TUNGSTEN WEST

ADMISSION DOCUMENT

THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION. If you are in any doubt as to the contents of this document or the action you should take, you are recommended to seek advice from your stockbroker, bank manager, independent financial adviser, solicitor, accountant or other person who is authorised under the Financial Services and Markets Act 2000 ("FSMA") or, if you are a person outside the United Kingdom, a person who is appropriately authorised in your jurisdiction.

This document is an admission document drawn up in accordance with the AIM Rules for Companies and has been prepared in connection with the proposed application for admission of the issued and to be issued share capital of Tungsten West Plc (the "**Company**" or "**Tungsten West**") to trading on AIM, the market of that name operated by London Stock Exchange plc (the "**London Stock Exchange**"). This document does not constitute an offer to the public requiring an approved prospectus under section 85 of FSMA and, accordingly, this document is not a prospectus for the purposes of FSMA and the Prospectus Regulation Rules and has not been approved by the Financial Conduct Authority ("**FCA**") pursuant to section 85 of FSMA.

Each of the directors (the "**Directors**") of the Company, whose names and functions appear on pages 27 to 29 of this document, and the Company accept responsibility, both collectively and individually, for the information contained in this document and for its compliance with the AIM Rules for Companies. To the best of the knowledge and belief of each of the Directors and the Company, who have taken all reasonable care to ensure that such is the case, the information contained in this document is in accordance with the facts and does not omit anything likely to affect the import of such information.

Application has been made for the Enlarged Share Capital to be admitted to trading on AIM. AIM is a market designed primarily for emerging or smaller companies to which a higher investment risk tends to be attached than larger or more established companies. AIM securities are not admitted to the Official List of the FCA. A prospective investor should be aware of the risks of investing in such companies and should make the decision to invest only after careful consideration and, if appropriate, consultation with an independent financial adviser.

The Ordinary Shares are not traded on any recognised investment exchange and no other such applications have been made. It is expected that admission to trading on AIM ("**Admission**") will become effective and dealings on AIM will commence in the Ordinary Shares at 8.00 a.m. on 21 October 2021.

TUNGSTEN WEST PLC

(Incorporated under the laws of England and Wales with registered number 11310159)

TUNGSTEN WEST

Placing of 64,419,972 New Ordinary Shares at an Issue Price of £0.60 each and Subscription of 580,028 New Ordinary Shares at an Issue Price of £0.60 each

and

Admission to trading on AIM

Financial & Nominated Adviser	*Joint Broker*	*Joint Broker*
STRAND HANSON	HANNAM&PARTNERS	VSA capital

Each AIM company is required, pursuant to the AIM Rules for Companies, to have a nominated adviser. The nominated adviser is required to make a declaration to the London Stock Exchange in the form set out in Schedule Two to the AIM Rules for Nominated Advisers. Prospective investors should read the whole of this document. Your attention is drawn, in particular, to the risk factors set out in Part 2 (*Risk Factors*) of this document. All statements regarding the Company's business, financial position and prospects should be viewed in light of such risk factors.

The London Stock Exchange has not itself examined or approved the contents of this document.

Upon Admission, the New Ordinary Shares, which comprise the Placing Shares and the Subscription Shares, will rank *pari passu* in all respects with the Existing Ordinary Shares including the right to receive all dividends and other distributions declared, made or paid on the Ordinary Shares after Admission.

In connection with this document, no person is authorised to give any information or make any representations other than as contained in this document and, if given or made, such information or representations must not be relied upon as having been so authorised.

Strand Hanson Limited ("**Strand Hanson**"), which is authorised and regulated in the United Kingdom by the FCA, has been appointed as nominated adviser to the Company, and H & P Advisory Limited (**"H&P"**) and VSA Capital Limited (**"VSA"**), which are authorised and regulated in the United Kingdom by the FCA, have been appointed as joint brokers to the Company (the **"Joint Brokers"**), in connection with the Fundraising and Admission only and will not be acting for any other person (including a recipient of this document) or otherwise be responsible to any person for providing the protections afforded to its clients or for advising any other person on the contents of this document or otherwise in respect of the proposed Placing, Subscription (together the Placing and the Subscription, the **"Fundraising"**) and Admission or any transaction, matter or arrangement referred to in this document. The responsibilities of Strand Hanson, as nominated adviser under the AIM Rules for Nominated Advisers, are owed solely to the London Stock Exchange and are not owed to the Company, any Director, or any other person in respect of their decision to acquire Ordinary Shares in reliance on any part of this document.

Apart from the responsibilities and liabilities, if any, which may be imposed on Strand Hanson by FSMA or the regulatory regime established thereunder, Strand Hanson and the Joint Broker do not accept any responsibility whatsoever for the contents of this document, including its accuracy, completeness or verification or for any other statement made or purported to be made by it, or on its behalf, in connection with the

Company, the Ordinary Shares, the Fundraising or Admission. Strand Hanson and the Joint Brokers accordingly disclaim all and any liability whether arising in tort, contract or otherwise (save as referred to above) in respect of this document or any such statement.

This document does not constitute an offer to sell, or the solicitation of an offer to buy or subscribe, any Ordinary Shares in any jurisdiction in which such offer or solicitation is unlawful and, in particular, this document is not for distribution in or into the United States of America, Australia, Canada, Hong Kong, Japan, New Zealand or the Republic of South Africa (each, a "**Restricted Jurisdiction**"). The distribution of this document in other jurisdictions may be restricted by law and therefore persons into whose possession this document comes should inform themselves about and observe any such restrictions. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdictions. The Ordinary Shares have not been and will not be registered under the applicable securities laws of any Restricted Jurisdiction, and, subject to certain exceptions, may not be offered, sold, resold, renounced, taken up or delivered, directly or indirectly, in, into or from any Restricted Jurisdiction or to any national of any Restricted Jurisdiction. This document should not be distributed, published, reproduced or otherwise made available in whole or in part, or disclosed by recipients to any other person, in, and in particular, should not be distributed to persons with addresses in, any Restricted Jurisdiction. No action has been taken by the Company or Strand Hanson that would permit an offer of any Ordinary Shares or possession or distribution of this document where action for that purpose is required. Persons into whose possession this document comes should inform themselves about and observe any such restrictions. Any failure to comply with these restrictions may constitute a violation of the securities law or other laws of any such jurisdictions.

None of the Company or the Directors are providing prospective investors with any representations or warranties or any legal, financial, business, tax or other advice. Prospective investors should consult with their own advisers as needed to assist them in making their investment decision and to advise them whether they are legally permitted to purchase Ordinary Shares.

A copy of this document is available, subject to certain restrictions relating to persons resident in any Restricted Jurisdiction, at the Company's website, www.tungstenwest.com.

Information for Distributors in the UK

Solely for the purposes of the product governance requirements contained within the FCA Handbook Product Intervention and Product Governance Sourcebook (the **"UK Product Governance Rules"**), and disclaiming all and any liability, whether arising in tort, contract or otherwise, which any 'manufacturer' (for the purposes of the UK Product Governance Rules) may otherwise have with respect thereto, the Ordinary Shares have been subject to a product approval process, which has determined that such securities are: (i) compatible with an end target market of (a) retail clients, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the EUWA, (b) investors who meet the criteria of professional clients as defined in Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA and (c) eligible counterparties as defined in the FCA Handbook Conduct of Business Sourcebook (**"COBS"**); and (ii) eligible for distribution through all distribution channels as are permitted by Directive 2014/65/EU (the **"UK Target Market Assessment"**).

Notwithstanding the UK Target Market Assessment, Distributors should note that: the price of Ordinary Shares may decline and investors could lose all or part of their investment; the Ordinary Shares offer no guaranteed income and no capital protection; and an investment in Ordinary Shares is compatible only with investors who do not need a guaranteed income or capital protection, who (either alone or in conjunction with an appropriate financial or other adviser) are capable of evaluating the merits and risks of such an investment and who have sufficient resources to be able to bear any losses that may result therefrom. The UK Target Market Assessment is without prejudice to the requirements of any contractual, legal or regulatory selling restrictions in relation to the Fundraising. Furthermore, it is noted that, notwithstanding the UK Target Market Assessment, Strand Hanson and the Joint Brokers will only procure investors who meet the criteria of professional clients and eligible counterparties. For the avoidance of doubt, the UK Target Market Assessment does not constitute: (a) an assessment of suitability or appropriateness for the purposes of COBS; or (b) a recommendation to any investor or group of investors to invest in, or purchase, or take any other action whatsoever with respect to the Ordinary Shares. Each distributor is responsible for undertaking its own UK Target Market Assessment in respect of the Ordinary Shares and determining appropriate distribution channels.

Information for Distributors in the EEA

Solely for the purposes of the product governance requirements contained within: (a) EU Directive 2014/65/EU on markets in financial instruments, as amended (**"MiFID II"**); (b) Articles 9 and 10 of Commission Delegated Directive (EU) 2017/593 supplementing MiFID II; and (c) local implementing measures (together, the **"MiFID II Requirements"**), and disclaiming all and any liability, whether arising in tort, contract or otherwise, which any "manufacturer" (as defined in the MiFID II Requirements) may otherwise have with respect thereto, the Ordinary Shares have been subject to a product approval process, which has determined that such securities are: (i) compatible with an end target market of retail investors and investors who meet the criteria of professional clients and eligible counterparties, each as defined in MiFID II; and (ii) eligible for distribution through all distribution channels as are permitted by MiFID II, or the **"EU Target Market Assessment"** (as defined in the MiFID II Requirements).

Notwithstanding the EU Target Market Assessment, Distributors should note that: the price of Ordinary Shares may decline and investors could lose all or part of their investment; the Ordinary Shares offer no guaranteed income and no capital protection; and an investment in Ordinary Shares is compatible only with investors who do not need a guaranteed income or capital protection, who (either alone or in conjunction with an appropriate financial or other adviser) are capable of evaluating the merits and risks of such an investment and who have sufficient resources to be able to bear any losses that may result therefrom. The EU Target Market Assessment is without prejudice to the requirements of any contractual, legal or regulatory selling restrictions in relation to the Fundraising. Furthermore, it is noted that, notwithstanding the EU Target Market Assessment, Strand Hanson and the Joint Brokers will only procure investors who meet the criteria of professional clients and eligible counterparties. For the avoidance of doubt, the Target Market Assessment does not constitute: (a) an assessment of suitability or appropriateness for the purposes of MiFID II; or (b) a recommendation to any investor or group of investors to invest in, or purchase, or take any other action whatsoever with respect to the Ordinary Shares. Each distributor is responsible for undertaking its own EU Target Market Assessment in respect of the Ordinary Shares and determining appropriate distribution channels.

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IMPORTANT INFORMATION

1. Overview

The contents of this document and any subsequent communications from the Company are not to be construed as legal, business, financial or tax advice. None of the Company, the Directors, Strand Hanson or any of their representatives is making any representation to any offeree, subscriber for or purchaser of any Ordinary Shares regarding the legality of an investment in the Ordinary Shares by such offeree, subscriber or purchaser under the laws applicable to such offeree, subscriber or purchaser. Each prospective investor should consult its own legal adviser, business adviser, financial adviser or tax adviser for legal, business, financial or tax advice respectively, in connection with the purchase or subscription of any Ordinary Shares. In making an investment decision, each prospective investor must rely on its own examination, analysis and enquiry of the Company and the terms of the Fundraising, including the merits and risks involved and whether an investment in any Ordinary Shares is suitable for it in light of its circumstances and financial resources and ability to withstand the loss of their entire investment.

Neither the delivery of this document nor any sale or subscription made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the Company since the date of this document or that the information in this document is correct as at any time after its date.

As required by the AIM Rules for Companies, the Company will update the information provided in this document by means of a supplement to it if a significant new factor that may affect the evaluation by prospective investors in the Fundraising occurs prior to Admission or if it is noted that this document contains any substantial mistake or inaccuracy. This document and any supplement thereto will be made public in accordance with the AIM Rules for Companies.

Neither the Company nor the Directors accept any responsibility for the appropriateness, accuracy or completeness of any information reported by the press or other media, nor the fairness or appropriateness of any forecasts, views or opinions expressed by the press or other media or any other person regarding the Fundraising or the Company. Neither the Company nor the Directors make any representation as to the appropriateness, accuracy, completeness or reliability of any such information or publication.

2. Notice to prospective investors

2.1 *Fundraising*

The distribution of this document in certain jurisdictions may be restricted by law and therefore persons into whose possession this document comes should inform themselves about and observe any such restrictions. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction.

Members of the public are not eligible to take part in the Placing. This document is for information purposes only and is being distributed only to and directed at persons in member states of the European Economic Area (the **"EEA"**) who are "qualified investors" within the meaning of Article 2(1)(e) of the Prospectus Regulation (Regulation EU 2017/1129 and amendments thereto) (**"Prospectus Regulation"**) (**"EEA Qualified Investors"**).

In the United Kingdom, no Shares have been offered or will be offered pursuant to the Fundraising to the public in the United Kingdom prior to the publication of a prospectus in relation to the Ordinary Shares which has been approved by the FCA, or otherwise in accordance with the UK version of the Prospectus Regulation, which forms part of the laws of England and Wales by virtue of the European Union (Withdrawal) Act 2018 and certain other enacting measures (the "**UK Prospectus Regulation**"), except that offers of Ordinary Shares to the public may be made at any time under the following exemptions:

(a) to legal entities that are Qualified Investors;

(b) to fewer than 150 natural or legal persons (other than Qualified Investors) in the United Kingdom; or

(c) in any other circumstances set out in the UK Prospectus Regulation, provided that no such offer of Ordinary Shares shall require the Company or any other person to publish a prospectus or supplementary prospectus pursuant to the UK Prospectus Regulation.

In addition, in the United Kingdom, this document is addressed to, and directed only at potential subscribers who (i) are investment professionals being persons who have professional experience in matters relating to investments falling within article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the **"Order"**), (ii) are persons who are high net worth companies, unincorporated associations etc. falling within article 49(2)(a) to (d) of the Order, (iii) are persons who are certified sophisticated investors falling within article 50 of the Order, or (iv) are other persons to whom it may otherwise lawfully be communicated (all such persons together being referred to as **"Relevant Persons"**).

2.2 ***Subscription***

In addition to the Placing, the Company has entered into the Subscription Letters with the Subscribers, who have agreed to subscribe for an aggregate of 580,028 New Ordinary Shares at the Issue Price.

3. Restriction on sale in the United States of America

The Ordinary Shares have not been and will not be registered under the US Securities Act nor under any applicable securities laws or with any securities regulatory authority of any state or other jurisdiction of the United States and may not, be offered, sold, taken up, re-sold, transferred or delivered, directly or indirectly into or within the United States absent registration under the Securities Act or an available exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and, in each case, in compliance with any applicable securities laws of any state or other jurisdiction of the United States. The Ordinary Shares are being sold (i) outside of the United States in "offshore transactions" in reliance on and in accordance with Regulation S under the Securities Act, and (ii) in the United States to a limited number of "qualified institutional buyers" (as defined in Rule 144A under the Securities Act). There will be no public offer of the Ordinary Shares in the United States.

The Ordinary Shares have not been approved or disapproved by the US Securities and Exchange Commission (the **"SEC"**), any state securities commission in the US or any other regulatory authority in the US, nor have any of the foregoing authorities passed on or endorsed the merits of the Fundraising or the accuracy or adequacy of the information contained in this document. Any representation to the contrary is a criminal offence in the US.

Each subscriber for Ordinary Shares, by subscribing for such Ordinary Shares, agrees to reoffer or resell the Ordinary Shares only pursuant to registration under the US Securities Act or in accordance with the provisions of Regulation S or pursuant to another available exemption from registration and qualification under applicable state securities laws, and agrees not to engage in hedging transactions with regard to such securities unless in compliance with the US Securities Act.

The above restrictions severely restrict purchasers of Ordinary Shares from reselling the Ordinary Shares in the US or to a US Person. These restrictions may remain in place or be reintroduced following the expiry of the one-year distribution compliance period following the date of Admission (under Regulation S) in relation to the Ordinary Shares, at the discretion of the Company for example in the event the Company issues additional Ordinary Shares under the same ISIN as the Existing Ordinary Shares.

4. Investment considerations

In making an investment decision, prospective investors must rely on their own examination, analysis and enquiry of the Company and this document, as applicable, including the merits and risks involved. The contents of this document are not to be construed as advice relating to legal, financial, taxation, investment decisions or any other matter. Investors should inform themselves as to:

- the legal requirements within their own jurisdictions for the purchase, holding, transfer or other disposal of the Ordinary Shares;

- any foreign exchange restrictions applicable to the purchase, holding, transfer or other disposal of the Ordinary Shares which they might encounter; and
- the income and other tax consequences which may apply in their own jurisdictions as a result of the purchase, holding, transfer or other disposal of the Ordinary Shares or distributions by the Company, either on a liquidation and distribution or otherwise. Prospective investors must rely upon their own representatives, including their own legal advisers and accountants, as to legal, tax, investment or any other related matters concerning the Company and an investment therein.

An investment in the Company should be regarded as a long-term investment. There can be no assurance that the Company's objectives will be achieved.

It should be remembered that the price of the Ordinary Shares, and any income from such Ordinary Shares, can go down as well as up.

This document and any accompanying documents should be read in their entirety before making any investment in the Ordinary Shares. All Shareholders are entitled to the benefit of, are bound by, and are deemed to have notice of, the provisions of the Articles, which are available at www.tungstenwest.com and which prospective investors should review.

5. Cautionary note regarding forward-looking statements

This document includes statements that are, or may be deemed to be, "forward-looking statements". In some cases, these forward-looking statements can be identified by the use of forward-looking terminology, including the terms "targets", "believes", "estimates", "anticipates", "expects", "intends", "plans", "may", "will", "could", "should" or, in each case, their negative or other variations or comparable terminology. They appear in a number of places throughout the document and include statements regarding the intentions, beliefs or current expectations of the Company and the Directors concerning, among other things: (i) the Company's objective, acquisition and financing strategies, results of operations, financial condition, capital resources, prospects, capital appreciation of the Ordinary Shares and dividends; and (ii) future implementation of active management strategies.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. Forward-looking statements are not guarantees of future performance. The Company's actual performance, results of operations, financial condition, distributions to Shareholders and the development of its financing strategies may differ materially from the forward-looking statements contained in this document. In addition, even if the Company's actual performance, results of operations, financial condition, distributions to Shareholders and the development of its financing strategies are consistent with the forward-looking statements contained in this document, those results or developments may not be indicative of results or developments in subsequent periods.

Prospective investors should carefully review Part 2 (*Risk Factors*) of this document for a discussion of certain factors that could cause the Company's actual results to differ materially, before making an investment decision. These factors should be read in conjunction with the other cautionary statements that are included in this document. For the avoidance of doubt, nothing in this paragraph constitutes a qualification of the working capital statement contained in paragraph 15 of Part 7 (*Additional Information*) of this document.

Forward-looking statements contained in this document apply only as at the date of this document. Subject to any obligations under the AIM Rules for Companies or any other applicable legal or regulatory requirements, the Company undertakes no obligation publicly to update or review any forward-looking statement, whether as a result of new information, future developments or otherwise.

6. Presentation of financial and other information

The financial information contained in this document, including that financial information presented in a number of tables in this document, has been rounded to the nearest whole number or the nearest decimal place. Therefore, the actual arithmetic total of the numbers in a column or row in a certain table may not conform exactly to the total figure given for that column or row. In addition, certain percentages presented in the tables in this document reflect calculations based upon the underlying information prior to rounding, and, accordingly, may not conform exactly to the percentages that would be derived if the relevant calculations were based upon the rounded numbers.

7. Currency presentation

Unless otherwise indicated in this document, all references to **"Pounds Sterling"** or **"£"** are to the lawful currency of the UK. References to "**US$**" are to the lawful currency of the United States of America.

Unless otherwise indicated, the financial information contained in this document has been expressed in Pounds sterling. The functional currency of the Company is Pounds sterling and the Company presents its financial statements in Pounds sterling.

8. Research and market data

Where information contained in this document has been sourced from a third party, the Company and the Directors confirm that such information has been accurately reproduced and, so far as they are aware and have been able to ascertain from information published by that third party, no facts have been omitted which would render the reproduced information inaccurate or misleading.

9. No incorporation of website information

Without limitation, the contents of the Company's website, www.tungstenwest.com, or any website directly or indirectly linked to the Company's website, do not form part of this document and prospective investors should not rely on such information.

10. Definitions

Capitalised terms in this document have the meanings ascribed to them in Part 9 (*Definitions*) of this document.

FUNDRAISING AND ADMISSION STATISTICS

Issue Price	£0.60
Number of Existing Ordinary Shares in issue at the date of this document	76,011,371
Number of Placing Shares to be issued by the Company pursuant to the Placing	64,419,972
Number of Subscription Shares to be issued by the Company pursuant to the Subscription	580,028
Number of Fee Shares to be issued by the Company	125,000
Number of Convertible Loan Note Shares to be issued by the Company on Admission	35,935,200
Enlarged Share Capital immediately following Admission	177,071,571
Percentage of Enlarged Share Capital represented by the Placing Shares	36.38 per cent.
Percentage of Enlarged Share Capital represented by the Subscription Shares	0.33 per cent.
Percentage of Enlarged Share Capital represented by the Convertible Loan Note Shares	20.29 per cent.
Percentage of Enlarged Share Capital represented by the New Ordinary Shares	57.07 per cent.
Percentage of Enlarged Share Capital held by the Directors*	18.88 per cent.
Percentage of the Enlarged Share Capital not in public hands	55.91 per cent.
Number of Ordinary Shares pursuant to the Warrants and Options on Admission	26,454,347
Gross proceeds of the Fundraising	£39.0 million
Estimated net proceeds of the Fundraising receivable by the Company**	£35.9 million
Market capitalisation of the Company at the Issue Price on Admission	£106.2 million
AIM TIDM	AIM:TUN
ISIN	GB00BP6QM557
SEDOL code	BP6QM55
LEI	213800QNV72HX3JAFC56

* Including associates and related parties.

** Net proceeds receivable by the Company are stated after bearing commissions, other estimated Fundraising related fees and expenses, which are estimated to amount to approximately £3.1 million excluding VAT.

EXPECTED TIMETABLE OF PRINCIPAL EVENTS

Publication of this document	15 October 2021
Issue of New Ordinary Shares, Fee Shares and Convertible Loan Note Shares	21 October 2021
Admission and commencement of dealings in the Ordinary Shares	8.00 a.m. on 21 October 2021
Credit of New Ordinary Shares into CREST accounts	8.00 a.m. on 21 October 2021
Dispatch of definitive share certificates (where applicable) in respect of the Fundraising	By 4 November 2021[1]

All times referred to in this document are, unless otherwise stated, references to London (GMT) time. All times and/or dates referred to in this document are subject to change without further notice at the discretion of the Company and Strand Hanson.

[1] Date 10 working days from Admission.

DIRECTORS, COMPANY SECRETARY AND ADVISERS

Directors	Robert Norman Ashley Mark Edward Thompson Maximillian (Max) Campbell Denning Anthony Nigel Widdowson Francis Patrick Harcourt Johnstone Richard William Macfarlane Maxey Grace Elanor Stevens David Connal Cather
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Registered Office	Shakespeare Martineau LLP 6th Floor, 60 Gracechurch Street London EC3V 0HR
Company website	www.tungstenwest.com
Financial and Nominated Adviser	Strand Hanson Limited 26 Mount Row London W1K 3SQ
Joint Brokers	H & P Advisory Limited Ground Floor 2, Park Street London W1K 2HX
	VSA Capital Limited 15 Eldon Street London EC2M 7LD
Legal advisers to the Company	Mayer Brown International LLP 201 Bishopsgate London EC2M 3AF
Legal advisers to the Nominated Adviser and Joint Brokers	Bird & Bird LLP 12 New Fetter Lane London EC4A 1JP
Auditors	PKF Francis Clark LLP North Quay House Sutton Harbour Plymouth Devon PL4 0RA
Reporting accountants	PKF Littlejohn LLP 15 Westferry Circus Canary Wharf London E14 4HD
Competent person	AMC Consultants (UK) Limited 1 Bell Street Maidenhead Berkshire SL6 1BU

Public relations advisers	Camarco 3rd Floor, Cannongate House 62-64 Cannon Street London EC4N 6AE
Registrar and receiving agent	Neville Registrars Limited Neville House Steelpark Rd Halesowen B62 8HD

PART 1

INFORMATION ON TUNGSTEN WEST

1. Summary

Tungsten West is the 100 per cent. owner and operator of the historical Hemerdon tungsten and tin mine located near Plymouth in southern Devon, England. The Hemerdon Mine represents the world's third largest tungsten mineral resource, with a JORC Code (2012) compliant Mineral Resource Estimate of approximately 325Mt at 0.12 per cent. WO_3.

The Hemerdon Mine was most recently operated by Wolf Minerals, a company formerly listed on the Australian Stock Exchange and traded on AIM, which invested over £170 million into the development of the mine and mineral processing facilities, producing tungsten and tin between 2015 and 2018. Wolf Minerals ran into a number of operational and financial difficulties, which ultimately led to them applying to enter voluntary administration in October 2018. The Company acquired the Hemerdon Mine out of a subsequent receivership process in 2019.

Following its acquisition of the Hemerdon Mine, the Company completed a significant amount of work to enable it to understand and address the issues historically experienced by Wolf Minerals, including a 6,113m geological exploration drilling programme and several technical studies. This work programme supported an updated Mineral Resource Estimate and then an Ore Reserve Estimate following the completion of a Bankable Feasibility Study in March 2021.

The Company identified a number of reasons which it believes contributed to the failure of the previous operations, including, *inter alia*, poor mineral process route design leading to reduced plant availability with significant downtime, onerous offtake contracts where Wolf Minerals was being penalised for not meeting promised product specification and tonnages, and the overgeneration of mineral fines as a result of using attrition equipment which created slimes from the brittle tungsten minerals extracted, rendering a significant amount of tungsten unrecoverable.

The Company's financial model estimates planned capital expenditure and corporate commitments of £44.6 million for improvement works at the Hemerdon Mine, which the Board believes will enable the Company to recommence operations with significantly improved operational efficiencies and financial profitability. The planned capital expenditure programme includes several process plant upgrades, which are expected to significantly improve the efficiency of the plant, completion of certain improvement works previously initiated by Wolf Minerals and the full refurbishment of the existing plant structure to make it fit-for-purpose.

Tungsten West's business plan also includes selling the significant volumes of aggregates that are produced as a by-product from the mineral processing plant at the Hemerdon Mine. Historically, this aggregate material was treated as a waste product and stored on site in a mine waste facility. The Company has formed a specialist business unit, Aggregates West, to manage the screening and sale of aggregates derived from the mineral processing plant, which is expected to generate additional stable cash flows over the life of mine and beyond, and thereby further increase the Group's profitability.

The CPR model estimates an 18.5 year life of mine, generating free cash flows of £489 million, a NPV (5 per cent. discount rate) of £272 million and an IRR of 45 per cent. The ramp up in production is planned to commence in Q4 2022, reaching steady state production within eight months, when the steady state operations are estimated to produce approximately 3.5ktpa WO_3 and 388tpa Sn generating an average of £34 million EBITDA per annum over the life of the Hemerdon Mine.

Tungsten West has conditionally secured US$49 million (approximately £36.0 million) in project financing from Orion, comprising:

- US$21 million (approximately £15.4 million) investment repayable by reference to revenue derived from metal and aggregates; and
- US$28 million (approximately £20.6 million) senior secured debt facility.

One of the conditions to the financing is a minimum equity fundraise of, in aggregate, £25 million. The Company has therefore conditionally raised £39.0 million before expenses pursuant to the Fundraising in order to provide the balance of the funding required to finance the capital expenditure and working capital required to recommence mining operations at the Hemerdon Mine. Further details of the Orion Senior Loan Agreement and the Orion Investment can be found in paragraphs 11.19 and 11.20 of Part 7 (*Additional Information)*. Further details of the Fundraising can be found in paragraph 14 of this Part 1 (*Information on Tungsten West*).

2. Group structure

The Company was incorporated in England and Wales on 16 April 2018 and later designated to acquire the Hemerdon Mine and recommence operations. The Company holds its interest in Hemerdon via its wholly owned subsidiary, Drakelands Restoration, a company incorporated in England and Wales. Tungsten West Services, also incorporated in England and Wales, provides mining services to Drakelands Restoration.

3. History of the Group and its assets

The Hemerdon Mine

The Hemerdon Mine has a history spanning over a hundred years with tin and copper mining activity in the local area stretching back to the bronze age and reaching a peak in the 19^{th} century. The presence of tungsten in mines located in the Tamar valley led to pioneering research into the metal by local metallurgist Robert Oxland at this time, leading to the development of the first commercial uses for tungsten.

Despite earlier acknowledgement of the presence of tungsten at the Hemerdon Mine, exploration and development of the site only commenced during World War I, due to a surge in demand for tungsten metal to produce armaments. Accordingly, the first mining operations on site commenced in 1915 and lasted four years, following which the Hemerdon Mine was placed on care and maintenance due to depressed post-war metal prices. In the 1930s, there was a pre-emptive increase in demand leading up to the commencement of World War II and operations recommenced, with the Hemerdon Mine subsequently being by nationalised and rapidly expanded on a significant scale to provide tungsten product for the war efforts. However, difficulties with the hastily built mill and the re-establishment of foreign sources of tungsten led to the operation again being placed on care and maintenance in June 1944.

The Hemerdon Mine saw some renewed interest during the Korean war during the early 1950s, however, there was minimal activity on site until a drilling programme by Hemerdon Mining and Smelting (UK) Ltd. (a subsidiary of Hemerdon Mining and Smelting Limited of Bermuda) ("**HMS**") attracted the interest of AMAX Exploration of the UK Inc. (a wholly owned subsidiary of AMAX Inc.) ("**AMAX Exploration**"). HMS entered into a 50:50 joint venture with AMAX Exploration and rapidly developed the project to feasibility study level in 1983. After a protracted planning process, necessary permissions were granted in 1986, however, this coincided with a crash in metal prices associated with the collapse of the International Tin Council, such that the project was not investigated further until Wolf Minerals commenced operations at the Hemerdon Mine in 2007.

Wolf Minerals

In December 2007, Wolf Minerals acquired the Hemerdon Mine and land usage rights via its wholly owned subsidiary, Wolf Minerals (UK). Wolf Minerals subsequently undertook sufficient work to produce a definitive feasibility study which was published in 2011 and obtained financing to develop the Hemerdon Mine, with construction commencing in 2014, followed by commercial production commencing in mid-2015. However, the operation was beset by a series of technical difficulties due to an oversimplification of the deposit geology, poor mineral process route design and significant issues with reduced plant availability leading to significant downtime. Significant work was undertaken to remedy these issues during Wolf Mineral's tenure with several geological and geo-metallurgical work programmes leading to an advanced appreciation of the deposit nuances and their relationship to the beneficiation process. However, due to a combination of these operational issues, high levels of debt, the overgeneration of mineral fines as a result of using attrition equipment which created slimes from the brittle tungsten minerals extracted (rendering a significant amount of tungsten unrecoverable), and an onerous offtake agreement, Wolf Minerals ran into financial difficulties. After failing to agree a restructuring with its key stakeholders, on 10 October 2018, Wolf Minerals (UK) entered into voluntary administration and immediately ceased trading. On 17 October 2018, a Court Order was issued for the winding up of Wolf Minerals (UK), which entered into a receivership process.

The Company

Tungsten West was incorporated on 16 April 2018 in England and Wales and the company remained dormant for a year, following which the founding directors decided to use the Company to secure an option to buy the Hemerdon Mine and recommence operations.

Shortly following Wolf Minerals (UK) entering into receivership, Hargreaves Services Plc offered to buy the asset base out of receivership. The bid was accepted and, in Q1 2019, the Hemerdon assets were transferred to a new company named Drakelands Restoration Ltd, which was a wholly owned subsidiary of Hargreaves Services. Tungsten West commenced discussions with Hargreaves Services to acquire the Hemerdon Mine through the acquisition of Drakelands Restoration and, on 18 November 2019, entered into an exclusive option agreement in order to complete due diligence and allow the Company to negotiate with third party stakeholders in relation to the acquisition of Drakelands Restoration.

Following extensive negotiations with multiple interested parties, on 29 November 2019, the Company exercised its option to acquire 100 per cent. ownership of Drakelands Restoration and entered into the Drakelands SPA. The consideration was £2.8 million for Drakelands Restoration plus an additional £2.6 million for associated land and property. Drakelands Restoration also agreed to enter into the Mining Services Contract with Hargreaves UKS, which includes a fee of £8.0 million payable at £1.0 million per annum for the eight-years following commencement of mining operations or from 29 November 2021, whichever comes earlier. It was also agreed that a £1.0 million payment would be made by the Company to the secured lenders, which released all future claims in respect of the Hemerdon Mine by such lenders. Summaries of the key terms of the Hargreaves Option Agreement and the Drakelands SPA are set out in paragraphs 11.9 and 11.10 of Part 7 *(Additional information*) of this document.

Furthermore, on 29 November 2019, the Company entered into an escrow agreement that related to a historical restoration bond that had been paid by HCC International Insurance Company Plc to the Environment Agency to secure the restoration obligations of Wolf Minerals in relation to the Mine (the "**EA Restoration Bond**"). Following the insolvency of Wolf Minerals, the receiver demanded payment of approximately £12.2 million under the EA Restoration Bond, which was paid into an escrow account (the "**Escrow Account**") on 2 April 2019. In connection with the acquisition of Drakelands Restoration, the EA Restoration Bond was terminated and the remaining money, approximately £11.4 million, was paid into the Escrow Account (the "Escrow Fund"). An escrow agent was appointed to hold the Escrow Fund and the Company agreed to top up the Escrow Fund by a further £1.8 million. The balance in the Escrow Account is approximately £13.2 million. The Escrow Funds are held as security for Drakelands Restoration's obligations to restore the Mine under the planning permission and under the Mine Lease.

Following the acquisition of Drakelands Restoration, Tungsten West commenced a technical work programme to support the Bankable Feasibility Study, with an initial core team of technical personnel being progressively supplemented by a dedicated maintenance and refurbishment team, initiating plant overhaul activities in January 2020. In September 2020, the Company commenced a multi-phase drilling programme utilising both Reverse Circulation and Diamond Drilling techniques to complete 6,113m of resource expansion and exploration drilling. This work programme supported an updated Mineral Resource Estimate and then an Ore Reserve Estimate following the completion of a Bankable Feasibility Study in March 2021.

In June 2021, the Company completed a pre-Admission investment round raising approximately £3.7 million before expenses (the "**Pre-Admission Investment**"), which was deployed in ordering long lead time items required to re-establish operations and for general working capital purposes. In July 2021, the Company completed the Pre-Admission Reorganisation, as part of which in September 2021, the Company converted to a public company in order to effect Admission. Further details of the Pre-Admission Investment and the Pre-Admission Reorganisation are set out in paragraph 3 of Part 7 (*Additional Information*) of this document.

4. The Hemerdon Mine

The Hemerdon Mine is located approximately 10km north-east of Plymouth, near the town of Plympton, in Devon, England. The site is located to the north of the villages of Sparkwell and Hemerdon and is adjacent to the large china clay pits near Lee Moor. The Hemerdon Mine consists of the asset base that previously was established, developed, and operated by Wolf Minerals. Wolf Minerals invested over £170 million to develop the operations, which include a mineral processing plant and all the associated infrastructure for an operating mine.

Drakelands Restoration's registered title to the mine and surrounding properties consists of 35 wholly owned freehold titles and one leasehold title, the locations and boundaries of which (together with the titles of the Mine Lease Landlords over which rights are granted by the Mine Lease) can be seen in Figure 1 below.

The freehold title to the mineral rights and associated surface areas is held by the Hemerdon Mining Association and the Mine Lease runs until 9 February 2044. Under the Mine Lease, Drakelands Restoration will pay an indexed linked annual certain rent; a royalty of 2.25 per cent. of the net smelter return on tungsten and tin produced and sold; and a 5 per cent. royalty on aggregates from the Hemerdon Mine to the Hemerdon Mining Association. The 2.25 per cent. royalty increases to 2.5 per cent. if the price received by Drakelands Restoration for APT is in excess of US$300/mtu (effectively requiring the APT price to be in excess of US$385/mtu, assuming a 78 per cent. payability for tungsten) on tungsten and tin produced and sold from the Hemerdon Mine. The 5 per cent. royalty will be payable on aggregates produced and sold regardless of the tungsten price. Drakelands Restoration will pay a royalty pre-payment of £1.0 million upon closing project finance for the recommencement of the Hemerdon Mine, which is expected to be met on Admission as a result of the entry into the Orion Senior Loan Agreement and the Orion Investment (further details of which are set out in paragraphs 11.19 and 11.20 of Part 7 (*Additional information*)). The rights under Mine Lease for Drakelands Restoration to carry out mineral operations are currently suspended (save for the operation of a pilot plant and the re-process of tailings and the working and sale of secondary aggregates). Drakelands Restoration may recommence mining operations at any time on notice provided it has materially complied with its obligations in relation to the restoration security and subject to the payment of the above advance royalty sum of £1.0 million.

In addition, Drakelands Restoration holds a lease over the property known as Bude Farmhouse neighbouring the Hemerdon Mine for a term expiring on 30 November 2023, by which date Drakelands Restoration is obliged to have purchased the freehold of Bude Farmhouse for the base sum of £675,000 excluding VAT (subject to indexation under the retail prices index). Bude Farmhouse is one of the properties subject to the Section 52 Planning Agreement referred to below in this paragraph 4 of this Part 1.

Drakelands Restoration has entered into further contracts for purchase of additional areas adjoining the Hemerdon Mine:

- a conditional contract dated 29 November 2019 to purchase freehold land adjacent to the Hemerdon Mine for use as an explosives store for the Hemerdon Mine for the sum of £123,320. Completion of the purchase is conditional upon mining operations at the Mine having re-commenced by 30 November 2023; and
- a contract to purchase the freehold of Bude Farmhouse referred to above in this paragraph 4 of this Part 1.

Drakelands Restoration has substantially agreed the key terms of an option agreement which it has not yet entered into but is expected to be entered into between the South Extension Option Grantors (1), the Existing Lease Grantors (2), Drakelands Restoration (3) and the Company (as the guarantor) (4) (the "**Proposed Southern Extension Option**"). Pursuant to the Proposed Southern Extension Option, it is proposed that Drakelands Restoration will take, in event that planning permission is granted for a southern extension to the Hemerdon Mine, a new lease of the existing Hemerdon Mine and additionally the area within the southern extension and to purchase the surface land within the southern extension – such option to run for an initial 5 year period from the grant of the Proposed Southern Extension Option with the possibility of Drakelands Restoration extending the option period for a further 4 years. The Directors expect that the formal documentation in relation to the Proposed Southern Extension Option will be entered into in Q4 2021.

The Company has a residential lease of the property known as Galva House, Hemerdon Village for use as a management residence for a term expiring on 30 November 2022. It has also entered into an option dated 1 December 2020 to purchase the freehold of Galva House, such option expiring on 30 November 2022. The option is to purchase the property at market value plus a premium of £50,000.

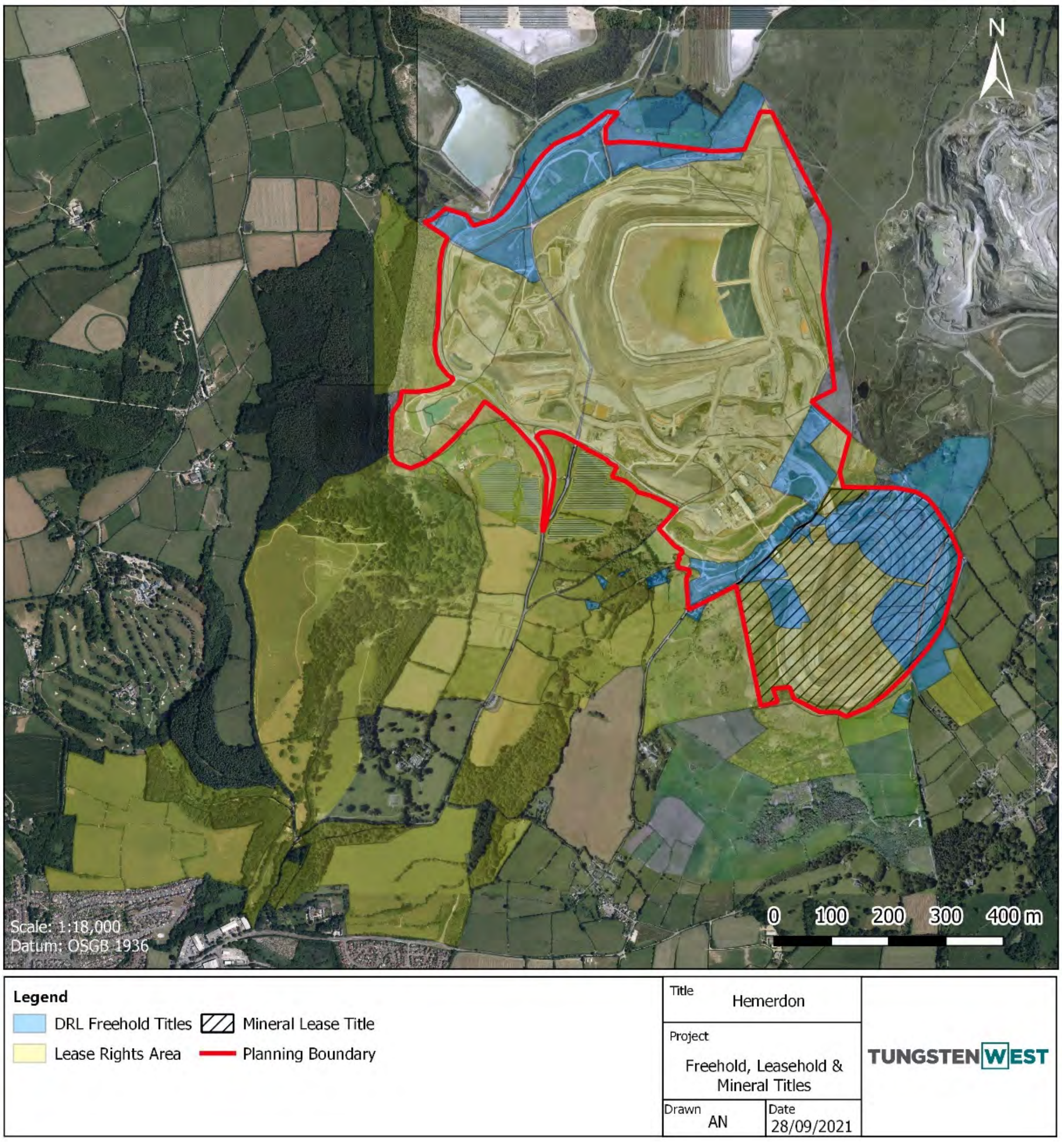


Figure 1: Tungsten West's freehold title and mineral lease areas

Geology

The Hemerdon deposit comprises a granite intrusive surrounded by Devonian metasediments, metavolcanics, and mafics which are collectively defined as killas and consists of a steeply dipping mineralised granite approximately 1.2km in strike and 100m wide. The upper portion of the granite has been altered, resulting in kaolinization of the upper granite. Exploration previously focused on the granite host however works undertaken by Tungsten West into the killas has defined mineralisation in both the granite and adjacent killas host rocks resulting in a higher confidence in the geological and grade continuity of the mineralisation.

The mineralisation comprises both WO_3 and Sn and is developed as a sheeted-vein complex centred around the main Hemerdon Granite. Tungsten mineralisation primarily occurs in the form of the mineral ferberite, an iron-rich end member of the manganese-iron wolframite solid solution series. The distribution of the mineralisation can be nuggety, which has resulted in a volume-variance effect whereby smaller sample volumes display greater grade variability.

The ferberite mineralisation can be friable when subjected to impact or comminution forces generating smaller size fractions. The friable nature of the ferberite impacted the previous processing operations through inadvertent autogenous grinding within the attrition scrubber and subsequent losses of fine-grained ferberite to the Mine Waste Facility.

Tin mineralisation is contained within the mineral cassiterite and is associated both with the WO_3 mineralisation along with tourmaline stringers that strike east to west and are sub-vertical, and which postdate the main mineralisation. These tourmaline cassiterite stringers are predominantly located in the north of the deposit.

Mineral Resources

Two Mineral Resource Estimates have been undertaken for the Hemerdon deposit by Mining Plus. One estimate encompasses the remaining in-situ mineralisation of the main open pit mine, whilst a second estimate relates to the tailings material contained within the Mine Waste Facility. The Mineral Resource Estimates for both deposits have been reported in accordance with the JORC Code (2012). The Mine Waste Facility Mineral Resource has been classified as an Inferred Mineral Resource and is not included in the current mine plan.

Hemerdon Deposit

The proposed mining method for the Hemerdon deposit is an open-pit operation in-line with previous mining operations at the site. A geological model was developed by Mining Plus with input from Tungsten West, comprising the granite and killas units. Further domaining was undertaken to represent the kaolinization of the granite, and the different killas units.

To determine that the Mineral Resources have reasonable prospects for eventual economic extraction they have been reported on a minimum WO_3Eq cut-off grade utilising WO_3 and Sn grades based on the parameters shown in Table 1 below. Mineral Resources for the granite-hosted mineralisation are reported at a cut-off grade of 0.065 per cent. WO_3Eq, whilst killas hosted mineralisation is reported at a cut-off grade of 0.079 per cent. WO_3Eq.

	Price (US$/t)	*Recovery (%)*	*Payable (%)*	*Recoverable Price (US$/t)*	*Payable Price (US$/t)*	*Payable Price Ratio*
WO_3	50,000	60	78	29,995	23,396	1.000
Sn	25,000	44	90	11,013	9,911	0.424

Table 1: Hemerdon WO_3 metal equivalent parameters (Source: CPR, table 3.8)

In addition to the in-situ mineralisation, a number of granite stockpiles were accumulated over the course of operations between 2015 and 2018, largely as a result of an elevated (over 2 per cent.) Fe content which was deleterious to the previous processing circuit. Additional stockpiles exist from the cessation of the previous operations containing ROM material, materials associated with crushing and ore sorting, and metallurgical stockpiles.

A summary of the Mineral Resource Estimate for the Hemerdon deposit, including the killas and stockpiled material is set out in Table 2 below:

Domain		*Granite*	*Killas*	*Stockpiles*	*Total*
Cut-off grade ($WO_3EQ\%$)		0.065	0.079	N/A	
Measured	Tonnes (Mt)	33.7	7.9	0.9	42.5
	WO_3 (%)	0.18	0.12	0.21	0.17
	Sn (%)	0.03	0.04	0.05	0.03
	WO_3 EQ (%)	0.19	0.13	0.23	0.18
	WO_3 Metal (MTU)	5,911,298	932,557	181,660	7,025,514
	Sn Metal (Kt)	10.8	2.8	0.5	14.1
Indicated	Tonnes (Mt)	84.2	39.4	–	123.6
	WO_3 (%)	0.15	0.1	–	0.13
	Sn (%)	0.02	0.03	–	0.03
	WO_3 EQ (%)	0.16	0.12	–	0.15
	WO_3 Metal (MTU)	12,509,573	4,101,280	–	16,610,853
	Sn Metal (Kt)	19.3	12.5	–	31.8
Measured & Indicated	Tonnes (Mt)	117.9	47.4	0.9	166.1
	WO_3 (%)	0.16	0.11	0.21	0.14
	Sn (%)	0.03	0.03	0.05	0.03
	WO_3 EQ (%)	0.17	0.12	0.23	0.15
	WO_3 Metal (MTU)	18,420,871	5,033,837	181,660	23,636,368
	Sn Metal (Kt)	30.1	15.2	0.5	45.8
Inferred	Tonnes (Mt)	41.3	117.4	–	158.7
	WO_3 (%)	0.11	0.1	–	0.1
	Sn (%)	0.02	0.03	–	0.03
	WO_3 EQ (%)	0.12	0.11	–	0.11
	WO_3 Metal (MTU)	4,517,272	11,832,440	–	16,349,712
	Sn Metal (Kt)	9.9	32.7	–	42.7

Table 2: Hemerdon Mineral Resources as at 7 December 2020 (After: Mining Plus, 2021a) (Source CPR: Table ES2)

Mine Waste Facility

During the course of the previous operations, there were inefficiencies noted within the process plant that resulted in losses of WO_3 and Sn to the Mine Waste Facility. The main metal losses were related to the plant being inefficient at recovering the main tungsten-bearing mineral ferberite, which is friable, and resulted in metal recovery losses as fines to the Mine Waste Facility.

Mining Plus has taken into account the potential for economic extraction of the material contained within the Mine Waste Facility considering not only the economic potential of the contained WO_3 and Sn, but also the saleability of the aggregate sand material within the Mine Waste Facility. Any reprocessing of the contents of the Mine Waste Facility would be through dredging, whereby the material would be mined and processed in its entirety, therefore no cut-off grades have been applied. A summary of the Mine Waste Facility Mineral Resources is provided in Table 3 below.

Domain	*Tonnes*	*WO_3 (%)*	*Sn (%)*	*WO_3 mtu*	*Sn Tonnes*
2	278,300	0.21	0.04	58,000	110
3	557,700	0.20	0.02	111,500	120
4	1,887,700	0.18	0.02	341,700	440
5	332,800	0.16	0.03	52,400	90
6	151,300	0.18	0.03	27,200	40
Total Inferred	**3,207,800**	**0.18**	**0.02**	**590,800**	**800**

Table 3: Hemerdon MWF Mineral Resource summary (Source: CPR Table ES3)

Mining and Ore Reserves

Historically, mining was undertaken though conventional, contractor-operated open-pit methods (drill, blast, load-and-haul) which commenced in 2015 and ceased in October 2018.

The Bankable Feasibility Study details updates to the pit optimisation, ultimate pit design, staged pit designs, and LOMP for re-opening of the operations and Ore Reserves. The LOMP has a total mine life of approximately 18.5 years, with 16.5 years of processing granite ore followed by approximately two years of processing the stockpiled killas ore. Waste rock is hauled to the Mine Waste Facility which is planned to be used as a combined waste and killas ore stockpile facility.

The mining operation is planned to commence in H2 2022 and ramp-up to mining rate of 10Mtpa between Year 2 and Year 6. A maximum mining rate of 12Mtpa is then reached between Year 6 and Year 12, followed by a reduction due to increase in depth in the open pit and an associated reduction in strip ratio.

The total Proved and Probable Ore Reserve Estimate is summarised in Table 4 below and comprises 63.3Mt at 0.18 per cent. WO_3 and 0.03 per cent. Sn, reported at a cut-off grade of 0.098 per cent. WO_3Eq for granite and 0.134 per cent. WO_3Eq for killas. The Ore Reserve Estimate includes 0.9Mt of existing granite ore stockpiles generated during previous mining operations on-site.

Category	*Cut-off (%WO_3Eq)*	*Tonnes (Mt)*	*WO_3 (%)*	*Sn (%)*	*WO_3Eq (%Eq)*	*Contained WO_3 (Mmtu)*	*Contained Sn (kt)*
Proved							
Granite	0.098	30.6	0.18	0.03	0.2	5.6	9.9
Killas	0.134	2.6	0.15	0.04	0.16	0.4	0.9
Stockpiles	–	0.9	0.21	0.05	0.23	0.2	0.5
Probable							
Granite	0.098	22.8	0.19	0.02	0.2	4.3	5.3
Killas	0.134	6.2	0.15	0.03	0.15	0.9	1.9
Stockpiles	–	–	–	–	–	–	–
Subtotal		**63.3**	**0.18**	**0.03**	**0.19**	**11.4**	**18.5**

Table 4: Hemerdon Ore Reserve Estimate (Source: CPR Table ES4)

Aggregates

The Hemerdon Mine operations will produce a significant quantity of aggregate by-products, which have historically been disposed of at a cost to the mine. The Company plans to use ore sorter rejects, DMS rejects, and spiral tailings to produce aggregate products for sale in local and regional markets. The Company has formed a wholly owned subsidiary, Aggregates West, which will operate the specialist aggregates arm of the business. Aggregates West has been actively engaging with the local market and has been selling product directly to customers since February 2021. The Aggregates West business will comprise a screening plant to sort crushed aggregate materials by size, demarcated storage facilities and a weighbridge. The Company has entered into a joint venture agreement with GRS Roadstone to sell aggregates within the UK. GRS Roadstone is one of Britain's leading traders and transporters of construction products and waste materials, trading and transporting approximately 20Mt of materials each year and has expertise in the marketing and distribution of aggregate products. Clients of GRS Roadstone include HS2, an important consumer of aggregates for the next ~20 years, ensuring longer term demand is underpinned by large infrastructure projects. Pursuant to the GRS Aggregates Contract, the aggregates derived from Hemerdon will be transported nationwide by road, sea and rail.

Details of the GRS Aggregates Contract are set out in paragraph 11.17 of Part 7 (*Additional Information*) of this document.

The Aggregates West operations are expected to maximise profitability from the Hemerdon Mine by utilising what was formerly considered a waste product, with the costs of mining (that a typical aggregates producer would bear) being covered by the Company's primary tungsten mining operations. In addition, sales of secondary aggregates are exempt from the UK Aggregate Levy (currently £2.00 per tonne) which is applied to primary producers.

Mineral processing

Wolf Minerals constructed a 500tph gravity processing plant at the Hemerdon Mine, which operated between 2015 and 2018. Figure 2 below shows and aerial view of the processing facilities at the Hemerdon Mine, which include: on the left of the image, the ROM pad and crushing building and the tertiary crushing building; in the centre, the main building houses comprise the classification area, the fine gravity area, the DMS area, the primary mill area, the concentrate milling and flotation area, and the concentrate processing area, with the thickener and water services visible on this side; on the right, the primary DMS floats bins and, in the foreground, the ancillary facilities including mining offices, substation, workshops, and stores.

Figure 2: Aerial view of the Hemerdon processing plant (Source CPR: Figure ES4)

A considerable amount of information relating to beneficiation testwork, mineralogy, geo-metallurgy, and process data exists for the Hemerdon granitic ore dating back approximately 100 years, including inputs from expert mineral processing firms, equipment vendors, mineralogy consultancies, educational establishments, and other organisations, form the majority of the up-to-date understanding of the ore and the processing methods applicable to it. The Company also has access to the data and experience generated by Wolf Minerals over the approximately three years' operations, including geo-metallurgical studies and extensive beneficiation testwork programme results, which has allowed a relatively quick diagnostic phase for the Company in determining which areas of the processing circuit and plant were fit-for-purpose and which parts required improvement.

Following the Company's review of the existing data from recent test programmes, extensive testwork and conducted studies during 2019 and 2020, the Company concluded that there were several critical areas in the mineral processing plant which needed modification to overcome the issues that hampered the previous operations:

- **Poor process route design and plant availability**: several items of equipment in the front end processes were deemed to be sub-optimal, inefficient and poorly designed, resulting in inefficiencies and frequent down time due to equipment failure. This was coupled with the little or no surge capacity between the process sections and minimal stockpiling capacity, meaning that it was not possible to de-couple areas of the plant and discrete equipment failures therefore caused downtime for the whole process plant. These issues resulted in an overall plant availability of 53 per cent. compared to an industry average of 81 per cent.
- **Low recovery rates**: the dominant WO_3 bearing mineral in the Hemerdon deposit is ferberite, typically a friable mineral which is liable to produce fine-grained size fractions through the application of attrition methods. The attrition scrubber being utilised previously led to a significant portion of the ferberite fines being lost to the Mine Waste Facility in the form of slimes. This contributed to an average WO_3 recovery rate of 33 per cent. compared to the then planned 58 per cent. recovery rate.
- **Low frequency noise and infrasound**: the screening facilities installed generated significant levels of infrasound (0Hz-20Hz) and low frequency noise (20Hz-200Hz). The oversize screens generated infrasonic sound pressure waves at very specific tones and when operating together at slightly

different speeds the screens would generate interacting sound pressure waves that could be felt within the local community.

Accordingly, the following areas were determined to require modification or attention prior to a restart of the operations at the Hemerdon Mine:

- Replacement of hybrid roll crushers in the primary and secondary crushers, with a mobile jaw-crusher to deliver crushed material to the plant ahead of a new screening and secondary crushing plant to prepare feed for the new ore sorter plant.
- Introduction of an XRT ore sorting plant which rejects approximately 70 per cent. of the ore feed at an early stage on the basis that studies of the ore indicated that much of the host granite rock was very weakly mineralised or un-mineralised; the tungsten and tin values being predominantly contained within the sheeted quartz veins.
- Removal of the installed attrition scrubber and large screening section which was unreliable and generated fine wolframite slimes that were not recovered from the process.
- Replacement of the front-end classification screens with smaller and quieter screens, made possible following the introduction of the ore sorting phase.
- Reduction of the low frequency noise and infrasound issues, through a programme of testwork and then modifications or mitigations to be applied to existing equipment and the introduction of new equipment.
- Completion of various projects which commenced under Wolf Mineral's tenure, including the Primary DMS feed stockpile, which will de-couple the feed preparation area from the concentrator, the upgrade of Primary DMS 1 and recommissioning of the scavenge DMS circuit including adjustment to the operation of the primary mill area.
- Refurbishment of all other parts of the process plant not impacted by the planned modifications.

During the review process, the Company also investigated a number of alternative technologies for various phases of the process with a view towards improvements in the efficiency of existing circuits, with encouraging results being obtained for several upgrade programmes. Whilst these upgrades do not form part of the Company's current plans, subject to further testing and the availability of sufficient financial resources, these may be implemented at a later stage to further improve process efficiencies and optimise profitability.

Mine Waste Facility

The integrated waste rock and tailings storage facility at the Hemerdon Mine is referred to as the Mine Waste Facility and the Company's current waste disposal strategy involves waste rock from the open pit being used to progressively construct the Mine Waste Facility embankments (adopting the downstream construction method), with tailings continuously deposited and contained in a lined basin within the Mine Waste Facility. To date, a total of approximately 10.6Mm^3 of waste rock and tailings have been deposited within the Mine Waste Facility, which has a current total permitted capacity of 104Mt (approximately 58.4Mm^3).

A feasibility study was produced in 2021 by SLR Consulting considering the viability of adapting the currently consented Mine Waste Facility with the intention of the recommencement of mining in 2021, which allows the placement and subsequent re-mining of the killas ores within the facility over a 20 year total life of mine. The ethos of the original 2016 SLR Consulting Mine Waste Facility design will be followed for the first 10-years of operations, with fine tailings disposed in the tailings basin and waste rock placed in the downstream confining embankment. After this point, the tailings are to be dewatered and co-disposed together with waste rock. Open-pit mining will cease in Year 17, which represents the peak storage capacity and will progressively reduce in size towards closure in Year 20 as the killas ore stockpiles are re-mined and the mined-out open pit is backfilled with tailings.

The Mine Waste Facility also has capacity to accommodate the temporary stockpiling of the ore sorter rejects and spiral tailings (granite aggregates), which can be sold by the Company's Aggregates West business as secondary aggregates. This both serves as an additional revenue stream and reduces the required stockpiling capacity of the Mine Waste Facility.

Environmental

The Company has completed extensive work to adequately characterise the ESG aspects of the Bankable Feasibility Study. On 26 August 2021 and 16 September 2021, the Company applied to the Environment Agency, which has designated the project as of "High Public Interest", for the approval of the water abstraction/discharge and mineral processing facility respectively. The application for the mine waste facility permit is scheduled for determination at the earliest on 20 December 2021, and the application for the mineral processing facility permit is scheduled for determination at the earliest on 19 January 2022.

The previous operations suffered from complaints relating to low frequency noise and infrasound produced at the processing facilities. The Company's upgrade plan includes modified screen decks with "chimneys" to prevent air compression under the screens. Testwork has also included noise cancelling devices that invert the screen sound by 180° to neutralise the emitting sound and in the last case totally enclosing the screens in a soundproof shield. These planned upgrades to the screening facilities, alongside the removal of the previous scrubber, trommel and large product screens, will have the dual effect of both reducing the fine slimes generation (therefore the wastage through attrition of friable wolframite) and also reduce the low frequency noise previously produced.

The Company is required to re-apply for a number of normal course permits in order to recommence operations. The Board consider it is highly unlikely that there will be any critical impediments to obtaining the necessary permits to recommence operations over the next c.12 months.

A summary of the permits is set out in paragraph 10 of Part 1 (*Information on Tungsten West*) of this document.

The Company has obtained the ISO14001 environmental management certification, ISO9001 in quality management systems and the ISO45001 occupational health and safety certification in respect of the Hemerdon Mine operations.

Forecast production

The Company plans to operate the Hemerdon processing facilities on a 24-hours per day, 7-days per week and 350-days per year basis, with an operating efficiency of 81 per cent. (90 per cent. availability with 90 per cent. utilisation). Throughput will be nominally 500tph of fresh feed which equates to 3.4Mtpa of ore into the crusher. The Company plans to operate the crusher during daytime only to minimise noise for the local communities. In addition, to enable 24/7 operations, the Company has planned several upgrades to the screening plant as set out above to significantly reduce low frequency noise and infrasound production.

The Company is planning to recommence mining operations at the Hemerdon Mine in H2 2022 and, in the initial eight-month ramp-up period, production will start at an estimated 30 per cent. of nameplate capacity, with approximately 9,040mtu of WO_3 and 12 tonnes of Sn metal being produced per month. The Hemerdon Mine is forecast to ramp up to full production after eight months, producing approximately 30,000mtu of WO_3 and 40 tonnes of Sn metal per month at steady state, targeting grades of 52 per cent. WO_3 and 55 per cent. Sn. Operations in December includes a 15-day shutdown for essential maintenance works, during which production levels are approximately halved. The Company expects that the initial 12-month period, including the ramp-up stage, will produce 258,163mtu of WO_3 and 343.7 tonnes of Sn.

The pit design encroaches on a small area of land which needs to be acquired from a third party and permits also need to be obtained, although any potential mineral rights and royalties involved with the purchase of the land are expected to be immaterial and access to that small area of land is not planned until Year 7 of the mine plan (being required by Year 12), therefore management are confident that this will not require any amendments to the pit design.

Sales and operating cost assumptions

The Company's model estimates LOM tungsten and tin metal production totals of 6.5Mmtu WO_3 and 7kt Sn and a long term price assumption of US$330/mtu WO_3 (prevailing price as at the date of this document is US$317.5/mtu), producing a tungsten concentrate which is accounted for by factoring the APT price by a payability factor of 78 per cent. for an over 50 per cent. concentrate. The Sn price used in the economic analysis is US$24,000 per tonne which is based on a 20 per cent. discount from the current June 2021 spot price of US$30,000 per tonne. The full production schedule and price assumptions are set out in the CPR in Part 6 (*Competent Person's Report*) of this document.

The Company has entered into offtake arrangements with Wolfram Bergbau and GTP for the sale of tungsten and with Afrimet Resources AG for the sale of tin, with the Afrimet Offtake Agreement also including an associated US$2 million pre-payment facility. Summaries of the key terms of the offtake agreements are set out in paragraphs 11.13 to 11.15 of Part 7 (*Additional Information*) of this document.

The aggregates production schedule is based on the total production of suitable process rejects from the operation. The Company has commissioned market studies and identified the potential to market up to 45 per cent. of annual production with the remainder being stockpiled to provide for longer term sales at the cessation of mining activities.

The LOM operating cost summary (excluding any expected cost reducing impact of expected by-product credits) is set out in Table 5 below:

Area	*LOM Average Operating Cost*	
	GBP/t ore	*GBP/mtu WO_3*
Mining	4.44	42.79
Process	7.25	69.89
G&A	1.46	14.05
Total	**13.15**	**126.73**

Table 5: Operating cost summary (Source: CPR Table ES11)

Capital costs

The total capital costs for the project are summarised in Table 6 below:

Area	*Capital cost (GBPm)*
Mining	3.5
Process plant rebuild	27.2
Process plant spares	5.0
On-site infrastructure	2.1
Indirect costs	2.7
Corporate commitments	4.2
Total	**44.6**

Table 6: Capital costs summary (Source: CPR Table ES10)

Project economics

The economic analysis demonstrates compelling positive cashflows over the life of mine, with £489 million free cash flow being produced. The Company's model shows a base case NPV10 of £161 million and IRR of 45 per cent. Using a 5 per cent. discount rate for the NPV, the Company's financial model produces a NPV of £272 million with a 45 per cent. IRR.

There are also a number of upsides estimated by management, where sufficient testing has not yet been completed and which have not been included in the Company's modelling, but represent potentially improved economics, including:

- Pit optimisation work illustrates the economic limit of the Hemerdon open pit is larger than that limited by current planning assumptions which the Board believes could add an additional c.14Mt of mineral inventory.
- The processed head grade for the Wolf Minerals operation was 0.21 per cent. WO_3, which is higher than both their original estimates and the Group's current reserves (estimated at 0.18 per cent. WO_3). This illustrates the potential for future positive reconciliation to resource and reserve grades when mining commences.

- Geo-metallurgical studies illustrate a consistent reduction in 'haematised' and 'spongy' ferberite with depth, both factors which have been directly linked to poor recoveries historically. This is supported by processing of fresh granite from underground development by AMAX Exploration, which achieved higher recoveries than those predicted in the Company's financial model.
- Hydrometallurgical test work completed to date indicates significant improvements in stage recoveries and product quality could be achieved by replacing the current refinery. If further test work is successful in scaling up these results, there are believed to be commercial opportunities linked with the Plymouth freeport zone whereby scrap tungsten could be recycled alongside Hemerdon concentrate with a dedicated Sodium Tungstate processing facility.
- The processing flowsheet for the killas hosted mineralisation has yet to be optimised, and given the sensitivity of the current killas resources and reserves to cut off grade, there is potential for improvements in metallurgical recovery to have a significant impact on the life of mine.
- The Company's financial model relies on the Wolf Minerals actual overhead costs which are believed to be inflated when compared to what can be achieved in the future operation.

5. Tungsten and the Tungsten Market

Tungsten is a silvery-white transition metal element with the chemical symbol W and atomic number 74. Tungsten is a rare earth metal known for its high density, melting point, and thermal conductivity. The primary applications for tungsten products can be classified into four main categories: carbides, mill products, alloys, and various chemical products. The abundance of tungsten in the Earth's crust is estimated to be 1.5 parts per million, a similar level to tin or molybdenum. The most significant tungsten producing country is China, which hosts over half of the world's total reserves.

Tungsten does not occur as a free metal and the ores of tungsten are split into two economically significant categories. Wolframite consists of a mixture of varying proportions, between 20 per cent. and 80 per cent. of each of the tungstates of iron and manganese, which have the chemical symbols $FeWO_4$ and $MnWO_4$. At each end of this range, a mineral with more than 80 per cent. $FeWO_4$ is called ferberite and a mineral with more than 80 per cent. $MnWO_4$ is called hübnerite. Scheelite, the second economically important mineral, is a calcium tungstate mineral, $CaWO_4$, which fluoresces a bright bluish colour under ultraviolet light.

Tungsten ore is extracted using two main mining methods. Surface (or open pit) mining removes the overlying soil and rock on the mineral deposit and gathers the ore deposits of tungsten that are close to the surface. For ore deposits further below the crust, horizontal shafts and tunnels are built, and the ore is extracted through underground mining. Tungsten ores extracted under either method are crushed, cleaned and treated with alkali, resulting in the production of tungsten trioxide (WO_3). The trioxide compound is then heated with either carbon or hydrogen gas to produce tungsten metal and carbon dioxide (CO_2), or tungsten and water (H_2O).

Tungsten carbides are separated into two categories. By sintering carbon and tungsten powder at c. 1500°C in a stream of hydrogen gas, tungsten carbide is made and possesses the chemical formula of WC or W_2C (dependent on whether one or two tungsten atom(s) are used). By cementing WC with nickel or cobalt, cemented tungsten carbides are made. Using a eustatic mixture composed of WC and W_2C, fused or cast carbides are formed.

Tungsten products can be divided into four major classes, depending on use: a carbide in cutting and wear-resistant materials, and hard-facing rods; mill products made from near-pure metal; an alloy constituent in high-speed and tool and die steels, superalloys, and nonferrous alloys; various chemicals and compounds for non-metallurgical applications. Figure 3 shows the split in the various end use applications for tungsten globally.

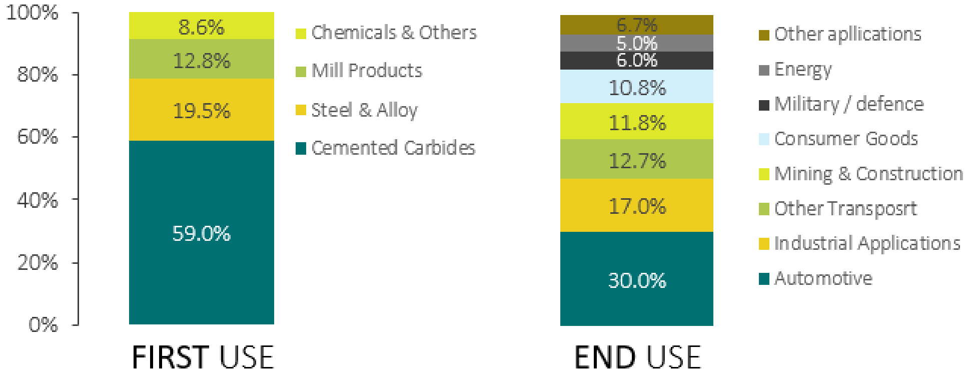


Figure 3: first and end use applications for tungsten by industry in 2018 (Source: Tungsten report prepared by Roskill)

Tungsten is usually referred to as an industrial metal due to its primary use within the tooling industry. The demand for tungsten remains relatively in line with industrial output and gross domestic product. Its unique properties of having one of the highest melting points and tensile strength make its application quite diverse.

Tungsten Supply

In 2020, the world's reserves of tungsten were 3,400,000 tonnes, with the most significant reserves being located in China (1,900,000 tonnes) and Russia (400,000 tonnes). Global production of tungsten in 2020 was 84,000 tonnes, with China dominating the market, producing 69,000 tonnes. Other significant market producers in 2020 were Vietnam (4,300 tonnes), Russia (2,220 tonnes) and Mongolia (1,900 tonnes).

Mine supply has followed a downward trend since 2015, primarily due to Chinese output dropping and the increase in recycling, which has now reached its economic limitations. Given that the primary production of tungsten concentrates is dominated by China and the breadth of applications that tungsten is used in, the metal sits towards the top of both US Geological Survey's Critical Minerals list (2020) and the European Commission's Critical Raw Materials list (2020).

Tungsten also forms part of the "3T" metals – tin, tungsten and tantalum – all of which are classified as conflict metals since they are produced in conflict areas by miners under duress. The traceability of metals is becoming more prominent as businesses focus in on their ESG credentials. The supply chain from mine to end user product can be complex, which means that tracing these metals, their origin and the ESG implications can be challenging.

Tungsten refineries in the western hemisphere face the challenge of trying to source a raw concentrate that's classified as a critical mineral from countries that have limited health and safety regulations and environmental controls. As has been illustrated in the copper and cobalt markets, increasing attention is focusing on the end user to source their raw materials responsibly with companies such as Google and Tesla being publicly criticised for sourcing their materials unsustainably. This trend is already being seen in the tungsten market, with Sandvik AB, the world's largest tool-producer, publicly announcing that it would reduce its CO_2 emissions linked to its products by 50 per cent. by 2030.

The Company expects that this movement towards sustainable products will lead to companies being required to obtain 'clean' sources of mineral concentrates. There are few stable supplies of tungsten concentrates in the western hemisphere and buying small quantities of concentrates from several sources generates complications with the refineries due to the requirement for blending and issues with quality control. As a result mineral concentrate producers who can provide a high volume feed of consistent quality are highly regarded in the market place.

The secondary market for tungsten (i.e. scrap) ranges between 25,000tpa to 30,000tpa tungsten. The secondary scrap market forms a major part of the tungsten value chain, especially in the western hemisphere given China's dominance in the supply of raw material. There are two main forms of secondary tungsten sources; soft scrap, which is a material generated when using tungsten grinding tools and hard scrap, which is material derived from used and worn-out hard metal tools.

Hard metal producers continually aim reduce the production of soft scrap by using near shape technology in tool production, alongside implementing internally closed cycles. Therefore, the availability of soft scrap for recycling is diminishing each year. With regards to hard scrap recycling, the collection of the used tools is expensive for what usually is only a small quantum of tungsten (compared to the other associated metals in hard tools) and therefore it is generally not cost effective when prices are low. With these pressures considered, the recycling rate of tungsten has reached its economic limit at approximately 50 per cent. to 55 per cent. During the last 10 to 15 years, in the western hemisphere, the growth of tungsten demand has been matched by increased volume of recycled material. Given that recycling has now reached its economic limit, the future requirement is expected to be based on primary feedstock from mines.

Tungsten Demand

Tungsten is a metal that, due to its unique properties, cannot be directly replaced in most of its applications without an increased cost or a loss in product performance, therefore the Board believe that the worldwide demand for tungsten is expected to grow in-line with the growth rate of general economy.

According to the British Geological Survey, global demand for tungsten is predicted to increase 3 per cent. to 7 per cent. annually. Given China's dominance in the supply of tungsten (over 80 per cent. of production in 2020), there is a trend to diversify leading to increased demand for tungsten raw material from western producers, which is forecast to increase significantly over the next years. Several of the world's existing tungsten mines have been in operation for over 100 years and their lifespan is coming to an (economic) end. Other existing mines are faced by sharply increasing mining costs. This is forecast to bring prices for tungsten concentrate higher. There is also increasing global demand for clarity over supply for ESG reasons and a demand to reduce carbon footprint for end users. As such, the Hemerdon Mine is expected to be well placed to provide clean, conflict free tungsten and tin to the global market.

6. Tin and the Tin Market

Tin is a soft silvery-white metal element with a blueish tinge, the chemical symbol Sn and atomic number 50. Tin is widely used in plating steel cans used as food containers, in metals used for bearings and in solder. The metal is scarce but not rare and is present in the igneous rocks of the Earth's crust to the extent of about 0.001 per cent. Tin occurs in grains of the native metal but chiefly as stannic oxide, SnO_2, in the mineral cassiterite, the only tin mineral of commercial significance. The metal is obtained from cassiterite by reduction (removal of the oxygen) with coal or coke in smelting furnaces. The oldest tin mines were in Cornwall but the most significant tin producing country is China, leading the world in tin production in the early 21st century, accounting for nearly half of all production. Upwards of 70 per cent. of refined tin production is accounted for by China, Indonesia and Malaysia and is expected to suffer a 10 per cent. year-on-year fall as a result of the COVID-19 pandemic. Tight supply is further exacerbated by logistic constraints in Myanmar and Chinese smelters have increased imports from the DRC, Bolivia and Australia according to the International Tin Association (the "**ITA**").

World tin production had been relatively stable for several years prior to COVID-19, with refined tin output between 330ktpa and 370ktpa. The ITA estimates mine production between 270kt and 310kt and some 50ktpa – 70ktpa of secondary (recycled) refined tin production. Whilst recycling is likely to grow with demand, there has been a lack of investment into recycling technology to extract tin in end-of-life electronics efficiently.

Crucially, tin is considered a critical metal within the US and EU and forms part of the 3T conflict metals (tantalum, tungsten and tin). With artisanal supply estimated by the ITA to be approximately 40 per cent. of tin production, accredited sources such as tin derived from Hemerdon could provide an important source of ethical and traceable tin for conscious technology companies and consumers.

Whilst the Board believe that there are sufficient tin resources estimated within the ground, there is a fundamental requirement for modern, sustainable mines that will require a higher price incentive to develop and support the upward trend in tin demand.

