



Southern Alliance Mining Ltd

2021/2022 Independent Qualified
Persons Report of Southern Alliance
Mining Ltd

Southern Alliance Mining Ltd



1 Table of Contents

1	Table of Contents	1
2	EXECUTIVE SUMMARY	4
2.1	Introduction	4
2.2	Mining History – Early Mining Tin & Gold	5
2.3	Mineral Assets Location, Ownership, & History	7
2.4	Structural Setting	7
2.5	Exploration Activities	11
2.5.1	Chaah – Iron Ore	11
2.5.2	Tenggaroh Gold Prospect	11
2.6	Mining, Processing & Sales	12
2.7	Mineral Resources	12
2.8	Risks & Opportunities	12
2.8.1	Risk Assessment	12
2.8.2	Opportunities	14
2.9	Conclusions & Recommendations	14
3	INTRODUCTION	15
3.1	Scope & Use of Report	15
3.2	Reporting Standard and Currency	15
3.3	Report Authors & Contributions	15
3.4	Site Visits	16
3.4.1	Chaah Iron Ore	16
3.4.2	Tenggaroh Gold Prospect	16
3.5	Statement of Independence	16
3.6	Methodology & Limitations	16
3.7	Reliance	16
3.7.1	Survey	16
3.8	Records & Indemnities	16
4	DESCRIPTION OF MINERAL ASSETS	17
4.1	Assets	17
4.2	Ownership	17
4.3	Access & Climate	17
4.4	Tenements	17
4.5	Royalties & Rent	17
5	PROJECT STATUS	18
5.1	History	18

5.2	Current Status & Future Plans	18
	6 EXPLORATION ACTIVITIES (IRON ORE)	18
6.1	Chaah	18
6.2	Mao'kil 1	18
6.3	Mao'kil 2 (PTD 7404)	20
6.4	Chaah Baru (Lot 1630)	21
6.5	Kota Tinggi (Lot 2855)	21
	7 MINING, PROCESSING & SALES ACTIVITIES	22
7.1	Comments on Data and Reliance on Experts	22
7.2	Mining	22
7.3	Processing	22
7.4	Sales	22
	8 MINERAL RESOURCE	23
8.1	In Situ Mineral Resource	23
	8.1.1 Orebody Modelling Methodology	23
	8.1.2 Exploratory Data Analysis (EDA)	25
	8.1.3 Variography	26
	8.1.4 Block Modelling	28
	8.1.5 Model Estimation	28
	8.1.6 Classification	29
	8.1.7 Validation	30
8.2	Density Data	32
8.3	Stockpile Mineral Resource	34
8.4	Total Mineral Resource	34
	9 ORE RESERVE	36
9.1	Review of Ore Reserve Inputs & Assumptions	36
9.2	Run-of-Mine Ore Reserve	36
9.3	Stockpile Ore Reserve	37
9.4	Total Ore Reserve & Resources	37
	10 PRODUCTION RECONCILIATION	37
10.1	2020/2021/22 Reconciliation Results	37
10.2	Long Term Production Reconciliation Verses Mineral Resource	40
10.3	Drilling Data Summary of Holes for Study	40
	11 TENGGAROH PROJECTS (GOLD)	43
11.1	Tenggaroh Gold Project – Hydrothermal – Orogenic Gold Project	43
	12 RISKS & OPPORTUNITIES – IRON ORE MINING	47

12.1	Risk Assessment.....	47
12.2	Opportunities.....	48
12.3	Exploration Upside	48
12.4	Resources.....	48
12.5	Reconciliation	48
12.6	Operational Flexibility.....	48
12.7	Commodity Price Upside	48
12.8	Commodity Diversification	48
	13 CONCLUSION & RECOMMENDATIONS	49
13.1	Conclusions.....	49
13.2	Recommendations.....	49
	14 COMPETENT PERSON CONSENT & SIGN-OFF	51
14.1	Exploration Results & Mineral Resource	51
14.2	Mineral Resource.....	51
14.3	Mine Planning.....	52
	15 APPENDICES	53
15.1	References	53
15.2	Abbreviations and Technical Terms.....	53
15.3	SAM Licence Holdings.....	55
15.4	Resource and Reserve Whittle Constraints	56
15.5	Laboratories and Analytical Methods.....	57
15.6	QA/QC Procedures and performance.....	57

2 EXECUTIVE SUMMARY

2.1 Introduction

The main operation owned by Southern Alliance Mining Ltd (**SAM**), the Chaah Iron Ore Mine is located some 175km SE of the city of Kuala Lumpur in Peninsula Malaysia and is accessed by Tier 1 infrastructure and a well-developed network of district and local roads, Figure 1. In addition, SAM have an advanced trial mining operation at Mao'kil. SAM diversified its primary resource's activities after it had procured approval from its shareholders through an extraordinary meeting which was held in August 2021, and subsequently conducted a new gold exploration desk top study program in the Mersing region, the Tenggaroh Gold Project. Approval to commence exploration works at the Tenggaroh Gold Project was obtained in January 2022. The Chaah & Mao'kil deposits lie within a well-known corridor of Tin (Sn)-Iron (Fe)-Copper (Cu) +/- gold mineralisation extending through Peninsula Malaysia northward into Thailand. The distribution of minerals in Peninsula Malaysia is dominated by two granite hosting tin belts – the Western and Eastern Tin Provinces and a Central “Gold” Province. The provinces are largely coincident with the geological belts of the same names with mineral associations; mineralisation styles and formation ages closely associated with the prevalent tectonic regimes and composition of the granitoid intrusions.

SAM has since its listing on the Singapore Stock Exchange (**SGX**) in year 2020, advanced a step out resource definition drilling program at the Chaah mine initially extending through the northern extension of the deposit. In October 2021 SAM commenced drilling to the south on a structurally modelled extension zone. A preliminary Resource study was completed in July 2022, which outlined a revised **Indicated Resource of 9.3Mt@50.30% Fe** and **Inferred Resource of 6.4Mt@48.05% Fe**. Total Resources improved year on year from **6.3Mt@49.7% Fe (DeRisk, 2021 report - Aug 2021)**, to **15.7Mt@49.38% Fe at a cut-off of 30% within an \$108/t metal economic resource shell**. Several recent drill intersections have yet to be reported, these are likely to have a positive material impact, a revised resource statement will be released as and when it is available.

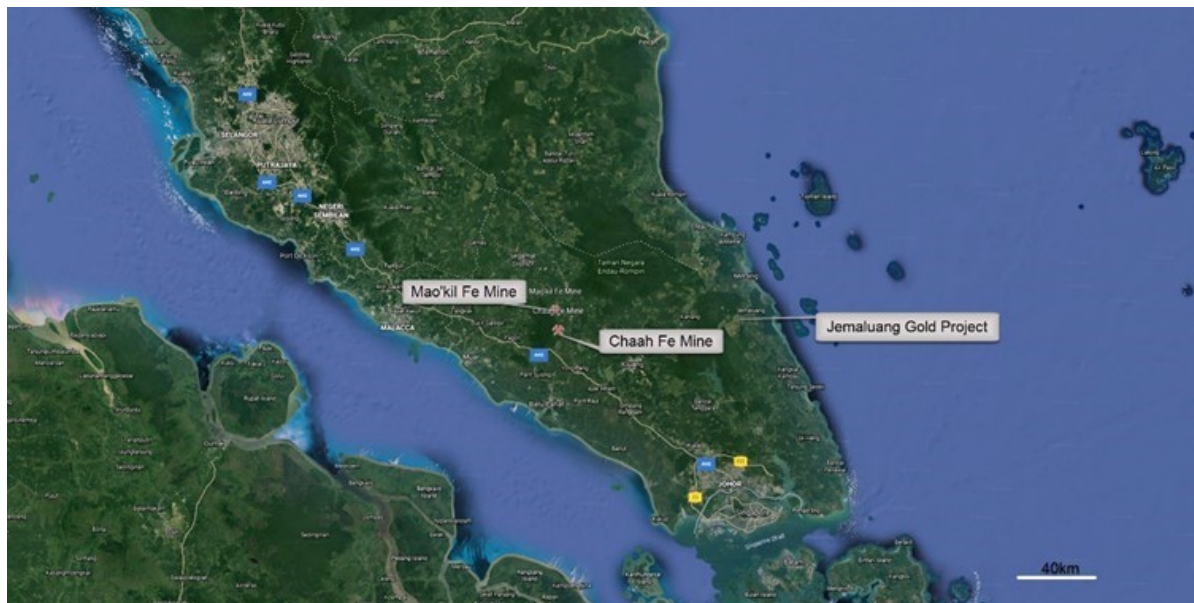
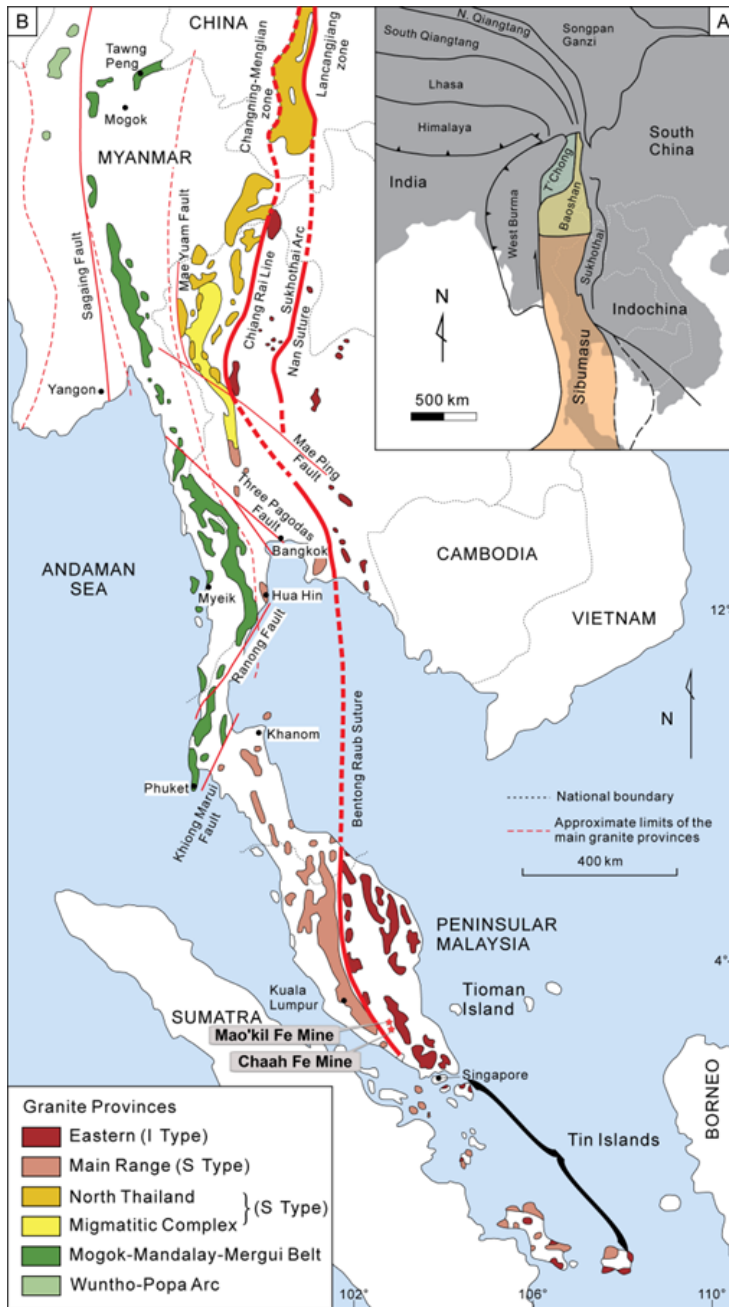


Figure 1, Chaah, Mao'kil, Tenggaroh general location map, source Google Earth

2.2 Mining History – Early Mining Tin & Gold

The Western Tin Province is well known for its tin ore production from the mid 1900's until the 1980's during which time it produced almost two-thirds of the world's tin. It contains the world's largest open pit tin mine - the Rahman Hydraulic Tin mine - at Gunung Paku, which has been operating continuously since before 1903. Hard rock tin mineralisation comprises endogenous greisen – bordered tin-wolframite-bearing vein swarms, however, most of the tin production is mined from alluvial placer deposits. The Western Tin Belt mineralisation is associated directly with the Main Range Granitoid Province with its major batholiths and large plutons of a restricted compositional tin-bearing S-type granites of mainly Triassic age.



The Eastern Tin Province is characterised by late Carboniferous to Triassic aged granitoid intrusions which are mainly I-type in composition with monzogranites predominating, Figure 2. Tin & Fe mineralisation is associated with chlorite-bordered quartz vein swarms in metasediments (e.g. Sungai Lembing mine) and magnetite-pyrrhotite-cassiterite skarns in the marginal zones of plutons throughout the province (e.g. Bukit Besi and Pelapah Kanan mines). Tin mineralisation and historical production from the eastern province is less than the Western Tin Province. I-type granites are saturated in silica but undersaturated in aluminium; petrographic features are representative of the chemical composition of the initial magma. In contrast, S-type granites are derived from partial melting of supracrustal or "sedimentary" source rocks. There is a very strong association of the Fe deposits within the eastern belt and granitoid intrusions. These same intrusives may have provided component of the heat source for several of the Au occurrences.

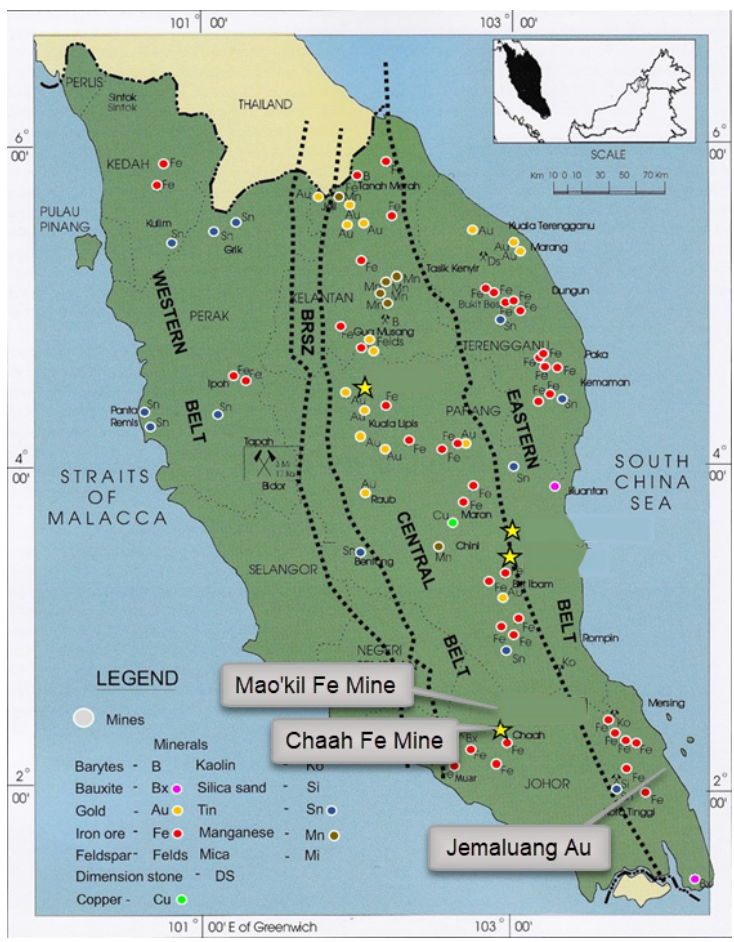
Figure 2, Regional tectonic framework, modified from after Zhang Etal (2020)

Mining History – Iron - Base metals - Gold

Malaysia has a long history of gold production, with several goldfields in Peninsular & East Malaysia in operation and an established important gold producer, long before the development of the goldfields at Kolar India, Witwatersrand South African and the Eastern and Western goldfields of Australia. Prior to the Portuguese conquest of Malacca in 1511, the country was known as the “Aurea Chesonese” or “Golden Peninsular”.

Small-scale gold mining is also widespread throughout the country, especially in the Central Belt of Peninsular Malaysia which hosts numerous hydrothermal deposits, typically high grade. The Central Gold Belt comprises a 20km wide zone, a major N-S trend (tectonic) of gold mining districts developed on the Bentong Raub Suture, a crustal scale fracture system extending north into Thailand, Figure 2. Key districts from south to north include Mengapur, Raub, Penjom, Selinseng, Pulai, Lubok Mandi. The dominant style of mineralisation is hydrothermal quartz vein systems, followed by skarn and volcanogenic massive sulphides. Exploration through the region now suggests many of the systems are orogenic (mesothermal lode gold deposits) with magmatic and metamorphic fluid inputs.

Gold, iron, and base metal mineralisation is concentrated within the Permo-Triassic volcanic- sedimentary dominated Central Belt, which is a possible southern extension of the Sukhothai Island Arc terrane in Thailand. The Central “Gold” Belt is a major north-south (N-S) trending, 20 km wide trend of discrete mining districts extending from north Kelantan (at Sungai Pergau and Sungai Galas) down through Pahang (Raub, Meropah and Kuala Lipis goldfields) as well as Terengganu, Negeri Sembilan and Johor. Most of the gold production in Malaysia comes from mines within this belt. Gold mineralisation is associated with high level mesothermal and hydrothermal quartz vein systems, skarn, and volcanogenic massive sulphides. Iron deposits are concentrated in the Central and Eastern Belt terranes of Peninsula Malaysia, Figure 3.



Iron mineralisation appears to show a close spatial association to I-type granitoids, generally occurring directly in the contact zones of the intrusives or in distal zones where hydrothermal fluids have exploited major fault structures and precipitated mineralisation in favourable host lithologies and structural traps.

Figure 3, Distribution of commodities through Peninsular Malaysia, modified after Jabatan Minerals Geosains (JMG), 2010 Annual Report. Note BRFZ = Bentong-Raub Suture Zone

Report Details

This report has been prepared by Consultant Geologists, Mr Bruce Andrew McDonald (Geology and exploration-resource drilling program management), Mr Justin Eric Glanvill (Resource modelling & Structural framework) and Mr Olivier Claude Varaud (Mining Engineer) who will assume the role of competent person for Mineral Resources, and are the independent competent persons engaged by Datgeo Sdn Bhd and peer reviewed by Mr Kerry Fredrick Bain (Project manager and peer review). The SGX Catalist Rules use the term qualified person and provides a definition which is effectively equivalent to a Competent Person (**CP**) under the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**the JORC Code**). Under the JORC Code the principals of public report are governed by Transparency, Materiality, and Competence and must describe a company's mineral assets based on sufficient (transparency), relevant and material information which has been compiled and prepared by a responsible CP.

2.3 Mineral Assets Location, Ownership, & History

The Iron Ore deposits operated by SAM comprise the Chaah open pit mine which is currently the principal producing asset of the Group. And five exploration properties situated at Mao'kil (2), Chaah Baru, Kota Tinggi, and the Tenggaroh Gold Exploration Project near Mersing. These assets are all contained within the State of Johor. (Please refer to details in appendix 15.3)

The Chaah mining operation is covered by two mining leases. Other exploration projects are covered by exploration licences. All are held by DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar (**DYMMS**). SAM established a long-term Mining Operations Agreement (**MOA**) with DYMMS that ensures SAM a strong legal framework to guarantee control of mine site operations.

The Chaah area has a known history of small-scale mining and iron ore prospecting. The current operation at Chaah commenced in 2008 and reached an annual production rate of nearly 550kt in 2012 prior to the global collapse in commodity prices. Total mined ore up to 31 July 2022 totals approximately 7.3Mt. Hematite iron ore concentrate which is sold both domestically and exported for steel manufacture whereas crushed iron ore is sold to specialised heavy media pipe coating.

2.4 Structural Setting

The Chaah district is dominated by the north-west (**NW**) regional shear fabric and secondary north (**N**) and north-east (**NE**) structures which are best resolved from satellite digital elevation model (**DEM**) data and regional scale geophysics. At the deposit scale, the main control is a NW orientated shear zone which dips to the NE, Figure 4, there are minor secondary E-W and low angle structures in the pit which impact on ore distribution at a local scale. The footwall of the mineralisation at Chaah is shear controlled and marked through the strike of the deposit by a zone of strong chloritisation both within the margins and through the shear zone which can be up to 20-50m in width.

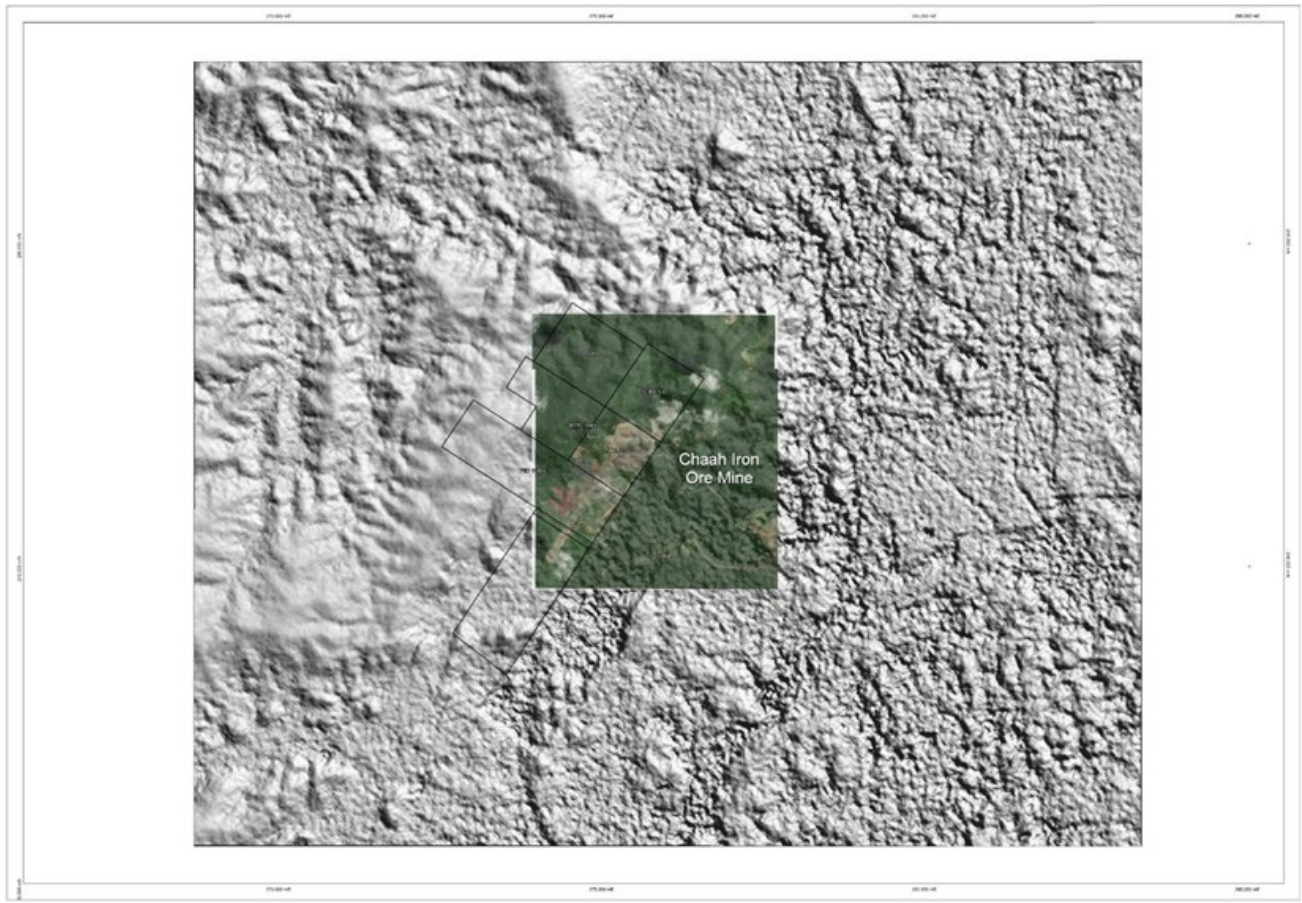


Figure 4, Regional scale DEM coverage from the Sentinel-2 satellite with satellite panchromatic overlay, with high level interpreted fractures

At the local scale, there is sufficient resolution to resolve both N-S and NE oriented fractures. The NE faults might be post mineralisation and locally displacing ore bearing zones, Figure 5. There is growing geological evidence of post mineralisation faulting causing minor internal displacements of some zones of mineralisation, particularly through the northern most extension drilling, where hematite mineralisation appears to be vertically offset by 10-15m and the mineralisation is capped by marine sediments, Figure 6. On the southern extension there appears to be a series of steep structures with offsets of a few metres, there is a sharp upper contact to the mineralisation, Figure 7 which in some areas is an erosional contact or a sharp angular unconformity.

