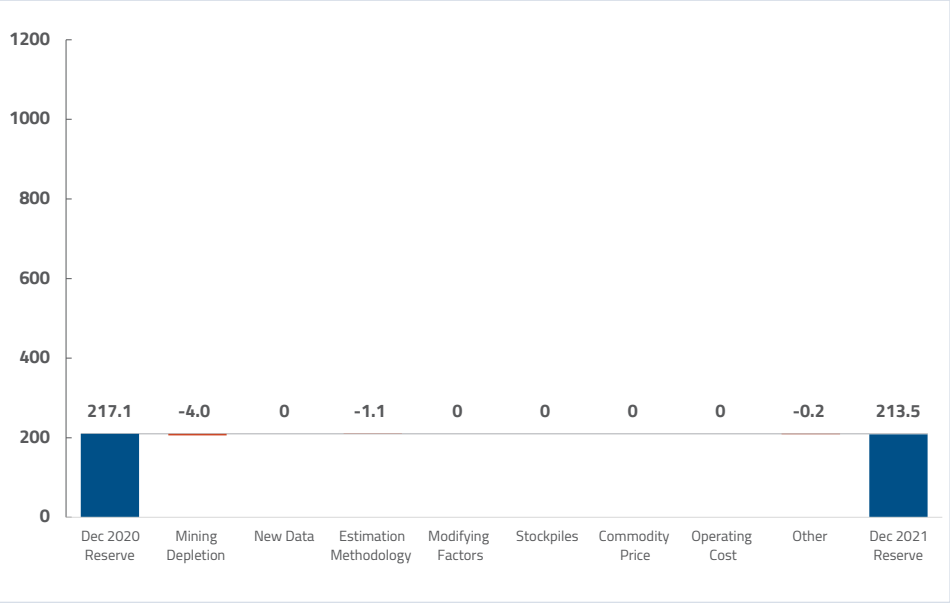
31 Dec 2019 Mineral Resources			
Measured + Indicated + Inferred			
Mt	% P_2O_5	% MgO	Mt P_2O_5
370	19.4	4.0	72
703	18.4	6.1	129
Mt	% P_2O_5	% SiO_2	Mt P_2O_5
423	16.4	10.0	69
473	16.7	2.2	79
424	16.7	2.7	71
334	18.7	9.1	62
243	16.9		41
2969	**17.6**		**524**
Mt	%TAA	% SiO_2	Mt Bauxite
238	49.8	8.4	238
40	47.1	11.8	40
42	46.5	9.7	42
13	46.8	9.3	13
333	**48.9**	**9.8**	**333**
Mt	% Al_2O_3	% SiO_2	Mt Bauxite
30.3	51.6	18.4	30
43.0	50.7	16.8	43
46.0	50.5	14.7	46
119.3	**50.9**	**17.3**	**119**
Mt	% Al_2O_3	% SiO_2	Mt Kaolin
31	37.1	41.3	31
25	36.3	40.0	25
19	35.3	40.6	19
76	**36.3**	**40.6**	**76**
Mt	% MgO	% SiO_2	Mt MgO
5.9	43.7	3.8	2.6
5.9	**43.7**	**3.8**	**2.6**
Mt	g/t Au		Moz Au
23.8	2.11		1.6
81.7	0.9		2.44
28.0	1.1		1.01
9.3	1.4		0.43
43.7	2.2		3.12
43.4	1.4		1.99
47.6	1.6		2.43
34.0	1.4		1.50
49.0	0.9		1.35
5.4	1.0		0.17
Mt	g/t Au	% Zn	Moz Au
3.0	4.35	5.4	0.42
Mt	g/t Au	% Cu	Moz Au
2.3	8.38	0.67	0.63
0			0
371	**1.4**		**17.1**
Mt	% Cu	g/t Au	Mt Cu
33.7	**2.19**	**0.35**	**0.74**