7. Aggregates and the Aggregates Market

Aggregates are materials used for mixing with cement, bitumen, lime, gypsum, or other adhesive to form concrete or mortar. The aggregate gives volume, stability, resistance to wear or erosion, and other desired physical properties to the finished product. Commonly used aggregates include sand, crushed or broken stone, gravel (pebbles), broken blast-furnace slag, boiler ashes (clinkers), burned shale, and burned clay. When using sand, crushed stone, or crushed slag screenings fine aggregates can be made. Coarse aggregates consist of gravel (pebbles), fragments of broken stone, slag, and other coarse substances. Fine aggregate is used in making thin concrete slabs or other structural members and where a smooth surface is desired whereas coarse aggregate is used for more massive members.

According to the Conservative Party's manifesto in 2019, the UK Government aims to 'level up every part of the UK' including investing in towns, cities and rural areas and creating freeports to help deprived communities. The Chancellor also recently confirmed that the UK infrastructure bank will be made permanent to help tackle local and regional economic growth. The bank will receive an initial £12 billion of capital and £10 billion of government guarantees in an aim to unlock more than £40 billion of private investment. The aim is to replace low-cost finance options offered as part of EU membership and advance large infrastructure projects.

The financial crisis of 2008 caused a sharp drop in large infrastructure projects and therefore demand. The UK's economic recovery plan in the wake of the COVID-19 pandemic, and indeed the plans of several major economies including the US, heavily revolves around acceleration of infrastructure programmes and also appears to mark the end of austerity policy. The Board believe that this focus on spending should provide upward pressure on aggregate demand and pricing.

8. Directors and Senior Management

Robert Norman Ashley, aged 71 (*Independent Non-Executive Chairman*)

Robert joined the Company in September 2021 as the Independent Non-Executive Chairman. He currently also acts as an Independent Non-Executive Chairman for Galena Asset Management S.A. and Galena Asset Management Pte. Ltd.

Robert began his career as the Private Secretary to Rt. Hon. Sir William McMahon CH MP, former Prime Minster of Australia. He then moved to a series of roles as a Money Market dealer at Inter Company Securities Pty Ltd and Ord Minnett before joining Rothschild Australia in Melbourne in the same capacity. Robert was seconded to Harris Trust and Savings Bank Chicago for training in foreign exchange and derivative instrument trading. Robert relocated to Sydney to assume senior trading and management positions with the Rothschild Group in Australia and Asia ultimately being appointed as a Managing Director of NM Rothschild & Sons and as global Head of Treasury from London. He was a member of the NMR Management Committee, the Executive Committee and the Credit Committee. He was Chairman of The London Gold Market Fixing Limited. Robert worked as a consultant for multiple companies and as a non-executive director of AIM listed companies Hidefield Gold plc and East West Resources plc (Ambrian Capital). He represented Galena interests as a non-executive director of Western United Mines Limited, Cornwall. Robert studied electrical engineering at Royal Melbourne Institute of Technology and the University of NSW before switching to a career in finance and banking.

His focus as Chairman will be ensuring effective oversight of the Company's strategy and key issues by the board of directors as well as maintaining efficient communications with Shareholders.

Mark Edward Thompson, aged 49 (*Executive Vice Chairman*)

Mark co-founded the Company in 2019 and is an experienced investor, trader, and executive in the natural resources sector with a background managing large portfolios of risk within the alternative assets space, investing in mining companies, providing strategic advice, and holding senior executive positions.

Mark began his career at Deutsche Bank in Metal Derivatives, futures and options market making team. Mark then moved to NM Rothschild & Sons where he was an Assistant Director and Head of Base Metal Options Trading, before moving to Trafigura Group / Galena Asset Management as Head of proprietary trading of base metals and bullion as well as being a Portfolio manager of GAM Metal Derivatives Fund, managing US$830 million. In 2008, Mark joined Apollo Management International LLP as a Partner managing approximately US$120 billion across Private Equity, Capital Market Funds and Hedge Funds. Mark holds a B.A. in Physics from the University of Oxford.

As at the date of this document, Mark holds the position of Executive Chairman. Conditional upon Admission, Mark will become Vice Chairman of the Company operating in an executive role. His focus as Vice Chairman will be coordinating the executive committee and supporting the Chairman to ensure the Company's strategy and key issues by the board of directors.

Maximillian (Max) Campbell Denning, aged 31 (*Chief Executive Officer*)

Max co-founded the Company in 2019 and has strong experience of Financial, Operational and Project start-ups as well as international experience in Africa, Southern America, and Europe, mainly in Mining and Finance. As part of his role as Chief Executive Officer of the Company, Max led the purchase of the Hemerdon Mine out of receivership.

Prior to founding the Company, Max started his career at Pan African Minerals Ltd as a Corporate Development Executive, where he assisted in raising an initial US$40 million in 2012 and a feasibility fund of US$25 million in 2013. Max then held various roles at the company resulting in being General Manger of Commercial based in Burkina Faso. From 2017 to 2019, Max acted as a Consultant to Brazil Tungsten Holdings Ltd in Brazil and West Africa Lime Company in Mali. Max holds an MSc in Accounting and Financial Management from Birkbeck, University of London as well as a B.A. in Economics & Politics from the University of Leeds.

His focus as Chief Executive Officer will be on continuing the successful growth of the Company through effective management. He will be supported by his executive committee in working closely with company employees, customer, and suppliers as well as Shareholders, investors, and the communities in which the Company operates.

Anthony Nigel Widdowson, aged 53 (*Chief Financial Officer*)

Nigel was appointed to the board of the Company in July 2021 as Chief Financial Officer. He has over 20 years' experience as a CFO within SME's, VC/PE backed and leveraged business across a variety of sectors including natural resources, construction, leisure and technology.

Nigel began his career as an Auditor in PricewaterhouseCoopers, before becoming a Corporate Finance Manager. On leaving PwC he worked as a Finance Analyst and in Strategy and Business Development in British Telecommunications plc and Cable and Wireless Communication plc respectively. Nigel then worked as CFO of Complinet Group Limited where he oversaw the business from start up through rapid global expansion to eventual sale. He then became CFO of Shoaibi Group, a US$0.5 billion turnover Oil and Gas business based in Saudi Arabia. Most recently Nigel acted as Group CFO for Horatio Investments Limited, a family office investment vehicle, and as Group Finance Director for Burrington Estates, a property developer with approx. £60 million turnover. Nigel holds a BSc. In Physiology and Pharmacology from Southampton University. He has been a member of the ICAEW since 1995.

His focus as CFO will be overseeing all financial aspects as well as internal auditing to ensure to continued good management and profitability of the company.

The Honourable Francis Patrick Harcourt Vanden-Bempde-Johnstone, aged 56 (*Non-Executive Director*)

Francis joined the Company as a non-executive director in May 2019 as part of his role as an Investment Adviser to Baker Steel Resources Trust Ltd, one of the Founder Shareholders.

Prior to this role, Francis started his career in corporate finance and mergers and acquisitions at Citibank and entered the mining business in 1989 with Cluff Resources plc where he became Group Projects and Operations Manager. Francis was a key member of the team who built Freda Rebecca, the largest gold mine in Zimbabwe, the Ayanfuri Gold Mine in Ghana and negotiated for and discovered the Geita Gold Mine in Tanzania. He joined Ridge Mining plc as Commercial Director and was an integral member of the team that undertook a feasibility study, financed and developed the Blue Ridge Platinum Mine in South Africa. Ridge Mining was acquired by Aquarius Platinum Ltd in July 2009 for £134 million.

Francis represents Baker Steel Resources Trust Ltd as a significant shareholder and will act as a Non-Independent Non-Executive Director.

Richard William Macfarlane Maxey, aged 43 (*Non-Executive Director*)

Richard joined the Company as a Non-Executive director in December 2020 and informally represents the Company's shareholders, Henry Maxey and Eden Rock.

Richard started his career as an Associate Consultant in the Transaction Services Group at PricewaterhouseCoopers Strategy Group, specialising in European commercial due diligence and strategy consulting. Having worked on several corporate and private equity transactions, Richard moved to Earlcrown Ltd, a private equity and property group with a range of portfolio investments, primarily in the consumer goods sector. Richard then worked for a South African family office, Vasari Global Ltd, as a principal, running the specialised private resources fund gaining extensive knowledge of and experience in the natural resources sector investing in public and private mining businesses worldwide. Richard currently works as a consultant investment advisor to an investment advisory firm, Eden Rock Group, that invests its proprietary capital with a focus on venture and early-stage private equity across a range of sectors. Richard holds a B.A. in Economics and Management from the University of Oxford and is a CFA charterholder.

Richard will act as a Non-Independent Non-Executive Director.

Grace Elanor Stevens, aged 44 (*Independent Non-Executive Director and Chair of the Audit and Risk Management Committee*)

Grace joined the Company in September 2021 as a Non-Executive Director and the Chair of the Audit and Risk Management Committee.

Grace qualified at Arthur Andersen and later moved to Deloitte & Touche as a Tax Manager, where she worked in corporate tax in a variety of sectors before transferring to the Real Estate, Travel and Tourism department. Grace then became the Group Tax Manager at Royal & Sun Alliance (RSA) where Grace was responsible for managing the tax affairs of the Group's Emerging Markets operations with expertise in international and M&A tax and transfer pricing. She most recently has worked for ten years at Legal & General Group (L&G) where she has been the Chief Taxation Officer since 2015. Grace holds a BA in Economics with Econometrics from the University of Kent at Canterbury and is ACA and CTA qualified with first time passes in each.

Her focus will be as Chair of the Audit and Risk Management Committee who will assist the Board in discharging its duties regarding the financial statements, accounting policies and the maintenance of proper internal business, and operational and financial controls.

David Connal Cather, aged 62 (*Senior Independent Non-Executive Director and Chair of the Technical and Remuneration Committees*)

David joined the Company in September 2021 as a Non-Executive Director.

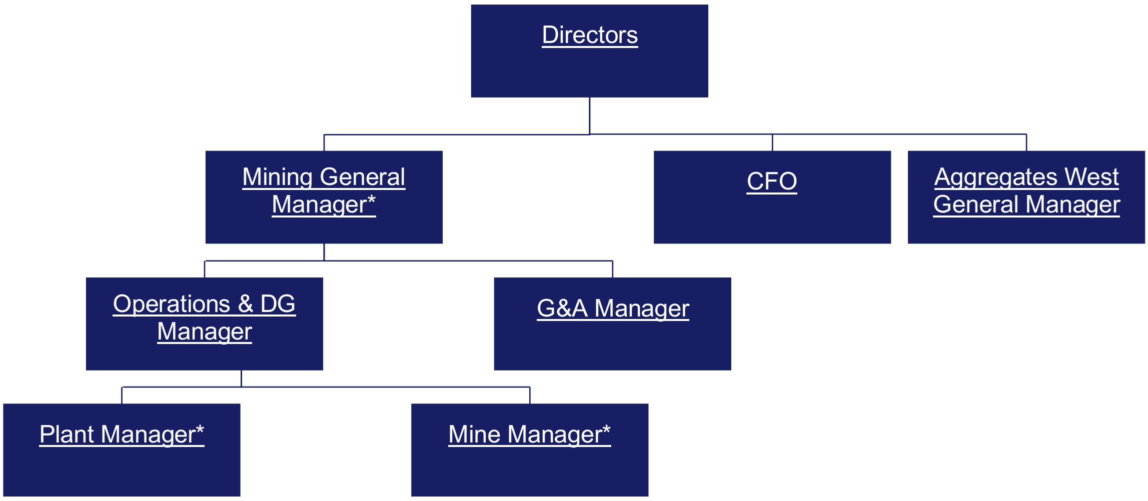
David was formerly CEO (Mining) of Abu Dhabi Capital Group, a private family office based in UAE and immediately prior to that was CEO of Avocet Mining plc, a LSE and Oslo listed gold production company with a 95,000oz per annum operating mine in Burkina Faso and an advanced development project in Guinea. David's previous roles include Chief Operating Officer of European Goldfields and being a member of a London based fund management team and various positions with Anglo American plc. He has participated in numerous acquisitions and IPOs of mining companies on various stock exchanges and has significant expertise in mine development. He is currently Non-Executive Chairman of Metals Exploration PLC, an Independent Director of JSC AK Altynalmas, a Kazakhstan listed emerging mid-tier gold producer and of Galantas Gold Corporation, a dual listed (AIM:TSX.V) Northern Irish underground gold developer.

Senior Management

James McFarlane, aged 37 (*Technical & Operations Director*)

James holds a MSc from the Camborne School of Mines in Mining Geology and has worked as both a production and exploration geologist in the UK, Ireland and Australia, and as a principal mining consultant across a range of commodities globally. He was formerly Mining Technical Services Manager at Hemerdon under Wolf Minerals.

9. Business structure



* These positions require recruitment.

10. Regulatory, planning and permitting overview

Mineral development proposals in the United Kingdom are subject to the planning process and the environmental regulatory regime; both regimes are separate but complementary. Planning permission controls the development and use of land, and the focus is whether or not the development itself is an acceptable use of the land and the impacts of those uses. Planning conditions within a planning permission can address some of the environmental issues that are incurred due to the mineral development such as noise, dust, traffic, site restoration and aftercare. More substantive environmental issues need to be controlled under the environmental permitting regime where such facilities could harm the environment or human health unless they are regulated.

In England, mineral development is regulated by the Town and Country Planning Act 1990. The planning permission for mineral development is the approval for such development and is granted and monitored by local MPAs. Planning consent is obtained through the preparation and submission of a planning application, which includes, in nearly all planning applications for mineral working, an environmental statement prepared as part of an environmental impact assessment process. This ensures that the MPA has sufficient information in respect of all relevant environmental matters impacting the site. The application is reviewed by the MPA following consultation with relevant statutory consultees and having regard to both national and local planning policies, environmental impacts and other material matters.

Separate licences and permits relating to mineral extract are required in the vast majority of cases. Such licences and permits are regulated by the Environmental Permitting (England and Wales) Regulations 2016. It is a separate but parallel process to planning permission and is used to ensure the operation of the development does not cause harm to the environment or human health. In England, the environmental regime is administered by the Environmental Agency. The Environment Agency also advises the MPA in setting environmental conditions on the planning permission as part of their function also as a statutory consultee in the planning process. The mine waste facility permit, water discharge permits, mineral processing permit, water discharge permit, water abstraction permit and water impoundment permits at Hemerdon Mine fall under the Environmental Permitting (England and Wales) Regulations 2016, the Water Resources Act 1991 (as amended), and the Environment Act 1995.

Planning permission for the operation of the Hemerdon Mine is in place by virtue of the permission DCC/3823/2015 granted on decision notice dated 16 February 2017 the variation of (i) condition 3 of planning permission 9/42/49/0542/85/3 to allow the continued extraction of tungsten and tin, the processing and disposal of mineral waste until 5 June 2036 and (ii) removal of condition 13 of planning permission 9/42/49/0542/85/3 to remove the restriction of the operating hours of the primary pressure at Drakelands (previously Hemerdon) mine.

In connection with the planning permission there is a planning agreement in place pursuant to Section 52 of the Town and Country Planning Act 1971 dated 5 June 1986 (the "**Section 52 Planning Agreement**"). The Section 52 Planning Agreement requires certain properties within or nearby the Hemerdon Mine to either (i) cease to be permanently occupied for residential purposes but only if those properties or any of them have been purchased by the operator; or (ii) have ceased to be permanently occupied for residential purposes. Drakelands Restoration either owns or leases the properties (or the land on which such property (now demolished) was situated) subject to the Section 52 Planning Agreement.

Further information in relation to environmental regulations and permits is set out in Part 6 *(Competent Person's Report*).

As a result of Wolf Minerals entering into the receivership process, a number of permits were forgiven or lapsed, accordingly the Company has re-applied for a number of operating permits. Although the permitting regime for a mine in the UK is complex, the Company is able to build on the historically negotiated and approved applications and, through its planned upgrade works, has also been able to demonstrably improve in areas where there were concerns with the previous operations. The Company has seen significant local support for the reopening of the Hemerdon Mine and the UK Government has also indicated its support as Hemerdon represents a strategic mineral resource project.

Mine Waste Facility Permit

The Company's waste disposal strategy involves waste rock from the open pit being used to progressively construct the Mine Waste Facility embankments, with tailings continuously deposited and contained in a lined basin within the Mine Waste Facility. Operations at Hemerdon were previously authorised by a bespoke Environmental Permit for a Category A Mine Waste Facility, issued by the Environmental Agency. The Mine Waste Facility was constructed to a high standard and there have been no known historical environmental issues associated with the Mine Waste Facility. The facility has been maintained during the interim care and maintenance period and the Company has recently been audited for its ISO14001 environmental management certification. The Company has applied for the re-enactment of the previous permit and is confident that the reinstatement of this permit will be forthcoming in a timely manner.

Mineral Processing Facility Permit

The activities within the mineral processing facility at Hemerdon fall under the Environmental Protection Act (1990) and the Environmental Permitting Regulations (2016). Wolf Minerals previously held a mineral processing facility permit regulating the crushing, grinding and processing of metal ore. During the operation of the mine under Wolf Minerals, a few items of equipment were installed which had created low frequency noise and infrasound, which disrupted local communities, leading to the Environmental Agency to designate the project High Public Interest. Such designation will follow a similar process as an ordinary determination, however, there may be an extended determination period of up to four months with a public consultation period of 4 weeks during the High Public Interest determination to allow interested parties to review and comment on the potential decision.

Since acquiring Hemerdon, the Company has undergone environmentally driven modifications and engaged in regular and constructive dialogue with both the local community and the Environmental Agency to ensure all previous concerns have been addressed and has recently reapplied for the mineral processing facility permit to be reissued.

Water Permits

All infrastructure for comprehensive water management of the site was previously established by Wolf Minerals and successfully operated during the previous three years of operations. The Company proposes that mining will recommence at the Hemerdon site and has obtained the approval of the various discharge permits, water impoundment licences, and water abstraction licences and is currently undertaking water monitoring to support the applications to re-secure the remaining necessary permits and licences. From the work to date, there are no known issues or changes in circumstance that would represent an impediment to obtaining the various water use and water abstraction permits and licences, therefore the Board is confident the final remaining applications will be forthcoming in due course.

11. Employees

Tungsten West Services currently employs 37 full time employees, five employees who work part-time and two who are engaged on fixed term zero hours contracts, all of whom are based at the Hemerdon Mine.

In the three years to 31 March 2021, the average number of employees of the Company have been:

	Year to 31 March 2019	*Year to 31 March 2020*	*Year to 31 March 2021*
Average number of employees	0	1	28

12. Use of proceeds and reasons for Admission

The Company believes that raising money in a public market context provides a signal of quality to prospective partners and customers, raises the profile of the business and its products and provides a supportive platform on which to grow the business further through in-licensing of additional technologies or selective acquisition as appropriate.

The Directors believe that the Fundraising and Admission will also provide an opportunity to align the interests of key stakeholders in the business.

The gross proceeds of the Fundraising, along with the Orion Financing, will be used by the Company as follows:

	£
Mining	3.5m
Process plant rebuild	27.2m
Process plant spares	5.0m
On-site infrastructure	2.1m
Indirect design and commission costs	2.7m
Corporate commitments	4.2m
Subtotal	44.6m
Settle Admission and Fundraising-related fees and expenses	3.1m
Contingency and working capital	27.1m
Total	75.0m

13. Selected historical financial information

The following financial information has been derived from the historical financial information contained in Part 3 (*Historical Financial Information*) of this document and should be read in conjunction with the full text of this document. Prospective investors should not rely solely on the summarised information set out below.

£	*As at 31 March 2021*	*As at 31 March 2020*
Assets		
Current assets:		
Cash and cash equivalents	3,499,580	399,359
Trade and other receivables	544,297	2,721,879
Total current assets	4,043,877	3,121,238
Property, plant and equipment	4,367,271	4,394,041
Other assets	17,658,089	17,585,260
Total assets	26,069,237	25,100,539
Equity and liabilities		
Total liabilities	24,325,587	22,469,713
Total equity	1,743,650	2,630,826
Total equity and liabilities	26,069,237	25,100,539

£	*Year Ended 31 March 2021*	*Year Ended 31 March 2020*
Revenues:		
Product sales	40,170	–
Total revenues	40,170	–
Operating expenses:		
Cost of sales	(4,426,818)	(3,351,482)
Administrative expenses	(2,511,811)	(777,123)
Other gains/(losses) and other operating income	(20,689)	(114,583)
Total operating expenses	(6,959,318)	(4,243,188)
Loss from operations	(6,919,148)	(4,243,188)
Net finance costs	(1,062,635)	(263,665)
Loss before tax	(7,981,783)	(4,506,853)
Income tax credit	–	1,075,520
Loss for the year	(7,981,783)	(3,431,333)

£	Year Ended 31 March 2021	Year Ended 31 March 2020
Operating activities		
Net cash flows from operating activities	(5,994,654)	(6,461,594)
Investing activities		
Net cash flows from investing activities	(132,730)	(5,975,889)
Financing activities		
Net cash flows from financing activities	6,905,085	15,159,362
Net increase in cash and cash equivalents	777,701	2,721,879
Cash and cash equivalents at 1 April	2,721,879	–
Cash and cash equivalents at 31 March	3,499,580	2,721,879

The Company is currently still in the development phase, with re-development of the Hemerdon Mine in early stages. As such, the Company anticipates it will continue to incur net losses and net cash outflows for at least another twelve months, and therefore requires the net proceeds from the Fundraising, or, absent that, other sources of funding or to significantly descale/delay the development opportunity, to meet its liabilities as they fall due for a period of 12 months subsequent to Admission. The working capital statement set out in paragraph 15 of Part 7 (*Additional Information*) is made on the basis that the Company receives the net proceeds from the Fundraising.

14. Details of the Fundraising

The Fundraising is being arranged by the Joint Brokers and comprises a placing of New Ordinary Shares with institutional investors and subscriptions being made directly with the Company by certain sophisticated investors direct for New Ordinary Shares. The Placing comprises the issue of 64,419,972 New Ordinary Shares at the Issue Price representing approximately, 36.38 per cent. of the share capital of the Company on Admission and will raise approximately £38.7 million gross proceeds. The Subscription comprises the issue of 580,028 New Ordinary Shares at the Issue Price representing approximately, 0.33 per cent. of the share capital of the Company on Admission and will raise approximately £0.35 million gross proceeds. In aggregate, therefore, the Fundraising will comprise the issue of 65,000,000 New Ordinary Shares at the Issue Price representing approximately, 36.71 per cent. of the Enlarged Share Capital of the Company on Admission and will raise £39.0 million gross proceeds.

Pursuant to the Placing Agreement entered into between the Company (1), the Directors (2), Strand Hanson (3), H&P (4) and VSA (5), the Joint Brokers have each conditionally agreed, as agent for the Company, to use their respective reasonable endeavours to procure Placees for the Placing Shares at the Issue Price and to introduce to the Company potential Subscribers for the Subscription Shares at the Issue Price.

The Placing Shares are being placed with institutional investors and the Subscription Shares are to be subscribed for directly with the Company by certain sophisticated investors, existing Shareholders and high net worth entities and individuals. The Fundraising is conditional upon, among other things: the fulfilment by the Company of certain of its obligations under the Placing Agreement; the Company having allotted the New Ordinary Shares; the Advisers not having exercised their respective right to terminate the Placing Agreement; and Admission occurring not later than 8.00 a.m. on 21 October 2021 or such later time and/or date as the Company and the Advisers may agree, but in any event not later than 8.00 a.m. on 31 December 2021.

Further details of the Placing Agreement are set out in paragraph 11.4 of Part 7 (*Additional Information*) of this document. Further details of the Subscription Letters are set out in paragraph 11.5 of Part 7 (*Additional Information*) of this document.

15. Tax

Certain information on taxation for UK taxpayers is given in, and your attention is drawn to, Part 5 (*UK Taxation*) of this document. These details are intended only as a general guide to the current tax position under UK taxation law and practice. If an investor is in any doubt as to its tax position they should immediately consult their own tax adviser or independent financial adviser.

16. Admission, settlement and CREST

Application has been made to the London Stock Exchange for the Enlarged Share Capital to be admitted to trading on AIM. It is expected that Admission will become effective, and that dealings in the Ordinary Shares will commence, at 8.00 a.m. on 21 October 2021. As at the date of Admission, the Company will have 177,071,571 Ordinary Shares in issue and is expected to have a market capitalisation of approximately £106.2 million at the Issue Price.

No application has been, or will be, made for the Enlarged Share Capital to be admitted to trading or to be listed on any other stock exchange.

The Ordinary Shares will be in registered form and will be capable of being held in either certificated or uncertificated form (i.e. in CREST).

CREST is a voluntary, paperless settlement procedure enabling securities to be evidenced otherwise than by a certificate and transferred otherwise than by way of a written instrument in accordance with the CREST Regulations. The system is designed to reduce the costs of settlement and facilitate the processing of settlements and the updating of registers through the introduction of an electronic settlement system. Ordinary Shares may be held in electronic form and evidence of title to Ordinary Shares will be established on an electronic register maintained by a registrar.

It is expected that the appropriate CREST accounts of Shareholders who have participated in the Fundraising and have opted to receive their Ordinary Shares in dematerialised form will be credited on or around 21 October 2021. In the case of any Shareholder who has opted to receive their Ordinary Shares in certificated form, it is expected that share certificates in respect of their Ordinary Shares will be dispatched by post as soon as possible and within ten Business Days of the date of Admission.

17. Lock-in and Orderly Market Agreements

The Lock-in Shareholders, who will hold a total of 98,992,761 Ordinary Shares on Admission (representing approximately 55.9 per cent. of the Enlarged Share Capital), have entered into the Lock-In and Orderly Market Agreements pursuant to which they have each agreed with the Company, Strand Hanson and the Joint Brokers that they will not dispose of any interest in Ordinary Shares for the period ending on the first anniversary of the date of Admission. The Lock-In Shareholders have also agreed that for a further six months following the first anniversary of Admission they will only dispose of an interest in Ordinary Shares through the Joint Brokers (or the broker for the time being of the Company, if it is not the Joint Brokers) and in such manner as the Joint Brokers (or such other broker) may reasonably require with a view to the maintenance of an orderly market in the Ordinary Shares. There are certain exceptions to these lock-in and orderly provisions. In respect of the Lock-in Shareholders who are required to enter into the Lock-in and Orderly Market Agreements pursuant to Rule 7 of the AIM Rules, those exceptions are limited in accordance with Rule 7 to an intervening court order, the death of the Lock-in Shareholder or in respect of an acceptance of a takeover offer for the Company which is open to all Shareholders. Those Lock-in Shareholders who are not required to enter into the Lock-in and Orderly Market Agreements pursuant to Rule 7 of the AIM Rules have an additional exception which allows them to dispose of their Ordinary Shares to family members and trusts provided those persons are also subject to Lock-in and Orderly Market Agreements.

Further details of the Lock-In and Orderly Market Agreements are set out in paragraph 11.7 of Part 7 (*Additional Information*) of this document.

18. Share-based incentive arrangements

The Directors believe that the success of the Company will depend to a significant degree on the future performance of the Company's employees (and in particular Senior Management) and therefore that it is important to ensure that the employees are well motivated and identify closely with the success of the Company. The Company has put in place various share-based arrangements to motivate and align the interests of participants with the Company, which are summarised below.

2021 Share Option Plan

The Company adopted the 2021 Share Option Plan on 7 October 2021.

The 2021 Share Option Plan provides for the Company to grant options to acquire Ordinary Shares to employees of the Company. The terms of options, including the exercise price and any performance conditions, will be determined by the Board (normally acting through its remuneration committee) at the time of grant, subject to the rules of the plan. No options have been granted under the 2021 Share Option Plan prior to Admission. A summary of the terms of the 2021 Share Option Plan is set out in paragraph 6 of Part 7 (*Additional Information*) of this document.

EMI Scheme

The Company adopted the EMI Scheme on 30 April 2021.

The EMI Scheme provided for the Company to grant options to acquire Ordinary Shares to employees of the Company, which are intended to qualify as enterprise management incentives under Schedule 5 to the Income Tax (Earnings and Pensions) Act 2003. No further options will be granted under the EMI Scheme following Admission. A summary of the EMI Scheme and details of options granted under it is set out in paragraph 6 of Part 7 (*Additional Information*) of this document.

Founder Options

The Company will grant the Founder Options to the four Founder Shareholders at or shortly before Admission, to replace, formalise and clarify equivalent rights currently contained in a shareholders' agreement between the existing Shareholders and the Company which will terminate on Admission. Each Founder Shareholder will be granted an option to acquire up to 4,971,586 Ordinary Shares at an exercise price of £0.01 per share, which is 2.5 per cent. of the "fully diluted issued share capital", where the fully diluted share capital is to be determined by the Directors as the sum of (a) the Enlarged Share Capital immediately following Admission; (b) the number of shares of the Company subject to options granted to employees of the Company outstanding at Admission; and (c) the number of shares to be subject to the Founder Options. Accordingly, the total number of shares subject to the Founder Options will be 10 per cent. of the fully diluted issued share capital. One third of the Founder Options will be exercisable on Admission, one third upon the Company achieving Financial Close and the remaining third upon the Company achieving Commercial Production.

A summary of the Founder Options is set out in paragraph 6 of Part 7 (*Additional Information*) of this document.

19. Dividend policy

Following Admission, when it is commercially prudent to do so and subject to the availability of distributable reserves, the Board may approve the payment of dividends. However, at present, the Directors consider that it is more prudent to apply its financial resources to fund the development of the Company and, as a result, feel it is inappropriate to give an indication of the likely level or timing of any future dividend payment.

20. Corporate governance

AIM-quoted companies are required to adopt a recognised corporate governance code with effect from their admission to trading on AIM. However, there is no prescribed corporate governance regime in the UK for AIM companies. The Quoted Companies Alliance has published the QCA Corporate Governance Code (the **"QCA Code"**), a set of corporate governance guidelines, which include a code of best practice, comprising principles intended as a minimum standard, and recommendations for reporting corporate governance matter.

The Directors recognise the importance of sound corporate governance commensurate with the size and nature of the Company and the interests of its Shareholders and intend to comply with the QCA Code, save as explained below:

- Francis Johnstone has been appointed to the Audit and Risk Management Committee, notwithstanding the fact that he is a non-independent non-executive director. Francis has been appointed due to his financial background and his knowledge of the Company. The other members of the Audit and Risk Management Committee, Grace Stevens (who will act as chair) and David Cather are both independent; and
- in view of the size of the Company, the Board will not establish a nominations committee. However, the Board will consider the principles of the QCA Code on nomination and succession matters and will undertake the role and responsibilities usually delegated to a nominations committee.

The Board

The Board comprises three executive directors and five non-executive directors (including the Chairman), reflecting a blend of different skills, experiences and backgrounds. Robert Ashley, Grace Stevens and David Cather are considered to be independent for the purposes of the QCA Code.

The Company will hold regular Board meetings and the Board will be responsible for formulating, reviewing and approving the Company's strategy, budget and major items of capital expenditure. The Board has established an Audit and Risk Management Committee, a Remuneration Committee and a Technical Committee with formally delegated rules and responsibilities, a summary of which is set out below. Each of these Board committees will meet as and when appropriate, but at least twice each year.

Audit and Risk Management Committee

The Audit and Risk Management Committee comprises Grace Stevens, who will act as chair, David Cather and Francis Johnstone.

The Audit and Risk Management Committee's main functions include, *inter alia*, reviewing the effectiveness of internal control systems; considering the need for an internal audit function; making recommendations to the Board in relation to the appointment of the Company's auditors; determining in consultation with the Board as a whole the auditors remuneration; and monitoring and reviewing annually the auditors independence, objectivity, effectiveness and qualifications. The Audit and Risk Management Committee also monitors the integrity of the financial statements of the Company including its annual and interim reports, preliminary results announcements and any other financial information provided to Shareholders. The Audit and Risk Management Committee is responsible for overseeing the Company's relationship with the external auditors as a whole and also considers the nature, scope and results of the auditors' work and reviews, and develops, recommends to the Board and implements policies on the supply of non-audit services that are to be provided by the external auditors. The Audit and Risk Management Committee further focuses on compliance with legal and accounting standards and ensuring that an effective system of internal financial and non-financial controls is maintained. The ultimate responsibility for reviewing and approving the annual report and accounts will remain with the Board. The Audit and Risk Management Committee will meet at least twice per year.

Remuneration Committee

The Remuneration Committee comprises David Cather, who will act as chair, Robert Ashley and Richard Maxey.

The Remuneration Committee's main functions include, *inter alia*, formulating and agreeing with the Board the framework or broad policy for the remuneration of the executive directors; approving the design of, and determining targets for, any performance related pay schemes operated by the Company and approving the total annual payments made under such schemes; operating the EMI Scheme and the 2021 Share Option Plan as well as reviewing the design of any and all proposed share incentive plans for approval by the Board and Shareholders together with determining each year whether awards will be made and, if so, the overall amount of such awards, the individual awards to executive directors and the performance targets to be used; and determining the total individual remuneration package for each of the executive directors including bonuses, incentive payments and share options or other share awards.

The remuneration of non-executive directors will be a matter for the executive members of the Board and the Chairman. No Director will be involved in any decision as to his or her own remuneration. The Remuneration Committee will meet at least twice per year.

Technical Committee

The Technical Committee comprises David Cather, who will act as chair, Mark Thompson and Max Denning.

The Technical Committee's main functions include, *inter alia*, reviewing and monitoring that the standards and procedures adopted for its operations will meet the legal requirements, under both local jurisdiction and international standards, undertaking regular assessments, audits; reporting of its operational activity to identify the necessary compliance with the Company's policies, objectives and adopting targets to achieve continuous improvement.

A meeting of the Technical Committee will be held every time it is considered needed and at least twice per year.

21. Share Dealing Code

The Company has a Share Dealing Code, which is compliant with Article 19 of the retained UK law version of the Market Abuse Regulation (EU) 596/2014 pursuant to the Market Abuse (Amendment) (EU Exit) Regulations 2019 (SI 2019/310) (**"MAR"**) and Rule 21 of the AIM Rules for Companies. The Share Dealing Code will apply to any person discharging management responsibility, including the Directors and the Senior Management and any closely associated persons and applicable employees.

The Share Dealing Code imposes restrictions beyond those that are imposed by law (including by FSMA, MAR and other relevant legislation) and its purpose is to ensure that persons discharging managerial responsibility and persons connected with them do not abuse, and do not place themselves under suspicion of abusing, price-sensitive information that they may have or be thought to have, especially in periods leading up to an announcement of both financial results and the results of the Company's research trials. The Share Dealing Code sets out a notification procedure which is required to be followed prior to any dealing in the Company's securities.

22. Anti-bribery policy

The Company takes a zero-tolerance approach to bribery and corruption and is committed to acting professionally, fairly and with integrity in all business dealings and relationships wherever they occur. The Company implements effective systems to counter bribery and corruption and as part of this it has adopted an anti-bribery and anti-corruption policy. The policy provides guidance to those working for the Company on how to recognise and deal with bribery and corruption issues and the potential consequences and applies to all persons working for the Company or on its behalf in any capacity, including employees at all levels, consultants and agents.

23. Takeover Code

The Takeover Code applies to the Company. Under the Takeover Code, when (i) any person acquires, whether by a series of transactions over a period of time or not, an interest in shares which, taken together with shares in which persons acting in concert with him are interested, carry 30 per cent. or more of the voting rights of a company subject to the Takeover Code or (ii) any person, together with persons acting in concert with him, is interested in shares which in aggregate carry not less than 30 per cent. of the voting rights of such a company but does not hold shares carrying more than 50 per cent. of such voting rights, 50 and such person, or any person acting in concert with him, acquires an interest in any other shares which increases the percentage of shares carrying voting rights in which he is interested, then such person is normally required to make a general offer to all the holders of any class of equity share capital or other class of transferable securities carrying voting rights of that company to acquire the balance of their interests in the company. An offer under Rule 9 of the Takeover Code must be in cash (or with a cash alternative) and at not less than the highest price paid within the preceding 12 months for any shares in the company by the person required to make the offer or any person acting in concert with him.

24. Further information and risks

You should read the whole of this document which provides additional information on the Company and the Fundraising and not rely on summaries or individual parts only. Your attention is drawn, in particular, to the risk factors set out in Part 2 (*Risk Factors*) of this document and the additional information set out in Part 7 (*Additional Information*) of this document.

PART 2

RISK FACTORS

Any investment in Ordinary Shares carries a number of risks. Prospective investors should review this document carefully and in its entirety and consult with their professional advisers before acquiring any Ordinary Shares. Prospective investors should also consider the risks and uncertainties described below, together with all other information in this document, before making any investment decision.

A number of factors can or will affect the operating results, financial condition and prospects of the Company. This section describes risk factors considered to be material in relation to the Company based on information known at the date of this document.

Prospective investors should note that the risks relating to the Company, its industry and the Ordinary Shares summarised in the section of this document headed “Summary” are the risks that the Directors believe to be the most essential to an assessment by a prospective investor of whether to consider an investment in the Ordinary Shares. However, as the risks which the Company faces relate to events and depends on circumstances that may or may not occur in the future, prospective investors should consider not only the information on the key risks summarised in the section of this document headed “Summary” but also, among other things, the risks and uncertainties described below.

However, the risk factors described below should not be regarded as a complete and comprehensive statement of all potential risks and uncertainties. Additional risks and uncertainties that are not presently known to the Directors, or which they currently deem immaterial, may also have an adverse effect on the operating results, financial condition or prospects of the Company. If any such risks were to materialise the price of Ordinary Shares could decline as a consequence, and investors could lose all or part of their investment.

1. Risks specific to the Company and the markets in which the Company will operate

1.1 *Development, operating and general mining risks*

Mineral exploitation and development is a high-risk undertaking that may be impeded by circumstances and factors beyond the control of the Group. The Group’s profitability will depend, to a large extent, on the actual economic returns and the actual costs of refurbishing and operating parameters at the Hemerdon Mine, which may differ significantly from the Group’s understanding

The Group’s decision to recommence operations at Hemerdon was based primarily on the results of the Bankable Feasibility Study and other underlying studies commissioned by the Group. Studies derive estimates of expected or anticipated project economic returns. The Group’s feasibility studies and underlying estimates are based on assumptions regarding, *inter alia*, future commodity prices, anticipated tonnage, grades and metallurgical characteristics of ore to be mined and processed, anticipated recovery rates of the mineral and aggregate by-product from the ore, anticipated capital expenditure and cash operating costs and the anticipated return on capital invested. Notwithstanding the significant historical data available to inform these studies and estimates, actual cash operating costs, production and economic returns may differ significantly from those anticipated by such studies and estimates.

The recommencement of operations at the Hemerdon Mine may be subject to unexpected problems and delays. There are a number of uncertainties inherent in mining operations and the future commercialisation of the Hemerdon Mine, including the timing and cost of the refurbishment and upgrades of mining and processing facilities; the availability and cost of skilled labour, power, water, fuel, consumables and transportation facilities; the availability and cost of appropriate offtake arrangements; the need to obtain necessary environmental and other governmental permits and the timing of those permits; and the availability of sufficient of funds to finance the planned and future construction and development activities, as referred to elsewhere in this Part 2. In addition, the Group may face periodic interruptions to operations at the Hemerdon Mine due to bad or hazardous weather conditions (such as mist and fog) as the low visibility conditions may make it difficult and unsafe to work at the Hemerdon Mine, which the Group cannot predict or control.

1.2 ***Commodity price volatility***

Historically, as with most commodities, tungsten and tin prices have been volatile, displaying wide ranges in trading, and are affected by number factors over which the Company does not have any control. These include global production levels, government regulation, international economic trends, currency exchange fluctuations, interest rates, expectations for inflation, speculative activity, ability to transport, consumption patterns and global or regional political events. Future commodity price movements are impossible to accurately predict and the Group can give no assurance that prices presented by the Group will be maintained in the future. The prices achievable for aggregates will be based on local and regional markets and are also not possible to predict with any accuracy.

Prolonged periods of commodity price depression and volatility may negatively impact the Group's ability to meet guidance targets or to meet its financial obligations as they fall due and/or comply with its debt covenants. At the Hemerdon Mine, any material decline in tungsten and aggregate prices (and, to a lesser extent, tin prices) will result in a reduction of its net production revenue. The economics of the Hemerdon Mine will change as a result of sustained lower prices, which could result in a reduction in the mine production and final product quantities or possibly the cessation of mining activities. All of these factors could potentially result in a material decrease in the Group's net production revenue and the financial resources available to it, resulting in a material adverse effect on its future financial condition, business, prospects and results of operations.

The Group will conduct regular assessments of the carrying value of its assets. If the metal and aggregate prices decline significantly and remain at low levels for an extended period of time, the carrying value of the Group's assets may be subject to impairment.

1.3 ***Mineral Resources and Ore Reserves are estimates only***

Although the Group has a JORC Code (2012) compliant Mineral Resource Estimate, there is no certainty that the mineral resources, or any ore reserve, will be mined and processed. Whilst the overall geology is well understood at Hemerdon, the mineralisation of the deposit is complex (as referred to in the risk factor entitled "*Mineralisation*" below), with the estimation of the mineral resource and ore reserves being subject to a degree of interpretation and opinion. Accordingly, there can be no assurance that the presented ore reserves can be extracted economically, or any mineral resources will result in proven and probable ore reserves being attributed to the Group. Until the deposit is actually mined and processed, the quantity and grade of the mineral resources and ore reserves must be considered as estimates only.

In addition, the value of mineral resources and any ore reserve will depend upon, amongst other things, metal prices and currency exchange rates. Any material changes to the quantity of mineral resources, or any mineral reserve, or grade, may affect the economic viability of future mining operations. Any material reductions in the estimates of mineral resources, or mineral reserves, or the Group's ability to extract any ore, could have a material adverse effect on the Group's future results of operation and financial condition.

Mineral Resource estimates are estimates of judgment based on knowledge, experience and industry practice. Often these estimates were appropriate when made but may change significantly when new information becomes available. Mineral Resource estimates are necessarily imprecise and depend to some extent upon interpretations, which may ultimately prove to be inaccurate and require adjustment. Adjustments to the Group's mineral resources could affect the Company's development and mining plans.

1.4 ***Mineralisation***

Whilst the overall geology of the Hemerdon deposit is well understood, the mineralisation itself is more geologically complex, with the further interpretation of the ferberite minerals alternation, which may affect metallurgical responses, having been subject of a number of studies.

Previous exploration of the deposit was primarily focused on the granite-hosted tungsten mineralisation, resulting in a run of mine plan derived around this granite hosted mineralisation. Subsequent interpretation and testwork of the deposit identified mineralisation within the killas material that had previously been considered as waste material in the life or mine plan. The processing of this killas material is predicated on the successful installation and operation of ore technology at the mineral processing plant.

Historical mining operations encountered operational issues through the lack of definition of the deposit mineralisation within the geological block model, leading to inefficiencies in extracting and processing the ore. Whilst the Group has carried out limited additional interpretation and testwork work to understand the mineralisation hosted within the killas, as well as the distribution and controls on tin mineralisation, future mining and processing operations will need to be dynamic and rapidly adapt to the complex mineralisation to ensure efficient extraction and processing of mineralised ore. If this is not achieved, then the efficiency of the processing facilities and therefore the profitability of operations are likely to be negatively impacted.

1.5 ***Changes in capital and operating costs***

Changes in the Group's capital costs and operating costs are likely to have an impact on its profitability. The Group's main planned production expenses include mining costs, transport costs, processing costs and other overheads. Changes in costs of the Group's mining and processing operations can occur as a result of unforeseen events and could result in changes in profitability or resource estimates, including rendering portions of the ore reserves uneconomic to mine. Many of these changes may be beyond the Group's control.

1.6 ***Financing and security granted in favour of Orion***

The Group's operations require significant capital investment and any delays in the projects at the Hemerdon Mine may result in projects target dates for related production (including Commercial Production) being delayed and further capital expenditure being required. In all mining and drilling operations, there is uncertainty, and therefore risk, associated with operating parameters and costs resulting from the scaling up of extraction methods. The Group's ability to raise further funds with depend on the success of its existing operations.

In addition, bank borrowings available to the Group may, in part, be determined by the Group's borrowing base. A sustained material decline in prices from historical average prices could reduce the Group's borrowing base, therefore reducing the bank credit available to the Group which could require that a portion, or all, of its bank debt be repaid.

The Company has agreed to grant security over its assets in favour of Orion pursuant to the Orion Senior Loan Agreement and the Orion Royalty Agreement.

Under the terms of the Orion Investment and the Orion Senior Loan Agreement, the Company has given certain covenants typical for financing, including but not limited to, those relating to no material adverse change, ownership of property and assets or enforceability of mineral rights. A breach of such a covenant could constitute an event of default, in addition to other specified events of default. If the Company encounters financial difficulties and/or if an event of default occurs or a demand is made under any of these agreements with Orion, the security granted in favour of Orion may become enforceable and Orion may take ownership and control of the charged assets. The terms of the Orion Senior Loan Agreement are summarised in paragraphs 11.19 and 11.20 of Part 7 (*Additional information*). The terms of the Orion Royalty Agreement are summarised in paragraph 11.20 of Part 7 (*Additional information*).

1.7 ***Dependence on key personnel and directors' conflicts***

The Group has a small management team and the loss of a key individual could have an adverse effect on the future of the Group's business or cause delay its plans. The business and future of the Group is substantially dependent on the expertise and continued services of its directors, employees and consultants. In addition, it may not be possible to source personnel in the local area with the relevant technical skills required to work at the Hemerdon Mine.

Although the Company believes that it will be successful in attracting and retaining qualified personnel, there can be no assurance of such success and an inability to do so could have a material and adverse effect on the Group's business, results of operations, financial condition and prospects.

Insofar as certain directors and officers of the Company hold similar positions with other mineral resource companies, conflicts may arise between the obligations of these directors and officers to the Company and to such other mineral resource companies. Certain of the Directors and officers of the Company also serve as directors and/or officers of other companies involved in mining and/or natural resource exploration and development and consequently there exists the possibility for such directors and officers to be in a position of conflict. In addition, Mark Thompson, Max Denning and Richard Maxey (indirectly) are Shareholders (or representatives of Shareholders) and Directors. Such Directors who are also Shareholders (or representatives of Shareholders) may be in a position of conflict. Any decision made by any of the Directors and officers involving the Company will be made in accordance with their duties and obligations to deal fairly and in good faith with a view to the best interest of the Company and its shareholders. In addition, each of the Directors are required to declare and refrain from voting on any matter in which such Directors may have a conflict of interest in accordance with the procedures set forth under applicable laws.

1.8 ***The Group will be subject to competition for its skilled personnel and challenges in attracting and retaining key personnel could impair the Group's ability to conduct and grow its operations effectively***

The Group's ability to compete in the competitive mineral resource sector depends upon its ability to retain and attract highly qualified management, operational and technical personnel. The Group requires specialist personnel with much of the local experience coming from the nearby China clay mining operations, which is not directly comparable to the Group's operations where grade control is especially paramount.

The loss of key management and/or technical personnel could delay the development of the Group's assets and negatively impact the ability of the Group to compete in the tin/tungsten resource sector. In addition, the Group will need to recruit new senior managers and key technical and operational personnel to develop its business as and when it expands into fields which require additional skills. Other mineral resource companies that it competes against for qualified personnel may have a greater financial and other resources, different risk profiles or longer track records than the Group. If this competition is very intense, the Group might not be able to attract or retain these key persons on conditions that are economically acceptable. Therefore, the inability of the Group to retain and attract such key persons could prevent it from achieving their objects overall and thus could have a material adverse effect on their business, financial condition, results of operations and prospects.

1.9 ***External contractors and sub-contractors***

When the world mining industry is buoyant there is increased competition for the services of suitably qualified and/or experienced sub-contractors, such as mining and drilling contractors, assay laboratories, metallurgical test work facilities and other providers of engineering, project management and mineral processing services.

As a result, the Group may experience difficulties in sourcing and retaining the services of suitably qualified and/or experienced sub-contractors. The loss or diminution in the services of suitably qualified and/or experienced sub-contractors or an inability to source or retain necessary sub-contractors or their failure to properly perform their services could have a material and adverse effect on the Group's business, results of operations, financial condition and prospects. Additionally, there can be no assurance that such parties will be able to provide such services in the timescale and at the cost anticipated by the Company.

In particular, the Group is reliant upon the continued services under the Mining Services Contract. If the Mining Services Contract is terminated, it would have a material adverse effect on the Group and its ability to achieve its commercial objectives in the anticipated timeframe. There can be no guarantee that the Group would be able to secure another third party to perform these services and that it would be able to secure the same terms. In addition, the Group's revenue is to a certain extent reliant upon offtake and distribution arrangements in relation to the sale of tungsten, tin and aggregates. There can be no guarantee that the third parties the Group contracts with will meet the targets set out in the respective offtake and distribution agreements and/or that such third parties will not terminate these agreements. In addition, the Group will need to source an engineering, procurement and construction ("**EPC**") contractor in the future and enter into an EPC contract in relation to the Mine. There is no guarantee that the Group will be able to secure and retain an EPC contractor or that the EPC contract will be on favourable terms.

The Group is unable to predict the risk of insolvency or other managerial failure by any third party contractors or service providers currently or in the future used by the Group in its activities. Any of the foregoing may have a material adverse effect on the results of operations or the financial condition of the Group. In addition, the termination of these arrangements, if not replaced on similar terms, could have a material adverse effect on the results of operations or the financial condition of the Group.

1.10 ***Title matters***

The Mine Lease is registered with good leasehold title. A freehold title to mines and minerals will usually be awarded a qualified title by HM Land Registry because it is normally much more difficult to prove a sufficiently good title to mines and minerals for HM Land Registry to award title absolute than it is in respect of a title to surface land. As a result, an absolute title is rarely granted by HM Land Registry in relation to a mines and minerals title. Nevertheless, it should be noted that a title registered with good leasehold title is less certain than a property registered with title absolute (the best class of title granted by HM Land Registry).

The Mine Lease Landlords' title to the freehold minerals at the Mine (out of which the Mine Lease is granted) is registered with qualified title which is a class of title less certain than title absolute. As a result, the Mine Lease is also registered with good leasehold title. In addition, Drakelands Restoration is the registered proprietor of one freehold mines and minerals title at the Hemerdon Mine, which is also registered with qualified title.

The effect of the qualification to these mineral titles is that the registration of that title does not defeat or prejudice any alternative title to the mines and minerals that pre-dates the date of registration (08.01.2009, 04.02.2009 and 23.01.2013 respectively for the Mine Lease Landlords' mineral titles and 18.06.2008 for the title held by Drakelands Restoration). HM Land Registry is not, in registering a qualified title, guaranteeing that there is no alternative title pre-dating the registration of the title, which can continue to be asserted.

1.11 ***Planning permission***

In the case of minerals, planning consent is the primary approval for a development and is administrated by local MPAs. Any future mining plans that extend beyond the current Mine Lease and permitted boundary at the Mine will require new planning permission. In addition, the Company requires additional planning permission to expand the pit footprint at the Mine beyond year 9 of operation. The Company also intends to use Jaw crushers during daytime hours only at the Mine, which was previously approved by the MPA, however will require future approval. The processing and sale of aggregates derived from the operations at the Mine, carried out by Aggregates West, has led to increased truck movements at the Mine, which may also impact planning permission.

There are inherent risks associated with planning permission and there can be no guarantee that future planning applications will be successful and the Group may be curtailed or prohibited from proceeding with planned exploration, development or operation of the Mine, which would impact the ability of the Group to generate revenue.

1.12 ***Environmental, health and safety and other regulatory standards regulation***

The Group's operations are, and will going forward be, subject to various laws and regulations relating to the protection of the environment (including regular environmental impact assessments and the obtaining of appropriate permits or approvals by relevant environmental authorities). As a result of Wolf Minerals entering into the receivership process, a number of permits or licences were forgiven or lapsed and the Company is required to re-apply for a number of operating permits, including a mine waste facility permit and a mineral processing facility permit. Whilst the Company has built on historically negotiated and approved applications and believes it will obtain these permits or licences, there can be no guarantee that these applications will be successful or that, if obtained, they will not be withdrawn or made subject to limitations that may otherwise affect the operations of the Group.

Governmental approvals, licences and permits are, as a practical matter, subject to the discretion of the applicable governments or governmental offices. The Company must comply with known standards, existing laws and regulations that may entail greater or lesser costs and delays depending on the nature of the activity to be permitted and the interpretation of the laws and regulations implemented by the permitting authority. New laws and regulations, amendments to existing laws and regulations, or more stringent enforcement of existing laws and regulations, could have a material adverse impact on the Company's results of operations and financial condition.

Whilst the Company and its management are highly confident that the permits currently undergoing re-application will be issued on a timely basis, if the permits are delayed or not granted the Company will, in the first instance, take action to appeal the decision of the Environment Agency. If, in what the Board believes is a highly unlikely outcome, the Company is ultimately unsuccessful in obtaining the relevant permits, the Company will explore other options to utilise its asset base, which could potentially involve relying on its permissions to extract aggregates at the Hemerdon Mine and to sell the aggregate material on-site, albeit this would inevitably lead to a reduction in the Group's revenue compared to that which is expected to be achieved on the current business model.

The Group is also required to comply with applicable health and safety and other regulatory standards. Environmental legislation in particular can, in certain jurisdictions, comprise numerous regulations which might conflict with one another and which cannot be consistently interpreted.

Such regulations typically cover a wide variety of matters including, without limitation, prevention of waste, pollution and protection of the environment, labour regulations and worker safety. The Group may also be subject under such regulations to clean-up costs and liability for toxic or hazardous substances which may exist on or under any of its properties or which may be produced as a result of its operations. Although the Directors intend that the Group will operate in accordance with the highest standards of environmental practice and comply in all material respects with applicable environmental laws and regulations, full compliance may not always be ensured.

Any failure to comply with relevant environmental, health and safety and other regulatory standards may subject the Group to extensive liability and fines and/or penalties and have an adverse effect on the business, results of operations, or prospects of the Group. In particular, a violation of health and safety laws relating to a mine, or other plant or a failure to comply with the instructions of the relevant health and safety authorities could lead to, among other things, a temporary shutdown of all or a portion of the mine, or other plant, a loss of the right to mine or to use other plant, or the imposition of costly compliance procedures. If health and safety authorities require the Group to shut down all or a portion of a mine, or other plant or to implement costly compliance measures, whether pursuant to existing or new health and safety laws and regulations, such measures could have a material adverse effect on the Group's results of operations or financial condition. Furthermore, the future introduction or enactment of new laws, guidelines and regulations could serve to limit or curtail the growth and development of the Group's business or have an otherwise negative impact on its operations. Any changes to, or increases in, the current level of regulation or legal requirements may have a material adverse effect upon the Group in terms of additional compliance costs.

Any environmental damage, loss of life, injury or damage to property caused by the Group's operations could damage the Group's reputation in the areas in which the Group operates. Negative sentiment towards the Group could result in a lack of willingness of authorities to grant the necessary licences or permits for the Group to operate its business and in residents in the areas where the Group is doing business opposing further operations in the area by the Group. If the Group develops a reputation of having an unsafe work site it may impact the ability of the Group to attract and retain the necessary skilled employees and consultants to operate its business. Further, the Group's reputation could be affected by actions and activities of other corporations operating in the mining industry, over which the Group has no control. In addition, environmental damage, loss of life, injury or damage to property caused by the Group's operations could result in negative investor sentiment towards the Group, which may result in limiting the Group's access to capital, increasing the cost of capital, and decreasing the price and liquidity of the Ordinary Shares.

Mining operations have inherent risks and liabilities associated with pollution of the environment and the disposal of waste products occurring as a result of mineral exploration and production. Laws and regulations involving the protection and remediation of the environment and the governmental policies for implementation of such laws and regulations are constantly changing and are generally becoming more restrictive.

Although the Board believes that the Group will be in compliance in all material respects with applicable environmental laws and regulations and will hold all necessary approvals and permits under those laws and regulations by the time operations commence, there are certain risks inherent in the Group's activities and those which it anticipates undertaking in the future, such as, but not limited to, risks of accidental spills, leakages or other unforeseen circumstances, that could subject the Group to potential liability. The Company therefore cannot give any assurance that, notwithstanding its precautions, breaches of environmental laws (whether inadvertent or not) or environmental pollution will not materially and adversely affect its financial condition and its results from operations.

1.13 ***Risks associated with the need to maintain an effective system of internal controls***

The Group's future growth and prospects will depend on its ability to manage growth and to continue to maintain, expand and improve operational, financial and management information systems on a timely basis, whilst at the same time maintaining effective cost controls. Any damage to, failure of or inability to maintain, expand and upgrade effective operational, financial and management information systems and internal controls in line with the Group's growth could have a material adverse effect on the Group's business, financial condition and results of operations.

1.14 ***Reliance on third parties***

The Company will be reliant on third party service providers and suppliers to provide equipment, infrastructure and raw materials required for the Company's business and operations and there can be no assurance that such parties will be able to provide such services in the time scale and at the cost anticipated by the Company.

1.15 ***Foreign currency risk***

The Group's operating costs are in Pounds Sterling and the Group will report its results in Pound Sterling, however the Group's revenue will be predominately in US Dollars. This may result in additions to the Group's reported costs or reductions in the Group's reported revenues. Fluctuations in exchange rates between Pounds Sterling and US Dollars may cause fluctuations in the Group's financial results that are not necessarily related to the group's underlying operations and which are not possible to predict.

1.16 ***Competition***

The mining industry can be competitive. The Group faces potential competition from other mining companies in connection with the acquisition of mineral properties, as well as for the recruitment and retention of qualified employees. Larger companies, in particular, may have access to greater financial resources, operational experience and technical capabilities than the Group which may give them a competitive advantage.

1.17 ***Taxation risks***

Tax rules and their interpretation relating to any investment in the Company may change during its lifetime. Any change in the Group's tax status, taxation legislation, or interpretation could affect the Group's ability to provide returns to shareholders or could change post-tax returns to shareholders. Statements in this document concerning the taxation of the Group and investors are based upon current tax law and practice which is subject to change. The taxation of an investment in the Company depends on the individual circumstances of investors.

It has been confirmed that the UK Government rebate on red diesel will be removed in April 2022, which could lead to increased mining costs for the Group. Whilst the Group believes that it will be granted an exemption, this cannot be guaranteed. If the Group is not granted an exemption, it will need to use fuel taxed at the standard rate for diesel from April 2022, which would result in increased tax liability for the Group.

1.18 ***Public health crises***

The COVID-19 pandemic has negatively impacted the UK and global economies; disrupted UK and global supply chains, disrupted financial markets, contributed to a decrease in interest rates, resulted in ratings downgrades, credit deterioration and defaults in many industries, forced the closure of many businesses, led to loss of revenues, increased unemployment and bankruptcies and necessitated the imposition of quarantines, physical distancing, business closures, travel restrictions, and sheltering-in-place requirements in the UK and other countries.

If the pandemic is prolonged, including through subsequent waves, or if additional variants of COVID-19 emerge which are more transmissible or cause more severe disease, or if other diseases emerge with similar effects, the adverse impact on the economy could worsen. It remains uncertain how the macroeconomic environment and societal and business norms will be impacted following this COVID-19 pandemic.

The Group's business, operations and financial condition, results of operations, cash flows, reputation, access to capital, cost of borrowing, access to liquidity, or business plans may, in particular, and without limitation, be adversely impacted as a result of the COVID-19 pandemic or decline in commodity prices as a result of:

- the shut-down of facilities or the delay or suspension of work on major capital projects due to workforce disruption or labour shortages caused by workers becoming infected with COVID-19, or government or health authority mandated restrictions on travel by workers or closure of facilities or worksites;
- suppliers and third-party vendors experiencing similar workforce disruption or being ordered to cease operations;
- reduced cash flows resulting in less funds from operations being available to fund capital expenditure budgets;
- reduced commodity prices resulting in a reduction in the volumes and value of reserves;
- counterparties being unable to fulfil their contractual obligations on a timely basis or at all;
- the inability to deliver products to customers or otherwise get products to market caused by border restrictions, road or port closures or pipeline shut-ins, including as a result of pipeline companies suffering workforce disruptions or otherwise being unable to continue to operate; and
- the ability to obtain additional capital including, but not limited to, debt and equity financing being adversely impacted as a result of unpredictable financial markets, commodity prices or a change in market fundamentals.

The COVID-19 pandemic has also created additional operational risks for the Group, including the need to provide enhanced safety measures for employees and customers; comply with rapidly changing regulatory guidance; address the risk of, attempted fraudulent activity and cybersecurity threat behaviour.

The Group is also exposed to human capital risks due to issues related to health and safety matters, and other environmental stressors as a result of measures implemented in response to the COVID-19 pandemic, as well as the potential for a significant proportion of the Group's employees, including key executives, to be unable to work effectively, because of illness, quarantines, sheltering-in-place arrangements, government actions or other restrictions in connection with the pandemic.

The extent to which the COVID-19 pandemic continues to impact the Group's results, business, financial condition or liquidity will depend on future developments in the UK and globally, including the development and widespread availability of efficient and accurate testing options, and effective treatment options or vaccines. Despite the approval of certain vaccines by the regulatory bodies in the UK the ongoing evolution of the development and distribution of an effective vaccine also continues to raise uncertainty.

2. Risks relating to an investment in the Ordinary Shares

2.1 *Investment in AIM companies*

Although the Company is applying for the admission of its Ordinary Shares to trading on AIM, there can be no assurance that an active trading market for the Ordinary Shares will develop, or if developed, that it will be maintained. An investment in shares traded on AIM may be less liquid and is perceived to involve a higher degree of risk than an investment in a company whose shares are listed on the Official List. Prospective investors should be aware that the value of the Ordinary Shares may go down as well as up and that the market price of the Ordinary Shares may not reflect the underlying value of the Company. Investors may therefore realise less than, or lose all of, their investment.

2.2 *AIM Rules for Companies and volatility of share price*

The AIM Rules for Companies are less onerous than those applicable to companies on the Official List and an investment in a company whose shares are traded on AIM is likely to carry a higher risk than an investment in a company whose shares are quoted on the Official List. Neither the FCA nor the London Stock Exchange has examined or approved the contents of this document.

The share price of publicly traded, early stage companies can be highly volatile and it may be more difficult for investors to realise their investment in a company whose shares are traded on AIM than to realise an investment in a company whose shares are quoted on the Official List. The price at which the Ordinary Shares will be traded and the price at which investors may realise these investments will be influenced by a large number of factors, such as variations in operating results, announcements of innovations or new services by the Company or its competitors, changes in financial estimates and recommendations by securities analysts, the share price performance of other companies that investors may deem comparable to the Company, news reports relating to trends in the Company's markets, large purchases or sales of Ordinary Shares, liquidity (or absence of liquidity) in the Ordinary Shares, currency fluctuations, legislative or regulatory changes and general economic conditions. These fluctuations may adversely affect the trading price of the Ordinary Shares, regardless of the Company's performance.

In addition, if the stock market in general experiences a loss of investor confidence, the trading price of the Ordinary Shares could decline for reasons unrelated to the Company's business, financial condition or operating results. The trading price of the Ordinary Shares might also decline in reaction to events that affect other companies in the industry, even if such events do not directly affect the Company. Each of these factors, among others, could harm the value of the Ordinary Shares.

The value of Ordinary Shares will be dependent upon the success of the operational activities undertaken by the Company and prospective investors should be aware that the value of the Ordinary Shares can go down as well as up. Furthermore, there is no guarantee that the market price of an Ordinary Share will accurately reflect its underlying value. Shareholders and prospective investors (as appropriate) should be aware of the risks of investing in AIM quoted shares and should make the decision to invest only after careful consideration.

2.3 *Impact of research on Ordinary Share price*

If securities or industry analysts do not publish research or publish unfavourable or inaccurate research about the business, the Company's share price and trading volume of the Ordinary Shares could decline. The trading market for the Ordinary Shares will depend, in part, on the research and reports that securities or industry analysts publish about the Company or its business. The Directors may be unable to sustain coverage by well-regarded securities and industry analysts. If either none or only a limited number of securities or industry analysts maintain coverage of the Company, or if these securities or industry analysts are not widely respected within the general investment community, the trading price for the Ordinary Shares could be negatively impacted. In the event that the Company obtains securities or industry analyst coverage, if one or more of the analysts who cover the Company downgrade the Ordinary Shares or publish inaccurate or unfavourable research about the Company's business, the share price would be likely to decline. If one or more of these analysts cease coverage of the Company or fail to publish reports regularly, demand for the Ordinary Shares could decrease, which might cause the price and trading volume of the Ordinary Shares to decline.

2.4 ***Future sales of Ordinary Shares could adversely affect the price of the Ordinary Shares***

The Lock-in Shareholders have entered into the Lock-In and Orderly Market Agreement pursuant to which they have each agreed with the Company, Strand Hanson and the Joint Brokers that they will not dispose of any interest in Ordinary Shares for the period ending on the first anniversary of the date of Admission. The Lock-In Shareholders have also agreed that for a further six months following the first anniversary of Admission they will only dispose of an interest in Ordinary Shares through the Joint Brokers (or the broker for the time being of the Company, if it is not the Joint Brokers) and in such manner as the Joint Brokers (or such other broker) may reasonably require with a view to the maintenance of an orderly market in the Ordinary Shares. There are certain exceptions to these lock-in and orderly provisions, further details of which are set out in paragraph 17 of Part 1 (*Information on Tungsten West*). There can be no assurance that such parties will not effect transactions upon the expiry of the Lock-In and Orderly Market Agreement or any earlier waiver of the provisions of their lock-in. The sale of a significant number of Ordinary Shares in the public market, or the perception that such sales may occur, could materially adversely affect the market price of the Ordinary Shares.

Shareholders not subject to lock-in arrangements and, following the expiry of the lock-in arrangements (or earlier in the event of a waiver of the provisions of the relevant lock-in arrangements), Shareholders who are otherwise subject to lock-in arrangements, may sell their Ordinary Shares in the public or private market and the Company may undertake a public or private offering of Ordinary Shares. The Company cannot predict what effect, if any, future sales of Ordinary Shares will have on the market price of the Ordinary Shares. If the Shareholders were to sell, or the Company was to issue a substantial number of Ordinary Shares in the public market, the market price of the Ordinary Shares could be materially adversely affected. Sales by the Shareholders could also make it more difficult for the Company to sell equity securities in the future at a time and price that it deems appropriate.

2.5 ***Dilution of Shareholders' interests as a result of additional equity fundraising***

The Company may need or choose to raise additional funds in the future to finance, amongst other things, working capital, expansion of the Company, new developments relating to existing operations or new acquisitions. If additional funds are raised through the issuance of new equity or equity-linked securities of the Company other than on a *pro rata* basis to existing Shareholders, the percentage ownership of the existing Shareholders may be reduced. Shareholders may also experience subsequent dilution and/or such securities may have preferred rights, options and pre-emption rights senior to the Ordinary Shares. The Company may also issue shares as consideration for acquisitions or investments which would also dilute Shareholders' interests in the Company.

2.6 ***Future payment of dividends***

There can be no assurance as to the level of future dividends (if any). The declaration, payment and amount of any future dividends of the Company are subject to the discretion of the Shareholders or, in the case of interim dividends to the discretion of the Directors, and will depend upon, amongst other things, the Company's earnings, financial position, cash requirements, availability of profits, as well as provisions for relevant laws or generally accepted accounting principles from time to time.

There can be no assurance that the Company will declare and pay, or have the ability to declare and pay, any dividends in the future.

2.7 ***Valuation of Ordinary Shares***

The Issue Price has been determined by the Company and may not relate to the Company's net asset value, net worth or any established criteria or value. There can be no guarantee that the Ordinary Shares will be able to achieve higher valuations or, if they do so, that such higher valuations can be maintained.

2.8 ***Market perception***

Market perception of the Group may change, potentially affecting the value of investors' holdings and the ability of the Group to raise further funds by the issue of further Ordinary Shares or otherwise.

2.9 ***Suitability***

An investment in the Ordinary Shares may not be suitable for all recipients of this document, and is only appropriate for investor capable of evaluation the risks (including the risk of capital loss) and merits of such investment and who have sufficient resources to sustain a total loss of their investment. An investment in the Ordinary Shares should be seen as long-term in nature and complimentary to investments in a range of other financial assets. Potential investors should consider carefully whether investment in the Ordinary Shares is suitable for them in light of the information in this document and their personal circumstances. Potential investors should consult with their own advisers as needed to assist them in making their investment decision and to advise them whether they are legally permitted to purchase the Ordinary Shares.

2.10 ***Tax***

Statements in this document on relation to tax and concerning the taxation of investors in Ordinary Shares are based on current tax law and practice, which is subject to change. The taxation of an investment in the Company depends on the specific circumstances of the relevant investor.

2.11 ***Forward-looking statements***

This document contains forward-looking statements that involve risks and uncertainties. The Company's results could differ materially from those anticipated in the forward-looking statements as a result of many factors, including the risks faced by the Company, which are described above and elsewhere in the document. Additional risks and uncertainties not currently known to the Board may also have an adverse effect on the Company's business.

It should be noted that the risk factors listed above are not intended to be exhaustive and do not necessarily comprise all of the risks to which the Company is, or may be, exposed to or all those associated with an investment in the Company. There may be additional risks and uncertainties that the Directors do not currently consider to be material or of which they are currently unaware, which may also have an adverse effect upon the Company.

PART 3

HISTORICAL FINANCIAL INFORMATION

This Part 3 (*Historical Financial Information*) contains the historical financial information of the Group for the two years ended 31 March 2021.

Section A: Accountant's report on the historical financial information of the Group

TUNGSTEN WEST

Reporting Accountant's Report
to the members of Tungsten West Plc

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The Directors
VSA Capital Limited
New Liverpool House
15-17 Eldon Street
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EC2M 7LD

8 October 2021

Dear Sirs

Tungsten West Plc and its subsidiaries (the "Group")

We report on the historical financial information set out in Section B (the "Financial Information") relating to Tungsten West Plc and its subsidiaries (the "Group"), which comprises the Consolidated Income Statement, Consolidated Statement of Financial Position, Consolidated Statement of Changes in Equity, Consolidated Statement of Cash Flows, and Notes to the Historical Financial Information for the years ending 31 March 2021 and 31 March 2020.

Opinion

In our opinion the Financial Information gives, for the purposes of the AIM admission document dated 15 October 2021 (the "Admission Document"), a true and fair view of the state of affairs of the Group as at 31 March 2021 and 31 March 2020 and of its profits, cash flows and changes in equity for the years then ended in accordance with UK-adopted international accounting standards.

Responsibilities

The directors of Tungsten West Plc are responsible for preparing the Financial Information in accordance with UK-adopted international accounting standards.

It is our responsibility to form an opinion on the Financial Information and to report our opinion to you.

Save for any responsibility arising under Paragraph (a) of Schedule Two to the AIM Rules to any person as and to the extent there provided, to the fullest extent permitted by law, we do not accept or assume responsibility and will not accept any liability to any other person for any loss suffered by any such other person as a result of, arising out of, or in connection with this report or our statement, required by and given solely for the purposes of complying with Paragraph (a) of Schedule Two to the AIM Rules, or consenting to its inclusion in the Admission Document.

Basis of preparation

This information has been prepared for inclusion in the Admission Document relating to the proposed admission to AIM of Tungsten West Plc and on the basis of the accounting policies set out in note 2. This report is required by Rule 18 of Annex 1 of the Prospectus Regulation Rules as applied by part (a) of Schedule Two to the AIM Rules and is given for the purpose of complying with that paragraph and for no other purpose.

Basis of opinion

We conducted our work in accordance with Standards for Investment Reporting issued by the Financial Reporting Council in the United Kingdom. We are independent of Tungsten West Plc and the Group in accordance with relevant ethical requirements. In the United Kingdom this is the Financial Reporting Council's Ethical Standard as applied to Investment Circular Reporting Engagements, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Our work included an assessment of evidence relevant to the amounts and disclosures in the Financial Information. It also included an assessment of significant estimates and judgements made by those responsible for the preparation of the Financial Information and whether the accounting policies are appropriate to the entity's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the Financial Information is free from material misstatement whether caused by fraud or other irregularity or error.

Our work has not been carried out in accordance with auditing or other standards and practices generally accepted in any jurisdictions other than the United Kingdom and accordingly should not be relied upon as if it had been carried out in accordance with those other standards and practices.

Going concern

We have nothing to report in respect of the following matters in relation to which we are required to report to you where:

- the Directors use of the going concern basis of accounting in the preparation of the Financial Information is not appropriate; or
- the Directors have not disclosed in the Financial Information any identified material uncertainties that may cast significant doubt about the Group's ability to continue to adopt the going concern

basis of accounting for a period of at least twelve months from the date when the Financial Information is authorised for issue.

Declaration

For the purposes of Paragraph (a) of Schedule Two to the AIM Rules we are responsible for this report as part of the Admission Document and we declare that, to the best of our knowledge, the information contained in this report is in accordance with the facts and makes no omission likely to affect its import. This declaration is included in the Admission Document in compliance with Schedule Two to the AIM Rules.

Yours faithfully

PKF Francis Clark

Chartered Accountants

Section B: Historical financial information of the Group

Consolidated Income Statement

	Note	*Year ended 31 March 2021* £	*Year ended 31 March 2020* £
Revenue	3	40,170	–
Cost of sales		(4,426,818)	(3,351,482)
Gross loss		(4,386,648)	(3,351,482)
Administrative expenses		(2,511,811)	(777,123)
Other operating income	4	3,612	11,115
Other gains/(losses)	5	(24,301)	(125,698)
Operating loss	6	(6,919,148)	(4,243,188)
Finance income		112,005	13,161
Finance costs		(1,174,640)	(276,826)
Net finance cost	7	(1,062,635)	(263,665)
Loss before tax		(7,981,783)	(4,506,853)
Income tax credit	10	–	1,075,520
Loss for the year		(7,981,783)	(3,431,333)
Profit/(loss) attributable to:			
Owners of the group		(7,981,783)	(3,431,333)

The above results were derived from continuing operations.

The notes on pages 58 to 78 form an integral part of these historical financial information.

Consolidated Statement of Financial Position

	Note	*As at 31 March 2021* £	*As at 31 March 2020* £
Assets			
Non-current assets			
Property, plant and equipment	11	4,367,271	4,394,041
Right of use assets	12	1,611,788	1,645,449
Intangible assets	13	4,919,853	4,919,853
Deferred tax assets	10	1,067,978	1,073,634
Escrow funds receivable	15	10,058,470	9,946,324
		22,025,360	21,979,301
Current assets			
Trade and other receivables	16	544,297	399,359
Cash and cash equivalents	17	3,499,580	2,721,879
		4,043,877	3,121,238
Total assets		26,069,237	25,100,539
Equity and liabilities			
Equity			
Share capital	18	(6,856)	(5,139)
Share premium		(12,327,484)	(5,991,124)
Share option reserve		(67,840)	(4,896)
Warrant reserve		(754,586)	(61,000)
Retained earnings		11,413,116	3,431,333
Equity attributable to owners of the group		(1,743,650)	(2,630,826)
Non-current liabilities			
Loans and borrowings	19	(11,728,780)	(11,000,369)
Provisions	21	(9,964,824)	(9,620,615)
Deferred tax liabilities	10	(1,067,978)	(1,073,634)
		(22,761,582)	(21,694,618)
Current liabilities			
Trade and other payables	22	(1,487,721)	(728,588)
Loans and borrowings	19	(76,284)	(46,507)
		(1,564,005)	(775,095)
Total liabilities		(24,325,587)	(22,469,713)
Total equity and liabilities		(26,069,237)	(25,100,539)

The notes on pages 58 to 78 form an integral part of these historical financial information.