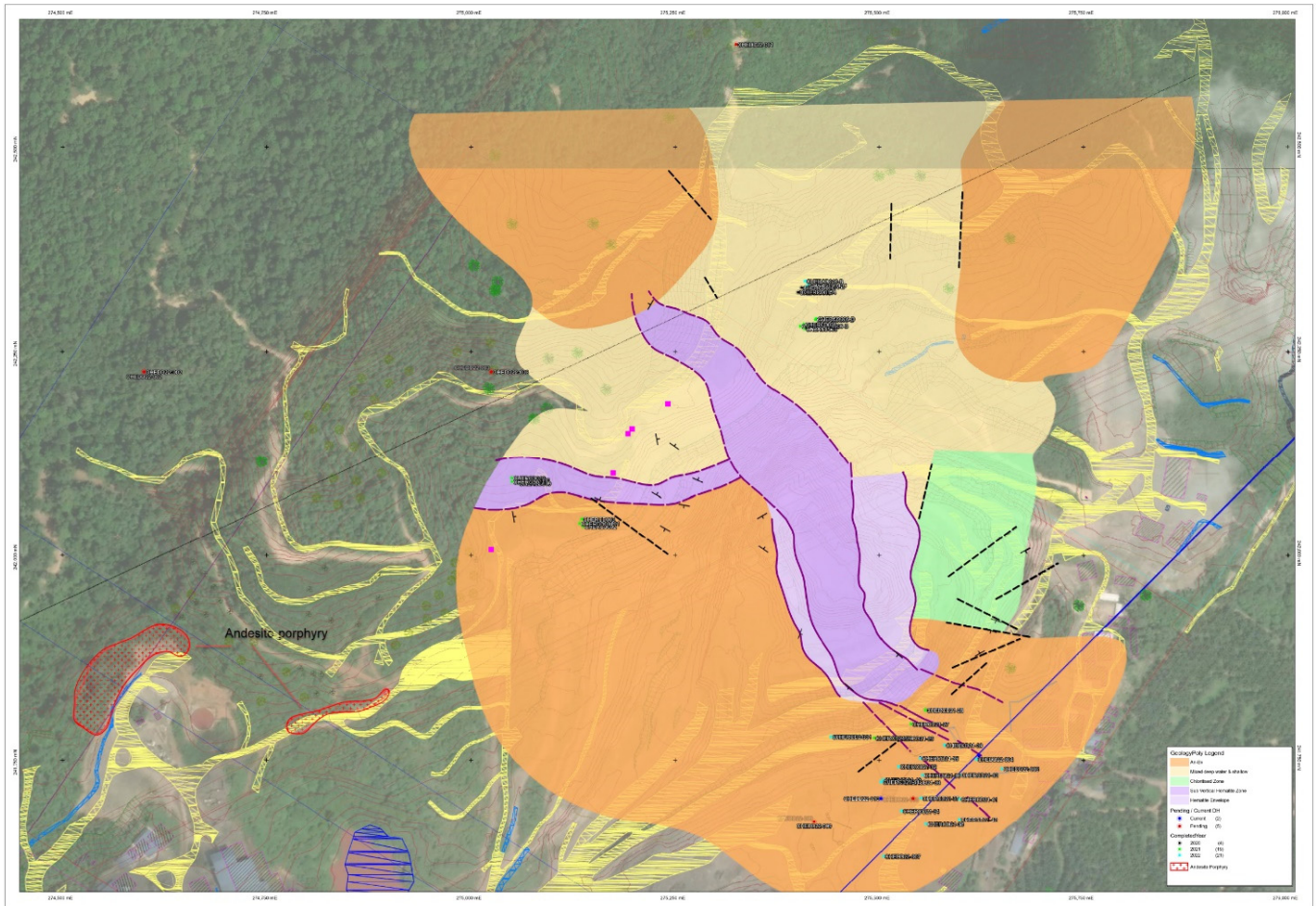


Figure 5, Key local scale geological and structural features of the Chaah deposit. Note, the discovery of Andesite porphyry directly west of the deposit, this unit is magnetite bearing and hosts late-stage quartz-sulphide veining. The porphyry ranges from fresh to variably hydrothermally altered



Figure 6, View looking NW, capping marine sediments over hosting andesitic volcanics



Figure 7, View looking SE on the trend of the southern extension ore zone, July 2022

A geological mapping program completed in the year 2021 highlighted the role of local scale controls in the positioning of mineralisation. A combination of fracture controls and permeability within the andesitic flow units and volcaniclastic pile has allowed mineralisation to pervade out beyond primary structural controls. The deposit is unconformably overlain by an alternating sequence of sediments ranging from delta facies to off shelf slope greywacke and argillites. Locally these can be indurated and typically host narrow zones of metamorphic quartz veining. Within 30m of the unconformity the first lenses of hematite occur, the largest which is exposed in the pit high wall connects to the main subvertical zone of hematite mineralisation, reflecting the strong structural and lithostratigraphic controls.

2.5 Exploration Activities

2.5.1 Chaah – Iron Ore

At Chaah geological mapping of recently exposed geology developed through the cut back operations at the northern and eastern edges of the current pit have provided good insight into both the hangingwall and footwall contacts of the hematite mineralisation. In January 2022 cutback operations commenced on the southern extension block where recent and ongoing diamond drilling has outlined a further extension of the hematite mineralisation **with a significantly lower strip ratio** than the central northern zone. Here the mineralisation appears to pervade out on lithological-structural boundaries at shallow depth. Additional exploration drilling at the northern end of the deposit through the period November 2021-January 2022, and then moved drilling resources to the southern resource area. The southern sector of the system has been focused on improving the definition of ore zones since January through to the end of July 2022, Figure 8.

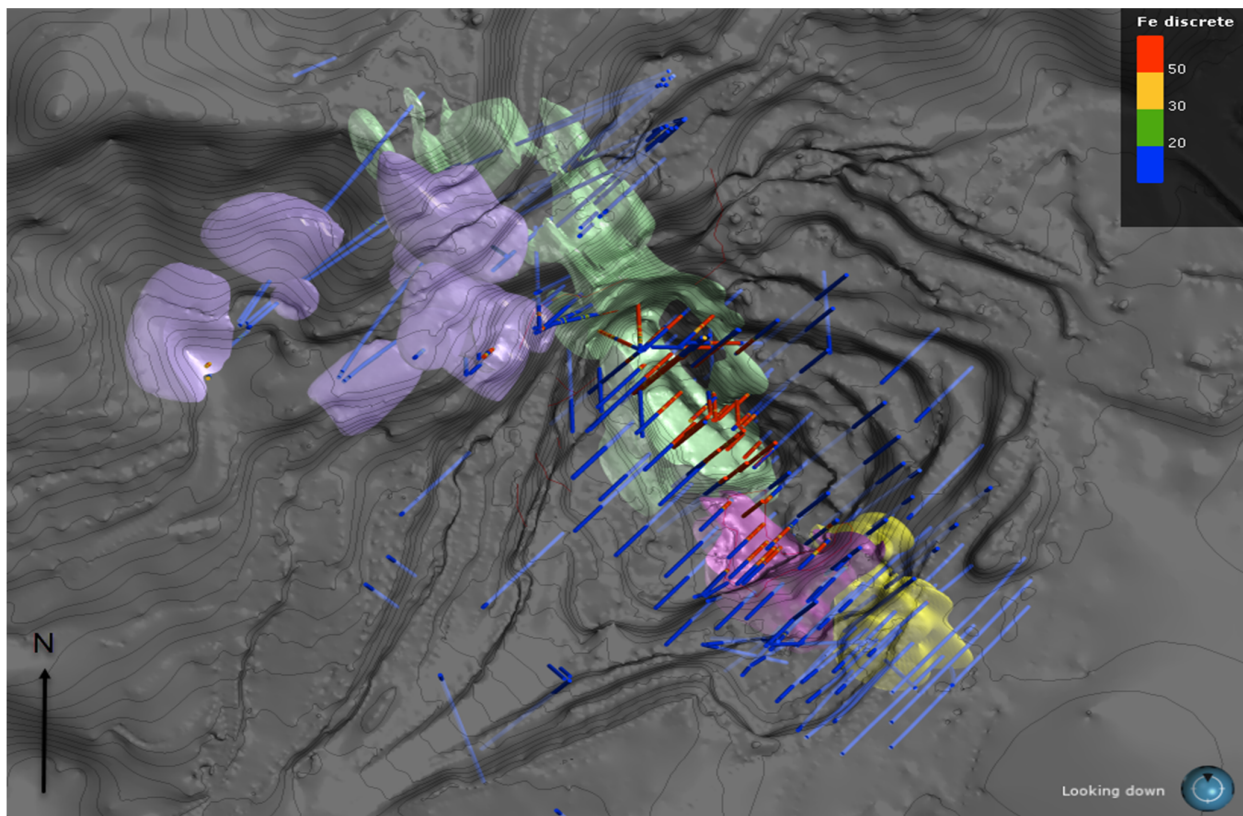


Figure 8, Plan view of the modelling, historic Resource definition drillholes and 2020-2022 Resource expansion drilling, Chaah Iron Ore Deposit

2.5.2 Tenggaroh Gold Prospect

SAM conducted a desktop study on the joint hydrothermal (orogenic) gold exploration program in their Tenggaroh Gold Prospect in late 2021. The area comprises thick sequences of deep sea and shelf facies

sediments, intermediate volcanics and intrusives. Mapping to date has identified two broad N-S trending mineralised corridors where quartz veining is shedding fine free gold. Observed higher grades appear to correlate with areas of veining where there is textural evidence of internal boiling and or brecciation within the confining structures. Visible gold has been observed with orogenic quartz, formed within vein structures and at the contact margin with carbonaceous shales.

An extensive exploration program is underway which includes, mapping and trench sampling, and grid-controlled ground magnetics, drone Light Detection and Ranging (**LiDAR**) survey and scheduled follow-up deep auger soil geochemistry potentially prior to reconnaissance reverse circulation (**RC**) drilling. The program is correctly aligned with the mineralisation.

2.6 Mining, Processing & Sales

During the 12 months August 2021 through July 2022 SAM mined approximately 0.64 million tonnes (Mt) of ore and approximately 9.83Mt of waste (SAM supplied data). Processing during the year totalled approximately 0.62Mt, (SAM supplied data) of ore at an estimated head grade of 55.9% Fe.

During the same period 0.348M dried metric tonnes (dmt) of ore was sold.

2.7 Mineral Resources

A new Resource study of the Chaah Iron Ore deposit was undertaken in July 2022, this study used the drilling results from the Resource drilling program initiated by SAM in November 2020, and which is currently ongoing. The study has demonstrated that Resource drilling on the Northern and Southern extension zones has increased the life of mine (**LOM**) Indicated Resource to 9.37Mt@50.23% Fe and Inferred Resource to 6.36Mt@47.97% Fe. Total LOM resources improved year on year from 6.3Mt@49.7% Fe (DeRisk 2021, Aug 2021), to 15.8Mt@49.31% Fe, 2022 Resource Update. This update is based on the cut-off date drilling results and information available as at 31st July 2022. As the extension drillings are still ongoing, further updates are expected.

2.8 Risks & Opportunities

2.8.1 Risk Assessment

The 2020-2021 DeRisk Mining consultants highlighted risks in three areas, there have been several impacts to production and parallel workflows over the last 12 months due to COVID, many have now been addressed or working towards target. For completeness the 2020-2021 observations are tabulated against current observations and workflow improvements.

High Risks		
Risk Area	2021 Assessment	2022 Review
Mineral Resource	No Comment	Datgeo has undertaken a JORC compliant review of the resource
Ore Reserve: Mining Factors	Delay in the highwall cut-back may restrict production of ore from the bottom of the pit and increase the risk of pit wall instability. Whilst significant progress was achieved in the reporting period, further substantial waste movement is required to access the bottom of the pit	Cutback operations in September 2021 were suspended due to a site wide COVID outbreak. From October 2021 additional resources were focused on the northern highwall cutback. In From January 2022 cutback operations commenced on the southern end of the deposit, both operations are ongoing
Ore Reserve: Processing/Metallurgical Factors	No Comment	The new primary crusher is currently moving to a test ready phase and trial operation before final commissioning
Ore Reserve: Infrastructure Factors	No Comment	Not reviewed by Datgeo
Ore Reserve: Economic Factors	Commodity prices. Profitability is very sensitive to the iron ore price, which is volatile. SAM has benefited from very high commodity prices in the 2020/21 year, but prices have dropped sharply since July 2021	Iron ore prices fell significantly through the last 3 months of 2021, there has been a +30% drop in price through April-June, 2022 due to significant changes in the geopolitical landscape of Eastern Europe

High Risks		
Risk Area	2021 Assessment	2022 Review
Ore Reserve: Marketing Factors	No Comment	The growing momentum of the global recession is likely impact of marketing opportunities in the near term.
Ore Reserve: Legal Factors	No Comment	Not reviewed by Datgeo
Ore Reserve: Environmental Factors	No Comment	Locate aquifer impacts resulting from increased pit dewatering
Ore Reserve: Social/Government Factors	No Comment	Not reviewed by Datgeo

Table 1 High Risks

Medium Risks		
Risk Area	2021 Assessment	2022 Review
Mineral Resource	No Comment	Lack of structural data and in pit mapping limits the modelling of the structural controls on the orebody
Ore Reserve: Mining Factors	Geotechnical controls. As the Chaah open pit gets deeper, there is greater potential for wall stability and failure if SAM does not actively monitor geotechnical and groundwater conditions. Mine scheduling. Poorly managed mine development and scheduling may cause disruption in the supply of ore to the mill, if the plan is not followed	The new extension and changes in the geometry of the southern ore extension will require re-optimisation of the current pit design
Ore Reserve: Processing/Metallurgical Factors	Metallurgical recovery. The operation is sensitive to the metallurgical recovery and yield. Little test work has been undertaken of the mineralisation that will be processed over the remaining LOM	With the discover of new ore zones, and these now the target of development test work needs to be prioritised
Ore Reserve: Infrastructure Factors	No Comment	Not reviewed by Datgeo
Ore Reserve: Economic Factors	Exchange rates. Volatility in the exchange rate between MYR and USD may adversely affect revenue if the USD significantly devalues	The MYR has weakened against the USD during April, 2022, this has helped offset lower iron ore prices, but imported maintenance items are increasing costs
Ore Reserve: Marketing Factors	Sales contracts. SAM has no long-term contracts for supply of iron ore and is exposed to market uncertainty	This position remains unchanged
Ore Reserve: Legal Factors	No Comment	Not reviewed by Datgeo
Ore Reserve: Environmental Factors	Water and tailings management. A major rainfall event may result in the discharge of water from site this is in breach of environmental requirements	Development of the highwall cutback has increased the catchment area reporting to the main pit. Bench drains are required to divert surface runoff from the pit area
Ore Reserve: Social/Government Factors	No Comment	Not reviewed by Datgeo

Table 2 Medium Risks

Low Risks		
Risk Area	2021 Assessment	2022 Review
Mineral Resource	Geological interpretation. Less information is available for the deeper sections of the mine and there is some risk that the interpreted mineralisation is not correct	The current exploration and resource modelling program has a program of peer review through data collation, interpretation, and modelling. This has included monthly site visits as the program advances
Ore Reserve: Mining Factors	Pit dewatering. Access to the bottom of the pit may be restricted during the monsoon season because water pumps cannot remove the quantity of water in the pit quickly enough	The Chaah pit has been partly flooded since late September, 2021 while cutback activities advanced. Access to ore was limited to a narrow bench on the southern end of the pit, this following successful resource definition drilling has been widened through the commencement of the southern zone stripping & cutback
Ore Reserve: Processing/Metallurgical Factors	Ore type characterisation. Less information is available for ore type variability as the mine gets deeper. Variability may lead to increased operating	There is now a need following the discovery and qualification of 2 new ore zones to undertake additional ore characterisation studies

Low Risks		
Risk Area	2021 Assessment	2022 Review
	costs associated with grade control and/or blending	
Ore Reserve: Infrastructure Factors	Public roads. SAM is reliant on public roads to transport product to port and domestic customers. This create a risk in supply distribution due to roads being cut off for maintenance work or as a result of flooding during the monsoon	SAM has committed to new centralised primary and secondary crushing circuit and belt handling which will replace the current fleet of mobile crushers on the ROM pad.
Ore Reserve: Economic Factors	No Comment	The current iron or market is very fluid due to the decline in industrial output in China, and the Russian invasion of Ukraine.
Ore Reserve: Marketing Factors	No Comment	Protracted recovery of the Chinese market and longer-term decline of industrial output in Eastern Europe.
Ore Reserve: Legal Factors	No Comment	Not reviewed by Datgeo
Ore Reserve: Environmental Factors	No Comment	The expanding mining footprint requires careful manage of site surface water runoff and in pit dewatering.
Ore Reserve: Social/Government Factors	Restrictions to work practices associated with the COVID pandemic. The Malaysian government has used movement control orders to restrict work and travel within the country. Ongoing restrictions may detrimentally affect mine production. Community unrest. All traffic from the operation passes along an unpaved road through a palm plantation that host a significant local population. Poor community engagement by SAM could alienate the local community and cause disruption to the operation.	Although mining was treated as a strategic industry during the 2 years of COVID movement restrictions, one COVID outbreak on the mine during the early phase of the country wide vaccination program caused a closure of operations for 14 days. Through January-June, 2022 the government has progressive removed all domestic and recently international travel restrictions. Community awareness remains unchanged and there is a general commitment to country wide economic recovery.

Table 3 Low Risks

2.8.2 Opportunities

2.8.2.1 Exploration Upside

The extensive exploration and resource definition drilling program commencing November 2020 through July 2022 (and ongoing), has defined both ore extensions and new ore zones. The program is nearing completion **but likely to outline additional opportunities on the western side of the main ore zone.**

Importantly, these discoveries now provide SAM with much improved flexibility with their mining schedule, the ability to optimise concentrates, and with the recent mill upgrade sustained production.

2.8.2.2 Operational Flexibility

SAM with no long-term supply contracts has the flexibility to respond quickly to market conditions and developing opportunities. Management have demonstrated that over the last 2 years, and now with the changing geopolitical landscape new opportunities are likely to develop.

2.8.2.3 Commodity Price & Geopolitical Security

With the war in the Ukraine and the loss of one of the world's largest steel mills, coupled with currently and likely increased sanctions on Russia, the entire steel vertical is likely to see a major realignment and some consolidation of iron ore prices. The volatility of the last 10 years is unlikely as the world slides into a post **COVID global recession, transition to green energy and new strategically aligned supply chains.**

2.9 Conclusions & Recommendations

The Chaah mine commenced the current operation in 2008, some 14 years of continuous operation through a period which has seen a global slump in global commodity prices, the global COVID pandemic and most recently global disruption of supply chains and steel production. **SAM's management have been able to respond effectively and manage operations through these challenges.**

The Datgeo July 2022 Resource study has outlined a revised **Indicated Resource of 9.3Mt@50.30% Fe** and **Inferred Resource of 6.4Mt@48.05% Fe**. Total Resources improved the Chaah Resource position year on year from **6.3Mt@49.7% Fe (Aug 2021)**, to **15.7Mt@49.38% Fe at a cut-off of 30% within an \$108/t metal economic resource shell as at 31 July 2022**.

3 INTRODUCTION

3.1 Scope & Use of Report

Datgeo was engaged by SAM to undertake a preliminary resource study of the Chaah project, Malaysia, drawing on new Resource drilling results covering the last 24 months. Datgeo was engaged to prepare the 2021/22 Independent Qualified Person Report (**IQPR**) to determine the material increase to the Mineral Resources as at 31 July 2022. In addition, Datgeo was also engaged by SAM to carry out an exploration program on the Tenggaraoh Gold project, Malaysia. The combined reported meets the SAM’s obligations on the Catalist board of the SGX. The SGX provides comprehensive rules and guidelines for this reporting, and this combined report has been prepared within the minimum requirements of the regulations.

Datgeo has reviewed the geological and geochemical data from their respective sources and compared the information with expected values. The information provided is considered accurate, balanced, complete, and not inconsistent with the IQPR requirements.

3.2 Reporting Standard and Currency

The SGX Catalist Rules for listed companies require a QPR to be prepared annually in accordance with one of the four allowable public reporting standards, (National Instrument - 43-101, AusIMM - JORC, Pan European – PERC Standard, Australian Code for Public Reporting of Technical and Valuations of Mineral Assets – VALMIN Code). Datgeo has adopted the JORC Code as the reporting standard and is aligned with earlier reporting.

All values expressed in \$/USD are United States dollars, MYR/Rm in Malaysian Ringgit.

3.3 Report Authors & Contributions

This Report has been jointly prepared by Bruce Andrew McDonald, Justin Eric Glanvill, and Olivier Claude Varaud, the independent competent persons engaged by Datgeo whom will assume the role of competent person for Mineral Resources, and internal peer reviewed was by Kerry Fredrick Bain, the director of Datgeo. This study has been peer reviewed by Mr Kerry Fredrick Bain, he has over 40 years mining experience in Iron Ore and Gold, principally in Australia and Malaysia with over 30 years operational experience in Malaysia. He has deep understanding of the geology and economic potential of the commodities reported in this study and the operational framework of Malaysia.

The background and role of respective contributors is presented in Table 4.