31 Dec 2018 Mineral Resources			
Measured + Indicated + Inferred			
Mt	% P2O5	% MgO	Mt P_2O_5
432	19.1	4.2	83
417	16.1	4.4	67
Mt	% P_2O_5	% SiO_2	Mt P_2O_5
425	16.1	12.7	68
473	16.7	2.2	79
424	16.7	2.7	71
334	18.7	9.1	62
243	16.9		41
2748	**17.2**		**471**
Mt	%TAA	% SiO_2	Mt Bauxite
243	49.8	8.4	243
40	57.4	11.8	40
37	47.2	9.4	37
31	44.9	9.3	31
351	**49.9**	**9.0**	**351**
% Al_2O_3	% SiO_2	Mt Bauxite	Mt Bauxite
30	51.6	18.4	30
29	49.7	16.1	29
20	50.4	16.8	20
79	**27.6**	**17.1**	**79**
Mt	% Al_2O_3	% SiO_2	Mt Kaolin
31	37.1	41.3	31
17	36.3	40.8	17
21	35.1	40.4	21
69	**36.3**	**40.9**	**69**
Mt	% MgO	% SiO_2	Mt MgO
6.1	43.8	3.0	2.7
6.1	**43.8**	**3.0**	**2.7**
Mt	g/t Au		Moz Au
27.0	2.09		1.8
84.8	0.9		2.51
28.0	1.1		1.01
8.7	1.5		0.42
46.8	2.1		3.21
43.7	1.6		2.23
43.7	1.6		2.18
28.5	1.5		1.38
41.0	0.9		1.14
5.4	1.0		0.17
Mt	g/t Au	% Zn	Moz Au
1.0	4.9	0.5	0.16
Mt	g/t Au	% Cu	Moz Au
2.6	8.2	0.5	0.7
0			0
361	**1.5**		**14.0**
Mt	% Cu	g/t Au	Mt Cu
6.2	**1.72**	**0.45**	**0.11**