Consolidated Statement of Changes in Equity

	Share capital £	*Share premium* £	*Share option reserve* £	*Warrant reserve* £	*Retained earnings* £	*Total* £
At 1 April 2020	5,139	5,991,124	4,896	61,000	(3,431,333)	2,630,826
Loss for the year	–	–	–	–	(7,981,783)	(7,981,783)
Total comprehensive income	–	–	–	–	(7,981,783)	(7,981,783)
New share capital subscribed	1,717	7,029,946	–	–	–	7,031,663
Warrant issue	–	(693,586)	–	693,586	–	–
Issue of share options	–	–	62,944	–	–	62,944
At 31 March 2021	6,856	12,327,484	67,840	754,586	(11,413,116)	1,743,650

	Share capital £	*Share premium* £	*Share option reserve* £	*Warrant reserve* £	*Retained earnings* £	*Total* £
At 1 April 2019	1	–	–	–	–	1
Loss for the year	–	–	–	–	(3,431,333)	(3,431,333)
Total comprehensive income	–	–	–	–	(3,431,333)	(3,431,333)
New share capital subscribed	5,138	6,052,124	–	–	–	6,057,262
Warrant issue	–	(61,000)	–	61,000	–	–
Issue of share options	–	–	4,896	–	–	4,896
At 31 March 2020	5,139	5,991,124	4,896	61,000	(3,431,333)	2,630,826

The notes on pages 58 to 78 form an integral part of these historical financial information.

Consolidated Statement of Cash Flows

	Note	*2021* £	*2020* £
Cash flows from operating activities			
Loss for the year		(7,981,783)	(3,431,333)
Adjustments to cash flows from non-cash items			
Depreciation and amortisation	6	170,506	44,760
Impairment of property plant and equipment		79,478	–
Finance income	7	(112,005)	(13,161)
Finance costs	7	1,174,640	276,826
Share based payment transactions		62,944	4,896
Income tax expense	10	–	(1,075,520)
		(6,606,220)	(4,193,532)
Working capital adjustments			
Increase in trade and other receivables	16	(147,786)	(396,650)
Increase/(decrease) in trade and other payables	22	759,352	(1,871,412)
Net cash flow from operating activities		(5,994,654)	(6,461,594)
Cash flows from investing activities			
Interest received	7	2,707	13,161
Acquisitions of property plant and equipment		(135,437)	–
Payments to acquire investments in subsidiary undertakings		–	(4,189,050)
Payments towards escrow funds		–	(1,800,000)
Net cash flows from investing activities		(132,730)	(5,975,889)
Cash flows from financing activities			
Interest paid	7	(66,591)	(28,826)
Proceeds from issue of ordinary shares, net of issue costs		7,031,663	6,057,262
Proceeds from issue of convertible debt, net of issue costs		–	9,300,000
Payments to lease liabilities		(59,987)	(169,074)
Net cash flows from financing activities		6,905,085	15,159,362
Net increase in cash and cash equivalents		777,701	2,721,879
Cash and cash equivalents at 1 April		2,721,879	–
Cash and cash equivalents at 31 March		3,499,580	2,721,879

The notes on pages 58 to 78 form an integral part of these historical financial information.

Notes to the Historical Financial Information

1. General information

The parent company is a private company limited by share capital, incorporated and domiciled in England and Wales.

The address of its registered office is:
Shakespeare Martineau LLP
6th Floor
60 Gracechurch Street
London
EC3V 0HR
United Kingdom

The principal place of business is:
Hemerdon Mine
Drakelands
Plympton
Devon
PL7 5BS

2. Accounting policies

Statement of compliance

The group historical financial information has been prepared in accordance with International Financial Reporting Standards and its interpretations adopted by the UK (UK-adopted international accounting standards). Currently there are no relevant differences between UK-adopted international accounting standards (which will be applied in the next published annual financial statements) and IFRS as adopted by the EU (which was applied in the previous annual financial statements).

Summary of significant accounting policies and key accounting estimates

The principal accounting policies applied in the preparation of these historical financial information is set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

Basis of preparation

The historical financial information has been prepared in accordance with UK-adopted international accounting standards and under historical cost accounting rules.

The Tungsten West group was dormant during the year ended 31st March 2019 and therefore in line with the approved derogation request received the directors have presented no financial information for this period.

The historical financial information is presented in Sterling, which is the functional currency of the group.

Going concern

Financial results

TWL made a loss before tax of £8m (2020: £4.5m) for the year and has a retained loss carried forward of £11.4m (2020: £3.4m) and net assets of £1.7m (2020: £2.6m). During the year, as planned, TWL focused on completion of the BFS while discharging environmental and social obligations under care and maintenance activities. Aside from some initial sales from the Aggregates business the group generated no turnover during the year and was financed through multiple rounds of share capital investment.

The group's cash-flow forecast includes the restart of mining operations 12 months after closing the financing package. In the event of a delay to the fundraising the group could put the assets on a care &

maintenance level of activity and this would allow the group more than 12 months of working capital from current cash balances.

It should be noted that the Group continues to monitor cash flow closely and has sought further share capital as required to maintain sufficient cash levels.

In order to manage cashflow, the Directors can delay procurement of significant capital outlays until the Project finance is in place.

The Directors have carefully considered the Group's financial position, liquidity and future cash-flow requirements. The Group is proceeding with plans to raise the required finance to undertake the changes required to the processing plant and to restart mining operation. Post year end the group completed a further capital raise of £3.8m which added to existing cash reserves (£1.1m) will give it sufficient working capital to maintain existing care and maintenance activities until the required finance package is expected to be in place. Should the expected fund raising be delayed the Directors believe that the group has sufficient funding available to allow the mine to continue to operate in its current form for a period of at least 12 months from the date of approval of these financial statements. Accordingly based on the forecasts the directors have prepared, they have a reasonable expectation that the group has adequate resources to continue in operational existence for the foreseeable future and they believe it is appropriate to apply the going concern basis of accounting in preparing the financial statements.

Basis of consolidation

The group financial statements consolidate the financial statements of the group and its subsidiary undertakings drawn up to 31 March 2021. Control is achieved where the group has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

The purchase method of accounting is used to account for business combinations that result in the acquisition of subsidiaries of the group. The cost of a business combination is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed as at the date of exchange. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date, including deferred tax if required. Any excess of the cost of the business combination over the acquirer's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities is recognised as goodwill.

Changes in accounting policy

None of the standards, interpretations and amendments from 1 April 2020 have had a material effect on the financial statements.

Revenue recognition

In the year revenue has mainly related to the sale of aggregates produced from the mining waste from excavations. This is recognised on delivery to customers at the fair value of consideration receivable at that date. The group has not yet commenced commercial sales of tungsten and tin.

Tax

Income tax expense consists of the sum of current tax and deferred tax.

Current tax is based on taxable profit for the year. Taxable profit differs from profit as reported for accounting purposes because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible.

Current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period. A provision is recognised for tax matters that are uncertain if it is considered probable that there will be a future outflow of funds to a tax authority. The provision is measured at the best estimate of the amount expected to become payable. The assessment is based on the judgement of directors supported by evidence from external tax specialists.

Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered. Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised based on tax laws and rates that have been enacted or substantively enacted at the reporting date.

The group intends to submit research and development tax credit claims. The group accounts for a claim at the point it has been approved by HMRC.

Property, plant and equipment

Land and buildings are stated at the cost less any depreciation or impairment losses subsequently accumulated (cost model). Land and buildings have been uplifted to fair value on consolidation.

Plant and equipment is stated in the statement of financial position at cost, less any subsequent accumulated depreciation and subsequent accumulated impairment losses.

Depreciation

Depreciation is charged so as to write off the cost of assets, other than land and properties under construction over their estimated useful lives, as follows:

Asset class	*Depreciation method and rate*
Land	None
Building	2% Straight Line
Fixtures and fittings	5% – 20% Straight Line
Plant and machinery	20% Straight Line
Motor vehicles	33% Straight Line

Goodwill

Goodwill is recognised at cost and reviewed for impairment annually.

Intangible assets

Contractual mining rights as set out in the mining lease are recognised as a separate intangible asset on consolidation under IFRS3.

The mining rights are subject to amortisation over the useful life of the mine which is 23 years. Amortisation will be charged from the date the mine is brought into use.

Right-of-use asset

Right-of-use assets consist of a lease for the Hemerdon Mine and two property leases under IFRS16. These assets are depreciated over the shorter of the lease term and the useful life of the underlying asset. Depreciation starts at the commencement date of the lease.

Notes to the Historical Financial Information

Research and development activities

All research costs are expensed. Costs related to the development of products are capitalised when they meet the following conditions:

(i) It is technically feasible to complete the development so that the product will be available for use or sale.

(ii) It is intended to use or sell the product being developed.

(iii) The Group is able to use or sell the product being developed.

(iv) It can be demonstrated that the product will generate probable future economic benefits.

(v) Adequate technical, financial and other resources exist so that product development can be completed and the product subsequently used or sold.

(vi) Expenditure attributable to the development can be reliably measured.

All other development expenditure is recognised as an expense in the period in which it is incurred.

Capitalised development costs are stated at cost less accumulated amortisation and accumulated impairment losses (cost model). Amortisation is recognised using the straight-line basis and results in the carrying amount being expensed in profit or loss over the estimated useful lives which range from 5 to 15 years.

Exploration for and evaluation of mineral resources

Costs relating to the exploration for and evaluation on mineral resources are expensed.

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and call deposits, and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

Trade receivables

Trade and other receivables where payment is due within one year do not constitute a financing transaction and are recorded at the undiscounted amount expected to be received, less attributable transaction costs. Any subsequent impairment is recognised as an expense in profit or loss.

All trade and other receivables are subsequently measured at amortised cost, net of impairment.

Escrow funds

These funds are held with a third party to be released to the group as it settles its obligation to restore the mining site once operations cease. The debtor has been discounted to present value assuming the funds will be receivable in 24 years' time which assumes 1 year of set up and 23 year useful life of mining operations.

Trade payables

Trade and other payables are initially recognised at fair value less attributable transaction costs. They are subsequently measured at amortised cost.

Convertible debt

The redemption of convertible debt does not give rise to a fixed number of shares on conversion and so is recognised as a liability with no equity element initially recorded at the amount of proceeds received. Interest compounds annually at a rate of 8 per cent. but shall not be payable until the maturity date.

Provisions

Provisions are recognised when the group has a present obligation (legal or constructive) as a result of a past event, it is probable that the group will be required to settle that obligation and a reliable estimate can be made of the amount of the obligation.

Provisions are measured at the directors' best estimate of the expenditure required to settle the obligation at the reporting date and are discounted to present value where the effect is material.

This includes a provision for the obligation to restore the mining site once mining ceases.

Leases

At inception of the contract, the group assesses whether a contract is, or contains, a lease. It recognises a right-of-use asset and a corresponding lease liability with respect to all material lease arrangements in which it is the lessee. The right-of-use assets and the lease liabilities are presented as separate line items in the statement of financial position.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the group uses its incremental borrowing rate. It is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

Share capital

Ordinary shares are classified as equity. Equity instruments are measured at the fair value of the cash or other resources received or receivable, net of the direct costs of issuing the equity instruments. If payment is deferred and the time value of money is material, the initial measurement is on a present value basis.

Share options granted to shareholders classified as equity instruments are accounted for at the fair value of cash received or receivable. Share options granted to shareholders which represent a future obligation for the group outside of its control are recognised as a financial liability at fair value through profit and loss.

Share options granted to employees are fair valued at the date of grant with the cost recognised over the vesting period. If the employee is employed in a subsidiary company the cost is added to the investment value, in the financial statements of the parent, and the expense recognised in staff costs in the statements of the subsidiary.

Warrants issued in return for a service are classified as equity instruments and measured at the fair value of the service received. Where the service received relates to the issue of shares the cost is debited against the proceeds received in share premium.

Defined contribution pension obligation

A defined contribution plan is a pension plan under which fixed contributions are paid into a separate entity and has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods.

For defined contribution plans contributions are paid publicly or privately administered pension insurance plans on a mandatory or contractual basis. The contributions are recognised as employee benefit expense when they are due. If contribution payments exceed the contribution due for service, the excess is recognised as an asset.

Financial instruments

Initial recognition

Financial assets and financial liabilities comprise all assets and liabilities reflected in the statement of financial position, although excluding property, plant and equipment, intangible assets, right-of-use assets, deferred tax assets, prepayments, deferred tax liabilities and the mining restoration provision.

The group recognises financial assets and financial liabilities in the statement of financial position when, and only when, the group becomes party to the contractual provisions of the financial instrument.

Financial assets are initially recognised at fair value. Financial liabilities are initially recognised at fair value, representing the proceeds received net of premiums, discounts and transaction costs that are directly attributable to the financial liability.

All regular way purchases and sales of financial assets and financial liabilities classified as fair value through profit or loss ("FVTPL") are recognised on the trade date, i.e. the date on which the group commits to purchase or sell the financial assets or financial liabilities. All regular way purchases and sales of other financial assets and financial liabilities are recognised on the settlement date, i.e. the date on which the asset or liability is received from or delivered to the counterparty. Regular way purchases or sales are purchases or sales of financial assets that require delivery within the time frame generally established by regulation or convention in the market place.

Subsequent to initial measurement, financial assets and financial liabilities are measured at either amortised cost or fair value.

In particular the group has recognised a financial liability arising from the founder share incentives at fair value. Subsequent movements in fair value are recognised through profit or loss.

Derecognition

Financial assets

The group derecognises a financial asset when;

– the contractual rights to the cash flows from the financial asset expire,

– it transfers the right to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred; or

– the group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

On derecognition of a financial asset, the difference between the carrying amount of the asset and the sum of the consideration received is recognised as a gain or loss in the profit or loss.

Financial liabilities

The group derecognises a financial liability when its contractual obligations are discharged, cancelled, or expire.

Accounting estimates and assumptions

The preparation of the financial statements requires management to make estimates and assumptions that affect the reported amounts of certain financial assets, liabilities, income and expenses.

The use of estimates and assumptions is principally limited to the determination of provisions for impairment and the valuation of financial instruments as explained in more detail below:

Restoration provision

The restoration provision is for the contractual obligation to restore the mining site back to it's original state once mining ceases. The provision is equal to the expected outflows that will be incurred at the end of the mine's useful life discounted to present value. As the restoration work will predominantly be completed at the end of the mine's useful life, which is estimated to be 24 years in the future (1 year startup + 23 years life of mine), these calculations are subject to a high degree of estimation uncertainty.

The provision has been discounted using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. The ultimate costs to restore the mine are uncertain, and cost estimates can vary in response to many factors, including estimates of the extent and costs of rehabilitation activities, technological changes, regulatory changes, cost increases as compared to the inflation rates and changes in discount rates. Management have considered these risks and used a discount rate of 1.1 per cent. (2020: 1.1 per cent.), an inflation rate of 2.5 per cent. (2020: 2.5 per cent.) and an estimated mining period of 23 years (as above). At the reporting date these assumptions represent managements best estimate of the present value of the future restoration costs.

Capitalisation of costs

Directors have reviewed any costs relating to evaluating the technical feasibility of processing the extracted tungsten ore and have expensed these costs in line with the current policy. Directors have also reviewed Research and development costs and concluded that these costs fail to meet to criteria set out in IAS38 for the capitalisation of development costs as they still consider that they are in the research phase. The group will commence capitalisation of development costs at the point when available finance has been secured to complete the project in accordance with IAS38.

Acquisition of Drakelands Restoration Limited

Under IFRS3 the Directors have recognised a Mining Right intangible asset and an adjustment to the value of freehold property acquired in the consolidated financial statements. The recognition of these assets under acquisition accounting represents a significant judgement in the financial statements. The value of the freehold property was based on an independent valuation completed around the time of acquisition. The mining right value is based on discounted future expected cash flows over the life of the mine. This includes significant judgements regarding the life of the mine, the discount rate used, the technical feasibility of the project and the resultant estimate of future cash flows.

Fair value of financial assets and liabilities

Where the fair value of financial assets and liabilities cannot be derived from active markets, they are determined using a variety of valuation techniques that include the use of mathematical models. The input to these models is derived from observable markets where available, but where this is not feasible, a degree of judgement is required in determining assumptions used in the models. Changes in assumptions used in the models could affect the reported fair value of financial assets and liabilities.

The group has had to assess reasonable discount rates based on market factors to use under IFRS. These discount rates have been used on the Right-of-use assets, Escrow funds and the Restoration provision. The discount rate on the Right-of-use asset is the rate for an equivalent debt instrument. The Escrow funds are discounted at the yield on an equivalent long-term UK government bond. The Restoration provision is discounted at the risk free rate plus a premium based on the specific risk associated with this liability.

3. Revenue

The analysis of the group's revenue for the year from continuing operations is as follows:

	2021	*2020*
	£	£
Sale of goods	40,170	–

Notes to the Historical Financial Information

4. Other operating income

The analysis of the group's other operating income for the year is as follows:

	2021	*2020*
	£	£
Sub lease rental income	3,612	11,115

5. Other gains and losses

The analysis of the group's other gains and losses for the year is as follows:

	2021	*2020*
	£	£
Gains/(losses) on founder share incentives	(24,301)	(125,698)

6. Operating loss

Arrived at after charging/(crediting)

	2021	*2020*
	£	£
Depreciation expense	170,506	44,760
Impairment loss	79,478	–
Operating lease expense – property	34,941	62,751

7. Finance income and costs

	2021	*2020*
	£	£
Finance income		
Interest income on the escrow funds receivable	112,005	13,161
Finance costs		
Interest expense on other financing liabilities	(830,431)	(276,826)
Interest cost on the restoration provision	(344,209)	–
Total finance costs	(1,174,640)	(276,826)
Net finance costs	(1,062,635)	(263,665)

8. Staff costs

The aggregate payroll costs (including directors' remuneration) were as follows:

	2021	*2020*
	£	£
Wages and salaries	1,649,726	289,161
Social security costs	118,725	738
Pension costs, defined contribution scheme	62,599	2,562
	1,831,050	292,461

The average number of persons employed by the group (including directors) during the year, analysed by category was as follows:

	2021	*2020*
	No.	*No.*
Administration and support	29	1
Management	5	4
	34	5

9. Directors' remuneration

The directors' remuneration for the year was as follows:

	2021	*2020*
	£	*£*
Remuneration	332,000	224,000

Included in the remuneration above was Nil (2020: £72,000) paid in shares rather than cash.

In respect of the highest paid director:

	2021	*2020*
	£	*£*
Remuneration	150,000	100,000

10. Income tax

Tax charged/(credited) in the income statement:

	2021	*2020*
	£	*£*
Deferred taxation		
Arising from origination and reversal of temporary differences	–	(1,075,520)

The tax on profit before tax for the year is higher than the standard rate of corporation tax in the UK (2020 – higher than the standard rate of corporation tax in the UK) of 19 per cent. (2020 – 19 per cent.).

The differences are reconciled below:

	2021	*2020*
	£	*£*
Loss before tax	(7,981,783)	(4,506,853)
Corporation tax at standard rate	(1,516,539)	(856,302)
Increase (decrease) from effect of expenses not deductible in determining taxable profit (tax loss)	48,964	56,371
Decrease (increase) from tax losses for which no deferred tax asset was recognised	1,467,575	4,012
Other tax effects for reconciliation between accounting profit and tax expense/(income)		(279,601)
Total tax credit	–	(1,075,520)

Deferred tax

2021

	Intangibles £	*Tangibles* £	*Losses* £	*Other* £	*Total* £
At 1 April 2020	730,423	343,211	(1,026,514)	(47,120)	–
Charged to profit and loss	–	(5,657)	5,657	–	–
At 31 March 2021	730,423	337,554	(1,020,857)	(47,120)	–

The net deferred tax of nil is made up of a liability of £1,067,977 and asset of £1,067,977.

The unrecognised deferred tax asset for carried forward losses at 2021 was £1,466,154.

2020

	Intangibles £	*Tangibles* £	*Losses* £	*Other* £	*Total* £
At 1 April 2019	–	–	–	–	–
Acquisition balances	730,423	345,097	–	–	1,075,520
Charged to profit and loss	–	(1,886)	(1,026,514)	(47,120)	(1,075,520)
At 31 March 2020	730,423	343,211	(1,026,514)	(47,120)	–

The net deferred tax of nil is made up of a liability of £1,073.635 and asset of £1,073,635.

The unrecognised deferred tax asset for carried forward losses as at 2020 was £4,012.

Notes to the Historical Financial Information

11. Property, plant and equipment

	Land and buildings £	*Furniture, fittings and equipment* £	*Motor vehicles* £	*Other property, plant and equipment* £	*Total* £
Cost or valuation					
At 1 April 2019	–	–	–	–	–
Acquired through business combinations	4,416,300	–	–	–	4,416,300
At 31 March 2020	4,416,300	–	–	–	4,416,300
At 1 April 2020	4,416,300	–	–	–	4,416,300
Additions	–	34,289	8,740	92,408	135,437
At 31 March 2021	4,416,300	34,289	8,740	92,408	4,551,737
Depreciation					
At 1 April 2019	–	–	–	–	–
Charge for year	22,259	–	–	–	22,259
At 31 March 2020	22,259	–	–	–	22,259
At 1 April 2020	22,259	–	–	–	22,259
Charge for the year	66,776	1,516	2,163	12,274	82,729
Impairment	79,478	–	–	–	79,478
At 31 March 2021	168,513	1,516	2,163	12,274	184,466
Carrying amount					
At 31 March 2021	4,247,787	32,773	6,577	80,134	4,367,271
At 31 March 2020	4,394,041	–	–	–	4,394,041
At 1 April 2019	–	–	–	–	–

Included within the net book value of land and buildings above is £4,247,787 (2020 – £4,394,041) in respect of freehold land and buildings.

The Drakelands Restoration Limited assets acquired were brought in at fair value under IFRS 3. Fair value is based on an independent valuation carried out by a 3rd party.

Impairment

Land and buildings

This impairment is due to a building being damaged in the year. The amount of impairment loss included in profit and loss is £79,478 (2020 – £Nil).

Notes to the Historical Financial Information

12. Right of use assets

	Property £	*Total* £
Cost or valuation		
At 1 April 2019	–	–
Acquired through business combination	1,667,951	1,667,951
At 31 March 2020	1,667,951	1,667,951
At 1 April 2020	1,667,951	1,667,951
Additions	54,116	54,116
At 31 March 2021	1,722,067	1,722,067
Depreciation		
At 1 April 2019	–	–
Charge for year	22,502	22,502
At 31 March 2020	22,502	22,502
At 1 April 2020	22,502	22,502
Charge for the year	87,777	87,777
At 31 March 2021	110,279	110,279
Carrying amount		
At 31 March 2021	1,611,788	1,611,788
At 31 March 2020	1,645,449	1,645,449

Depreciation on right-of-use assets charged through the profit and loss totals £87,777 (2020: £22,502). Interest expense on lease liabilities charged through the profit and loss totals £86,520 (2020: £28,826).

13. Intangible assets

	Goodwill £	*Mining rights* £	*Total* £
Cost or valuation			
At 1 April 2019	–	–	–
Acquired through business combinations	1,075,520	3,844,333	4,919,853
At 31 March 2020	1,075,520	3,844,333	4,919,853
At 1 April 2020	1,075,520	3,844,333	4,919,853
At 31 March 2021	1,075,520	3,844,333	4,919,853
Carrying amount			
At 31 March 2021	1,075,520	3,844,333	4,919,853

Impairment

The valuation of the cash-generating unit, combining the PPE and Goodwill of the group, is supported by the NPV of the group (£272m), as determined by the Bankable Feasibility Study (BFS). The NPV per the BFS represent the discounted expected cashflows for the next 30 years with a discount rate of 5 per cent.. The key assumptions in this valuation are around Tungsten grade, recoverability and metal prices with exchange rates also a key sensitivity on the project.

14. Investments

Group subsidiaries

Details of the group subsidiaries as at 31 March 2021 are as follows:

Name of subsidiary	*Principal activity*	*Registered office*	*Proportion of ownership interest and voting rights held*	
			2021	*2020*
Drakelands Restoration Limited*	Mining of tungsten and tin	Shakespeare Martineau LLP 6th Floor 60 Gracechurch Street London United Kingdom EC3V 0HR England and Wales	100%	100%
Tungsten West Services Limited*	Provision of services to group	Shakespeare Martineau LLP 6th Floor 60 Gracechurch Street London United Kingdom EC3V 0HR England and Wales	100%	100%
Aggregates West Limited*	Sales of aggregates	Shakespeare Martineau LLP 6th Floor 60 Gracechurch Street London United Kingdom EC3V 0HR England and Wales	100%	0%

* indicates direct investment of Tungsten West Plc in the subsidiary

15. Escrow funds

	31 March 2021	*31 March 2020*
	£	*£*
Escrow funds	10,058,470	9,946,324

These are funds being held under escrow with a third party and will be released back to the group on the cessation of mining once restoration works have been completed. The funds have been discounted to present value over the expected useful life of the mine plus one year start up. The actual funds held in the escrow account at year end were £13,201,256 (2020: £13,204,549).

Notes to the Historical Financial Information

16. Trade and other receivables

	31 March 2021 £	31 March 2020 £
Trade receivables	34,675	–
Prepayments	15,841	217,960
Other receivables	493,781	181,399
	544,297	399,359

The average credit period on sales of goods is 30 days. No interest is charged on outstanding trade receivables. The carrying amount of trade and other receivables approximates the fair value.

As the group is in the early phases of operations and making a few minor sales, bad debt is being considered on customer by customer basis. No irrecoverable debts were identified as at year end.

17. Cash and cash equivalents

	31 March 2021 £	31 March 2020 £
Cash at bank	3,499,580	2,721,879

18. Share capital

Allotted, called up and fully paid shares

	No.	31 March 2021 £	No.	31 March 2020 £
Ordinary shares of £0.0001 each	68,560,000	6,856.00	51,390,000	5,139.00

The parent company of the group issued multiple rounds of £0.0001 ordinary shares in the year at subscription prices between £0.25 – £0.45 per share.

The holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled to one vote per share at meetings of the group. All ordinary shares rank equally with regard to the group's residual assets.

19. Loans and borrowings

Non-current liabilities

	31 March 2021 £	31 March 2020 £
Lease liabilities	1,416,940	1,452,369
Convertible debt	10,311,840	9,548,000
Other borrowings	–	–
	11,728,780	11,000,369

Notes to the Historical Financial Information

Current liabilities

	31 March 2021 £	31 March 2020 £
Lease liabilities	76,284	46,507

Convertible bonds

The redemption of convertible debt does not give rise to a fixed number of shares on conversion and so convertible debt is recognised as a liability with no equity element initially recorded at the amount of proceeds received. Interest compounds annually at a rate of 8 per cent. but shall not be paid until the maturity date. Convertible debt is redeemable at a premium at the option of the group if paid prior to maturity. Maturity date is 30 November 2022.

Movement in liability

	31 March 2021 £	31 March 2020 £
Brought forward	9,548,000	–
Proceeds from issue of convertible bonds	–	9,300,000
Interest expense	763,840	248,000
	10,311,840	9,548,000

20. Obligations under leases and hire purchase contracts

Lease liabilities

2021

	Minimum lease payments £	Interest £	Present value £
Within one year	148,231	(71,947)	76,284
In two to five years	442,680	(321,759)	120,921
In over five years	2,665,907	(1,369,888)	1,296,019
	3,256,818	(1,763,594)	1,493,224

2020

	Minimum lease payments £	Interest £	Present value £
Within one year	119,904	(73,397)	46,507
In two to five years	446,378	(327,335)	119,043
In over five years	2,763,441	(1,430,115)	1,333,326
	3,329,723	(1,830,847)	1,498,876

The present values of future finance lease payments are analysed as follows:

	31 March 2021 £	31 March 2020 £
Current liabilities	76,284	46,507
Non-current liabilities	1,416,940	1,452,369
	1,493,224	1,498,876

21. Provisions

	Restoration provision £	*Total* £
At 1 April 2019	Nil	Nil
Acquired through business combination	9,620,615	9,620,615
At 1 April 2020	9,620,615	9,620,615
Provisions used	(3,293)	(3,293)
Increase (decrease) due to passage of time or unwinding of discount	347,502	347,502
At 31 March 2021	9,964,824	9,964,824
Non-current liabilities	9,964,824	9,964,824

This provision is for the obligation to restore the mine to its original state once mining operations cease discounted back to present value based on the estimated life of the mine. Prior to discounting the Directors estimate the provision at current costs to be £13,201,256 (2020: £13,201,256).

22. Trade and other payables

	31 March 2021 £	*31 March 2020* £
Trade payables	491,871	93,859
Accrued expenses	295,020	306,032
Social security and other taxes	58,220	3,000
Outstanding defined contribution pension costs	12,611	–
Other payables	629,999	325,697
	1,487,721	728,588

Trade payables and accruals comprise amounts outstanding for trade purchases and ongoing costs. The average credit period for trade purchases is 45 days. No interest is charged on overdue amounts.

The carrying amount of trade and other payables approximates the fair value.

23. Pension and other schemes

Defined contribution pension scheme

The group operates a defined contribution pension scheme. The pension cost charge for the year represents contributions payable by the group to the scheme and amounted to £62,599 (2020 – £2,562).

Contributions totalling £(12,611) (2020 – £Nil) were payable to the scheme at the end of the year and are included in creditors.

24. Share-based payments

Warrants

Details and movements

Warrants have been issued to certain shareholders and intermediaries as commission for introducing capital to the group. Warrants can be exercised at any point before the expiry date for a fixed number of shares.

The movements in the number of warrants during the year were as follows:

	31 March 2021 Number	*31 March 2020 Number*
Outstanding, start of period	220,000	–
Granted during the period	2,090,681	220,000
Outstanding, end of period	2,310,681	220,000

The exercise price of warrants outstanding at 31 March 2021 ranged between £0.25 and £0.56 (2020: between £0.25 and £0.30) and their contractual life was 2 years (2020: 2 years).

Founder share incentives

Details and movements

The founder shareholders have a right to receive shares at a nominal value once certain milestones are hit.

The movements in the number of share options during the year were as follows:

	31 March 2021 Number	*31 March 2020 Number*
Outstanding, start of period	5,139,000	–
Granted during the period	1,824,000	16,141,276
Exercised during the period	–	(11,002,276)
Outstanding, end of period	6,963,000	5,139,000

One of the milestones in the agreement obligates the group to issue shares upon an event which is outside it’s control. This represents a financial liability which is measured at fair value to the group with changes in value going through the profit and loss account. The group only accounts for the liability for shares it is obligated to issue and not shares issuable due to events under the group’s control. Were the group obligated to issue all the shares under the shareholders agreement the liability would be significantly higher. See note 27.

EMI share options

Details and movements

Share options have been issued to key employees as an incentive to stay with the group. These options can be exercised within 4 years following the grant date, once the option has vested.

The movements in the number of share options during the year were as follows:

	31 March 2021 Number	*31 March 2020 Number*
Outstanding, start of period	833,333	–
Granted during the period	400,000	833,333
Outstanding, end of period	1,233,333	833,333

The exercise price of share options outstanding at 31 March 2021 ranged between £0.0001 and £0.30 (2020: £0.30) and their contractual life was 4 years (2020: 4 years).

Share options have been valued using the Black Scholes model. The key assumption being the volatility of the future share price which has been set at 33 per cent. The directors have based this on observable market volatilities of similar entities.

25. Commitments

Capital commitments

As at 31 March 2021 the group had contracted to purchase plant and machinery amounting to £815,195 (2020 – £798,320). An amount of £123,320 (2020: £Nil) is contingent on the commencement of mining operations.

Other financial commitments

The total amount of other financial commitments not provided in the financial statements was £4,200,000 (2020 – £4,200,000). This is payable on the commencement of mining operations and represents contractual amounts due to the mining contractor and further committed payments to the funds held in the escrow account under the escrow agreement.

26. Reconciliation of liabilities arising from financing activities

	At 1 April 2020 £	*Financing cash flows £*	*Non-cash changes New finance leases £*	*Other changes £*	*At 31 March 2021 £*
Long term borrowings	9,548,000	–	–	763,840	10,311,840
Lease liabilities	1,498,876	(59,987)	54,335	–	1,493,224
	11,046,876	(59,987)	54,335	763,840	11,805,064

	Financing cash flows £	*Non-cash changes New finance leases £*	*Other changes £*	*At 31 March 2020 £*
Long term borrowings	9,300,000	–	248,000	9,548,000
Lease liabilities	(169,074)	1,667,950	–	1,498,876
	9,130,926	1,667,950	248,000	11,046,876

Notes to the Historical Financial Information

27. Classification of financial and non-financial assets and financial and non-financial liabilities

The classification of financial assets and financial liabilities by accounting categorisation for the period ending 31 March 2021 was as follows:

	Financial assets at amortised cost £	*Financial liabilities at amortised cost* £	*Financial assets & liabilities at FVTPL* £
Assets			
Non-current assets			
Escrow funds receivable	10,058,470		
Current assets			
Trade and other receivables	528,456	–	–
Cash and cash equivalents	3,499,580	–	–
	14,086,506	–	–
Liabilities			
Non-current liabilities			
Loans and borrowings	–	(11,729,780)	–
Current liabilities			
Trade and other payables	–	(1,337,722)	(149,999)
Loans and borrowings	–	(76,284)	–
	–	(1,414,006)	(149,999)
Total liabilities	–	(13,143,786)	(149,999)

The classification of financial assets and financial liabilities by accounting categorisation for the period ending 31 March 2020 was as follows:

	Financial assets at amortised cost £	*Financial liabilities at amortised cost* £	*Financial assets & liabilities at FVTPL* £
Assets			
Non-current assets			
Escrow funds receivable	9,946,324		
Current assets			
Trade and other receivables	181,399	–	–
Cash and cash equivalents	2,721,879	–	–
	12,849,602	–	–
Liabilities			
Non-current liabilities			
Loans and borrowings	–	(11,000,369)	–
Current liabilities			
Trade and other payables	–	(602,889)	(125,699)
Loans and borrowings	–	(46,507)	–
	–	(649,396)	(125,699)
Total liabilities	–	(11,649,765)	(125,699)

28. Financial risk review

This note presents information about the group's exposure to financial risks and the group's management of capital.

Credit risk

In order to minimise credit risk, the group has adopted a policy of only dealing with creditworthy counterparties (banks and debtors) and it obtains sufficient collateral, where appropriate, to mitigate the risk of financial loss from defaults. The most significant credit risk relates to customers that may default in making payments for goods they have purchased.

To date the group has only made a small number of sales and therefore the credit risk exposure has been low.

Liquidity risk

The directors regularly monitor forecast and actual cash flows and match the maturity profiles of financial assets and liabilities to ensure proper liquidity risk management and to maintain adequate reserves, and borrowing facilities. In the view of the directors, the key risk to liquidity is in meeting short term cash flow needs. All amounts repayable on demand or within three months are covered by the group's cash and accounts receivable balances, which gives the directors confidence that funds will be available to settle liabilities as they fall due.

Market risk

The group is exposed to interest rate risk through the impact of rate changes on interest-bearing borrowings. The interest rates and terms of repayment are disclosed in note 19 to the financial statements. The group's policy is to obtain the most favourable interest rates available for all liabilities. Except as outlined above, the group has no significant interest-bearing assets and liabilities. The group in the future will also be exposed to exchange rate risk on the basis that tungsten prices are principally denominated in USD. The group will seek to manage this risk through the supply contracts it agrees with future customers.

The group does not use any derivative instruments to reduce its economic exposure to changes in interest rates or foreign currency exchange rates at the current time.

29. Related party transactions

In addition to amounts disclosed in the Directors remuneration note the group also reimburse expenses of £Nil (2020: £29,050) to companies owned by Directors. At the year end the amount due was £Nil (2020: £Nil). During the year one Director received a commission payment of £79,000 (2020: £52,500) from a third party in connection with raising additional share capital for Tungsten West. In addition, one Director received a beneficial interest in 22,222 Warrants at 45p (2020: 210,000 Warrants at 25p) granted during the year to a third party in relation to raising additional share capital for Tungsten West.

Convertible bonds

During 2020 £3,300,000 of convertible bonds were issued to family members of two of the directors. Interest due on these bonds at year end was £359,040 (2020: £88,000).

Key management personnel

Key management personnel are deemed to be the directors. Their remuneration can be seen in note 9.

30. Application of new and revised International Financial Reporting Standards (IFRS)

New and amended Standards and Interpretations applied

The following new and amended Standards and Interpretations have been issued and are effective for the current financial period of the group.

Covid-19-Related Rent Concessions (Amendment to IFRS 16)

In the current year, the group applied Covid-19-Related Rent Concessions (Amendment to IFRS 16). The amendment is effective for annual periods that begin on or after 1 June 2020 and as the group has no qualifying rent concessions during the year ended 31 March 2021 the group has not applied this amendment.

This amendment permits reductions in rent payments granted as a direct consequence of the Covid-19 pandemic and originally due on or before 30 June 2021 to be credited to the profit and loss account, rather than requiring remeasurement of the lease.

Other amendments

In the current year, the group has applied a number of amendments to Standards and Interpretations issued by the IASB that are effective for an annual period that begins on or after 1 January 2020. These have not had any material impact on the amounts reported for the current and prior years.

Standard or Interpretation	*Effective for annual periods commencing on or after*
Definition of a Business (Amendments to IFRS 3)	1 January 2020
Amendments to IAS 1 and IAS 8 – definition of material	1 January 2020
Conceptual Framework – Amendments to References to the Conceptual Framework in IFRS Standards	1 January 2020

New and revised Standards and Interpretations in issue but not yet effective

At the date of authorisation of these financial statements, the group has not early adopted the following amendments to Standards and Interpretations that have been issued but are not yet effective:

Standard or Interpretation	*Effective for annual periods commencing on or after*
Narrow scope amendments to IFRS 3, IAS 16 and IAS 37	1 January 2022
Annual improvements to IFRS Standards 2018-2020	1 January 2022
Amendments to IAS 1: Classification of Liabilities as Current or Non-Current	1 January 2022

From 1 April 2021 the group will apply UK adopted IAS. At the date of application, both UK adopted IAS and EU adopted IFRS will be the same.

The directors do not expect any material impact as a result of adopting the standards and amendments listed above in the financial year they become effective.

31. Non adjusting events after the financial period

Post year end the group raised capital totalling £3.8m through the issue of share capital. The group also made a capital reduction for £10,000,000 from share premium to retained earnings.

PART 4

UNAUDITED PROFORMA CONSOLIDATED NET ASSET STATEMENT FOR THE GROUP

Set out below is an unaudited pro forma statement of net assets of the Company as at 31 March 2021. The unaudited pro forma net asset statement of the Company as at 31 March 2021 has been prepared on the basis set out in the notes below to illustrate the impact of the Fundraising as if it had taken place on 31 March 2021.

The unaudited pro forma information has been prepared for illustrative purposes only and, by its nature, addresses a hypothetical situation and does not, therefore, represent the Group's actual financial position or results. Such information may not, therefore, give a true picture of the Group's financial position or results nor is it indicative of the results that may or may not be expected to be achieved in the future.

The unaudited pro forma information is based on the audited net assets of the Company as at 31 March 2021 and is based on the Company's audited historical financial information as shown in Section B of Part 3 of this document. No adjustments have been made to take account of trading, expenditure or other movements subsequent to 31 March 2021, being the date of the audited historical financial information of the Company.

The unaudited pro forma information does not constitute financial statements within the meaning of section 434 of the Act. Investors should read the whole of this document and not rely solely on the summarised financial information contained in this Part 4.

Unaudited pro forma statement of net assets as at 31 March 2021

	The Group Net Assets as at 31 March 2021 (Note 1)	*Issue of Placing Shares and Subscription Shares net of costs (Note 3)*	*Conversion of loan and accrued interest (Note 2)*	*Unaudited pro forma adjusted net assets of the Group on Admission*
	£	£	£	£
Assets				
Non-current assets				
Property, plant & equipment	4,367,271	–	–	4,367,271
Right of use assets	1,611,788	–	–	1,611,788
Intangible assets	4,919,853	–	–	4,919,853
Deferred tax assets	1,067,978	–	–	1,067,978
Escrow funds receivable	10,058,470	–	–	10,058,470
Non-current assets	22,025,360	–	–	22,025,360
Current assets				
Trade and other receivables	544,297	–	–	544,297
Cash and cash equivalents	3,499,580	35,928,028	–	39,427,608
Current assets	4,043,877	35,928,028	–	39,971,905
Total assets	26,069,237	35,928,028	–	61,997,265
Liabilities				
Non-current liabilities				
Loans and Borrowings	(11,728,780)	–	10,311,840	(1,416,940)
Provisions	(9,964,824)	–	–	(9,964,824)
Deferred tax	(1,067,978)	–	–	(1,067,978)
Total non-current liabilities	(22,761,582)	–	10,311,840	(12,449,742)
Current liabilities				
Trade and other payables	(1,487,721)	–	–	(1,487,721)
Loans and borrowings	(76,284)	-	–	(76,284)
Total current liabilities	(1,564,005)	–	–	(1,564,005)
Total Liabilities	(24,325,587)	–	10,311,840	(14,013,747)
Total net assets	1,743,650	35,928,028	10,311,840	47,983,518

Notes

The pro forma statement of net assets has been prepared on the following basis:

1. The audited net assets of the Group as at 31 March 2021 have been extracted without adjustment from the audited historical financial information as shown in section B of Part 3 of this document.
2. An adjustment has been made to reflect the conversion of the Convertible Loan and interest accrued at 31 March 2021. The loan prevailing principal of £9,300,000 and accrued interest of £1,011,840 (at 31 March 2021) will convert in full to ordinary share capital upon Admission.
3. An adjustment has been made to reflect the proceeds of the Fundraising of 65,000,000 New Ordinary Shares of the Company at an Issue Price of £0.60 per Ordinary Share less an adjustment to reflect the payment in cash of Admission-related costs estimated at approximately £3.07 million exclusive of any non-recoverable sales taxes.
4. The Group's net asset value as at 31 March 2021 was £1,743,650. Adjusted for the Loan Conversion and the Fundraising, on Admission, the Group's unaudited pro forma consolidated net asset value will be £47,983,518.
5. No adjustments have been made to reflect the trading or other transactions, other than described above. In particular the pro forma includes no adjustment in relation to the Orion Senior Loan Agreement or Orion Investment as these agreements have not been deemed directly attributable to the transaction.
6. The pro forma statement of net assets does not constitute financial statements.

PART 5

UK TAXATION

1. Taxation in the United Kingdom

The following information is based on UK tax law and HMRC practice currently in force in the UK. Such law and practice (including, without limitation, rates of tax) is in principle subject to change at any time, possibly with retrospective effect. The information that follows is for guidance purposes only – it is not exhaustive and relates only to certain limited aspects of the UK tax consequences for individuals and companies of holding or disposing of Ordinary Shares (and, in the case of section 1.5, acquiring or subscribing for Ordinary Shares).

Except where expressly stated otherwise, the sections below are intended to apply only to individuals and companies: (a) who are for UK tax purposes resident and, if individuals, domiciled or deemed domiciled in (and only in) the United Kingdom for UK tax purposes; (b) to whom split-year treatment does not apply; (c) who are the absolute beneficial owners of their Ordinary Shares and any dividends paid in respect of them; (d) who hold their Ordinary Shares as investments (otherwise than through an individual savings account or an exempt pension arrangement or as carried interest) and not as securities to be realised in the course of a trade; and (e) who hold less than 5 per cent. of the Ordinary Shares.

The sections below may not apply to certain shareholders, such as charities, dealers in securities, trustees, broker dealers, market makers, insurance companies and collective investment schemes, pension schemes, persons subject to UK tax on the remittance basis, persons who are otherwise exempt from UK taxation and persons who have (or are deemed to have) acquired their Ordinary Shares by virtue of an office or employment or persons who are treated as holding their Ordinary Shares as carried interest. Such shareholders may be subject to special rules.

The material set out in the sections below does not constitute tax advice. Any person who is in any doubt as to their tax position or who is or may be subject to tax in a jurisdiction other than the United Kingdom should consult an appropriate professional adviser. Investors should be aware that the tax legislation of the investor's jurisdiction and/or the tax legislation of the United Kingdom may have an impact on the income received from the Ordinary Shares.

1.1 *Tax treatment of UK investors*

The following information, which relates only to UK taxation, is applicable to persons who are resident in the UK and who beneficially own Ordinary Shares as investments and not as securities to be realised in the course of a trade. It is based on the law and practice currently in force in the UK. The information is not exhaustive and does not apply to potential investors:

(a) who intend to acquire, or may acquire (either on their own or together with persons with whom they are connected or associated for tax purposes), more than 10 per cent., of any of the classes of shares in the Company; or

(b) who intend to acquire Ordinary Shares as part of tax avoidance arrangements; or

(c) who are in any doubt as to their taxation position.

Such Shareholders should consult their professional advisers without delay. Shareholders should note that tax law and interpretation can change and that, in particular, the levels, basis of and reliefs from taxation may change. Such changes may alter the benefits of investment in the Company.

Shareholders who are neither resident nor temporarily non-resident in the UK and who do not carry on a trade, profession or vocation through a branch, agency or permanent establishment in the UK with which the Ordinary Shares are connected will not normally be liable to UK taxation on dividends paid by the Company or on capital gains arising on the sale or other disposal of Ordinary Shares. Such Shareholders should consult their own tax advisers concerning their tax liabilities.

1.2 *Dividends*

Where the Company pays dividends no UK withholding taxes will be deducted at source. Shareholders who are resident in the UK for tax purposes will, depending on their circumstances, be liable to UK income tax or corporation tax on those dividends.

UK resident individual Shareholders who are domiciled or deemed domiciled in the UK, and who hold their Ordinary Shares as investments, will be subject to UK income tax on the amount of dividends received from the Company.

The general tax treatment of dividends paid by the Company to individuals holding the Ordinary Shares is as follows:

(a) dividends received by an individual from the Company (or from other sources) will form part of the individual's total income for income tax purposes;

(b) a nil rate of income tax applies to the first part of taxable dividend income received by an individual in a tax year (the "Nil Rate Amount"), regardless of the tax rate that would otherwise apply. For the tax year from 6 April 2021 to 5 April 2022, the Nil Rate Amount is £2,000; and

(c) any taxable dividend income received by an individual in a tax year in excess of the Nil Rate Amount will be taxed at the rates set out below.

Where an individual's taxable dividend income for a tax year exceeds the Nil Rate Amount, the excess amount (the **"Relevant Dividend Income"**) will, subject to the availability of any income tax personal allowance, be subject to income tax at the following rates for the 2021/2022 tax year:

(a) 7.5 per cent., to the extent that the Relevant Dividend Income falls below the threshold for the higher rate of income tax;

(b) 32.5 per cent., to the extent that the Relevant Dividend Income falls above the threshold for the higher rate of income tax but below the threshold for the additional rate of income tax; and

(c) 38.1 per cent., to the extent that the Relevant Dividend Income falls above the threshold for the additional rate of income tax.

In determining whether and, if so, to what extent the Relevant Dividend Income falls above or below the threshold for the higher rate of income tax or, as the case may be, the additional rate of income tax, the individual's total taxable dividend income for the tax year in question (including the part within the Nil Rate Amount) will be treated as the highest part of the individual's total income for income tax purposes.

On 7 September 2021, the Government announced that the tax rate applicable to dividends would rise by 1.25 per cent. from April 2022, and that this would be legislated for in the next Finance Bill.

UK resident corporate shareholders who are subject to UK corporation tax should generally, and subject to certain anti-avoidance provisions, be able to claim exemption from UK corporation tax in respect of any dividend received but will not be entitled to claim relief in respect of any underlying tax.

1.3 *Disposals of Ordinary Shares*

Any gain arising on the sale, redemption or other disposal of Ordinary Shares by UK resident individual shareholders will be taxed at the time of such sale, redemption or disposal as a capital gain.

The rate of capital gains tax on disposal of Ordinary Shares by basic rate taxpayers is 10 per cent., and for upper rate and additional is 20 per cent.

For Shareholders within the charge to UK corporation tax, indexation allowance up until 1 January 2018 may reduce any chargeable gain arising on disposal of Ordinary Shares but will not create or increase an allowable loss.

Subject to certain exemptions and reliefs, the corporation tax rate applicable to taxable profits arising from a disposal or deemed disposal of Ordinary Shares by corporate shareholders is currently

19 per cent. However, pursuant to the Finance Act 2021, it was announced that the rate will increase to 25 per cent. on 1 April 2023.

1.4 ***Further information for Shareholders subject to UK income tax and capital gains tax***

"Transactions in securities"

The attention of Shareholders (whether corporates or individuals) within the scope of UK taxation is drawn to the provisions set out in, respectively, Part 15 of the Corporation Tax Act 2010 and Chapter 1 of Part 13 of the Income Tax Act 2007, which (in each case) give powers to HMRC to raise tax assessments so as to cancel "tax advantages" derived from certain prescribed "transactions in securities".

1.5 ***Stamp Duty and Stamp Duty Reserve Tax ("SDRT")***

The following statements are intended as a general and non-exhaustive guide to the current UK stamp duty and SDRT position and apply regardless of whether or not a holder, acquirer or subscriber of Ordinary Shares is resident in the United Kingdom. It should be noted that certain categories of person, including market makers, brokers, dealers, persons connected with clearance services and depositary receipt systems and other specified market intermediaries, may not be liable to stamp duty or SDRT or may be liable at a higher rate or may, although not primarily liable for tax, be required to notify and account for it under the Stamp Duty Reserve Tax Regulations 1986.

Where UK stamp duty applies it is generally levied at 0.5 per cent. of the amount or value of the consideration paid for shares (rounded up to the nearest £5). An exemption from UK stamp duty is available if the amount or value of the consideration paid is £1,000 or less. Where UK SDRT applies it is generally levied at 0.5 per cent. of the amount or value of the consideration paid for the shares. In some instances, UK stamp duty or SDRT can be chargeable on the market value of the shares transferred.

No UK stamp duty or SDRT will generally be payable on the issue of the Ordinary Shares.

Neither UK stamp duty nor SDRT should arise on transfers of the Ordinary Shares on AIM (including instruments transferring Ordinary Shares and agreements to transfer Ordinary Shares) based on the following assumptions:

(a) the Shares are admitted to trading on AIM, but are not listed on any market (with the term "listed" being construed in accordance with section 99A of the Finance Act 1986); and

(b) AIM continues to be accepted as a "recognised growth market" as construed in accordance with section 99A of the Finance Act 1986).

In the event that either of the above assumptions does not apply, UK stamp duty or SDRT may apply to transfers of Ordinary Shares in certain circumstances.

THIS SUMMARY OF UK TAXATION ISSUES CAN ONLY PROVIDE A GENERAL OVERVIEW OF THESE AREAS AND IT IS NOT A DESCRIPTION OF ALL THE TAX CONSIDERATIONS THAT MAY BE RELEVANT TO A DECISION TO INVEST IN THE COMPANY. THE SUMMARY OF CERTAIN UK TAX ISSUES IS BASED ON THE LAWS AND REGULATIONS IN FORCE AS OF THE DATE OF THIS DOCUMENT AND MAY BE SUBJECT TO ANY CHANGES IN UK LAWS OCCURRING AFTER SUCH DATE. LEGAL ADVICE SHOULD BE TAKEN WITH REGARD TO INDIVIDUAL CIRCUMSTANCES. ANY PERSON WHO IS IN ANY DOUBT AS TO HIS TAX POSITION OR WHERE HE IS RESIDENT, OR OTHERWISE SUBJECT TO TAXATION, IN A JURISDICTION OTHER THAN THE UK, SHOULD CONSULT HIS PROFESSIONAL ADVISER.

PART 6

COMPETENT PERSON'S REPORT

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Report

Hemerdon Mine Competent Person's Report

Tungsten West Limited

AMC Project 421011
28 September 2021

Unearth a smarter way

Executive summary

Introduction

Tungsten West Limited (TWL) requested AMC Consultants (UK) Limited (AMC) to prepare a Competent Person's Report (CPR) for the Hemerdon tungsten-tin mine (Hemerdon), Plymouth, UK. The CPR is to be included in the listing documents for TWL's proposed listing on the Alternative Investment Market (AIM). Hemerdon was previously an operating mine but, as of 2018 has been on care and maintenance. TWL intends to reopen the mine and start operations in 2022.

The effective date of the CPR is 28 September 2021 (the "Effective Date"). The Mineral Resource and Ore Reserve statements have been prepared as at the Effective Date in reliance on:

- The Mineral Resource statement as prepared by Mining Plus with a base date of 07 December 2020.
- The Ore Reserve statement as prepared by Mining Plus with a base date of 01 March 2021.
- The life-of-mine plane (LOMP) as developed by Mining Plus in March 2021.
- The Bankable Feasibility Study, March 2021 prepared by TWL (FS) for the Hemerdon Tungsten-Tin Project, and other information supplied by TWL and its consultants.

AMC/TWL has engaged specialist subconsultants to prepare certain elements of the CPR as follows:

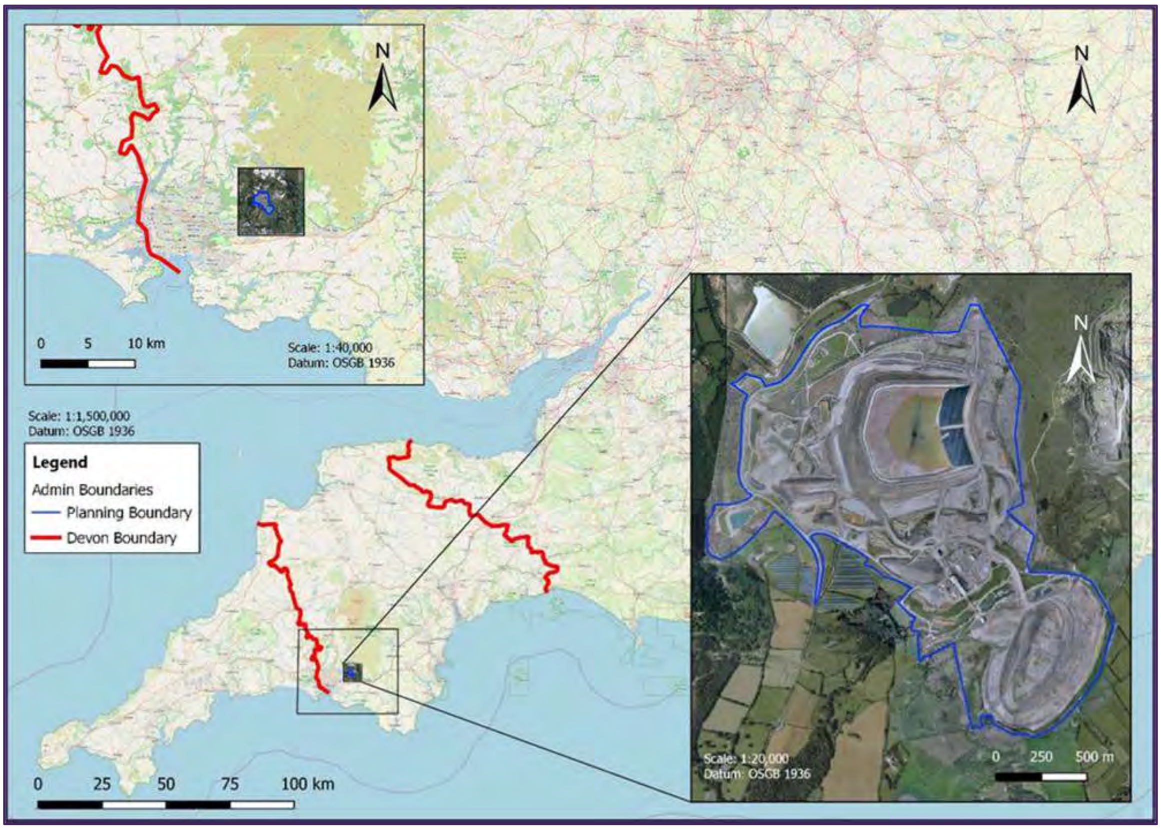
- Mine waste facility (MWF) and open-pit geotechnical aspects—Knight Piésold Limited (Knight Piésold).
- Metallurgical and processing aspects—Grinding Solutions Limited (GSL).
- Land-based environmental and social impact assessment (ESIA)—North Coast Consulting (NCC).
- Planning matters—Brookbanks Consultancy Limited (Brookbanks).

The mineral asset

Hemerdon has a history spanning more than a hundred years, with tin and copper mining activity in the local area stretching back to the bronze age and reaching a peak in the 19th century. With the drop in metal prices associated with the collapse of the International Tin Council, the project was not developed further until Wolf Minerals (UK) Limited (Wolf) acquired ownership in 2007 and undertook work programmes necessary to produce its feasibility study in 2011 which led to production in 2015. The Wolf operation failed to meet projected targets and, despite steady increases in production over the years, failed to achieve ongoing supporting finance which led to the company being placed into receivership, and care and maintenance, in October 2018. Wolf's contract mining operator, Hargreaves Services Limited (HGSL), purchased the project from the receiver in April 2019 and subsequently re-sold it to the current owner, TWL, in November of that year.

Hemerdon is located 10 km north-east of Plymouth, near the town of Plympton, in Devon, England. The site is to the north of the villages of Sparkwell and Hemerdon and adjacent to the large china-clay pits near Lee Moor (Figure ES1).

Figure ES1 Location of Hemerdon



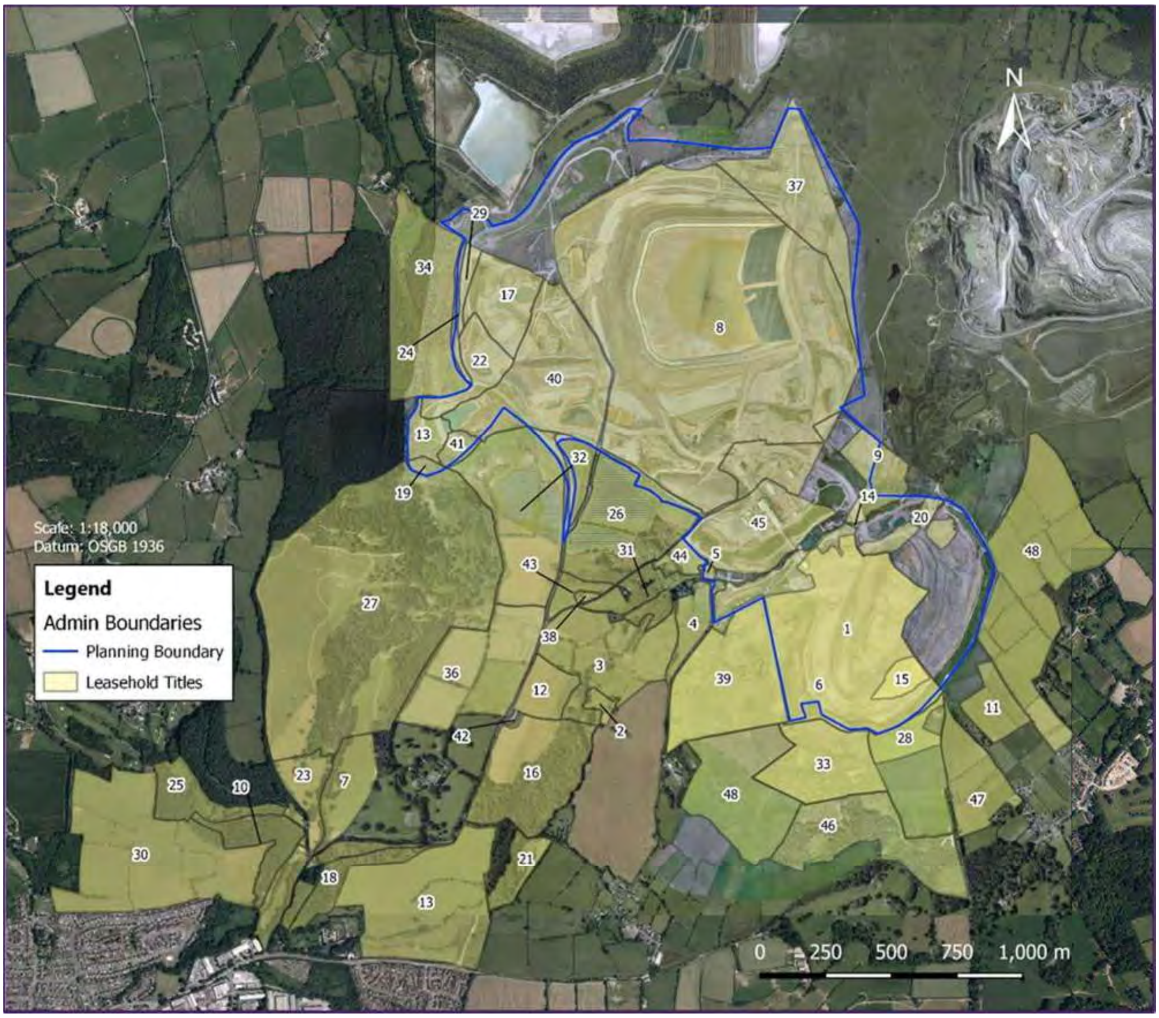
TWL's registered title to the mine and surrounding properties consists of 36 separate titles, consisting of:

- Thirty-five (35) freehold titles registered at HM Land Registry (i.e. owned outright by TWL).
- One lease registered at HM Land Registry being the mineral lease (DN643856).
- AMC notes that the northern extension of the FS pit design encroaches on DN490101 land, which currently has covenants on access and is exclusively held by a third party. At the time of reporting, the area is listed as industrial land and is included within the current Devon Mineral Plan as shown in Figure ES2 below. AMC believes, after discussions with TWL, that there are reasonable prospects of TWL being able to come to a commercial arrangement with the third party that will allow the open pit to be developed by TWL as designed in the FS.

The Minerals and Rights at Hemerdon and Crownhill Down Plympton, Plymouth, reflect the history and complexity of mineral working during the last 2,000 years. It is the case at Hemerdon where historically the land might have been sold, however the Mineral Right is retained by the previous owner, as such the Land Right owner is not always the Mineral Right owner. AMAX and the rights holders sought to overcome this by creating the Hemerdon Mining Association (HMA), a consortium of land and mineral rights representatives to act on behalf of the Land and Mineral Rights holders interests.

The lease has been registered with the land registry under title DN643856 and is outlined in Figure ES2.

Figure ES2 Mineral lease titles under DN643856



The mineral lease provides for the payment of a certain rent and royalties on minerals extracted.

Royalties are currently payable at the following rates:

- In respect of sales of tungsten, 2.25% of the NSR. If the average received price of tungsten concentrates for a calendar month increases beyond $300/mtu then the NSR increases to 2.5%.
- In respect of sales of tin and other metals at a royalty rate equal to that of the tungsten NSR, being either 2.25% or 2.5%.
- In respect of non-metallic minerals (including aggregates) 5% of the general return.

The mineral lease also requires the Tenant, amongst other land-management requirements, to indemnify the landlord against the following:

a) Any failure by the Tenant to comply with all Environmental Law.
b) Any discharge release leaching emission or escape into the Environment of any hazardous substances.
c) Any contamination of the land or the demised minerals with and hazardous substances.
d) Any failure by the Tenant to obtain all environmental licences necessary for the purpose of carrying out its operations at the land.
e) Any failure by the Tenant to store handle treat process deposit transport document and dispose of waste or hazardous substance in accordance with environmental law.

The current planning has been modified from an application for Planning Permission by AMAX Inc. (AMAX) in 1984. Devon County Council (DCC) acting as the Mineral Planning Authority (MPA), issued a planning permission for Hemerdon in 1986. Under Wolf, the mine re-commenced operations under the 1986 permissions (as modified in 2010 by the Secretary of State) in 2014. Subsequently, a new permission was granted in February 2017 under Section 73 of the Town and Country Planning Act, whereby an application to vary specific conditions of the earlier permission enabled the MPA to carry out a review and update of the conditions to comply with guidance in the National Planning Policy Framework. The new consent was accompanied by a further legal agreement under Section 106 and importantly contained an undertaking to only implement the permission granted in 2017 and not the earlier 1986 permission (refer Table 2.5 of this CPR). The planning variation included the continued extraction of tungsten and tin, processing, and disposal of mineral wastes until 05 June 2036, and removed the restriction on the operating hours of the primary crusher. The 2017 consent and the Section 106 agreement are therefore the only permission to monitor (DCC Ref: 9/42/49/0542/85/3).

AMC notes that Hemerdon does not have current planning permission to extract the FS final pit outline but believes, after discussions with TWL and its planning consultant, Brookbanks, that there are reasonable prospects of receiving this permission.

Geology

The Hemerdon deposit comprises a granite intrusive surrounded by Devonian metasediments, metavolcanics, and mafics which are collectively defined as Killas. The upper portion of the granite has been altered, resulting in kaolinization of the upper granite. Mineralization has been defined both in the granite and adjacent Killas host rocks. Exploration previously focused on the granite host, resulting in a higher confidence in the geological and grade continuity of the mineralization.

The mineralization comprises both WO_3 and Sn and is developed as a sheeted-vein complex centred around the main Hemerdon Granite. Mineralization occurs both within the granite and the surrounding Killas.

Tungsten mineralization primarily occurs in the form of the mineral ferberite, an iron-rich end member of the manganese-iron wolframite solid solution series. The distribution of the mineralization is nuggety which has resulted in a volume-variance effect whereby smaller sample volumes display greater grade variability.

Ferberite mineralization can be found as crystal intergrowth masses which can have a porous texture. This porosity results in a reduced specific gravity (SG), and increased susceptibility of the ferberite to hematization which further reduces the SG. In recognizing the intricacies of the ferberite mineralogy, TWL has identified areas of the previous Wolf processing plant where WO_3 was lost to the mine waste facility (MWF) with an aim of reducing these losses for the planned operation under TWL.

Tin mineralization occurs associated with tungsten and also within tourmaline stringers that strike E–W and are sub-vertical, and which postdate the main mineralization. These tourmaline cassiterite stringers predominate in the north of the deposit.

Whilst the overall geology is well understood, the mineralization itself is more complex. Exploration of the deposit has previously largely focused on the granite-hosted tungsten mineralization. More limited exploration work has been undertaken to understand the mineralization hosted within the Killas, as well as the distribution and controls on tin mineralization.

Exploration and drilling

The Hemerdon deposit was initially discovered in 1867, with early prospecting over the project area commencing in 1915.

The most significant period of exploration commenced at Hemerdon between 1976 and 1980. During this period, several drilling campaigns were undertaken by a joint venture between the American company AMAX, and Hemerdon Mining and Smelting (UK) Limited. Drilling during this period comprised 25,400 m, of which 13,782 m was drilled from 77 holes on a 50 m by 50 m spacing.

The next main phase of exploration works was undertaken by Wolf in 2008 and 2014 through to 2018. Drilling by Wolf included a mix of diamond core (DDH), reverse circulation (RC), and percussion (PERC) methods both for mineral resource and production definition, totalling 6,587 holes (95,313 m).

The most recent exploration activities were undertaken by TWL in 2020 and comprised drilling two DDH holes in the northern part of the proposed final open-pit area. In addition, a mix of RC and DDH holes were drilled in a southern extension to the deposit. Assays from 56% of the TWL drilling programme were unavailable at the time of the current Mineral Resource estimate.

The total quantity of drilling available in the drillhole database comprises 7,043 PERC holes (93,022 m), 187 RC holes (15,746 m), and 147 DDH holes (21,375 m).

Exploration activities have principally comprised drilling from surface through a combination of DDH, RC, and PERC. Limited other exploration methods have been employed including soil geochemistry, geophysical surveys, and pitting, and some underground development sampling.

During the previous operation of Hemerdon by Wolf, the geological department identified that the grade-control models and mill recoveries exceeded the grade estimates in the Mineral Resource model. Subsequent studies highlighted the inherent grade compositional and distributional heterogeneity within the deposit, resulting in a local nugget effect. Each drilling method (DDH, RC, and PERC) yields differing sample volumes which exacerbate the inherent grade variability due to a "volume-variance" effect.

TWL has undertaken an extensive review programme to ascertain the impact and bias exhibited by the different sample methods on the Mineral Resource estimate due to the "volume-variance" effect. TWL has identified that DDH core sub-samples yield smaller sample volumes with greater grade variability and a negative bias compared to the RC and PERC drilling.

To reduce the negative bias exerted by the DDH, TWL has undertaken a work programme to develop calibration factors which can be applied to the DDH drilling. The aim of the calibration factors is to align the DDH sample populations with the larger and more-representative sample volumes provided by the RC and PERC drilling.

In addition to calibrating the DDH samples based on RC samples within the RC domain, TWL has also calibrated the AMAX RC samples. The AMAX RC samples display a negative grade bias due to the smaller sample intervals and lower recoveries, and therefore sample volumes submitted for assay.

A total of eight different laboratories have been used for assay, for the AMAX, Wolf, and TWL drilling. Assays have been conducted using X-Ray fluorescence spectroscopy (XRF), portable X-Ray fluorescence spectroscopy (pXRF), fusion/inductively coupled plasma optical emission spectroscopy (ICP-OES), and X-Ray fluorescence borate fusion (XRF-BF).

The use of handheld pXRF instruments for assays have, in the past, been more often associated with earlier prospecting stage projects due to lower levels of confidence in the accuracy and precision of pXRF assays. However, with advances in pXRF instruments, and the implementation of appropriate validation checks from external laboratories, it is possible to obtain robust pXRF assays for more advanced projects. To ensure consistency in measurements the pXRF instrument is mounted in a set position above the sample providing a uniform presentation of sample for assay.

To ensure the accuracy and precision of the pXRF assays, as well as to calibrate the pXRF, TWL has submitted duplicate pulp samples to ALS Loughrea (ALS), Ireland. In addition to submitting the pulp duplicates to ALS, TWL also submitted blank and certified reference materials (CRMs) to check for accuracy and sample contamination.

Between 2015 and 2018, Wolf submitted samples for assay at SGS Plymouth, which was based at Hemerdon and operated by SGS. Following the acquisition of Hemerdon by TWL, the SGS laboratory building has been acquired and subsequently operated by TWL.

As part of the AMAX, Wolf, and TWL drilling activities, quality assurance and quality control (QA/QC) samples were submitted to the laboratories to test for sample contamination as well as the precision and accuracy of assays. QA/QC submissions include:

- CRMs.
- Blanks.
- Duplicates (field, crushed and pulverized).
- External umpire assays.

The QA/QC results do not appear to indicate any bias attributable to the assay methods used. However, QA/QC results reviewed by AMC show that there is a degree of compositional and distributional heterogeneity associated with the mineralization that impacts the sample precision. Due to this heterogeneity as the volume of retained sample material is reduced (i.e. retained half-core or quarter-core) then the retained sample is likely to display greater grade variability when compared to the original sample volume (volume-variance effect).

Extensive density measurements have been taken for the granite, including measurements taken between 2007 and 2017. Density measurements taken between 2007 and 2017 have been undertaken using the industry-standard water immersion method. Additional density measurements were undertaken by SRK Consulting (UK) Ltd (SRK) in 2008 (350 in total) providing density measurements across the deposit. A further 117 density measurements were undertaken by Wolf using wax-coated core to account for vugs and porosity.

Density measurements have proven challenging for the kaolinized parts of the granite due to the friable nature of the material. To aid in supplying density measurements to the kaolinized parts of the granite, Wolf developed a regression correlation between K% assays, particle size distribution (PSD), and SG. This enables K% assays to act as a proxy for defining the extent of kaolinization as well as the density of the kaolinized granite. For the current Mineral Resource Estimate, the K% regression has been used to estimate the density of the kaolinized and fresh granite.

Compared to the granite density measurements, limited density testwork has historically been undertaken on the Killas. Limited measurements were taken in 2008 and 2015. In 2018, 76 measurements were taken representing the key Killas units (mafic, siltstone, coarse metasediments, tuff, and mudstone). In 2019 and 2020, TWL undertook a more-extensive set of density measurements for the Killas, with a total of 361 samples taken. Density measurements assigned to the Killas portion of the current Mineral Resource Estimate are based on the 2019 and 2020 testwork. Each modelled member of the Killas formation was assigned a weighted-density value based on the proportion of each sub-unit within that member and whether it comprises oxide, transitional, or fresh material.

Mineral Resources

Two Mineral Resource estimates have been undertaken for the Hemerdon deposit. One encompasses the remaining in-situ mineralization, whilst a second estimate relates to the reprocessing of material from the mine waste facility (MWF).

The Mineral Resource Estimate for the in-situ deposit mineralization has been prepared by Mining Plus UK Ltd on behalf of TWL with an effective date of 07 December 2020 and reported in accordance with the JORC Code (2012).

The Competent Person for the Hemerdon in-situ Mineral Resource Estimate is Mr James McFarlane, BSc (Hons), MSc, MCSM, FGS, MIMMM, MIQ, MAIG. Mr McFarlane is a full-time employee of Tungsten West Limited and has acted as the Competent Person on the Hemerdon deposit Mineral Resource estimation.

The MWF Mineral Resources have been estimated by Mining Plus on behalf of TWL with an effective date of 25 January 2021. The MWF Mineral Resources have been classified as Inferred and does not contribute to the current mine plan.

The Competent Person for the MWF Mineral Resources is Dr Matthew Field, BSc, BSc (Hons), MSc, PhD, FGS, Pr Sci Nat. Dr Field is a full-time employee of Mining Plus UK Ltd and has acted as an independent consultant on the Hemerdon MWF Mineral Resource.

The proposed mining method for the in-situ mineral resource is an open-pit operation in-line with previous mining operations at the site.

A geological model was developed by Mining Plus with input from TWL, comprising the granite and Killas units. Further domaining was undertaken to represent the kaolinization of the granite, and the different Killas units. AMC considers the geological model to be robust and based on the extensive geological investigations at Hemerdon. Whilst the geological controls on WO_3 mineralization is reasonably understood, the controls on Sn mineralization are less well-defined and therefore there is a lower level of confidence that can be placed in the interpretation and estimation of Sn mineralization.

The in-situ Mineral Resource Estimate has been classified in accordance with the JORC Code (2012). Classifications have considered sample spacing, geological and grade continuity, and the influence of DDH and AMAX RC assays which have been calibrated for the volume-variance effect, variance between calibrated and uncalibrated estimates, and estimation efficiency. The Mineral Resources have been depleted based on topographic surveys undertaken in April 2019.

To determine that the Mineral Resources have reasonable prospects for eventual economic extraction they have been reported on a minimum WO_3 equivalent (WO_3Eq) cut-off grade based on WO_3 and Sn grades based on the parameters shown in Table ES1. Mineral Resources for the granite-hosted mineralization are report at a cut-off grade of 0.065% WO_3Eq, whilst Killas hosted mineralization is reported at a cut-off grade of 0.079% WO_3Eq.

Table ES1 Hemerdon WO_3 metal equivalent parameters

	Price (USD/t)	Recovery (%)	Payable (%)	Recoverable Price (USD/t)	Payable Price (USD/t)	Ratio
WO_3	50,000[a]	60	78	29,995	23,396	1.000
Sn	25,000	44	90	11,013	9,911	0.424

[a] 1 tonne=100 mtu providing an mtu price of USD500 mtu.

In addition to the in-situ mineralization, a number of stockpiles were built up over the course of the Wolf operation (2015 to 2018) containing granite material with an elevated (>2%) Fe content which was deleterious to the previous Wolf processing circuit. Additional stockpiles exist from the end of the Wolf operation containing run-of-mine (ROM) material, and materials associated with crushing and ore sorting.

Stockpile balances were tracked by the Wolf Mining Technical Services department. A total of 25 stockpiles have been reported, of which two stockpiles corresponding to screened material for the ore sorting operation lacked accounting data.

Stockpile balances have been included in the Mineral Resources. These include tonnages and grades related to tailings from a Low Intensity Magnetic Separation (LIMS) process and a FeSi-CAT 3 Stockpile (ferrosilicon). AMC understands that prior to closure, Wolf initiated reprocessing of the ferrosilicon material, which TWL proposes to continue. Since the reporting of the stockpile Mineral Resources in December 2020, part of the CAT 6 (D3), 20-40 mm crushed granite (D3) and 40-80 mm crushed granite (D3) stockpiles have been sold as aggregate. The quantity sold amounts to 8,688 t which is approximately 1% of the total stockpile balance.