Name	Title	Years of Experience	Professional Membership	Role & Responsibility
Bruce Andrew McDonald	Principal Geologist	40	MAusIMM CP	Project manager & Competent Person for exploration results and interpretation
Justin Eric Glanvill	Principal Geologist & Resource Consultant	25	SACNASP CP	New Mineral Resource and Ore Reserve model depletion & statistics
Olivier Claude Varaud	Principal Mining Consultant	35	MAusIMM CP	New Pit optimisation (ongoing) and competent person
Kerry Fredrick Bain	Director & Mining Consultant	45	Not a member (not required as not CP for Report)	Project manager & Peer Review

Table 4 Summary of report contributors

3.4 Site Visits

3.4.1 Chaah Iron Ore

The Datgeo team designed and have been managing the resource definition drilling program since commencement in November 2020. Due to COVID travel restrictions the first site geological audit was completed in November 2021 (4 days) which included review of drill core and RC chips, geological mapping of the pit area and northern extension. A second site review in May 2022, additional geological observations were made of the southern cutback, the northern highwall contact, and three geophysical Induced Polarisation (IP) - Resistivity) exploration targets to the northwest of the main pit. A third site visit in June 2022 reviewed new mineralisation exposed by earthworks on the north-western extension and southern extensions of the deposit and review of recent drill core.

3.4.2 Tenggaroh Gold Prospect

Datgeo commenced the initial exploration on the Tenggaroh Gold Prospect in February 2022, Bruce McDonald has undertaken 3 site visits in February, May and June 2022. Mapping and sampling protocols were reviewed, together with a number of recently discovered exposures of orogenic quartz veining.

3.5 Statement of Independence

Datgeo confirms that its directors, staff, and all contributions to this report are independent of SAM and have no interest in the outcome of the work to be completed in this engagement. All fees paid to Datgeo are on a fee for service basis plus reimbursement of project related expenses. Datgeo's services agreement with SAM excludes the provision of any success or other related incentives.

3.6 Methodology & Limitations

Datgeo have reviewed all previous work undertaken by SAM and accessed several published data sources. Datgeo has exercised due care in reviewing the supplied information and believe that the inputs into the Mineral Resource and Ore Reserve estimate are reasonable. Bruce McDonald accepts Competent Person responsibility for the Exploration Resources, Justin Glanvill for the Mineral Resource and Ore Reserve model, depletions and statistics, and Olivier Varaud for the conceptual pit optimisation.

3.7 Reliance

Datgeo understands this report will be made available to the public, furthermore all advice, interpretations, reports, and deliverables have been prepared and are the exclusive property of SAM. All reports containing references to Datgeo and or Datgeo advice, and all information provided by Datgeo for the public report will be reviewed and approved by Datgeo prior to release. This includes the form and context it will appear in the public report.

3.7.1 Survey

All drillhole collar surveying at Chaah and benchmarks at Tenggaroh Gold Prospect has been conducted by the internal SAM survey department using a DPGS unit providing surveyed coordinate information in both the Malaysian RSO and WGS84 system, using a Topcon FC-250 DGPS. OGL surveying of the Chaah pit and surrounding infrastructure is surveyed quarterly by an external consulting surveyor, Fotrex Solutions Sdn Bhd. There has been no audit of benchmarks/control stations, at Tenggaroh 8 control points have been established for handheld GPS and drone LiDAR surveying. All geological mapping, drilling planning and surveying, and resource modelling has been completed in WGS84 system.

3.8 Records & Indemnities

SAM has provided Datgeo with all data related to its projects in digital format, in addition Datgeo has independently collected surface geological observations during site visits.

SAM has agreed to indemnify, defend, and hold Datgeo harmless against any and all losses, claims, damages, costs, expenses, actions, demands, liabilities, or proceedings (including but not limited to third-party claims) howsoever arising, whether directly or indirectly out of this Agreement or the provision of non-provision of the services, other than losses, claims, damages, costs, expenses, actions, demands, liabilities, or proceedings that are determined by a final judgement of a court of competent jurisdiction to have resulted from actions taken or omitted to be taken by Datgeo illegally or in bad faith or as a result of Datgeo's gross negligence.

4 DESCRIPTION OF MINERAL ASSETS

4.1 Assets

The Chaah open pit mine comprises 2 parcels of lands, the four iron ore exploration properties Chaah Baru (1 parcel), Maokil (2 parcels), Kota Tinggi (1 parcel), and the six gold exploration properties Tenggaroh (6 parcels) exploration properties are all located in the State of Johor, Peninsular Malaysia.

4.2 Ownership

The Chaah mining lease, the four peripheral mining leases and the six exploration licences of the Jemaluang-Tenggaroh region are all held by DYMMS. SAM has secured a long-term MOA with DYMMS that warrants SAM with a strong legal structure for the ongoing control of operations at the Chaah mine site. (Please refer to details in appendix 15.3)

4.3 Access & Climate

All the mineral assets under the management of SAM are situated in the State of Johor, all have excellent road access via seal public roads giving access typically within a few kilometres of the site, Figure 1. Well maintained unsealed roads provide off road access to the project areas and the Chaah mine, these are all weather access routes. The Chaah mine is situated 9.4km southwest of the town of Chaah while Mao'kil is some 8.8km west northwest of Chaah town.

Chaah has a typical tropical equatorial climate with a mean daytime temperature of 30°C and night temperature of 23°C and average rainfall of 1,860mm with November through January the wettest months. The humidity is high year-round, highest from April through June.

SAM has established its management and administration HQ in Kuantan situated in the State of Pahang. The city has multi-laned highway access to Kuala Lumpur and other regional centres and an international airport providing a range of connections. A heavy rail interstate network is currently in advanced construction which will provide rail transport options through the east coast of Peninsular Malaysia from the northeast centre of Kota Bharu, through southwest to Port Klang and connecting with the west coast Johor – Perlis network.

4.4 Tenements

The iron ore assets which SAM operates consists of the Chaah open pit mine, the principal asset and four additional mining leases located at Mao'kil, Chaah Baru, and Kota Tinggi, these mining leases all have advancing exploration programs. The SAM precious metal licences are located in Jemaluang and Tenggaroh and have early and advancing exploration programs, a full tabulation, see Appendices 15.3.

The actual Chaah mining area is covered by two mining leases (ML's), all the ML's are held by DYMMS. SAM has negotiated a long-term Mining Operators Agreement (MOA) with DYMMS that provides SAM with a strong legal structure to guarantee control of the operations at the mine.

4.5 Royalties & Rent

Mining activities are governed by the respective States' Authorities. The respective States have their own Mineral Enactment. All minerals won and sold are required to pay royalties either on a value-based system or per tonnage basis as prescribed by the respective States where the mining operation is located. Normally royalty

rates are 5%, however this may vary depending on the commodity and assessed by each state. A royalty of RM 3/tonne of concentrate sold was levied by the Johor State Land & Mine Department, effective 1st June 2020.

The State of Johor Enactment of 2003 requires all ML holders to pay rent subject to the land covered by the mining lease. The rents and holding fees must be paid annually to the State, the fees are calculated from the physical area of the land held under the licence. Datgeo has been advised by SAM that all tenement annual rent payments are up to date.

5 PROJECT STATUS

5.1 History

The Chaah area which is also known as Bukit Lop has a history of iron ore prospecting and small-scale mining. There are limited records covering this early exploration and exploitation. There were 3 adits driven into the hillside by Japanese prospectors prior to World War 2. There was small-scale, but intermittent mining in the area until SAM secured the project and commenced full scale mining activities.

The current mining operation commenced in 2008, mainly to produce crushed iron ore for the industrial pipe coating and reached a maximum production rate of approaching 550kt in 2012 directly prior to the collapse in commodity prices. In the year 2013, SAM commenced the operation of its first iron ore beneficiation plant. With the recovery of iron ore prices in 2019, production has been ramped up to meet demand. Through the period 2008 to July 2021 some 7.0Mt of Iron ore had been mined and sold, a combination of domestic and export markets for heavy media for pipe coatings and steel production.

5.2 Current Status & Future Plans

SAM is currently expanding its milling capacity at the Chaah mine and commenced development of access to the northern and southern ore zones defined by the exploration drilling program over the last 2 years. Exploration on the other Iron ore projects is ongoing with some pilot mining at Mao'kil which has been at very limited scale.

SAM has made the commitment to diversify into other metals, a strong focus on precious and base metals, advancing a continuous exploration program at Tenggaroh Gold Prospect.

6 EXPLORATION ACTIVITIES (IRON ORE)

6.1 Chaah

SAM intensified both resource extension and definition drilling programs at Chaah in 2020 and has to date completed 45 holes and drilled a combined 11,522m of RC and diamond holes. This program initially targeted the northern extension and then moved to the southern extension in November 2021, at the time of reporting the program is ongoing in both areas.

6.2 Mao'kil 1

The Mao'kil project is situated approximately 20km NW of the Chaah deposit, the zone of mineralisation presents a more plume shaped geometry compared with the elongated tabular geometry of Chaah leading to exploration challenges. Some 40 diamond drillholes have been drilled on the property for 7,488.05m to date, during the reporting period 12 holes were drilled totalling 1,987.75m, the 2021-2022 drilling is summarised in Table 6. There are no assays and Datgeo has conducted only a short site visit. Collars have been surveyed by the SAM internal surveyor using a Topcon DGPS system, spatial positions Figure 9.

Drill hole	Easting (WGS84)	Northing (WGS84)	Azimuth (°)	Dip (°)	Depth (m)	Target	Comments
MKL29	274139.5466	251708.4355	180	-80	29	Extensions	No mineralisation
MKL30	273998.6911	251794.6379	280	-80	237	Extensions	Fe mineralisation at 41.7m-64.2m (55% Fe); 98.0m-106.35m (Fe 75%); 168.0m-172.0m (Fe 90%); 174.3m-175.4m (Fe 95%)
MKL31	273939.7086	251661.0451	0	-90	223	Extensions	HM mineralisation at 159.0m-185.0m (85% Fe)
MKL32	273976.7572	251339.5106	0	-70	75	Extensions	No mineralisation
MKL33	274033.6618	251350.4383	0	-70	90	Extensions	No mineralisation
MKL34	273946.6599	251355.3773	0	-90	110	Extensions	No mineralisation
MKL35	274038.6917	251398.9185	0	-80	69	Extensions	No mineralisation
MKL36	273881.7651	251738.3794	180	-70	243	Extensions	No mineralisation
MKL37	273885.0552	251791.7185	180	-70	213	Extensions	No mineralisation
MKL38	273884.3872	251773.2823	180	-70	238.75	Extensions	No mineralisation
MKL39	273936.0639	251809.4049	180	-60	214	Extensions	significant Fe mineralisation at depth 48.5m-57.4m (90% Fe); 62.3m-66.0m (90% Fe); 98.3m-101.6m (80% Fe); 145.2m-153.3m (95% Fe); 161.4m-204.8m (85% Fe)
MKL40	273909.0258	251717.1737	180	-80	246	Extensions	Significant Fe mineralisation at depth 83.9m-85.0m (90% Fe); 97.2m-100.8m (90% Fe)

Table 6, Tabulation of diamond drillhole completed on the Mao'kil project, Fe% for visual logging, sampling in progress, data from the client



Figure 9, All drill hole collar locations, 2021-2022 collars marked in red, Mao'kil, Peninsular Malaysia

6.3 Mao'kil 2 (PTD 7404)

During the reporting period, SAM secured a new tenement at Mao'kil (Mao'kil 2) that surrounds the original ML 1/2018, Figure 10. During the year there was no exploration on the Mao'kil 2 licence.

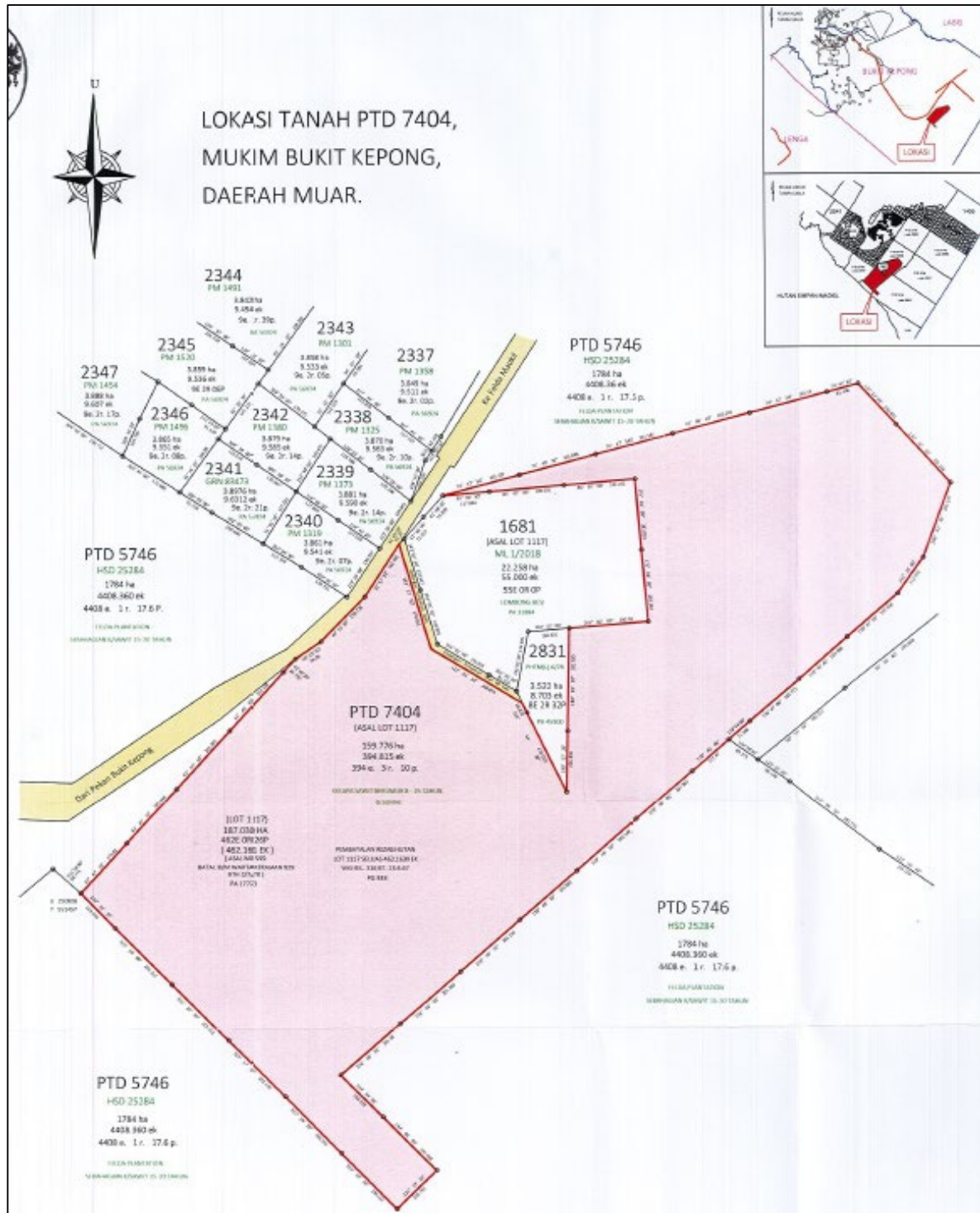


Figure 10, Cadastral map of PTD 7404, Mao'kil 2 securing the entire, previous Mao'kil tenement

6.4 Chaah Baru (Lot 1630)

Chaah Baru is has several areas of surface exposed iron ore mineralisation, geological data has not been reviewed nor a site inspection conducted by Datgeo. During 2021-22, there was no exploration conducted on the property, Figure 11.

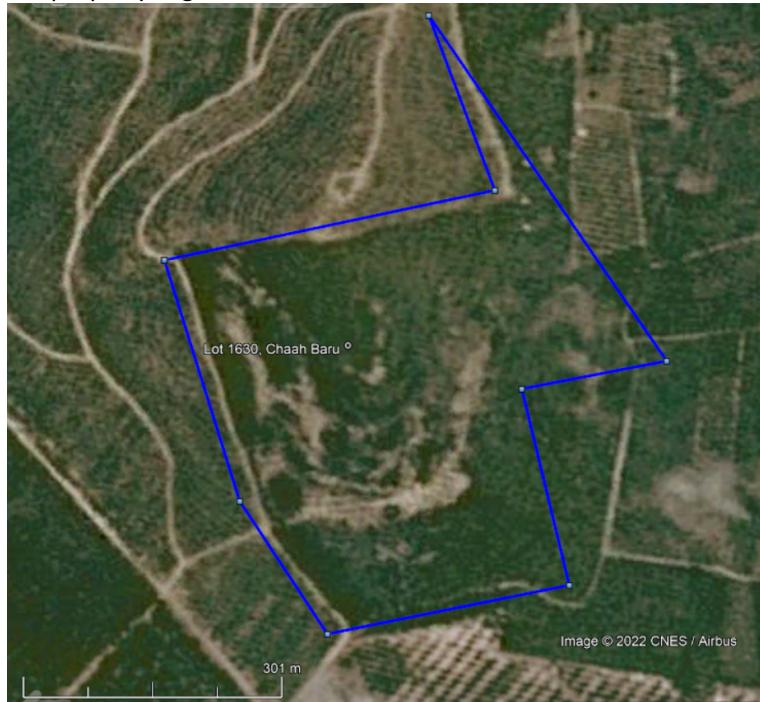


Figure 11, Chaah Baru licence area

6.5 Kota Tinggi (Lot 2855)

The Kota Tinggi, Figure 12 is believed to be a deposit with a similar mineralisation style and geology to Chaah Baru and Mao'kil. During 2021-22, there was no exploration conducted on the property.



Figure 12 Kota Tinggi Mining licence 1/2019

7 MINING, PROCESSING & SALES ACTIVITIES

7.1 Comments on Data and Reliance on Experts

All historic data from the period August 2019 to July 2021 has been drawn from earlier formal reporting released by DERISK consulting. Mining, Production and sales information has been provided by SAM directly to Datgeo for the period August 2021 to July 2022.

7.2 Mining

Comparative annual mining figures, Table 7 presents the historical production 2014-2019, and year on year 2019-2022. Production through the reporting period was impacted by the COVID pandemic, however operations have largely recovered, and ore access improved. The new primary and secondary crushing circuit currently in preliminary testing will allow a production ramp up in the 2022-2023 period.

Source	June 2014 to July 2019	August 2019 to July 2020	August 2020 to July 2021	August 2021 to July 2022	Total
Mineral Resource Model (Indicated & Inferred) (Mt)	3.37	0.83	1.06	0.89	6.15
SAM adjusted production statistics for ore mining (Mt)	3.42	1.20	0.97	0.64	6.23
Difference vs Mineral Resource model (Mt)	+0.05	+0.37	-0.10	-0.25	0.07
Difference vs Mineral Resource model (%)	+1.5%	+44.6%	-9.3%	-28.09%	1.14%

Table 7, Mining and Resource reconciliation 2014 through 2022, data from client, 2021-2022 resource depletion by Datgeo

7.3 Processing

During the 2020/21 reporting period, SAM production records documented that mining operations excavated approximately 0.96Mt of ore and approximately 5.8Mt of waste. Processing during the year totalled approximately 1.0Mt of ore at an estimated head grade of 56.8% Fe. During the current period 2021/22 SAM production records documented that mining operations excavated approximately 0.62Mt of ore and approximately 9.83Mt of waste. Processing during the year totalled approximately 0.65Mt of ore at an estimated head grade of 55.9% Fe.

7.4 Sales

Sales during the period August 2020 through July 2022, Table 8 and sales by product type Table 9

Product	Aug20-Oct20 (dmt)	Nov20-Jan21 (dmt)	Feb21-Apr21 (dmt)	May21-Jul21 (dmt)	Aug21-Oct21 (dmt)	Nov21-Jan22 (dmt)	Feb22-Apr22 (dmt)	May22-Jul22 (dmt)	Total (dmt)
Iron ore concentrates	159,821	138,292	125,435	176,506	117,712	77,241	62,728	85,252	942,987
Pipe-coating materials	344		84		-	-	-	4,001	4,429
Lower-grade fines		50,467	47,406	550	1,374	-	-	-	99,797

Table 8, Total sales by market vertical August 2020 through July 2022, data provided by SAM

8 MINERAL RESOURCE

8.1 In Situ Mineral Resource

A new Resource estimation of the Chaah Iron Ore Deposit has been completed, the study is preliminary as Resource drilling is continuing and as of July 31, 2022, there were several holes yet to have assays reported. The deposit now has 4 discrete domains to the mineralisation modelled as follows:

- Northern Zone which is largely situated within the highwall area, currently open on strike (**Domain 3**)
- Central Zone which covers the current pit area and extends into the highwall, and fault bound to the Northern zone (**Domain 1**)
- Southern Highwall zone comprises a structurally isolated block to the immediate south of the Central Zone. (**Domain 2**)
- Southern Zone comprises a new area directly south of the original OME resource shell, it is open on strike and downdip to the southwest. (**Domain 4**)

Drill hole spacing and the spread of data across the Northern prospect present a lower confidence to the geological and resource modelling, the area is therefore classified to a maximum level of Inferred.

8.1.1 Orebody Modelling Methodology

The orebody was modelled using an indicator probability model at 25% Fe with a probability threshold of 30%. This was completed using Leapfrog Geo™.

Indicator probability modelling assigns samples greater than a grade threshold a value of 1 and samples below, a Zero. The IK '1' and '0' values are then estimated in to a 'block model' or data field. The resulting estimate has a range of values from zero to 1 representing the probability of the area being greater than the selected grade threshold. A probability value of around 30% has been established experimentally as an effective measure of continuity in mineral resource estimations.

Indicator probability modelling allows for reasoned definition of mineralized envelopes where clear defining geological boundaries are lacking.

The choice of the 25% Indicator threshold (IK) – samples $\geq 25\%$ Fe = IK 1; Samples $< 25\%$ Fe = IK 0 – was based on a natural break in the negatively skewed bimodal distribution of the raw point scale Fe assays. This break is considered to be the overlapping boundary between the host rock and the primary mineralisation or orebody. It was also used historically in earlier models.