Ore Reserve Changes
From 31 Dec 2020 to 31 Dec 2021

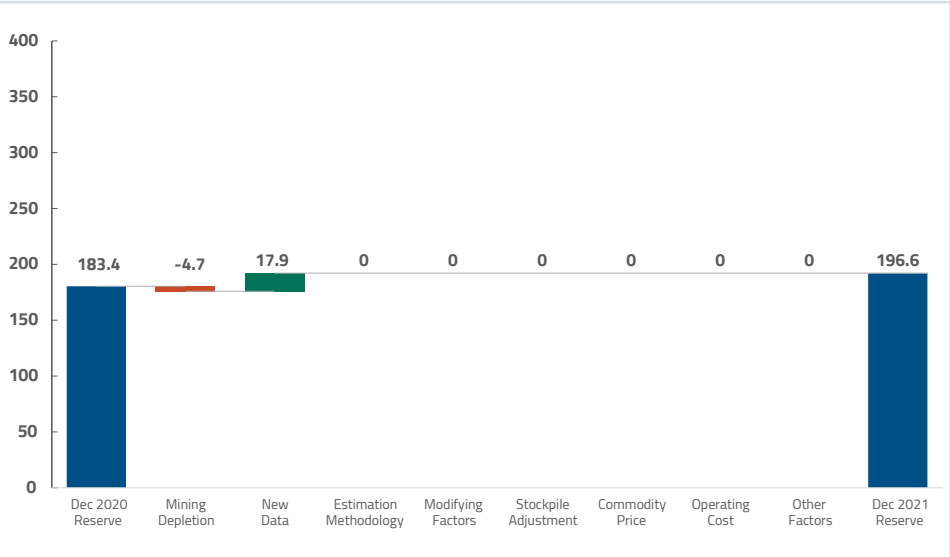
Phosphate

Contained P_2O_5 million tonnes



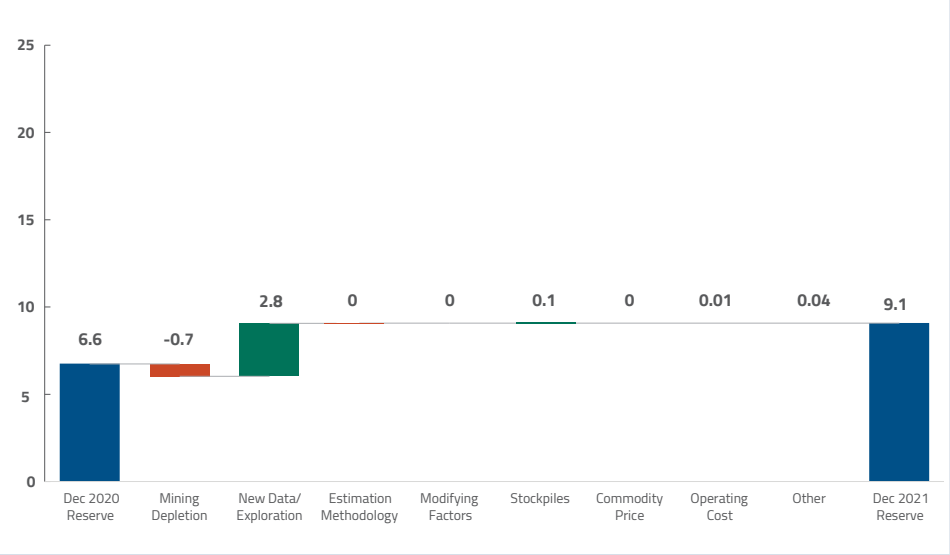
Metallurgical Bauxite

Contained bauxite million tonnes



Gold

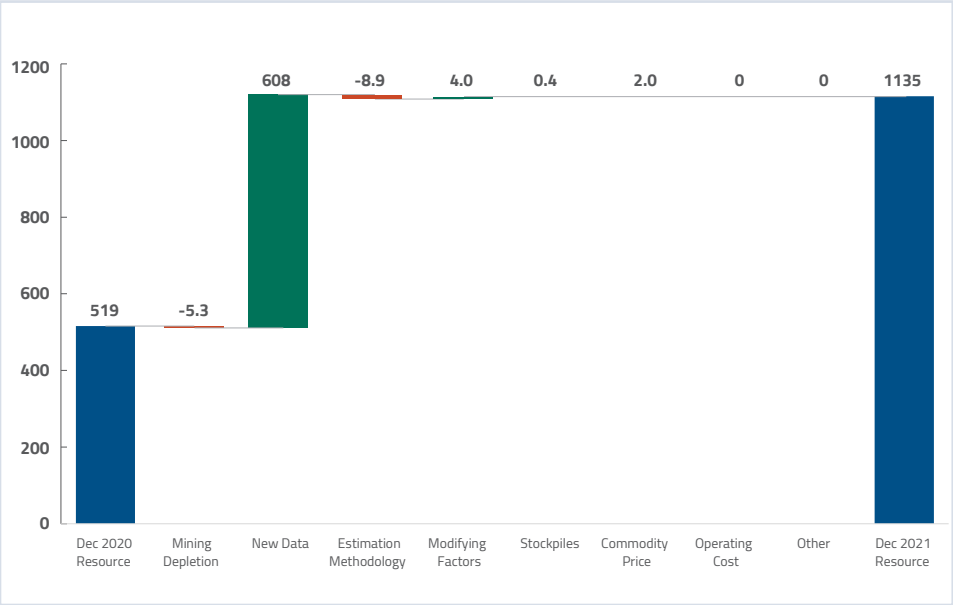
Contained gold million troy ounces



Mineral Resource Changes
From 31 Dec 2020 to 31 Dec 2021

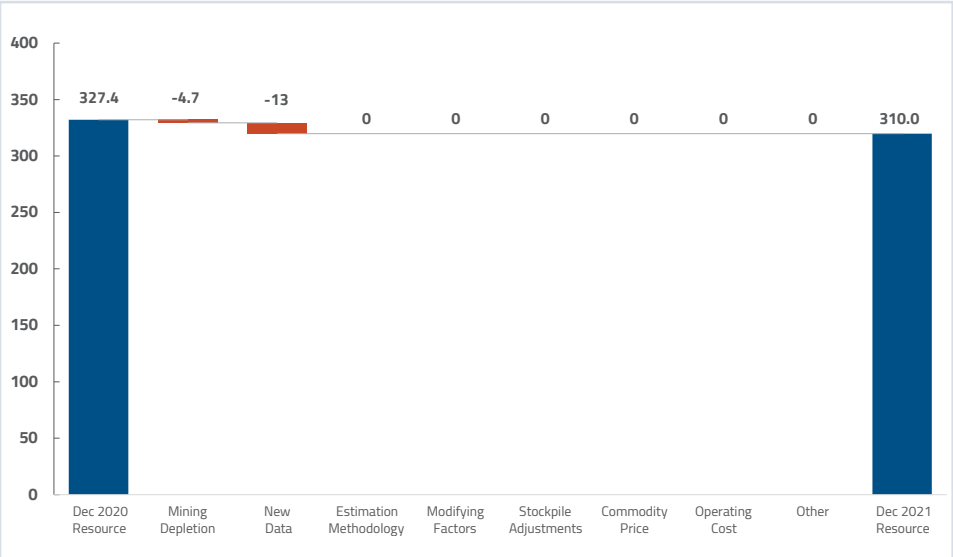
Phosphate

Contained P_2O_5 million tonnes



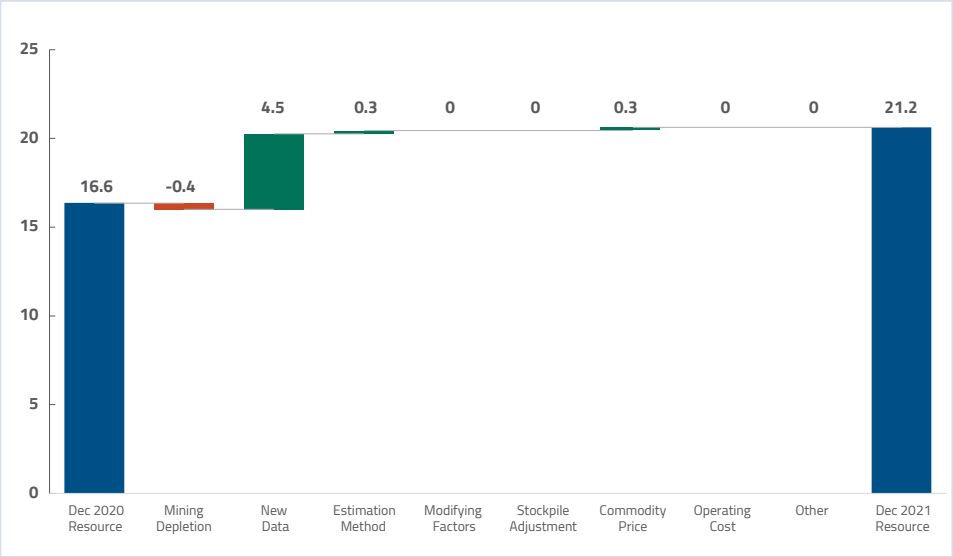
Metallurgical Bauxite

Contained bauxite million tonnes



Gold

Contained gold million troy ounces



Competent Persons For Ore Reserves At 31 December 2021

Project	Estimate Date	Competent Person	Recognised Professional Organisation (RPO)	RPO membership	Employer
Phosphate					
Al Jalamid ML	31 Dec 2021	Helge Ziehe	MAusIMM	316648	Sofreco
Al Khabra ML	31 Dec 2021	Helge Ziehe	MAusIMM	316648	Sofeco
Umm Wu'al B6 ML	31 Dec 2021	Helge Ziehe	MAusIMM	316648	Sofreco
Umm Wu'al UMW 4 + 5 ML	05 Oct 2017	Thierry Rousseau	EFG (EurGeol)	1031	Technip
Umm Wu'al UMW 10 + 11 ML	31 Dec 2021	Helge Ziehe	MAusIMM	316648	Sofreco
Metallurgical Bauxite					
Al Ba'itha ML	31 Dec 2021	Fraser McQueen	CEng MIMMM	460909	SRK Consulting (Australasia)