A summary of the Mineral Resources is provided in Table ES2.

Table ES2 Hemerdon Mineral Resources as at 07 December 2020 (*After*: Mining Plus, 2021a)

Domain	Cut-off grade (WO_3EQ%)	Measured						Indicated						Measured & Indicated						Inferred					
		Tonnes (Mt)	WO_3 (%)	Sn (%)	WO_3 EQ (%)	WO_3 Metal (MTU)	Sn Metal (Kt)	Tonnes (Mt)	WO_3 (%)	Sn (%)	WO_3 EQ (%)	WO_3 Metal (MTU)	Sn Metal (Kt)	Tonnes (Mt)	WO_3 (%)	Sn (%)	WO_3 EQ (%)	WO_3 Metal (MTU)	Sn Metal (Kt)	Tonnes (Mt)	WO_3 (%)	Sn (%)	WO_3 EQ (%)	WO_3 Metal (MTU)	Sn Metal (Kt)
Granite	0.065	33.7	0.18	0.03	0.19	5,911,298	10.8	84.2	0.15	0.02	0.16	12,509,573	19.3	117.9	0.16	0.03	0.17	18,420,871	30.1	41.3	0.11	0.02	0.12	4,517,272	9.9
Killas	0.079	7.9	0.12	0.04	0.13	932,557	2.8	39.4	0.10	0.03	0.12	4,101,280	12.5	47.4	0.11	0.03	0.12	5,033,837	15.2	117.4	0.10	0.03	0.11	11,832,440	32.7
Stockpiles	N/A	0.9	0.21	0.05	0.23	181,660	0.5	-	-	-	-	-	-	0.9	0.21	0.05	0.23	181,660	0.5	-	-	-	-	-	-
Total		42.50	0.17	0.03	0.18	7,025,514	14.1	123.6	0.13	0.03	0.15	16,610,853	31.8	166.1	0.14	0.03	0.15	23,636,368	45.8	158.7	0.10	0.03	0.11	16,349,712	42.7

Although not forming part of the mine plan, Mineral Resources for the MWF have been estimated by Mining Plus on behalf of TWL with an effective date of 25 January 2021. During the course of the previous mine operation by Wolf (2015–2018), there were inefficiencies noted within the process plant that resulted in metal losses of WO_3 and Sn to the MWF. The main losses were related to the plant being inefficient at recovering the main tungsten-bearing mineral ferberite, which is friable and results in losses to fines.

Recognizing the metal losses to the MWF, TWL undertook a programme to evaluate the potential of the MWF to be reprocessed to recover additional WO_3 and Sn. Works included bathymetric surveys of the MWF, sampling, and metallurgical testwork.

The results of the testwork culminated in the estimation of a Mineral Resource for the MWF.

Mineral Resources for the MWF have been classified as Inferred in accordance with the JORC Code (2012).

Mining Plus has taken into account the potential for economic extraction of the MWF considering not only the economic potential of the contained WO_3 and Sn, but also the saleability of the MWF material as an aggregate sand. Mineral Resources are reported for Domains 2–6. Domain 1 is excluded as it comprises material produced during the plant commissioning and lacks supporting sampling data. Mineral Resources are reported with an effective date of 25 January 2021.

The MWF is proposed to be mined and processed in its entirety through dredging, therefore no cut-off grades have been applied. A summary of the MWF Mineral Resources is provided in Table ES3.

Table ES3 Hemerdon MWF Mineral Resource summary (Mining Plus, 2021b)

Domain	Tonnes	WO_3 (%)	Sn (%)	WO_3 mtu	Sn Tonnes
2	278,300	0.21	0.04	58,000	110
3	557,700	0.20	0.02	111,500	120
4	1,887,700	0.18	0.02	341,700	440
5	332,800	0.16	0.03	52,400	90
6	151,300	0.18	0.03	27,200	40
Total Inferred	**3,207,800**	**0.18**	**0.02**	**590,800**	**800**

Geotechnical

Following Knight Piésold's most recent visit in June 2021, the Hemerdon open pit was observed to be in a good condition in general. No large-scale failures were observed, and though the existing pit slopes show ravelling of material, Knight Piésold considers this would be expected as pit slopes and benches have not undergone maintenance since cessation of operations. Some rougher bench faces were observed in the north end of the pit, which are reportedly due to non-careful blasting. Water is ponded at the north end of the pit at an elevation of approximately 125 m aOD, though this is not expected to impede operations with appropriate pumping installed.

Various studies assessing the geotechnical conditions of the Hemerdon open pit have been carried out since the 1980s. Rock mass classification calculations have been developed and refined with time and increasing amount of geotechnical input data with the progression of open-pit mining and ground investigation.

The Feasibility Study carried out by SLR Consulting (SLR) in 2021 considers the viability of expanding the open-pit shell design at Hemerdon with the intention of the recommencement of mining in 2022. Knight Piésold has carried out a review of the geotechnical component of that study. The assessment of data and its reliability to be used in the current and future studies was deemed appropriate by Knight Piésold. However, the lack of reliable structural data from previous drilling programmes reduces the data set available for analysis, which is limited to that visible in the existing pit walls.

The 2021 Feasibility Study design proposal is to deepen the pit floor to -125 m aOD, approximately 260 m below the current level pit floor level (136 m aOD). The maximum depth of geotechnical data coverage is limited to boreholes drilled for the 2015 SLR study targeted the previously proposed pit floor elevation of -65 m aOD. No additional boreholes were drilled to inform the 2021 geotechnical assessment. Instead, recent data collection was limited to the existing pit depth (136 m aOD). As a result, existing structural and rock strength data required extrapolation by SLR.

The rock mass strength assessment is deemed appropriate by Knight Piésold for feasibility-level of study, and the revision of GSI values is justified for the Killas material. The rock mass classifications assigned by SLR were observed to be visually compatible with the rock mass in the pit during Knight Piésold's June 2021 site-visit. Knight Piésold agrees there is data to show an increased uniaxial compressive strength (UCS) with the additional data; however, the limited data below 136 aOD does not justify a continued use of the identified UCS-depth relationship beyond this point. Knight Piésold understands that the UCS-depth relationship will be investigated more thoroughly as part of the future design phase.

The methods used for slope stability analysis and design are also appropriate for the Hemerdon open pit. Knight Piésold considers that a potential refinement opportunity may be to adopt a less-conservative friction angle for discontinuities, as this is likely to have a positive impact on slope design.

Overall, Knight Piésold supports SLR's approach and methods of data analysis in the open-pit geotechnical aspects of the SLR Feasibility Study. Additional data collection is recommended to inform the ongoing geotechnical assessment of the open-pit rock mass between -65 m aOD and the planned final pit depth of -125 m aOD.

Based on the 2021 kinematic analyses and stability assessments, the following slope configurations have been recommended by SLR.

In the highly weathered and near-surface zones:

- Face angle of 55°.
- Bench height of 5 m.
- Bench width of 4 m.
- Inter-ramp angle of 34°.

For the more competent (less weathered) zones which comprise the majority of the pit below 15 m from the pit crest, SLR has proposed the following slope configuration:

- Face angle of 70°.
- Bench height of 15 m.
- Bench width ranged between 5 m and 8.5.
- Inter-ramp angle ranged between 47° and 55°.

The SLR design assumed a constant bench face angle of 70° and bench height of 15 m. The bench width and resulting inter-ramp angles were determined in accordance with discontinuity data as opposed to rock mass strength and were designed based on the results of kinematic and limit equilibrium analysis. Knight Piésold agrees with this approach, and the recommended slope configurations.

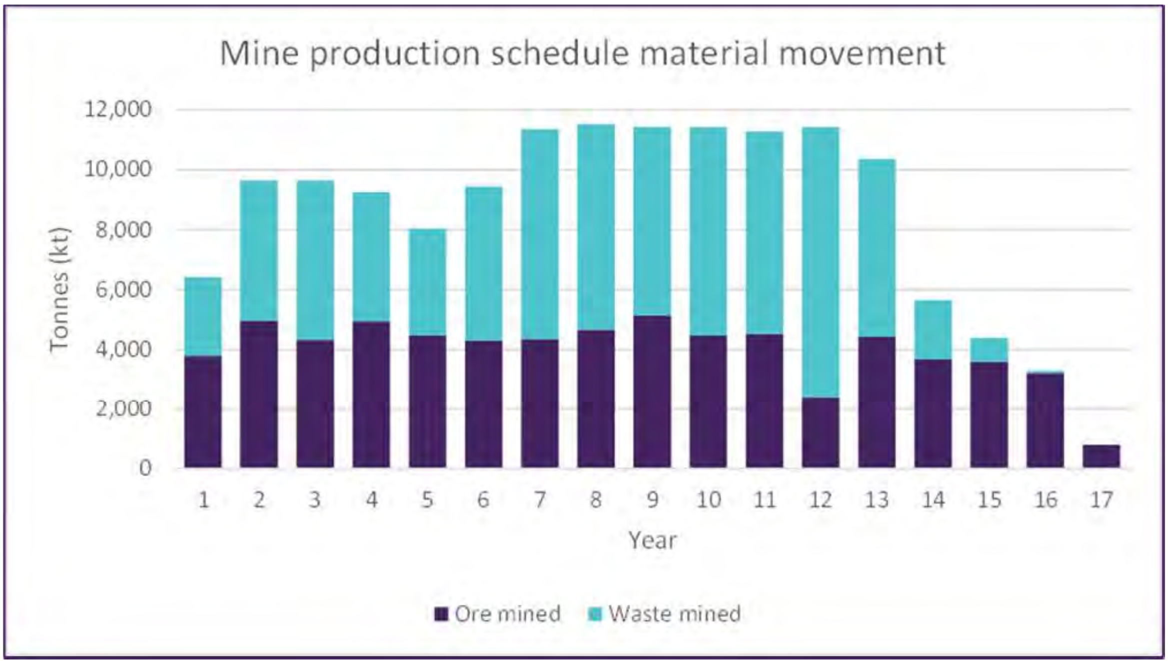
Mining

The Hemerdon deposit consists of a steeply dipping mineralized granite approximately 1.2 km in strike and 100 m wide. Mining has been undertaken though conventional, contractor-operated open-pit methods (drill, blast, load-and-haul) which commenced in 2015 and ceased in October 2018.

The FS details updates to the pit optimization, ultimate pit design, Ore Reserves, staged pit designs, and LOMP for re-opening of the operations. The LOMP has a total mine life of approximately 18.5 years with 16.5 years of processing granite ore followed by approximately two years of processing stockpiled Killas ore. Waste is hauled to the MWF which is planned to be used as a combined waste and Killas ore stockpile facility.

Mining is planned to ramp-up to 10 Mtpa by Year 2 and remain at this rate until Year 6. A maximum mining rate of 12 Mtpa is then reached between Year 6 and Year 12 followed by a reduction due to increase in depth and reduction in strip ratio. The proposed primary mining equipment will be 1 x CAT 6030 excavator, 2 x 6015 excavators and CAT 777 trucks. The mine schedule is shown in Figure ES3.

Figure ES3 Mine production schedule



The total Proved and Probable Ore Reserve for Hemerdon is 63.3 Mt at 0.18% WO_3 and 0.03% Sn reported at a cut-off grade of 0.098% WO_3Eq for granite and 0.134% WO_3Eq for Killas. The Ore Reserve includes 0.9 Mt of existing granite ore stockpiles generated during previous mining operations on-site. The Ore Reserve Estimate is summarized in Table ES4.

Table ES4 Hemerdon Ore Reserve Estimate

Category	Cut-off (% WO_3Eq)	Tonnes (Mt)	WO_3 (%)	Sn (%)	WO_3Eq (%Eq)	Contained WO_3 (Mmtu)	Contained Sn (kt)
Proved							
Granite	0.098	30.6	0.18	0.03	0.2	5.6	9.9
Killas	0.134	2.6	0.15	0.04	0.16	0.4	0.9
Stockpiles	-	0.9	0.21	0.05	0.23	0.2	0.5
Probable							
Granite	0.098	22.8	0.19	0.02	0.2	4.3	5.3
Killas	0.134	6.2	0.15	0.03	0.15	0.9	1.9
Stockpiles	-	-	-	-	-	-	-
Subtotal		**63.3**	**0.18**	**0.03**	**0.19**	**11.4**	**18.5**

Source: FS, Tables 15.1 and 15.12 (numbers may not add due to rounding, stockpile contained metal calculated directly from rounded table numbers).

It is AMC's opinion that the Ore Reserve Estimate has been studied to a level of detail that is consistent with the requirements for public reporting of an Ore Reserve under the JORC Code (2012). AMC notes, however, that the Ore Reserve Estimate includes material outside the existing mining permission boundary which, although identified as reasonable grounds for approval by TWL, still poses a risk to the Ore Reserve Estimate.

An independent pit optimization undertaken by AMC confirms that the optimization undertaken by Mining Plus is appropriate given the inputs used, the method of pit shell selection is valid, and that the selected pit shell is appropriate for design.

AMC is of the opinion that the mine design is appropriate for a feasibility-level of study with the exception of Stages 4 and 4b, which require re-design. The design requires corrected switchback design criteria to allow the safe and practical operation of CAT 777 trucks. AMC does not consider that this re-design will have a significant impact on the mine plan.

AMC is of the opinion that the mine plan is achievable given the proposed mining fleet, calendar constraints, and operating philosophy. AMC notes, however, that operating assumptions will be challenging to execute with a high degree of fleet movement and relatively low equipment productivities. This mining practice is similar to historical practices at site and the site technical team are preparing for these known issues.

AMC identified minor issues with the scheduling work affecting Year 10 to Year 13 in the mine plan and an optimistic vertical advance rate during this period. AMC is of the opinion that these issues can be dealt with in detailed mine planning and are not envisaged to be significant.

Aggregates

TWL plans to produce secondary aggregate products at Hemerdon using ore sorter rejects, DMS rejects, and spiral tailings. To achieve this, the company Aggregates West Limited (AWL) has been established by TWL and is a 100% owned subsidiary of TWL. AMC notes that in the feasibility study, a 50% ownership structure was presented based on earlier assumptions. Processing and marketing of the aggregates are planned to be contractor operated and AMC understands that a contract is currently in final negotiation stages with Duo Group Holdings Ltd. (Duo) for processing and has been concluded with GRS (Roadstone) Limited (GRS) for marketing.

Touchstone Geological Services Ltd. (Touchstone) was engaged by TWL to provide a study into the potential quantity and quality of the aggregates. AWL and Duo have undertaken a series of aggregates trials on-site using material on surface mined during the Wolf operations. Touchstone undertook testwork on samples from the trials and concluded that the products sampled demonstrate compliance with the relevant BS EN (UK version of European harmonized standard) standards.

The total LOM tonnage of aggregates of 27.5 Mt is approximately 50% of the total granite ore feed of 54 Mt. Given reduction in feed tonnages for elevated deleterious elements, process recovery, and reject mass, along with wastage factors, AMC is of the opinion that the total feed tonnage is potentially available for aggregate production.

AWL currently has a temporary planning permission for a maximum of 150 truck movements per day. TWL has informed AMC that it is in the process of preparing a revised Section 73 agreement for submission to Devon County Council which will seek to effectively double the number of allowable truck movements per day. The details of this are discussed more fully in Section 11.

AMC is of the opinion that AWL is operating a professional and well-organized aggregates operation and has undertaken all the pre-requisite tests and work to maximize profitability.

AMC is also of the opinion that the aggregates operation as it is currently envisaged, is of financial benefit to TWL due to:

- Primary mining costs will be covered by the tungsten operations.
- Secondary aggregate is exempt from the UK Aggregate Levy.
- Bulk processing testwork has been completed and samples indicate compliance with relevant standards.
- Active engagement has occurred with the local market and actual sales have been achieved since February 2021.

The only significant impediment that AMC can see to AWL achieving its planned sales production figures is the current lack of planning permission for the required number of truck movements.

Mineral processing

A 500 tph gravity processing plant was constructed by Wolf at Hemerdon, and it operated between 2015 and 2018. As such, the information in this CPR relies partly on beneficiation testwork data and studies generated by a variety of organizations together with metallurgical and operational data gathered by Wolf. A considerable amount of information relating to beneficiation testwork, mineralogy, geometallurgy, and process data exists for the Hemerdon granitic ore dating back approximately 100 years. More recent work undertaken by AMAX, Wolf, and most recently by TWL, together with inputs from expert mineral processing firms, equipment vendors, mineralogy consultancies, educational establishments, and other organizations, form the majority of the up-to-date understanding of the ore and the processing methods applicable to it. TWL also has a considerable asset of approximately three years' worth of production records and experience, geometallurgical studies, and extensive beneficiation testwork programme results gained from Wolf's tenure of the project. This has led to a relatively quick diagnostic phase for TWL; to determine which parts of the Wolf process and plant were fit-for-purpose and which parts needed change.

Figure ES4 shows the following details: To the left is the ROM pad and 110 crushing building, left of centre is the 130 Tertiary Crush building. The main building houses, from left to right, the 120 Classification Area, the 160 Fine Gravity Area, the 140 DMS Area, the 150 Primary Mill Area, the 180 Concentrate Milling and Flotation Area, and the 200 Concentrate Processing Area with the thickener and water services visible on this side. To the right are the Primary DMS Floats Bins and in the foreground are the ancillary facilities including mining offices, substation, workshops, and stores.

Figure ES4 Aerial view of the Hemerdon processing plant

Following TWL's initial review of the existing and data from recent test programmes, it was decided that the following areas required modification or attention prior to a restart of the operations at Hemerdon:

- Primary and secondary crushing: Replacement of hybrid rolls crushers with a mobile jaw-crusher to deliver crushed material to the plant ahead of a new screening and secondary crushing plant to prepare feed to a new ore sorter plant.
- Introduction of an ore sorting phase on the basis that studies of the ore indicated that much of the host granite rock was very weakly mineralizes or un-mineralized; the tungsten and tin values being predominantly contained withing the sheeted quartz veins. This was confirmed by multiple rounds of ore sorting testwork during Wolf's and TWL's tenures. A 50 % reduction of mass to the concentrator is calculated at this stage.
- Removal of the installed scrubber and large screening section which was unreliable and generated fine wolframite slimes that were lost from the process.
- Replacement of the front-end (120 Area) classification screens with smaller screens, because of the introduction of the ore sorting phase.
- Reduction of the infrasound problem, also called Low Frequency Noise (LFN), through a programme of testwork and then modifications or mitigations to be applied to existing and new equipment.
- Completion of various projects which were not finished under Wolf's tenure, including the Primary DMS feed stockpile, which will de-couple the feed preparation area from the concentrator, the upgrade of Primary DMS 1 and recommissioning of the Scavenge DMS circuit including adjustment to the operation of the Primary Mill (150-ML-01).
- Refurbishment of the parts of the process plant not impacted by the planned modifications.

In order to provide an adequate level of confidence for the above-mentioned modifications to be made and to provide sufficient data for process design and equipment selection, TWL undertook extensive testwork and conducted studies during 2019 and 2020. These included orebody domaining based on metallurgical performance, ore fragmentation, crushing, and ore sorting testwork, with allowances made for geometallurgical variations of ore. Two end-members in terms of ore characteristics were used as limits for process design entitled "Mixed" ore (i.e. transition zone between soft and hard ores) or "Fresh" ore (i.e. hard ore).

Where no modifications to the plant process or its equipment were considered necessary, either because the original design and equipment choices were appropriate, or because Wolf had already modified the process, the circuits, or the equipment, historical testwork results coupled with Wolf production records are a reasonable basis for evaluation of future performance. Even with the extensive amount of information available in respect of these areas, TWL nonetheless went back to basics and undertook a large programme of ore characterization and basic beneficiation testwork on a sample of hard or "fresh" ore with Geological Survey of Finland (GTK) in Finland. The results of this are presented in CPR and are comparable with the historical testwork and production data for "hard" ore.

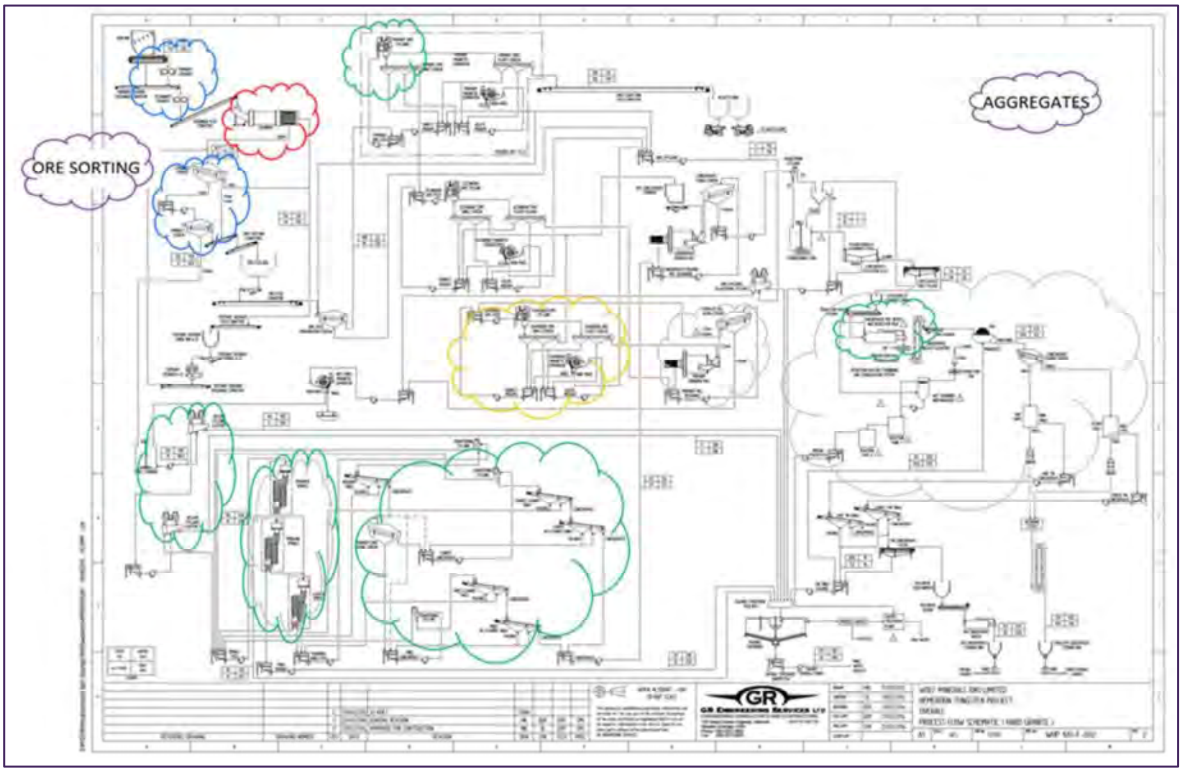
During the review process, TWL also investigated a number of alternative technologies for various phases of the process with a view towards improvements in the efficiency of existing circuits. Testwork and studies in these areas included:

- High Gradient Magnetic Separation (HGMS) as an option to the use of spirals.
- Alternative crushing methods with a view towards replacing the primary mill.
- Electrostatic enrichment of preconcentrate.
- Hydrometallurgical processing of preconcentrate and Low Intensity Magnetic Separator (LIMS) magnetics.
- Studies on the stockpile of LIMS magnetic product.
- Pyrometallurgical techniques for recovery of tungsten from the low-intensity magnetic product.
- Tailings studies for eventual alternative methods to wet disposal.
- Tailings studies to evaluate whether it was technically and economically viable to recover values lost to the TSF (tailings storage facility) under Wolf's tenure.

Positive results were obtained for most of the abovementioned testwork programmes; indeed some were very encouraging, but TWL did not consider the results of these programmes to be far enough advanced to commit to making modifications to the process plant at this point and whilst being positive for the operation, would probably only result in incremental gains in process efficiencies. Given the costs of care and maintenance for the site, TWL decided it was important to restart operations as soon as possible. Further testwork will continue after production has restarted in many of these areas with a view towards further optimization of the process. It is envisaged then that further modifications to the process will occur in the future once adequate testwork has been completed and the technical and economic feasibility of such changes proven.

The schematic as-built flowsheet shown in Figure ES5 shows areas of the process plant that have been or will be (at this current pre-restart phase), modified from as-built and provides a high-level indication as to where and why new beneficiation and other testwork or studies were required.

Figure ES5 Schematic PFD showing areas of the process plant that will be improved, or gave process or other issues, and the remedial action considered necessary.



Legend:

Blue = Equipment or circuit not fit-for-purpose or redundant and to be changed; Red = Equipment or circuit not fit-for-purpose and to be removed; Amber = Circuit to be re-commissioned as never worked adequately under Wolf; Green = Poor circuit design or equipment choices already modified by Wolf (not finished in the case of Primary DMS1); Purple = New installations which will provide better project economics and efficiencies.

Table ES5 summarizes the historical or new data utilized in the new design or review of each of the main plant areas and a high-level description of how each one will be impacted during readiness preparation and modifications prior to restart of operations.

Table ES5 Summary of data used in the review/re-design of the MPF

			Testwork Data, Studies and Records Used					
Area	**Function**	**TWL Change**	**Historic**	**Wolf**	**GTK**	**TWL**	**ESP**	**Vendor**
110	Prim. & Sec. Crushing	New Circuit & Equipment	✓	✓	✓	✓	✓	✓
120	Classification	New Circuit & Equipment	✓	✓	✓	✓	✓	✓
125[b]	Ore Sorting	New Area	✓	✓	✓	✓	✓	✓
130	Tertiary Crushing	Unchanged, Half Duty	✓	✓			✓	✓
140	DMS	Unchanged, ½ Duty for Primary	✓	✓	✓			
150	Primary Mill	Unchanged, Recommission w/Scavenge DMS	✓	✓				
160	Fine Gravity	Unchanged, ½ Duty Deslime & R. Spirals	✓	✓	✓			
180	Conc Regrind + Flotation	Unchanged	✓	✓				
200	Conc. Processing	Unchanged	✓	✓				

Notes: Plant areas showing high-level description of changes that will occur, if any, and testwork and studies used to support the changes and future performance predictions.

[b] The 125 Area is a new area not in the original Wolf design. Note "ESP" is Engineering Service Provider which for the purposes of this Feasibility Study was GRES. "Vendor" refers to testwork, modelling, and specifications provided by equipment vendors.

In April 2020, TWL engaged GR Engineering Services Ltd. (GRES) to undertake a feasibility study to develop the conceptual changes to process and layout of the plant that it had developed during the first quarter of 2020. As part of this study, GRES was closely involved with the beneficiation testwork programmes and studies undertaken by TWL to support the design of the process changes, equipment selection, and new layouts. In addition, given the importance of process to the project, TWL periodically engaged third-party independent consultants to undertake reviews of its and GRES's work and results. Valuable input was gained from all of these sources during the development of the process plant project and, in a final review of the results of GRES's work conducted in November 2020, no major issues or problems were identified.

The following reflects the work carried out:

a) Beneficiation Testwork Procedures and Results: Multiple and considerable sources of information are available from historical testwork programmes and from surveys undertaken by Wolf. In cases where process is going to be changed by TWL, this information has been supplemented by additional testwork programmes and studies which were undertaken during 2019 and 2020. In addition to testwork results and studies, a very large production database exists from Wolf's operation of the process plant between October 2015 and October 2018 which has been used, in conjunction with historical data, (and new data where applicable), as the basis for prediction of future metallurgical performance. The amount and accuracy of the data made available, or generated by TWL, is considered, by GSL, to be adequate for both process redesign purposes and for the prediction of future production results.

   Testwork undertaken to investigate alternative processes or technologies was also undertaken by Wolf during 2019 to 2020 but, whilst results were in many cases encouraging, they had not been developed to a level considered adequate to support any modifications at this point, and were assessed to have not contributed to a large enough degree to warrant delaying the restart of operations. Work will continue in these areas after restart of the operations as it is TWL's intention to have ongoing process improvement and optimization campaigns.

In summary, it is GSL's opinion that, the project benefits considerably from having a very large amount of information available to it, including three years' worth of production data and the results of remedial actions undertaken by Wolf, which many projects being evaluated at a feasibility study level do not have, thus reducing the level of risk in this area considerably.

b) Recovery estimates: As described in a) above, a number of sources were used in generating process design criteria and mass balances which, in turn, provided recovery estimates. The approach taken by TWL in determining these was to start with a geometallurgical review of the Hemerdon deposit and this yielded two end-members in terms of ore characteristics which were designated as "Fresh" ore and "Mixed" ore. Note that the Mixed ore category accounts for only c11% of the current Ore Reserve Estimate. The end-member approach was taken to provide for maximum design limits when evaluating particle size distributions during comminution processes and also the differences in metallurgical recoveries between the ore types. It should be noted that Wolf undertook a large amount of geometallurgical work and, towards the end of that company's tenure, succeeded in gaining an excellent understanding of the metallurgical performance of the various ore types. This was linked to an indicator element (potassium) which fluctuated in function of the alteration and weathering intensities of the host rock; these factors being fundamental to how the ore behaved during processing.

Wolf suffered from vast variations in metallurgical performance which were initially linked to a lack of understanding of the ore types it was processing. It was clear though that, following the implementation of several controls in mining of the different ores and the ratios in which these were fed to the process plant, there were other issues with the Wolf operation. These were failings in the understanding and control of process, the result of inexperienced or poorly motivated operational personnel, and failings in the maintenance of the plant resulting in detrimental frequent start-stops of the operation in terms of process stability. The maintenance problem was further exacerbated by the lack or absence of surge capacity between unit processes which meant that the whole plant went down if any part of it failed. TWL has identified the problem with getting suitable and qualified personnel and has pre-emptively started a recruitment campaign to build up strong metallurgical, operations and engineering teams in time for the planned start-up.

The recovery estimates generated in the FS are based on extensive testwork results coupled with a review, including with third-party consultants, of historical performance data from the Wolf operations. They are considerably lower than Wolf's targets and are considered by GSL to be realistic and achievable, and are shown in Table ES6.

Table ES6 Summary of metallurgical recovery predictions (note that Fresh Ore represents approximately 93% of future ore to be mined based on current Ore Reserve estimates).

	WO_3 Recovery	Sn Recovery	Tungsten Concentrate Product Grade (%WO_3)	Tin Concentrate Product Grade (%Sn)
Fresh Ore	57%	40%	55%	55%
Mixed Ore	50%	38%	55%	55%

It should be noted that TWL, given the previous difficulties that Wolf had, has taken a reasonably conservative view. Testwork results have indicated that better results than these are possible, particularly with further modifications, and it is therefore considered that there is scope for bettering of these values in future.

c) Representativity: Variation of the ore types linked to alteration and weathering was understood at an early point in Hemerdon’s development and certain ore types were known to be difficult to process efficiently, particularly those which were highly weathered and had elevated iron contents. A considerable amount of geometallurgical work has been undertaken to determine ore zoning and the processing characteristics associated with the ore types. In addition, there are production records available from the Wolf time, including trials conducted on varying ore types including for hard rock (i.e. “Fresh Ore”).

During Wolf’s tenure the majority of the ore treated was highly weathered, at that time denominated as “soft” ore. It became clear early-on that the understanding of this ore type was inadequate and that numerous types of soft ores existed. These ores varied in the amount of fines they generated during comminution and their iron contents, both of which had significant impacts on processing recoveries. Wolf, in response to this, categorized the soft ores into six different types and introduced policies to control the blending of certain types for feed to the plant, and for certain types to be stockpiled for future treatment, or even be discarded as waste. The geometallurgical programmes undertaken by Wolf gave a far better understanding of the metallurgical response and feed rate limitations for each type. It should be noted that the majority of the more problematic (in terms of processing and metallurgical recovery) ores were mined out by Wolf and TWL finds itself in the fortunate position of having mostly (89%) “Fresh” ore to mine, with the balance falling in a transition zone between soft and hard ores now denominated “Mixed”.

There is also a general tendency of improved metallurgical performance with increasing hardness of the ore linked to a lower generation of fines and a reduced degree of haematization of the Wolframite-Ferberite mineralization.

d) Deleterious Elements: Two types of deleterious elements have been well-documented and assessed during the various beneficiation testwork campaigns and during the Wolf production operations. These are arsenic generally occurring as arsenopyrite (linked to mineralization events) or as scorodite in the more weathered portions of the mineral deposit; and uranium and thorium generally occurring as trace elements in the granitic accessory minerals zircon and monazite respectively. As knowledge of these elements existed prior to design of the Wolf process plant, a number of measures were implemented at that stage of the project, including tailings characterization studies, design and construction of a suitable tailings impoundment facility, inclusion of a flotation stage to remove arsenopyrite from the preconcentrate, installation of a water treatment facility to remove arsenic from the process water, and a number of health and safety (H&S) related installations and procedures for control of arsenic in the kiln off-gas. In response to elevated uranium (U) and thorium (Th) values being found in fine preconcentrates (FPC), measures were taken by Wolf to remove zircon and monazite from fine preconcentrates by a change of process in the 160 Area, and these were successful.

A review of this subject by TWL has indicated adequate ability to control deleterious elements in the existing process design but the following will further improve the issues of deleterious elements in future operations:

- Ore sorting will significantly reduce the amount of zircon and monazite (which are granite related) reporting to the concentrators (DMS and Fine Gravity).
- There is a greater understanding of the distribution of arsenopyrite and scorodite in the deposit which will assist with the operation of the flotation circuit in the plant.
- Refurbishment and better maintenance of the reduction kiln to eliminate any egress of arsenic oxides from this circuit.

The subject of deleterious elements is therefore considered, by GSL, to be well-understood and their existence either in tailings or in product was adequately managed by Wolf. TWL intends to enhance further procedures around the reduction kiln as well as the monitoring of arsenic.

Mine waste facility (MWF)

The current waste management strategy comprises the construction of a combined tailings storage facility and waste rock dump referred to as the MWF. The MWF covers an area of approximately 175 ha. The current waste disposal strategy involves waste rock from the open pit being used to progressively construct the MWF embankments (adopting the downstream construction method), with tailings continuously deposited and contained in a lined basin within the MWF. To date, an approximate total of 10.6 Mm^3 of waste rock and tailings have been placed within the MWF. The deposited tailings volume is estimated to be in the region of 3 Mm^3.

Construction of the MWF began in 2014 and the Stage 1 containment embankment was approved to store tailings in 2015. Stages 2.1 and 2.2 were subsequently completed in 2016 and 2017, respectively.

Initial construction stages were carried out in accordance with the Coffey 2013 design. The MWF was subsequently redesigned by SLR Consulting (SLR) in 2016, principally to increase the MWF capacity from 65 Mt to 104 Mt. The SLR redesign covered Stages 3 to 8 and was designed to tie-in with the existing Stages 1 and 2 already constructed according to the Coffey 2013 design.

The Stage 3.1 SLR design was to have taken the embankment to an elevation of 179 m aOD. The design was modified in July 2018 for a reduced elevation of 175.5 m aOD. This was termed Stage 3.05.

The revised Stage 3.05 elevation was reached in late 2018, with a short section of lining on the upstream face left to be completed. During the closing weeks of the MWF operations in 2018, end tipped waste rock was placed on top of the Stage 3.05 raise increasing the height of the embankment to a maximum of 179 m aOD. The external geometry of the embankment therefore differs from the design elevation of 175.5 m aOD.

A Feasibility Study was produced in 2021 by SLR considering the viability of enlarging the currently consented MWF with the intention of the recommencement of mining in 2021. A key objective of the 2021 SLR feasibility design is to allow the placement and subsequent remining of the Killas ores within the MWF. The Killas ore stockpiles are planned to be re-mined sequentially, resulting in decreasing grade through the remainder of life-of-mine (LOM).

The Feasibility Study assumes a LOM of 20 years. The previous (2016) SLR MWF design will be followed for the first 10-years of operations, with fine tailings disposed in the tailings basin and waste rock placed in the downstream confining embankment. After this point, the tailings are to be dewatered and co-disposed together with waste rock. Open-pit mining will cease in Year 17, which represents the “maximum MWF landform” which is considered in the study to be temporary and will progressively reduce in size towards closure in Year 20 as the Killas ore stockpiles are re-mined and the mined-out open pit is backfilled with tailings.

The MWF also has to accommodate the temporary stockpiling of the ore sorter rejects and spiral tailings (granite aggregates), which are to be utilized as a secondary aggregate. These are to be sold off-site as an aggregate to serve as an additional revenue stream and to reduce the required stockpiling capacity of the MWF.

Knight Piésold has identified several potential areas with the FS design methodology and concept development that will need addressing. While none of these are considered “fatal flaws”, Knight Piésold considers it import that further design consideration is given to the following technical areas as part of the next, detailed engineering stage:

- Tailings co-disposal concept and tailings dewatering.
- Material parameter assumptions.
- Waste versus ore sequencing and constructability considerations.
- Surface water management infrastructure.

- Planning and permitting.
- Scenarios where Killas ore remains uneconomic and becomes waste, with greater than anticipated volumes stored on the MWF.
- FS modelling is based on 2020 concept volumes (although the 2021 case is lower volume).

Although not stated in the FS report, TWL has verbally confirmed that it is working towards full compliance with the Global Industry Standard on Tailings Management (GISTM).

Knight Piésold recognizes that there is a 10-year period to address the majority of the technical areas above, with continuation of the permitted design disposal method from Years 1–10 of the SLR Feasibility Study.

Following recent site visits, Knight Piésold has reported that the MWF has deteriorated in areas. These are currently under repair by TWL and include:

- Bulging of the basal HDPE liner.
- Erosion of the toe of the upstream embankment through wave action.

Stability analyses carried out by Knight Pièsold show that the factor-of-safety (FOS) against failure of the MWF downstream embankments is currently greater than 1.5, which is in accordance with the Canadian Dams Association (CDA) recommended minimum FOS for a tailings facilities (CDA, 2019).

Water management

Mine dewatering is predicted to impact surface flows and groundwater levels in the area surrounding the mine and a proposed mitigation measure is to pump water from the mine dewatering system directly to augment water level or supply shortfalls.

In terms of project water supply, it is noted, by AMC, that additional make-up water supplies will be required in the future, particularly when the MWF Pond is no longer available to supply water.

To cover project and all water shortfalls, CSA (2021) proposed that mine dewatering has the capacity to meet the full range of additional make-up water supply requirements predicted.

It is therefore recommended, by AMC, that the water balance be revisited to prioritize dewatering water for plant requirements, and non-contact water for augmenting surface-water flows and mitigating impacts associated with mine dewatering.

It is noted, by AMC, that the process of applying to re-secure the various discharge permits, water impoundment licences, and water abstraction licences previously held by Wolf, which were surrendered voluntarily, is not yet complete. This is particularly pertinent given the potential future water shortfall, although no significant impediments are anticipated.

AMC has identified several areas of potential concern with respect to the Hemerdon project which include:

1. Adverse impacts on water flows and levels resulting from mine dewatering.
2. Water supply for mine operation.
3. Permits and licences for discharge, water impoundment, and abstraction.

Environmental

Extensive work has been undertaken by the TWL team to adequately characterize the Environmental and Social Governance (ESG) aspects of the FS. In AMC's opinion, TWL has taken full cognisance of the ESG aspects associated with the reopening and modification of site operations, which are covered in detail in the FS and included as key considerations throughout the study.

However, a number of risks remain. The first relates to TWL's ability to obtain Environment Agency (EA) approval of the Mineral Processing Facility (MPF) and water abstraction/discharge, given previous complaints relating to LFN at the MPF, and the EA's designation of the project as of High Public Interest. Additionally, the inability to obtain MPA approval for a variation of existing planning consent would pose a major risk, and currently no indication of likely approval, or rejection, from the MPA has been received.

A further risk relates to TWL's ability to secure permit approvals for modification of MWF. As is the case with other ESG risks, permits have not yet been secured, and consequently are seen as a risk factor to progress – despite not being required until Year 10 of the operations.

TWL recognizes that for the project to be technically and economically viable, they need to de-risk the previous LFN issues associated with the MPF and demonstrate the feasibility of expanding the mine footprint and the temporary increase in height and storage of Killas material in the MWF design. The variation to extant planning and environmental permits during the LOMP will also need to be considered.

Production schedule and sales

The LOM tungsten and tin metal production totals 6.5 Mmtu WO_3 and 7 kt Sn and is summarized annually in Table ES7.

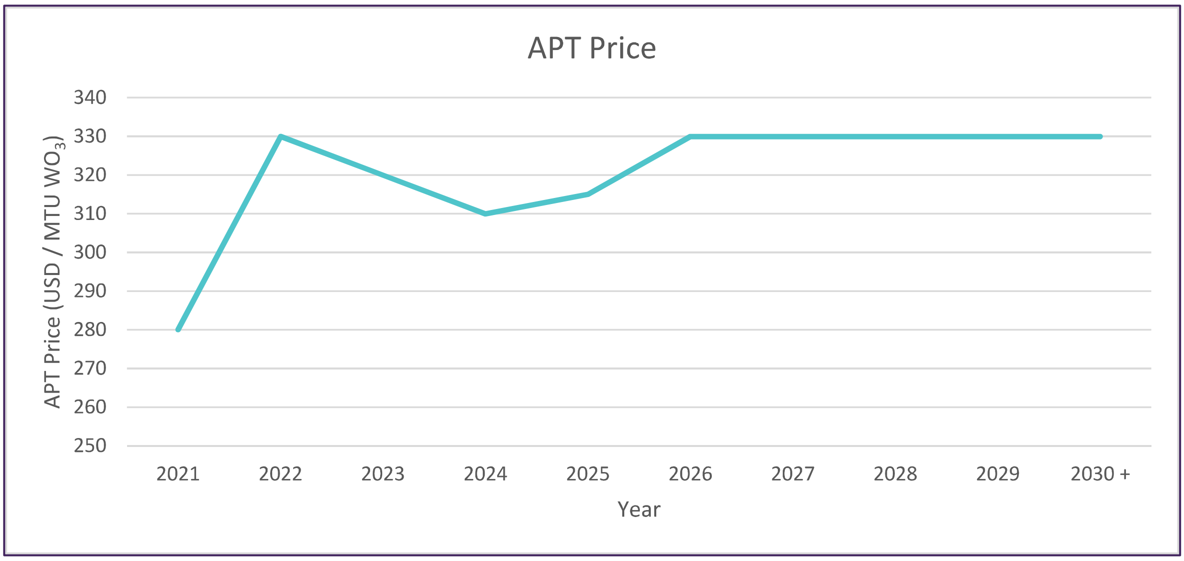
Table ES7 LOM tungsten and tin production

Year	Tungsten production (mtu WO_3)	Tin production (t Sn)
2022	242,181	423
2023	344,235	589
2024	328,693	544
2025	349,714	530
2026	370,684	486
2027	352,611	390
2028	331,653	295
2029	363,158	264
2030	380,197	352
2031	386,166	336
2032	338,950	394
2033	313,383	474
2034	344,025	415
2035	397,972	399
2036	478,829	377
2037	515,892	347
2038	295,884	197
2039	316,244	265
2040	105,474	117
Total	**6,555,942**	**7,194**

Source: TWL financial model.

The APT prices selected for the economic analysis are summarized in Figure ES6.

Figure ES6 APT prices used in CPR economic analysis



TWL produce tungsten concentrate which is accounted for by factoring the APT price by a 78% payability factor for a +50% concentrate in the financial model (HEM_MAR2021_Cost_model_CPR_REV1_060721.xlsm). The GBP:USD exchange rate used in the financial model is 1.38.

The Sn price used in the economic analysis is USD24,000 which is based on a 20% discount from the current spot price (June 2021) of USD30,000.

The aggregates production schedule is based on the total of suitable process rejects to be produced from the operation (Table ES8). TWL has commissioned market studies and identified the potential to market up to 45% of annual production with the remainder being stockpiled to provide for longer term sales at the cessation of mining activities.

Table ES8 Potential material available for aggregate production

Year	OS Reject (Tonnes)	PDMS Floats (Tonnes)	Spiral Tails (Tonnes)	Combined (Tonnes)
2022	1,293,475	741,260	366,269	2,401,004
2023	1,866,956	964,105	476,380	3,307,441
2024	1,927,378	964,105	476,380	3,367,863
2025	1,932,659	966,746	477,685	3,377,090
2026	1,927,378	964,105	476,380	3,367,863
2027	1,927,378	964,105	476,380	3,367,863
2028	1,927,378	964,105	476,380	3,367,863
2029	1,932,659	966,746	477,685	3,377,090
2030	1,927,378	964,105	476,380	3,367,863
2031	1,927,378	964,105	476,380	3,367,863
2032	1,927,378	964,105	476,380	3,367,863
2033	1,932,659	966,746	477,685	3,377,090
2034	1,927,378	964,105	476,380	3,367,863
2035	1,927,378	964,105	476,380	3,367,863
2036	1,927,378	964,105	476,380	3,367,863

Year	OS Reject (Tonnes)	PDMS Floats (Tonnes)	Spiral Tails (Tonnes)	Combined (Tonnes)
2037	1,932,659	966,746	477,685	3,377,090
2038	697,615	348,958	171,343	1,217,916
TOTAL	**30,862,462**	**15,562,359**	**7,688,533**	**54,113,354**

TWL engaged Panoptic Consultancy Ltd (Panoptic) to provide an assessment of the UK aggregates market and product prices (Panoptic, 2021). The study demonstrates a market locally, regionally, and further afield for the range of aggregate products.

The product prices used (excluding haulage) in the economic analysis for the various aggregate markets and products is dependent on the type of aggregate produced, with price ranges summarized in Table ES9.

Table ES9 Aggregates prices (excluding haulage)

Products (ex-gate)	General Fills (GBP)	Single Size Aggregates (GBP)	Sands (GBP)
Minimum Value	4.50	11.68	9.33
Maximum Value	7.90	18.86	12.43
Average	6.51	13.93	11.17

AMC notes that the prices used are broadly in-line with the with the Panoptic market study report (Panoptic, 2021).

Capital and operating costs

The total capital costs for the project are summarized in Table ES10.

Table ES10 Capital cost summary

Area	Capital cost (GBPm)
Mining	3.5
Process plant rebuild	27.2
Process plant spares	5.0
On-site infrastructure	2.1
Indirect costs	2.7
Corporate commitments	4.2
Total	**44.6**

Source: TWL FS, Table 21.1.

The total operating costs for the project are summarized in Table ES11.

Table ES11 Operating cost summary

Area	LOM Average Operating Cost	
	GBP/t ore	GBP/ mtu WO_3
Mining	4.44	42.79
Process	7.25	69.89
G&A	1.46	14.05
Total	**13.15**	**126.73**

Source: TWL financial model.

The mining operating cost equates to GBP 1.93/t mined.

Project economics

The economic analysis demonstrates a positive cashflow and a base case net present value (NPV) 10% of GBP161.0 million and internal rate of return (IRR) of 45%. The key economic results at the base-case discount rate of 10% and rates comparable with those used in the FS are presented in Table ES12.

Table ES12 Economic analysis results at varying discount rate

Discount rate					
5%		7.5%		10%	
NPV (GBP)	IRR (%)	NPV (GBP)	IRR (%)	NPV (GBP)	IRR (%)
271.5	45	207.8	45	161.0	45

The LOM project cashflow is presented in Table ES13.

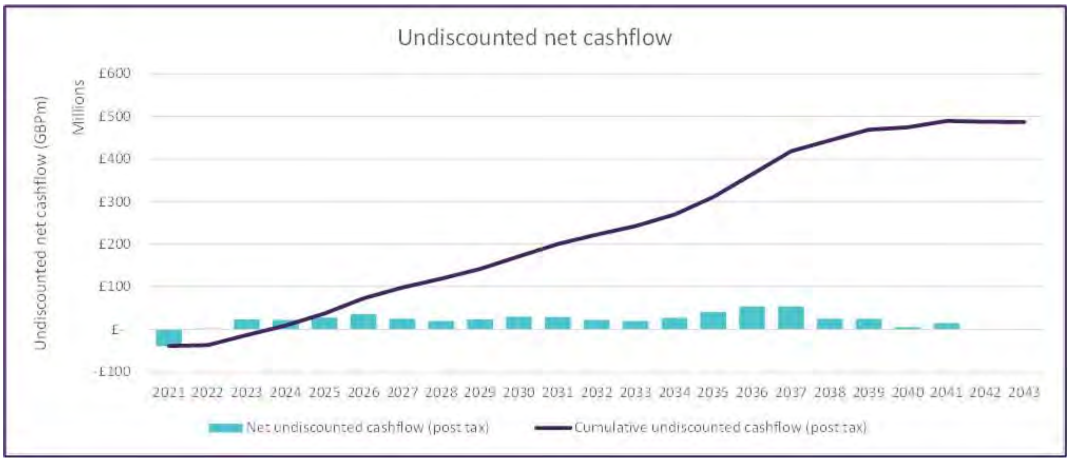
Table ES13 LOM project cashflow

Cashflow Statement	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
NPAT[f] (GBPm)	**(11.4)**	**6.6**	**22.7**	**21.2**	**25.8**	**33.7**	**24.1**	**18.4**	**21.8**	**27.9**	
Depreciation (GBPm)	1.1	3.0	3.0	3.2	3.2	3.1	3.0	2.9	2.7	2.6	
Change in working capital (GBPm)	(3.0)	(4.8)	(.1)	.1	.3	(.1)	(.5)	(.0)	(.0)	(.0)	
Operating cashflow (GBPm)	**(12.6)**	**5.5**	**25.5**	**24.4**	**29.3**	**36.8**	**26.7**	**21.3**	**24.5**	**30.5**	
CapEx (GBPm)	(29.8)	(3.8)	(1.9)	(1.9)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	
Cashflow investing (GBPm)	**(29.8)**	**(3.8)**	**(1.9)**	**(1.9)**	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	
Net cashflow (GBPm)	**(38.9)**	**1.8**	**23.6**	**22.6**	**28.2**	**35.6**	**25.6**	**20.1**	**23.4**	**29.3**	
Cumulative free cashflow (GBPm)	**(38.9)**	**(37.1)**	**(13.5)**	**9.1**	**37.3**	**72.9**	**98.5**	**118.7**	**142.1**	**171.4**	
Cashflow Statement	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**
NPAT (GBPm)	**27.9**	**20.5**	**18.8**	**25.4**	**39.8**	**52.8**	**58.0**	**23.5**	**23.9**	**4.1**	**6.1**
Depreciation (GBPm)	2.5	2.3	2.2	2.1	2.0	1.9	2.0	2.2	2.1	2.0	1.9
Change in working capital (GBPm)	(.2)	.2	.0	.6	.4	.0	.2	1.0	.0	.6	4.6
Operating cashflow (GBPm)	**30.2**	**23.0**	**21.1**	**28.2**	**42.2**	**54.8**	**60.3**	**26.7**	**26.1**	**6.7**	**12.6**
CapEx (GBPm)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(6.1)	(1.1)	(1.1)	(1.1)	2.0
Cashflow investing (GBPm)	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**(6.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**2.0**
Net cashflow (GBPm)	**29.1**	**21.9**	**19.9**	**27.0**	**41.1**	**53.7**	**54.1**	**25.6**	**25.0**	**5.6**	**14.6**
Cumulative free cashflow (GBPm)	**200.6**	**222.5**	**242.4**	**269.4**	**310.5**	**364.3**	**418.4**	**444.0**	**469.0**	**474.6**	**489.2**

[f] Net profit after tax.

The undiscounted net cashflow of the project is shown in Figure ES7.

Figure ES7 Project LOM undiscounted cashflow

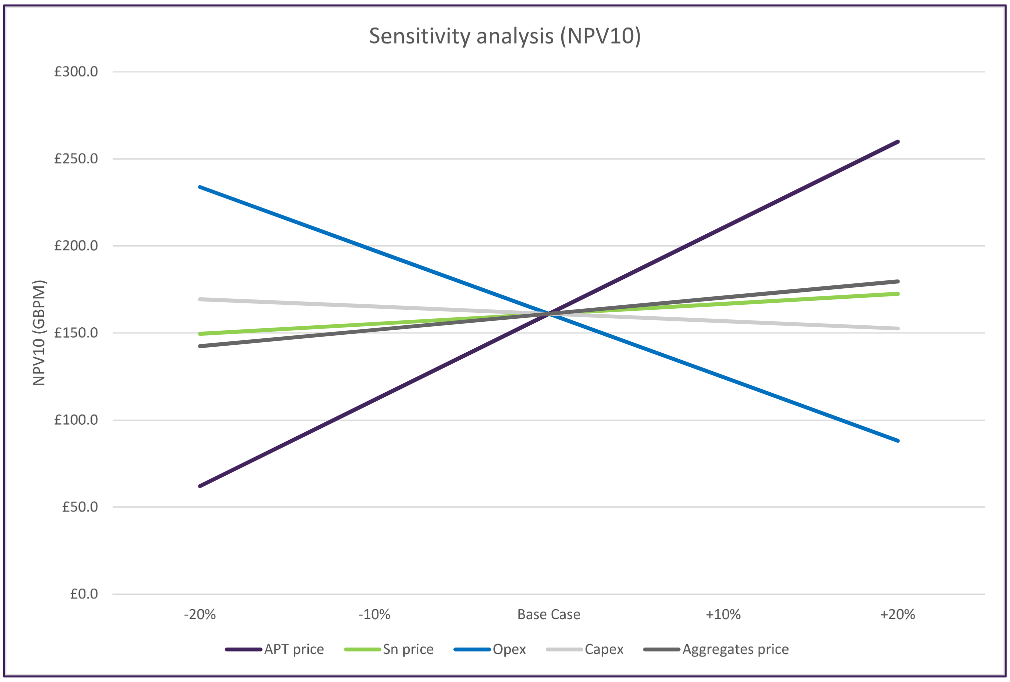


AMC varied the APT price, Sn price, OpEx (mine, process, and G&A), CapEx (initial and sustaining), and aggregates prices by ±20%. The resulting sensitivity analysis to NPV10 is presented in Table ES14 and Figure ES8.

Table ES14 Sensitivity analysis to NPV10

Parameter	-20% (GBP)	-10% (GBP)	Base Case (GBP)	+10% (GBP)	+20% (GBP)
APT price	62.1	111.5	161.0	210.5	259.9
Sn price	149.5	155.3	161.0	166.7	172.5
OpEx	233.9	197.5	161.0	124.6	88.1
CapEx	169.4	165.2	161.0	156.8	152.6
Aggregates price	142.4	151.7	161.0	170.3	179.6

Figure ES8 Sensitivity analysis to NPV10



Quality control

The signing of this statement confirms this report has been prepared and checked in accordance with the AMC Peer Review Process.

Project Manager	**Nigel Walls**	**28 September 2021** **Date**
Peer Reviewer	**Lawrie Gillett**	**28 September 2021** **Date**

Important information about this report

Confidentiality

This document and its contents are confidential and may not be disclosed, copied, quoted or published unless AMC Consultants (UK) Limited (AMC) has given its prior written consent.

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If a Client wishes to publish a Mineral Resource or Ore / Mineral Reserve estimate prepared by AMC, it must first obtain the Competent / Qualified Person’s written consent, not only to the estimate being published but also to the form and context of the published statement. The published statement must include a statement that the Competent / Qualified Person’s written consent has been obtained.

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Distribution list

1 e-copy to Tungsten West Limited
1 e-copy to AMC's Maidenhead offices

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4 October 2021 11:50

1 Introduction

1.1 Background

AMC Consultants (UK) Limited (AMC) was requested to prepare this Competent Person's Report (CPR) for the Hemerdon tungsten-tin mine (Hemerdon), Plymouth, UK, by Tungsten West Limited (TWL or the Company). This CPR is to be included in the listing documents for TWL's proposed listing on the AIM market of the London Stock Exchange plc (AIM). Hemerdon was previously an operating mine which ceased operations in 2018 and is now currently on care and maintenance. TWL intends to reopen the mine and start operations in 2022.

TWL is a private company, which was incorporated in 2019 as a special purpose vehicle to purchase Hemerdon out of receivership.

AMC understands that TWL is intending to publish an AIM Admission Document and seek admission of the TWL's shares to trading on AIM as required under the AIM Rules and that, as part of this process, the Company is required to include a Competent Person's Report on Hemerdon.

AMC undertook the most recent site-visit to Hemerdon on the 04 June 2021.

This CPR is addressed to TWL and its Nominated Advisor (NOMAD), Strand Hanson Limited (Strand Hanson). For the purposes of the AIM Rules for Companies, AMC is responsible for this CPR as part of the Admission Document and declares that it has taken all reasonable care to ensure that the information contained in this CPR is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import and no material change has occurred from 04 June 2021 2021 to 28 September 2021 that would require any amendment to this CPR. AMC consents to the inclusion of this CPR, and reference to any part of this CPR, in the Admission Document.

This CPR presents the following key technical information as at the Effective Date (defined below):

- Mineral Resource and Ore Reserve Statements reported in accordance with the terms and definitions of the JORC Code (2012).
- An opinion on the reasonableness of the technical-economic inputs into the life-of-mine (LOM), specifically: saleable production, operating expenditure, and capital expenditure.
- An opinion on the reasonableness of the environmental and social liabilities.
- A summary of the key technical risks and opportunities.

Certain units of measurements, abbreviations, and technical terms are defined in the glossary contained in Section 1 of this CPR. Unless otherwise explicitly stated, all quantitative data as reported in this CPR are reported on a 100% basis.

1.2 Reporting compliance, reporting standards and reliance

1.2.1 Reporting compliance

AMC has been informed by TWL that the AIM Admission Document is to be prepared in accordance with the following which together comprise the "Requirements":

- The "*Note for Mining and Oil & Gas Companies, June 2009*" (the "Mining Note"): including, and without limitation, the CPR will comply with the content requirements of Appendix 2 and include the summaries set out in Appendices 1 and 3, and AMC accepts responsibility for the CPR in accordance with Schedule 2(a) and paragraphs 1.1 and 1.2 of Annex 1 and paragraphs 1.1 and 1.2 of Annex III of the AIM Rules and consents to its inclusion in the Admission Document.

- The AIM Rules for Companies, July 2016 published by the London Stock Exchange (AIM Rules), specifically Rule 3 relating to Admission Documents and including the Annexes to the AIM Rules.

1.2.2 Reporting standard

The Reporting Standard adopted for reporting of the recent Mineral Resource and Ore Reserve Statements for Hemerdon in this CPR is that defined by the terms and definitions given in "*The 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves as published by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia*" (JORC Code (2012)). AMC confirms that the JORC Code (2012) has been aligned with the Committee for Mineral Reserves International Reporting Standards (CRIRSCO) reporting template.

1.2.3 Reliance on AMC

This CPR is addressed to, and may be relied upon, by the Directors of TWL and Strand Hanson Limited in support of the proposed admission, specifically in respect of compliance with the Requirements, the Reporting Standard and, as appropriate, the AIM Rules.

AMC declares that it has taken all reasonable care to ensure that the information contained in this CPR and included in the Admission Document is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import.

In accordance with the AIM Rules, AMC confirms that the presentation of information contained elsewhere in the Admission Document which relates to information in this CPR is accurate, balanced, and not inconsistent with the CPR.

AMC believes that its opinion must be considered as a whole and that selecting portions of the analysis or factors considered by it, without considering all factors and analyses together, could create a misleading view of the process underlying the opinions presented in this CPR. The preparation of a CPR is a complex process and does not lend itself to partial analysis or summary.

AMC has no obligation or undertaking to advise any person of any development in relation to the Hemerdon which comes to its attention after the date of this CPR or to review, revise, or update this CPR or opinion in respect of any such development occurring after the date of this CPR.

1.3 Base technical information date, effective date, and publication date

The effective date of this CPR is 28 September 2021 (the "Effective Date"). The Mineral Resource and Ore Reserve estimates and the technical information have been prepared as at the Effective Date in reliance on:

- Hemerdon Tungsten-Tin Project, Bankable Feasibility Study, March 2021 (FS).
- The Mineral Resource statement for the in-situ mineralization as prepared by Mining Plus UK Ltd (Mining Plus) on behalf of TWL with an effective date of 07 December 2020.
- The Mineral Resource statement for the MWF as prepared by Mining Plus with an effective date of 25 January 2021.
- The Ore Reserve statement as prepared by Mining Plus with a base date of 01 March 2021.
- The LOMP as developed by Mining Plus in March 2021.

All currency in this CPR is expressed on a cash basis in terms of Great Britain Pounds (Sterling) (GBP) unless otherwise noted.

1.4 Verification and validation

AMC has conducted a review (which specifically excludes independent verification by means of re-calculation) and assessment of all material technical issues included in the LOMP, which included the following:

- Inspection visits to TWL's mining and processing facilities and associated infrastructure at Hemerdon.
- Enquiry of key project and head office personnel of TWL during 2021 in respect of Hemerdon and the LOMP.
- An examination, review and, where appropriate, identification of the key technical risks and opportunities.

Accordingly, TWL has provided technical data to AMC for the purpose of this review and inclusion in this CPR. AMC confirms that it has performed all necessary validation and verification procedures deemed necessary and/or appropriate by AMC in order to place an appropriate level of reliance on such technical information.

1.5 Limitations, reliance on information, declaration, consent, and cautionary statements

1.5.1 Limitations

Ore Reserve estimates are based on many factors and are derived from estimates of future technical factors, operating and capital expenditures, product prices and the exchange rate between various currencies. The Ore Reserve estimates contained in this CPR should not be interpreted as assurances of the economic life of the Mineral Assets. As Ore Reserves are only estimates based on the factors and assumptions described herein, future Ore Reserve estimates might need to be revised.

The Mineral Resource and Ore Reserve Statements rely on assumptions regarding certain forward-looking statements. These forward-looking statements are estimates and involve a number of risks and uncertainties that could cause actual results to differ materially.

The achievability of the projections as included in this CPR and incorporated into the LOMP for Hemerdon are neither warranted nor guaranteed by AMC. The projections as presented and discussed herein have been proposed by TWL management and cannot be assured; they are necessarily based on economic assumptions, many of which are beyond the control of TWL.

Future cashflows and profits derived from such forecasts are inherently uncertain and actual results might be significantly more or less favourable.

Unless otherwise expressly stated, all the opinions and conclusions expressed in this CPR are those of AMC.

1.5.2 Reliance on information

AMC has relied upon the accuracy and completeness of technical, financial, and legal information and data provided by, or through, TWL.

TWL has confirmed to AMC that, to its knowledge, the information provided by it (when provided) was complete and not misleading in any material respect. AMC has no reason to believe that any material facts have been withheld.

Whilst AMC has exercised all due care in reviewing the supplied information, AMC does not accept responsibility for finding any errors or omissions contained therein and disclaims liability for any consequences of such errors or omissions.

AMC's assessment of the Mineral Resource and Ore Reserve estimates and the LOMP for the Mineral Assets is based on information provided by TWL throughout the course of AMC's investigations, which in-turn reflect various technical and economic conditions prevailing at the date of this CPR. In particular, the Ore Reserves and the LOMP are based on expectations regarding the exchange rates prevailing at the Effective Date of this CPR. These can change significantly over relatively short periods of time.

This CPR specifically excludes all aspects of legal issues, marketing, commercial and financing matters, insurance, land titles and usage agreements, and any other agreements and/or contracts TWL might have entered into.

1.5.3 Declaration

AMC will receive a fee for the preparation of this CPR in accordance with normal professional consulting practices. This fee is not dependent on the findings of this CPR and AMC will receive no other benefit for the preparation of this CPR. AMC does not have any interests that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to Hemerdon, and the projections and assumptions included in the various technical studies completed by TWL, opined upon by AMC and reported herein.

Neither AMC nor the Competent Persons (as identified under Section 1.6) who are responsible for authoring this CPR, nor any Directors of AMC have at the date of this report, nor have had within the previous two years, any shareholding in Hemerdon, Strand Hanson, or TWL. AMC is not a group, holding, or associated company of TWL or Strand Hanson. None of AMC's employees or officers are officers or proposed officers of any group, holding, or associated company of TWL.

Further, no Competent Person (CP) involved in the preparation of this CPR is an officer, employee, or proposed officer of TWL or any group, holding, or associated company of TWL and Strand Hanson.

Consequently, AMC and the Competent Persons consider themselves to be independent of TWL, its directors, senior management, and Strand Hanson.

1.5.4 Consent

In compliance with AIM Rules, AMC will give its written consent to the inclusion of this CPR in the AIM Admission Document and all of the information to be contained in the AIM Admission Document which has been extracted directly from this CPR.

1.6 Qualifications of consultants and Competent Persons

AMC is a firm of independent geological, geotechnical, hydrogeological, mining engineering, metallurgical engineering, and business improvement consultants offering expertise and professional advice to exploration, mining, and mining finance industries from our offices in Australia, Canada, Russia, Singapore, and the United Kingdom.

AMC's principal capabilities address four core elements—evaluate, develop, improve, and transform—and within these, we provide consulting services in geology, mining, geotechnics, feasibility studies, expert and specialist reports, mine optimization, and valuations.

AMC's experience-base covers all facets of mining from exploration and planning through to production and senior management roles. AMC has conducted a substantial number of evaluations of open-pit and underground mining projects and operations over a wide range of mineral commodities and is widely recognized as a technical leader in the global mining industry.

AMC has a strong capability and significant experience in undertaking, and reviewing, feasibility studies and CPRs for a wide range of commodities and project settings.

AMC and the specialist subconsultants referred to in this CPR have extensive experience within the mining sector, including the preparation and review of feasibility studies, and have prior experience with the Hemerdon Mine.

AMC has engaged specialist subconsultants to prepare certain elements of this CPR as follows:

- Mine waste facility (MWF) and open-pit geotechnical—Knight Piésold Limited (Knight Piésold). Knight Piésold has extensive experience in the mining sector, providing specialist services to mining clients at all stages of project development. Expertise includes tailings and waste management, and geotechnical engineering and rock mechanics.
- Metallurgical and processing—Grinding Solutions Limited (GSL). GSL specializes in exploring novel approaches for mineral liberation and separation to help clients maximize their value and opportunities to meet the ever-increasing global challenges that the mining industry now faces. GSL takes a consultative approach to projects and works hand-in-hand with its clients.
- Land-based environmental and social impact assessment (ESIA)—North Coast Consulting (NCC). NCC has undertaken environmental and social impact assessments for the mining industry for several years working for mining companies, financial institutions, and government ministries. NCC provides services at all stages of mine development, from the exploration and construction phases, through the operational stage, and into closure and post-closure stages.
- Planning-related matters—Brookbanks Consultancy Ltd. (Brookbanks). Brookbanks is a leading Master Developer and integrated services company with more than 23 years of experience. The company has a wealth of expertise focused on delivering successful outcomes for land and asset owners, developers, infrastructure companies, and large strategic operations. The company operates across England, Wales, and Southern Scotland, with operational teams based throughout. Brookbanks is currently leading major projects at Sherford, Cranbrook, Saltash, Bridgwater, and Taunton. This has allowed the company to build strong relationships at the most senior levels across the various authorities and other local organizations including Devon County Council, South Hams District Council, Plymouth City Council, LEPs, business organizations, and educational establishments.

The Competent Person who has reviewed the Mineral Resource estimates is Mr Nick Szebor, MCSM, MSc, BSc, CGeol, EurGeol, who is a full-time employee and General Manager, Maidenhead (UK)/Principal Geologist (Resource Geology) at AMC. Nick has more than 13 years of experience within the mineral industry, working in roles including consultancy and production. Nick previously worked as the senior mine geologist for an iron ore operation in Norway, Sydvaranger Gruve AS, managing the company's geological department, including grade control systems, its Resources and Reserves estimates, and reporting. His experience covers a range of commodities, geological settings, exploration and production environments, including underground and open-pit operations. This experience has been obtained across the mining lifecycle from early-stage exploration to production and mine closure. Nick is a Competent Person and Qualified Person and has carried out Mineral Resource estimates to international reporting codes including CIM (NI 43-101), JORC Code (2012), and SAMREC.

The Competent Person who has reviewed the Ore Reserves and the LOMP as reported by TWL is Mr Alan Turner, BEng, MSc, CEng, MIMMM (CP), who is a full-time employee of and Principal Mining Engineer at AMC. Alan has 15 years of experience in both operations and consulting in gold and base-metal mining across Europe, Asia, Africa, and the Former Soviet Union. Alan specializes in mine optimization and planning in underground and open-pit mining. Alan is experienced providing technical solutions for strategic planning, optimizations, pit design, and scheduling. He is also experienced developing cost and cashflow models. Alan has worked on NI 43-101 studies on the client-side for Lydian International's Amulsar Project, and in a consulting role for various projects, including Cameco's Kintyre pre-feasibility study, Woulfe Mining Corp's Sangdong feasibility study, and Zenit's Kiziltepe feasibility study. During his career, Alan has worked on multiple operations in Armenia and has developed Armenian and Russian language skills.

The Competent Person who has reviewed the hydrogeology is Carsten Kraut, MSc, who is a highly experienced consultant, team lead, and hydrogeologist, Carsten's experience has spanned from project direction and management to technical lead and field supervision on projects both large and small. In all cases, Carsten has a strong emphasis on delivering practical solutions, or pragmatic assessments that are suitable and appropriate to allow the client to advance their project.

The Competent Person who has reviewed various planning matters is Andy Eggleston, who is a Principal Consultant at Brookbanks. He has worked for the company for 12 years. Andy has 20 years of professional experience in Highways and more than six years in Noise Assessments. Andy is a Chartered Engineer (CEng) with a BEng (Hons) degree in Civil Engineering. Andy is a Member of the Institution of Civil Engineers and a Member of the Chartered Institute for Highways and Transport.

The Competent Person who has overall responsibility for this CPR is Nigel Walls, BSc, CEng FIMMM, who is a Principal Mining Engineer of AMC. Nigel has more than 36 years of experience, undertaking a wide variety of roles within the minerals industry in many commodities and countries. His main experience has been in base metals and precious metals, coal, and industrial minerals, in the CIS, Eastern Europe, and West and sub-Saharan Africa. He has undertaken a wide variety of due diligence and ITE assignments for operating companies, private equity groups and bank consortium for both equity and debt finance. He has a good understanding of what is required by clients for these assignments and has project managed a number of recent due diligence and Independent Technical Engineer reports. Nigel is a Qualified Person and Competent Person as defined by NI 43-101 and JORC Code (2012).

Table 1.1 provides a summary of the designated Competent Persons, other key contributors for completion of this CPR, and site visits for this CPR.

Neither AMC nor the authors of this CPR are qualified to provide comment on any legal issues associated with the Hemerdon Mine. Assessment of these aspects has been provided by TWL and its advisors and has not been independently verified by the authors.

The technical work and economic modelling for the Mineral Resources and Ore Reserve estimates has been undertaken by TWL and other third-party consultants, with AMC working in an independent review capacity.

Table 1.1 Competent Persons and key contributors

Competent Person	Position/Company	Responsibility	Independent of TWL	Date of last site-visit	Professional Designation
Nigel Walls	Principal Mining Engineer – AMC	Overall CPR review	Yes	n/a	BSc, CEng, FIMMM
Nick Szebor	General Manager, Maidenhead, (UK)/Principal Resource Geologist – AMC	Geology, exploration, and Mineral Resource estimates review	Yes	June 2021	BSc, MSc, MCSM, CGeol, EurGeol, FGS
Alan Turner	Principal Mining Engineer – AMC	Mining, Ore Reserves review, Project infrastructure	Yes	June 2021	BSc, CEng, MIMMM
Richard Elmer	Principal Geotechnical Engineer – Knight Piésold	Geotechnics	Yes	June 2021	BSc, MSc, CEng, MIMMM, MCSM
Carsten Kraut	Principal Hydrologist – AMC	Hydrogeology	Yes	n/a	MSc
John Eyre	Director – North Coast Consulting	Environmental and social	Yes	September 2015	FRCS, CEnv, MIMMM, MIQ, MIEMA
Nick Wilshaw	Managing Director – Grinding Solutions	Mineral processing	Yes	June 2021	FIMMM
Andy Eggleston	Principal Consultant – Brookbanks	Planning	Yes	n/a	BEng (HON), ICE, CEng, MCIHT
Narina Shorland	Senior Mining Engineer – AMC	Introduction, Mineral asset, Environmental	Yes	November 2018	BSc, MSc, CEng, MIMMM

1.7 Terms and abbreviations used in this CPR

Certain units of measurement, abbreviations, and technical terms are defined in Table 1.2 and Table 1.3.

Table 1.2 Terms used in CPR

Term	Description
Accepts products	The concentrate, or non-reject material, from the ore sorter.
Cassiterite	Brown to black mineral of SnO_2, major mineral for tin.
Concentrate	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore.
Cut-off grade	The grade of mineralized rock which determines as to whether or not it is economic to recover its gold content by further concentration.
Dilution	The contamination of ore with barren or grade-bearing wall rock in stoping. The assay of the ore after mining is frequently lower than when sampled in place. The proportion of waste that is contained in the run-of-mine ore delivered to the metallurgical processing plant.
Dip	Angle between the horizontal and an inclined feature, e.g. vein, dyke, or bedding.
Dyke	Tabular body of intrusive rock emplaced either vertically or steeply inclined.
Facies	An assemblage or association of minerals reflecting the environment and conditions or origin of the rock.
Ferberite	Iron-rich end member of the manganese-iron wolframite solid solution series, mineral formula $FeWO_4$.
Geophysics	Branch of physics dealing with the Earth, including its atmosphere and hydrosphere. It includes the use of seismic, gravitational, electrical, thermal, radiometric, and magnetic phenomena to elucidate processes of dynamical geology and physical geography, and makes use of geodesy, geology, seismology, meteorology, oceanography, magnetism, and other Earth sciences in collecting and interpreting Earth data. Geophysical methods have been applied successfully to the identification of underground structures in the Earth and to the search for structures of a particular type, as, for example, those associated with oil-bearing sands.
Hematization	Alteration and replacement of iron-rich minerals with a mineral oxide of iron Fe_2O_3.
Hemerdon Tungsten-Tin Project. Bankable Feasibility Study, March 2021.	Feasibility study on the Hemerdon Mine produced by TWL in 2021.
Inverse Distance Weighting Squared	Interpolation method whereby samples are weighted according to their distance from the point being estimated, with samples closer to the estimation point getting the greater weighting. The inverse distance weight is raised by the power of two.
JORC Code (2012)	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code 2012 Edition. Effective 20 December 2012 and mandatory from 01 December 2013. Prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia (JORC).
Kaolinization	High-temperature hydrothermal alteration and replacement of feldspar minerals to kaolinite.
Killas	Cornish term for metamorphic rock units which were altered by the heat supplied by the Cornish granites. At Hemerdon, specifically refers to Devonian metasediments, metavolcanics, and mafics surrounding the Hemerdon Granite.
Kriging	An interpolation method of assigning values from samples to blocks that minimizes the estimation error.
Mafics	Magnesium and iron-rich igneous rock unit typically containing minerals such as olivine, pyroxene, amphibole, and biotite.
Metasediments	Metamorphic rock comprising a former sedimentary unit that has been subjected to high temperatures and pressures resulting in recrystallization.
Metavolcanics	Metamorphic rock comprising a former rock unit that was formed by volcanic activity such as lava or tephra, that has been subjected to high temperatures and pressures resulting in recrystallization.
Meteoric	Water that occurs in, or is derived from, the atmosphere.