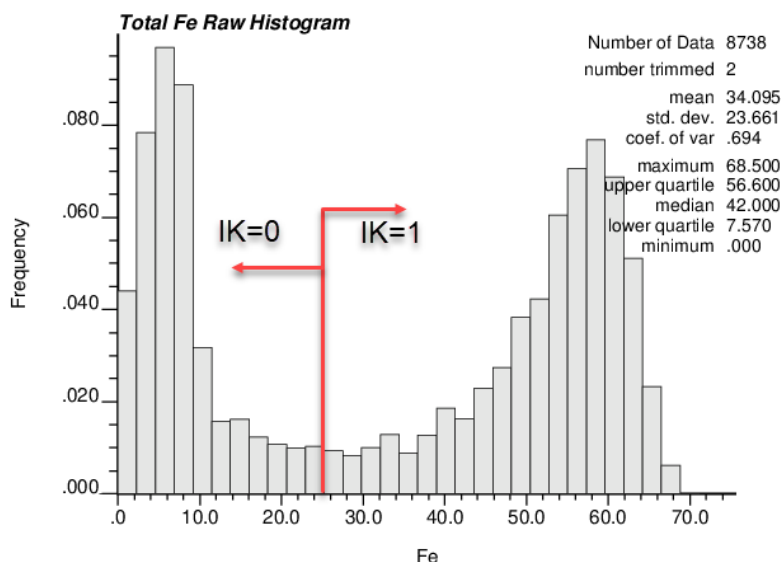
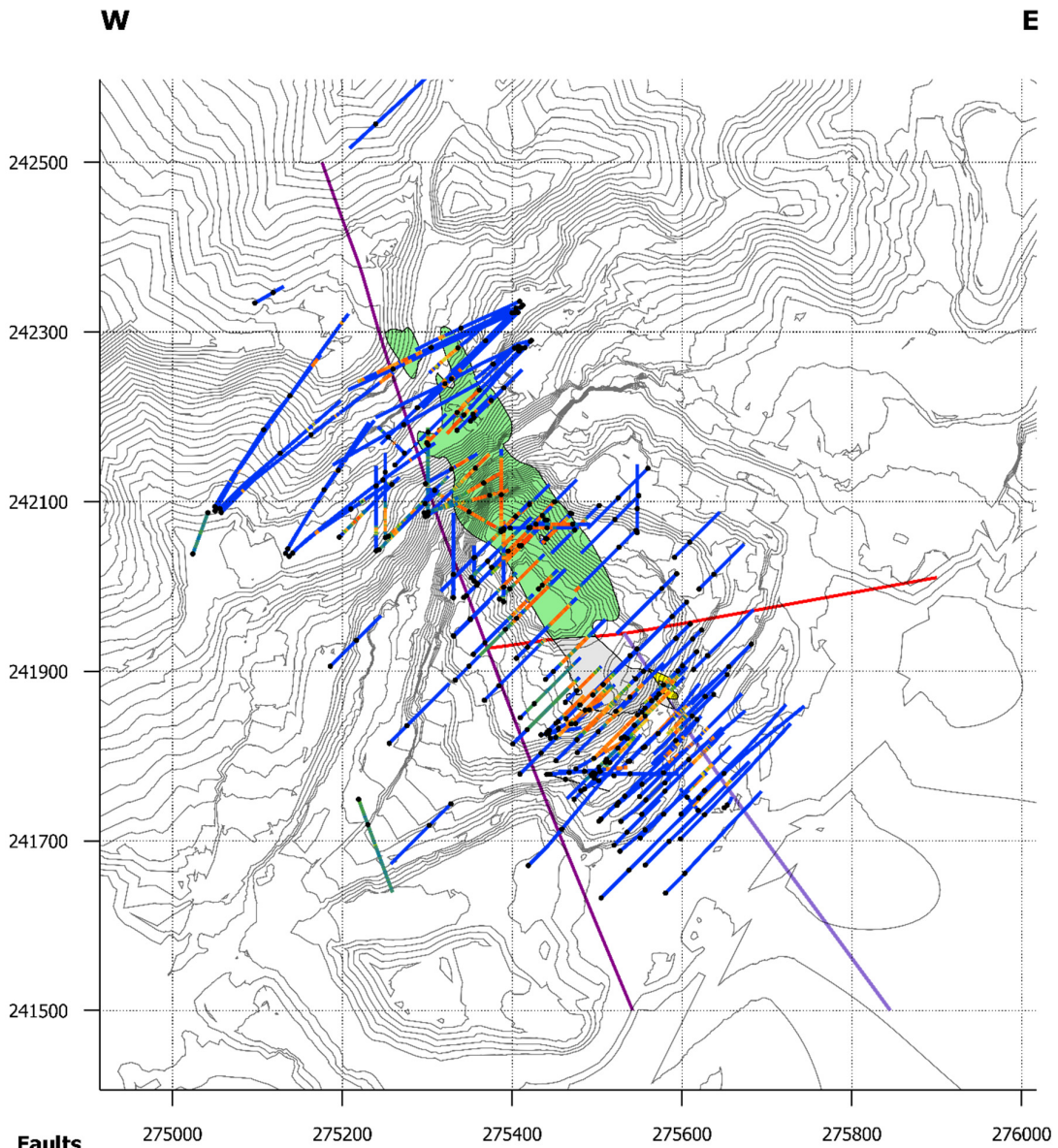
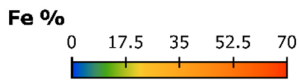


Figure 13: Histogram showing the negatively skewed bimodal distribution of Fe values with the IK @ 25% Fe threshold shown.

The definition of the orebody shell was guided by in-pit mapping, photogrammetry, and the drilling data. Mapping and modelling indicated the presence of several faults, three of which have a significant impact on the orebody geometry.



Faults
 — N-S_F1 — N-S_F3
 — N-S_F2



Contours
 — Topography contours (On Topography)

Ore Shells
 Indicator Domains
 IK1 IK4
 IK2

Fault and Drilling Plan

Location

W: 274915, 242597
 E: 276018, 242597

Scale: 1:6,299



Figure 14 Plan view of the three faults current modelled within the pit at the -30 elevation

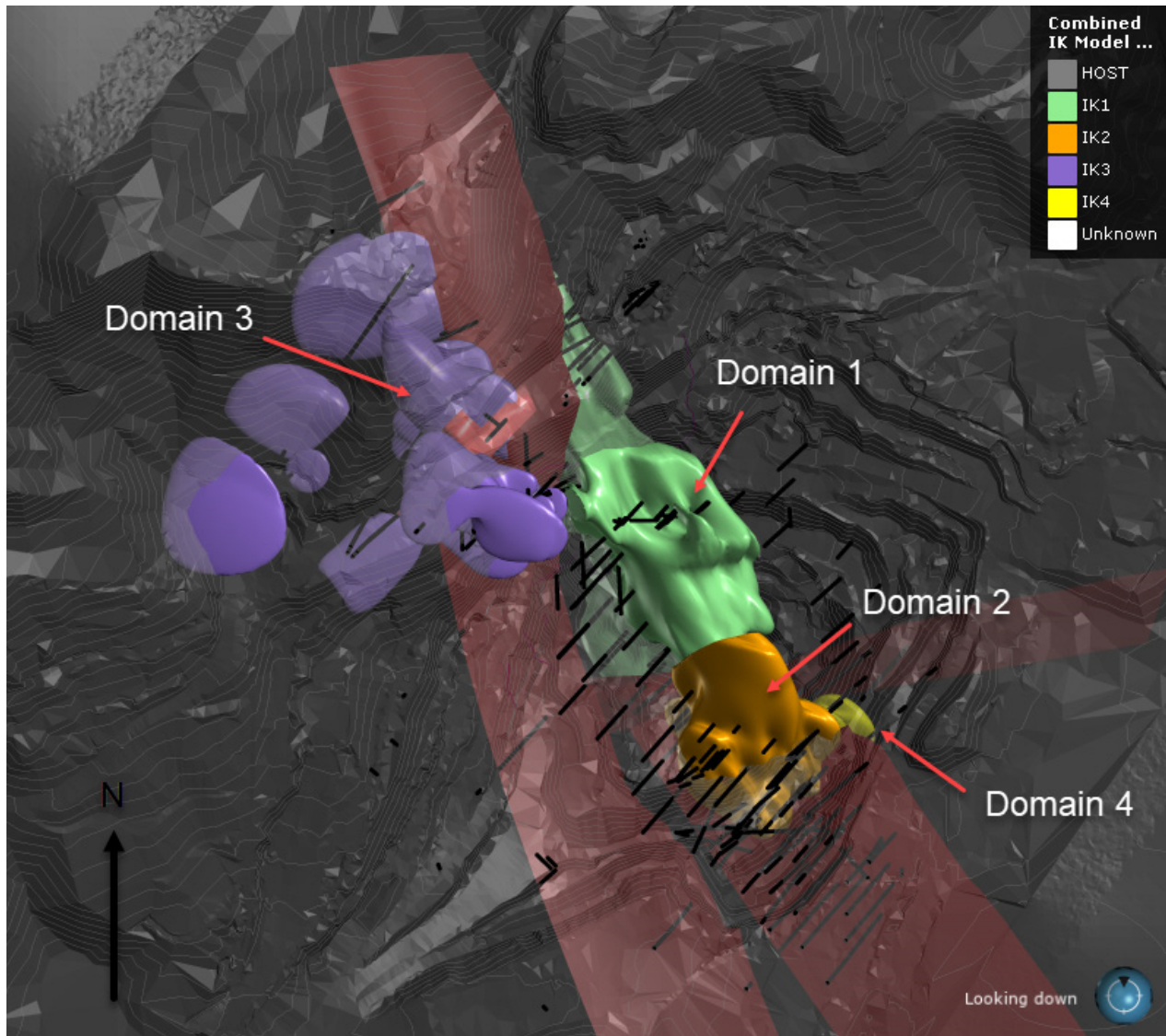


Figure 15 The faulting has resulted in four domains, Domain 1 central to the pit, Domain 2 and 4 to the South and Domain 3 to the North,

The orebody wireframes were modelled undepleted, with depletion of the resource taking place during block modelling and estimation.

8.1.2 Exploratory Data Analysis (EDA)

The Chaah orebody exhibits a conventional negatively skewed iron distribution with positively skewed near log normal distributions for the deleterious elements (Al_2O_3 , P_2O_5 , and SiO_2). The following histograms present the raw point scale population distributions for the elements being modelled within the current drilling data.

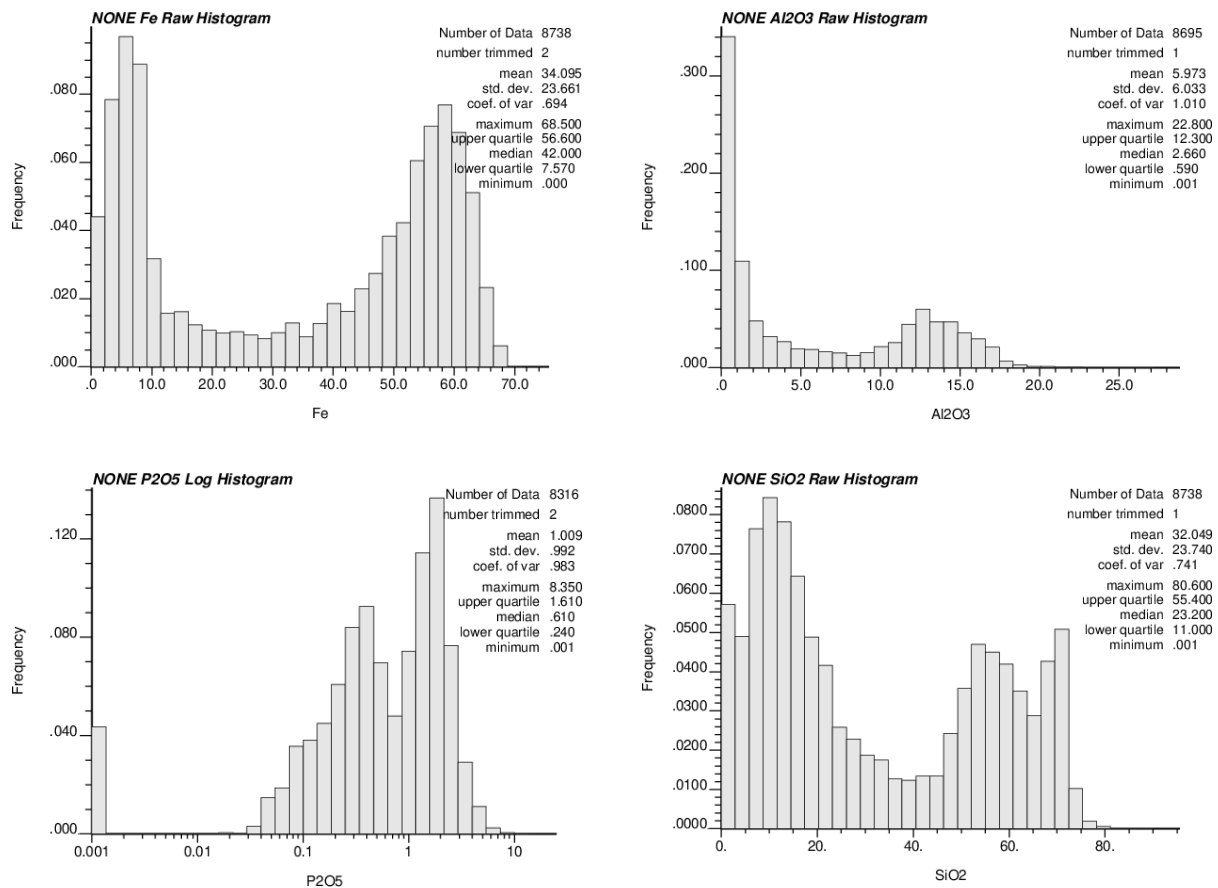


Figure 16 Raw and Log Histograms of the point-scale drilling data

There is evidence of two populations within all the data. This is interpreted as ore/waste populations.

There are strong positive and negative correlations between the elements under consideration with the relationships such that co-located co-kriging could be considered to ensure stronger retention of these relationships. However, due to the incomplete nature of the data set and need for further refinements to the structural controls, this estimation approach was not explored.

The data were not capped or cut, before or after compositing. Compositing was done per element of interest to 2m sample lengths with absent samples excluded and the composites broken on these gaps. This approach was followed due to missing or incomplete analytical suites of the elements where compositing the variables simultaneously would have resulted in uncontrolled results in absent intervals.

8.1.3 Variography

Experimental Omnidirectional variograms for Fe, P₂O₅, SiO₂ and Al₂O₃ were calculated for domain one and two using Isatis NEO. Conventional two structure spherical variogram models were fitted to the experimental variograms and the data transferred to Datamine Studio RM for estimation. The following image is an example for the Fe variogram in the main domain (Domain one).

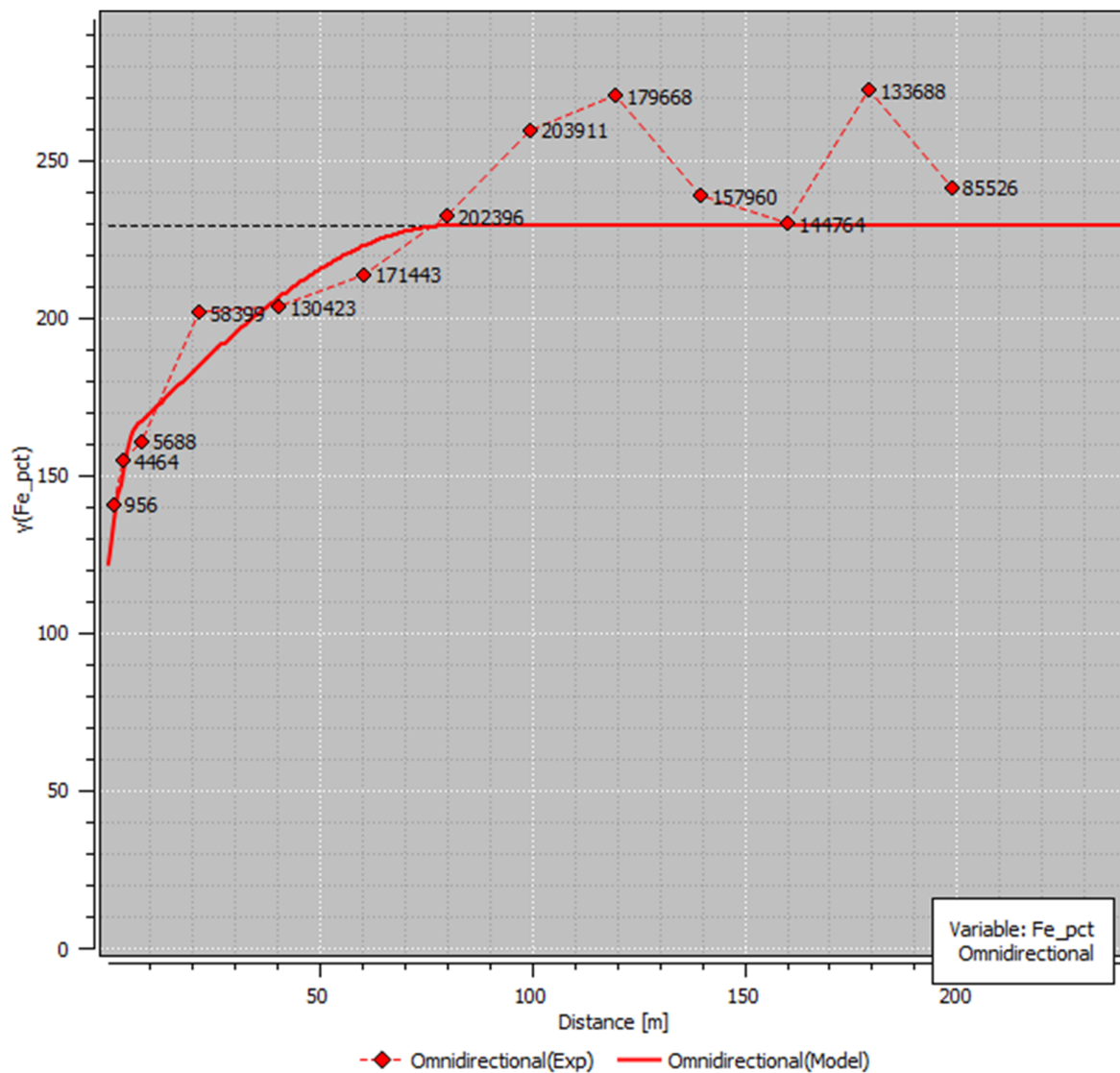


Figure 17 Example of a variogram fitted to the data – Domain 1 Fe(%) omnidirectional. Number of pairs per lag are shown on the experimental variogram. A two-structure spherical variogram model has been fitted.

The variogram models were normalised so that the sills would sum to one. This allowed for the estimation of and direct comparison of the Block Variance, Kriging Variance, Lagrange multiplier and the calculation of the Kriging Efficiency and Slope of Regression values between the domains. These values were used to determine the relative quality of the estimation and guide the classification approach, Table 9.

VDESC	ID	Rotations	Co	1 st Structure	Range 1	C1	2 nd Structure	Range 2	C2
Fe(raw) min1	1	None (omnidirectional)	0.51	Spherical	7	0.17	Spherical	81	0.32
P ₂ O ₅ (raw) min1	2		0.34		50	0.32		103	0.35
Al ₂ O ₃ (raw) min1	3		0.23		7	0.23		118	0.54
SiO ₂ (raw) min1	4		0.46		25	0.14		106	0.4
Fe(raw) min2	5		0.25		10	0.22		45	0.53
P ₂ O ₅ (raw) min2	6		0.52		25	0.24		51	0.23
Al ₂ O ₃ (raw) min2	7		0.4		21	0.15		43	0.45
SiO ₂ (raw) min2	8		0.3		12	0.2		42	0.5

Table 9 Tabulation of the normalised variogram models used for the estimation of the resource model.

8.1.4 Block Modelling

Using the data spacing and current pit survey as a guide, a block size of 10m x 20m x 10m (X-Y-Z) rotated 40 degrees anticlockwise from north was used to fill the ore model wireframes and below the End July Pit survey.

The model was sub-celled to a minimum of 2m x 2m x 2m to conform to the orebody wireframes and the pit survey. The following image shows a NE looking section through the model showing depletion and the ore (red)/waste (blue) boundaries

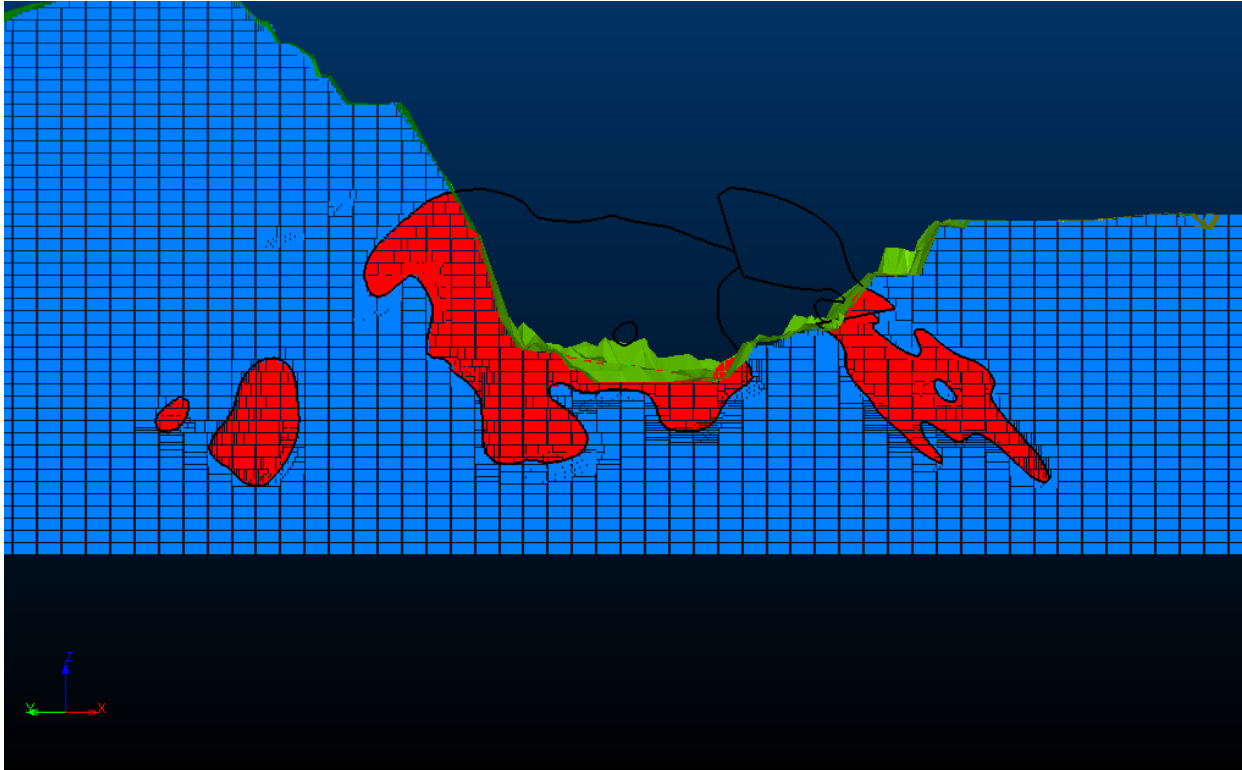


Figure 18 Long section looking NE showing the depleted block model with the ore zone in red

8.1.5 Model Estimation

The four domains and their sub-domains were estimated independently of each other using hard boundaries to prevent bridging and grade smearing.

Dynamic anisotropy was used to control the orientation of the search ellipse to the local trend of the mineralization. This too prevented bridging of grades. The dynamic anisotropy orientations were estimated into the block model in Datamine using orientation data from Leapfrog GEO isoform surfaces. These surfaces were generated from the structural trends used to control the mineralized envelope geometry.

Domains one, two and four were estimated using Ordinary Kriging (OK) while domain three was estimated using inverse distance to a power of two (IDW2).

In all estimation cases, the same search neighbourhood was used. This allowed for near uniform support and relative contributions of the various elements and to try and retain the correlation of the variables with each other.

The neighbourhood consisted of a multi-pass search with a range of 50m in the plane of mineralization and 10m across or normal to the plane of mineralisation. The number of samples was 3 to 9 maximum and with no limit per hole.