Industrial Bauxite					
Az Zabirah ML	31 Dec 2021	Filip Orzechowski	MAusIMM	459557	SRK Consulting (UK)
Kaolin					
Az Zabirah ML	31 Dec 2021	Filip Orzechowski	MAusIMM	459557	SRK Consulting (UK)
Magnesite					
Al Ghazalah ML	31 Dec 2021	Filip Orzechowski	MAusIMM	459557	SRK Consulting (UK)
Gold					
Ad Duwayhi ML	31 Dec 2021	Francois Taljaard	MSAIMM	704511	SRK Consulting (UK)
Al Amar ML	31 Dec 2021	Yerko Martinez	MAusiMM	333523	SRK Consulting (UK)
As Suq ML	31 Dec 2021	Francois Taljaard	MSAIMM	704511	SRK Consulting (UK)
Bulghah ML	31 Dec 2021	Francois Taljaard	MSAIMM	704511	SRK Consulting (UK)
Sukhaybarat ML	31 Dec 2021	Francois Taljaard	MSAIMM	704511	SRK Consulting (UK)
Mahd Ad Dhahab ML Open Pit	31 Dec 2021	Colin Davies	CEng MIMMM.	621198	Wardell Armstrong International
Mansourah ML	01 May 2017	Klaus Thomas Shrimpf	FAusIMM	112612	Amec Foster Wheeler
Massarah ML	01 May 2017	Klaus Thomas Shrimpf	FAusIMM	112612	Amec Foster Wheeler
Ar Rjum Waseemah ML	01 Mar 2020	Igor Bojanic	FAusIMM		RPM Global
Ar Rjum Umm Naam + Ghazal ML	01 Mar 2020	Igor Bojanic	FAusIMM		RPM Global
Copper					
Jabal Sayid ML	31 Dec 2021	Simon Bottoms	FAusIMM	313276	Barrick Gold (UK)