Term	Description
Mine waste facility	An impoundment used to deposit tailings arising as waste from a metallurgical processing facility.
Mineral Resources	A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade, (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated, or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated, and Measured categories.
Modifying Factors	Defined to include mining, metallurgical, economic, marketing, legal, environmental, social, and governmental considerations.
Ore Reserves	An Ore Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource. It Includes diluting materials and allowances for losses, which might occur when the material is mined or extracted and is defined by studies at Pre-feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably by justified.
Ore sorter	Sensor-based ore particle sorting that offers a powerful method for preconcentration or waste rejection early in the comminution process.
Strike	Direction taken by a structural surface, e.g. fault or bedding plane as it intersects the horizontal plane.
Strike-Slip	The movement parallel with the strike of a fault.
Tellus	Tellus south-west project mapped the soils and rocks of the majority of the south-west region of England, covering most of Cornwall, Devon, and part of Somerset, using modern scientific equipment mounted on a light aircraft flying low over the landscape.
Tourmaline	A group of hexagonal borosilicate minerals with variable composition with the general formula: $(Ca,Na,K)(Al,Fe^{2+},Fe^{3+},Li,Mg,Mn)_3(Al,Cr,Fe^{3+},V)_6(BO_3)_3Si_6O_{18}(O,OH,F)_4$
Tuff	Pyroclastic rock principally composed of volcanic ash.
Variography	Analysis of grade continuity through the comparison of points of measurement according to distance and orientation between the points of observation.

Table 1.3 Abbreviations and units

Abbreviation/Unit	**Description**
c′	Cohesion
φ	Angle of friction
AEP	Annual Exceedance Probability
AHK	Alfred H Knight Laboratories
AIA	Acoustic Impact Assessment
AIM	the AIM market of the London Stock Exchange
AMAX	AMAX Inc.
AMAX Exploration	AMAX Exploration of the UK Inc. (a wholly owned subsidiary of AMAX Inc.)
AMC	AMC Consultants (UK) Limited
aOD	Above ordnance datum
APT	Ammonium paratungstate
As	Arsenic
AWL	Aggregates West Limited
BIMMS	Blast Impact Monitoring and Minimisation Scheme
Brookbanks	Brookbanks Consultancy Ltd.
CAT	Caterpillar® (Mining equipment manufacturer)
CCP	Conceptual Closure Plan
cm^3	Cubic centimetre
COV	Coefficient of Variation
CP	Competent Person
CPR	Competent Person's Report
CRIRSCO	Committee for Mineral Reserves International Reporting Standards
CRM	Certified Reference Material
Cu	Copper
3D	Three-dimensional
DDH	Diamond core drillhole
DCC	Devon County Council
DCF	Discounted cashflow
DGPS	Differential global positioning satellite
dmt	Dry metric tonne
DMS	Dense Media Separation
Duo	Duo Group Holdings Ltd
EA	Environmental Agency
EHS	Environmental Health and Safety
EIA	Environmental Impact Assessment
EMS	Environmental Management System
EP	Environmental Permit
EPF	Environmental Permitting (England and Wales) Regulations 2016
ES	Environmental Statement
ESAP	Environmental and Social Action Plan
ESG	Environmental Social Governance
ESIA	Environmental Social Impact Assessment
EUR	Euro
Fe	Iron
FM	Fine material
FOS	Factor-of-safety
FPC	Fine preconcentrate

Abbreviation/Unit	Description
FEED	Front End Engineering Design
FS	Hemerdon Tungsten-Tin Project, Bankable Feasibility Study, March 2021
FSE	Fundamental sampling error
GBP	Great Britain pounds (Sterling)
GTK	Geological Survey of Finland
GCL	Geosynthetic clay liner
GISTM	Global Industry Standard on Tailings Management
GRES	GR Engineering Services Ltd.
GRS	GRS (Roadstone) Limited
Gs	Gauss
GSI	Geological Strength Index
GSL	Grinding Solutions Limited
GISTM	Global Industry Standard on Tailings Management
g/t	Grams per tonne
ha	Hectare
H&S	Health and Safety
HSE	Health and Safety Executive
HDPE	High-density polyethylene
HGMS	High Gradient Magnetic Separation
HGSL	Hargreaves Services Limited (mining contractors)
HLS	Heavy Liquid Separation
HMA	Hemerdon Mining Association
HMSL	Hemerdon Mining and Smelting Ltd.
HQ	Core diameter of 63.5 mm
HTS	Huntings Technical Surveys Ltd.
HV	High voltage
ICP-OES	Fusion/inductively coupled plasma optical emission spectroscopy
IDW^2	Inverse Distance Weighting Squared
IEP	Internal Emergency Plan
IGS	Knight Piésold Independent Geotechnical Specialist
Imerys	Imerys Minerals Limited
IP	Induced Polarization
IPPC	Integrated Pollution Prevention and Control permit
IR	Infrared
IRR	Internal rate of return
ITR	Independent Technical Report
JCond89	Joint conditions
K	Potassium
k	Thousand
kbcm	Thousand bcm
kg	Kilogram
km	Kilometre
KNA	Kriging neighbourhood analysis
Knight Piésold Consulting	Knight Piésold
ktpa	Thousand tonnes per annum
ktph	Thousand tonnes per hour
kW	Kilowatt
kWh	Kilowatt hour

Abbreviation/Unit	Description
kWh/t	Kilowatt hour per tonne
LEP	Local Enforcement Position
LFN	Low Frequency Noise
LIMS	Low Intensity Magnetic Separation
LOM	Life-of-mine
LOMP	Life-of-mine plan
LSSL	Lining System Support Layer
m	Metre/s
m^3	Cubic metre
m^3/s	Cubic metres per second
m bgl	Metres below ground level
MEP	Mineral Engineering Processes Ltd.
mi	Hoek-Brown constant
Mining Plus	Mining Plus UK Ltd
mm	Millimetre
Mmtu	Million metric tonne units
MPa	Mega Pascals
MPA	Mineral Planning Authority
MPF	Mineral processing facility
MRE	Mineral Resource estimate
m RL	Metres reduced level
MRMR	Modified Rock Mass Rating
Mt	Million tonnes
Mtpa	Million tonnes per annum
mtu	Metric tonne unit
MWF	Mine waste facility
NaOH	Sodium hydroxide
NCC	North Coast Consulting Limited
NFMDC	Non-Ferrous Minerals Development Control
NIA	Noise Impact Assessment
NMMMP	Noise Monitoring Management and Mitigation Plan
NOMAD	Nominated Advisor
NPV	Net Present Value
NQ3	Core diameter of 45 mm
NSR	Net Smelter Return
OBV	Orebody variability
OEP	Offsite Emergency Plan
OHS	Occupational Health and Safety
OK	Ordinary Kriging
OMAC	Omac Laboratories Limited
OR	Official Receiver
Panoptic	Panoptic Consultancy Ltd
PCC	Plymouth City Council
PDC	Process design criteria
PERC	Percussion drilling
PLSI	Point Load Strength Index
PMF	Probable Maximum Flood
PQ3	Core diameter of 83 mm

Abbreviation/Unit	Description
PSD	Particle size distribution
pXRF	Portable X-Ray fluorescence spectroscopy
QA/QC	Quality Assurance and Quality Control
QP	Qualified Person
RC	Reverse circulation drilling
RF	Revenue Factor
RMR	Rock Mass Rating
ROM	Run-of-mine
RQD	Rock Quality Designation
RRI	Robertson Research International Ltd.
S	Sulphur
SAMREC	South African Mineral Resource Committee
SCADA	Supervisory control and data acquisition
SG	Specific Gravity
SHDC	South Hams District Council
SLR	SLR Consulting
Sn	Tin
SOP	Standard operation procedure
SP	Standpipe piezometers
Strand Hanson	Strand Hanson Limited
t	Tonne
Touchstone	Touchstone Geological Services Ltd.
t/m^3	Tonnes per cubic metre (density)
tph	Tonnes per hour
TSF	Tailings storage facility
TWL	Tungsten West Limited
µm	Micron
UCS	Uniaxial Compressive Strength
USD	United States dollars
USDm	A million United States dollars
USV	Unmanned surface vehicle
VHG	Very high-grade
VWP	Vibrating wire piezometers
W	Tungsten
WAI	Wardell Armstrong International
WO_3	Tungsten trioxide
WO_3Eq	WO_3 equivalent
WRD	Waste rock dump
Wolf	Wolf Minerals (UK) Limited
XRF	X-Ray fluorescence spectroscopy
XRF-BL	X-Ray fluorescence borate fusion

2 The mineral asset

2.1 Ownership structure and acquisition history

Hemerdon has a history spanning more than one hundred years, with tin and copper mining activity in the local area stretching back to the bronze age and reaching a peak in the 19th century. The presence of tungsten in mines of the Tamar valley led to pioneering chemistry into the metal by local metallurgist Robert Oxland at this time, leading to the development of the first commercial uses for tungsten.

Despite earlier acknowledgement of tungsten at Hemerdon, it was demand for the metal in the First World War that led to the exploration and development of the first mining operation at the site between 1915 and 1919. With depressed prices post-war, the mine remained on care and maintenance until increased interest in the commodity in the 1930s pre-empted renewed wartime demand in the Second World War. This saw the commencement of operations, subsequent nationalization, and expansion of the mine on a greater scale. However, difficulties with the hastily built mill and the re-establishment of foreign sources of tungsten led to the operation again being placed on care and maintenance in June 1944.

Despite interest during the Korean War, little happened until a drilling programme by Hemerdon Mining and Smelting (UK) Ltd. (a subsidiary of Hemerdon Mining and Smelting Limited of Bermuda) attracted the interest of AMAX Exploration U.K. Inc. (a wholly owned subsidiary of AMAX Inc.), which entered into a 50:50 Joint Venture and rapidly developed the project to the level of a feasibility study in 1983. After a lengthy planning process, necessary permissions were granted in 1986. With the drop in metal prices associated with the collapse of the International Tin Council, the project was not investigated further until Wolf acquired ownership in 2007 and undertook work programmes to produce its own feasibility study in 2011, leading to the commencement of production in 2015. The Wolf operation failed to meet projected targets and despite steady increases in production over the years, failed to achieve ongoing supporting finance in October 2018 which led to the company being placed into receivership and the operation onto care and maintenance.

Previous contract mining operator Hargreaves Services Limited (HGSL) purchased the project from the receiver in April 2019 and subsequently re-sold it to current operators TWL in November of that year.

A summary of project ownership and exploration activity is provided in Table 2.1.

Table 2.1 Summary of prior ownership of the project and associated exploration activity

From	To	Company	Exploration Activity
1898	1898	Unknown	Prospecting of stone walls at Hemerdon Ball
1916	1917	Steadman Group	Shaft sinking and trial pitting
1917	1927	Hemerdon Mines Ltd.	C. 20 trial pits and an exploration adit
1936	1939	Hemerdon Syndicate	C. 20 trial pits, three 18 m deep shafts and cross cutting.
1939	1942	Hemerdon Wolfram Ltd.	No known exploration activity
1942	1959	Ministry of Supply (UK Government)	Shallow trial pitting for extensions to north and south of orebody
1959	1966 (?)	George Cohen 600 Group	No known exploration activity
1966	1976	Richardson Mining Associates	No known exploration activity
1976	1977	Hemerdon Mining and Smelting Ltd.	45 Percussion drillholes for 110 m
1977	1985	Hemerdon Mining and Smelting Ltd. and AMAX Inc. Joint Venture	Regional soil sampling and prospecting, 674 holes for 19,466 m, UG mining and pilot plant operation.
1985	1986	AMAX Inc.	No known exploration activity

From	To	Company	Exploration Activity
1986	c. 1995	Canada Tungsten	No known exploration activity
c. 1995	1997	Aur Resources	No known exploration activity
1997	2003	North American Tungsten	No known exploration activity
2007	2018	Wolf	6,567 exploration and Grade Control drillholes for 93,772 m, Soil sampling of Southern Extension.
2018	2019	Wolf Official Receiver	No known exploration activity
2019	2019	Hargreaves Services Plc.	No known exploration activity
2019	Present	Tungsten West Limited	66 drillholes for 6,213 m, limited soil sampling

2.2 Previous work by AMC at Hemerdon

AMC has undertaken a number of historical commissions at Hemerdon, both for the current and previous owners, including:

- 2017: Review of a geo-metallurgical model.
- 2018: Independent review of primary data collection and results of the re-logging/sampling of AMAX core by Wolf.
- 2018: Reconciliation between grade control models and mill actuals against resource models during the Wolf operation, worked completed by the Wolf geology team (Hassall, 2016; Hassall, 2018) and AMC (Szebor, 2018) at the time.
- 2020: Independent review of the volume variance effect and subsequent application of grade calibration factor.
- 2021: FS review.

2.3 The Hemerdon Mine

2.3.1 Summary

Hemerdon has a history spanning more than one hundred years, with tin and copper mining activity in the local area stretching back to the bronze age and reaching a peak in the 19th century. The presence of tungsten in mines of the Tamar valley led to pioneering chemistry into the metal by local metallurgist Robert Oxland at this time, leading to the development of the first commercial uses for tungsten.

The mineral lease includes indemnifying the landlord against any breach in environmental law and as such the site falls under several pieces of environmental legislation, the primary being the Environmental Protection Act 1990 and the Environmental Permitting Regulations 2016.

The previous operator held an installation permit for the operation of a mineral processing facility (MPF) and a mine waste permit for the operation of a MWF that TWL has deemed suitable for the recommencement of mining and is seeking to re-instate. Both permits will require reinstatement prior to the recommencement of production. The site currently holds licences for discharge of trade effluent; however, the activities at Hemerdon requires TWL to acquire the previous abstraction and impoundment licences, from the EA, to operate the facility.

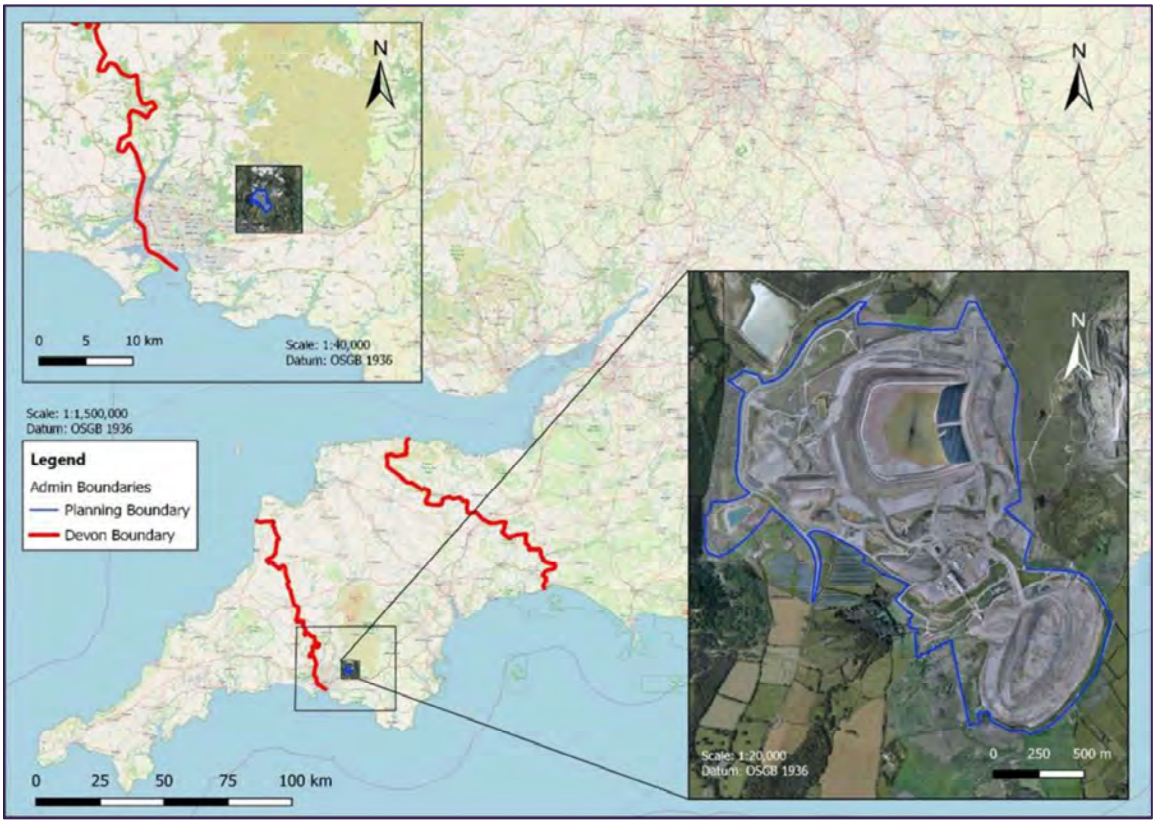
2.3.2 Property location

Hemerdon tungsten-tin mine is located 10 km north-east of Plymouth, near the town of Plympton, in Devon, England. The site is to the north of the villages of Sparkwell and Hemerdon and adjacent to the china clay pits near Lee Moor (Table 2.2 and Figure 2.1).

Table 2.2 Site location references

Grid reference	**SX 56248 59210**
Latitude, Longitude	50.415120 , -4.0246746
Latitude Longitude	50°24′54″N , 004°01′29″W
What3Words	files.swung.healthier

Figure 2.1 Property location map



2.3.3 Material terms of purchase

TWL exercised the option to buy DRL under the following key conditions (not exhaustive):

- GBP2.8 million consideration for Drakelands Restoration Ltd plus an additional GBP2.6 million for associated land and property.
- A ten-year Mining Services Contract with HGSL plus a GBP8.0 million commencement fee payable at GBP1.0 million per annum for the first eight-years of mining operations. The terms of the Mining Services Contract are substantially the same as the original Wolf contract except for the GBP8.0 million commencement fee. It is noted that the GBP8.0 million commencement fee relates to the quantum lost by HGSL as an unsecured creditor under Wolf Minerals.
- A GBP1.0 million payment to the secured lenders which released all future claims to Hemerdon.

TWL's registered title to the mine and surrounding properties consists of 36 separate titles (Figure 2.2, Figure 2.3, and Table 2.3), consisting of:

- Thirty-five (35) freehold titles registered at HM Land Registry (i.e. owned outright by TWL).
- One lease registered at HM Land Registry being the mineral lease (DN643856).

Figure 2.2 TWL freehold title and mineral lease areas

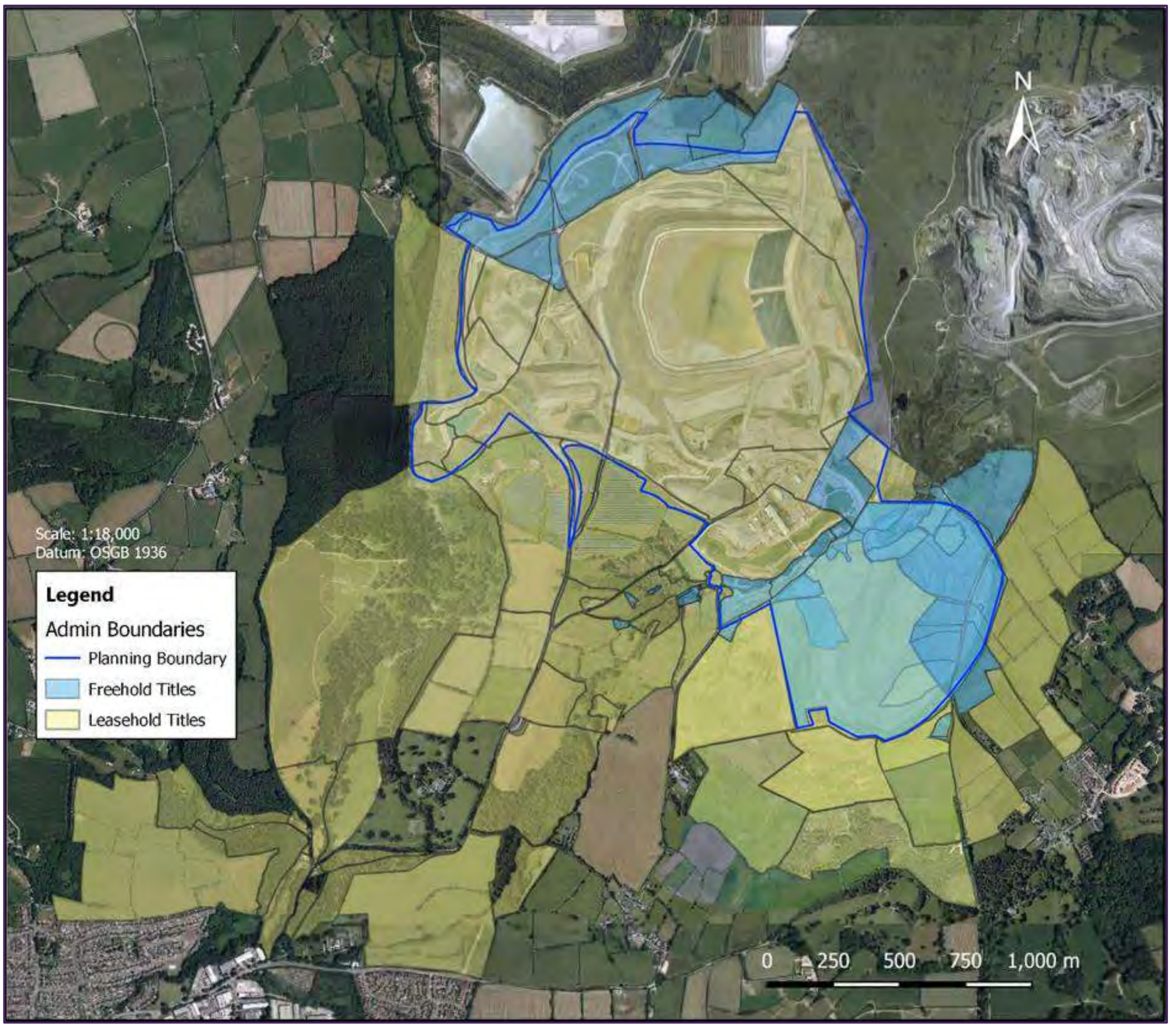


Figure 2.3 Freehold title areas

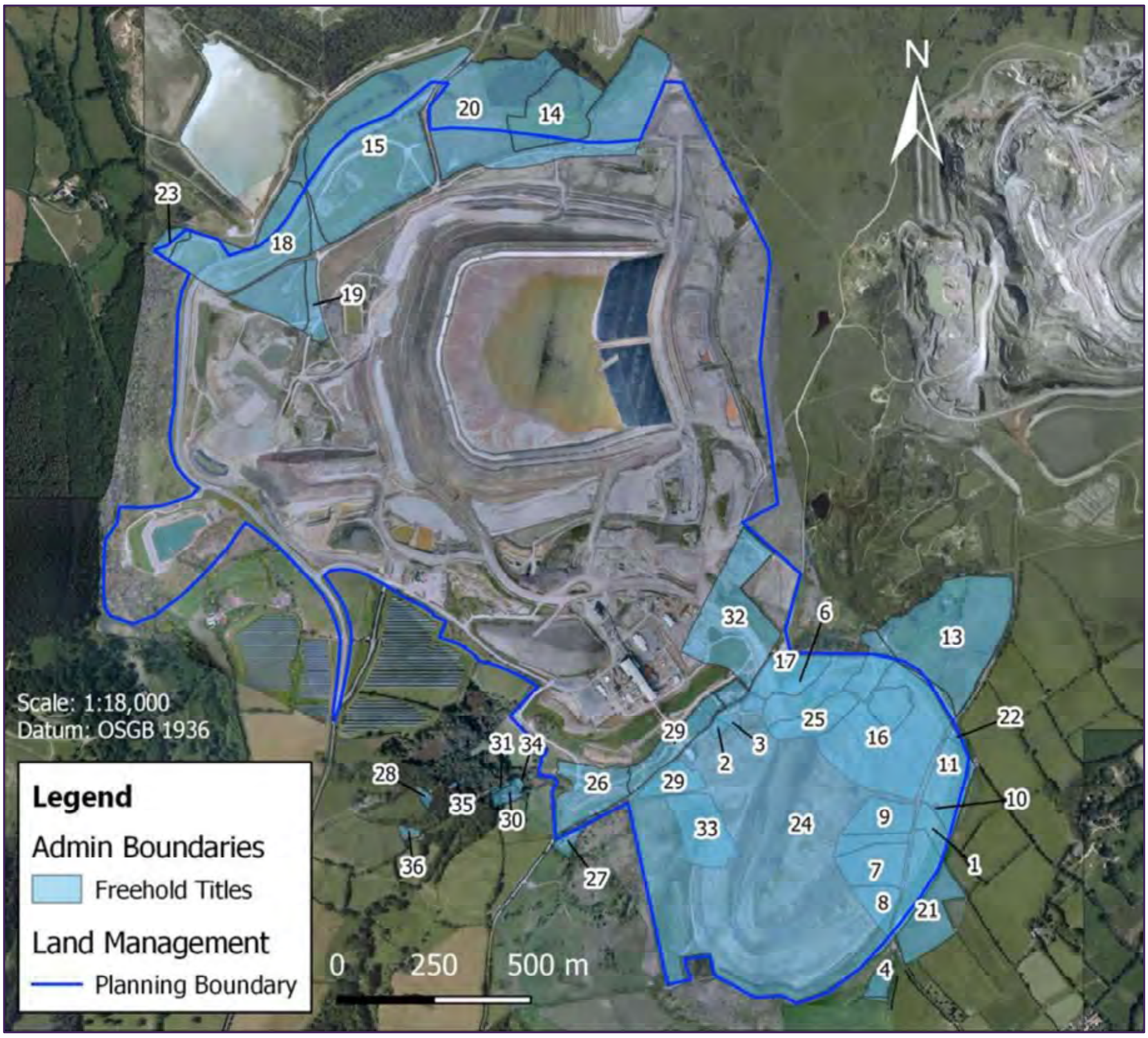


Table 2.3 TWL freehold/leasehold title

No.	Title	Freehold/ Leasehold	Description
1	DN190186	FH	Land on the East side of a road leading from Sparkwell to Smallhanger Sparkwell
2	DN258805	FH	Lyndenfell, Drakelands, Plymouth, PL7 5BS
3	DN312284	FH	The Bungalow, Drakelands, Plymouth, PL7 5BS
4	DN328178	FH	Bickfordtown Farm, Sparkwell, Plymouth, PL7 5DB
5	DN329986	FH	Land on the South side of Bickfordtown Farmhouse, Sparkwell, Plymouth
6	DN366063	FH	Crownhill Down Cottage, Drakelands, Hemerdon, Plymouth, PL7 5BS
7	DN402432	FH	Land on west side of Ledgate Lane, Hemerdon, Plympton
8	DN402493	FH	Land on the west side of Ledgate Lane, Hemerdon, Plympton
9	DN402988	FH	Land on the west side of Ledgate Lane, Hemerdon, Plympton
10	DN446967	FH	Site of a communications mast, Smallhanger, Sparkwell
11	DN472868	FH	Land at Smallhanger Sparkwell, Plymouth, PL7 5DW
12	DN527112	FH	Birchland Plantation, Sparkwell, Plymouth, PL7 5DW
13	DN537487	FH	Land at Smallhanger, Cornwood, Ivybridge
14	DN556018	FH	Land at Coleland, Lee Moor, Plymouth
15	DN565384	FH	Land at Lee Moor, Plymouth
16	DN572182	FH	Land at Smallhanger China Clay Works, Cornwood, Ivybridge
17	DN572196	FH	Smallhanger China Clay Works, Cornwood, Ivybridge (minerals)
18	DN589290	FH	Land at Henwood, Portworthy, Lee Moor, Plymouth1
19	DN635121	FH	Land at Lee Moor, Plymouth
20	DN636341	FH	Coleland Wood and Brown's Wood, Plym Forest, Plympton, Plymouth
21	DN636557	FH	Land on the East side of Ledgate Lane, Hemerdon, Plymouth
22	DN638831	FH	Land at Hemerdon, Smallhanger, Sparkwell, Plymouth
23	DN654179	FH	Land at Lee Moor, Cornwood, Ivybridge
24	DN643856	LH	Hemerdon Mine and Crownhill Down, Plympton, Plymouth
			TWL Properties
25	DN136917	FH	Claymoor House, Drakelands, Plymouth, PL7 5BS
26	DN234323	FH	Middle Drakelands House, Drakelands, Plymouth, PL7 5BS
27	DN246221	FH	High Posts, Drakelands, Plymouth, PL7 5BS
28	DN285691	FH	FH Count House, Plympton, Plymouth, PL7 5BP
29	DN407912	FH	Higher Drakelands, Hemerdon, Plymouth, PL7 5BS
30	DN418496	FH	Little Drakelands, Hemerdon, Plymouth, PL7 5BS
31	DN577164	FH	Land at Little Drakelands, Hemerdon, Plympton, Plymouth
32	DN578547	FH	Higher Drakelands Farm, Drakelands, Plymouth, PL7 5BS
33	DN637739	FH	Drakelands House, Drakelands, Plymouth, PL7 5BS
34	DN638722	FH	Little Drakelands, Drakelands, Plymouth, PL7 5BS
35	DN640802	FH	FH Mine Cottage, Plymouth
36	DN640804	FH	1 & 2 Bottle Hill Cottages, Plymouth

AMC notes that a planned future extension of the FS study pit design encroaches on land which is currently exclusively held by a third party. The area contains <1% of the Measured and Indicated Resources and Ore Reserves. As such, any potential mineral rights and royalties involved with the purchase of the land will be immaterial. Access to the area of land in question is planned for Year 7 (and will be required by Year 12) of the LOMP to ensure mining operations can proceed to the current plans, which TWL believes should provide sufficient time for land acquisition to take place. Following acquisition, TWL will require planning permission on the land, however, the land currently has industrial status and is included in the Devon Minerals Plan as an area designated for mineral extraction, therefore the Company is confident such permissions will be forthcoming.

Should access to the land not be granted then the proposed pit rim limit would move and a re-working of the LOM pit design undertaken; this exercise has not been undertaken within this CPR given the realistic expectation that access to the land package in question will be granted.

2.4 Mineral tenement and land tenure status

2.4.1 Mineral lease

The Minerals and Rights at Hemerdon and Crownhill Down Plympton, Plymouth, reflect the history and complexity of mineral working during the last 2,000 years. It is the case at Hemerdon where historically the land might have been sold, however the Mineral Right is retained by the previous owner, as such the Land Right owner is not always the Mineral Right owner. AMAX and the rights holders sought to overcome this by creating the Hemerdon Mining Association (HMA), a consortium of land and mineral rights representatives to act on behalf of the Land and Mineral Rights holders interests.

The lease has been registered with the land registry under title DN643856 and is outlined in Figure 2.4 and Table 2.4.

Figure 2.4 Mineral lease titles under DN643856

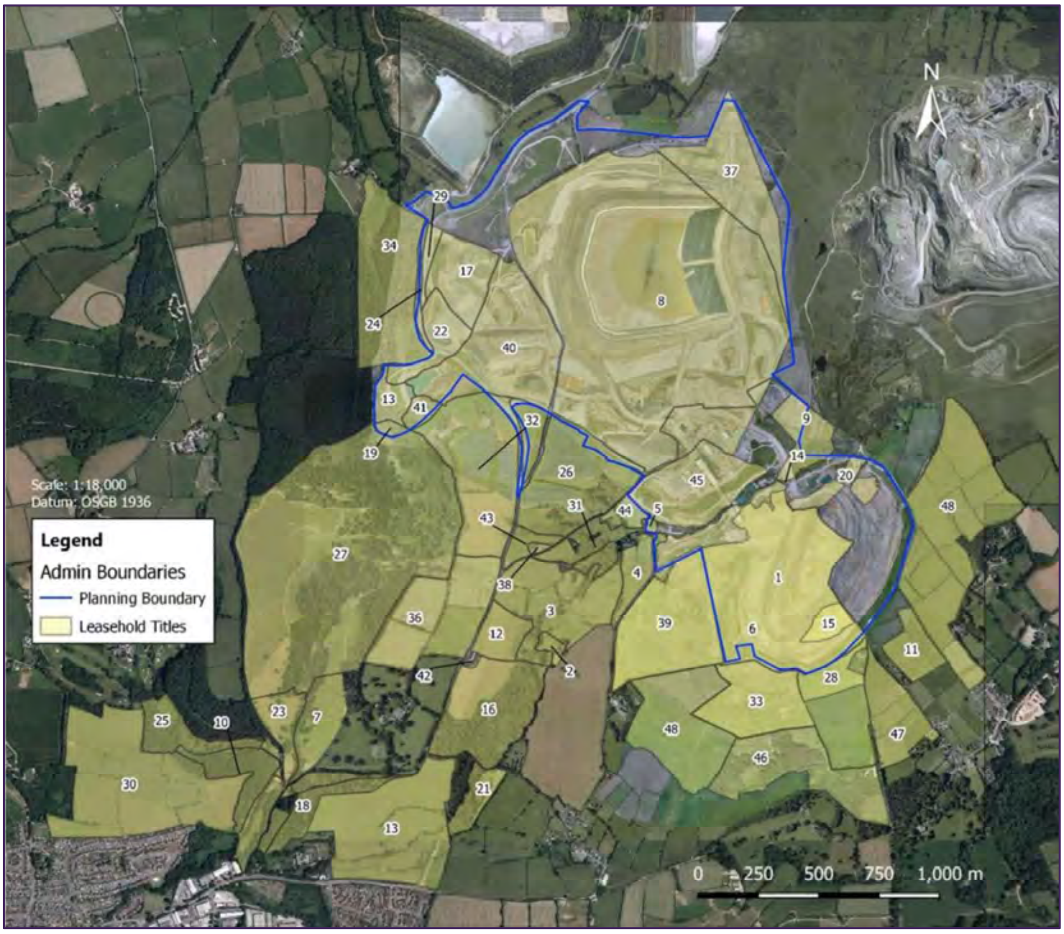


Table 2.4 Lease titles

No.	Title	Leasehold	Description
1	DN582555	LH	Hemerdon Mine, Hemerdon, Plymouth
2	DN480336	LH	Lobb Farm, Plympton, Plymouth PL7 5BW
3	DN520751	LH	Land on the North and West sides of Lobb Farm, Plympton, Plymouth PL7 5BW
4	DN526457	LH	Land on the East and South sides of little Drakelands, Drakelands, Plymouth PL7 5BS
5	DN600469	LH	Land on the West side of Middle Drakelands, Plymouth
6	DN 583327	LH	Land at Hemerdon
7	DN513576	LH	The Lodge, Loughter Mill, Plympton, Plymouth PL7 5BN
8	DN522042	LH	Land at Crownhill Down, Plymouth
9	DN526549	LH	Land lying to the North East of Higher Drakelands Farm, Drakelands, Plymouth PL7 5BS
10	DN27707	LH	Land lying to the North of Newham Road, Sparkwell, Plymouth
11	DN584688	LH	Land on the East side of Ledgate Lane, Hemerdon, Plymouth
12	DN515471	LH	Land Lying to the West of Lobb Farm, Plympton, Plymouth PL7 5BW
13	DN525200	LH	Land Lying to the North West of Bude Farm, Plympton, Plymouth PL7 5BW
13	DN531904	LH	Land on the East Side of Old Newnham, Plympton, Plymouth PL7 5BH
14	DN516542	LH	Land lying to the Southeast of Drakelands House, Drakelands, Plymouth PL7 5BS
15	DN88450	LH	Land lying on the East and West sides of Ledgate Lane, Hemerdon, Plympton St Mary, Sparkwell
16	DN515546	LH	Land on the West side of Windwhistle Farm, Hemerdon, Plymouth, PL7 5BU
17	DN525223	LH	Land lying to the South East of, Portworthy Cottage, Lee Moor, Plymouth PL7 5JT
18	DN542131	LH	Land on the North West side of, old Newnham, Plympton, Plymouth PL7 5BH.
19	DN600470	LH	Land at Deer Park, Newnham Park, Plympton, Plymouth
20	DN630911	LH	Mines and Minerals, Hemerdon Mine, Sparkwell, Plymouth
21	DN515987	LH	Land lying to the South West of Windwhistle Farm, Hemerdon, Plymouth, PL7 5BU
22	DN525315	LH	Land lying to the North of Bude Farm, Plympton, Plymouth, PL7 5BW
23	DN549831	LH	Loughtor Mill, Plympton, Plymouth PL7 5BN
24	DN606433	LH	Land at Hooksury Wood, Lee Moor, Plymouth
25	DN114656	LH	Elfordleigh Farm, Plympton, Plymouth, PL7 5EB
26	DN516018	LH	Land At, Newnham Estate, Plympton, Plymouth
27	DN525395	LH	1 Keepers Cottage, Newnham, Plympton, Plymouth PL7 5BN 2 Keepers Cottage, Newnham, Plympton, Plymouth PL7 5BN Land At, Newnham Park, Plympton, Plymouth PL7 5BN
28	DN582579	LH	Land at Hemerdon, Plymouth
29	DN601066	LH	Land at Hooksbury Wood, Lee Moor, Plymouth
30	DN119740	LH	Land on the East side of Borringdon Hill
31	DN516054	LH	Land on the North side of Little Drakelands, Drakelands, Plymouth, PL7 5BS
32	DN525635	LH	Land At, Bude Farm, Plympton, Plymouth PL7 5BW
33	DN582592	LH	Land at Hemerdon, Plymouth
34	DN337496,	LH	Hooksbury Wood, Lee Moor, Plymouth
35	DN516054	LH	Land on the North side of Little Drakelands, PL7 5BS, Drakelands, Plymouth

No.	Title	Leasehold	Description
36	DN525661	LH	Land on the North side of Newnham Park, Plympton, Plymouth, PL7 5BN. Land at Newnham Estate, Plympton, Plymouth
37	DN600465	LH	Land at Crownhill Down, Plymouth
38	DN464149,	LH	Newnham Car Spares, Plympton, Plymouth, PL7 5BP The Quarry, Plymouth
39	DN516375	LH	Land on the South West side of High Posts, Darkelands, Plymouth, PL& 5BS
40	DN525688	LH	Land lying to the North of Bude Farm, Plympton, Plymouth, PL7 5BW
41	DN600466	LH	Land at Bude Farm, Plympton, Plymouth, PL7 5BW
42	DN480335	LH	Land lying to the West of Lobb Farm, Plympton, Plymouth, PL7 5BW
43	DN516499	LH	Land lying to the West of Merrywinds, Plympton, Plymouth, PL7 5BP
44	DN525758	LH	Land lying to the North East of Mine Cottage, Plympton, Plymouth, PL7 5BP
45	DN600467	LH	Land to the North of Higher Drakelands, Drakelands, plymouth, PL7 5BS
46	DN582600	LH	Land at Hemerdon, Plymouth
47	DN584696	LH	Land at Hemerdon Ball, Hemerdon, Plymouth
48	DN582595	LH	Land on the West side of Galva House, Hemerdon, Plymouth, PL7 5BT

A lease agreement dated 10 February 2014 was drawn up between the HMA (the landlord) and Wolf (the tenant). Subject to various earlier termination provisions, the lease runs until 9 February 2044.

2.4.1.1 Royalties, payments, and agreements

The updated mineral lease provides for the payment of a rent and royalties on minerals extracted.

Royalties are currently payable at the following rates:

- In respect of sales of tungsten, 2.25% of the NSR. If the average received price of tungsten concentrates for a calendar month increases beyond USD300/mtu then the NSR increases to 2.5%.
- In respect of sales of tin and other metals at a royalty rate equal to that of the tungsten NSR, being either 2.25% or 2.5%.
- In respect of non-metallic minerals (including aggregates) 5% of the general return.

The rent shall be paid annually in advance on the 4th day of December in each year of the Term the first such payment of GBP96,240.71 having been made on the date of this mineral lease for the period. The rent shall be reviewed on each Index Review Date and is indexed to the UK Consumer Price Index.

In addition, there is an agreement that TWL will pay a royalty pre-payment of GBP1 million upon TWL achieving project finance.

2.4.2 Environmental liabilities

2.4.2.1 Mineral lease

The mineral lease requires the Tenant, amongst other land-management requirements, to indemnify the landlord against the following:

a) Any failure by the Tenant to comply with all environmental laws.
b) Any discharge release leaching emission or escape into the environment of any hazardous substances.
c) Any contamination of the land or the demised minerals with and hazardous substances.
d) Any failure by the Tenant to obtain all environmental licences necessary for the purpose of carrying out its operations at the land.

e) Any failure by the Tenant to store, handle, treat, process, deposit, transport, document, and dispose of waste or hazardous substances in accordance with environmental law.

In England, the Mineral Planning Authority (MPA), in this instance, Devon County Council (DCC), is responsible for consenting to mining development in terms of land use and permitting as well as managing and enforcing the majority of the above environmental obligations.

The Environmental Agency (EA) administers the various legislative matters relating to groundwater and waste and issues the relevant permits for such activities.

The Health and Safety Executive (HSE) is responsible for managing the safety considerations for all aspects of the operation, including blasting and processing operations.

2.4.2.2 Planning permission

Under the jurisdiction of England and Wales there is no national licensing system for exploration and extraction of minerals. With the exception of oil, gas, coal, gold, and silver, minerals are held in private ownership and information on mineral rights, where available, is held by the Land Registry together with details of land-surface ownership. The permissions for the extraction of metallic and industrial minerals are granted instead by a local MPA and planning permission must be obtained from the MPA for their legal extraction.

The current planning permission has been modified from an application for Planning Permission by AMAX in 1984. DCC acting as the MPA, issued planning permission for the Hemerdon Project in 1986. Under Wolf, the mine re-commenced operations under the 1986 permissions (as modified in 2010 by the Secretary of State) in 2014. Subsequently, a new permission was granted in February 2017 under section 73 of the Town and Country Planning Act, whereby an application to vary specific conditions of the earlier permission enabled the MPA to carry out a review and update of the conditions to comply with guidance in the National Planning Policy Framework. The new consent was accompanied by a further legal agreement under section 106 and importantly contained an undertaking to only implement the permission granted in 2017 and not the earlier 1986 permission (Table 2.5). The planning variation included the continued extraction of tungsten and tin, processing, and disposal of mineral wastes until 05 June 2036, and removed the restriction on the operating hours of the primary crusher. The 2017 consent and the section 106 agreement are therefore the only permissions to monitor (DCC Ref: 9/42/49/0542/85/3).

Table 2.5 Summary of planning permission from 1986 to present

Date	Application No.	Reference	Issuer	Notes
05 June 1986	1042/85	-	County of Devon	Grant of Conditional Planning Permission - to erect water pump house and laying of water pipe at Loughter Mill, Plympton.
05 June 1986	-	9/42/49/0542/85/4	County of Devon	Planning application to win and work tungsten and tin at Hemerdon, Plympton, Plymouth and for associated tipping of waste on Crownhill Down; and laying of water pipe.
04 March 2014	DCC/3623/2014	-	-	Variation of approved details for Conditions 10c (design and layout of mineral processing plant and buildings) and 10f (construction details for surface-water management ponds at Tory Brook and Smallhanger Brook) of Permission 9/42/49/0542/55/3 for the winning and working of tungsten and tin, associated tipping of waste and laying of water pipe at Drakelands (formerly Hemerdon) Tungsten mine.
28 May 2014	DCC/3658/2014	-	-	Installation of underground water supply pipeline and three associated temporary work compounds.
16 June 2014	49/0691/14/CM	DCC/3621/2014	DCC	Erection of reduction kiln and associated offgas scrubber and exhaust stack to facilitate improved mineral recovery at Drakelands Mine, Hemerdon, Plympton, Plymouth.
16 February 2017	9/42/49/0542/85/3	DCC/3823/2015	DCC	Grant of Conditional Planning Permission - valid until 05 June 2036. Variation of (i) condition 3 of planning permission 9/42/49/0542/85/3 to allow the continued extraction of tungsten and tin, processing, and disposal of mineral wastes until 05 June 2036 and (ii) removal of condition 3 of planning permission 9/42/49/0542/85/3 to remove the restriction on the operating hours of the primary crusher. This was the variation of an earlier planning permission; it also came with a section 106 agreement with the applicant undertaking not to implement any earlier consents. Therefore, these are only conditions which require monitoring.

2.4.2.3 Section 106

Planning obligations, or Section 106, under the Town and Country Planning Act, are legal agreements made between local authorities and developers and can be attached to a planning permission to make acceptable development which would otherwise be unacceptable in planning terms. The land itself, rather than the person or organization that develops the land, is bound by an agreement much the same as planning permission in the UK.

The HMA and Wolf entered a Section 106 agreement as part of the confirmation of planning and subsequent modification order in 2010. The agreement is presented as a unilateral undertaking and creates obligations on the party signatories and is enforceable by the MPA.

A list of unilateral undertakings is provided in Table 2.6.

Table 2.6 Summary of unilateral undertakings from 1986 to present

Date	Parties	Notes
05 June 1986	AMAX Exploration (UK), local landowners, AMAX International Ltd (as surety) and Devon County Council.	1) No permitted development without a bond value sufficient for restoration. 2) To take reasonable measures to prevent and mitigate loss and diminution of water resources, or to otherwise provide compensation. 3) Restrictions on land use.
29 November 2010	Wolf Minerals (UK) Limited, local landowners and Devon County Council	1) Planning Obligation by Undertaking. 2) Binding on Mineral operator, landowners, and their successors. 3) Enforceable by Council. 4) Obligations covering restoration, water management, landscape review, planting, wildlife protection measures (bats), liaison groups, public rights of way, and access routes.
09 September 2011	Wolf Minerals (UK) Limited, local landowners and Devon County Council	1) Planning Obligation by Undertaking. 2) Binding on Mineral operator, landowners, and their successors. 3) Enforceable by Council. 4) Obligations cover planting, maintenance of planting and fencing, building of new bridleway, maintenance of public rights of way.
16 February 2017	Wolf Minerals (UK) Limited, local landowners and Devon County Council	1) Covers obligations which were yet to be fulfilled from the 2010 Unilateral Undertaking. 2) Requirements for mineral operator to respond to notifications from landowners with regards to the loss and diminution of water resources. 3) Fulfilment of s.52 agreements with owners. 4) Noise and blast monitoring and restrictions. 5) Employment of mediator to act between Mineral Operator and local community.

The unilateral undertakings include, amongst other things, the obligation to post a restoration bond. The bond was entered into in 2014 to secure the restoration obligations of Wolf. Following the insolvency and the vesting of its assets to the OR, the OR served notice of permanent cessation of mining operation, which led to a demand for the payment under the Bond of GBP12,226,562. The mine and other assets of Wolf were transferred by HGSL to DRL to enable the restoration of the mine, utilizing the monies in the Escrow Account. HGSL subsequently began minor restoration works and drew GBP860,612.34 from the Escrow Account for care and maintenance works.

TWL suspended the restoration of the mine during the negotiations to purchase the site and proposed that the bond be terminated so that the restoration obligations of the company could be secured by the money in the Escrow Account and on other terms agreed as described below. The money remaining within the Escrow Account was GBP11,385,949.66.

Following the completion of the Bond Termination Deed and the Escrow Termination Deed, the parties agreed that the security provided by the deed provides acceptable security for the restoration obligations contained in the Lease and Planning Obligations.

An Escrow Agent was appointed to hold the Escrow Fund for the length of the Escrow Period and TWL agreed to top up the Escrow Account by a further GBP1,800,000. The balance in the Escrow account sits at GBP13,201,588.49 as of 31 May 2021. The figure is subject to change in-line with interest rates.

2.4.3 Planning and permitting strategy

TWL and the regulators considered that the previous planning and permit architecture is still fit-for-purpose and offers the operational functionality and necessary environmental protections to legally and efficiently produce tungsten and tin concentrates. TWL is compliant with its current legal environmental obligations and is working towards re-establishing the legal framework required to produce WO_3 and Sn at Hemerdon.

TWL set out to build an ISO14001 Environmental Management System that captures the context of the organization and the aspects and impacts that the project could materially impact on. The management system was built for the operation of the previous activities. As part of the implementation of ISO14001, a compliance obligation register was built to manage the complex obligations that apply to the site. In June 2020, TWL was awarded ISO14001 accreditation and is using the management system to monitor and report on the sites environmental performance. In June 2021, TWL was audited by Perry Johns Registrars, Inc. on its integrated management system that includes ISO14001, 9001, and 45001, and was successful in retaining its accreditation.

2.4.3.1 Planning

The modifications to the MPF, as set out in Section 7, have been carefully considered so as to not present a material change to the Planning Permission and regulated activities within the MPF.

Following pre-application discussions with the MPA, TWL submitted a request for Prior Notification in respect of Condition 3 on application 9/42/49/0542/85/3 (DCC ref: DCC/3823/2015) for the following:

- A temporary mobile primary crusher.
- Extension to the 110 Area Building, to accommodate the secondary crushing circuit and associated infrastructure.
- New ore sorter building and linked conveyors.

The condition subject of this approval is:

"*Condition 3: Notwithstanding the provisions of Part 17 Class A (a) and (b) and Class B of the Town and Country Planning General Permitted Development Order 2015 (or any order amending, replacing or re-enacting that order): i) no additional buildings and plant that exceed 5m in height shall be erected within the processing plant area shown on Plan [GRES Drawing WHP 1 OO-L-001 (Rev. H)]; and ii) no additional buildings and plant shall be erected elsewhere on the mine site, without the prior approval in writing of the MPA.*"

The MPA has issued approvals to the extension of the area 110 building and the New Ore Sorter building (Area 125) and associated linked conveyors. The MPA has requested additional information with regards to the location and a demonstration that the jaw crushers could operate within the existing noise conditions and a study has been completed. A conclusion from this SLR study stated "*On the basis of the above, it is considered that the impact of noise from crushing operations in accordance with BS4142:2014+A1:2019 is low for all of the operating scenarios and locations assessed*".

Permitting

TWL has engaged with the EA's pre-application advice service to understand the requirements to re-submit the application for the MPF and MWF environmental permits. Again, extensive consultation has taken place to ensure that the modifications do not compromise or present a material change to the process so that as much of the previous application remains relevant as possible.

Table 2.7 presents a timeline for the submission of all permits and statutory determination periods for the operations at Hemerdon.

Table 2.7 Gantt chart for submission of permits and licences

	2021						2022											
	Q3			Q4			Q1			Q2			Q3			Q4		
Description	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Hemerdon Mining Waste Facility including a full license to discharge trade effluent at ED1 and ED2		Duly made														Recommencement of mining		
Drakelands Mineral Processing Facility		Duly made														Recommencement of mining		
Full licence to abstract water from Tory Pond	Duly made															Recommencement of mining		
Full licence to abstract water from Loughter Mill	Duly made															Recommencement of mining		
Full license to impound water at Tory Pond	Duly made															Recommencement of mining		
Full licence to impound water at Loughter Mill	Duly made															Recommencement of mining		
Full licence to abstract water at Small Hanger North Tanks	Duly made															Recommencement of mining		
Full licence to abstract water at Small Hanger South Tank	Duly made															Recommencement of mining		

Mine waste facility (MWF)

The MWF permit application was submitted by TWL on 22 August 2020. TWL is in discussion with the EA with regard to updating the necessary information before the application is duly made. Following the submission of the MWF application and the delays experienced by the agency during the COVID-19 pandemic, the LEP has been extended under the same conditions until 30 September 2021.

The statutory determination period for a Category A MWF Permit is three months from the date of the application being duly made. The application was submitted in August 2020 and has gone to consultation with the local authorities. The determination period for an application does not begin until the relevant emergency planning departments, in this case South Hams District Council (SHDC) and Plymouth City Council (PCC) have received and accepted an Internal Emergency Plan (IEP) provided by TWL to facilitate the completion of an Offsite Emergency Plan (OEP). Pressures on local councils due to the COVID-19 pandemic have impacted the consultation process and TWL is still in discussions with reference to the requirements with the local authorities.

In England and Wales, Article 14 of the Directives on Wastes from Extractive Industries requires a financial guarantee is provided for Category A MWF. The objective of the financial guarantee is to ensure that all the obligations of a permit for a MWF are met to protect the environment and human health by ensuring funds are available to rehabilitate land affected by a mining waste facility and to provide for aftercare of the facility once it is closed. Wolf agreed to provide an "environmental" bond as surety and established performance agreement with the EA separate to the restoration bond described above for the following activities:

- Site security.
- Maintenance of surface-water management system.
- Environmental Monitoring (groundwater, surface-water, dust).
- Borehole maintenance.
- Annual Inspections.
- Reporting (annual report and closure report),
- Site-specific events.

The previous environmental bond was posted by Wolf at GBP1,316,384 at site closure reducing to GBP83,746 following 30 years post-closure to satisfy post-closure restoration obligations. TWL proposes that the arrangement for providing financial provision remains in place, but a revised environmental bond amount will be proposed for agreement with the EA.

Mineral processing facility (MPF)

The statutory determination period for the MPF or "installations" permit is four months from the application being duly made. TWL has been in extensive pre-application discussions with the EA on the mitigation of historical infrasound issues emanating from the MPF and has produced an updated Noise Impact Assessment (NIA) to treat the management of infrasound and audible noise emissions from the site.

TWL's intention is to submit the MPF application by the end of August 2021. TWL has been notified that the MPF permit has been determined High Public Interest (HPI). The determination will follow much the same path as an ordinary determination, but due to the history of the site and previous operation, the EA deemed it necessary to use this classification when determining the permit. There might be extended consultation time for public engagement near the end of the determination, to allow interested parties a view on what the potential decision might be.

Water discharge, abstraction, and impoundment

The remaining permits and licences are currently under review whilst detailed design and water requirements are finalized. The determination period for a full application to discharge, abstract, impound water is four months.

2.5 Historical Resource and Reserve estimates

2.5.1 Previous Mineral Resource estimates

A summary of previous Mineral Resource estimates is shown in Table 2.8. These estimates include those estimates initially produced by AMAX in the 1980s prior to the development of any international reporting standards for Mineral Resources.

Table 2.8 Previous significant Mineral Resource estimates

Operating Company	Source of Estimate	Reporting Code	Date of MRE	Date of Public Release	Mt	WO_3 (%)	Sn (%)	Cut-off (WO_3%)	Comments
AMAX	AMAX	N/A	1983	N/A	205.5	0.11	0.02	0.001	'Total Geologic reserve'
AMAX	AMAX	N/A	1983	N/A	47.5	0.18	0.03	0.1	Geological Reserves
Wolf	SRK	JORC Code (2004)	01/08/2008	13/03/2008	97.4	0.22	0.02	0.15	First JORC Resource
Wolf	SRK	JORC Code (2004)	01/01/2009	11/11/2008	82	0.22	0.02	0.15	Addition of Wolf Drilling
Wolf	SRK	JORC Code (2004)	01/08/2010	10/06/2010	218.5	0.18	0.02	0.1	Addition of original AMAX drill log data
Wolf	SRK	JORC Code (2012)	01/03/2015	25/03/2015	145.2	0.15	0.02	0.06	Removal of Killas
Tungsten West Limited	Mining Plus UK Ltd.	JORC Code (2012)	10/09/2019	N/A	225.9	0.12	0.02	0.04 (Granite) 0.09 (Killas)	Re-introduction of Killas, Wolf production data

2.5.2 Previous Ore Reserve estimates

A summary of previous Ore Reserve estimates is shown in Table 2.9. These estimates include those estimates initially produced by the Non Ferrous Minerals Development Control (NFMDC) in the 1940s and AMAX in the 1980s prior to the development of any international reporting standards for mineral reserves.

Table 2.9 Previous significant Ore Reserve estimates

Operating Company	Source of Estimate	Reporting Code	Date of estimate	Date of Public Release	Mt	WO_3 (%)	Sn (%)	Cut-off (WO_3 %)	Comments
NFMDC	JCameron	N/A	1942	1951	5.0	0.14	0.04	Recoverable	Recoverable Ore Reserve
AMAX	AMAX	N/A	1983	N/A	38.2	0.18	0.03	Unknown	In Pit Ore Reserves
Wolf	Cube Consulting	JORC Code (2004)	01/12/2008	28/11/2008	34.5	0.18	0.03	0.063	-
Wolf	Cube Consulting	JORC Code (2004)	UNKN	23/05/2011	26.7	0.19	0.03	0.063	DFS Reserve
Wolf	Wolf	JORC Code (2012)	01/02/2015	25/03/2015	35.7	0.18	0.03	0.063	Steepened Pit Slopes

3 Geology and Mineral Resources review

3.1 Geology setting and mineralization

3.1.1 Introduction

AMC has reviewed the geology and geological setting of the Hemerdon deposit, through site discussions with the geological departments for both TWL and, the previous mine operator, Wolf. In addition, AMC has been provided with a copy of the recent TWL report "*Hemerdon Tungsten-Tin Project, Bankable Feasibility Study, NI 43-101 Technical Report for the Restart of Mining Operations*" (TWL, March 2021).

The following sections summarizes AMC's understanding of the geological setting and mineralization based on observations and available information.

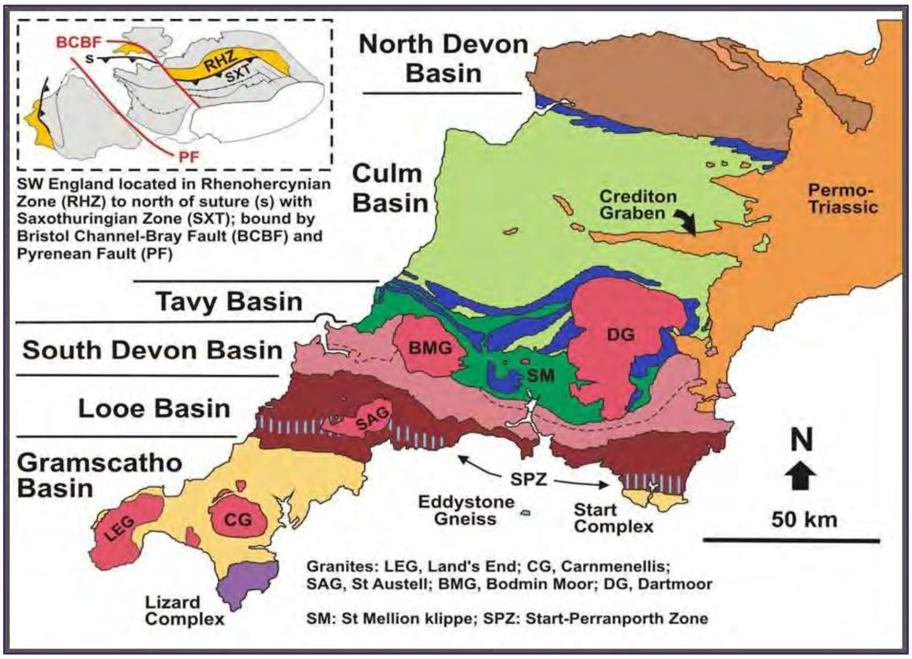
3.1.2 Regional geology

The regional geology of south-west England is well documented, owing to its historical importance as a major mining centre. For a more detailed discussion of the regional geology, the reader is referred to "*The Geology of Cornwall*" (Selwood *et al*, 1999).

The Cornubian batholith and associated granitic plutons dominate the south-west of England and plays an important role in the distribution and controls on mineralization in Cornwall and Devon. The granites form part of the Cornubian massif which comprises "*unexposed Proterozoic basement, overlain by Palaeozoic sediments (killas), contemporaneous volcanic rocks, and minor igneous intrusions*" (Selwood *et al*, 1999). A simplified regional geological map of Cornwall and west Devon is shown in Figure 3.1 showing the main granites.

Emplacement of the granites is associated with the Variscan orogeny. During the closure of the Rheic Ocean the other lithological units of the Cornubian massif were deformed as part of the Variscan orogeny into a series of E-W striking folds. Subsequent crustal relaxation and thinning is proposed for allowing the intrusion of the granite plutons as well as the development of E-W striking faults that provided pathways for hydrothermal fluids. In response to the granitic intrusions the surrounding lithologies comprising the Killas have undergone metamorphism.

Figure 3.1 Simplified geological map of Cornwall (TWL, 2021, cited Shail and Leveridge 2009)



3.1.3 Geology of the Hemerdon deposit

The Hemerdon deposit comprises a granite intrusive surrounded by Devonian metasediments, metavolcanics, and mafics which are collectively defined as Killas. The upper portion of the granite has been altered, resulting in kaolinization of the upper granite. Mineralization is primarily situated within the granite, with lower amounts of contained metal currently defined in the Killas.

Whilst the overall geology is well understood, the mineralization itself is more complex. Exploration of the deposit has previously largely focused on the tungsten mineralization, with less work undertaken to understand the tin content.

The following geological description of the Hemerdon deposit has been provided by TWL's CP (TWL, March 2021):

The deposit is centralised around a small granite dyke to the immediate SW of the larger Dartmoor, and Crown Hill granites, and is older by some margin, with recent studies providing a date of 292Ma placing it as the oldest granite in SW England. The granite is oriented NNE-SSW over a length of 1,200m and averages 150m wide in the main portion (referred to as the 'Dyke' or 'G10' Granite) but broadens at its South Western extremity up to 450m (referred to as the 'Ball Granite') and is complemented by a series of smaller granite dykes to the NE (referred to as the 'G20 Granite').

Proximity to major NW-SE fault zones that controlled migration of early melts from lower / middle / upper crust; dilation along an earlier NNE-SSW segment allowed emplacement of the Hemerdon Dyke and formed persistent 'chimney' (magmatic-hydrothermal fluid pathway) during continued crystallisation of deeper magma batches; faults repeatedly reactivated as transfers.

Proximity to the Landulph High influenced the development of extensional fault zones and tensile fractures in the Hemerdon Dyke and surrounding host rocks during Early Permian post-Variscan extension; repeated movements created effective permeability networks (fault-fracture meshes) during the continued release of magmatic-hydrothermal fluids

The granite is intruded into a package of southerly dipping interbedded Devonian metasediments and metavolcaniclastics of the South Devon Basin that have been intruded by a series of mafic intrusives, ranging from basaltic to gabbroic in texture.

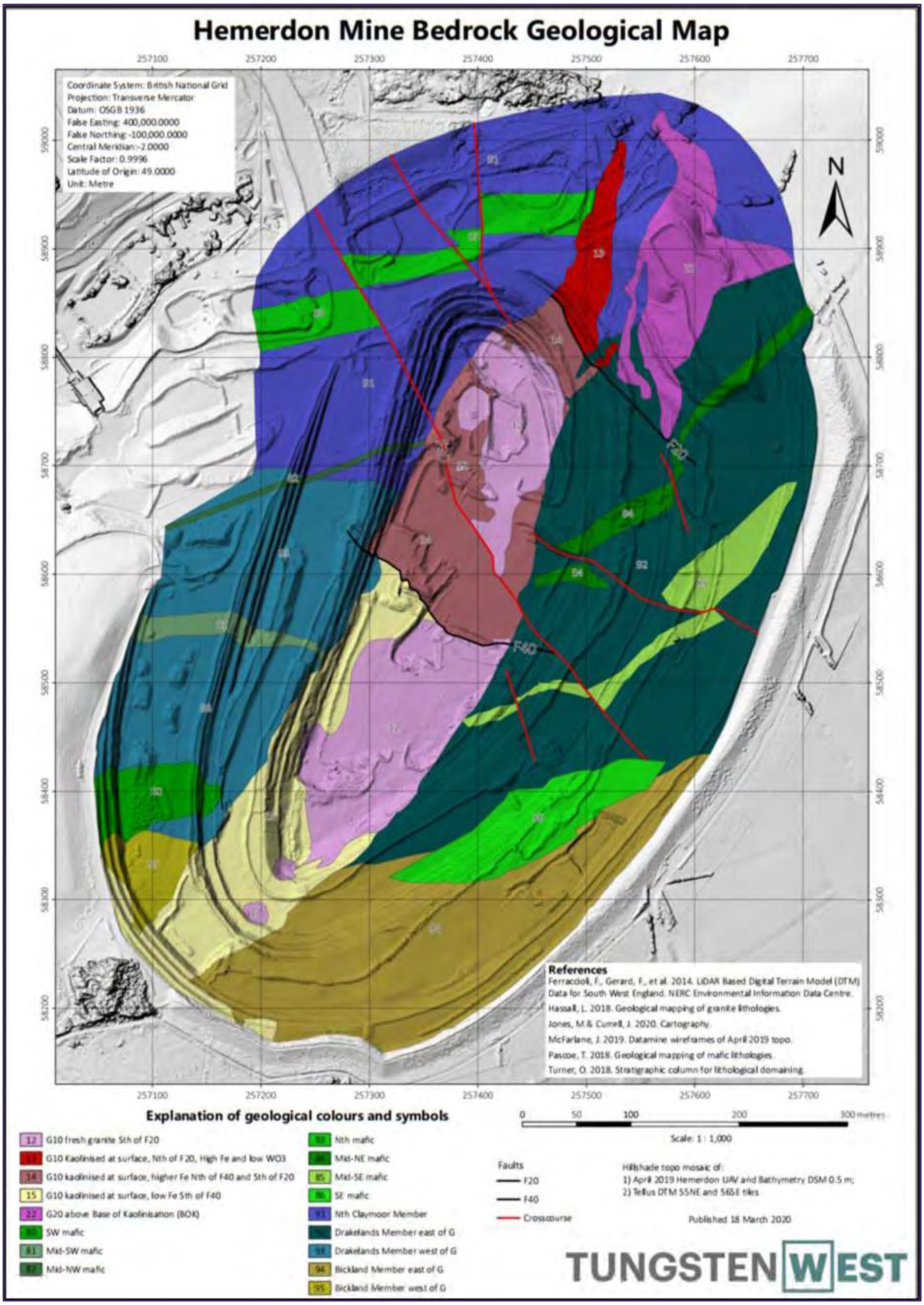
Figure 3.2 shows the main geological units of the Hemerdon deposit relative to the current open pit. The open pit is centred around the main Hemerdon Granite termed the G10 granite, which is kaolinized near surface. An additional lens of kaolinization within the G10 granite is noted at depth and is proposed to have been generated in response to hydrothermal alteration.

To the immediate north-east of the G10 granite is another smaller granite body termed the G20 granite.

Surrounding the granites are the Killas metasediments, metavolcanics, and mafic units comprising:

- Claymoor Member: Located at the northern end of the deposit, comprising a series of grey siltstones, very fine sandstones, and rare tuffaceous beds.
- Drakelands Member: Located on the eastern and western flanks of the deposit, comprises fine sandstones grading to mudstones with occasional medium-grained sandstones and rare tuffaceous laminae.
- Bickland Member: Located at the southern end of the deposit, comprising volcaniclastic units of tuff, lapilli tuff, and agglomerate interbedded within the fining sandstone to mudstone package. Basalt is also present.
- Mafic units cross-cut the Killas units and vary in composition from basaltic to gabbroic (dolerite).

Figure 3.2 Geological map of the Hemerdon deposit (TWL, 2021)



3.1.4 Mineralization

Mineralization at the Hemerdon deposit is complex and has been the subject of a number of studies. The mineralization comprises both tungsten and tin and is developed as a sheeted-vein complex with mineralization centred around an old muscovite granite dyke sourced from early (low-T) muscovite-dominated partial melting (TWL, March 2021). Mineralization is hosted both within the granite as well as the adjacent Killas units.

The sheeted-vein complex has a moderate dip of 40-50° to the NW and comprises quartz-greisen and quartz veins hosting ferberite ($FeWO_4$) an iron-rich end member of the manganese-iron wolframite solid solution series with lesser amounts of wolframite, and minor cassiterite (SnO_2). In addition, NNE-striking, sub-vertical quartz feldspar veins also host ferberite cassiterite.

Mineralization within the deposit also includes lesser amounts of arsenopyrite, pyrite, and chalcopyrite, which are typically limited to the northern and southern extents of the orebody.

Tungsten mineralization can be nuggety as shown in Figure 3.3 which presents a challenge with obtaining representative exploration samples through drilling. The smaller the sample volume typically the greater the grade variability with RC and PERC drilling typically yielding more representative samples than DDH.

Ferberite mineralization can be found as crystal intergrowth masses (Figure 3.4) within the quartz veins, and can display porosity which was termed by AMAX, and subsequently TWL as "sponginess". The ferberite mineralization can be friable when subjected to impact or comminution forces generating smaller size fractions.

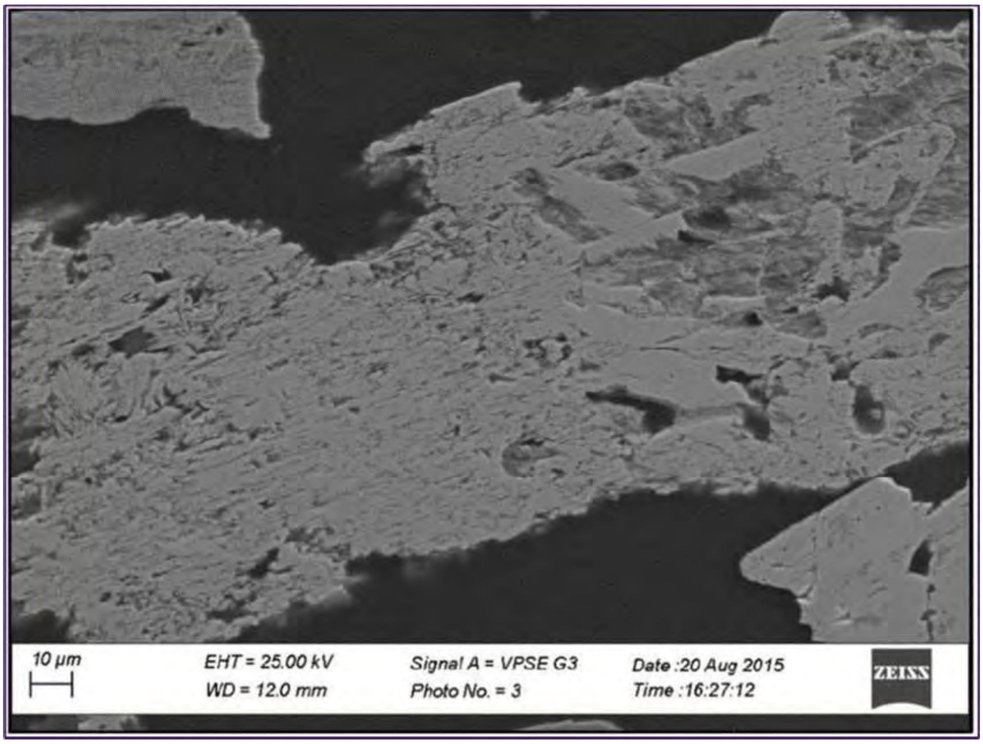
The friable nature of the ferberite impacted the previous Wolf processing operations through inadvertent autogenous grinding within the attrition scrubber and subsequent losses of fine-grained ferberite to the MWF. Through better understanding the ferberite characteristics, TWL has considered the impact of mineralogy on the proposed processing plant flowsheet.

The porosity generated by the crystal intergrowths of ferberite also make the ferberite more susceptible to hematization under oxidizing conditions, by providing a greater surface area. Through hematization of the ferberite minerals, the resultant hematite mineralization can be leached, resulting in increased porosity and reduced specific gravity (SG) of the ferberite crystal mass.

TWL has recognized the impact this reduction in ferberite SG has on tungsten recovery using a gravity circuit. Under the previous Wolf MPF operating practice the reduced SG, of the hematized ferberite would place it closer to the SG of gangue minerals, resulting in losses to the MWF.

Figure 3.3 Nuggety WO_3 mineralization within quartz vein, veins are at cm scale (AMC, 2021)

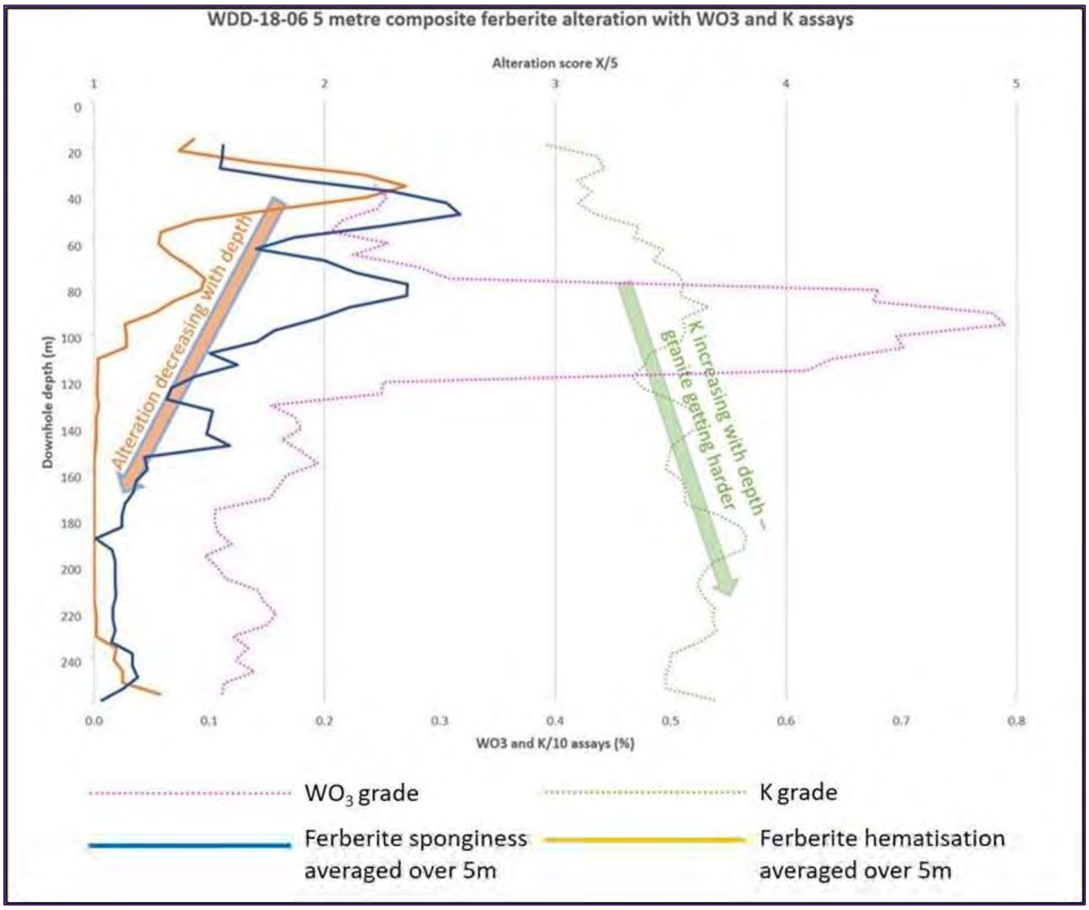
Figure 3.4 BSE image of "spongy" ferberite illustrating that the coarser crystal is composed of multiple <10 µm blades leaving gaps whereby they have not completely "knitted" together. (TWL, March 2021 cited Strongman, J. 2020)



TWL has undertaken geo-metallurgical studies to better understand the mineralization and potential implications for the processing route. As part of the third-stage orebody variability study, TWL focused on a number of parameters that impact the processing route. These parameters include Fe and As content, kaolinization and the ferberite mineralogy. A detailed logging of ferberite mineralization within the drill core was undertaken recording grain size, sponginess, and degree of hematisation.

The ferberite logging conducted by TWL shows that the degree of sponginess and hematisation decreases with depth (Figure 3.5) which may aid improving process recoveries.

Figure 3.5 Ferberite logging results for drillhole WDD-18-06



Source: TWL.

Weathering by meteoric waters in the upper 40 m of the deposit has resulted in the kaolinization of the near-surface part of the granite. In response to the kaolinization the sulphide minerals have been destroyed and the arsenic redistributed as arsenates or scorodite ($FeAsO_4.H_2O$) and pharmacosiderite ($KFe_4(AsO_4)_3(OH)_4 \cdot (6\text{-}7)H_2O$). The kaolinization transitions from heavily altered to fresh granite. Where faulting is present, the depth of kaolinization increases, with the faults acting as fluid pathways.

In addition to its association with primary tungsten mineralization, tin mineralization also occurs within tourmaline (present as schorl, $(Na(Fe^{2+}{}_3)Al_6(Si_6O_{18})(BO_3)_3(OH)_3(OH))$ stringers that strike E-W and are sub-vertical, and which post-date the primary mineralization. These tourmaline cassiterite stringers predominate in the north of the deposit. Tourmaline mineralization has also been identified with extensional faults dipping to the NW.