8.1.6 Classification

Classification of the resource took into consideration the robustness of the mineralised volume, the density of the data, rock density, as well as the quality of the estimation.

Using these criteria, the classification can be summarised as follows:

- Domain 3 in the northern highwall – Inferred: insufficient data and incomplete understanding of the geometry of the mineralisation in this domain. Missing P_2O_5 assays
- Domains 1, 2 and 4 – Indicated and inferred: Data density, direct observation of the orebody in the pit, mining performance and quality of estimation have allowed Indicated and Inferred classification of these domains:
 - Indicated: 1st Search Volume and Fe slope-of-regression estimation quality greater than 30%
 - Inferred: remaining estimated blocks

To smooth the algorithmic classification, a dilate-erode reclassification approach was run. This up or downgrades isolated blocks based on the classification of the surrounding blocks. If an Indicated block is completely surrounded by Inferred blocks, it is downgraded. The converse applies for Inferred blocks.

The following images show the combined classification (Indicated and Inferred) and then just the Inferred blocks.

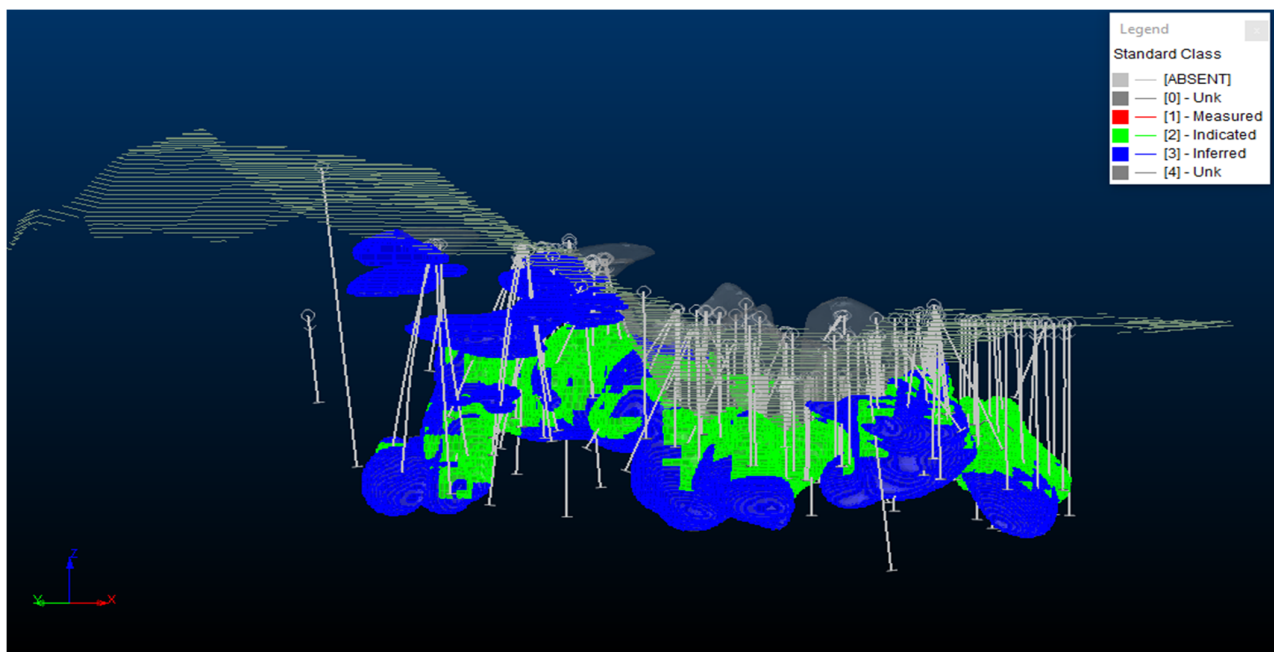


Figure 19: Oblique long section looking NE showing the total model coloured on resource classification

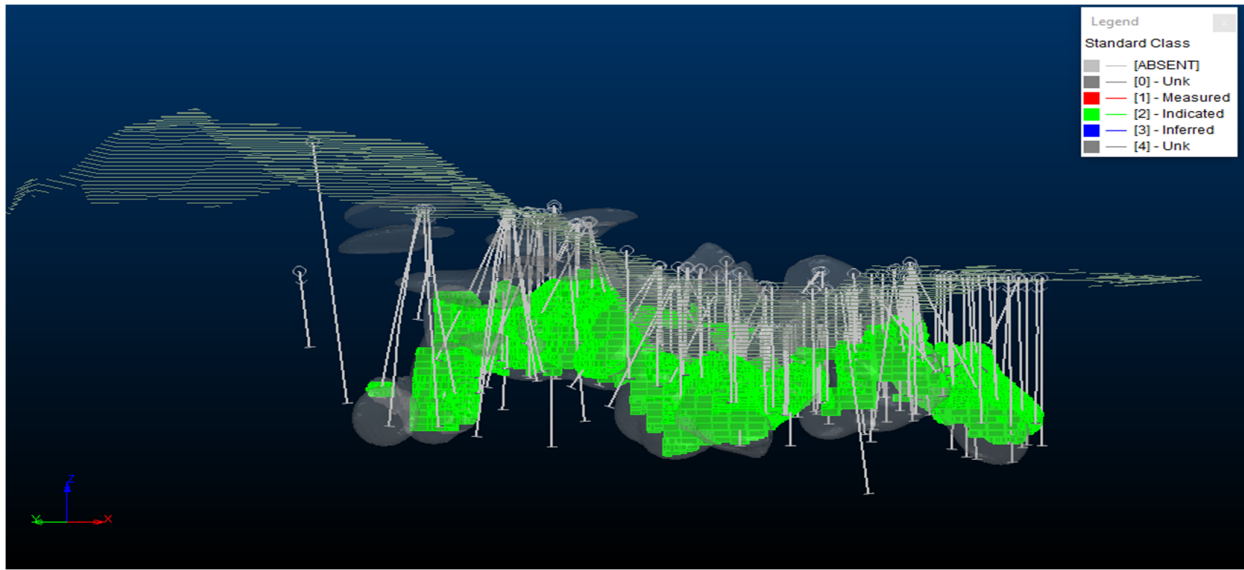


Figure 20: Oblique long sections looking NE showing the inferred blocks model coloured on resource classification

8.1.7 Validation

The model and the classification were validated using visual review of the model versus grade in section and plan (example below) as well as through the use of a modified swath plot tool which employs a moving window to consider the estimate versus drilling data in 3D.

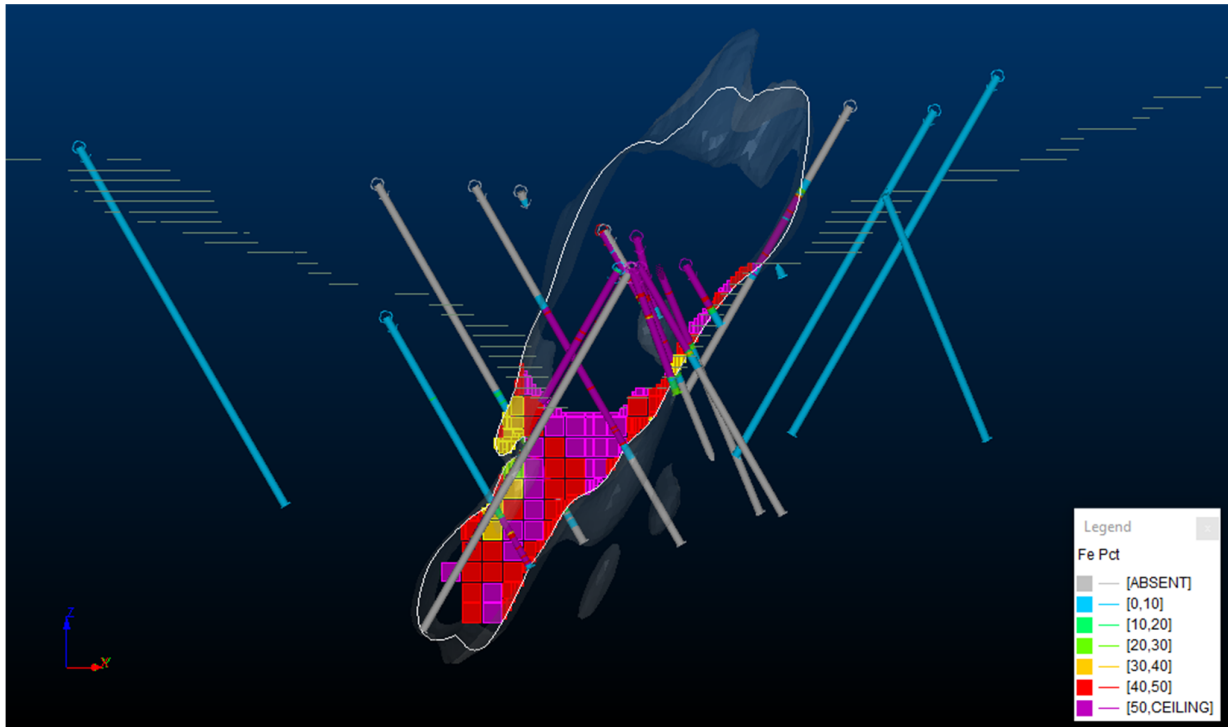


Figure 21: Sectional plot showing correlation of grade in the model with grade in the drill holes

The Fe model estimate versus grade data for all domains shows good correlation with the local average of the data. The model does not show any specific over or under estimation.

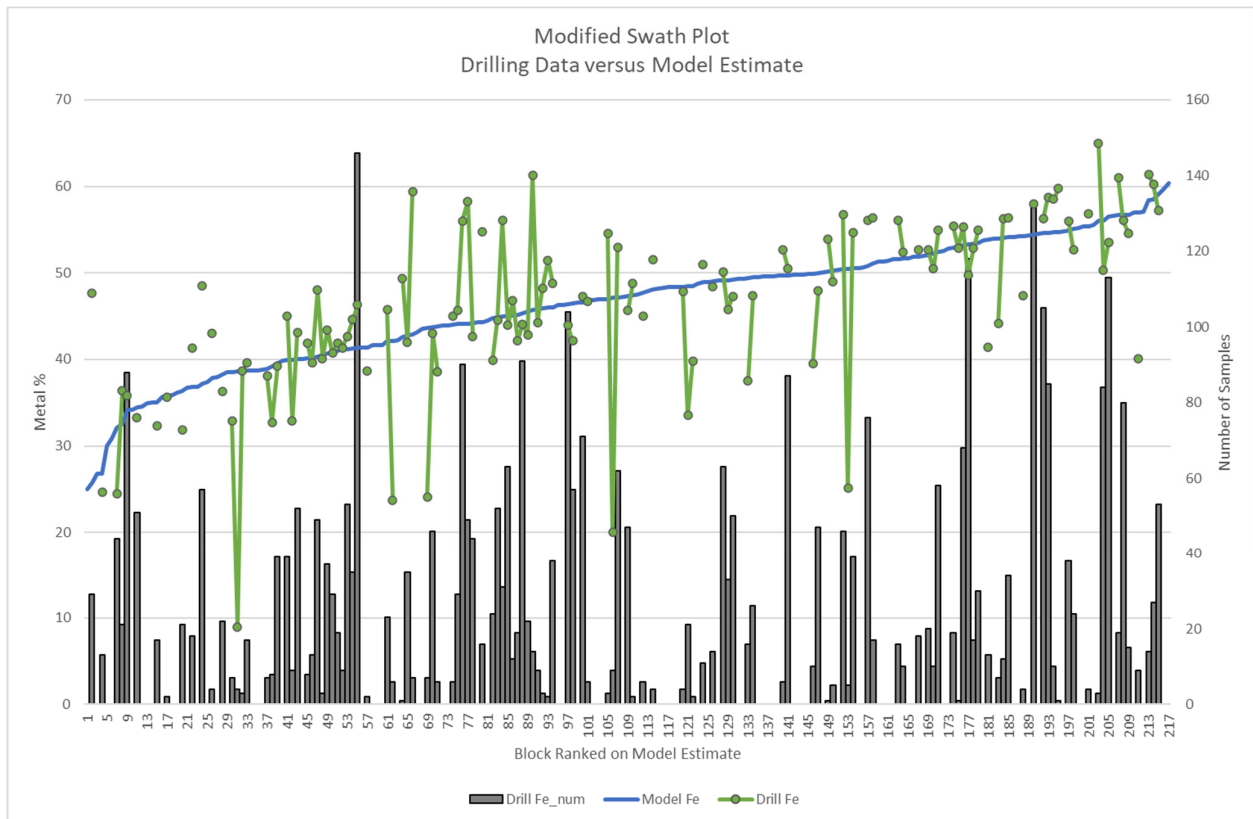


Figure 22: Moving Window Swath Plot showing good correlation between model estimate (blue) with drilling data (Green).

The swath plots for P_2O_5 , Al_2O_3 and SiO_2 also show good correlation between the drilling data trends and the model estimates. The weakest estimate is P_2O_5 due to limited data in Domain 3.

The average length-weighted grade of the drilling versus the volume weighted block estimate indicates that the declustered mean of the model (from kriging) is slightly lower than the drilling data. This is anticipated due to the general clustering of drilling data in areas of good grade therefore a declustered value will be lower than a raw point or length weighted grade.

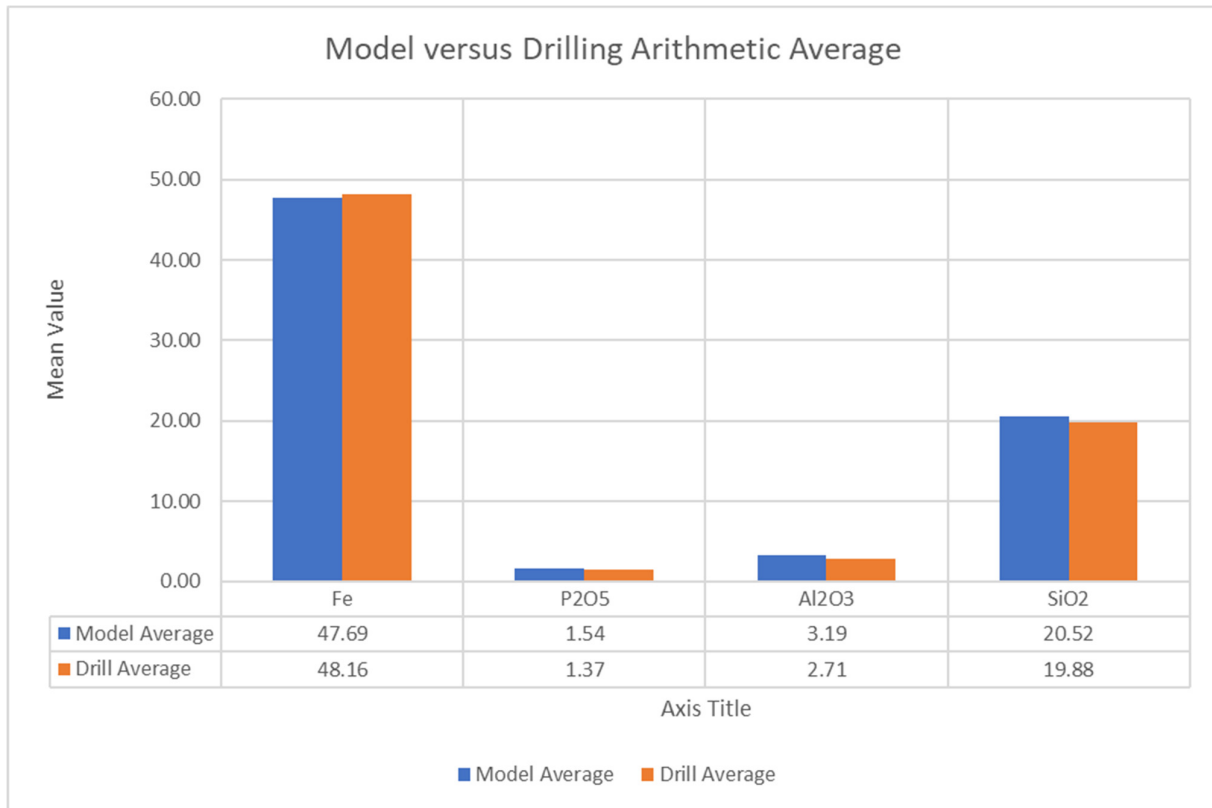


Figure 23: Tabulation of the weighted mean grades of the model and the drilling data

8.2 Density Data

SAM provided 62 density samples from 22 drill holes (Table 10). The laboratory that completed the density analysis completed duplicate analysis with t-tests indicating that the null hypothesis (the data sets are not the same) cannot be rejected.

Hole ID	Density Samples	Hole ID	Density Samples
CHERCD003	1	CHERCD014-B	3
CHERCD002	2	CHERCD21-32	4
CHERCD001	2	CHERCD21-33	4
CHERCD008	2	CHERCD21-35	2
CHERCD010	2	CHERCD21-39	3
CHERCD006-B	4	CHERCD21-31	3
CHERCD011	3	CHERCD21-36	3
CHERCD21-26	2	CHERCD21-43	4
CHERCD21-27	3	CHERCD21-34	3
CHERCD016-B	3	CHERCD21-37	3
CHERCD006-C	4	CHERCD21-38	2

Table 10 List of holes with number of density samples per hole

A scatter plot (below) of the duplicate values shows good correlation except for 4 samples that lie close to the +/-10% variance lines. These samples should be investigated to understand the cause of the differences.

The mean density is estimated to be 3.95t/m³ with a low coefficient of variation (Table 11).

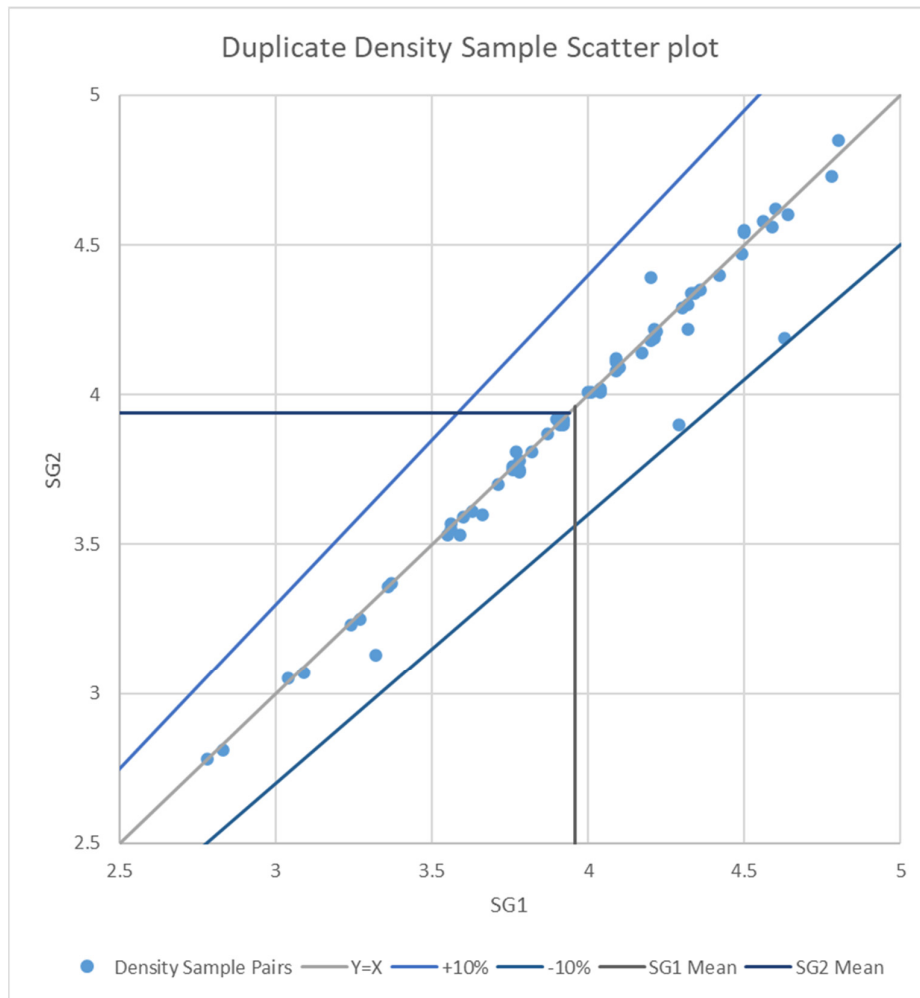


Figure 24 Scatter plot of duplicate density values within +/-10% tolerance lines.

	SG1	SG2	Average
Count	62	62	62
Minimum	2.78	2.78	2.78
Maximum	4.8	4.85	4.83
Mean	3.96	3.94	3.95
Std. Dev	0.47	0.47	0.47
COV	0.119	0.120	0.119

Table 11 Basic Statistics of density data

Regression analysis of the density values against Fe % shows a very strong non-linear correlation that appears to be well modelled with a 3rd order polynomial, Table 12. The default unmineralised density was calculated as 2.7t/m³ from the C0 function (Y-Axis intercept).

C0	CX	CX ²	CX ³
2.6699	0.00657	0.000715	-5.1E-06

Table 12 3rd Order Polynomial components

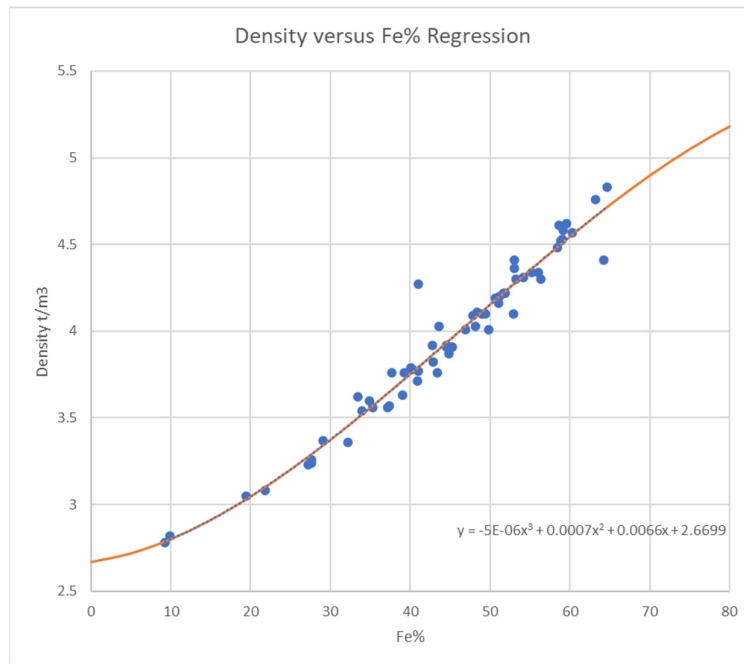


Figure 24 3rd order Polynomial regression of Density vs Fe%

This regression was used to calculate a density value from the Fe% estimate in the grade model. The regression is valid from 9.29% Fe to 64.6% Fe. The model estimate has a maximum of 64.78% Fe; therefore, the regression does not extrapolate density values significantly beyond the informing range of Fe% values and is considered a reasonable method of informing the model with density values. Further density data acquisition is strongly recommended.