Competent Persons For Ore Reserves At 31 December 2021

Project	Estimate Date	Competent Person	Recognised Professional Organisation (RPO)	RPO membership	Employer
Phosphate					
Al Jalamid ML	31 Dec 2021	Daniel Mariton	EFG (EurGeol)	1159	Sofreco
Al Khabra ML	31 Dec 2021	Mohamed Mahmoud Ali	MAusIMM CP(Geo)	316089	Ma'aden
		Daniel Mariton	EFG (EurGeol)	1159	Sofreco
Umm Wu'al B6 ML	31 Dec 2021	Daniel Mariton	EFG (EurGeol)	1159	Sofreco
Umm Wu'al UMW 4 + 5 ML	31 Dec 2015	Daniel Mariton	EFG (EurGeol)	1159	Sofreco
Umm Wu'al UMW 10 + 11 ML	31 Dec 2021	Daniel Mariton	EFG (EurGeol)	1159	Sofreco
Umm Wu'al EL	31 Dec 2020	Tim Lucks	MAusIMM CP(Geo)	304968	SRK Consulting (UK)
Al Jalamid EL	31 Dec 2020	Tim Lucks	MAusIMM CP(Geo)	304968	SRK Consulting (UK)
Al Jalamid EL	31 Dec 2019	Dr. Tim Lucks	MAusIMM CP(Geo)	304968	SRK
Metallurgical Bauxite					
Al Ba'itha ML	31 Dec 2021	Rodney Brown	MAusIMM	110384	SRK Consulting (Australasia)
Az Zabirah ML	31 Dec 2021	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Az Zabirah Central MLA	31 Dec 2019	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Az Zabirah North EL	31 Dec 2019	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Industrial Bauxite					
Az Zabirah ML	31 Dec 2021	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Az Zabirah Central MLA	31 Dec 2019	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Az Zabirah North EL	31 Dec 2019	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Kaolin					
Az Zabirah ML	31 Dec 2021	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Az Zabirah Central EL	31 Dec 2019	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Az Zabirah North EL	31 Dec 2019	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Magnesite					
Al Ghazalah ML	31 Dec 2021	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting UK
Jabal Rokham EL	31 Dec 2021	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting UK
Gold					
Ad Duwayhi ML	31 Dec 2021	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Al Amar ML	31 Dec 2021	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
As Suq ML	31 Dec 2021	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Bulghah ML	31 Dec 2021	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Sukhaybarat ML	31 Dec 2021	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Humaymah ML	31 Dec 2021	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Mahd Ad Dhahab ML Underground	31 Dec 2021	Alan Clarke	CGeol FGS	1014124	Wardell Armstrong International
Mahd Ad Dhahab ML Open Pit	31 Dec 2021	Alan Clarke	CGeol FGS	1014124	Wardell Armstrong International
Mansourah ML	31 Dec 2020	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Massarah ML	31 Dec 2020	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Ar Rjum Waseemah ML	31 Jan 2019	Paul Payne	FAusIMM	105622	RPM Global
Ar Rjum (Umm Naam + Ghazal ML	31 Jan 2019	Paul Payne	FAusIMM	105622	RPM Global
Bir Tawilah EL	31 Dec 2019	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Jabal Ghadarah EL	31 Dec 2019	Mark Campodonic	MAusIMM CP(Geo)	225925	SRK Consulting (UK)
Copper					
Jabal Sayid ML	31 Dec 2021	Simon Bottoms	FAusIMM	313276	Barrick Gold (UK)