Crossing the deposit are a series of NW-SE striking strike-slip faults (cm scale) which result in a limited offset on a metre scale. The cross-cutting strike-slip faults are more frequently encountered in the northern part of the deposit becoming rarer in the south. They are enriched in iron (hematite (Fe_2O_3) and specularite (Fe_2O_3)) which in the pervasively kaolinized zone of the granite (up to 40 m below surface) has led to large zones of hematite and limonite alteration where iron has "bled out" from the primary fault structures around these areas (TWL, March 2021).

3.1.5 Conclusions

The regional and local geological setting of the Hemerdon deposit is well understood and reflected in the geological model used in the Mineral Resource estimate. Whilst the overall geology is well understood, the mineralization itself is more complex, displaying more local variability within the granite and Killas.

Extensive work has been undertaken both by TWL and by Wolf to better understand the tungsten mineralization. Through geological investigations it has been established that the dominant WO_3 bearing mineral is ferberite. The ferberite occurs as crystal intergrowth masses which has resulted in a somewhat porous texture (sponginess), which reduces the SG of the crystal mass, thus influencing WO_3 recoveries in a gravity circuit. Due to the porosity of the crystal mass, the ferberite is also more susceptible to hematisation and leaching of hematite, resulting in a further reduction in SG.

Ferberite is typically a friable mineral resulting in the crystal masses being liable to attrition that produces finer-grained size fractions. Prior to the closure of the Wolf operation, it was recognized that ferberite fines were lost to the MWF largely due to the attrition scrubber in the MPF (note that this is to be removed as part of the TWL flowsheet).

The characteristics of the ferberite play an important role in ferberite recovery through the process plant gravity circuit. In recognizing the intricacies of the ferberite mineralogy, TWL has identified areas of the previous Wolf MPF flowsheet where WO_3 was lost to the MWF with an aim of reducing these losses for the planned operation under TWL.

Exploration of the deposit has previously largely focused on the mineralized controls and distribution of WO_3 and penalty elements, with limited work undertaken to understand the controls on the occurrence and distribution of Sn mineralization. Further work is required to establish the geological controls on the Sn mineralization in more detail.

3.2 Exploration

3.2.1 Introduction

Exploration of the Hemerdon deposit has primarily been through intrusive drilling investigations. Other exploration activities have included:

- Soil sampling.
- Geophysical surveys.
- Underground development sampling and pilot plant testwork.
- Trial pitting.

With the exception of drilling activities, and minor soil sampling campaigns in 2020, all other exploration methods were undertaken prior to TWL's involvement with the project.

The Hemerdon deposit was initially discovered in 1867 with early prospecting over the project area commencing in 1916.

The most significant period of exploration commenced at the Hemerdon project between 1976 and 1980. During this period, several drilling campaigns were undertaken by a joint venture between the American company, AMAX, and Hemerdon Mining and Smelting (UK) Limited (HMSL). The next main phase of exploration works was undertaken by Wolf in 2008 and then between 2014 through to 2018.

3.2.2 Soil sampling

Soil sampling was conducted by AMAX in 1979, with more than 800 samples having been taken across the deposit area on a 150 m by 50 m grid. Samples were taken of topsoil (0-10 cm) and subsoil (0.5-1.0 m) using a hand auger. Whilst the sample results showed anomalies corresponding to previously mined areas, the amount of sample contamination, as a result of these operations, precluded further use of the soil sampling data.

Soil sampling in the southern extension of the deposit was conducted by Wolf. The sampling results identified WO_3 and Sn anomalies which have been targeted by TWL for investigation.

Soil and stream sampling was also conducted by the British Geological Survey in 2014 as part of the TELLUS SW programme.

In 2020, TWL carried out soil sampling comprising 104 samples taken in the Northern Field area, and a further 44 samples in the Entrance Field area.

Soil sampling data has not been used in the Mineral Resource estimate.

3.2.3 Geophysical surveys

Geophysical surveys were undertaken by BGS in 1980, AMAX in 1982, and in 2014 by BGS as part of TELLUS SW programme. Geophysical surveys included:

- Gravity.
- Magnetic.
- Induced Polarization (IP).
- Radiometric.

The AMAX surveys are reported to have been unsuccessful in defining anomalies for further investigation. The BGS surveys were regional in scale and therefore of limited application to the project area. As such no subsequent detailed geophysical surveys have been undertaken.

3.2.4 Underground development and pilot testwork

In the late 1970s, AMAX developed an underground decline through the Hemerdon deposit with the aim of obtaining a bulk sample of fresh granite mineralization for pilot plant testwork. A bulk sample weighing 5,165 t was submitted in 1980 for pilot plant testwork. The pilot plant was designed to process the sample material at a feed rate of up to 10 tonnes per hour and was configured to assess metal recoveries using dense media separation and gravity recovery methods.

In addition to the bulk sample, further samples were taken every 10 m of decline advance. Each sample represents a sub-sample of the larger decline advance material mass of 150-200 t. These samples were taken to ascertain the representivity of the diamond drilling and the subsequent Mineral Resource estimate.

3.2.5 Trial pitting and historical workings

A total of 93 historical mine workings were developed between 1915 and 1941 and are summarized in Table 3.1.

Table 3.1 Type and number of historical workings present at Hemerdon (TWL, March 2021)

Working Type	Number
WW1 Trial Pit	37
WW1 Costean/open stope	7
WW1 Shaft w/ development	1
WW2 shafts (depth given)	22
WW2 shafts (depth not given)	21
WW2 shafts w/ development	4
WW2 Costean/open stope	1
Total	**93**

The workings are developed in the southern part of the deposit within the granite, with the workings attaining depths of typically <20 ft (6.1 m) with the exception of the WW2 shafts which reach a maximum depth of 60 ft (18.3 m).

None of the historical surface workings, shafts, or trial pit results have been used in the Mineral Resource estimate. All excavations and shafts have been digitized by Wolf and current mining surveys show that these areas have now been mined through.

3.2.6 Conclusions

In comparison to surface drilling, other exploration methods have been limited and in the case of the geophysical surveys met with limited success. The exploration information is historical having been undertaken by operators prior to TWL and has been superseded by the drilling investigations and more recent mining activities.

3.3 Exploration drilling

3.3.1 Introduction

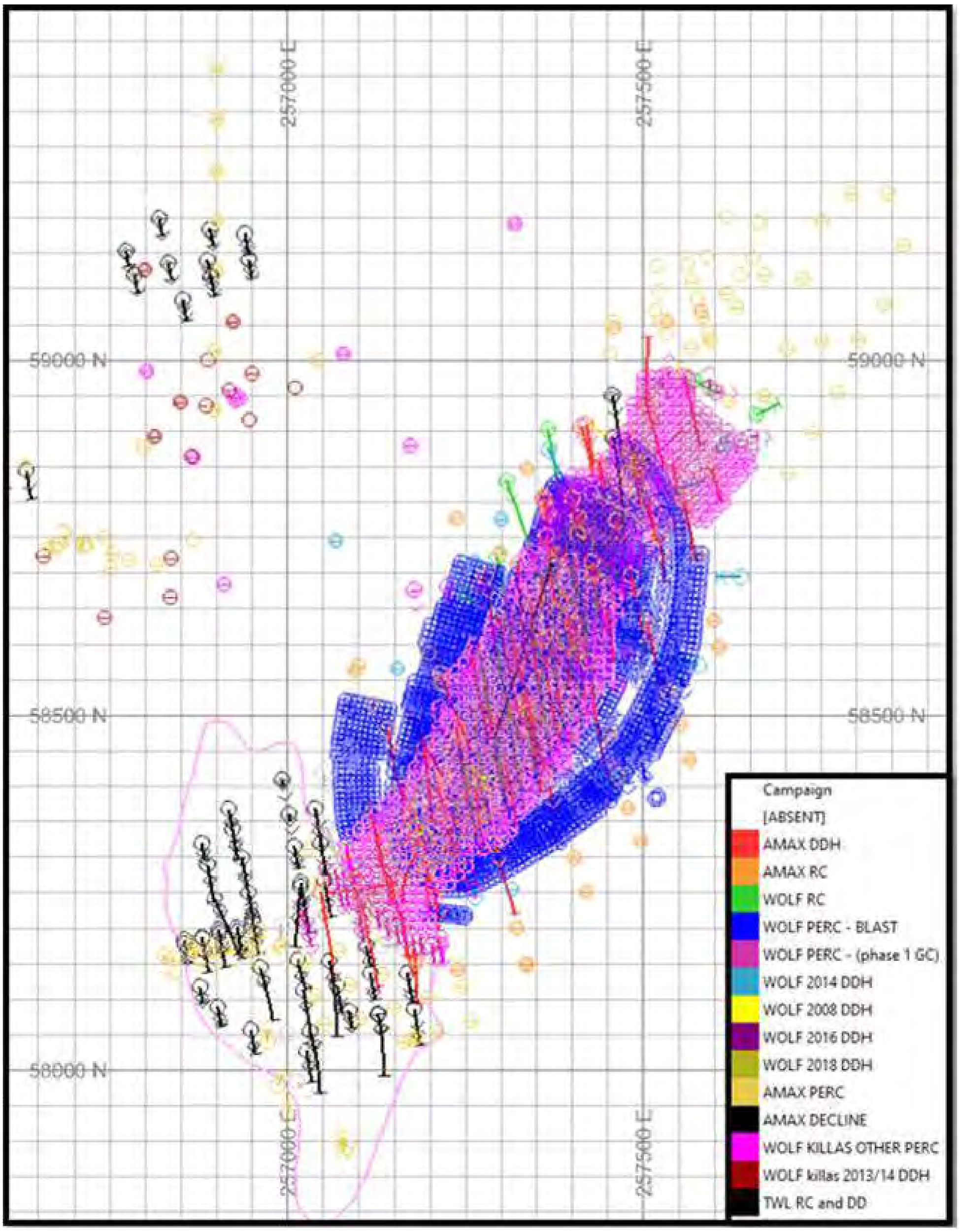
The majority of exploration works at the Hemerdon deposit has comprised surface drilling through a combination of DDH, RC, and PERC drilling methods.

Drilling activities have been undertaken by four main operators during different periods from oldest to newest comprising:

- HMSL.
- AMAX.
- Wolf (split into two groupings: project team and production team).
- TWL.

A plan showing the distribution of drilling across the Hemerdon deposit by the various operators is shown in Figure 3.6. As can be seen in Figure 3.6, the Hemerdon deposit has been extensively drilled, with the greatest concentration focused on the near-surface parts of the granite.

Figure 3.6 Plan showing distribution of successive drilling campaigns



Source: TWL.

A summary of the drilling campaigns at Hemerdon is provided in Table 3.2.

Table 3.2 Summary of Hemerdon drilling campaigns (TWL, March 2021)

Hemerdon Drilling Programmes by Campaign								
Supervising Company	**Drilling Programmes**	**Drilling Methods**	**Drilling Intentions**	**BH IDs**	**No. of Holes**	**Meterage Drilled**	**Holes % of Total**	**Metres % of Total**
Hemerdon Mining and Smelting Ltd.	**PHEM**	PERC	Granite Exploration	PHEM 1 to 45	45	1,107	0.6%	0.9%
AMAX Exploration UK Ltd.	**Newnham park drilling programme**	PERC	Near Site Exploration	NPD	187	3,316	2.5%	2.5%
	AMAX 'II'	PERC	Granite Exploration	-	2	81	0.0%	0.1%
		RC		RDH101 to 11	11	1,144	0.1%	0.9%
		DD		DDH1001 to 10	10	1,897	0.1%	1.5%
	AMAX 'III'	PERC	Granite Exploration	PDH5001 to 129	129	3,224	1.7%	2.5%
		DD		DDH1011 to 35	25	5,146	0.3%	4.0%
	AMAX 'IV'	PERC	Granite Exploration	-	207	3,176	2.8%	2.4%
		DD		DDH1036 - 53 and deepen DDH1002 and 4	18	3,640	0.2%	2.8%
		DD		DDH1054 - 59	6	281	0.1%	0.2%
	AMAX 'V'	PERC	Killas and Geotechnical	PDH5130-162	33	434	0.4%	0.3%
		RC		RDH112-39	28	2,452	0.4%	1.9%
		DD		DDH1060-77	18	2,819	0.2%	2.2%
Wolf (Project Team)	**2008 Res-Def**	DD	Granite Exploration	WDD-08-01 to 06 and 6A	7	1,094	0.1%	0.8%
	2010 Water monitoring	PERC	Water Monitoring	HMB1a and b, HMB2a and b, HTB-1 and HTB2	6	396	0.1%	0.3%
	2013 Hemerdon Mine	DD	Killas for tailings Dam	WHM-13-01 to 07 and 03a	8	372	0.1%	0.3%
	2013 Tory Pond	DD	Mine waste design	WTPDD-13-01 to 08	8	141	0.1%	0.1%
	2013 Processing plant	DD	Foundation design	WPPDD-13-01, 02 to 17	16	327	0.2%	0.3%
	2014 Geotechnical programme	DD	Killas and Geotechnical, Pit Design	WDD-14-001 to WDD-14-006	6	1,149	0.1%	0.9%
Wolf (Production Team)	**2014-2015 Grade control 1 (ResDef)**	PERC	Granite Grade Control	GCH0001-GCH0907	925	22,204	12.5%	17.1%
		PERC		W-RDH0001 - W-RDH0028	28	1,073	0.4%	0.8%
	2015 Trial Blast and ResDef 2	PERC	Production and Grade Control	W-RDH0029 - W-RDH0034	6	118	0.1%	0.1%
		PERC		(WTB-)A1 to A6, A7-A to C, A8 to A9, A10-A to B, A11 to 12	15	132	0.2%	0.1%
	2016 OBV Drilling	DD	Granite ore body variability	WDD-16-01 to 10	10	590	0.1%	0.5%
	2017 ResDef Programme	RC	Granite Exploration and Grade Control	WRC-17-01 to WRC-17-67	66	4,475	0.9%	3.4%
		PERC		WRDH-17-01 to WRDH-17-21	14	405	0.2%	0.3%
	Water monitoring Boreholes	PERC	Environmental	MB	34	1,693	0.5%	1.3%
	Pile installation for processing plant	PILE	Building Foundations	PILE1 to PILE4	4	24	0.1%	0.0%
	IJK Killas ResDef	PERC	Killas Resource Definition	WRDH-18-01 to WRDH-18-18	19	617	0.3%	0.5%

Hemerdon Drilling Programmes by Campaign								
Supervising Company	**Drilling Programmes**	**Drilling Methods**	**Drilling Intentions**	**BH IDs**	**No. of Holes**	**Meterage Drilled**	**Holes % of Total**	**Metres % of Total**
	2018 Granite ResDef	RC	Granite Exploration	WRC-18-01 to 03, 05, 06, 06A, 09 to 11, 20, 20A, 21 to 26.	17	2,990	0.2%	2.3%
		DD		WDD-18-01 to 04, 06, 08, 10.	7	2,093	0.1%	1.6%
	2018 Pit De-watering	RC	Water Monitoring	WWB-18-01 and 02	2	399	0.0%	0.3%
	Production blast hole drilling (to Date- Oct 2018)	PERC	Production and Grade Control	-	5,389	55,021	73.1%	42.3%
Tungsten West Limited.	**TWL Southern Extension Drilling programme (SEDP)**	RC	Granite Exploration	TW-RC-20-01, 01A, 02 to 12, 14, 16, 18 to 25, 28 to 32, 34 to 35, 37 to 42.	43	3,117	0.6%	2.4%
		DD		TW-DD-20-03 to 07 and 07A	6	1,057	0.1%	0.8%
	TWL Northern Extension Drilling programme (NEDP)	DD	Granite Exploration	TW-DD-20-01 and 02	2	770	0.0%	0.6%
	TWL Aggregate area sterilisation programme (AADP)	RC	Killas sterilisation	TW-RC-21-10 to 19	10	500	0.1%	0.4%
	TWL Bottle hill Preliminary programme (BHDP)	RC	Killas Exploration	TW-RC-21-20 to 22	3	319	0.0%	0.2%
	TWL Entrance field sterilisation programme (EFDP)	RC	Killas sterilisation	TW-RC-21-01 to 9	7	350	0.1%	0.3%
Total by Company	***Hemerdon Mining and Smelting Ltd.***	***PERC***	-	-	***45***	***1,107***	0.6%	0.9%
	AMAX Exploration UK Ltd.	***PERC, RC & DD***	-	-	***674***	***27,610***	9.1%	21.2%
	Wolf (Project Team)	***DD***	-	-	***51***	***3,479***	0.7%	2.7%
	Wolf (Production Team)	***PERC, RC & DD***	-	-	***6,536***	***91,834***	88.6%	70.6%
	Tungsten West Limited.	***RC & DD***	-	-	***71***	***6,113***	1.0%	4.7%
Total by Drilling Method	***PERC***		-	-	***7,043***	***93,022***	95.5%	71.5%
	RC		-	-	***187***	***15,746***	2.5%	12.1%
	DD		-	-	***147***	***21,375***	2.0%	16.4%
Grand Total	***PERC, RC & DD***		-	-	***7,377***	***130,143***	100.0%	100.0%

3.3.2 HMSL drilling

In 1976, HMSL undertook a Phase I drilling programme which comprised 45 percussion holes (1,107 m) with the aim of defining the extent of the mineralization and alteration within the granite and surrounding Killas. Holes were orientated at between 45° and vertical on an azimuth of approximately 270°. Depth of holes was limited due to the water table.

Out of the 45 PERC holes from this period, five totalling (109.74 m) have been used in the current Mineral Resource estimate owing to the other holes being superseded by more recent drilling activities.

3.3.3 AMAX drilling

The next phase of drilling was undertaken by AMAX, having formed a joint venture with HMSL. Drilling was conducted on a mine grid with holes inclined at 60° on an azimuth of 170°.

Subsequent drilling works by AMAX termed Phases "II – V" were undertaken to further investigate the Hemerdon deposit. Drilling for AMAX was undertaken by the drill contractor Drillsure. Diamond core drilling used core sizes ranging from Geobore S to NQ3, but typically was HQ diameter.

Downhole surveys were undertaken using a Tropari instrument every 10 m to 80 m.

3.3.3.1 AMAX Phase II

The Phase II drilling was undertaken in 1977-1978 comprising 11 RC holes (1,144 m) and 10 DDH holes (1,897 m). In addition, two percussion holes are referenced in the AMAX reports, however, no additional data is available.

3.3.3.2 AMAX Phase III

Phase III drilling was conducted in 1978 to further investigate the granite-hosted mineralization. Drilling comprised PERC drilling on a 50 m by 50 m grid, with a total of 129 PERC holes (3,224 m) being drilled. The PERC holes were typically drilled vertically, however, 18 PERC holes were drilled inclined at between 42° to 64° on an azimuth of 170°. Hole depths average 23 m and attain a maximum depth of 45 m.

A further 25 DDH holes totalling 5,146 m were drilled during this phase with holes inclined at 60° on an azimuth of 170°. Hole depths averaged 206 m with a maximum depth of 435 m. AMAX did not sample the first run of each hole owing to low core recoveries.

Out of the 129 PERC holes from this period, 56 (1,246 m) have been retained for inclusion in the Mineral Resource estimate owing to the data from the majority of the PERC holes being superseded by more recent Wolf grade control drilling.

3.3.3.3 AMAX Phase IV

Phase IV drilling was conducted in 1978-1979 comprising both PERC and DDH drilling. A total of 18 DDH holes (3,497.75 m) were drilled. As with the Phase III drilling the initial drill runs were not sampled owing to the core recovery. The DDH drilling was undertaken to test the mineralization and alteration of the granite with holes drilled inclined at 60° on an azimuth of 170°. Depths averaged 194 m and reached a maximum of 239.25 m.

Two of the DDH holes (DDH1002 and DDH1004) were re-entered and extended by a total of 142.35 m to further investigate mineralization at depth.

Out of the 18 DDH holes, six (281 m) relatively shallow holes were drilled by English China Clays (ECC) to assess the economic viability of kaolin extraction, these were all drilled vertically in the southern portion of the resource area. As these holes were processed in their entirety for their china clay potential they were not assayed for tungsten and tin and as such they do not form part of Tungsten West's Mineral Resource estimate (TWL, March 2021).

In addition to the DDH drilling, a total of 207 (3,176 m) PERC holes were drilled. The PERC drilling was undertaken as a pseudo grade control programme to test the resource model available at the time. None of the PERC drilling data from this period has been retained and has therefore not been included in the current Mineral Resource estimate.

3.3.3.4 AMAX Phase V

Phase V was undertaken in 1979-1980 and comprises 33 PERC holes (434 m), 28 RC holes (2,452 m) and 18 DDH (2,818 m).

The PERC drilling was shallow with holes drilled vertically and averaging 9 m depth with a maximum depth of 16 m. The majority of the PERC drilling has been superseded by Wolf grade control drilling. For the current Mineral Resource estimate, only nine PERC holes (82.5 m) have been retained.

The RC drilling was undertaken within the Killas with holes drilled vertically to depths averaging 88 m and a maximum depth of 120 m.

The 18 DDH holes were drilled to an average depth of 157 m and a maximum depth of 215.49 m. Five of the holes were drilled perpendicular to the proposed pit walls to provide data for a geotechnical assessment. The remaining 13 holes were drilled on the AMAX mine grid to test the mineralization and alteration within the Killas.

3.3.3.5 AMAX core review

In 2018 AMC was commissioned by Wolf to carry out a review of the legacy AMAX core, drilled in 1976-1980. Wolf opted to assay a portion of the remaining AMAX core for Fe, K, and As to provide further information on the deposits geo-metallurgical characteristics. Due to the inherent grade variability exhibited by QA/QC analyses and visually noted within the remaining core, Wolf proposed to assay this portion of the AMAX core to destruction.

The AMC review of the AMAX core is documented in the report "AMAX Legacy Core Review" (AMC, 2018a).

Based on the review works, AMC was of the opinion that the original AMAX drilling, core logging, and sampling was undertaken to a high standard.

Based on AMC's review of the AMAX core, supporting documents and validation work by Wolf, AMC considered the AMAX core to have been robustly and well documented. A permanent digital record of the AMAX core was established by Wolf to ensure future auditability and use of the AMAX data. Through the QA/QC works undertaken adequate support has been established for the original AMAX assays to enable its use in future Mineral Resource estimates.

3.3.4 Wolf

Following the AMAX drilling campaigns, the next period of drilling was undertaken by Wolf. Drilling was undertaken for several purposes comprising:

- Resource definition
- Geotechnical investigations
- Grade control
- Trial blast programme
- Ore Body Variability (OBV) programme
- Hydrogeological boreholes.

3.3.4.1 Wolf Mineral Resource definition

Mineral Resource definition drilling was conducted by Wolf in four phases as summarized in Table 3.3.

Table 3.3 Wolf Mineral Resource definition drilling summary

Year	Hole Type	No. holes	Metres drilled	Inclination	Azimuth	Average depth	Downhole surveys	Hole Diameter
2008	DDH	7	1,094.1 m	60°	125° or 305°	177 m	Every 30 m	HQ and Geobore S
2014-2015	PERC	28	1,073 m	Vertical or 60°	0° or 170°l	40 m	Not Surveyed	12.7 cm
2015	PERC	6	118 m	65°	0° or 90°	19.7 m	Not Surveyed	12.7 cm
2017	RC	66	4,475 m	50-60°	170°	68 m	Every 15–20 m	13.72 cm
	PERC	14	404.87 m	50-60°	170°	29 m	Not Surveyed	12.7 cm
2018 (Killas)	PERC	19	617 m	55°	170°	32 m	Not Surveyed	12.7 cm
2018 (granite)	RC	17	2,989.7 m	80° and 55°	170°	136 m	Every 30 m	13.72 cm
	DDH	7	2,092.74 m	80° and 55°	170°	396 m	Every 3 m	HQ

Downhole surveys for 2008 DDH holes were conducted using a Reflex ACT2 EZ-TRAC survey tool. Drillhole collars were surveyed using a Trimble R8 VRS GPS and S6 (2sec) total station by Paul Fassam Geomatics.

In 2014-2015 a further 28 PERC holes (1,073 m) were drilled as definition holes around the periphery of the designed pit. A total of 1,050 m was subsequently used as part of the current Mineral Resource estimate. PERC samples were collected in a tray from the drill collar on 5 m intervals, providing approximately 5 kg of sample material.

An additional six holes were drilled in 2015 to define mineralization in the north of the granite. Holes were drilled by Bam Ritchies. Geologists logged the PERC sample piles every 3.6 m.

As part of the 2017 Mineral Resource definition drilling the PERC holes were drilled by the contractor R.J. Blasting, on a 25 m by 25 m grid and were surveyed downhole using a Reflex EZ-TRAC tool. The RC drilling was undertaken by the contactor APEX drilling.

TWL states in the FS that for the RC holes azimuths could not be used due to the magnetic nature of the azimuth reading within steel rods and so holes were assumed to follow planned azimuth. Owing to the PERC drilling method, downhole surveys were also not possible for the PERC holes.

Samples from the PERC holes were collected on 5 m intervals using a spear sampling method. RC samples were collected on 5 m intervals using a Progradex cyclone/cone splitter attached to the rig.

The Mineral Resource definition drilling in 2018 was split into two parts reflecting the Killas and granite units. PERC drilling within the Killas was conducted by R.J. Blasting. The DDH and ten of the RC holes within the granite were drilled by the contractor MSJ Drilling. The remaining seven RC holes were drilled by APEX Drilling.

The PERC holes were drilled on the eastern side of the deposit on a 25 m by 25 m grid. Owing to the nature of PERC drilling no downhole surveys were undertaken. The PERC holes were sampled every 3 m using a spear sampling method. Material recovered from the PERC holes was logged for lithology, variant, oxidization state, and colour as well as the recovery and condition of the sample.

For the RC and DDH holes within the granite, downhole surveys were conducted on 30 m and 3 m intervals respectively using a Reflex EZ-TRAC tool. The remaining RC holes drilled by MSJ Drilling were sampled on 1 m intervals by spear sampling.

Drillhole collars for both the Killas and granite areas drilled in 2014-2015 and 2017-2018 were surveyed by the company 4DCES.

Sample logging was undertaken using the standardized logging system developed by Wolf recording lithology, variant, oxidization state, and colour, as well as the recovery and condition of the sample. Recovered core from the DDH holes was also photographed and logged for structural and geotechnical properties.

3.3.4.2 Wolf geotechnical drilling

Geotechnical drilling was undertaken in 2013 and 2014.

In 2013 the geotechnical works comprised:

- Drilling performed by Groundsure using a Beretta T44 rotary drill rig.
- Eight DDH holes (372 m) to define the in-pit Killas material. One hole was drilled inclined at 70° on an azimuth of 045°, a second inclined hole at 45° on a 270° azimuth with all other holes drilled vertically. Drilling produced NQ diameter core with an average depth of 46.5 m (maximum depth 50.7 m). A total of 301.85 m of the drilling has been used in the current Mineral Resource estimate.
- A total of 16 DDH holes (327 m) drilled to investigate the ground conditions for the process plant and infrastructure. All holes were drilled vertical achieving an average depth of 20.4 m (maximum depth 21 m). Drilling utilized a T6116 core barrel. Due to the availability of data, only 13 holes (205.23 m) have been used in the current Mineral Resource estimate.
- Eight DDH (141 m) were drilled for the Tory Pond water reservoir. Holes were drilled vertically and use a T6116 core barrel. None of these holes have been used in the current Mineral Resource estimate.
- Collars surveyed by Paul Fassam Geomatics using a Trimble R8 VRS GPS and S6 (2sec) total station.
- No downhole surveys were undertaken.
- Core was logged for lithology, colour, variant, oxidation state, mineralization, alteration, and structure.
- All drilling works were supervised by Red Rock Geoscience under management of the Wolf Site Manager.

The 2014 geotechnical drilling comprised:

- Six DDH holes (1,148.83 m) drilled by Meridian Drilling.
- Undertaken for a stability analysis of the pit walls.
- All holes were drilled inclined on varying azimuths to inform the final pit walls.
- Core diameter comprises PQ3 and HQ3, reducing subject to ground conditions.
- Holes were surveyed downhole using a Reflex ACT2 tool every 30 m.
- Drillhole collars were surveyed by 4DCES using a Trimble R10 Network RTK equipment referenced to OS grid and datum using the Trimble VRS Now correction service.
- Hole depths average 191.5 m with a maximum depth of 212.35 m.
- Core logged for lithology, colour, variant, oxidation state, mineralization, alteration, and structure.
- For the current Mineral Resource estimate, 1,067.8 m of the 2014 geotechnical core has been used due to the full core sampling of the other core material for geotechnical and environmental purposes.
- All drilling works were supervised by the SLR Geotechnical Engineer.

All drilling works were also supervised by the Wolf Geology department.

3.3.4.3 Wolf grade-control drilling

During the course of the Wolf mining operation, extensive near-surface drilling was undertaken for grade control purposes. Between 2014 and 2015 a total of 925 PERC holes (22,204.35 m)

Stage 1 grade control was drilled on a 12.5 m by 12.5 m drill grid. The Stage 1 grade control drilling was undertaken by the contractor Saxton Drilling. Stage 1 hole depths averaged 24 m (maximum 40 m). The second stage of grade control drilling in 2016-2018 was conducted by R.J. Blasting under supervision of Wolf. Drilling comprised 5,389 production blast holes (57,021.34 m) on an 8 m by 8 m spacing.

All Stage 1 grade control holes were drilled vertically and assayed for tungsten (trioxide) (WO_3), tin (Sn), arsenic (As), iron (Fe), uranium (U), and thorium (Th). For the blasthole grade control drilling in 2016-2018 assays included WO_3, Sn, Fe, K, and As, and later manganese (Mn). A 12.7 cm drill bit was used for all PERC holes.

More than 921 of the 925 Stage 1 grade control holes were used in the Mineral Resource estimate as TWL states that some samples were compromised during sample preparation and the holes re-drilled.

Stage 1 PERC grade control drilling was sampled on 5 m intervals with samples collected in a tray at the collar. The collected sample was cone and quartered to produce a 5.5 kg sample for assay. For the 2016-2018 blast holes, a single sample was taken for the full length of the hole.

Owing to the PERC drilling method, no downhole surveys were carried out. Drillhole collars were surveyed by 4DCES.

3.3.4.4 Wolf trial blast drilling

In 2015 a total of 21 PERC holes (250 m) were drilled as part of a trial blast programme to assess the impact of blasting activities on the local community. A total of 15 of the PERC holes were drilled vertically with depths averaging 8.8 m with a maximum depth of 12.5 m.

No downhole surveys were undertaken. Drillhole collars were surveyed by 4DCES.

Holes were logged from the sample pile every 3.6 m recording lithology, variant, oxidization state, and colour.

3.3.4.5 Wolf OBV programme

In 2016, Wolf carried out an OBV programme which comprised the drilling of 10 DDH holes (590.02 m) to obtain samples for metallurgical testwork to assess particle size distribution (PSD), assay by size (ABS), and variability of ore types within the granite for which samples were processed through a metallurgical testwork programme that emulated the Wolf processing circuit at SGS Cornwall. Drilling was undertaken by the contractor, MSJ Drilling, under the supervision of Wolf.

Holes were drilled vertically to an average depth of 59 m and a maximum of 80 m. Core diameter was PQ3.

Downhole surveys were conducted every 3 m using a Reflex EZ-TRAC tool and orientated using Reflex ACT2 tool. Drillhole collars were surveyed by 4DCES.

Core was photographed and logged recording lithological, geotechnical, structural, and mineralogical data.

3.3.4.6 Wolf hydrogeological boreholes

Two RC holes (399 m) were drilled by APEX Drilling in 2018 at the north-eastern edge of the current pit to test the hydrogeological characteristics in this area to help inform dewatering requirements. The holes were drilled vertically and surveyed downhole every 30 m using a Reflex EZ-TRAC tool. Collars were surveyed by 4DCES.

Samples were recovered from the RC holes on 5 m intervals using a Progradex cyclone/cone splitter.

Chips and sample piles were logged to provide records of lithology, variant, oxidization state, and colour, as well as the recovery and condition of the sample.

Between 2010 and 2018 a total of 40 PERC holes (2,089 m) were drilled in and around the pit to aid in water monitoring. The maximum depth of drilling was 102 m. Holes were drilled vertically and were not surveyed downhole. Drillhole collars were surveyed using a differential global positioning satellite (DGPS) unit.

For the 13 holes that were sampled and assayed, samples were taken every 3 m from the material returned to the drill collar.

Those holes which were sampled were also logged for lithology, variant, and oxidization state.

Out of the total of 42 hydrogeological boreholes, a total of 14 holes (992 m) have been included in the current Mineral Resource estimate, owing to the remainder having not been sampled and assayed.

3.3.5 Tungsten West Limited

Drilling by TWL was undertaken in 2020 and early 2021 with works aimed at expanding the Mineral Resource as well as sterilization drilling for planned infrastructure. Drilling comprised two DDH holes in the northern part of the proposed final open-pit area. In addition, a mix of RC and DDH holes were drilled in a southern extension to the deposit.

AMC was supplied with the drillhole database which included four assayed DDH holes drilled in 2020 and 27 assayed RC holes. Drilling in the southern areas was carried out by Apex Drilling Services Ltd (Apex) for RC and Priority Drilling Ltd (Priority) for DDH. In the north, the DDH drilling was undertaken by Apex.

All drilling in 2020 was surveyed in the British National Grid system, with surveys undertaken by the contractor 4D CES Ltd (4D CES).

Drilling activities were supervised and managed by TWL's Geologists.

Analysis of previous drilling samples displays a volume-variance effect, whereby, the smaller half core DDH sub-samples submitted to the laboratory have higher grade variability and a negative bias compared to RC samples. To mitigate the volume-variance effect, TWL opted to submit whole core for assay in 2020. To maximize the data recorded for the drill core, and to ensure a digital record is preserved for perpetuity, TWL engaged the services of Geotek Ltd (Geotek).

Geotek supplied and operated their BoxScan system at the mine which provided high-resolution photographs of the core, a systematic and standardized recording of magnetic susceptibility, multielement X-Ray fluorescence spectroscopy (XRF), and short- and long-wave infrared (IR) mineralogy and laser fracture mapping. This data is then linked with the geological logging undertaken by TWL's Geologists.

From the TWL programme a total of one DDH from the north of the deposit, and 27 RC holes, and three DDH from the southern part of the deposit (including one redrill) were included in the current Mineral Resource estimate.

3.3.6 Volume-variance corrections

During the previous operation of Hemerdon by Wolf, the Geological Department identified that the grade control models and WO_3 MPF feed grades exceeded the grade estimates in the Mineral

Resource model. Subsequent studies highlighted the inherent grade compositional and distributional heterogeneity within the deposit, resulting in a local nugget effect. Each drilling method (DDH, RC, and PERC) yields differing sample volumes which exacerbate the inherent grade variability due to a "volume-variance" effect.

TWL has undertaken an extensive review programme to ascertain the impact and bias exhibited by the different sample methods on the Mineral Resource estimate due to the "volume-variance" effect. TWL has identified that DDH core sub-samples yield smaller sample volumes with greater grade variability and a negative bias compared to the RC and PERC drilling, therefore negatively impacting the Mineral Resource estimate. In the deeper portion of the deposit, which is primarily informed by wider spaced DDH, the influence of the more variable DDH drilling has a greater impact on the Mineral Resource estimate.

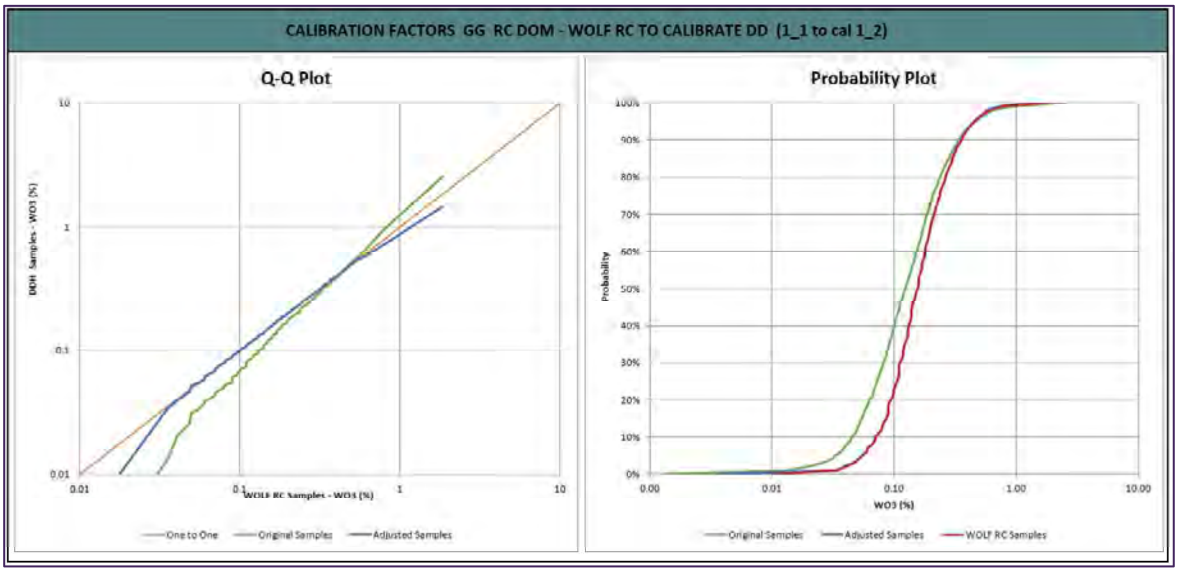
To reduce the negative bias exerted by the DDH, TWL has undertaken a work programme to develop calibration factors which can be applied to the DDH drilling. The aim of the calibration factors is to align the DDH sample populations with the larger and more representative sample volumes provided by the RC and PERC drilling.

To ensure the calibration factors are based on representative samples with relatively even spatial coverage to mitigate against any information effect, TWL has limited the samples used in the calibration calculations. In the main central part of the granite there is a good spatial coverage by both RC and DDH samples. TWL has called this central area the "RC domain" and only samples within this area have been used to derive the calibration factors. The resultant calibration factors are subsequently also applied to holes outside of this RC domain but with a lower level of confidence.

The volume-variance calibration works were reviewed by both AMC and Mining Plus throughout its development and implementation. Whilst not a widely used technique, such volume-variance calibrations have been used on other projects, including the Martabe project in Indonesia.

AMC has carried out a check of the TWL calibration results (Figure 3.7) and is of the opinion that the calibration calculations are reasonable.

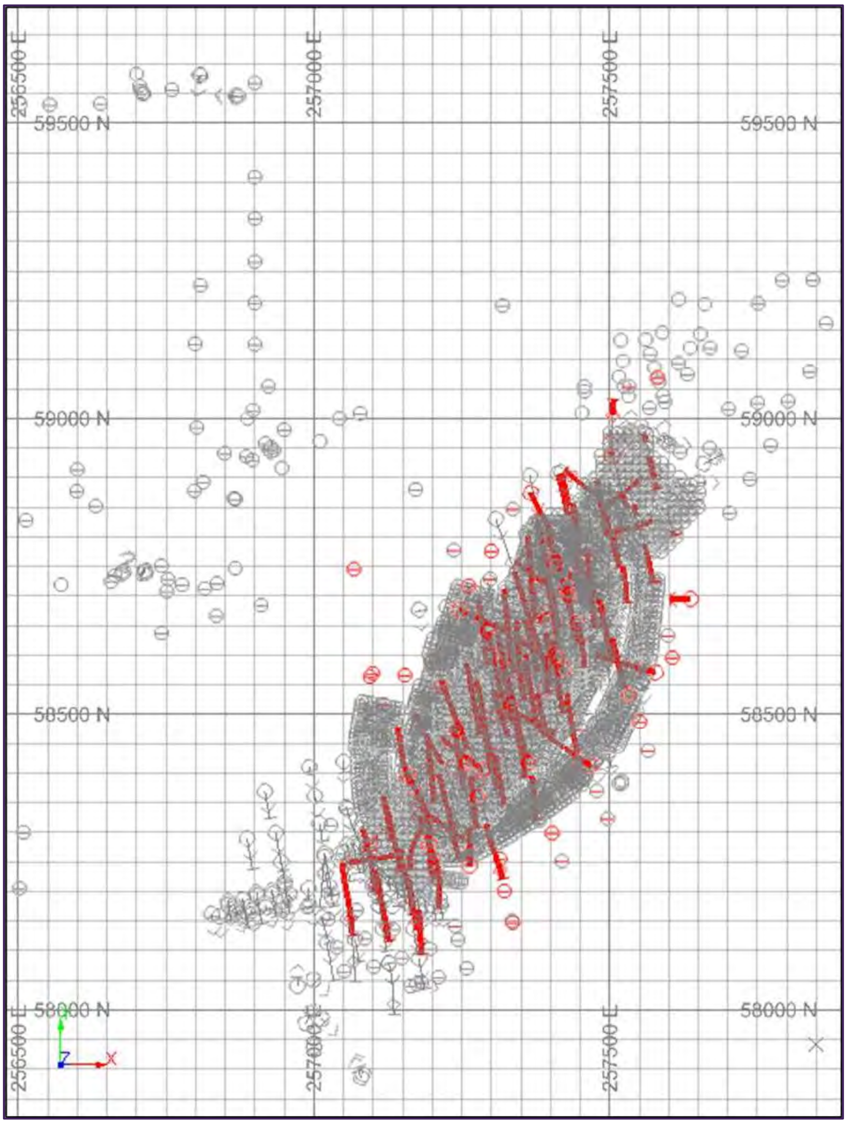
Figure 3.7 TWL volume-variance calibration factor plots



In addition to calibrating the DDH samples based on RC samples within the RC domain, TWL has also calibrated the AMAX RC samples. The AMAX RC samples display a negative grade bias due to the smaller sample intervals and lower recoveries, and therefore sample volumes submitted for assay. TWL has used the Wolf RC samples to calibrate the AMAX RC samples using the same domaining and approach as was adopted for the DDH calibrations.

Figure 3.8 shows the distribution of drillholes to which the volume-variance calibration factors have been applied, relative to the uncalibrated data.

Figure 3.8 Drillhole plan showing in red the drillholes which have had the calibration factor applied



Source: TWL.

3.3.7 Sample recovery

Reviews of sample recovery and the representivity of samples have been undertaken by both Wolf and TWL. Mining Plus state in the Mineral Resource report (Mining Plus, 2021) that "*Statistical analysis performed during Wolf Minerals ownership showed no correlation between poor sample recovery and grade. Additional work to assess this during TWL's geostatistical review into the volume variance issue found no direct correlation*".

Core recovery for DDH is based on measuring the recovered core length against the drill run length. Average core recoveries for AMAX and Wolf are:

- AMAX average recovery of 98.9%.
- Wolf 2008 Mineral Resource definition drilling average core recovery 83.7%.
- Wolf 2018 Mineral Resource definition drilling average core recovery 98.8%.
- TWL 2020 drilling has an average core recovery of 96.4%.

Poorer core recoveries are associated with the more kaolinized granite areas.

Sample recovery for RC and PERC drilling is based on the recovered sample piles and the theoretical 100% recoverable volumes based on the drillhole diameter. Wolf recoveries for RC Mineral Resource definition drilling in 2018 averages 95%. RC holes drilled by TWL in 2020 have an average recovery of 90%.

PERC drilling has typically been sampled above the water table to minimize losses and improve recovery. Where PERC drilling did extend below the water table, Wolf undertook a statistical comparison with adjacent dry samples. The results of the comparison show a good statistical correlation.

3.3.8 Conclusions

The Hemerdon deposit has been extensively drilled, with a particular focus on the main granite area. Drilling has been conducted by four different operators who have used a combination of PERC, DDH, and RC drilling.

Drilling combined with a more standardized approach to the core logging, including the re-logging of the AMAX core has enabled a robust interpretation of the geology and the development of a geological model.

The three key drilling methods employed at the Hemerdon Mine, DDH, RC, and PERC drilling each yield differing sample volumes which exacerbate the inherent grade variability due to a "volume-variance" effect. In reviewing the sample assays both from exploration and grade control drilling, as well as the historical mill feed, TWL identified a "volume-variance" effect. Subsequent studies by TWL have shown how grade variability changes subject to sample volumes, and the sampling and sub-sampling processes to reduce the negative bias exerted by the DDH, TWL undertook a study and developed calibration factors which can be applied to the DDH drilling. The aim of the calibration factors is to align the DDH sample populations with the larger and more representative sample volumes provided by the RC and PERC drilling.

Having reviewed the TWL volume-variance calibration factors, AMC is of the opinion that the approach used by TWL for deriving the calibration factors is suitable and been appropriately applied to the sample data.

Overall, AMC is of the opinion that the drilling methods used are suitable for use in a Mineral Resource estimate.

3.4 Sample preparation, analyses, and security

3.4.1.1 AMAX

Samples taken during the AMAX drilling campaigns were prepared using the following methodology:

- DDH samples half cored with on typically 3 m sample intervals (90% of core) and lesser amounts at 1 m intervals (remaining 10% of core).
- RC and PERC samples recovered from the drill rigs.
- Sample dried and crushed to -5 cm.
- Split using a cone splitter to produce two 10 kg sub-samples.
- One 10 kg sample submitted for assay, remaining sample stored as a duplicate.

AMAX utilized three different laboratories between 1976 and 1980 for subsequent sample preparation and analytical analysis:

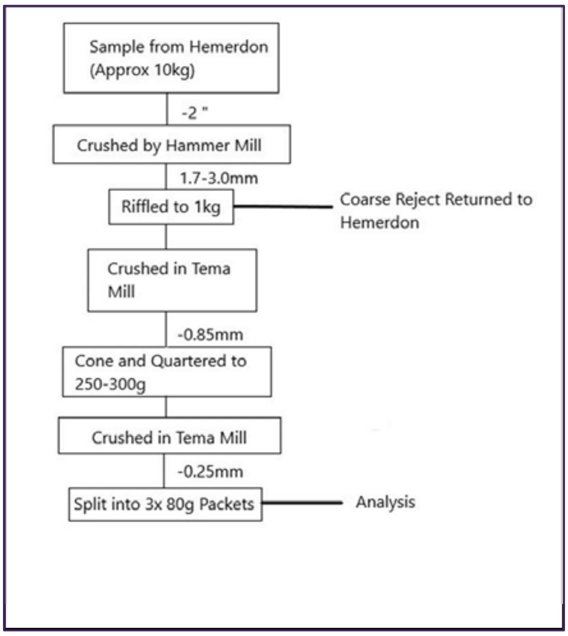
- Alfred H Knight Laboratories (AHK).
- Robertson Research International Ltd (RRI).
- Huntings Technical Surveys Ltd (HTS).

The majority of DDH samples were assayed by AHK. No information is available pertaining to the methods used by HTS.

3.4.1.2 Alfred H Knight Laboratories

Upon receipt of samples from AMAX, AHK adopted the sample preparation procedures shown in Figure 3.9.

Figure 3.9 Alfred H Knight sample preparation flow diagram (*After*: Lofts, 1981)

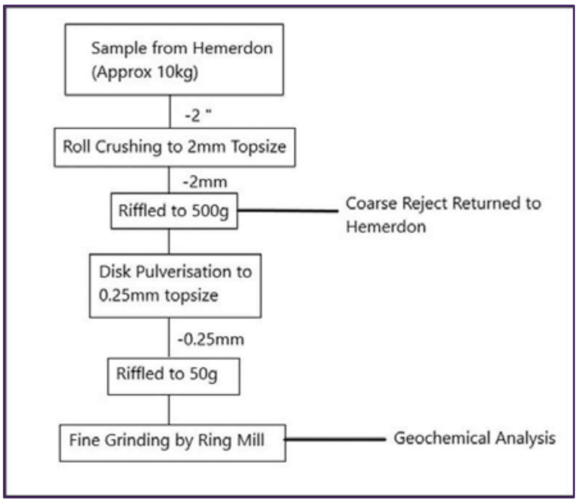


Assays were undertaken on the 80 g sub-samples for WO_3, Sn, and As, using XRF.

3.4.1.3 Robertson Research International Ltd

Samples received by RRI from AMAX were prepared prior to assay using the preparation flowsheet shown in Figure 3.10.

Figure 3.10 Robertson Research sample preparation flow diagram (*After*: Lofts, 1981)



Assays were undertaken for WO_3, Sn, and As, using XRF with a lower detection limit of 100 ppm for WO_3. Additional assays for Cu, Pb, and Zn were performed using atomic absorption spectroscopy for samples taken from the Newnham Park Exploration drilling.

3.4.2 Wolf

A total of four different laboratories were used by Wolf for sample assaying. Table 3.4 summarizes the laboratories used.

Table 3.4 Summary of laboratories used by Wolf for assay (*After*: TWL, March 2021)

Drilling campaign	Sample type	Average DDH composite length	Laboratory	Accreditations
2008 Res-Def	DD	3 m	OMAC (Now ALS, Loughrea, Ireland)	ISO 17025:205
2013 Hemerdon Mine	DD	1.26 m (Killas) and 5 m (granite)	Wheal Jane Laboratory	UKAS 17025
2013 Tory Pond	DD			
2013 Processing plant	DD			
2014 Geotechnical programme	DD			
2014-2015 Grade control 1 (ResDef)	PERC	5 m	SGS Lakefield (prep at SGS Cornwall)	ISO 17025
2015 Trial Blast and ResDef 2	PERC	3.6 m	SGS Plymouth	ISO14001, ISO9001, and ISO 45001
2016 OBV Drilling	DD	5 m		
2017 ResDef Programme	RC / PERC	5 m		
Water monitoring Boreholes	PERC	3 m		
IJK Killas ResDef	PERC	3 m		
2018 Granite ResDef	RC / DD	1.3 m		
2018 Pit De-watering	RC	5 m		
Production blast hole drilling	PERC	10.33 m		

DDH samples were submitted to the respective laboratory as half core, with every 25th sample further split to quarter core to enable field duplicates to also be submitted for quality assurance and quality control (QA/QC) purposes.

Samples were submitted as half core to the laboratory for assay with the exception of full core samples taken for geotechnical testwork from the 2014 drilling programme. These were small niche samples that were then assayed post geotechnical testwork.

3.4.2.1 OMAC

Samples received at the OMAC laboratory in Ireland (now ALS Loughrea, Ireland) were prepared using the following methods:

- Sample crushing to -2 mm by jaw crusher.
- Riffle splitting.
- Pulverization to 100 µm.

Samples were assayed using XRF-BF method. The OMAC samples were subsequently re-assayed at the NAGROM laboratory in Perth, Australia. The re-assays also used the XRF-BF method and are reported (TWL, March 2021) to have shown good reproducibility with the original assay results.

Both the OMAC and NAGROM laboratories were accredited at the time of assay with OMAC accredited under ISO 17025:205, and NAGROM under ISO9001.

3.4.2.2 Wheal Jane laboratory

Samples submitted by Wolf were received by the Wheal Jane laboratory based in Cornwall, UK. Samples were subsequently prepared using the following methods:

- Crushing of half-core samples with an average weight of 5 kg to 75% passing 5 mm.
- Riffle splitting of 100-150 g.
- Pulverizing to 90% passing 75 µm.
- Coarse duplicates and pulps were split upon request at a frequency of one per submission.

Samples were assayed using fusion/Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) for WO_3, Sn, As, Fe, K.

3.4.2.3 SGS Lakefield

Between 2014 and 2015, PERC samples as part of the grade control were submitted to SGS Lakefield for further preparation and assay. The preparation stages comprised:

- Crushing to <1 mm.
- Splitting to 500 g.
- Pulverizing to 80% passing 75 µm.
- A 100 g charge was split for analysis and remainder returned for storage at the mine site.

Samples were assayed by both XRF-BF for WO_3 and Internal Standard XRF for Sn.

3.4.2.4 SGS Plymouth

The SGS Plymouth laboratory was based on the Hemerdon Mine-site. Sample preparation of received samples comprised:

- Crushing to <2 mm.
- Riffle splitting to 500 g.
- Pulverizing to 85% passing 75 µm.
- Coarse duplicates and pulps were split at request at a frequency of one each per submission.

Assays were taken for W, Sn, K, As, Fe, and S using XRF-BF. One sample per submission had a pulp forwarded to SGS Lakefield, Canada for ICP-MS for a full suite of elemental analysis along with all OBV samples (TWL, March 2021).

3.4.3 Tungsten West Limited

Samples obtained during the 2020 and 2021 drilling works by TWL have been prepared and assayed by TWL on-site laboratory. Samples have been submitted as 5 m composites to reduce the volume-variance exhibited by smaller sample volumes. The TWL laboratory is accredited to ISO 14001, 9001, and 45001.

Sample preparation flowsheets for the RC and DDH samples are provided in Figure 3.11 and Figure 3.12.

For the RC samples a 1 kg sub-sample is taken at the riffle splitting stage following crushing. In the case of DDH samples a 10 kg split is taken after the first-stage crushing, before being further split to a 1 kg sub-sample following the second-stage crushing.

Figure 3.11 TWL RC sample preparation flowsheet (TWL, March 2021)

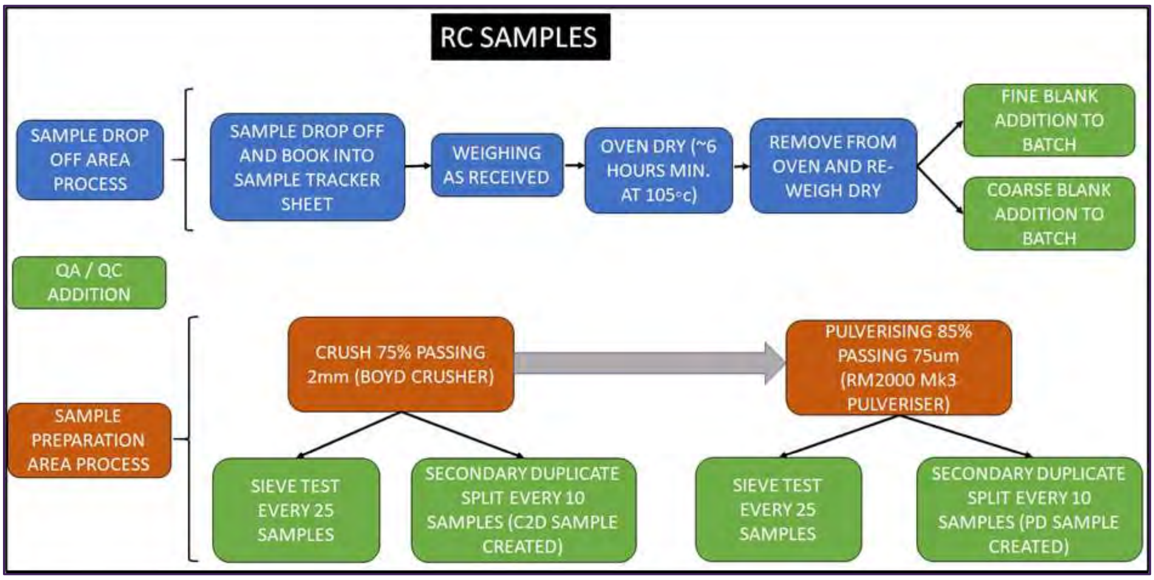
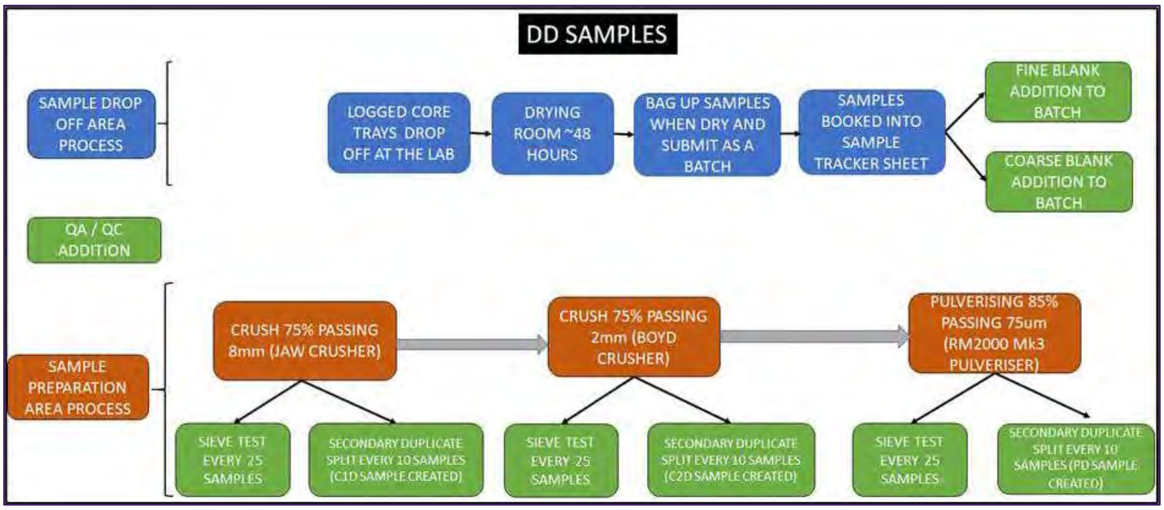


Figure 3.12 TWL DDH sample preparation flowsheet (TWL, March 2021)



Assays for both RC and DDH samples are conducted at the Hemerdon Mine-site laboratory. The assays are performed on the pulp samples following sample preparation using an Olympus VMR™ portable X-Ray fluorescence (pXRF) analyser using a rhodium X-Ray tube.

To ensure the accuracy and precision of the pXRF assays, as well as to calibrate the pXRF, TWL has submitted duplicate pulp samples to ALS Loughrea (ALS), Ireland. In addition to submitting the pulp duplicates to ALS, TWL also submitted blank and certified reference materials (CRMs) to check for accuracy and sample contamination.

The verification checks on the ALS laboratory show samples to be free of sample contamination and to be accurate with regards to the CRMs submitted.

The pXRF assays show a close correlation for WO_3 and Sn with the ALS laboratory pulp duplicate assays, with only a small deviation between the different assay methods. The difference between the ALS assays and the pXRF measurements have been used by TWL to calibrate the pXRF results. These final calibrated (instrument corrected) pXRF assays have been used in the Mineral Resource estimate.

The pXRF calibration factors applied are:

- (WO_3 x 1.6344) - 0.0202.
- (Sn x 1.3257) - 0.0069.

3.4.3.1 ALS Loughrea external assay checks

As part of the TWL assaying process, duplicate pulp samples have been sent to ALS in Loughrea, Ireland. Assays of the pulp duplicates has been undertaken using ICP-AES and XRF-fusion methods. The laboratory is accredited under ISO 17025:2017 and is a registered lab under INAB.

3.4.4 Quality assurance and quality control (QA/QC)

3.4.4.1 AMAX

As part of the original AMAX exploration works, CRMs along with re-submission of duplicate assays, were submitted to the third-party Alfred H Knight laboratories.

Two CRMs, AMAX Worldwide Control Samples G15 and G25 were typically submitted with each batch of samples at a rate of 1 in 20. Random duplicate samples were also submitted at a rate of 1 in 20.

A summary of the duplicate results is provided in the document "*Review of AMAX Check Assays: Element vs Element Analysis from the Newnham Park Exploration Report*" (Taylor, n.d.). Within the document QA/QC plots of have been produced for the Robertson Research duplicate assays as well as a comparison of the external submissions to Alfred H Knight, with original Robertson Research results. Although the QA/QC results are summarized in the document "*Review of AMAX Check Assays: Element vs Element Analysis from the Newnham Park Exploration Report*" (Taylor, P, 2017), no original raw data QA/QC results are available from this period.

TWL (March 2021 cited Lofts, P.G, 1981) reported that comparison of check assays by AMAX between the two laboratories indicated that the variations in the sample preparation methodology did not affect the outcome of the results. Wolf re-evaluated available check assay data in 2017 and agreed with this conclusion (Taylor, P, 2017).

In 2007 and 2008, SRK submitted CRMs and both pulp and coarse duplicates as part of the re-sampling programme. Two different CRM samples were submitted to the laboratory, BH-1 and MP-2, both were inserted by staff external to the laboratory as well as by the laboratory themselves. No details are available regarding the source and composition of the CRMs.

Plots of the 2007-2008 CRM results are provided in the report "*Resource Estimation of the Hemerdon Tungsten-Tin Deposit, Devon, England*" (SRK, 2008).

The SRK QA/QC results show a reasonable level of precision, particularly for the laboratories own submissions, however, accuracy is low, with results typically under-reporting compared to the certified value. The accuracy levels are comparable for both the laboratory internal submissions and the external submissions.

As part of the AMC "*AMAX Legacy Core Review*" (AMC, 2018), AMC reviewed the re-assays of AMAX core undertaken by Wolf. Approximately 22% of the AMAX core was re-assayed using quarter core. Assays were limited to those AMAX core boxes for which core condition and confidence had been documented by Wolf and established as being good and correlating to previous AMAX documentation and SRK core photos.

SRK previously noted, in their re-assaying of the AMAX core, that there was a bias between the original AMAX assays when compared to the SRK results, potentially due to selective higher-grade "niche" sampling by visitors to the site after the core had been put into storage. When AMC reviewed the Wolf re-assays, no clear bias can be identified. The assay results show a broad spread, more indicative of inherent grade variability or a lack of sample homogenization than a sample selection bias. The use of a finer pulverization size for the SRK re-assays is likely to have also added to the variability noted by SRK between the original assays and the re-assay results.

3.4.4.2 Wolf

A robust and detailed QA/QC programme has been implemented by Wolf to ascertain the accuracy and precision of assays. QA/QC submissions include field, coarse, and pulverized duplicates, blanks, as well as eight different CRM samples. Results are reviewed for WO_3, Sn, As, Fe, and K. QA/QC insertion rates comprise field duplicates at a rate of 1 in 25, blanks or CRMs at a rate of 1 in 10, external duplicate assays at a rate of 1 in 15, coarse and pulp duplicates inserted in every batch submission.

Blank submissions comprise both coarse and pulverized blanks to ascertain whether the sample preparation process and/or assay methods introduce the potential for sample contamination. AMC has reviewed the Q2, 2018, blank sample results. No significant outliers were noted for WO_3, Sn, or As, lending support that the sample preparation methods are free of sample contamination.

Plots of the diamond drill core and RC field duplicate results are shown in Figure 3.13 and Figure 3.14, respectively.

The RC field duplicate results show an improvement in precision when compared to the diamond drill core field duplicates. AMC believes the difference in precision is attributable to the smaller particle size of the RC samples as well as the larger sample volume. The smaller particle size and larger volume results in a reduction of the fundamental sampling error (FSE) and therefore reduced volume-variance compared to the diamond drill core.

Figure 3.13 Wolf WO_3 diamond core field duplicates (AMC, 2018)

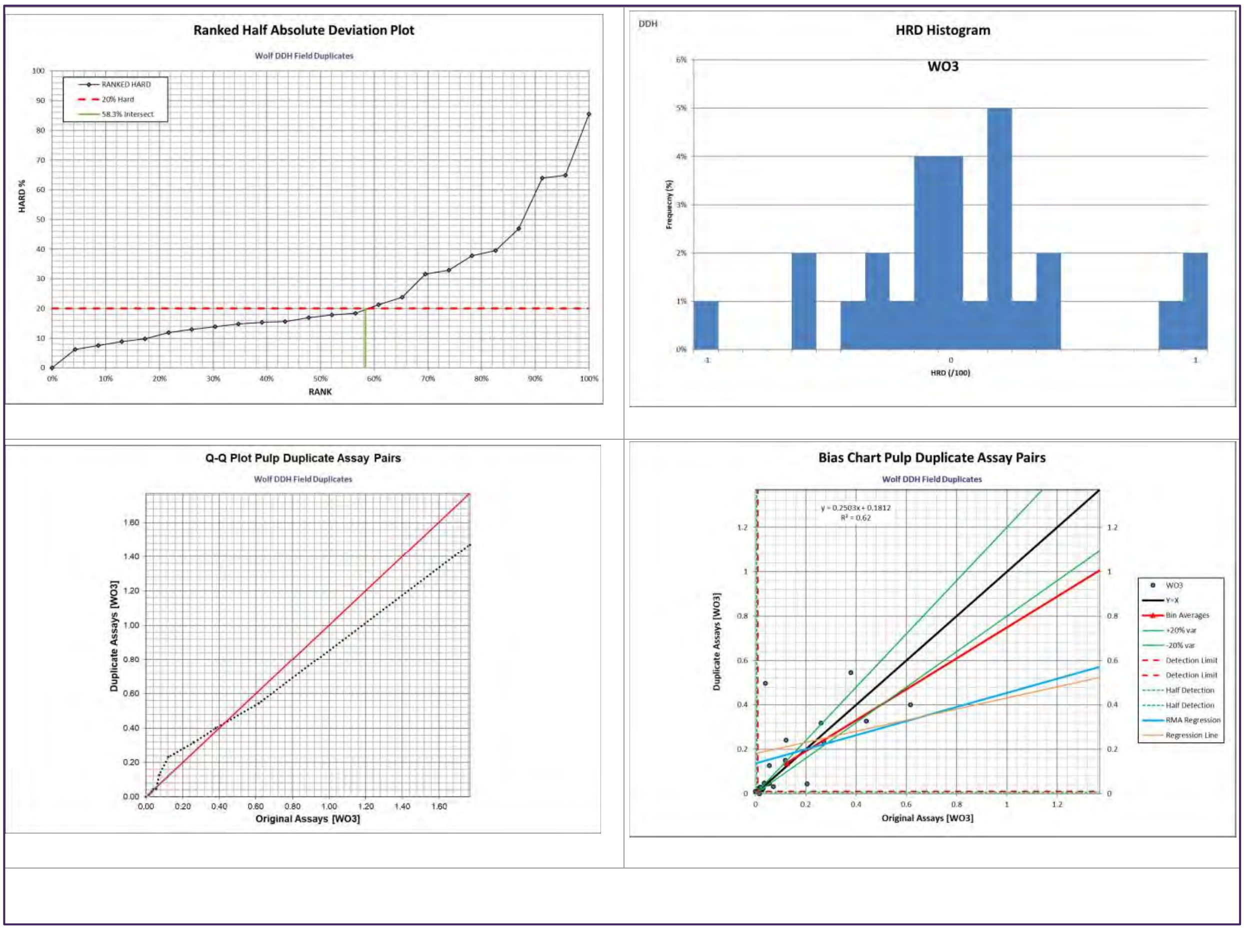
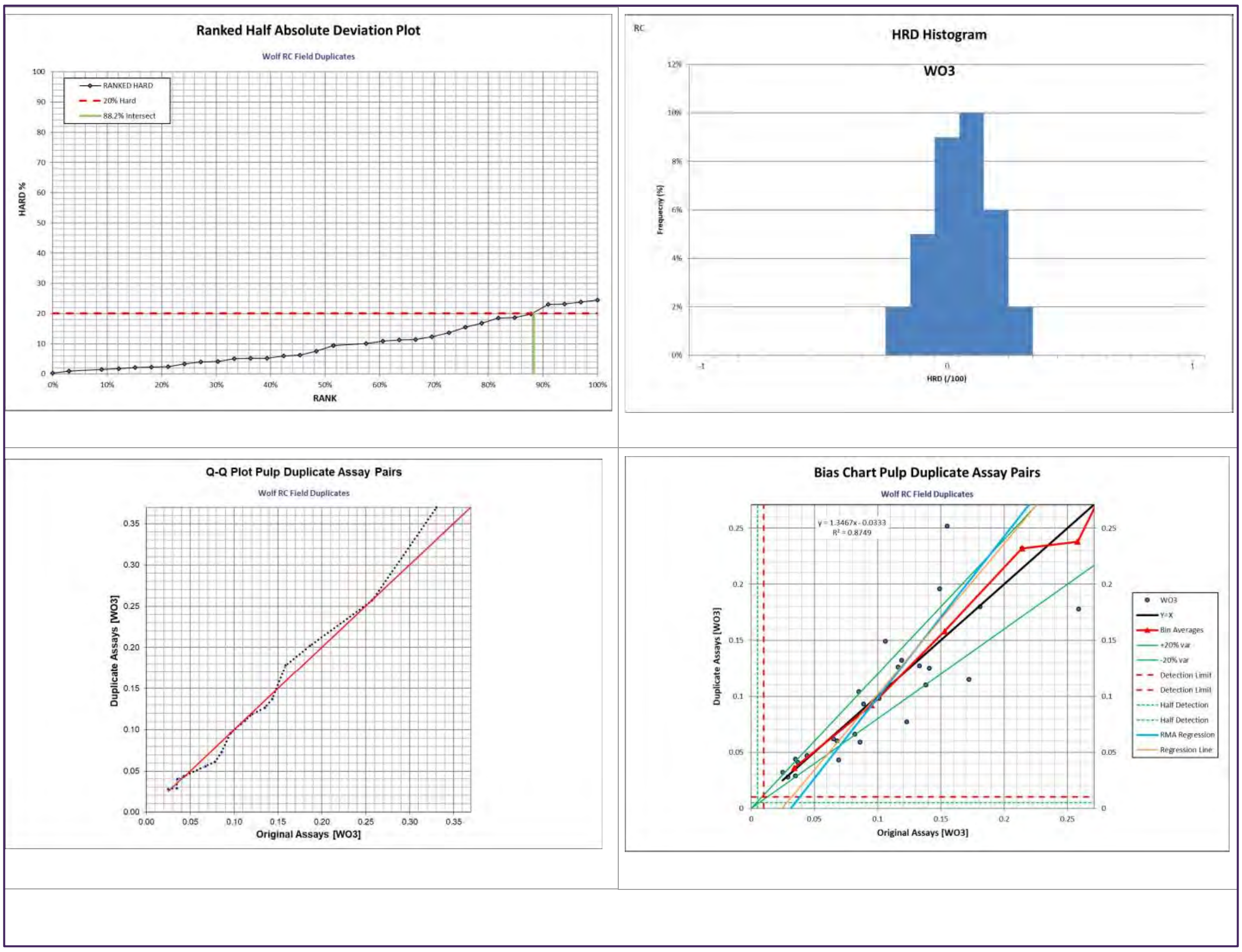
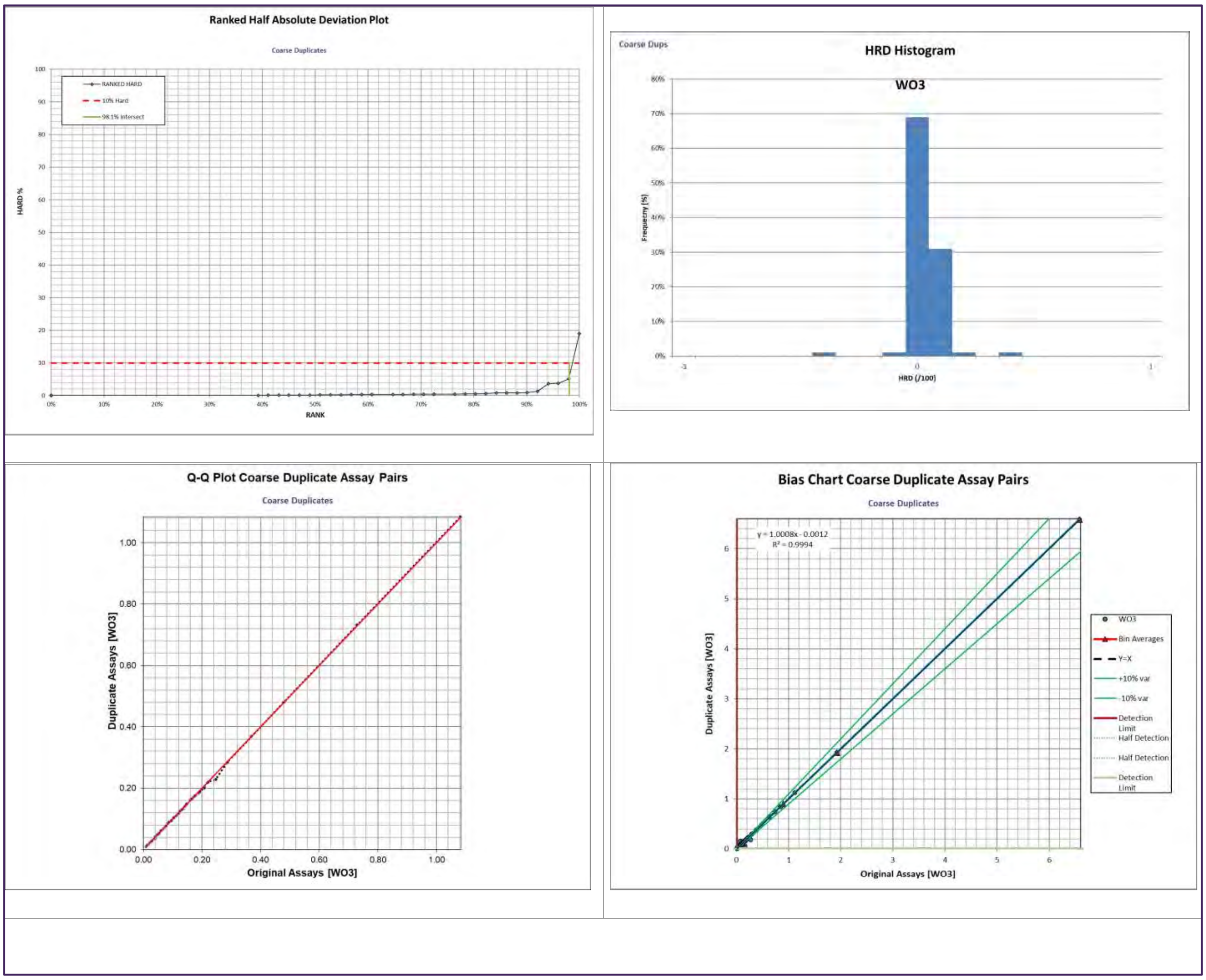


Figure 3.14 Wolf WO_3 RC field duplicates



AMC has also reviewed the available results for the coarse and pulverized duplicates. The results for the coarse duplicates are shown in Figure 3.15. Both the coarse and pulverized duplicates show a marked improvement in precision over the field duplicates. This improvement is typical of appropriate sample preparation reduction schemes, where the crushing and grinding of samples yields a homogenous sample resulting in representative sub-sampling.

Figure 3.15 Wolf WO_3 coarse duplicates (AMC, 2021)



Out of the eight CRMs, four have been sourced from external suppliers and four created internally by Wolf and internally-certified by Wolf, with two of them (LQSI-Low and LQSI-Ultra Low) certified by Laboratory Quality Services International (LOSi). As part of the self-certification of the internal CRMs the samples are submitted to other SGS laboratories as part of a round-robin process.

CRM results for Q2, 2018, show reasonable levels of accuracy and precision for WO_3 and Sn, with results within two standard deviations of the target values.

3.4.4.3 TWL

As part of the 2020 drilling programme, TWL has submitted QA/QC samples including:

- Coarse and pulverized blanks.
- Field, coarse, and pulp duplicates.
- CRMs.