8.3 Stockpile Mineral Resource

During the respective site visits a fluctuating stockpile was observed at the Chaah main ROM pad and additional stockpiles of crushed material. All volumetric and grade estimation was data provided by SAM. This material is reported under Reserves.

8.4 Total Mineral Resource

Mineral estimates need to meet the criteria of 'Reasonable Prospect of Economic Extraction' (RPEE) to be considered a Mineral Resources.

For Chaah, the RPEE requirements were determined through a Whittle™ optimisation on the Resource model using the following assumptions. Please see Appendix 15.4 for detailed tabulations.

Item	Description	Comments
Metal Price	\$108.40 t	Forecast market price, inclusive discount
Mining Constraints	8Mtpa	Production capacity Ore + Waste
Slope Angle	45°	Average applied to slopes based on AMC
Process Recovery	76.8%	Weighted avg. based on designed mill capacity
Mining Dilution & Recovery	5% & 95%	Experienced based. Industry average
Mining Cost	\$1.18t	Weighted based on Ore & Waste movement
Processing Cost (ROM t)	\$10.65t	Based on first principals
Royalties & Tribute	\$16.78t	Per saleable tonnes
Cut-off	30%	Driven by metallurgical cut-off

Table 13 Chaah Preliminary Pit Optimisation Parameters, net price \$91.62/t (net of Royalties & Tribute)

The optimisation was run on the first-pass single density value model and therefore slightly understates the potential value of the deposit.

The Mineral Resource is quoted at a 30% Fe cut-off within the Whittle Shell calculated on the MI&I classified resource block model.

The tabulation of Resources from the 2022 Resource study is presented in Table 11. For clarity, a Fe only grade tonnage curve of the Indicated material has been provided. The resource is sensitive to cutoffs great than 35% Fe with the tonnage decreasing rapidly from that point.

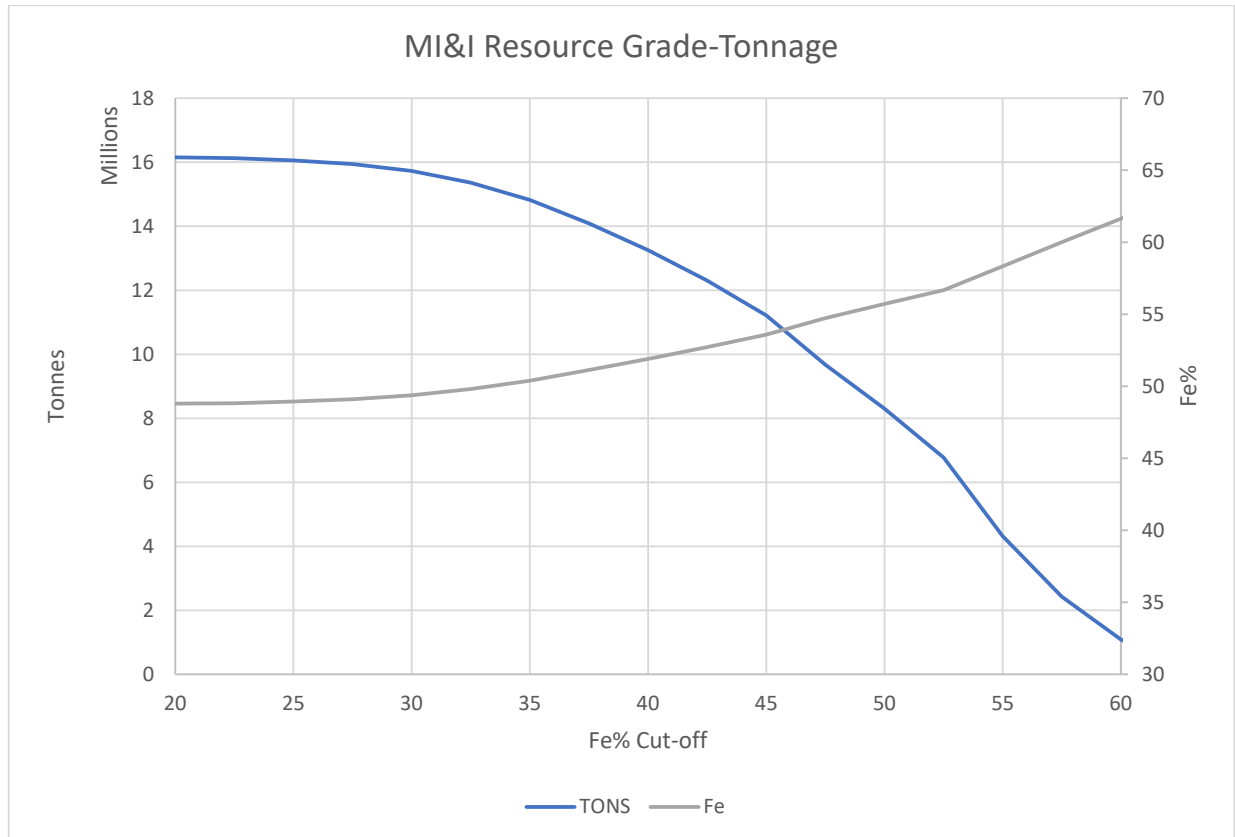


Figure 25: Combined (MI&I) Material Fe% grade-tonnage curve within the Resource Constraint Shell.

ORE	RESCAT	VOLUME (m ³)	TONNES	DENSITY (t/m ³)	Fe %	P ₂ O ₅ %	Al ₂ O ₃ %	SiO ₂ %
Total Waste		27,740,320	74,898,864	2.70				
Below Cutoff	Measured							
	Indicated	76,128	247,466	3.25	26.47	1.62	7.39	43.68
	Inferred	60,304	194,837	3.23	25.39	0.70	6.41	42.46
>30% Fe	Measured							
	Indicated	2,250,128	9,311,435	4.14	50.30	1.56	2.71	18.34
	Inferred	1,584,128	6,415,323	4.05	48.05	0.87	2.41	22.49

Table 14 Tabulation of constrained Mineral Resource at 30% Fe cutoff. Density determined through regression of Density from Fe%. Reserves have not been declared for this model yet but are inclusive of any future reserves.

9 ORE RESERVE

9.1 Review of Ore Reserve Inputs & Assumptions

High level mining and production costs were provided by SAM for the period, August 2021 through July 2022, these suggest an all-in total costs of USD52.42/t, Table 15.

Cost Summary (based on FY 2022 financial information)	USD
Total Mining & Crushing	17,994,751
Total Processing	6,533,274
Royalty & Tribute Costs	8,194,795
Sub Total	32,722,820
Total Uncrushed Ore (t)	624,245
Total Cost per Tonne (USD)	52.42

Table 15, All-mining costs per tonne for the first 12 months of the current reporting period (August 2021-July 2022), all costs provided by client

9.2 Run-of-Mine Ore Reserve

The Chaah Iron Ore deposit contains no updated Proved or Probable Reserves as there is no recent detailed pit optimisation or design based on new cost assumptions and the updated (2022) resource modelling. The current Resource drilling has significantly expanded the Mineral Resource inside the LOM open Pit (revised model in progress) classified as Indicated. SAM is currently undertaking a revised pit design and ongoing Resource drilling will lead to a new pit optimisation probably within its new financial year.

For continuity purposes, the 2021 DERISK resource model was depleted using the 2021-2022 survey volumes. This depletion of the ROM Ore Reserve was at a cut-off grade of 30%. Datgeo do not certify these reserves or resources as there is observed difference between the depletion of the modelled data against the Derisk reported values.

Category	Tonne (Mt)	Grade (%)				Change in t (%)	Comments
		Fe	SiO ₂	Al ₂ O ₃	P ₂ O ₅		
Gross attributable to license and net attributable to issuer							
Proved (ROM)	-						Changes are shown comparing the Ore Reserve from 31 July 2021 to 31 Jul 2022
Probable (ROM)	3.74	49.6	16.7	2.0	1.8	-13%	
Subtotal (ROM)	3.74	49.6	16.7	2.0	1.8	-13%	
Proved (stockpile)	-	-	-	-	-	-	
Probable (stockpile)	0.17	56.2	-	-	-	70%	
Subtotal (stockpile)	0.17	56.2	-	-	-	70%	
Total	3.91	49.9	-	-	-	-11%	

Notes:

1. ROM reserve and stockpiles reported at a cut-off criterion of 30% Fe
2. Totals may not add due to rounding effects
3. Proven and Probable results are based on the depletion of the 2021 Reserve tabulation (Derisk Report)
4. Depletion based on volume of material mined between July 21 and July 22 per current survey data from the historical model, and subtracted from the 2021 tabulated reserve. Datgeo were not able to verify the 2021 reserve numbers.
5. Reserves are constrained to the 2019 final pit design as provided to Datgeo

Table 16, Depletion of the 2021 DERISK reserve model has been done while the updated mine design is completed for the 2022 resource update.

9.3 Stockpile Ore Reserve

Stockpile data presented as at the end of July 2022 total tonnes 109,974 @53.8% Fe, compared with July 2021 of 56,723 t @ 57.6% Fe, Table 17.

Stockpile Material Type	Tonnes	Fe (%)
Hematite Lump (<100mm)	3,191	57.5
Hematite Fines (<20mm)	21,289	57.4
Hematite Fines (<40mm)	10,594	52.2
Boulders	50,842	53.8
Superfine	30,561	62.6
Tailings	50,199	53.6
Total as at 27 June 2022	166,676	56.2

Cutoff 25% Fe

Table 17, Current stockpile Ore Reserve, data provided by client, Datgeo has not surveyed the stockpiles independently

9.4 Total Ore Reserve & Resources

Datgeo have reviewed the stockpile management and the lack of systematic sampling doesn't allow classification as a Measured Resource. To fully define the grade of the stockpiles, there has to be a systematic and representative grade control sampling in the pit tied to accurate ore tacking from pit to ROM and subsequent representative belt sampling. In this manner, it is possible to accurately define the grade of the various stockpiles in a defensible and reportable manner.

10 PRODUCTION RECONCILIATION

10.1 2020/2021/22 Reconciliation Results

The 2022 Resource reconciliation model, which is based on SAM supplied survey information shows that approximately 892kt of ore was mined, versus the client's internal truck count-based estimate of 624kt with an average Fe grade of 53.8%. The Resource model appears to overestimate ore tonnes by 39% compared to unadjusted production records for ore after amended factors based on reconciliation results from the 2020/21 year. A further 7.2Mt of waste was moved in and around the pit based on client supplied survey information, versus the client's internal truck count-based estimate of 9.8Mt. The Mineral Resource model appears to underestimate waste tonnes by 36% compared to the unadjusted production records for waste.

Waste Rock - An internal review of the site method of reconciling material movements is underway, two key areas contributing to the variance in waste movements relate to insufficient survey control point densities and incorrect use of insitu rock densities verses broken rock density. SAM have used a single density of 2.2 t/m³ for waste rock, this density coupled with the truck counting to estimate tonnage have has resulted in a significant over estimation of waste rock removed. An investigation of truck load mass from a 'know' load volume, a revised waste bulked density of 1.76 t/m³ has been determined, in addition a broken rock swell factor of approximately 1.3-1.55 (calculated) should be applied to the current insitu density value of 2.7 t/m³. Going forward better reconciliation could be achieved by applying 3 domains to the waste rock as follows:

- Overburden, weathered sediments, historic fill (surface strip)
- Bedded marine sediments, (sandstone, siltstone, and conglomerate (capping geology)
- Andesitic breccia & volcanics (host rocks)

Ore Movements – Currently there is no grade control mark up on mining benches, and therefore no pit dig control. Therefore, there is no ability to reconcile physical mined ore back to the block model. Changes to in-pit grade control are under review.

A review of the SAM mined ore density suggests that the value used for ROM ore of 2.49 t/m³ is too low. Bucket loading tests, weigh-bridge measurements, laboratory testing suggest bulked densities of low-grade ore of >2.68 t/m³, and high-grade ores 3.0 to 3.2 t/m³ (SGS reported, bench samples). A broken rock swell factor of 1.3 – 1.55 (calculated) when applied to these bulked density values provides a close estimate of what Datgeo has estimated from the block model and the Density-Fe Regression. Going forward SAM need to establish the rock swell factor and regularly monitor ROM ore densities. **There is concern regarding the precision of the Primary laboratory Bulk Density reporting, and a second set of umpire samples have been prepared for submission to a second independent laboratory, results and any adjustments will be reported in the next quarter.**

In Table 18, when the recently calculated, bulked densities are applied to the back calculated volumes from the truck counts (Ore 0.25M m³, Waste 4.47M m³) as reported in the most recent mining audit, the difference between the Resource model and the production statistics narrows. The remaining differences are likely due to variance in the limited bulked density data set, moisture content and volumetric estimation errors.

Source	Material	Density	Mt	Fe Grade (%)
Resource Model	Indicated Resource	4.11	0.66	49.6
	Inferred Resource	4.11	0.22	49.6
	Total Resource		0.89	49.6
	Waste	2.7	7.23	-
	Mineralized Waste	-	-	-
	Total Waste		7.23	
SAM production Statistics (Fixed Density values)	Ore Mined (Adjusted by SAM)	2.49	0.624	53.8
	Waste Mined (unadjusted)	2.20	9.8	
SAM production Statistics (Based on Bulked Density Values)	Ore Mined	3.02	0.76	53.8
	Waste Mined	1.76	7.9	

Table 18, Chaah Production summary from 1 Aug 2021 to 30 July 2022. Numbers may not sum due to rounding errors. Volumes derived from Monthly DTM surveys provided by SAM

Datgeo have reconciled from volumetric changes based on client supplied surveyors reports from August 2021 to July 2022. Datgeo has made recommendations regarding improving the estimation of material movements in section 12.5. Resource drilling has increased the LOM Indicated Resource to 9.3Mt@50.30% Fe & Inferred Resource to 6.4Mt@48.05% Fe. Total LOM resources (MI&I) improved year on year from 6.3Mt@49.7% Fe (2021), to **15.7Mt@49.38% Fe**, 2022 Resource Update, Table 19. The Resources reported are inclusive of the Reserves presented in Table 16.

Category	Tonne (Mt)	Grade (%)				Change in t (%)	Comments
		Fe	SiO ₂	Al ₂ O ₃	P ₂ O ₅		
Gross attributable to license and net attributable to issuer							
Measured (in situ)	-	-	-	-	-	-	Changes in tonnage are shown comparing the Mineral Resources from 31 Jul 2021 to 31 July 2022. The increase is due to the discovery of new Mineral Resources
Indicated (in situ)	9.3	50.3	18.3	2.7	1.6	107%	
Inferred (in situ)	6.4	48	22.5	2.4	0.9	256%	
Subtotal (in situ)	15.7	49.4	20	2.6	1.3	149%	
Measured (stockpiles)	-	-	-	-	-	-	
Indicated (stockpiles)	0.17	56.2	-	-	-	10%	
Inferred (stockpiles)	-	-	-	-	-	-	
Subtotal (stockpile)	0.17	56.2	-	-	-	10%	
Total	15.9	49.5	-	-	-	148%	

Table 19, Chaah LOM ore Resources as of July 22 15.7Mt@49.4% Fe, compared to July 31, 2021, of 6.3Mt@49.7% Fe. Stockpile, information provided by SAM. Numbers may not sum due to rounding errors.

The discrepancy of +0.268Mt between mining statistics and the depletion of the Mineral Resource model for 2021/22 could be due to several factors. In the 2020/21 Derisk Consultants noted in 2019/20 there was a discrepancy of +0.37Mt and further investigation of the reasons was recommended. Datgeo & the SAM technical team have commenced a systematic program of measurements across all mining and processing activities. The results of this will be reported in the next quarter.

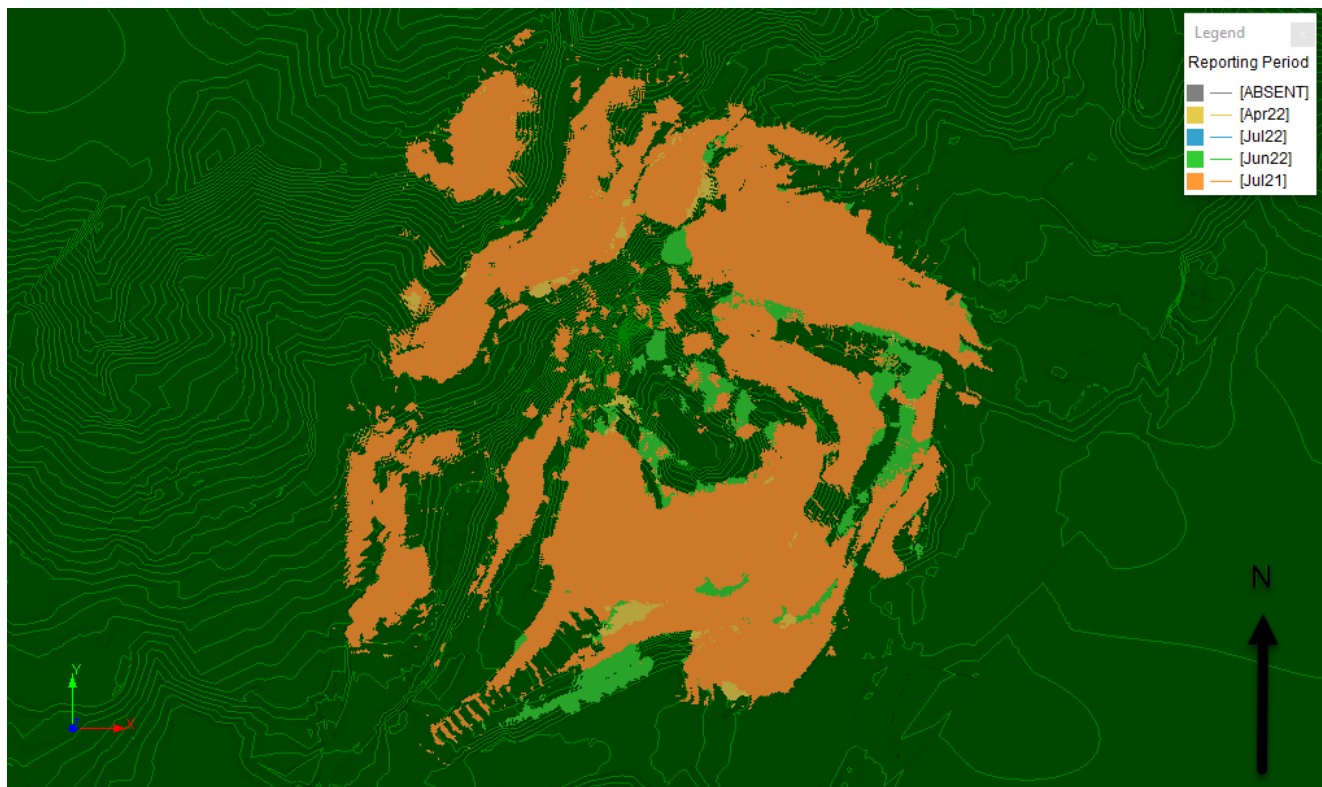


Figure 26: Plan view showing the mined material from August 2021 to July 2022. There is some noise due to wireframing differences. This plan shows the model blocks per mining period between the various survey DTMs. Simply put, it shows where material has been removed.

A review of the mining from August 2021 to July 2022 was conducted using Historical models (BMEX and 2019 depletion models). The results indicate roughly 573Kt of ore was mined at 52.7% Fe during this period. The deviation between the 2022 model and these historical models is, in part, due to density differences and the addition of the recent drilling bolstering the resource. The differences support the need for density measurements, in-pit mapping and grade control and documented short term mine-planning. These points are also dealt with in Section 10.2.

10.2 Long Term Production Reconciliation Verses Mineral Resource

Tight control of ore management and tonnes mined is required, with the potential expansion of mining, SAM should look at LiDAR scanning of ore haulage trucks to tighten ore movements. Mixing of ores from other sources requires ongoing assaying to maintain control of the required head grade. SAM has recently committed to the installation of the 4G based fleet tracking and performance monitoring system supported by Celcom Malaysia. This should help optimise the deployment of fleet around the mine site.

10.3 Drilling Data Summary of Holes for Study

Currently SAM has several completed drill holes with assays awaited, others pending logging, Table 20 presents all holes available and their Flag position in terms of use in the study.