QA/QC were undertaken at the following rates:

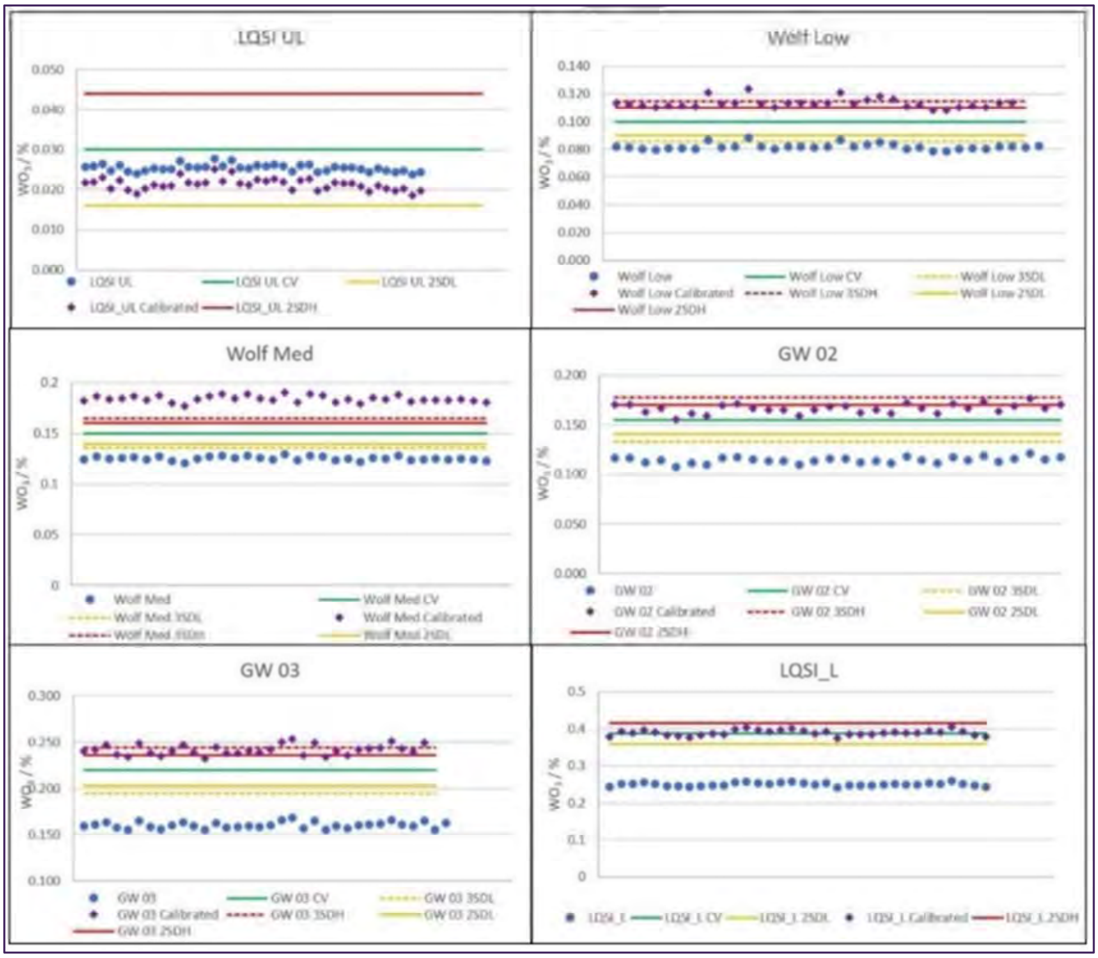
- Insertion of CRMs of which 50% of the library is matrix matched material.
- Field duplicates inserted every 25 samples for RC samples.
- Coarse and pulp duplicates in every batch.
- Umpire check assays at 10% insertion rate at ALS, Ireland.
- Sieve testing taken for stage of size reduction every 25 samples.
- pXRF analysis repeats in every batch.
- Blank samples inserted at one per batch for each size reduction stage.
- Pulp blank material used for each batch presented for analysis.

Both crushed and pulverized duplicates for WO_3 and Sn show reasonable levels of repeatability and precision. A reduced level of precision is noted for the field duplicates and likely reflects the inherent compositional and distributional heterogeneity of the mineralization.

Blank sample submissions show assay results below the fail threshold tolerance levels for both WO_3 and Sn, indicating no significant sample contamination issues.

CRM results following the application of the TWL calibration factors (derived from the ALS pulp duplicate assays) for WO_3 shows some variability in results (Figure 3.16).

Figure 3.16 TWL 2020 CRM results (TWL, December 2021)



TWL has attributed the variability in results to the different matrix compositions of the CRMs compared to the Hemerdon material to which the pXRF is calibrated.

Whilst the CRM results show some variability relative to the target grades, the results do show reasonable precision. Out of the six different CRMs submitted in 2020 only the "Wolf Med" shows all results exceeding ±3 standard deviations. Both the "Wolf Med" and "Wolf Low" CRMs were produced by Wolf during the last period of operation and have not been independently certified. CRM samples "LQSI UL" and "LQSI L" are also matrix matched and have been independently certified. Results for these CRMs show reasonable levels of accuracy. Purchased CRMs "GW 02" and "GW 03" whilst not matrix matched, also show reasonable accuracy for WO_3. Whilst the Wolf Med CRM shows results outside of the target limits, it should be noted that CRM GW 02 approximates the target grade of the Wolf Med CRM but with reasonable levels of accuracy.

3.4.5 Density measurements

Extensive density measurements have been taken for the granite, including measurements taken between 2007 and 2017. Whilst density measurements were taken by AMAX, details as to the specific method used is unknown, therefore TWL has opted to omit the AMAX density results from use in the Mineral Resource estimate.

Density measurements taken between 2007 and 2017 have been undertaken using the industry-standard water immersion method. Additional density measurements were undertaken by SRK in 2008 (350 in total) providing density measurements across the deposit. A further 117 density measurements were undertaken by Wolf using wax-coated core to account for vugs and porosity.

Density measurements have proven challenging for the kaolinized parts of the granite due to the argillaceous nature of the material. This has limited the number of reliable measurements available for the kaolinized granite. To aid in supplying density measurements to the kaolinized parts of the granite, Wolf developed a regression correlation between K% assays, particle size distribution (PSD), and SG. This enables K% assays to act as a proxy for kaolinized granite. Using the K% assays, Wolf developed another regression between K% (representing the degree of kaolinization) and density measurements. This regression has been used to estimate density values into the fresh granite and kaolinized granite parts of the block model based on K% grades. Comparing the resultant estimated tonnages against the mill feed production tonnages, Wolf reported a good correlation.

Compared to the granite density measurements, limited density testwork has historically been undertaken on the Killas. Limited measurements were taken in 2008 and 2015. In 2018, 76 measurements were taken representing the key Killas units (mafic, siltstone, coarse metasediments, tuff, and mudstone).

In 2019 and 2020, TWL undertook a more-extensive set of density measurements for the Killas, with a total of 361 samples taken. The density measurements represented sub-divisions of the metasediments, metavolcanics, and mafic units. These units were further sub-divided into oxide, transitional, and fresh material.

Density measurements assigned to the Killas portion of the current Mineral Resource estimate are based on the 2019 and 2020 testwork. Each modelled member of the Killas formation was assigned a weighted-density-value based on the proportion of each sub-unit within that member and whether it comprises oxide, transitional, or fresh material.

For the final densities applied to the Killas formation, each Killas unit was weighted by the proportion of each lithology it contains (TWL, March 2021 cited Hill, E. & Scannell, Z., 2020). These were also split by weathering state. Each member of the Killas group was also assigned a numeric code (LITHZONE) for the block model.

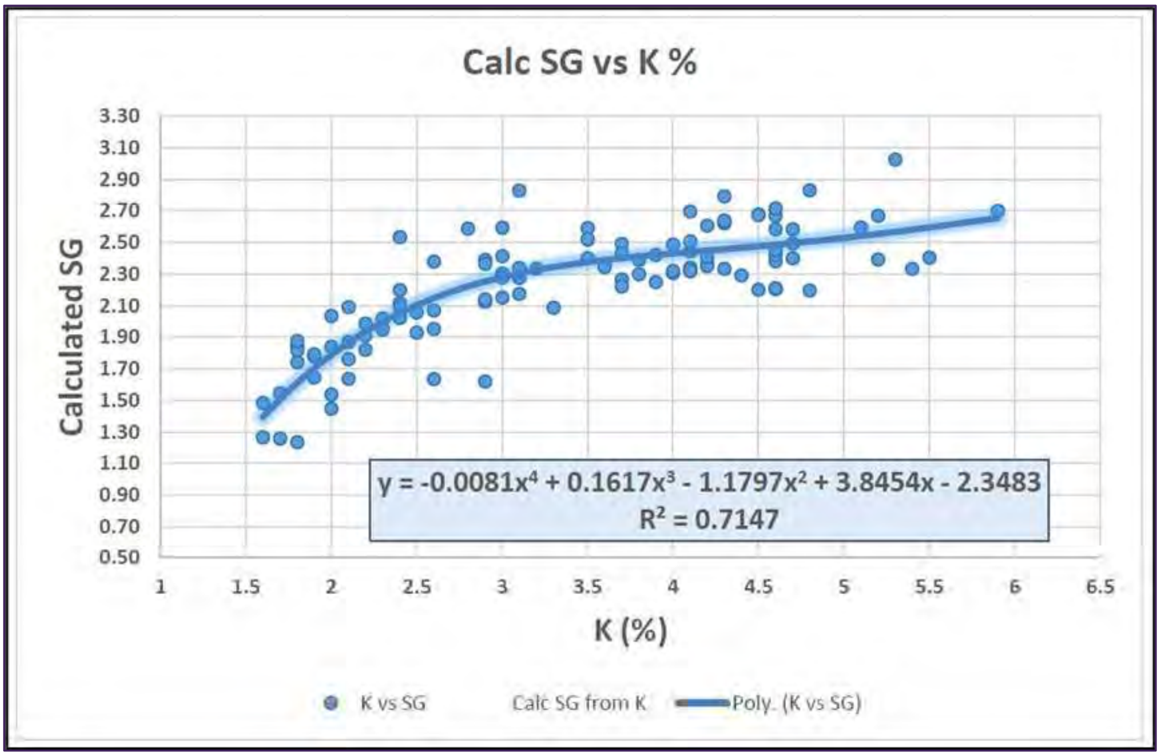
A summary of the final density values assigned to the Killas portion of the Mineral Resources is provided in Table 3.5.

Table 3.5 Summary of final Killas density values assigned to the Mineral Resource estimate (TWL, March 2021)

Lithology Member	LITHZONE	ROCK TYPE	%	Average Density (ARD)		
				Oxide	Transition	Fresh
Claymoor	91	SM	7.16	2.40	2.48	2.62
		SP	68.52			
		ST	24.33			
Drakelands East	92	SM	10.89	2.39	2.48	2.6
		SP	33.31			
		ST	53.48			
		TF	2.33			
Drakelands West	93	SM	7.56	2.40	2.49	2.59
		SP	2.48			
		ST	89.96			
Bickford East	94	SP	37.51	2.29	2.41	2.55
		ST	30.82			
		TF	31.67			
Bickford West	95	SM	1.99	2.39	2.48	2.59
		SP	22.51			
		ST	75.50			
Mafic - South West	80	OD	100	2.51	2.51	2.8
		OG	0.00			
Mafic - Mid-South West	81	OD	0.00	2.49	2.61	2.72
		OG	100.00			
Mafic - Mid-North West	82	OD	100.00	2.51	2.51	2.8
		OG	0.00			
Mafic - Northern	83	OD	8.23	2.49	2.60	2.73
		OG	91.77			
Mafic - Mid-North East	84	OD	0.00	2.49	2.61	2.72
		OG	100.00			
Mafic - Mid-South East	85	OD	32.56	2.50	2.58	2.75
		OG	67.44			
Mafic - South East	86	OD	21.14	2.49	2.59	2.74
		OG	78.86			

Density values for the granite portion of the Mineral Resources are based on the previously derived Wolf K% versus density regression formula. The regression is based on 467 samples taken between 2007 and 2017 (Figure 3.17).

Figure 3.17 Wolf K% versus density regression plot (Hassall, 2018)



3.4.6 Sample preparation, assay, and security conclusions

AMC has reviewed the AMAX and Wolf drill core and supporting documentation. Overall, AMC is of the opinion that both the AMAX and Wolf drilling activities have been undertaken in an appropriate manner. The AMAX and Wolf sampling, sample preparation, and assay methods have been well documented. The methods used appear suitable for the style of mineralization present on-site.

As part of the AMAX and Wolf drilling activities, QA/QC samples were submitted to the laboratories to test for sample contamination as well as the precision and accuracy of assays. AMC concluded that the QA/QC results do not appear to indicate any bias attributable to the assay methods used. QA/QC results reviewed by AMC do show that there is a degree of compositional and distributional heterogeneity associated with the mineralization that impacts the sample precision. As the volume of retained sample material is reduced (i.e. retained half-core or quarter-core) then the retained sample is likely to display greater grade variability when compared to the original sample volume (volume-variance effect).

To mitigate the volume-variance effect, TWL has subsequently undertaken a volume-variance study and developed calibration factors to account for the impact of volume-variance on diamond core and AMAX RC samples.

AMC is of the opinion that the Wolf and AMAX drilling, including the diamond drilling post-calibration is suitable for use in a Mineral Resource estimate.

AMC has discussed the drilling methods, surveying, logging, and sampling procedures for the 2020 programme with TWL geological personnel.

Analysis of previous drilling samples (AMAX and Wolf) displays a volume-variance effect, whereby, the smaller half core DDH sub-samples submitted to the laboratory have higher grade variability and a negative bias compared to RC samples. To mitigate the volume-variance effect, TWL opted to submit whole core for assay in 2020/2021. AMC is of the opinion that the submission of whole core for assay is justified and supported by the volume-variance work undertaken by TWL.

AMC is of the opinion that the core logging methods and procedures detailed to AMC are in-line with industry-accepted practices. The methods used by TWL ensure information is systematically recorded in a standardized format that aids the geological interpretation.

For the 2020/2021 drilling, TWL opted to assay samples using a pXRF. The use of handheld pXRF instruments for assays have in the past been more often associated with earlier prospecting stage projects due to lower levels of confidence in the accuracy and precision of pXRF assays. However, with advances in pXRF instruments, and the implementation of appropriate validation checks from external laboratories, it is possible to obtain robust pXRF assays for more advanced projects. To ensure consistency in measurements the pXRF instrument is mounted in a set position above the sample providing a uniform presentation of sample for assay.

To ensure the accuracy and precision of the pXRF assays, as well as to calibrate the pXRF, TWL has submitted duplicate pulp samples to ALS Loughrea (ALS), Ireland. In addition to submitting the pulp duplicates to ALS, TWL also submitted blank and CRMs to check for accuracy and sample contamination.

Based on AMC's review of the handheld pXRF measurements and supporting evidence, including laboratory duplicate samples, AMC is of the opinion that the pXRF assays are suitable for use in the current Mineral Resource estimate.

AMC has reviewed the QA/QC data for the 2020/2021 drilling works. Overall, AMC is of the opinion that whilst there is some variability in the CRM results, overall, they indicate reasonable analytical accuracy and precision and limited risk to the current Mineral Resource estimate.

AMC is of the opinion that the type of QA/QC samples submitted enable an assessment to be made in regard to assay precision and accuracy as well as sample contamination. The results seen by AMC indicates that the 2020/2021 assays are relatively accurate and precise and suitable for use in the Mineral Resource estimate.

Having identified a "volume-variance" effect associated with the different sampling methods, TWL developed a "volume-variance" calibration for the sample data. AMC has reviewed the methodology for deriving the calibration factors and the subsequent applications to the sample data. AMC is of the opinion that the approach used by TWL for deriving the calibration factors is suitable and been appropriately applied to the sample data. AMC also notes that as more drilling data and production data becomes available these calibration factors will require re-evaluating to ensure they remain correct and appropriate.

AMC is of the opinion that the work undertaken to support the density measurements for both the granite and Killas units is suitable. The final density measurements assigned to the current Mineral Resource estimate are reasonable and in-line with expected density values for these rock types.

3.5 Mineral Resource estimates

3.5.1 Introduction

Two Mineral Resource estimates have been undertaken for the Hemerdon deposit. One encompasses the remaining in-situ mineralization, whilst a second estimate relates to the reprocessing of material from the MWF.

The Mineral Resource estimate for the in-situ deposit mineralization has been undertaken by Mining Plus UK Ltd on behalf of TWL with an effective date of 07 December 2020 and reported in accordance with the JORC Code (2012).

The Competent Person for the in-situ Mineral Resource is Mr James McFarlane, BSc (Hons), MSc, MCSM, FGS, MIMMM, MIQ, MAIG. Mr McFarlane is a full-time employee of Tungsten West Limited and has acted as the Competent Person (CP) on the Hemerdon deposit Mineral Resource estimation.

The MWF Mineral Resources have been estimated by Mining Plus on behalf of TWL with an effective date of 25 January 2021. The MWF Mineral Resources have been classified as Inferred and do not contribute to the current mine plan.

The Competent Person for the MWF Mineral Resources is Dr Matthew Field, BSc, BSc (Hons), MSc, PhD, FGS, Pr Sci Nat. Dr Field is a full-time employee of Mining Plus UK Ltd and has acted as an independent consultant on the Hemerdon MWF Mineral Resource.

The proposed mining method for the in-situ mineral resources is an open-pit operation in-line with previous mining operations at the site.

3.5.2 Hemerdon deposit Mineral Resources

Grade estimates for WO_3, Sn, Fe, and K have been undertaken, with only WO_3 and Sn declared in the Mineral Resource Statement, and Fe and K estimated for mine planning purposes only.

3.5.2.1 Topography

In July and August 2013, a LiDAR topographic survey was conducted by the British Geological Survey (BGS) as part of the "TELLUS" programme of works providing a survey at a 5 m resolution.

More recently, Wolf operated an open pit between 2015 and 2018, extracting 7.2 Mt of granite and 14.6 Mt of Killas material.

The most recent topographic survey was conducted in April 2019 using an airborne drone that generated an ortho-mosaic surface image providing a topographic survey at a resolution of 1 m and aerial imagery to a 20 cm resolution.

3.5.2.2 Input database validation and preparation

Sample data used as part of the Mineral Resource estimate comprise the AMAX, Wolf, and TWL drilling documented in Section 3 of this CPR. The sample database was collated by TWL and supplied to Mining Plus for the Mineral Resource estimation works.

The drilling data includes the PERC, RC, and DDH drilling. In the case of the DDH and AMAX RC drilling the "volume-variance" calibrations detailed in Section 3.3.6 have been applied to the assays. Within the sample database an additional grade field "WO3_PREF" was generated representing the WO_3 grade following application of the "volume-variance" calibration. A summary of the drillholes used in the Mineral Resource estimate is provide in Table 3.2.

The drillhole database used by Mining Plus comprises more than 7,377 drillholes totalling 130,143 m.

Mining Plus reviewed the sample data used in the Mineral Resource estimate. Checks for sample overlaps, absent records, and spatial positioning were undertaken during the import of the sample data into Datamine Studio RM™ software.

Drillholes have been assayed in their entirety. Where drillhole intervals have not been assayed due to sample loss, missing, or destroyed samples, TWL has assigned a -1,000 value within the assay records. For the Mineral Resource estimate, these -1,000 records have been treated as absents, and account for <1% of the overall samples.

Mining Plus and TWL opted to omit some sample data from the Mineral Resource estimates. Data omitted typically comprises data that is superseded by subsequent drilling activities, regional drilling outside of the Mineral Resource area, samples which lack sufficient support and credence to be used in a Mineral Resource estimate. Limited drilling (4 DDH and 27 RC) conducted by TWL in 2020 was available and included at the time of the Mining Plus Mineral Resource estimate. Table 3.6 summarizes the sample data excluded from the Mineral Resource estimate.

Table 3.6 Holes excluded from the Mining Plus 2020 Mineral Resource estimate (Mining Plus, 2021a)

Company	Hole Type	Holes	Metres	Justification for exclusion
BNFMC	UG	33	787.65	WW2 underground sampling – data inappropriate for JORC Mineral Resource estimate purposes.
HMSL	PERC	40	1,000.06	Historic PERC data within the pit – superseded by Wolf GC data.
AMAX	PERC	150	2,373.00	Newnham park Exploration outside of block model extents.
AMAX	COBRA	130	549.37	Deep Overburden "Cobra" drilling – data inappropriate for JORC Mineral Resource estimate purposes.
AMAX	DDH	12	574.21	Stratigraphic holes and clay evaluation holes – not assayed.
AMAX	NR	3	395.70	AMAX UG bulk samples – not appropriately validated for JORC resource purposes.
AMAX	PERC	45	2,223.50	Historic PERC data within the pit – superseded by Wolf GC data.
BGS	DDH	6	590.27	Regional drilling outside of block model extents, no assay data.
BGS	PERC	10	279.05	Regional drilling outside of block model extents, no assay data.
Wolf	PIT	119	300.25	Geotechnical Trial pits – data inappropriate for JORC Mineral Resource estimate purposes.
Wolf	DDH	17	690.91	Geotechnical drilling outside of block model extents.
Wolf	PERC	256	3,998.08	Various campaigns either un-assayed, outside of block model extents or data inappropriate for JORC Mineral Resource estimate purposes.
Wolf	Various	Various	238.57	Various intervals with complete core loss or other validation issues – data inappropriate for JORC Mineral Resource estimate purposes.
Wolf	Soil	19	24.10	Trenching samples – data inappropriate for JORC Mineral Resource estimate purposes.
TWL	RC	36	1,856.00	Analysis still underway at time of Mineral Resource estimate.
TWL	DDH	4	999.51	Analysis still underway at time of Mineral Resource estimate.
Total		**880**	**16,880.23**	

3.5.2.3 Geological interpretation

The regional and local geological setting for Hemerdon is well-understood.

Knowledge of the geological setting has been retained through TWL re-employing key geological staff who previously worked for Wolf, including the Technical & Operations Director, Mr James McFarlane.

Key geological units have been modelled by Mining Plus Pty Ltd (Mining Plus) in Datamine Studio RM™ software with input from the TWL Geology Department. Modelled geological units comprise the main Hemerdon Granite (sub-divided by fresh and kaolinized), and Killas sub-divided into the various sedimentary and mafic lithology units, with sub-divisions based on metallurgically significant domains. A total of 22 domains have been modelled.

Figure 3.18 shows the domaining of the Hemerdon Granite with the colour-coding numbers corresponding to the domain IDs.

Figure 3.19 shows the geological interpretation for the Killas units surrounding the Hemerdon Granite with the sedimentary units shown in the left image and the mafic units in the right image. The numbers stated in Figure 3.18 correspond to the domain IDs.

Figure 3.18 Plan, west, north, and east views of the Hemerdon Granite with lithological domains indicated by colour. (Mining Plus, 2021a)

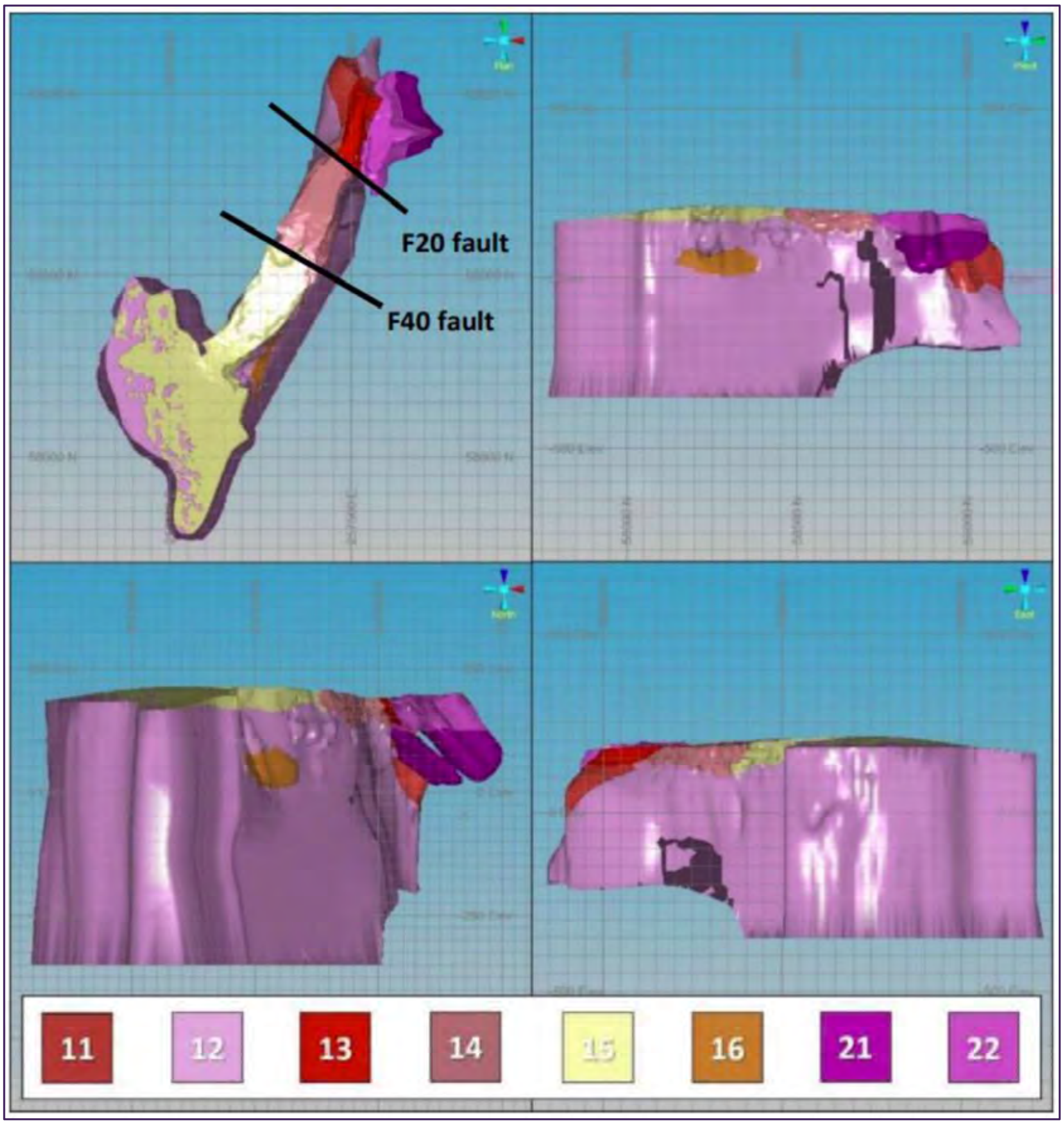
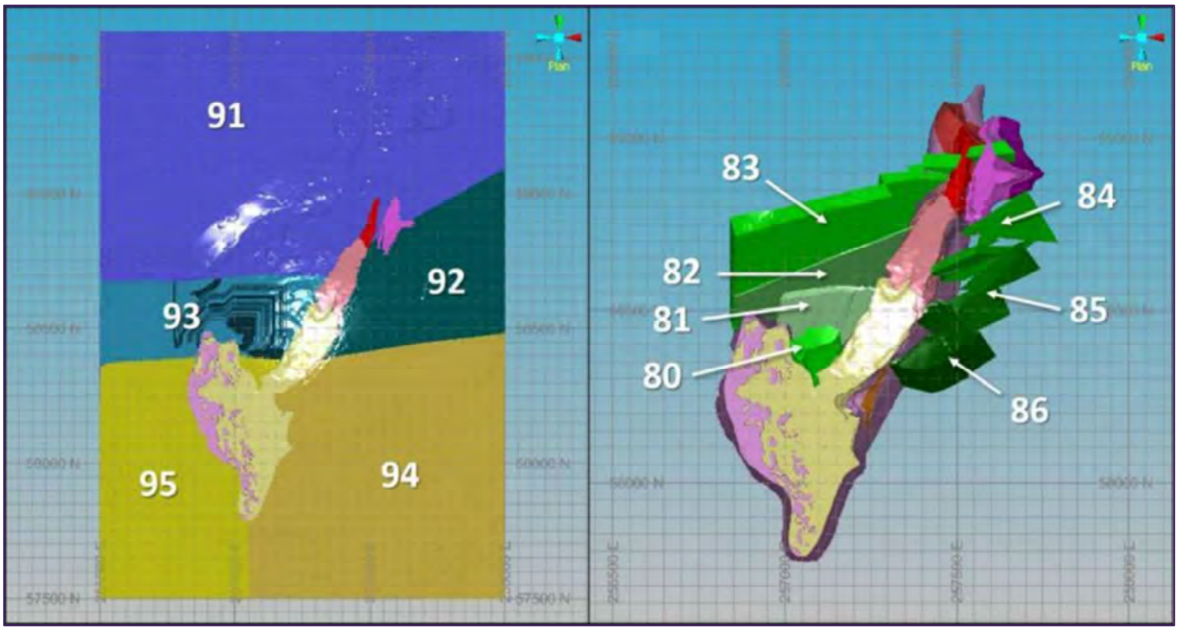


Figure 3.19 Plan views showing sedimentary (left) and mafic (right) lithology domains in relation to the Hemerdon Granite. Numbers refer to the domain ID. (Mining Plus, 2021a)

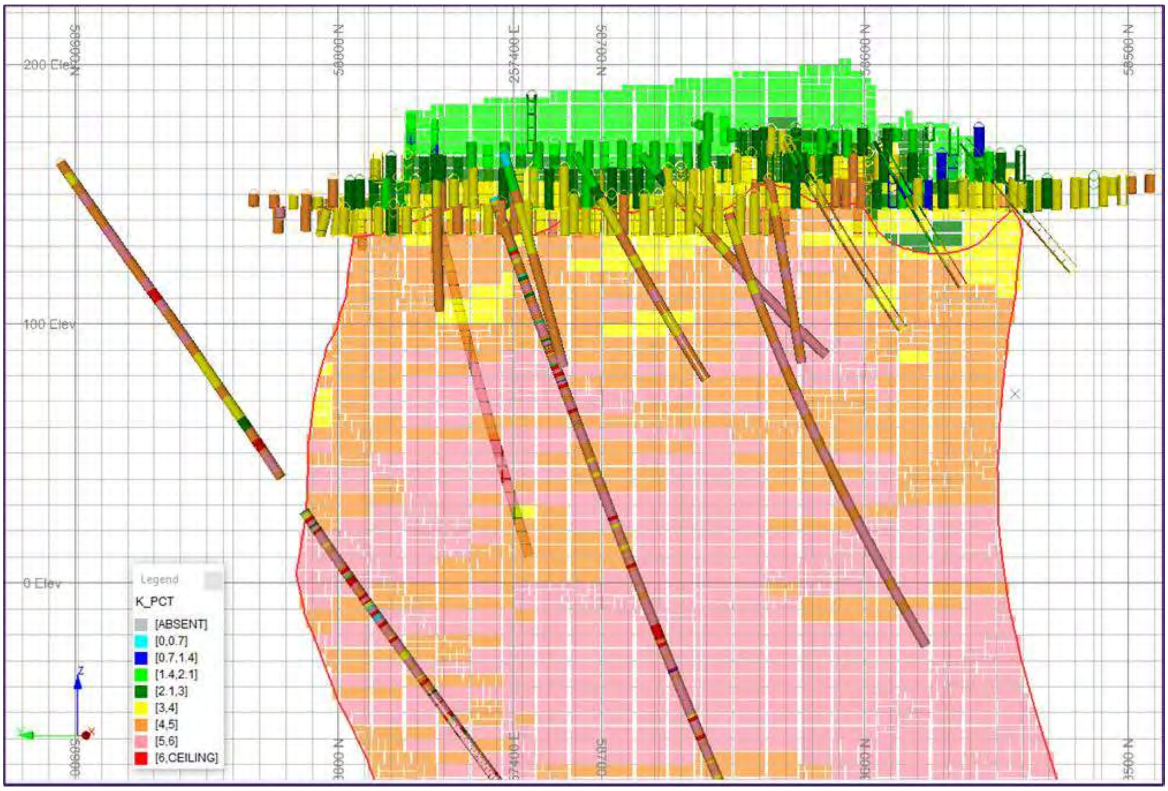


Kaolinization within the deposit is gradational transitioning from kaolinized to fresh. Understanding the degree of kaolinization has been historically important to the processing plant operations due to different particle size distribution (PSD) of fresh versus kaolinized material.

The distinction between fresh granite and kaolinized granite has historically been based on a visual assessment. However, this approach can be subjective and does not fully account for the more gradational transition from kaolinized to fresh. The current TWL kaolinized and fresh interface is based on using potassium (K%) assays as a proxy for the kaolinization process.

AMC has reviewed the use of K% assays as a proxy for the degree of kaolinization. The K% assays show a distinct bi-modal distribution. Using the inflection point at approximately 3% K, and reviewing the geological model there is a clear correspondence with the modelled kaolinization interface (Figure 3.20) which is largely supported by the geological logging.

Figure 3.20 Cross-section through Hemerdon Granite looking east, showing granite interface



Further sub-domaining of the deposit is based on two faults which cross-cut the deposit and are described in the Mining Plus Mineral Resource report (Mining Plus, 2021a) as:

- *"The F20 fault separates a zone of low WO_3 mineralization to its north with the remainder of the deposit to the south. To prevent samples either side of this domain influencing one another the areas of the G10 granite to the north were separated as domains 11 (fresh) and 13 (kaolinized).*
- *The F40 fault controls the Fe distribution in the deposit. This is not material for the purposes of this updated resource estimate as surrounding domains have largely been mined out."*

The location of the faults are shown in Figure 3.18 and Figure 3.21.

Figure 3.21 Plan view of current open-pit showing Faults F20 and F40

Source: TWL, 2021.

3.5.2.4 Conclusions

AMC believes that the geological interpretation is robust and based on direct observations in the form of drillhole logging and geological mapping. The geological interpretation is reasonable and suitable for use in a Mineral Resource estimate. The definition of the kaolinized and fresh interface using the K% assays is reasonable and is supported statistically and through drillhole logging.

AMC is of the opinion that whilst the geological controls on WO_3 mineralization is reasonably understood, the controls on Sn mineralization are less well-defined and therefore there is a lower level of confidence that can be placed in the interpretation and estimation of Sn mineralization. Whilst the Sn mineralization contributes to the project revenue, its overall contribution within the FS is limited, comprising approximately 7% of the combined WO_3 and Sn revenue.

3.5.2.5 Input data exploratory data analysis

A statistical analysis of the elements WO_3, Sn, and K, was undertaken by Mining Plus sub-divided into granite and Killas domains.

Based on the statistical review of the sample data by geological units, Mining Plus made the following observations:

- "*The WO_3 shows a single population with a low coefficient of variation (CV); the mineralisation grade distribution for both is more consistent in the granite, and more erratic in the Killas, reflecting the granite as the source of the mineralisation.*"
- "*The Sn shows two populations reflecting two different Sn events (as outlined in the geology section) the lower grade population associated with W mineralisation, the higher grade a later stage unrelated event.*"
- "*K distribution shows two populations in the granite, a result of kaolinisation in the upper portion of the intrusion and fresher granite at depth.*"

Mining Plus undertook additional statistical checks in relation to grade versus sampling method to ascertain whether there is any bias attributed to the methods, beyond the volume-variance previously discussed (Section 3.3.6).

Based on the statistical review Mining Plus state "*The authors consider this to be a good representation of the effect of sample size and type on the assayed grades*"**.** They go onto say "*This effect is also seen in the Sn grades. The effect is smaller where the distribution of the element of interest is less nuggety, and more disseminated*"**.**

AMC is of the opinion that the statistical observations made by Mining Plus in regard to the under-reporting of grades by DDH samples is correct, and further supported by the volume-variance works undertaken by TWL.

Sample assays below the analytical detection limits (e.g. 0.01% both for WO_3 and Sn) have been assigned grades of half the detection limit (e.g. 0.005% both for WO_3 and Sn). Any samples not assayed have been treated as absents and account for <1% of the total sample data.

To provide samples with equal levels of support Mining Plus has composited the sample data to 5 m (both for the granite and Killas domains) reflecting the modal sample length for drilling within the granite.

Through compositing, the mean grades for WO_3 and Sn in the granite increased, whilst the coefficient of variation (COV) was reduced. A summary of the composite statistics compared to the original pre-compositing statistics is provided in Table 3.7.

Table 3.7 Summary sample statistics before and after compositing (Mining Plus, 2021a)

Domain	Number of Samples		Mean Grade			Std Dev		COV	
	Raw	Composite	Raw	Composite	% Diff	Raw	Composite	Raw	Composite
ALL (WO_3)	32,626	22,378	0.14	0.16	14%	0.22	0.14	1.53	0.87
ALL (Sn)	32,626	21,759	0.03	0.04	33%	0.06	0.05	2.06	1.27
GRANITE (WO_3)	21,267	15,106	0.17	0.18	6%	0.24	0.14	1.39	0.78
KILLAS (WO_3)	10,406	7,269	0.10	0.10	0%	0.17	0.10	1.73	0.98
GRANITE (Sn)	20,586	14,560	0.03	0.04	33%	0.07	0.05	1.96	1.35
KILLAS (Sn)	10,288	7,193	0.03	0.03	0%	0.06	0.03	2.06	0.98
GRANITE (K)	11,139	10,355	3.81	3.42	-11%	1.33	1.17	0.35	0.34
KILLAS (K)	2,860	3,957	3.23	3.10	-4%	0.95	0.77	0.30	0.25

To prevent undue bias during grade estimation by high-grade outlier samples, Mining Plus reviewed the sample populations and applied the following grade caps to the calibrated assay grades following compositing:

- WO_3 granite: 1.44% WO_3
- WO_3 Killas: 0.59% WO_3
- Sn granite: 0.5% Sn
- Sn Killas: 0.3% Sn.

3.5.2.6 Geostatistical analysis

Variography was undertaken for WO_3, Sn, and K, on a domain basis to ascertain grade anisotropy and continuity. The variographic analysis was undertaken using Snowdon Supervisor™ software. The following was applied as part of the variography:

- Variography undertaken using Normal Scores with subsequent models back-transformed to standard variograms and set to Datamine Studio RM™ rotations.
- All variograms have been standardized to a sill of 1.
- Nugget effect has been modelled from the original downhole variogram.
- Variograms have all been modelled using two-structure nested spherical variograms.

For the purpose of the variography, Mining Plus opted to combine Domains 11-16 and 21-22 into a single variogram domain to provide sufficient sample data to inform the variogram models.

Mining Plus noted that for the granite domain horizontal variogram, the overall strike of the granite host exerted a bias, with anisotropy aligning to the strike of the granite.

Within the granite it has been established through visual observations both in the open pit, and from some of the drilling data that there is a sheeted-vein system. This sheeted-vein system plays a role in the distribution of WO_3 mineralization and therefore anisotropy and grade continuity. Based on this knowledge, Mining Plus selected variogram orientations for WO_3 that approximated the sheeted-vein set dip and dip directions.

Variography was also undertaken for the Killas-hosted mineralization. Variogram results for the Killas displays a higher nugget variance which Mining Plus has stated is due to the wider spacing of veins and lower drillhole density (Mining Plus, 2021a).

The broadly spaced data in the Killas and the tight grade distribution precluded separate variogram models being generated for the Killas.

Variography for potassium was only undertaken for the granite based on kaolinized and fresh domains. Domain 16 was excluded as this reflects a zone of hydrothermal kaolinization at depth. The remaining kaolinized and fresh granite domains were combined. The Killas was also excluded as kaolinization does not affect the Killas units.

3.5.2.7 Volumetric model

A kriging neighbourhood analysis (KNA) was undertaken in Snowdon Supervisor™ based on the WO_3 granite variogram models. The KNA process is used to enable an assessment to be made of suitable block sizes, as well as aid in defining suitable grade estimation search ellipse sizes, numbers of samples, and discretization.

Based on the KNA results, and the density of grade control drilling in the upper part of the deposit, Mining Plus opted to use a model parent cell size of 12.5 m (X) by 12.5 m (Y) by 5 m (Z). Sub-celling was permitted to enable improved definition at lithological boundaries, topographic surfaces, and the kaolinization interface. A minimum sub-cell size of 2.5 m (X) by 2.5 m (Y) by 2.5 m (Z) was used.

3.5.2.8 Estimation parameters and grade estimates

Grade estimates for WO_3, Sn, and K were undertaken using Ordinary Kriging (OK) as the primary estimation method. Inverse Distance Weighting Squared (IDW^2) was used to estimate K grades in Domain 16 (deeper hydrothermal kaolinized area) due to the limited number of samples, as well as a check for the WO_3 and Sn estimates.

Estimates were undertaken for both the volume-variance calibration adjusted WO_3 assays (WO_3_OKC) as well as the uncalibrated assays (WO_3_OK).

Grades were estimated into parent cells, with sub-cells being assigned the same grade as their parent cell. Estimates were carried out on a domain basis with each domain being estimated separately. Grade estimates were run in three passes, with each pass using successively larger search radii to encompass those blocks not estimated in previous passes. Any blocks remaining un-estimated after the three passes were assigned a null grade.

An additional estimate of the WO_3 calibration flag field within the sample data was undertaken using the same estimation parameters as used for the WO_3 grade estimates. By estimating the calibration flag field, it was therefore possible to ascertain the percentage contribution of volume-variance calibrated data to a given block in the model.

Following the estimation of grades, a cap was applied to those blocks in the model where the WO_3_OKC (calibrated) estimates are ±25% in relation to the WO_3_OK (uncalibrated) estimates. This was adopted to prevent any drastic over- or under-estimation of cell (Mining Plus, 2021a). The final estimated WO_3 calibrated grade following capping is referred to in the block model as WO_3_PREF.

TWL carried out a comparison of the calibrated WO_3 grade estimates, both for uncapped (WO_3_OKC) and capped (WO_3_PREF) against the uncalibrated WO_3 estimates (WO_3_OK). The comparison shows that the mean grade for the in-pit granite mineralization increases from 0.17% WO_3 for the uncalibrated estimates to 0.18% WO_3 for the calibrated estimates. Mining Plus state that "*the mined to date values produced by estimation in the block model (0.20% WO_3) are consistent with the production values provided by the Wolf Minerals' milling operations, which provides confidence in reconciliation of this approach*".

In addition to the main elements of interest, Mining Plus also carried out grade estimates for arsenic (As) and iron (Fe) which were previously used by Wolf to discern ore quality.

Density values have been assigned to the block model using the density measurements described in Section 3.4.5.

To ensure the grade estimates are a fair representation of the sample data on which they are based, a series of validation checks were undertaken including:

- Wireframe versus block model volumes.
- A visual comparison of block grade estimates and the input drillhole data.
- A global comparison of the average composite and estimated block grades.
- Comparison between estimation techniques (OK and IDW^2).
- Moving window averages (swathes) comparing the mean block grades to the composites.
- Comparison of the estimated model with the previous 2019 Mining Plus block model.

3.5.2.9 Depletion

The Mineral Resource block model has been depleted based on the most-recent April 2019 drone survey and modelled underground workings associated with the AMAX bulk sampling and pilot milling operation. No mining activity has taken place since April 2019.

3.5.2.10 Mineral Resource classification

Mineral Resources have been classified by Mining Plus considering sample spacing, the influence of DDH and AMAX RC assays which have been calibrated for the volume-variance effect, variance between calibrated and uncalibrated estimates, and estimation efficiency.

Mineral Resources for the granite portion of the deposit have been classified in accordance with the JORC Code (2012) based on the following criteria:

- *Measured:* Populated using the first pass of the search ellipse (95 m by 32.5 m by 19 m for major, semi-major and minor axes) for WO_3, Sn and K. Contained within the RC domain utilized for drillhole calibration and have a nominal drill spacing of 25 m by 25 m.
- *Indicated:* Blocks that are contained within the RC domain utilized for drillhole calibration and have a nominal drill spacing of 50 m x 50 m.
- *Inferred:* Blocks populated using the first (but do not form a contiguous shape) or second pass of the search ellipse for WO_3.

Mineral Resources for the Killas portion of the deposit have been classified in accordance with the JORC Code (2012) based on the following criteria.

- *Measured*: Populated in the first pass of the search ellipse for WO_3, contained within the RC/PERC domain used for drillhole calibration and have been grade control drilled (c. 10 m by 10 m drill spacing).
- *Indicated*: Populated in the first pass of the search ellipse for WO_3 and contained within the RC/PERC domain used for drillhole calibration.
- *Inferred*: Populated in the first pass of the search ellipse for WO_3.

Mineral Resource classifications have been assigned based on the WO_3 grade estimates, given this is the primary commodity to be produced. Separate classifications for Sn have not been applied, therefore the same Mineral Resource classifications as used for the WO_3 estimates have been applied to Sn.

3.5.2.11 Reasonable prospects for eventual economic extraction

A WO_3 equivalent (WO_3 EQ) grade field has been assigned to each block in the model based on the following formula:

WO_3 EQ = (Sn*0.424)+WO_3

The formula is derived based on the WO_3 metal equivalent parameters detailed in Table 3.8.

Table 3.8 Hemerdon WO_3 metal equivalent parameters

	Price (USD/t)	Recovery (%)	Payable (%)	Recoverable Price (USD/t)	Payable Price (USD/t)	Ratio
WO_3	50,000[a]	60	78	29,995	23,396	1.000
Sn	25,000	44	90	11,013	9,911	0.424

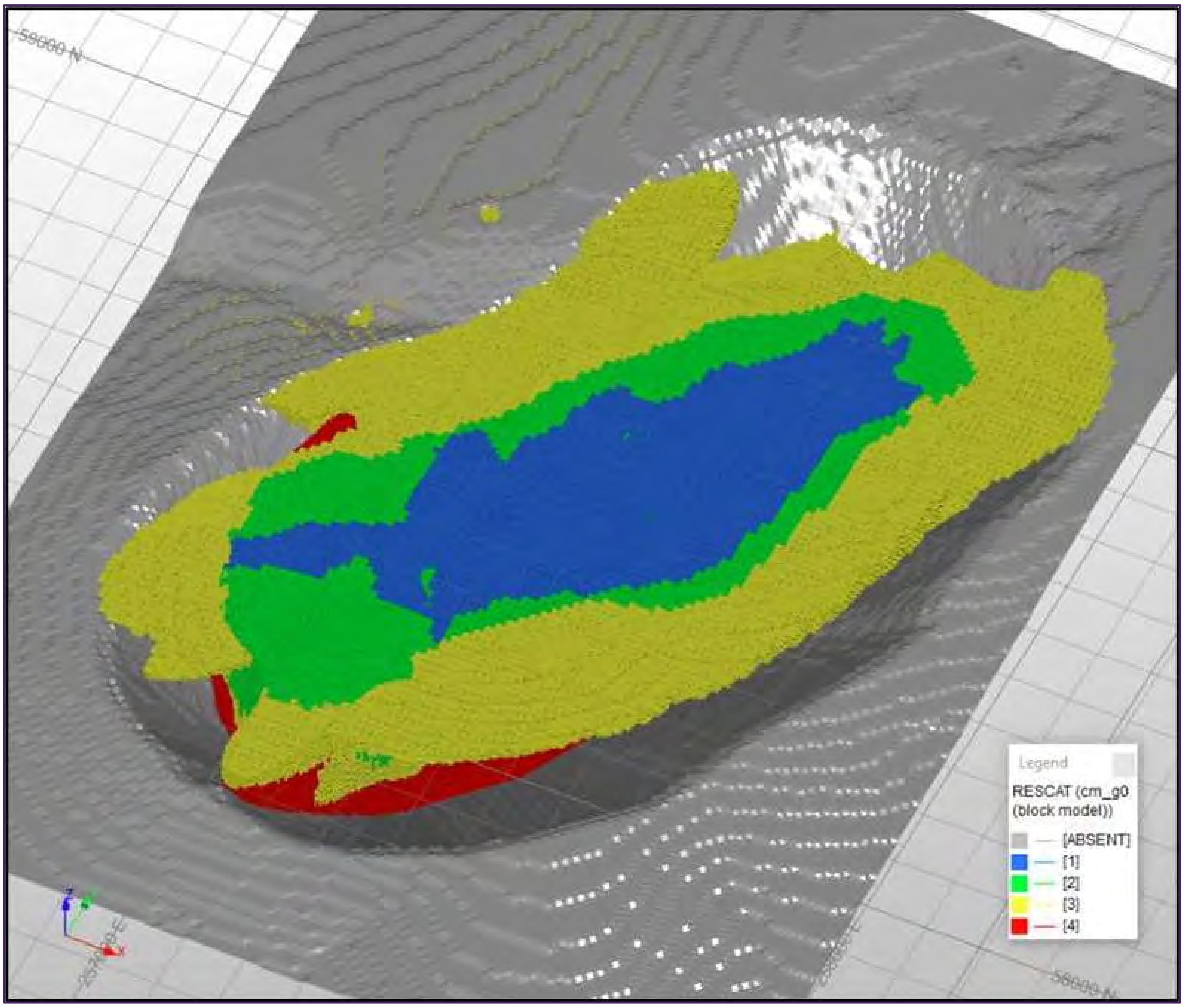
[a] 1 tonne=100 MTU providing an mtu price of USD500 mtu.

The use of a WO_3 metal equivalent has enabled TWL to factor-in potential revenue generation attributed to Sn content.

Mining Plus has reported the Mineral Resources in their entirety at a cut-off grade of 0.065% WO_3Eq for the granite and 0.079% WO_3Eq for the Killas. Mining Plus ran a separate pit optimization to support the reporting of the Mineral Resources in their entirety. The pit optimization uses an ammonium paratungstate (APT) price of USD500/mtu based on historical pricing peaks. The quantity of the Mineral Resources falling within the pit optimization comprises 100% of the Measured Resource, 99.8% of the Indicated Resource, and 91% of the Inferred Resource.

Figure 3.22 shows an isometric view of the Mineral Resource in relation to the pit optimization.

Figure 3.22 Isometric view of the USD500/mtu pit shell from NPVS showing the Hemerdon Mineral Resource by resource category: (Measured (blue), Indicated (green) and Inferred (yellow), exploration potential (red). (Mining Plus, 2021a)



The majority of the Mineral Resources fall within the current mineral leases. An exception is at the northern end of the deposit where a small portion of the Mineral Resource falls under surface and mineral leases outside of TWL's land and mineral holding. The quantity of Mineral Resources falling outside of the current mineral leases amounts to <1% of the combined Measured and Indicated resources, and <2% of the Inferred Mineral Resources. The impact on the overall Mineral Resource numbers is therefore limited.

Given the landowner has previously granted mineral leases to the Hemerdon project and noting the relatively small volume of Mineral Resources in this area which is not scheduled to be mined until Year 7 of the mine plan, there are reasonable prospects for the landowner to grant access permission and this area to be eventually extracted. Further work and engagement with the landowner will be required in the interim to secure the necessary mineral lease.

3.5.2.12 Stockpiles

During the Wolf operation (2015 to 2018) a number of stockpiles were generated containing ore, higher Fe material, and stockpile materials produced from the crushing and ore sorting stages of the MPF.

Stockpile balances were tracked by Wolf. A total of 25 stockpiles have been reported, of which two stockpiles corresponding to screened material for the ore sorting operation lacked accounting data. HGSL subsequently had the two stockpiles surveyed by the contractor, 4DCES, to estimate volumes. To provide a tonnage for these two dumps they were assigned a density for hard granite of 2.45 t/m^3 and a swell factor of 20%. Grades were taken from the parent "Cat 6" stockpile which was the material being screened to generate the stockpiles (TWL, March 2021).

Stockpile balances have been included in the Mineral Resource estimate and includes tonnages and grades related to the LIMS bags (i.e. Low Intensity Magnetic Separation: These are a tailing product from that part of the refinery process) and FeSi-CAT 3 Stockpile (Ferrosilicon). AMC understands that prior to closure, Wolf initiated reprocessing of the ferrosilicon material, which TWL proposes to continue.

A summary of the Hemerdon stockpile inventories as of 07 December 2020 is provided in Table 3.9.

Table 3.9 Hemerdon stockpile inventories as of 07 December 2020 (TWL, March 2021)

Hemerdon Mine Stockpiles as of 07/12/2020					
Stockpile	**Tonnes (t)**	**SG (t/m^3)**	**Volume (m^3)**	**WO_3%**	**Sn%**
Cat 1 (ROM)	37,076	2.36	15,685	0.22%	0.05%
Cat 2 (ROM)	52,452	2.29	22,929	0.21%	0.04%
Cat 3 (ROM)	14,132	2.37	5,970	0.16%	0.04%
Sorter Ejects ROM	1,352	2.65	510	0.57%	0.15%
ROM Skyway	72,335	1.85	39,100	0.20%	0.05%
Cat 4 ROM Pad Base	14,252	1.85	7,704	0.15%	0.04%
Cat 5 ROM Pad Base	62,533	1.8	34,740	0.17%	0.05%
Cat 4 (North SP)	53,699	1.78	30,168	0.10%	0.07%
Cat 5 (North SP)	181,217	1.7	106,598	0.16%	0.07%
Cat 4 (D4)	117,818	1.73	68,103	0.17%	0.04%
Cat 5 (D4)	169,828	1.82	93,475	0.19%	0.04%
Cat 6 (D3)	65,243	2.36	27,589	0.20%	0.06%
Fines S/P at D3 Ore Sorter	8,278	2.35	3,519	0.20%	0.06%
S3 Stockpile 1 Killas Eject	92	2.16	53	0.48%	0.03%
S3 Stockpile 2 N155_G10-2	463	2.44	238	0.17%	0.03%
S3 Stockpile 3 N155_G10-2	1,455	2.44	746	0.17%	0.03%
S3 Stockpile 4 Q180_G10-2	1,320	2.15	767	0.23%	0.03%
S3 Stockpile 5 N155_G10-2	1,448	2.44	743	0.17%	0.03%
S3 Stockpile 6 Crusher Ramp	1,807	2.45	1,053	0.19%	0.03%
S3 Stockpile 6A Crusher Ramp	1,225	2.45	714	0.19%	0.03%
S3 Oversize Pile	2,001	2.45	1,167	0.20%	0.04%
20-40mm crushed Granite (D3)	6,532	2.45	3,333	0.20%	0.06%

Hemerdon Mine Stockpiles as of 07/12/2020					
Stockpile	**Tonnes (t)**	**SG (t/m³)**	**Volume (m³)**	**WO_3%**	**Sn%**
40-80mm crushed granite (D3)	5,850	2.45	2,985	0.20%	0.06%
LIMS Bags	2,253	5.15	438	8.38%	0.78%
FeSi-CAT 3 Stockpile	6,584	2	3,292	1.08%	0.37%
All Stockpiles	***881,245***	***1.91***	***471,620***	***0.21%***	***0.05%***

Since the reporting of the stockpile Mineral Resources in December 2020, part of the CAT 6 (D3), 20-40 mm crushed granite (D3) and 40-80 mm crushed granite (D3) stockpiles have been sold as aggregate. The quantity sold amounts to 8,688 t which is approximately 1% of the total stockpile balance.

3.5.2.13 Mineral Resource Statement

The Hemerdon Mineral Resources have been classified as Measured, Indicated, and Inferred in accordance with the JORC Code (2012). Mineral Resources include the in-situ granite and Killas-hosted mineralization, as well as stockpiles available as of 07 December 2020.

Mineral Resources for the granite-hosted mineralization are based on a cut-off grade of 0.065% WO_3Eq whilst Mineral Resources for the Killas are reported at a cut-off grade of 0.079% WO_3Eq. Stockpiles have been reported in their entirety.

The selection of the WO_3Eq cut-off grades are based on the parameters in Table 3.10.

Table 3.10 Hemerdon breakeven cut-off grade parameters (Mining Plus, 2021a)

Parameter		Value
WO_3 mtu Price Exchange rate Payability Royalty Transport Cost Net Metal value	USD500.00	USD500.00
	1.33	1.33
	78.00%	78.00%
	[2.25%]	[2.25%]
	USD202.00	USD202.00
	GBP286	GBP286
Granite WO_3 Recovery % Killas WO_3 Recovery %	60.00%	60.00%
	44.70%	44.70%
Granite Ore (GBP/t) Killas Ore (GBP/t)	GBP1.70	GBP1.70
	GBP1.54	GBP1.54
Granite (GBP/t) Killas (GBP/t)	GBP7.13	GBP7.13
	GBP7.72	GBP7.72
Granite (GBP/t) Killas (GBP/t)	GBP2.36	GBP2.36
	GBP0.86	GBP0.86
Granite (GBP/t) Killas (GBP/t)	GBP11.19	GBP11.19
	GBP10.11	GBP10.11
Granite BE COG Killas BE COG	0.065	0.065
	0.079	0.079

The effective date of the Mineral Resources is 07 December 2020.

The Competent Person for the in situ Mineral Resources and stockpiles is Mr James McFarlane, BSc (Hons), MSc, MCSM, FGS, MIMMM, MIQ, MAIG. Mr McFarlane is a full-time employee of TWL and has acted as the Competent Person (CP) on the Hemerdon deposit Mineral Resource estimation. A summary table of the Mineral Resources for the Hemerdon deposit is provided in Table 3.11.

Table 3.11 Hemerdon Mineral Resources as at 07 December 2020 (*After*: Mining Plus, 2021a)

Domain	Cut-off grade ($WO_3EQ\%$)	Measured						Indicated						Measured & Indicated						Inferred					
		Tonnes (Mt)	WO_3 (%)	Sn (%)	WO_3 EQ (%)	WO_3 Metal (MTU)	Sn Metal (Kt)	Tonnes (Mt)	WO_3 (%)	Sn (%)	WO_3 EQ (%)	WO_3 Metal (MTU)	Sn Metal (Kt)	Tonnes (Mt)	WO_3 (%)	Sn (%)	WO_3 EQ (%)	WO_3 Metal (MTU)	Sn Metal (Kt)	Tonnes (Mt)	WO_3 (%)	Sn (%)	WO_3 EQ (%)	WO_3 Metal (MTU)	Sn Metal (Kt)
Granite	0.065	33.7	0.18	0.03	0.19	5,911,298	10.8	84.2	0.15	0.02	0.16	12,509,573	19.3	117.9	0.16	0.03	0.17	18,420,871	30.1	41.3	0.11	0.02	0.12	4,517,272	9.9
Killas	0.079	7.9	0.12	0.04	0.13	932,557	2.8	39.4	0.10	0.03	0.12	4,101,280	12.5	47.4	0.11	0.03	0.12	5,033,837	15.2	117.4	0.10	0.03	0.11	11,832,440	32.7
Granite stockpiles	N/A	0.9	0.21	0.05	0.23	181,660	0.5	-	-	-	-	-	-	0.9	0.21	0.05	0.23	181,660	0.5	-	-	-	-	-	-
Total		42.50	0.17	0.03	0.18	7,025,514	14.1	123.6	0.13	0.03	0.15	16,610,853	31.8	166.1	0.14	0.03	0.15	23,636,368	45.8	158.7	0.10	0.03	0.11	16,349,712	42.7

3.5.2.14 Conclusions

AMC is of the opinion that the grade estimates for WO_3 within the granite domain are reasonable. The large initial search ellipse used in the Mining Plus grade estimates does introduce a number of negative weights (0.4% of the samples used in the grade estimate) which might have an impact on the local grade estimates. To further check the implications of the negative weights, AMC ran a separate grade estimation check. AMC used an initial search ellipse of 20 m by 15 m by 12 m (along-strike, down-dip, and across-strike). The resultant grade estimates show the number of samples with negative weights to have reduced from 7,422 to 10, with the average grades in the estimates remaining comparable to the TWL estimates. This result indicates that for the overall Mineral Resource estimate the negative weights have had a minimal impact.

AMC has carried out a series of visual and statistical validation checks on the Mineral Resource block model, comparing the grade estimates against the sample data on which they are based. The validation checks show that the WO_3 grade estimates are a fair representation of the sample data on which they are based.

As with the WO_3 estimates, the Sn estimates statistically show a reasonable correlation between the average grades once the sample composites have been declustered. Whilst the visual validation checks of the WO_3 estimates shows a reasonable correlation between the estimates and the sample composites, AMC notes that for the Sn estimates there are areas with some grade smearing. Compared to the distribution of WO_3, the distribution of Sn appears to be more discrete. The more-limited investigations into the Sn mineralization means the controls and distribution is less well-defined and requires more investigative work. Whilst the Sn mineralization contributes to the project revenue its overall contribution within the FS is limited, comprising approximately 7% of the combined WO_3 and Sn revenue.

The classifications assigned to the granite Mineral Resources appear reasonable and account for geological and grade continuity as well as confidence in the sample data. Areas classed as Measured and Indicated are well-informed with drilling data. These areas include a reasonable number of RC holes, which limits the amount of calibrated DDH samples used in the estimates. Areas classed as Inferred are typically at the periphery and at depth and are more informed by DDH samples and therefore the sample calibrations have a greater impact.

The classifications for WO_3 in the Killas appear reasonable with tight constraints applied to the classification of Measured and Indicated mineralization. By applying tighter constraints to the Killas, Mining Plus has considered the more-limited drilling in these areas, and the reduced level of understanding in grade continuity.

Mineral Resources have been assigned based on the WO_3 grade estimates, given this is the primary commodity to be produced. Separate classifications for Sn have not been applied, therefore the same Mineral Resource classifications as used for the WO_3 estimates have been applied to Sn.

The WO_3 APT price of USD500/mtu represents an uplifted price relative to the upper price forecasts provided in the Roskill data held by TWL in 2020. Previously in 2011-2012 WO_3 APT prices achieved a low price of USD460/mtu and highs of USD485/mtu. AMC is of the opinion that the WO_3 APT price used for demonstrating reasonable prospects for eventual economic extraction represents a price that exceeds previously achieved prices. There is the potential that the WO_3 APT price of USD500/mtu may not be achieved, therefore limiting the proportion of Mineral Resources that could potentially be converted to Ore Reserves.

3.6 MWF Mineral Resources

3.6.1 Introduction

Although not forming part of the mine plan, TWL has undertaken a Mineral Resource estimation for the MWF. During the course of the previous mine operation by Wolf (2015-2018) there were metal recovery inefficiencies noted within the process plant that resulted in losses of WO_3 and

Sn to the MWF. The main losses were related to over generation of WO_3 fine material as a result of the utilization of an attrition scrubber early in the process flowsheet, which resulted in unanticipated autogenous grinding of the friable ferberite ore mineral.

Recognizing the losses to the MWF, TWL undertook a programme to evaluate the potential of the MWF to be reprocessed to recover additional WO_3 and Sn. Works included bathymetric surveys of the MWF, sampling, and metallurgical testwork.

The results of the testwork culminated in the estimation of a Mineral Resource for the MWF.

3.6.1.1 MWF material accounting

Material being sent to the MWF post-processing was inventoried by Wolf through process plant stream sampling and the maintenance of metallurgical accounting records. In addition, feed grade to the processing plant was estimated and recorded through grade control sampling.

3.6.1.2 MWF bathymetric surveys

A total of six bathymetric surveys have been conducted over the MWF with the first survey commencing on 26 September 2015, and the last survey was conducted on 11 March 2019 after the cessation of mining and processing operations. Each accumulation of MWF material between surveys has been treated as a separate domain with the applicable metal accounting for that period assigned to it.

The surveying system was a SonarMite Single Beam Sonar that was mounted on a Hydrone USV as shown in Figure 3.23. The USV was controlled from the shore by a remote-control unit. The survey depth limit is 0.3 m to 75 m, which is a software limitation. The accuracy of the measurements is ±0.025 m (RMS) (Mining Plus, 2021b).

Figure 3.23 Photograph of the Hydrone USV used at Hemerdon MWF for bathymetric surveying (Mining Plus, 2021b)

Spatial positioning of the bathymetric measurements was undertaken using a Trimble R10 GPS mounted onto the Hydrone USV and referenced to the Hemerdon 4DCES Trimble Base Station. Survey lines were run on 10 m to 15 m spacing.

Information recorded by the survey comprised spatial position and depth and was tied in with aerial drone surveys. The use of the aerial drone surveys provided survey measurements for those parts of the MWF that were above water and for which the Hydrone USV could not reach.

Figure 3.24 shows a cross-section through the MWF at a 3x vertical exaggeration showing the respective survey levels. A plan view of the MWF survey development over the six surveys is shown in Figure 3.25.

Figure 3.24 Vertical east-west section through the MWF with annotated survey dates, domains, and volumes; 3x vertical exaggeration. (Mining Plus, 2021b)

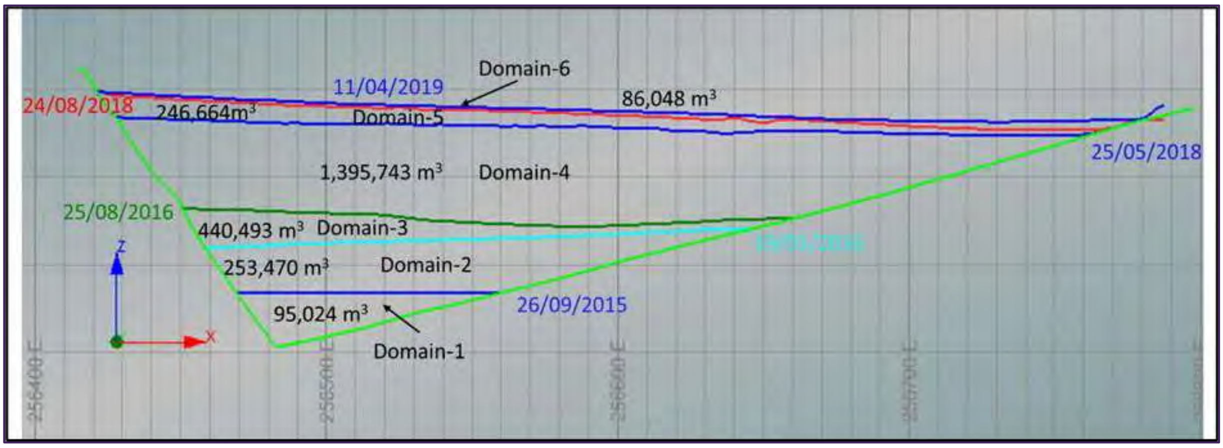
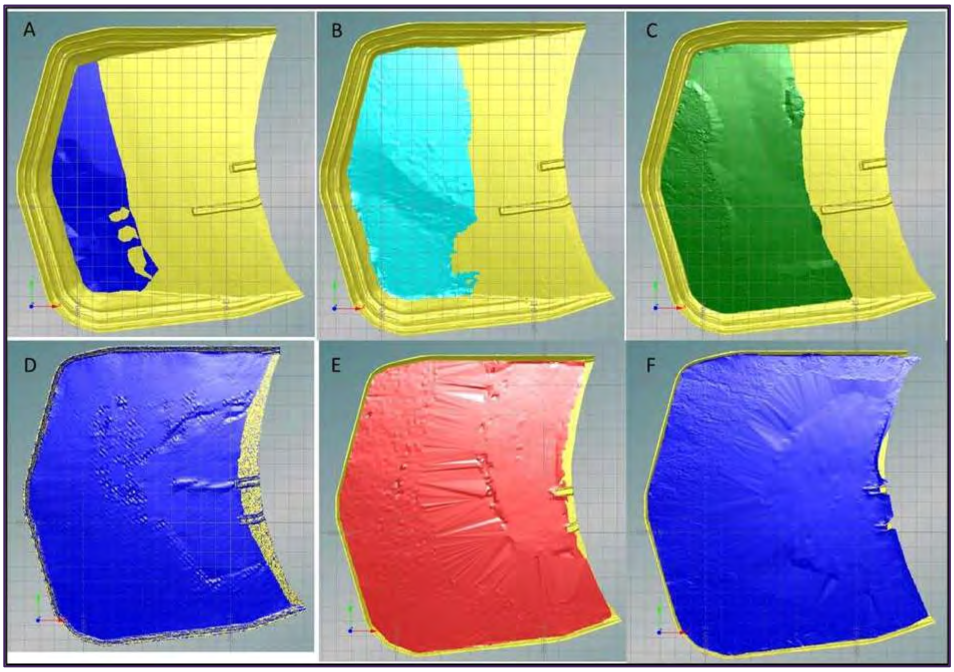


Figure 3.25 Modelled surfaces from bathymetric surveys: A: 26/09/2015; B: 19/01/2016; C:25/08/2016; D:25/05/2018; E: 24/08/2018, F:11/04/2019. (Mining Plus, 2021b)



3.6.1.3 Processing plant data

During the course of the Wolf operation the MPF maintained metallurgical accounting data detailing material coming into and out of the plant (tonnage and grade), with information recorded daily and monthly.

The Wolf MPF operated 60 different sampling points throughout the plant. Sampling data, including SG, moisture, sizing, assays, and magnetics was recorded. At each sample point five samples were taken per shift using auto samplers, with the collated buckets of sample material sent to the laboratory at the end of each shift.

Process plant samples were prepared and analysed at the SGS Plymouth laboratory based on the mine site, following documented standard operating procedures (SOPs). SGS would only accept samples of less than 5 kg in mass. If samples exceeded this mass, splitting was conducted to reduce the mass (Mining Plus, 2021b).

Wolf maintained a detailed QA/QC programme to assess the accuracy and precision of samples being processed at the SGS laboratory. As part of the previous 2019 Hemerdon Mineral Resource estimate, Mining Plus reviewed the available QA/QC data for both WO_3 and Sn. The review data included:

- Coarse blank performance.
- Fine blank performance.
- Coarse Duplicate performance.
- Pulp Duplicate performance.
- Field Duplicate Performance.
- CRM Performance across the range of ore grades.

Mining Plus states that "*In all cases the results conformed directly to Wolf's own control charts and no performance issues were identified. It is Mining Plus's opinion that the management of QA/QC was to international standards of best practice.*" (Mining Plus, 2021b).

3.6.1.4 MWF grade and tonnage estimates

The Wolf metallurgical accounting has been used in conjunction with the bathymetric and aerial surveys to estimate tonnages and grades for each of the six domains in the MWF.

The metallurgical accounts were aggregated by TWL on a monthly basis and prorated using the daily data to align with the bathymetric and aerial survey periods. The aggregated tonnages, and weighted average grades between the survey periods were then allocated to the respective survey domain. Density for each domain has been estimated based on the surveyed volume and the measured tailings tonnage from the metallurgical accounts. Mining Plus has independently reviewed the metallurgical account data and concluded "*MP is confident that the values calculated are a reasonable estimate of the tonnages and grades of materials that entered the MWF based on the metallurgical accounting data presented.*" (Mining Plus, 2021b).

A volumetric block model was constructed in Datamine Studio RM™ representing the volumetric surveys, average grades for each domain based on the metallurgical accounting and density values based on the metallurgical accounting tonnages and survey volumes. The block model constitutes the 3D Mineral Resource estimate for the MWF.

3.6.1.5 MWF metallurgical testwork

To provide support as to the viability of recovering WO_3 and Sn from the MWF, TWL commissioned Grinding Solutions to undertake some limited metallurgical testwork in 2019. Further metallurgical testwork was undertaken by SGS in 2020.

3.6.1.6 Grinding Solutions testwork 2019

Due to the water level in the MWF, access for a bulk metallurgical sample was limited to the periphery of the MWF. A 400 kg sample termed E1 was taken using a Volvo EC290CL backhoe from the MWF. The sample was assessed for:

- Head characterization:
  - Sizing and particle size analysis.
  - Head grade assays.
- Gravity separation.
- Magnetic separation.

The 400 kg bulk sample was initially split into 15 buckets, following which two buckets were randomly selected and recombined for further testwork.

Separation of size fractions was conducted using Endecott screens on a vibrating sieve shaker. For sample material <45 µm a Warman cyclosizer was used to separate out size fractions.

Assays of the MWF material was performed using a pXRF as well as using ICP-OES at Wheal Jane Laboratories in Baldhu, UK. The ICP-OES analyses were conducted on a suite of high, medium, and low-grade samples as determined by pXRF. These analyses were to verify the accuracy of the pXRF results. Correlations between the two assay methods was good for both WO_3 and Sn with R2 values greater than 0.9 (Mining Plus, 2021b).

Based on the testwork Grinding Solutions concluded:

"Overall, both WO_3 and Sn show good promise for recovery by gravity in the -250+45 µm fraction. Mass pulls to final concentrate were high, up to 59% for individual fractions, though given the weighting towards the coarse end the overall mass pull to concentrate for the reconstituted sample was only 6.0%. This value may be reduced further by removing the +1000 µm fraction on the assumption that this is misplaced DMS tailings (i.e. very low grade)." (Grinding Solutions, 2019).

Magnetic separation tests were undertaken using hand magnets with varying strengths of 1,500 Gs, 7,500 Gs and 10,000 Gs. Based on the magnetic testwork, Grinding Solutions concluded:

"*On the whole, magnetic separation is considered to have performed better than gravity separation, especially when comparing the high field strength (10,000Gs) and equivalent gravity separation concentrate. This should be viewed in the perspective that the magnetic separation was a very rudimentary/superficial separation by hand magnet and that further improvement in performance may be possible. There also appears to be a good degree of synergy between magnetic separation and gravity separation, with the former working better on the <125µm size range and the latter supplementing performance in the >125µm."* (Grinding Solutions, 2019).

Additional observations for both WO_3 and Sn made by Grinding Solutions (Grinding Solutions, 2019) includes:

"The fact that both magnetic and gravity separation show poor performance in the +500µm fraction suggests there is a liberation issue in this size range".

"Poor performance by both techniques in the <20 µm fraction is attributed to the difficulty for physical separation methods to achieve good performance on this size fraction in general. It is recommended that enhanced gravity separation is considered to improve performance on this size fraction. The only other remaining option for this fraction would be flotation, ideally after a very fine de-slime (suggested 1 – 2µm) by hydrocyclone or centrifuge. It should be noted that wolframite flotation is not practised industrially outside China".

In relation to the recovery of Sn mineralization from the MWF, Grinding Solutions noted improved recoveries of Sn associated with gravity separation compared to the magnetic separation owing to the Sn being non-magnetic.

Further testwork was undertaken using a combined gravity and magnetic testwork scheme which resulted in an extra 1.8% to 9.3% recovery of WO_3 and 11.8% to 41.9% for Sn recoveries.

3.6.1.7 SGS metallurgical testwork 2020

In July 2020, ten shallow pit samples were taken from the southern periphery of the MWF, and a further three deeper samples of the MWF. All samples were sent to SGS Lakefield, Ontario, Canada for testing. Samples have been taken from Domains 5 and 6 of the MWF.

The samples were logged by TWL Geologists and assayed using pXRF. Twin samples, pulp duplicates, and coarse duplicates were also assayed using pXRF to check precision and repeatability.

As part of a verification of the Mineral Resource block model, TWL carried out a comparison between the pXRF sample grades and the Mineral Resource block model.

The results of the comparison indicate that Domain 5, samples in that part of the MWF report higher grades than estimated in the block model. Results for Domain 6 show the samples have a broader variability, and that the block model estimate is approximately at the mean of the sample grades.

Testwork conducted by SGS Lakefield included head feed characterization and bench-scale magnetic separation of a 250 g sample. Head grade assays are reported as being 0.21% WO_3 and 0.06% Sn. The bench-scale testwork used a SLON-100 laboratory-scale Vertically Pulsating High Gradient Magnetic Separator.

In the tests conducted by SGS, 2 mm and 3 mm rods were used that recover largest particles of 1.2 mm and 1.5 mm respectively (Mining Plus, 2021b).

SGS concluded that the 2 mm rod matrix resulted in improved recoveries of W at 59.3% to 62.4% at a slightly lower grade of 2.12% to 2.67% WO_3 compared to the Grinding Solution results.

3.6.1.8 MWF density

Density for the MWF has been estimated by TWL based on the total tonnage of material reported in the metallurgical accounting as having been deposited on the MWF, and the total MWF based on the April 2019 survey. The resultant estimated average density of 1.32 t/m^3 has been applied to the Mineral Resource block model. The calculated density was checked with SLR and Knight Piésold to ascertain that the value falls within their expected range.

3.6.1.9 Prospects for eventual economic extraction

In order for the MWF to be considered as a Mineral Resource, there is a requirement for it to demonstrate reasonable prospects for eventual economic extraction. Mining Plus has taken into account the economic viability of the MWF considering not only the economic potential of the contained WO_3 and Sn, but also the saleability of the MWF material as an aggregate sand.

In December 2020, Touchstone Geological Services Ltd (Touchstone) supplied TWL with a statement pertaining to the suitability of the MWF tailings to be used as a resource for construction aggregate (Bailey, E, 2020). Within the statement Touchstone considered the work undertaken by Duo Plc to investigate the nature and processability of the tungsten waste streams for certification and use as construction aggregate material.