BHID	Record Counts				Flag	Remark
	COLLAR	SURVEY	Assays	Lithology		
CHADD001	1	2	44	-		
CHADD002	1	2	-	6	Hole Set to absent	Mineralised; no assays recorded
CHADD003	1	2	49	-		
CHADD004	1	2	63	13		
CHADD005	1	2	-	12	Hole set to zero	No mineralisation
CHADD006	1	2	106	14		
CHADD007	1	2	-	6	Hole set to zero	No mineralisation
CHADD008	1	2	78	19		
CHADD009	1	2	-	7	Hole set to zero	Less Fe mineralisation; not sampled
CHADD010	1	2	231	28		
CHADD011	1	2	90	-		
CHADD012	1	2	139	-		
CHADD013	1	2	68	-		
CHADD014	1	2	148	8		
CHADD015	1	2	-	-	Hole Set to absent	PQ coring; no assay records
CHADD016	1	2	-	-	Hole set to zero	No mineralisation
CHADD017	1	2	93	-		
CHADD018	1	2	-	-	Hole set to zero	PQ coring; No mineralisation
CHADD020	1	2	-	-	Hole set to zero	PQ coring; No mineralisation
CHADD021	1	2	-	-	Hole set to zero	No mineralisation
CHADD022	1	2	-	67	Hole set to zero	Less Fe mineralisation; not sampled
CHADD023	1	2	-	-	Hole set to zero	No mineralisation
CHADD024	1	2	-	-	Hole set to zero	No mineralisation
CHADD025	1	2	-	-	Hole set to zero	No mineralisation
CHADD026	1	2	-	-	Hole set to zero	No mineralisation
CHADD027	1	2	-	-	Hole set to zero	No mineralisation
CHADD028	1	2	-	-	Hole set to zero	No mineralisation
CHADD029	1	2	-	-	Hole set to zero	No mineralisation
CHADD030	1	2	-	-	Hole set to zero	No mineralisation
CHADD031	1	2	13	54		
CHADD032	1	2	-	-	Hole set to zero	No mineralisation
CHADD032-A	1	2	17	31		
CHADD033	1	2	-	18	Hole set to zero	No mineralisation
CHADD034	1	2	17	26		
CHADD035	1	2	10	73		
CHADD036	1	2	-	-	Hole Set to absent	Pending for assay results
CHADD037	1	2	-	1	Hole set to zero	No mineralisation
CHADD038	1	2	-	-	Hole set to zero	No mineralisation
CHADD038-A	-	-	-	-	Hole set to zero	No mineralisation
CHADD039	1	2	26	95		

BHID	Record Counts				Flag	Remark
	COLLAR	SURVEY	Assays	Lithology		
CHADD040	1	2	-	-	Hole set to zero	No mineralisation
CHADD040-A	1	2	-	26	Hole Set to absent	Pending for assay results
CHADD041	1	2	5	98		
CHADD042	1	2	36	70		
CHADD043	1	2	-	5	Hole Set to absent	Pending for assay results
CHADD044	1	2	-	-	Hole set to zero	No mineralisation
CHADD044-A	1	2	-	-	Hole Set to absent	Pending for assay results
CHADD045	1	2	-	-	Hole set to zero	No mineralisation
CHADD046	1	2	-	-		
CHARC001	1	2	63	4		
CHARC002	1	2	85	2		
CHARC003	1	2	116	5		
CHARC004	1	2	62	3		
CHARC005	1	2	91	4		
CHARC006	1	2	55	3		
CHARC007	1	2	-	3	Hole set to zero	No mineralisation
CHARC008	1	2	71	5		
CHARC009	1	2	-	4	Hole set to zero	No mineralisation
CHARC010	1	2	-	6	Hole set to zero	No mineralisation
CHARC011	1	2	-	4	Hole set to zero	Less Fe mineralisation; not sampled
CHARC012	1	2	46	9		
CHARC013	1	2	-	5	Hole set to zero	No mineralisation
CHARC014	1	2	83	5		
CHARC015	1	2	-	3	Hole set to zero	No mineralisation
CHARC016	1	2	-	5	Hole set to zero	No mineralisation
CHARC017	1	2	-	3	Hole set to zero	No mineralisation
CHARC018	1	2	-	2	Hole set to zero	No mineralisation
CHARC019	1	2	13	5		
CHARC020	1	2	156	7		
CHARC021	1	2	-	3	Hole set to zero	No mineralisation
CHARC022	1	2	135	3		
CHARC023	1	2	-	3	Hole set to zero	No mineralisation
CHARC024	1	2	88	8		
CHARC025	1	2	66	7		
CHARC026	1	2	25	5		
CHARC027	1	2	26	7		
CHARC028	1	2	62	4		
CHARC029	1	2	-	2	Hole set to zero	No mineralisation
CHARC030	1	2	-	5	Hole set to zero	No mineralisation
CHARC031	1	2	-	7	Hole set to zero	Less Fe mineralisation; not sampled
CHARC032	1	2	93	3		
CHARC033	1	2	-	7	Hole set to zero	Less Fe mineralisation; not sampled
CHARC034	1	2	59	9		
CHARC035	1	2	-	11	Hole set to zero	No mineralisation
CHARC036	1	2	75	1		
CHARC037	1	2	20	8		
CHARC038	1	2	67	2		
CHARC039	1	2	-	6	Hole set to zero	Less Fe mineralisation; not sampled
CHARC040	1	2	140	4		
CHARC041	1	2	155	3		
CHARC042	1	2	42	2		
CHARC043	1	2	56	4		
CHARC044	1	2	17	2		
CHARC045	1	2	45	3		
CHARC046	1	2	31	8		
CHARC047	1	2	-	8	Hole Set to absent	Mineralised; no assays recorded
CHARC048	1	2	176	16		
CHARC049	1	2	56	3		
CHARC050	1	2	63	4		
CHARC051	1	2	56	4		
CHARC052	1	2	112	2		
CHARC053	1	2	-	2	Hole Set to absent	Mineralised; no assays recorded
CHARC054	1	2	52	17		
CHARC055	1	2	169	21		
CHARC056	1	2	44	11		
CHARC057	1	2	26	16		

BHID	Record Counts				Flag	Remark
	COLLAR	SURVEY	Assays	Lithology		
CHARC058	1	2	-	12	Hole set to zero	No mineralisation
CHARC059	1	2	96	10		
CHARC060	1	2	61	9		
CHARC061	1	2	62	7		
CHARC062	1	2	92	6		
CHARC063	1	2	94	5		
CHARC064	1	2	234	7		
CHARC065	1	2	65	4		
CHARC066	1	2	-	11	Hole Set to absent	Mineralised; no assays recorded
CHARC067	1	2	-	2	Hole set to zero	No mineralisation
CHARC068	1	2	140	11		
CHARC069	1	2	101	12		
CHARC070	1	2	200	18		
CHARC071	1	2	67	13		
CHARC072	1	2	165	25		
CHARC073	1	2	107	14		
CHARC074	1	2	204	26		
CHARC075	1	2	165	13		
CHARC076	1	2	-	1	Hole Set to absent	Mineralised; no assays recorded
CHARC077	1	2	165	13		
CHARC078	1	2	141	-		
CHARC079	1	2	81	9		
CHARC080	1	2	85	-		
CHARC081	1	2	71	7		
CHARC082	1	2	73	-		
CHARC083	1	2	140	-		
CHARC084	1	2	25	-		
CHARC085	1	2	80	-		
CHARC086	1	2	75	-		
CHARC087	1	2	68	-		
CHARC088	1	2	75	-		
CHARC089	1	2	34	-		
CHARC090	1	2	65	-		
CHARC091	1	2	100	-		
CHARC092	1	2	99	-		
CHARC093	1	2	6	-		
CHARC094	1	2	42	-		
CHARC095	1	2	157	-		
CHARC096	1	2	70	-		
CHARC097	1	2	96	-		
CHARC098	1	2	127	-		
CHARC099	1	2	60	-		
CHARC100	1	2	86	-		
CHARC101	1	2	107	-		
CHEDD22-004	1	5	-	-	Hole Set to absent	Pending for assay results
CHEDD22-005	1	5	-	-	Hole set to zero	No mineralisation
CHEDD22-006	-	-	-	-	Hole set to zero	No mineralisation, not used
CHEDD22-007	1	7	-	-		
CHERC001	1	7	3	78		
CHERC002	1	3	15	57		
CHERC003	1	7	4	56		
CHERC004	1	6	5	80		
CHERC005	1	1	13	48		
CHERC006	1	1	12	36		
CHERC006-B	1	4	20	48		
CHERC006-C	1	4	21	6		
CHERC006-D	1	5	-	5	Hole set to zero	No mineralisation
CHERC007	1	6	-	71	Hole set to zero	No mineralisation
CHERC008	1	6	9	-		
CHERC009	1	7	17	101		
CHERC010	1	6	6	91		
CHERC011	1	7	13	96		
CHERC012	1	8	10	90		
CHERC013	1	1	5	77		
CHERC014	1	1	10	68		
CHERC014-B	1	5	33	16		

BHID	Record Counts				Flag	Remark
	COLLAR	SURVEY	Assays	Lithology		
CHERCD014-C	1	6	-	-	Hole set to zero	No mineralisation
CHERCD015	1	1	4	64		
CHERCD016	1	1	35	85		
CHERCD016-B	1	6	5	-		
CHERCD21-26	1	4	11	-		
CHERCD21-27	1	5	11	-		
CHERCD21-28	1	3	-	-		
CHERCD21-29	1	1	-	-	Hole set to zero	No mineralisation
CHERCD21-30	1	1	-	-	Hole set to zero	No mineralisation
CHERCD21-31	1	1	13	-		
CHERCD21-32	1	5	16	-		
CHERCD21-33	1	6	20	79		
CHERCD21-34	1	4	16	23		
CHERCD21-35	1	5	10	33		
CHERCD21-36	1	5	19	-		
CHERCD21-37	1	5	10	56		
CHERCD21-38	1	6	6	6		
CHERCD21-39	1	5	4	7		
CHERCD21-40	1	5	-	10	Hole set to zero	No mineralisation
CHERCD21-41	1	6	-	8	Hole set to zero	No mineralisation
CHERCD21-42	1	7	-	7	Hole Set to absent	mineralised at 211.9m-214.1m; yet to sampled
CHERCD21-43	1	7	13	105		
CHERCD21-44	1	3	-	1	Hole set to zero	No mineralisation

Table 20, Tabulation of all drillholes used for the Resource study

With the expanded Resources from the current drilling program, this has offered SAM additional flexibility with ore sources which until recently wasn't possible. The new pit model study currently in progress will address the mine scheduling.

11 TENGGAROH PROJECTS (GOLD)

11.1 Tenggaroh Gold Project – Hydrothermal – Orogenic Gold Project

SAM commenced a joint hydrothermal-orogenic gold exploration program in their Tenggaroh Gold Prospect in late 2021, a site visit was conducted in late February 2022 to prepare a framework of exploration, and again in May 2022 to review progress and identified areas of mineralisation. The geology of the area comprises basement metasedimentary sequences of bedded, highly deformed argillite's – carbonaceous sediments – silt and sandstones which host both metamorphic and hydrothermal quartz – sulphide veining which has been emplaced parallel to, and oblique to the main direction of foliation. The area is generally rolling topography with an excellent network of roads recently established for the palm oil plantation, Figure 27. Weathering extends a up to a few metres of variably developed laterite which contains the typical quartz pebble trains, the only remnants of quartz veining, the host rocks completely weathered. There is boulder float of intrusive material, but the only exposure identified appeared to have been an intermediate porphyritic dyke which appeared to have exploited a bedding plane position in the shale sequence, Figure 28.

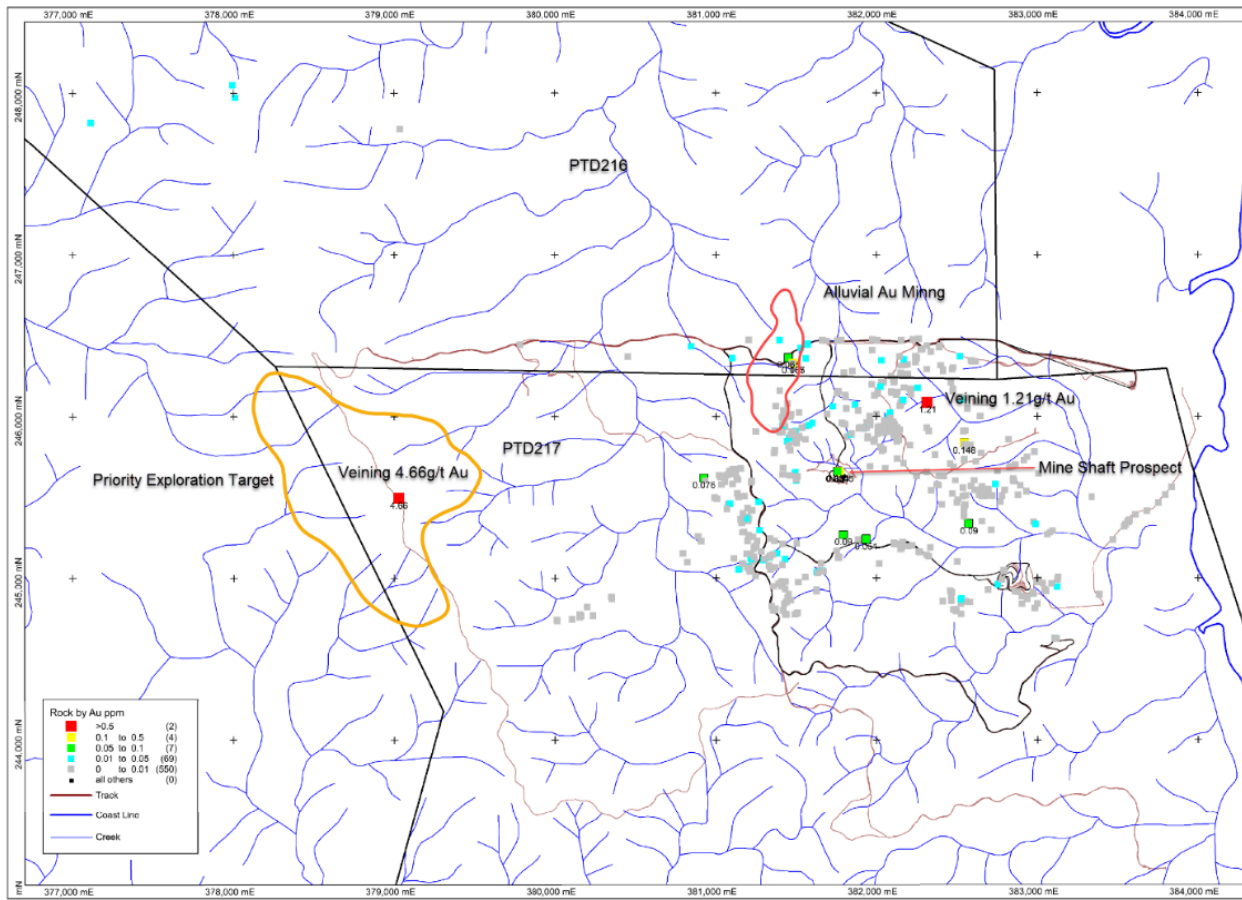


Figure 27, Tenggaroh Gold Project, overview licences PTD 216, PTD 217, drainage coverage and insitu rock sampling with significant results as of June 30, 2022

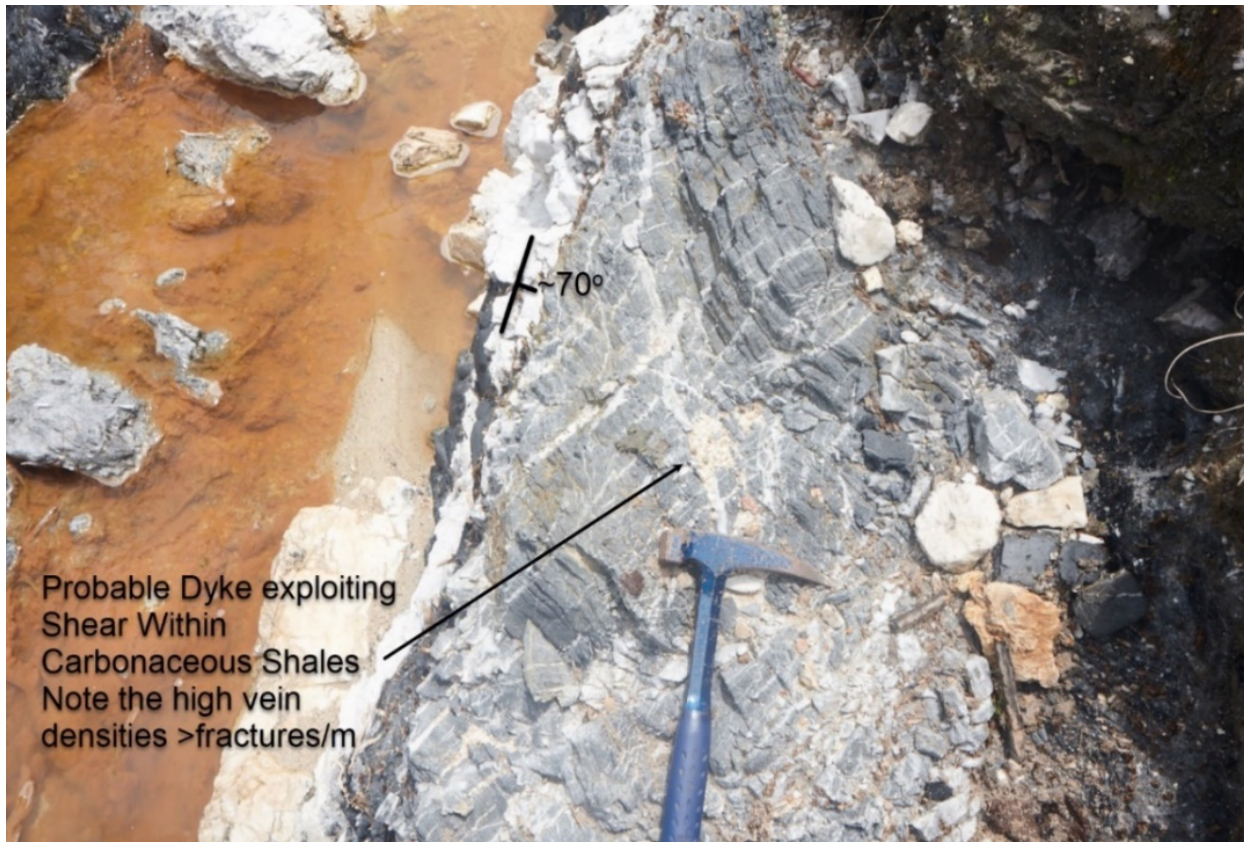


Figure 28, Orogenic quartz veining within carbonaceous shale and possible narrow dyke north of the Mine Shaft Prospect

There are several areas where extensive hard Fe laterites have developed, including one which is associated with a zone of hydrothermal brecciation and silicification. Observed characteristics of the hydrothermal quartz veining are encouraging, Figure 29 suggests the veining developed at least locally with CO₂ rich fluids which probably boiled during deposition. Such conditions are conducive to metal deposition, especially Au if present in solution, the crushed and concentrated fines in Figure 30 confirm this, with a significant Au tail present, assays are pending. The current field program includes geological mapping which should resolve the relationships of these features, there is a strong structural control with all areas of mineralisation identified.

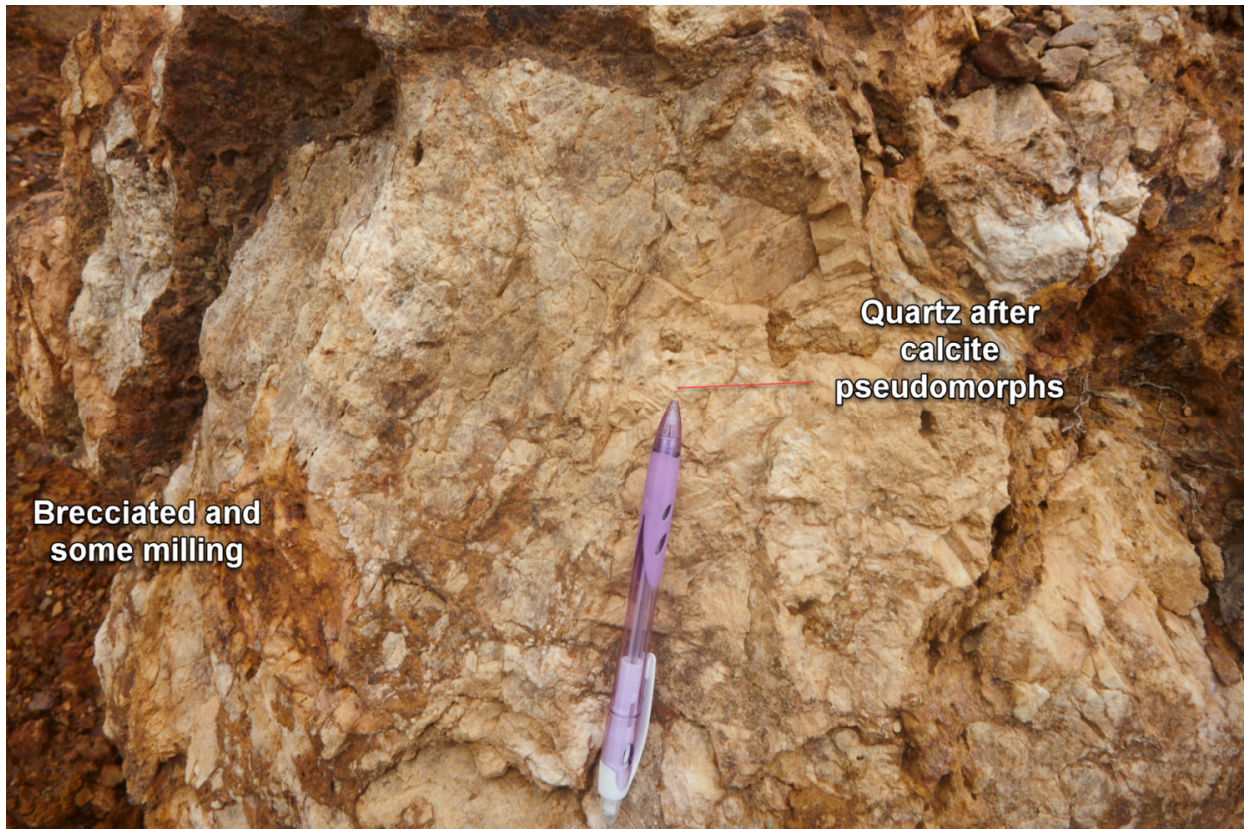


Figure 29, Discrete quartz after calcite pseudomorphs indicative of fluid boiling with the controlling fractures. Note also some evidence of multiphase brecciation and local milling of transported vein fragments

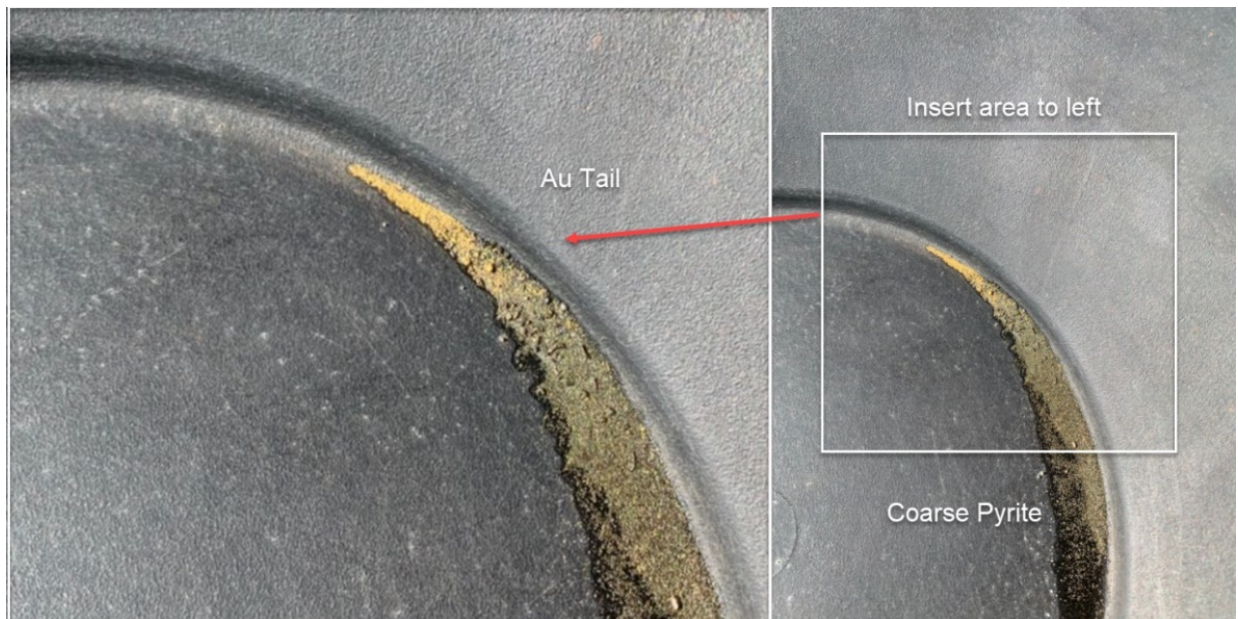


Figure 30, A typical panned concentrate from hammer milled prepared quartz vein material, note the extensive pyrite tail and the ~10mm Au tail created from gravity washing

The area displays strong regional and local structural controls, there is a N-S to NNE trending corridor of extensive hydrothermal veining with associated sulphides and visible Au which will form an early target of the current exploration program. At a more regional scale there is a WSW-ENE secondary topographic fabric

marked by a chain of resistive knobs which probably reflect less erosive geology, access to recent high quality airborne magnetic data should provide a base to develop exploration structural frameworks at a local scale.

The exploration program through April-July, 2022 has identified several insitu areas of orogenic veining which have either returned anomalous assays or have been prepared in the field, and panned revealing visible Au. At one location, the Mine Shaft Prospect mineralised orogenic quartz veining with visible Au has been observed in several samples, Figure 31.



Figure 31, Coarse Au within massive orogenic quartz, mineralisation has developed within fractures within the veining and at the selvage contact with the argillaceous shales, Mine Shaft prospect, Tenggaraoh

Mineralisation falls on both sides of the north-south trending drainage divide, Figure 26, a regional magnetic high in this area suggests the possible presence of a shallow intrusive body. Early exploration results are encouraging, and systematic and detailed exploration of the drain systems is now required in a several areas. At the Mine Shaft prospect, a trenching program will provide geometric control allowing the design of a series of shallow <100m RC holes to further explore this vein system. Due to the character of the mineralisation screen fire assaying will be required.

12 RISKS & OPPORTUNITIES – IRON ORE MINING

12.1 Risk Assessment

With the cutback through the northern end of the deposit ground stability monitoring is required to provide early warning of possible developing points of ground failure. Coupled with a much increased in pit catchment area bench drains will need to be implemented to manage water ingress, especially during high intensity rainfall events.

12.2 Opportunities

Several geophysical anomalies, potential field and electrical (IP-Resistivity) identified west of the known zones of mineralisation present near term close to mine exploration opportunities. Iron ore exploration on the other licences require additional work to understand their resource potential.

12.3 Exploration Upside

At Chaah recent exploration drilling has highlighted further potential strike extensions of the main Chaah hematite ore zone, changing geological controls through the southern extension has allowed mineralisation to develop out laterally from the principal vertical controls within the central area of the deposit. This widening has developed at shallow depth, and if additional continuity can be demonstrated, this area would offer a lower strip ratio.

12.4 Resources

Significant opportunity exists to improve the robustness of the resource model through the gathering of good quality structural data from the Diamond drilling as well as in-pit mapping. It was clear from this round of modelling that there are major controlling structures that need to be defined and correctly modelled to manage the resource estimation further.

Additional opportunities exist in the better management of the assay data as well as improved logging standards and use of the recommended logging templates. The resource modelling process was negatively impacted by unclear data, specifically on the distinction between sampled, unsampled and barren holes.

Correct orientation of holes normal to mineralization trends will allow the removal of sub-optimal drilling data.

12.5 Reconciliation

Truck counting is not considered appropriate due to the clear deviation between surveyed volumes mined and truck-count tonnes of ore delivered. Improved ore tracking such as weigh bridge or optical overhead scanners of the truck bed coupled with ore and waste density measurements would be more appropriate.

Additionally, the mine technical team has commenced an internal review of the quarterly survey data captured across the mine by the external consulting surveyor.

12.6 Operational Flexibility

With the ongoing cut back operations through the north-western block of the Chaah deposit access to new ore zones will be achieved later this year. The cutback on the southern extension is now allowing access to the central ore zone, although additional cutbacks are required to the east and west to optimise access, a pit optimisation study is recommended. The most southern block is comparatively shallow and has demonstrated strike and plunge continuity.

12.7 Commodity Price Upside

Ongoing geopolitical risks in Eastern Europe and the recovery of Chinese industrial output following the COVID pandemic should see in the medium-term consolidation of iron ore prices.

12.8 Commodity Diversification

Clearly the advancement of SAM group into precious metals provides the opportunity to decouple the group from the volatility of the iron ore sector. The areas now secured for the gold exploration program have been historically under explored, most focus has been in the central gold corridor discovered and more systematically explored over the last century. Early results at Tenggaroh have been encouraging and moving that program into the next phase of more detailed exploration (drilling) could reshape the understanding of gold mineralisation potential in this area.

13 CONCLUSION & RECOMMENDATIONS

13.1 Conclusions

A review of all in mining costs verses sales for the FY2022 that sales over all identified costs produce a current margin of 27.6%. Resource definition exploration through the same period has increased the combined Indicated and Inferred Resource from 6.3Mt in 2021, to 15.7Mt (above 30% Fe) as of the end of July 2022. This substantial increase in Resources has significantly improved the LOM of the operation.

Ongoing resource step out drilling on the southern extension ore zone and the scheduled additional drilling directly north of the pit high wall should further improve the global Resource inventory at Chaah. Datgeo used earlier reports and tabulated data from Derisk 2019-2021 Annual Report and operational data SAM.

The Mao'kil deposit appears to offer the opportunity of a second ore source while cut back operations advance at Chaah. The geological understanding of the deposit should be advanced to a similar level as Chaah to fully understand the potential of the deposit. A geological review is currently in progress which could lead to additional recommendations.

The Tenggaraoh Gold Project is an early-stage orogenic gold exploration project which has yielded some encouraging results including 2 areas of insitu gold mineralisation. The program is advancing to more detailed exploration which should lead to the identification of several drill targets by December 2022.

13.2 Recommendations

The in-mine exploration of the last two years has both identified additional resources and highlighted the potential for new near mine mineralisation extensions. The current drilling program at the southern end of the deposit needs to be completed as this area can provide additional near-term ore with less pre-stripping requirements. The northern zone comprises two zones of open mineralisation, a deep extension to the NE, and a shallow extension to the NW.

In-pit grade control though trench/face sampling and geological mapping is a necessity to control the mining cuts and short-term planning. There is further clear need for improved material movement monitoring such as truck photogrammetry of the loads. This is fundamental to ensure that reconciliation between Mine and Mill and Mine and Resource is effectively managed. It would be prudent to consider a belt sampler for head grade control if this is not being performed in an appropriate manner.

Delineation of additional resources to the NW would be beneficial in reducing cut back costs given part of the ore zone is at very shallow depth. Resource definition work in this area should include:

- Additional RC drilling across the projected width of the mineralised corridor
- Follow up selective diamond drilling to tie in structures and detail the mineralisation
- New geological modelling and revision of the current 2022 Resource & Reserve model
- Classification and management of waste material based on 3 domains and respective densities
- Drill as close to perpendicular (90°) to the identified mineralization trends,
- Map the pits and survey in mapping results for use in resource modelling (and geotechnical slope management)
- Clearly identify in the database holes that have or have not been sampled.
- Capture and clearly log structures.
- Use the recommended logging standard.
- More density sampling across the full extent of the orebody is recommended. This can include co-ordinated grab samples from within the pit.

At the Mao'kil deposit, detailed geological modelling and assaying of current drill core to at least 75-100m depth is required to allow a better appraisal of the mineralisation and commence a preliminary resource study to advance the economic understanding of the deposit.

14 COMPETENT PERSON CONSENT & SIGN-OFF

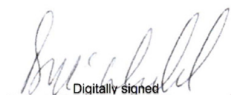
14.1 Exploration Results & Mineral Resource

I, Bruce Andrew McDonald, confirm that I am an Associate Senior Geological Consultant with Datgeo SDN BHD Malaysia, and have been responsible for the geological reporting forming part of the 2021/22 Annual Qualified Persons Report on the Malaysian Iron and Gold Assets of Southern Alliance Mining Ltd, with an effective date of 31 July 2022, in accordance with SGX Catalist Rule 422 (b).

I am a member of The Australasian Institute of Mining and Metallurgy and have over 40 years of industry experience. I have not been found in breach of any relevant rule or law of that institute, and not subject of any disciplinary proceeding that I am aware of. I am not the subject of any investigation that I am aware of that might lead to a disciplinary proceeding of any regulatory authority or any professional association.

I have read and understood the requirements of the JORC Code. I am a Competent Person as defined by the JORC Code, having greater than five years' experience that is relevant to the styles of mineralisation and deposit types described in this report, and to the activity for which I am accepting joint responsibility.

I verify that this report is based on and fairly and accurately reflects in the form and context in which it appears, the information in the supporting documentation relating to the Ore Reserve. I have reviewed this report, to which this Consent Statement applies, and I consent to the release of this report.



Digitally signed

Signature of Joint Competent Person (Exploration & Mineral Resource)

Date 28/09/2022

14.2 Mineral Resource

I, Justin Eric Glanvill, confirm that I am an Associate Senior Resource Analyst Consultant with Datgeo SDN BHD Malaysia, and have been responsible for the geological reporting forming part of the 2021/22 Annual Qualified Persons Report on the Malaysian Iron and Gold Assets of Southern Alliance Mining Ltd, with an effective date of 31 July 2022, in accordance with SGX Catalist Rule 422 (b).

I am a member of SACNASP and have over 25 years of industry experience. I have not been found in breach of any relevant rule or law of that institute, and not subject of any disciplinary proceeding that I am aware of. I am not the subject of any investigation that I am aware of that might lead to a disciplinary proceeding of any regulatory authority or any professional association.

I have read and understood the requirements of the JORC Code. I am a Competent Person as defined by the JORC Code, having greater than five years' experience that is relevant to the styles of mineralisation and deposit types described in this report, and to the activity for which I am accepting joint responsibility.

I verify that this report is based on and fairly and accurately reflects in the form and context in which it appears, the information in the supporting documentation relating to the Ore Reserve. I have reviewed this report, to which this Consent Statement applies, and I consent to the release of this report.



Digitally signed

Signature of Joint Competent Person (Exploration & Mineral Resource)

Date 28/09/2022

Datgeo SDN BHD

14.3 Mine Planning

I, Olivier Claude Varaud, confirm that I am an Associate Senior Mining Engineer Consultant with Datgeo SDN BHD Malaysia, and have been responsible for the pit optimization of the resource of the 2021/22 Annual Qualified Persons Report on the Malaysian Iron Asset of Southern Alliance Mining Ltd, with an effective date of 31 July 2022, in accordance with SGX Catalist Rule 422 (b).

I am a Fellow member of AusIMM and have over 35 years of industry experience. I have not been found in breach of any relevant rule or law of that institute, and not subject of any disciplinary proceeding that I am aware of. I am not the subject of any investigation that I am aware of that might lead to a disciplinary proceeding of any regulatory authority or any professional association.

I have read and understood the requirements of the JORC Code. I am a Competent Person as defined by the JORC Code, having greater than five years' experience that is relevant to the styles of mineralisation and deposit types described in this report, and to the activity for which I am accepting joint responsibility.

I verify that this report is based on and fairly and accurately reflects in the form and context in which it appears, the information in the supporting documentation relating to the Ore Reserve. I have reviewed this report, to which this Consent Statement applies, and I consent to the release of this report.



Digitally signed

Signature of Joint Competent Person (Exploration & Mineral Resource)

Date 28/09/2022

Datgeo SDN BHD

28 September 2022



15 APPENDICES

15.1 References

2019/20 Annual Qualified Persons Report of the Malaysian Iron Ore Assets of Southern Alliance Mining Ltd, Derisk Geomining Consultants 2020

2019/20 Annual Qualified Persons Report of the Malaysian Iron Ore Assets of Southern Alliance Mining Ltd, Derisk Geomining Consultants 2021

Aras Kuasa: Technical Review and Economic Assessment, Pahang and Johor, Malaysia – Malaysia Iron Ore Projects – Chini, Bukit Chondong, Chaah, Kuala Lipis, Report compiled by Ophir Mining & Exploration SDN BHD 2014

Characterisation of Gold from Mersing, Johore, Malaysia, British Geological Survey Technical Report WG/94/7, Mineralogy and Petrology Series

Combined Zircon, Molybdenite, & Cassiterite Geochronology and Cassiterite Geochemistry of the Kuntabin Tin-Tungsten Deposit in Myanmar, Society of Economic Geologists Inc, Economic Geology, V115, no 3, pp603-625

Distribution of commodities through Peninsular Malaysia, modified after Jabatan Minerals Geosains (JMG), 2010 Annual Report

JORC Code, 2012 Australasian code for reporting of Exploration Resources, Mineral Resources and Ore Reserves, Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geosciences and Minerals Council of Australia, December 2012

15.2 Abbreviations and Technical Terms

Au	Gold
CRIRSCO	Committee for Mineral Reserves International Reporting Standards (https://www.criresco.com/)
DEM	Digital Elevation Model
dmt	Dry metric tonnes
Domain	In geology & resource modelling, an area described in 3D with unique attributes compared to adjacent areas
Exploration Stage	An "Exploration Stage" prospect is one which is not in either the development or production stage
Fe	Iron
Indicated Mineral Resource	The term "Indicated Mineral Resource" refers to that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed
Inferred Mineral Resource	The term "Inferred Mineral Resource" refers to that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes
IP	Induced Polarisation, a geophysical imaging technique used to identify the electrical chargeability of subsurface materials, such as ore

JORC	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore
Kt	Thousands of tonnes (metric)
LOM	Life of Mine
Long Section	Typically, a vertical section of slice through the longitudinal direction of a geological feature
Measured Mineral Resource	The term "Measured Mineral Resource" refers to that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity
Mineralised Material	The term "Mineralized Material" refers to material that is not included in the reserve as it does not meet all of the criteria for adequate demonstration for economic or legal extraction
MI&I	Measured, Indicated and Inferred
Mt	Millions of tonnes (metric)
Porphyritic	Porphyritic is an adjective used in geology to describe igneous rocks with a distinct difference in the size of mineral crystals, with the larger crystals known as phenocrysts
ROM	Run of Mine
RPEE	Reasonable prospects of economic extraction – A requirement of JORC and other CRIRSCO reporting codes
SGX	Singapore Exchange Limited
\$	United States Dollar unless otherwise stated

15.3 SAM Licence Holdings

Property Name	Chaah 1	Chaah 2	Mao'kil 1	Mao'kil 2	Chaah Baru	Kota Tinggi	Mersing 216	Mersing 217	Mersing 218	Mersing 1815	Mersing 1816	Gunung Arong
Effective Ownership	100%	100%	100%	100%	100%	100%	85%	85%	85%	85%	85%	85%
Lease	ML 9/2014	ML 6/2014	ML 1/2018	ML 1/2021	ML 1/2019	ML 2/2019	EL 1/2022	EL 2/2022	EL 3/2022	EL 4/2022	EL 5/2022	EL 6/2022
Expiry Date	22/3/2024	22/3/2024	7/7/2023	27/4/2026	29/1/2024	3/7/2024	7/3/2024	7/3/2024	7/3/2024	7/3/2024	7/3/2024	7/3/2024
Area (hectares)	104.3	121.4	22.3	159.8	19.4	79.1	2028.390	2126.197	2245.360	2060.384	2066.990	7045.100
Commodity	Iron ore	Iron ore	Iron ore	Iron ore	Iron ore	Iron ore	Gold and Other Minerals	Gold and Other Minerals	Gold and Other Minerals	Gold and Other Minerals	Gold and Other Minerals	Gold and Other Minerals
Lease Holder	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar	DYMM Sultan Ibrahim Ibni Almarhum Sultan Iskandar
Location	Lot 3533 Mukim Chaah Bahru, Daerah Batu Pahat, Johor	Lot 3533 Mukim Chaah Bahru, Daerah Batu Pahat, Johor	Lot 1681 Mukim Bukim Bukit Kepong, Daerah Muar, Johor	PTD 7404 Mukim Bukim Bukit Kepong, Daerah Muar, Johor	Lot 1630 Mukim Chaah Baru, Daerah Batu Pahat, Johor	Lot 2855 Mukim Kota Tinggi, Daerah Kota Tinggi, Johor	PTD 216 HSD 6881, Mukim Tenggaraoh, Daerah Mersing, Johor	PTD 217 HSD 6882, Mukim Tenggaraoh, Daerah Mersing, Johor	PTD 218 HSD 6883, Mukim Tenggaraoh, Daerah Mersing, Johor	PTD 1815 HSD 6874, Mukim Tenggaraoh, Daerah Mersing, Johor	PTD 1816 HSD 6875, Mukim Tenggaraoh, Daerah Mersing, Johor	Sebahagian Hutan Gunung Arong, Mukim Penyabong, Tenglu, Triang dan Padang Endau
Development Status	Operating open pit mine	Operating open pit mine	Advanced Exploration, trial mining	Exploration site	Exploration site	Exploration site	Exploration	Exploration	Exploration	Exploration	Exploration	Exploration

15.4 Resource and Reserve Whittle Constraints

Material	ORE	RESCAT	VOLUME	TONNES	DENSITY	Fe	P2O5	Al2O3	SiO2
Not Economic (outside of all Economic Shells)	Waste	Waste	600,935,696	1,622,526,379	2.70	0	0	0	0
	Below Cutoff	Indicated	24,104	79,576	3.30	27.95	1.28	7.23	39.29
		Inferred	12,608	38,289	3.04	17.55	0.66	4.46	31.57
	>30% Fe	Indicated	732,888	2,893,494	3.95	45.42	0.75	3.59	21.25
		Inferred	612,896	2,494,145	4.07	48.33	0.76	2.72	20.40

Material	ORE	RESCAT	VOLUME	TONNES	DENSITY	Fe	P2O5	Al2O3	SiO2	
Reserve Shell (M&I)	Waste	Waste	17,109,216	46,194,883	2.70	0	0	0	0	
	Below Cutoff	Indicated	75,688	246,040	3.25	26.47	1.63	7.38	43.70	
		Inferred	38,584	126,693	3.28	27.44	0.56	7.52	45.60	
	>30% Fe	Indicated	1,933,040	8,014,014	4.15	50.50	1.59	2.64	18.19	
		Inferred	819,240	3,318,697	4.05	48.17	1.05	2.71	21.94	
	Total Waste			17,109,216	46,194,883	2.70				
	Mineralized waste (Inf)			857,824	3,445,390	4.02	47.41	1.03	2.88	22.81
	Total <30% Fe Ore			75,688	246,040	3.25	26.47	1.63	7.38	43.70
	Total Ore			1,933,040	8,014,014	4.15	50.50	1.59	2.64	18.19

Material	ORE	RESCAT	VOLUME	TONNES	DENSITY	Fe	P2O5	Al2O3	SiO2
Resource Shell (Mi&I) only	Waste		10,631,104	28,703,981	2.70	0	0	0	0
	Below Cutoff	Indicated	440	1,426	3.24	26.16	1.13	9.49	40.90
		Inferred	21,720	68,144	3.14	21.59	0.95	4.35	36.61
	>30% Fe	Indicated	317,088	1,297,421	4.09	49.06	1.32	3.19	19.31
Inferred		764,888	3,096,626	4.05	47.92	0.68	2.09	23.08	

Material	ORE	RESCAT	VOLUME	TONNES	DENSITY	Fe	P2O5	Al2O3	SiO2
Resource Shell (Mi&I) Including Reserves	Total Waste		27,740,320	74,898,864	2.70				
	Below Cutoff	Measured							
		Indicated	76,128	247,466	3.25	26.47	1.62	7.39	43.68
	>30% Fe	Inferred	60,304	194,837	3.23	25.39	0.70	6.41	42.46
		Measured							
			Indicated	2,250,128	9,311,435	4.14	50.30	1.56	2.71
		Inferred	1,584,128	6,415,323	4.05	48.05	0.87	2.41	22.49
			15,726,758		49.38	1.28	2.589	20	

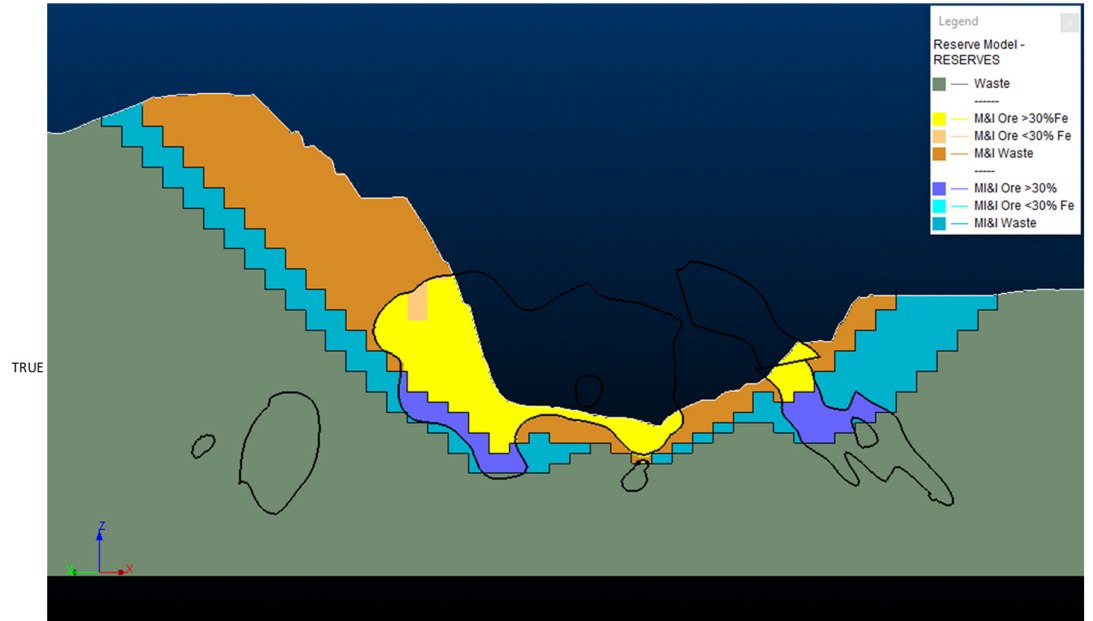
Model valid as at 220907

Constraints Chaah_RF=1_Ind_108\$Metal_P_MPS_090622.dxf

used: Chaah_RF=1_Ind_Inf_108\$Metal_P_MPS_090622.dxf

Density based on FE content regression

Waste set to default of 2.7



15.5 Laboratories and Analytical Methods

All samples for Fe, SiO₂, Al₂O₃, P, Mn, S, MgO, CaO, TiO₂, Na₂O, K₂O, Cr₂O₃ and V were sent to SGS (Malaysia) Sdn Bhd in Selangor. Assaying was done using their XRF78S method. Samples for LOI SGS used method PHY01K, and for SG method G_PHY06V. SGS operates certified analytical laboratories globally to all international reporting standards.

SGS Analysis Description

G_PHY06V	Specific Gravity (SG), solids, pycnometer
PHY01K	Loss on Ignition at approx. 1000°C by Gravimetric Analysis
XRF78S	XRF, Fusion, Whole Rock

15.6 QA/QC Procedures and performance

Sam have used a sequence of OREAS standards & blank material together with field duplicates of sample intervals. The specific OREAS material used is, OREAS401, OREAS40, OREAS404, laboratory performance of QA/QC samples submitted with the resource drilling samples.

At this time there are 180 individual QAQC results from 5 Standard samples – 1 duplicate and 4 Certified reference material standards (CRM) with between 6 to 12 samples per element and Standard. The record counts are summarised as follows:

		Element (%)								
		Fe	MgO	Al ₂ O ₃	SiO ₂	CaO	LOI	S	P	TiO ₂
QAQC Sample Type/Name	Field Duplicate	6	6	6	6	6	6			
	OREAS 40	8		8	8	8	8	8	2	2
	OREAS 21e	12								
	OREAS 401	6		6	6	6	6	6	6	2
	OREAS 404	6		6	6	6	6	6		6

Currently there is insufficient data to give a firm opinion on the quality of the sampling, sample preparation and analytical processes. Indications are that there are some performance issues that further QAQC data points will aid in defining.

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