Bailey (2020) states that "*Duo Plc in turn have undertaken representative long-reach excavations of the MWF tailings and have processed the materials using hydro-cyclones to create a 0/4 mm and a 0/2 mm product. These products have subsequently been analysed for particle size distribution by ACS Ltd, an independent UKAS accredited materials laboratory, and demonstrates compliance with BS EN 0/2(FP) and 0/1(FP) as well as 0/4(CP) for concrete sands*".

Based on the testwork by Duo Plc, there is evidence to support the potential sale of the MWF material as an aggregate sand.

Mining Plus (Mining Plus 2021b) states that:

"*For the MWF to be classified as an Inferred Mineral Resource for its WO_3 and Sn content the additional costs (capital and operating) post extraction by dredging, for the extraction of ferberite and cassiterite as a marketable product would need to be considered. Preliminary estimation of the cost of such systems are low, possibly in the region of £0.50 per metric tonne for this circuit, based on estimates prepared for TWL by Wardell-Armstrong. Thus, if a recovery of 60% was achieved (excluding the difficult slime-hosted WO_3 below 20 µm) and justified by the bench test results achieved by SGS using the SLon-100 Vertically Pulsating High Gradient Magnetic Separator, a profit would be generated from this stream of processing which would then be in addition to revenues generated by the sand operation. In this regard Mining Plus have performed a simple cost-revenue calculation in* [Table 3.12] *based on (60%) recoverable WO_3 MTUs, an ammonium paratungstate (APT) price of USD300/MTU (the price on 14 December 2020 was USD222.50/MTU), and an incremental processing cost of £0.50 per tonne for the recovery of WO_3 and Sn for tailings re-processing. The positive result provides a reasonable expectation that this material can be profitably recovered at some point in the future and is sufficient for the MWF to be declared an Inferred Mineral Resource.*"

Table 3.12 Simple profit calculation for domains of the MWF based on preliminary processing costs (Mining Plus, 2021b)

Domain	**2**	**3**	**4**	**5**	**6**	**Total**
Total Tonnage	278,191	557,422	1,887,559	332,834	151,300	3,207,306
Total WO_3 mtu	57,996	106,014	341,732	52,355	27,183	585,280
>20 µm mtu	15,576	27,555	114,390	20,072	10,023	187,616
>20 µm mtu At 60% Recovery	9,346	16,533	68,634	12,043	6,014	112,570
Price USD300/mtu	300	300	300	300	300	
Rev USDm	2.80	4.96	20.59	3.61	1.80	33.77
GBP/USD	1.34	1.34	1.34	1.34	1.34	1.34
Rev GBPm	2.09	3.70	15.37	2.70	1.35	25.20
Cost GBPm	0.14	0.28	0.94	0.17	0.08	2.10
Profit GBPm	1.95	3.42	14.42	2.53	1.27	23.10

Extraction and processing of the MWF is proposed to be undertaken via dredging with the MWF mined and processed in its entirety. The metallurgical testwork undertaken by Grinding Solutions and SGS demonstrate that WO_3 and Sn can be recovered from the MWF.

3.6.1.10 Classification

The lowest unit in the MWF (Domain 1) has not been classified. Material making up Domain 1 comprises material produced during plant commissioning and therefore lacks sampling or assaying.

Domains 5 to 6 have been classified as Inferred in accordance with the JORC Code (2012). The Inferred classification reflects that they have been assigned global average metal grades and densities, and therefore lack sufficient sampling to identify internal variability.

3.6.1.11 MWF Mineral Resource statement

The Hemerdon MWF Mineral Resources have been classified as Inferred in accordance with the JORC Code (2012). Mineral Resources are reported for Domains 2-6 and exclude Domain 1. Mineral Resources are reported with an effective date of 25 January 2021.

The MWF is proposed to be mined and processed in its entirety through dredging, therefore no cut-off grades have been applied.

The Competent Person for the MWF Mineral Resources is Dr Matthew Field BSc, BSc (Hons), MSc, PhD, FGS, Pr Sci Nat. Dr Field is a full-time employee of Mining Plus UK Ltd and has acted as an independent consultant on the Hemerdon MWF Mineral Resource.

A summary table of the Mineral Resources for the Hemerdon MWF is provided in Table 3.13.

Table 3.13 Hemerdon MWF Mineral Resource estimate (Mining Plus, 2021b)

Domain	Tonnage	WO_3 (%)	Sn (%)	WO_3 MTU	Sn Tonnes
2	278,300	0.21	0.04	58,000	110
3	557,700	0.20	0.02	111,500	120
4	1,887,700	0.18	0.02	341,700	440
5	332,800	0.16	0.03	52,400	90
6	151,300	0.18	0.03	27,200	40
Total Inferred	**3,207,800**	**0.18**	**0.02**	**590,800**	**800**

3.6.1.12 Conclusions

Inefficiencies identified within the previous Wolf process plant resulted in the loss of WO_3 and Sn to the MWF. The maintenance of metallurgical accounts has provided TWL with details pertaining to the tonnages and grades of material discharged onto the MWF over successive periods of time.

To supplement the metallurgical accounts, Wolf conducted a series of five bathymetric surveys, with a sixth undertaken by HGSL. The bathymetric surveys are combined with aerial drone surveys to provide survey volumes for the MWF.

Using the surveys and metallurgical accounts, Mining Plus has been able to estimate global Mineral Resources for the MWF. An absence of direct variability sampling within the MWF precludes more detailed delineation of grades within the MWF. Due to the uncertainty of the more local distribution of mineralization in the MWF, Mining Plus opted to classify the deposit as Inferred.

Recovery of WO_3 and Sn from the MWF has been demonstrated through the metallurgical testwork conducted by Grinding Solutions and SGS Lakefield.

AMC is of the opinion that the potential to recover the mineralization within the MWF has been demonstrated. Limiting the classification of the MWF to Inferred considers the lack of detail regarding grade variability within the MWF, and the impact this could have on subsequent extraction and processing. AMC is therefore of the opinion that the Mineral Resource classification is suitable.

The metallurgical testwork undertaken combined with the potential to sell the MWF as an aggregate sand provides support for reasonable prospects for eventual economic extraction. Further work is required to substantiate the costs associated with the re-processing of the MWF.

4 Geotechnical review

4.1 Introduction

TWL is proposing to deepen the Hemerdon open pit and extend it beyond the previously permitted footprint. The open-pit geotechnical review is based on the following previous studies carried out to inform pit design on the Hemerdon open pit:

- Call & Nicholas, 1981. Hemerdon Project Preliminary Slope Design Report prepared for AMAX Hemerdon Ltd.
- Peter Gash, 1982. Review of Slope Design for Hemerdon Mine Review prepared for AMAX Hemerdon Ltd.
- George Orr and Associates, 2010. Geotechnical Evaluation for Open Pit Mining Feasibility Purposes prepared for Wolf Minerals (UK) Limited.
- Cube Consulting, 2010. Hemerdon Ball Project Feasibility Study Mining Report prepared for Wolf Minerals (UK) Limited.
- SLR Consulting, 2015. Geotechnical stability study prepared for Wolf Minerals (UK) Limited.
- SLR Consulting, 2018. Geotechnical Face Mapping prepared for Wolf Minerals (UK) Limited.
- SLR Consulting, 2018. Interim Assessment of Open Pit Rock Mass Geotechnical Conditions prepared for Wolf Minerals (UK) Limited.
- SLR Consulting 2021. Geotechnical Report in Support of Open Pit Design, Feasibility Study prepared for Tungsten West Limited.

In addition to review of the works listed above, SLR has completed regulation 32 and 33 inspections since 2015. A site visit was carried out on 04 June 2021 by Richard Elmer of Knight Piésold, who acts as Competent Person for the open-pit geotechnical aspects, to confirm the existing pit wall conditions reflected the findings of the 2021 SLR Feasibility Study.

4.2 Geotechnical characterization

4.2.1 Deposit description

The Hemerdon ore deposit strikes NNE–SSW with the ore hosted within and surrounding a body of porphyritic granite, known as the Hemerdon Granite. The surrounding country rock geology consists of Upper Devonian metasediments of the Tavy Formation, locally termed Killas. Granite-Killas contacts are steeply dipping on the NW (Footwall) and SE (Hangingwall) contacts.

The Hemerdon Granite outcrops at the deposit as medium-grained, porphyritic, slightly altered granite becoming increasingly kaolinized and greisenized as the granite plunges beneath a shallow Killas cover towards the Crownhill granite in the NNE. At surface, the granite is intensely kaolinized to soft, fissile, white, brown, and red clays. Weathered (and kaolinized) granite extends from surface to, approximately, 30 m below ground level (m bgl). The granite becomes increasingly competent with depth.

The Killas country rock comprises interbedded mudstone, siltstone, and minor limestone with interbedded tuff and sub-parallel basic intrusives. The Killas has a well-developed cleavage fabric with common laminations and silty bands and the general dip is to the south to south-east. The Killas has undergone thermal metamorphism as a result of adjacent intrusions with associated silicification. Argillic alteration is recorded in the south of the mine area.

Mineralization is hosted within the granite characterised by a stockwork of numerous quartz veins. Veins occur in two dominant structurally orientated vein sets. Group 1 with an orientation of 45°/70° and correspond to the main fractures observed in the surrounding Killas. Group 2 are confined to the granite with an orientation of 65°/35°, sub-parallel to the steep Killas contacts.

The following main geological units are identified in the SLR 2021 Feasibility Study:

- Granite: Sub-divided based on degree of kaolinization, tungsten content, and iron content.
- Crownhill Granite.
- Killas: North Claymoor Member.
- Killas: Drakelands Member (east and west of granite).
- Killas: Bickland Member (east and west of granite in the southern sector of the pit)0
- Mafics (south-west, mid-south-west, mid-north-west, mid-north-east, north, mid-south-east and south-east).

4.2.2 Rock mass characteristics

The various lithological units at Hemerdon have been characterized by several studies that are summarized in the following sections.

4.2.2.1 Call & Nicholas, 1981

A preliminary report on slope design for the reserve pit design was completed in 1981. Slope design considered both structurally controlled and through rock stability. Data was collated from maps and sections produced by mine staff, vein mapping of orebody trenches, and fracture mapping of adits. Thirteen (13) orientated boreholes were drilled for the study and point load testing and direct shear analysis on joints was carried out on recovered core. Trench mapping identified mineralization in three vein sets.

The point load testing and direct shear results were used to determine the rock mass strength and shearing strength of granite and Killas. The UCS was estimated for each rock category separated by alteration. Direct shear testing was conducted on both intact and fractured specimens to allow cohesion (c') and angle of friction (φ) to be determined for each rock type categories by weathering.

Inter-ramp angles between 40° and 48 were considered within the Killas, increasing to 53° in the south.

4.2.2.2 Peter Gash, 1982

Peter Gash conducted a review of the Call & Nicholas (1981) proposed Hemerdon pit slopes in 1982. Rock mass properties were determined using a modified Laubscher classification scheme using the available drillhole log data:

- Intact rock strength (Point Load Tests).
- Rock Quality Designation (RQD) (drillhole logs).
- Fracture frequency (logs).
- Joint condition (shear box tests, infill, roughness).

Borehole logs were reassessed using the Laubscher classification scheme and results used to derive rock mass shear strength parameters in accordance with Bieniawski (1971). In comparison to Call & Nicholas (1981), the resulting classification showed a general improvement in rock class and associated strength with depth and in the southerly direction.

Peter Gash's re-assessment recommended that inter-ramp angles in the south-east and west remain at 48°, with an inter-ramp angle of 53° in the south, increasing where the practical limits of operation allowed in fresh granite. The recommended design angle in the north-west of the of the pit was reduced to an inter-ramp angle of 44° due to adverse discontinuities, poorer ground conditions and ground-water pressures.

4.2.2.3 George Orr and Associates, 2010

A Geotechnical Evaluation was undertaken by George Orr and Associates (Australia) Pty Limited in 2010. The assessment considered a preliminary pit design from Cube Consulting Pty Limited extending to a depth of 20 0m (-10 m aOD). Data was collated from previous geotechnical investigations, with additional data obtained from metallurgical boreholes conducted in 2009.

The pit was divided into four domains: North West, South East, South, and West. Stability analyses were undertaken using Mohr-Coulomb shear strength envelopes for the various depth zones within the rock mass.

From surface to 30 m depth, 5 m high benches with a face angle of 55° and 4 m wide benches were recommended. At depth below 30 m, bench height increased to 10 m or 20 m (south domain) with face angles between 55° and 60° with 10 m wide benches. Bench height increases with depth to 20 m at face angles between 60° and 70°.

4.2.2.4 SLR Consulting, 2015

SLR undertook the recommended borehole programme designed by George Orr and Associates in 2014 and a geotechnical stability study was produced in 2015. Ground investigation comprised six rotary cored boreholes with packer testing and standpipe piezometer installation. The boreholes were extended to depths just below the previously proposed pit floor elevation of -65 m aOD. Drill core was geotechnically logged followed by sampling and laboratory testing to establish rock strength. The following laboratory testing was carried out:

- P & S Sound wave.
- Uniaxial Compressive Strength (UCS).
- Young's modulus (E) and Poisson's ratio.
- Point Load Strength Index (PLSI).
- Uniaxial strength, analogous to UCS, and the Hoek-Brown constant (mi).

Rock mass shear strength parameters were determined using the results of the testing, together with results of core logging. The stability assessment focused primarily on the stability of the overall rock slopes where slip surfaces pass through the rock mass. Structurally controlled stability was not the focus.

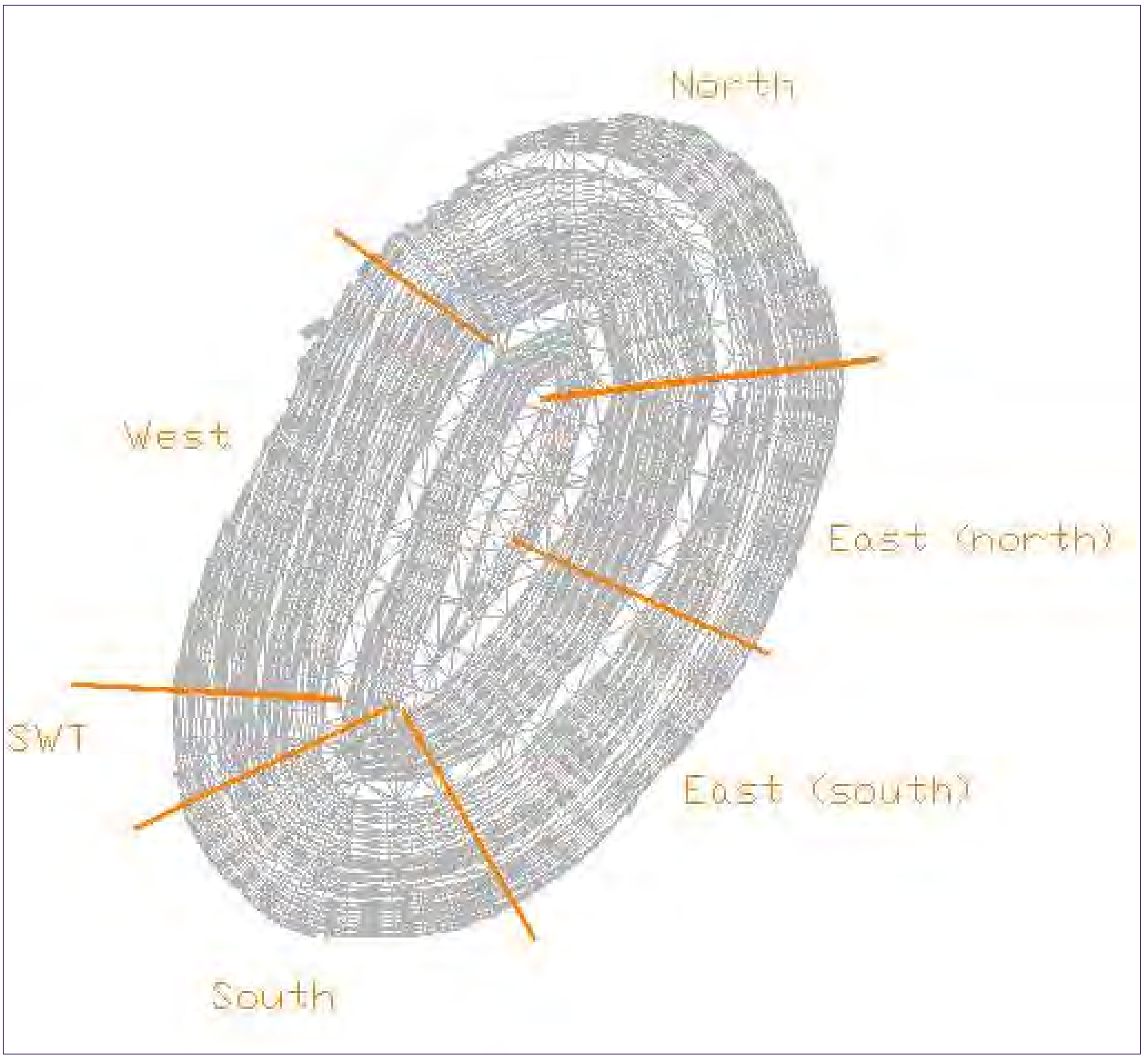
SLR aimed to define the Sonmez-modified Hoek-Brown shear strength envelope for the various domains within the proposed pit. Both quantitative and semi-quantitative analyses of the following:

- RQD versus depth and lithology.
- Weathering versus depth and lithology.
- Clay content of fractures versus depth and lithology.
- Field assessment of rock strength versus depth and lithology.
- The product of field rock strength and weathering versus depth and lithology.
- Laboratory UCS versus depth and lithology.
- mi versus depth and lithology.

The Geological Strength Index (GSI) was determined based upon the RQD and an assessment of the joint conditions, JCond89, of the rock mass as defined by Bieniawski (1989). Joint conditions (JCond89) are based upon assessment of weathering, joint infill strength, roughness, aperture, field-estimated rock strength.

The key influence of overall slope stability was determined to be the shear strength of the Killas, which was divided into four depth zones. SLR concluded that the key controlling factor of stability was the rock mass strength of the Killas. Pit domains were defined based on results of the ground investigation, ground conditions, and previous work. Six domains were defined in the study and are presented in Figure 4.1.

Figure 4.1 Pit domains, SLR Consulting, 2015



The SLR analyses of through-rock failure demonstrated favourable conditions for the steepening of slopes in comparison with previous studies. Design of the slopes was carried out to align to a minimum factor-of-safety (FOS) of 1.2.

The designed face angles ranged from 55° to 65° in the Killas with face heights between 5 m and 15 m. Recommended bench widths ranged from 4 m near-surface, increasing to 5 m with depth. Face angles within the granite ranged from 65° to 75° with face heights of 15 m and bench widths of 5 m.

4.2.2.5 SLR Consulting, 2018

Geotechnical face mapping was completed as mining progressed to increase data coverage and inform stability modelling and pit slope design. Additional geotechnical data acquisition comprised face mapping, sampling, field testing (point load), and laboratory testing (UCS, point load and Hoek Cell). The following conclusions were made by SLR:

- Based on field measurements of GSI and interpretations of UCS from point load tests, rock mass shear strength was considered somewhat higher than that interpreted for the purposes of SLR's 2015 report.

- Based on field measurements of discontinuities, SLR concluded that there was no evidence to suggest the presence of any adverse conditions that would change the key conclusions of previous (third party) assessments of structural stability. SLR indicated that the exposed pit faces were considered to be in a good condition and exhibited a relatively low degree of structurally-controlled block release. These releases were considered minor and likely occurring on a bench-scale, hence were not deemed to have any significant impact on the safety and operation of the pit.

GSI values estimated during mapping were compared with values calculated during the 2014 borehole investigation. A correction factor was applied to allow for inherent differences between logging of core and estimate GSI at a safe distance from the face. The comparison indicated that GSI values from the 2018 mapping were generally much higher than the values derived from the borehole investigation carried out for the purposes of the 2015 SLR stability analyses.

Point load-derived UCS values also indicated higher values in general to those that were applied in the derivation of curved shear strength envelopes established in SLR's 2015 modelling. However, UCS testing was performed to calibrate point load-derived test results. UCS testing was planned but the mine ceased operation before testing was started.

SLR's 2018 conclusions were subject to the caveat that they were based upon the existing level of data at the time, with field mapping and testing considered to be ongoing tasks. Samples were recovered during face mapping, however, due to closure of the mine in October 2018 and elapsed time from recovery of the samples, the samples were disposed of. The report highlighted the requirement for additional structural data.

4.2.2.6 SLR Consulting, 2021

The 2021 Feasibility Study incorporated additional geotechnical data to build on SLR's previous assessments of the Hemerdon open-pit. Additional geotechnical data was collected from the current pit, which included laboratory analysis on samples (2020) and face mapping (2018 and 2020).

The project focus was on calibrating newly collected results with data from the 2014 ground investigation. The 2014 SLR boreholes extended to depths below elevation of -65 m aOD and the minimum elevation for the recent data collected for the 2021 study was 136 m aOD. Therefore, the depth range over which calibration can be undertaken was limited. However, SLR's calibration results indicated that:

- The intact rock strength appears to be slightly higher.
- The rock mass characteristics are more favourable than those determined from the earlier work.

SLR's 2021 revisions to rock mass shear strength applied to Killas and not granite, as no granite samples were retrieved or tested during the 2020/2021 investigation campaign. The 2021 SLR study updated and revised the following rock mass shear strength parameters:

- Killas intact rock strength (UCS).
- Killas m_i.
- Killas GSI.
- Killas shear strength envelopes.

The 2014 and most recent data were re-assessed together to allow estimates of intact rock strength and rock mass structural characteristics to be made for the newly proposed full depth of the pit (floor elevation -125 m aOD). As no additional boreholes were conducted to inform the FS, the data collected during the investigation was limited to the extent of the current open-pit excavated to 136 m aOD. An eight-hole drill programme was carried out in 2018 and core was logged to generate additional structural data for the purposes of geotechnical assessment. However, TWL subsequently reviewed the discontinuity results which were then discounted from kinematic analysis as there was evidence that measurements had switched between top and bottom core axis with a subsequent impact on the calculation of dip and dip direction. This has subsequently been resolved by TWL and a study is underway with Camborne School of Mines to assimilate this data alongside all other available structural data.

Based upon the RQD and JCond89 versus depth relationships derived from the 2021 review work on Killas material, the SLR Killas GSI values for selected pit depths are provided in Table 4.1.

Table 4.1 Killas 2021 GSI values for selected depths, SLR Consulting, 2021

Depth, m bgl	GSI, northwest sector	GSI, southeast sector
40	31	38
55	38	41
100	47	47
150	52	52
200	56	57
250	58	62

Structural data incorporated in the 2021 study was obtained from the 2018 face mapping, and from 2020 LiDAR pit scanning and subsequent interpretation. The results were compared to historical data obtained from orientated boreholes and adit mapping. Using the structural data and geotechnical domains, SLR determined joint sets for kinematic analyses and individual face/bench design.

In contrast to previous studies by SLR (2015) and Call & Nicholas (1981), the 2021 analyses determined that the pit slope configuration will be governed by discontinuities rather than the overall strength of the rock mass.

The level of data used to complete the rock mass characterization is considered by Knight Piésold to be appropriate for the study level. Potential rock mass strength increases with depth were presented (Table 4.2) based on limited data. However, the report confirms acceptable stability without including the strength increase with depth. SLR has identified that a limited amount of structural data was available and that a further investigation should be completed at the next study level to identify if structure changes at greater depths or further away from the existing face.

Table 4.2 UCS values for selected depths, SLR Consulting, 2021

Depth, m bgl	UCS, MPa
40	26.9
55	29.0
100	35.6
150	42.8
200	50.0
250	57.3

4.3 Mine design criteria

The mining method planned for the re-commencement of mining at Hemerdon will continue to be conventional open-pit truck-and-shovel. Based on the 2021 kinematic analyses and stability assessments, the following slope configurations have been recommended by SLR.

In the highly weathered and near-surface zones:

- Bench face angle of 55°.
- Bench height of 5 m.
- Bench width of 4 m.
- Inter-ramp angle of 34°.

For the more competent (less weathered) zones which comprise the majority of the pit below 15 m from the pit crest, the proposed slope configuration is shown in Table 4.3.

Table 4.3 Proposed slope configuration for pit Zones 2-6, SLR Consulting 2021

Design Sector	Wall direction (°)	Zone 2 – Zone 6			
		Bench Face Angle (°)	Bench height (m)	Bench width (m)	Inter-ramp angle (°)
NE Sector	200	70	15	6.3	52
	235	70	15	6.5	51
E Sector	270	70	15	6	53
SE Sector	315	70	15	6.7	51
SSE Sector	315	70	15	8.5	47
	360	70	15	8.5	47
SW Sector	45	70	15	6	53
	90	70	15	6	53
W Sector	110	70	15	6.7	51
NNW Sector	110	70	15	6.1	52
	135	70	15	6.1	52
	160	70	15	6.1	52
Granite	All	70	15	5	55

In pit zones 2–6, the SLR design assumes a constant bench face angle of 70° and bench height of 15 m. The bench width and resulting inter-ramp angles are determined in accordance with discontinuity data as opposed to rock mass strength and were designed based on the results kinematic and limit equilibrium analysis. Slope configuration is most conservative in the SSE sector, with an inter-ramp angle of 47° recommended.

The analyses to determine the mine design criteria are appropriate. However, there is a limitation based on the limited amount of reliable structural data. The analysis is primarily based on structure visible in pit faces (LiDAR and face mapping). The structure has potential to change at greater depths or further away from the existing face, which might influence the design. Although the level of data is appropriate for the Feasibility Study, further investigation is recommended as part of the detailed engineering and is now understood, by Knight Piésold, to be underway.

4.4 Conclusions and recommendations

The Feasibility Study carried out by SLR in 2021 considers the viability of enlarging the open-pit shell design at Hemerdon with the intention of the recommencement of mining in 2021. Knight Piésold carried out a review of the study. The assessment of data and its reliability to be used in the current and future studies was deemed appropriate. However, the lack of reliable structural data from previous drilling programmes reduced the data set available for analysis, which was limited to that visible in the existing pit walls.

The rock mass strength assessment is appropriate for the level of study and the revision of GSI values is justified. Knight Piésold agrees there is data to show an increased UCS with depth which will be investigated more thoroughly as part of the future design phase.

Methods used for slope stability analysis and design are also appropriate for the level of study. Consideration should be given to whether a higher discontinuity friction angle has a positive impact on slope design as 30-degrees is likely a conservative value.

Overall, Knight Piésold agrees with the approach and methods of data analysis and no high risks were identified. Additional data collection is recommended to inform the ongoing geotechnical assessment of the open-pit rock mass, especially at elevations where the current data coverage is limited. The current lowest elevation of geotechnical (borehole) data is -65 m aOD and the planned final pit depth -125 m aOD.

4.4.1 Comments on pit wall conditions following site-visit

Following Richard Elmer's visit to the Hemerdon open-pit on 04 June 2021, the following conclusions and observations were made:

- No past stability issues were reported by TWL staff who had previously worked the open-pit under Wolf.
- The existing slopes show extensive ravelling of material, which would be expected for pit slopes and benches that had not undergone maintenance since cessation of operations.
- No large-scale failures were observed.
- Some rougher faces in the north end of the pit were reportedly due to non-careful blasting.
- The rock mass observed was visually compatible with the rock mass classifications assigned by SLR.
- Water is ponded at the north end of the pit at an elevation of approximately 125 mAoD. Knight Piésold recommends that, while this water ingress is consistent with the assumptions made by CSA, it should be monitored as mining progresses and compared against the CSA model.
- TWL staff reported that discontinuity data from oriented boreholes that had been discounted in the 2021 SLR assessment were being re-assessed for future inclusion in updated geotechnical engineering studies for the open pit.

5 Mining review

5.1 Introduction

The Hemerdon deposit consists of a steeply dipping mineralized granite approximately 1.2 km in strike and 100 m wide. Mining has been undertaken though conventional, contractor operated open-pit methods (drill, blast, load-and-haul) which commenced in 2015 and ceased in October 2018. The current situation of the open pit is shown in Figure 5.1.

Figure 5.1 Photograph of open pit, looking north, taken on site visit (04 June 2021)

Source: AMC site-visit 04 June 2021.

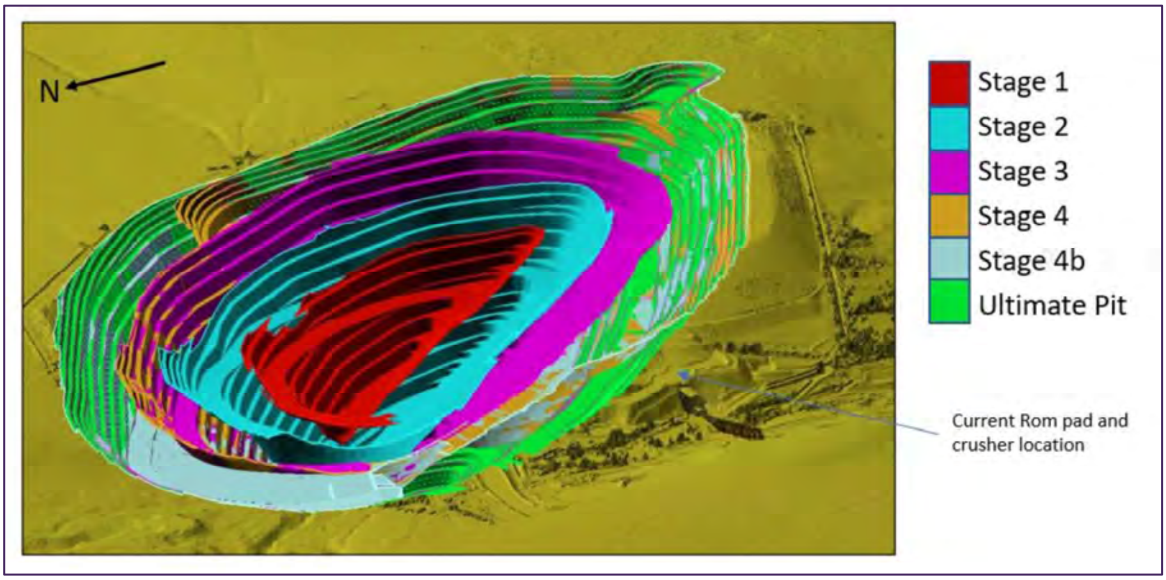
The FS details updates to the pit optimization, ultimate pit design, Ore Reserves, staged pit designs, and LOMP for re-opening of the operations. The LOMP has a total mine life of approximately 18.5 years with 16.5 years of processing granite ore followed by approximately two years of processing the stockpiled Killas ore. Waste is hauled to the MWF which is planned to be used as a combined waste and Killas ore stockpile facility.

Mining is planned to ramp-up to 10 Mtpa of rock mined by Year 2 and remain at this rate until Year 6.

A maximum mining rate of 12 Mtpa of rock mined is then reached between Year 6 and Year 12 followed by a reduction due to increase in depth of the open pit and reduction in strip ratio. The proposed primary mining equipment will be 1 x CAT 6030 excavator, 2 x 6015 excavators, and CAT 777 trucks.

An isometric view showing the ultimate pit design and staged pit designs is presented in Figure 5.2.

Figure 5.2 Ultimate pit and pit stage designs isometric view



Source: FS, Figure 15.1.

5.2 Pit optimization

The pit optimization that forms the basis of the FS was completed by Mining Plus using NPV Scheduler™. Mining Plus provided AMC with the input block model (including Datamine™ setup macro), optimization inputs, and output pit shell wireframes. To confirm the appropriateness of the optimization and results, AMC undertook an independent optimization in Whittle™. The Whittle™ runs generated by AMC are for indicative purposes only and do not constitute a complete pit-optimization or Ore Reserve estimate.

5.2.1 Optimization inputs

AMC used the following inputs as shown in Table 5.1.

Table 5.1 Whittle™ optimization inputs

Parameter	Units	Value
Metal Prices		
WO_3 price	GBP/mtu	226.42
WO_3 selling costs	GBP/mtu	55.28
Sn price	GBP/t	16,603.77
Sn selling costs	GBP/t	1,773.01
Dilution and Recovery		
Mining recovery	%	99
Dilution	%	0
Process Recoveries		
Process throughput	Mtpa	3.4
Granite WO_3	%	56.65
Granite Sn	%	40.29
Killas WO_3	%	42.25
Killas Sn	%	16.16
Mining costs		
Granite Ore		

Parameter	Units	Value
Drill-and-blast	GBP/BCM	1.69
Load-and-haul	GBP/BCM	((-0.0038*Elevation)+2.8021)
Granite Waste		
Drill-and-blast	GBP/BCM	1.41
Load-and-haul	GBP/BCM	((-0.0022*Elevation)+3.001)
Killas		
Drill-and-blast	GBP/BCM	1.14
Load-and-haul	GBP/BCM	((-0.0022*Elevation)+3.001)
Processing costs		
Granite	GBP/t processed	7.13
Killas	GBP/t processed	7.72
G&A cost		
Granite	GBP/t processed	2.36
Killas	GBP/t processed	0.86
Slope Angles		
Overburden	degrees	33.7
NE1 NE2 NW	degrees	45.6
E	degrees	45.7
SE	degrees	41.9
SSE	degrees	41.5
SW	degrees	46.5
W	degrees	43.9
Granite	degrees	49.3

Source: Mining Plus optimization inputs file.

Metal prices are based on a WO_3 price of USD300/mtu and a Sn price of USD22,000/t assuming a GBP:USD exchange rate of 1.325. The WO_3 selling cost includes 78% payability, 2.25% royalty, and a transport charge of USD202/t concentrate. The Sn selling costs include a 2.25% royalty, transport cost of USD96.92/t concentrate, and a treatment charge of USD1,800/t concentrate.

Additional mining dilution has not been applied in the optimization due to two assumptions:

- Internal dilution which consists of barren rock between the mineralization is already accounted for in the geological resource model. Furthermore, this internal dilution is planned to be removed through the implementation of ore sorters.
- Mining in granite ore (which can be up to 100 m wide) will be stopped approximately 1 m short of the Killas contact as was the practice in previous operations. This will lead to some ore loss which is accounted for by the 99% mining recovery factor.

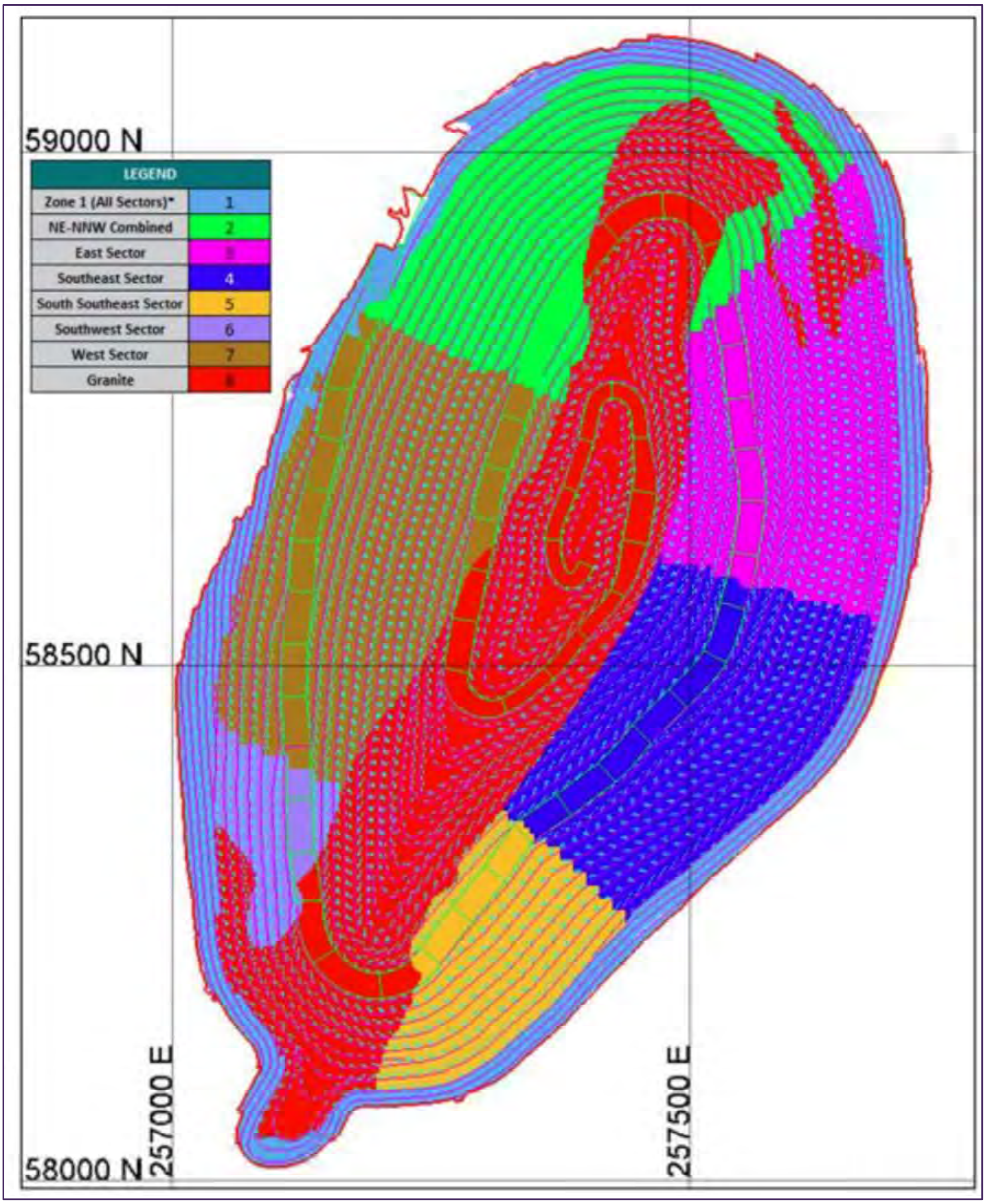
Given the assumptions above, AMC is of the opinion that the dilution and loss parameters applied are appropriate.

Drill-and-blast costs are based on five contractor quotations received by TWL as part of a larger drill-and-blast tender process for the FS. The drill-and-blast cost also includes a 7.5% mark-up payable to HGSL which is a pre-agreed amount related to the acquisition of the mine by TWL. AMC considers these costs to be appropriate.

Mine load-and-haul costs are based on an updated quotation from HGSL based on a mine plan and haulage distances provided by TWL. The load-and-haul costs received were compared against historic costs (also HGSL) and a linear relationship developed between cost and elevation for the granite and Killas. The linear relationship was used to generate cost formulae for each block in the block model. AMC is of the opinion that these costs and the method used to incorporate them are appropriate for optimization.

Slope zones were varied according to lithology and geotechnical zones specified by SLR and reviewed by Knight Piésold. The geographical distribution of the geotechnical zones is shown for reference in Figure 5.3.

Figure 5.3 Geotechnical slope zones in relation to ultimate pit design



Source: FS, Figure 16.2.

The mining block model was depleted to the current survey wireframe surface *190417_dtopo_1m_tr.dm*. AMC confirmed the depletion visually.

Granite and Killas material are differentiated in the block model and the Killas is divided into three categories for stockpiling at the MWF as follows:

- Low grade: <=0.13 WO_3.
- Medium grade: >0.13 WO_3 and <0.16 WO_3.
- High grade >=0.16 WO_3.

The pit optimization is further constrained by a boundary string which outlines areas outside the current mining permission which TWL believes is reasonable ground for future approvals. This boundary includes the existing mining permission boundary (pit rim of previous operations) along with expansion to the north and south into land which TWL believes there is reasonable grounds to assume future access based on land and mineral rights ownership alongside planning policy. AMC notes that the current LOMP requires that these additional permissions be in place by Year 7 of mining and that there is a risk that these permissions are not obtained. AMC understands that TWL is currently undertaking a re-scheduling exercise to maximize the potential of the deposit within the existing planning constraints before having to secure additional permissions.

The northern expansion includes a small parcel of land not owned by TWL; however, AMC understands that the owner has, previously, completed land sales with Wolf.

AMC excluded Inferred Resources from the pit optimization.

5.2.2 Whittle™ results

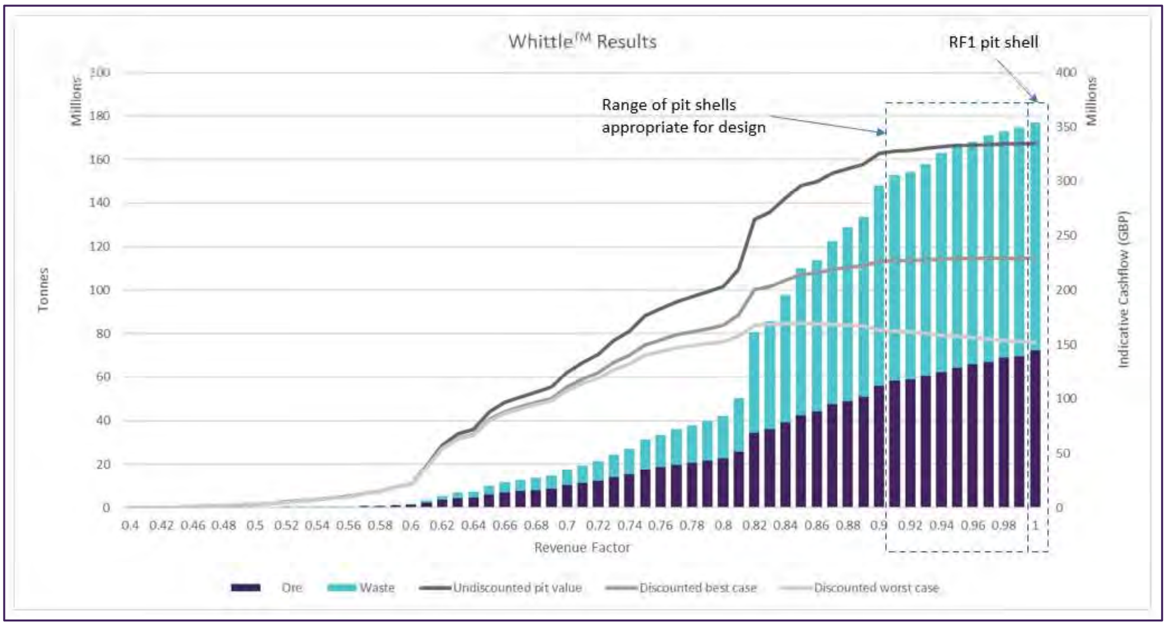
Pit optimization scenarios were run in Whittle™ by varying the Revenue Factor (RF), which is the factor by which Whittle™ scales the revenue per block to generate a series of nested pit shells. The nested shells indicate the sequence in which mining would occur to maximize operating cashflow. Whittle™ was run to RF 1 in 1% increments. AMC notes that the RF factors generated in Whittle™ are not directly comparable with those generated by Mining Plus in NPV Scheduler™.

The Whittle™ results shown in this section include the following indicative values:

- Undiscounted pit value: The undiscounted value of the pit shell (revenue-costs).
- Best-case discounted cashflow: The sequence that gives the maximum value by mining nested shells in the order they are generated by Whittle™. This method gives the highest value but does not consider a practical mining sequence or the spatial relationship between pushbacks.
- Worst-case discounted cashflow: The simplest mining sequence whereby pits are mined in their entirety from top-to-bottom "bench-by-bench". This is based on the most conservative mining schedule but gives the lowest value.

Discounted scenarios assumed a 3.4 Mtpa process throughput (not accounting for any stockpiling of Killas material) and a 5% discount rate. The results of the AMC Whittle™ optimization are shown in Figure 5.4.

Figure 5.4 Whittle™ results

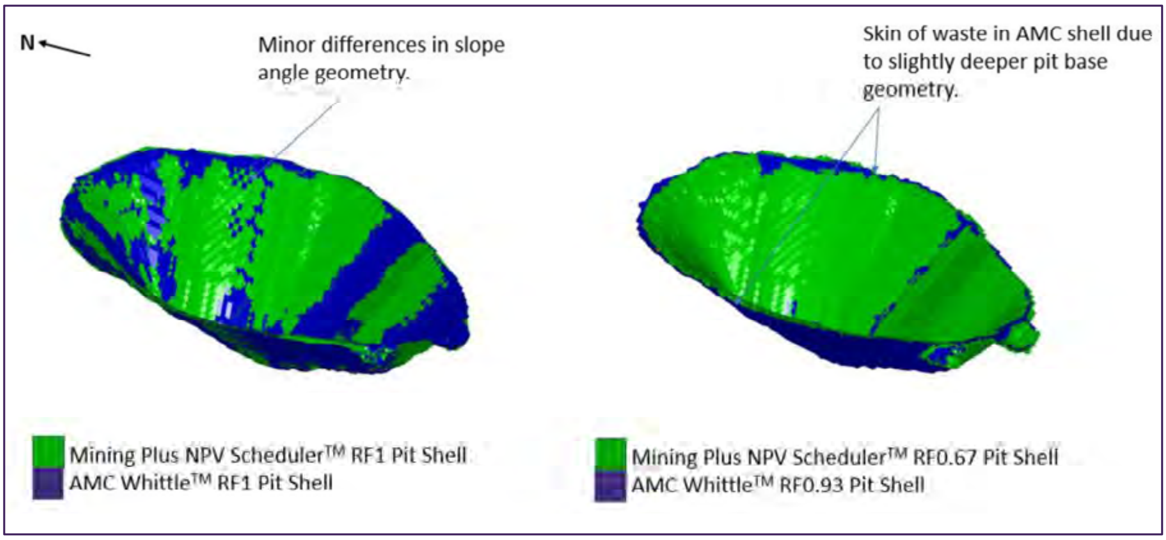


Source: AMC.

As can be seen in Figure 5.4, from RF 0.9 to RF1, the incremental value of subsequent pit shells flattens predominantly as a result of the land boundary constraint applied. This means that pit shells in this range have the potential to achieve a similar value to the RF1 pit shell while at the same time reducing total material movement, thus making them candidates for design. AMC has selected the RF 0.93 for comparative purposes as this sits within the range of shells specified in Figure 5.4.

A visual comparison of the pit shells generated by Mining Plus and AMC is shown in Figure 5.5.

Figure 5.5 Visual comparison of Mining Plus and AMC pit shells



Source: AMC.

As can be seen in Figure 5.5, the Mining Plus and AMC RF1 pit shells are very similar in depth and shape and show only minor variations in slopes due to the slightly different methods NPV Scheduler™ and Whittle™ address generating slope angles. AMC's selected pit shell (RF0.93) includes more waste than the Mining Plus RF0.67 shell as a result of mining slightly deeper along a portion of the pit base. A comparison of the results for the RF1 and selected pit shells is shown in Table 5.2.

Table 5.2 Comparison of Mining Plus and AMC optimization results

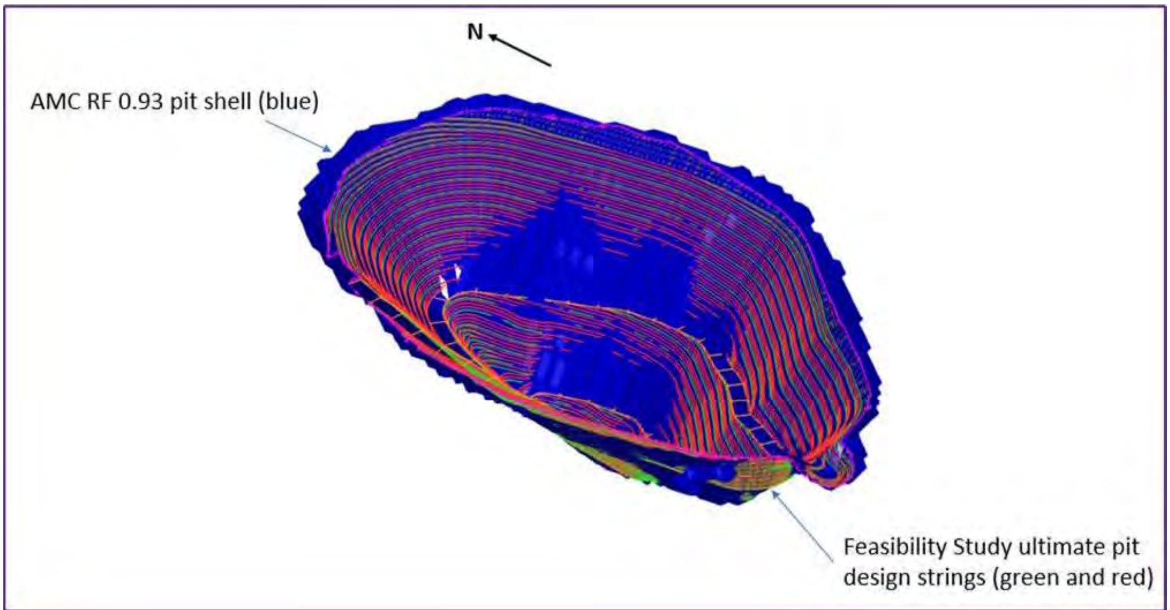
RF1 Pit shell	Undiscounted operating cashflow	Discounted cashflow (best case)	Waste	Ore	Strip Ratio
	MGBP	MGBP	Mt	Mt	W:O
Mining Plus	337	231	102	73	1.40
AMC	334	230	105	72	1.45
Difference	-0.8%	-0.6%	2.6%	-0.9%	3.6%
Design Pit shell	**Undiscounted operating cashflow**	**Discounted cashflow (best case)**	**Waste**	**Ore**	**Strip Ratio**
	MGBP	MGBP	Mt	Mt	W:O
RF 0.67	328	228	83	62	1.34
RF 0.93	332	229	101	62	1.62
Difference	1.2%	0.4%	21.4%	0.4%	21.3%

Source: AMC and FS, Table 15.12. Note Inferred included as waste in this table.

As shown in Table 5.2, AMC was able to match the Mining Plus RF1 pit shell to within 1% of total material, however, was unable to exactly replicate the profile of preceding RFs. This difference is the result of software differences due primarily to minor geometrical variations. These differences would not affect selection of pit shell and subsequent design.

The RF 0.93 pit shell generated by AMC is similar in footprint and depth to the ultimate pit design. An isometric view showing the pit shell compared to ultimate pit design is shown in Figure 5.6.

Figure 5.6 Comparison of AMC pit shell to ultimate pit design



AMC is of the opinion that the optimization undertaken by Mining Plus is appropriate given the inputs used, the method of pit shell selection valid, and the selected pit shell is appropriate for design.

5.2.3 Optimization scenario analysis

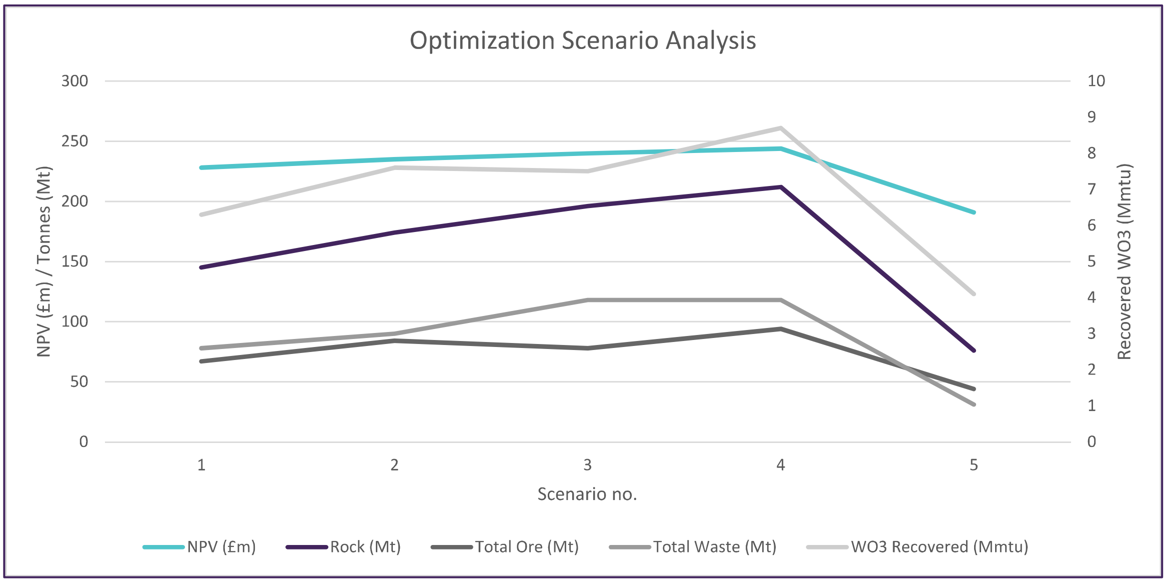
Mining Plus conducted a scenario analysis in NPV Scheduler™ to assess the impact of both inclusion of Inferred Mineral Resources and existing mine planning constraints on pit footprint. The results of the analysis are summarized in Table 5.3 and Figure 5.7.

Table 5.3 Optimization scenario analysis summary

No.	Scenario	NPV (GBPm)	Rock (Mt)	Total Ore (Mt)	Total Waste (Mt)	Strip Ratio (W:O)	WO_3 Recovered (Mmtu)
1	Measured and Indicated, expanded pit planning constraint (Reserves)	228	145	67	78	1.18	6.3
2	Expanded pit planning constraint and including Inferred material	235	174	84	90	1.08	7.6
3	Measured and Indicated only, Unconstrained.	240	196	78	118	1.51	7.5
4	Unconstrained and including Inferred material	244	212	94	118	1.26	8.7
5	Measured and Indicated, Current Planning Permission	191	76	44	31	0.71	4.1

Source: FS, Table 15.11.

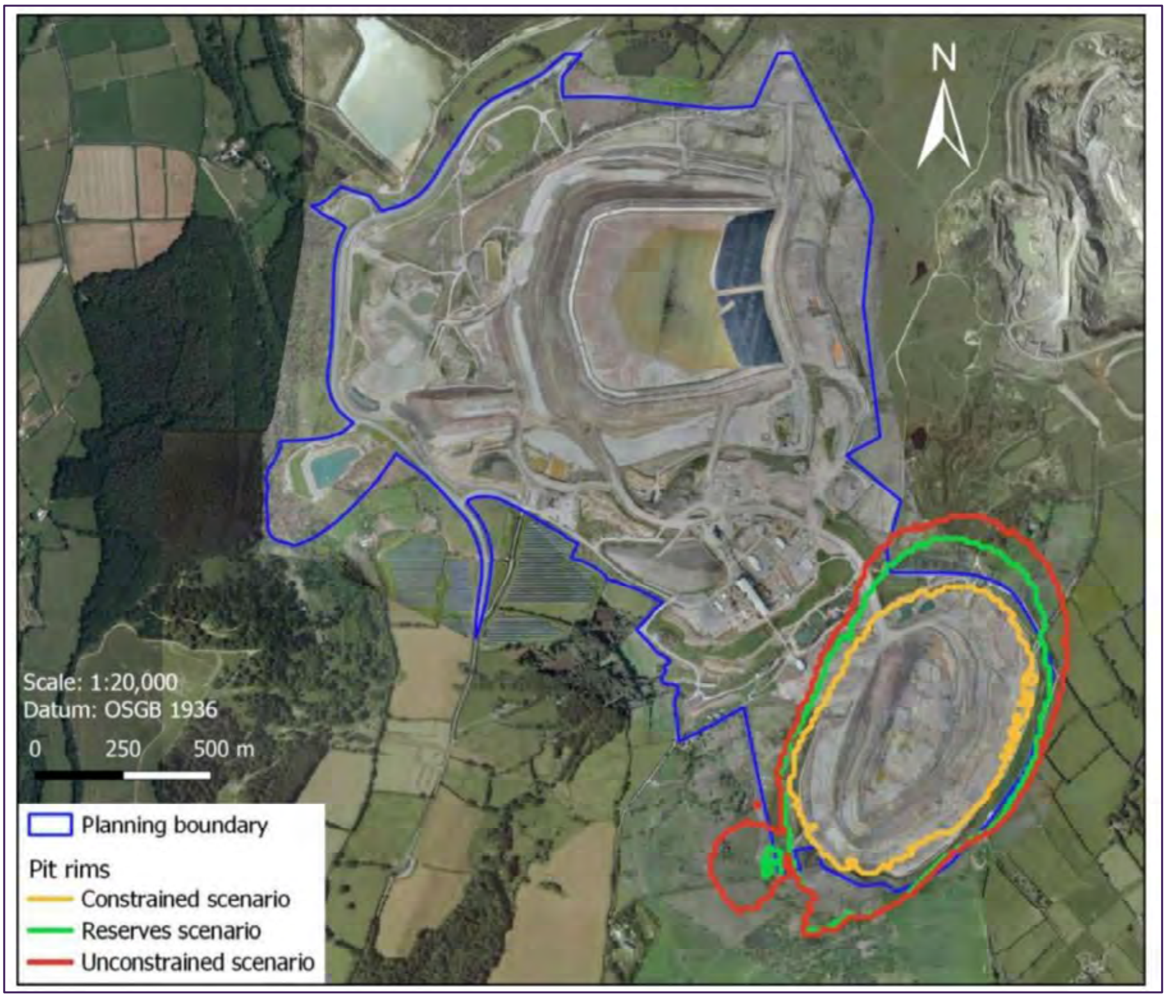
Figure 5.7 Optimization scenario analysis summary



Source: FS, Figure 15.9.

Scenario 5 shows that if the application for extension of the existing mine planning constraint is not achieved, there is the potential to reduce the Ore Reserves by approximately 34% and mine life by approximately seven years. The footprints of the pits for the five scenarios in Table 5.3 are shown visually in Figure 5.8.

Figure 5.8 Optimization scenario analysis pit shell footprints



Source: FS, Figure 15.10.

5.3 Mining method

Mining at Hemerdon follows conventional open-pit drill, blast, load-and-haul operations working on a single 12-hour shift per day, five days per week (Monday to Friday), 52 weeks per year. Granite ore is hauled to the run-of-mine (ROM) stockpile for processing and waste and Killas ore is hauled to the MWF where the Killas ore is stockpiled for processing later in the mine life.

The mine plan begins by mining three concentric phases (Stages 1–3) simultaneously to keep the initial production within existing mining permission constraints. AMC notes that mining these phases simultaneously will cause operational challenges with excessive excavator fleet movements and has the potential for working areas to interfere with one another. Careful daily planning and equipment movements between shifts will be required to ensure that the plan is achieved. AMC understands that TWL is also planning to implement a parcel-feed approach to ore mining which should help minimize fleet movements. Existing permissions include an extra two-hours per working day and Saturday shifts, which can be used to accommodate any additional or unplanned fleet movements.

Drill-and-blast is currently planned as a contracted activity and AMC understands that TWL has engaged with 11 contractors and used five quotations to evaluate a suitable service provider. Existing permissions allow up to six blasts per week which equates to one per day for four working days and two on the fifth working day. AMC understands that blasting activities must comply with local vibration limits but are not limited by physical size. The construction of a magazine facility has been included in the FS to ensure a constant supply of explosives. Drill-and-blast is planned on 10 m benches with mining on 5 m benches to match the resolution of grade control modelling.

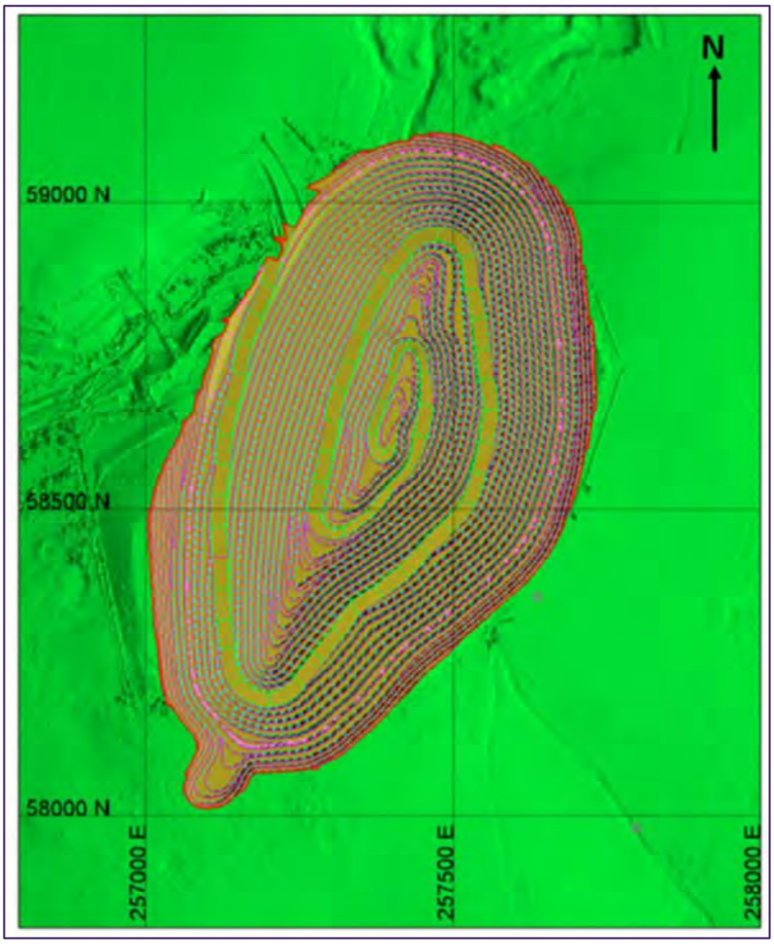
Load-and-haul activities are planned to be undertaken by HGSL, the mining contractor that previously operated at the mine. For primary mining (excluding other rehandle activities), Hargreaves is proposing a fleet consisting of one CAT 6030 and two CAT 6015 excavators which will load CAT 777 90t dump trucks.

There might be future potential for underground mining at Hemerdon; however, this has not been evaluated this stage.

5.4 Mine design

Mining Plus used the NPV Scheduler™ RF0.67 pit shell as a guide for mine design. The ultimate pit design is a single-ramp pit approximately 1 km in strike, 600 m wide, and 300 m deep and is shown in Figure 5.9.

Figure 5.9 Ultimate pit design



Source: FS: Figure 15.12.

Benches have been designed at 5 m height, triple stacked to 15 m high in final slopes. The bench face angle is 70 degrees and berm widths have been varied by geotechnical zone to honour the slope recommendations provided by SLR. The work conducted by SLR has been reviewed by Knight Piésold.

Ramps have been designed at a 10% gradient and are 25 m wide for dual-lane traffic and 15 m wide for single-lane traffic. AMC is of the opinion that these widths are adequate for the proposed CAT 777 trucks.

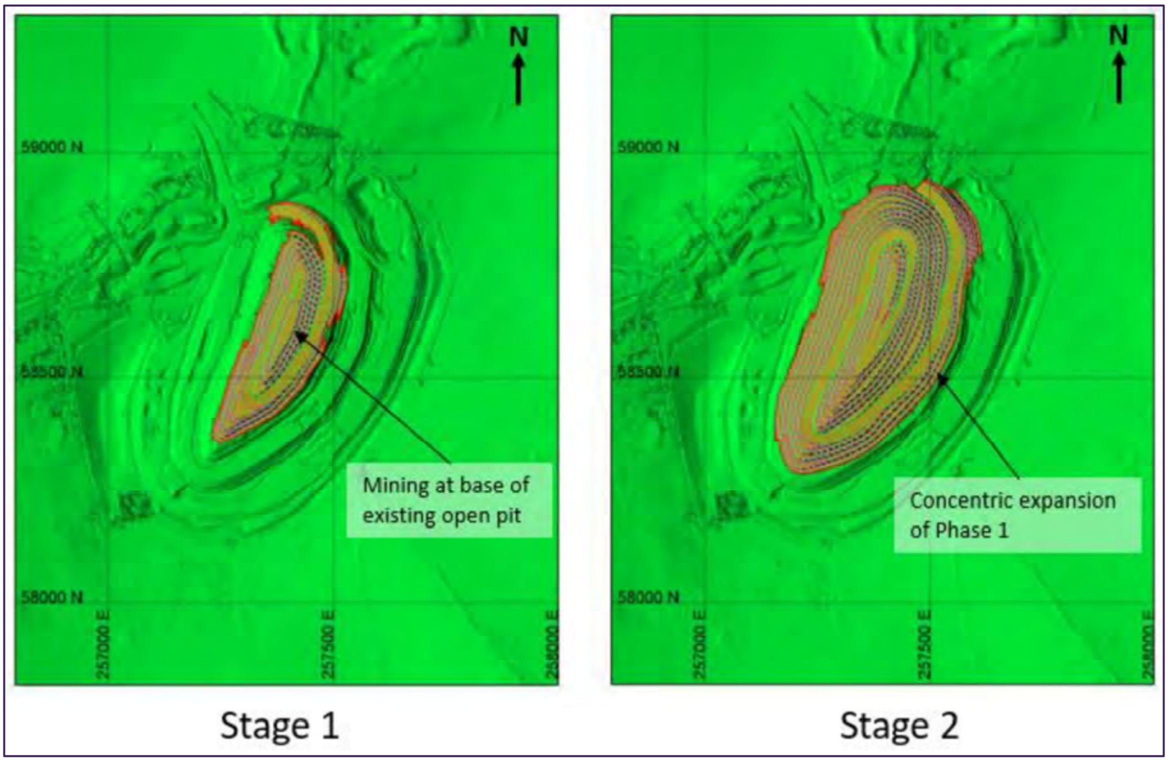
5.4.1 Pit phase designs

Mining Plus has designed six pit stages based on the following operating philosophy:

- Stages 1 and 2: Utilize current mined pit footprint to access ore early.
- Stage 3: Remain within the existing mine planning permission constraint. This is to allow time for land acquisition and planning applications for the pit extension.
- Stage 4: Extension to the south beyond existing mining permissions into the zone of "reasonable ground for future approvals" while minimizing impact to current ROM pad location in the north.
- Stage 4b: Extension to the north beyond existing mining permissions into the zone of "reasonable ground for future approvals".
- Ultimate pit: Continuation of pit to final pit depth and ultimate extents.

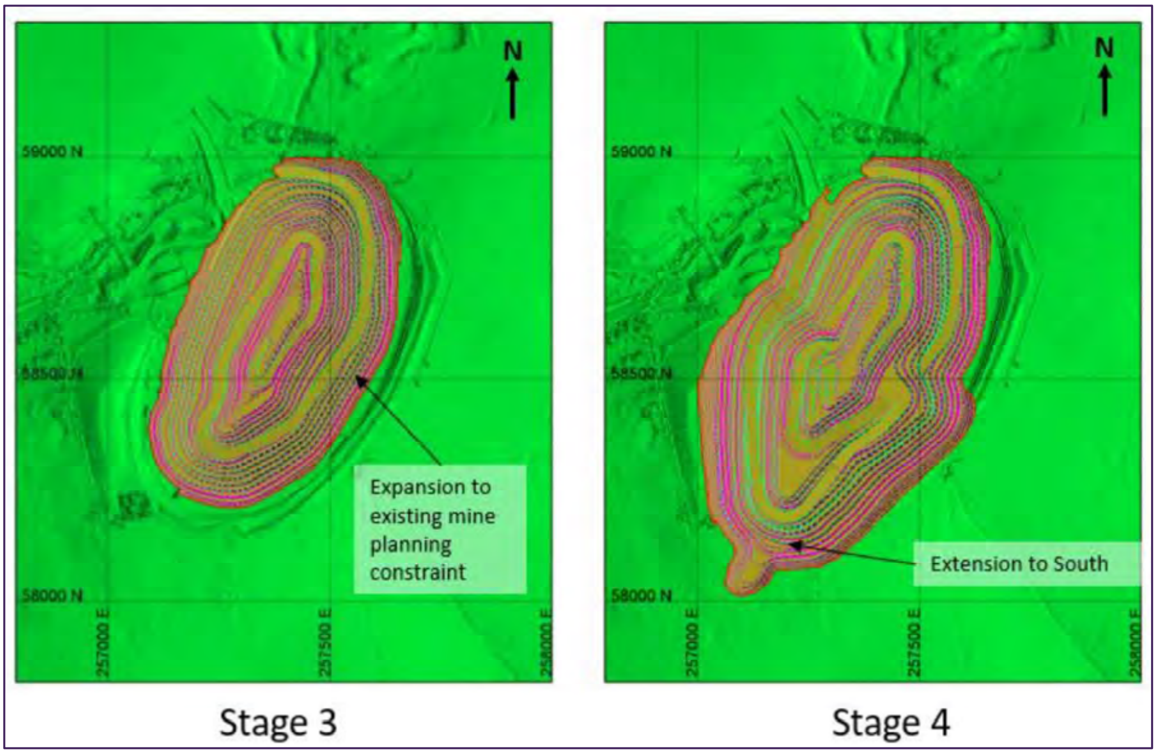
The six staged pit designs are illustrated in Figure 5.10, Figure 5.11, and Figure 5.12.

Figure 5.10 Pit stage designs (Stage 1 and Stage 2)



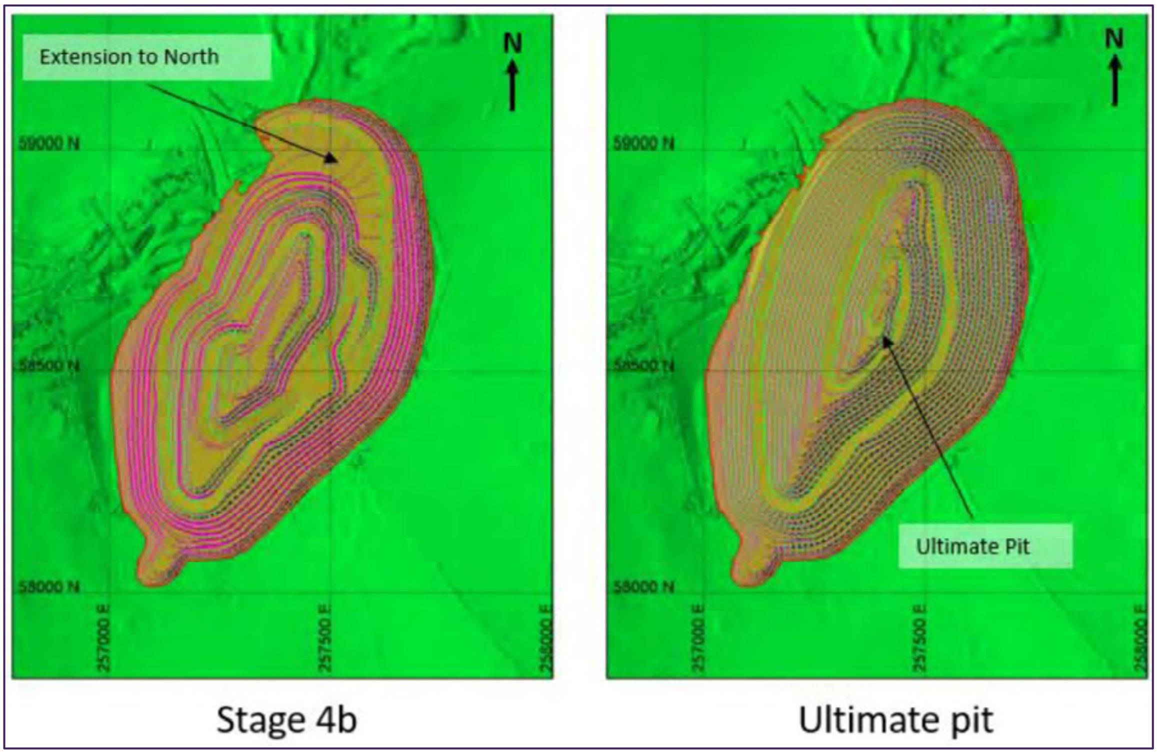
Source: FS, Figure 15.16 and Figure 15.17.

Figure 5.11 Pit stage designs (Stages 3 and Stage 4)



Source: FS, Figure 15.18 and Figure 15.19.

Figure 5.12 Pit stage designs (Stage 4b and ultimate pit)

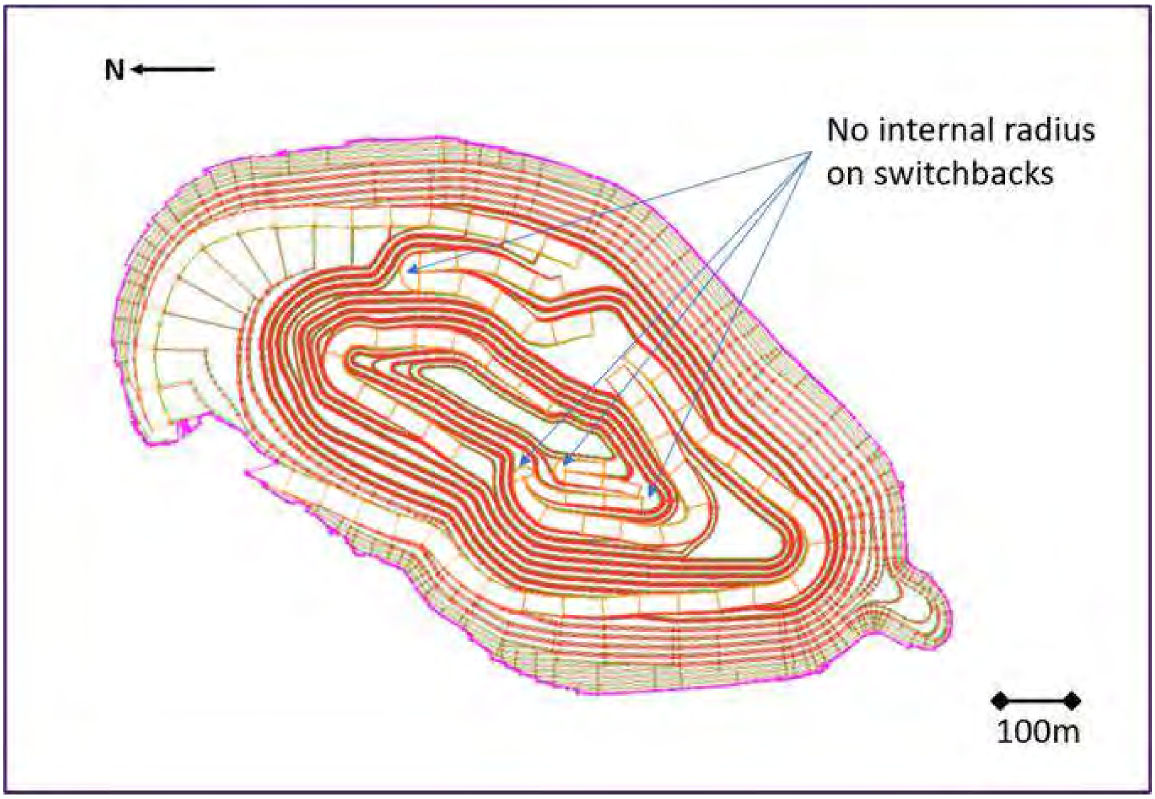


Source: FS, Figure 15.20 and Figure 15.21.

AMC visually reviewed the designs and has made the following observations:

- Stages 1 to 3 are concentric designs and include areas where minimum mining widths approach 20 m. Care must be taken to ensure that minimum mining widths are maintained during further design and mine operation, particularly where parallel ramps coincide for example between Stages 2 and 3.
- Stages 4 and 4b contains switchbacks which do not have internal radii (Figure 5.13). These do not meet the minimum design requirements for CAT 777 trucks and the three switchback arrangement at the base of the stage is impractical. AMC recommends redesigning these stages.

Figure 5.13 Observations on Stage 4b mine design



Source: AMC.

AMC is of the opinion that the mine designs are appropriate to a feasibility-level of study, with the exception of Stages 4 and 4b. Redesign of these intermediate stages is not envisaged to have a significant impact on the mine plan.

5.5 Mine equipment

Mining equipment requirements are summarized in Table 5.4. The fleet requirements are based on drill-and-blast tender quotations from multiple contractors and a quotation provided by HGSL to cover primary load-and-haul, haulage of DMS coarse tailings, ROM pad management, crushing and loading, along with ancillary equipment.

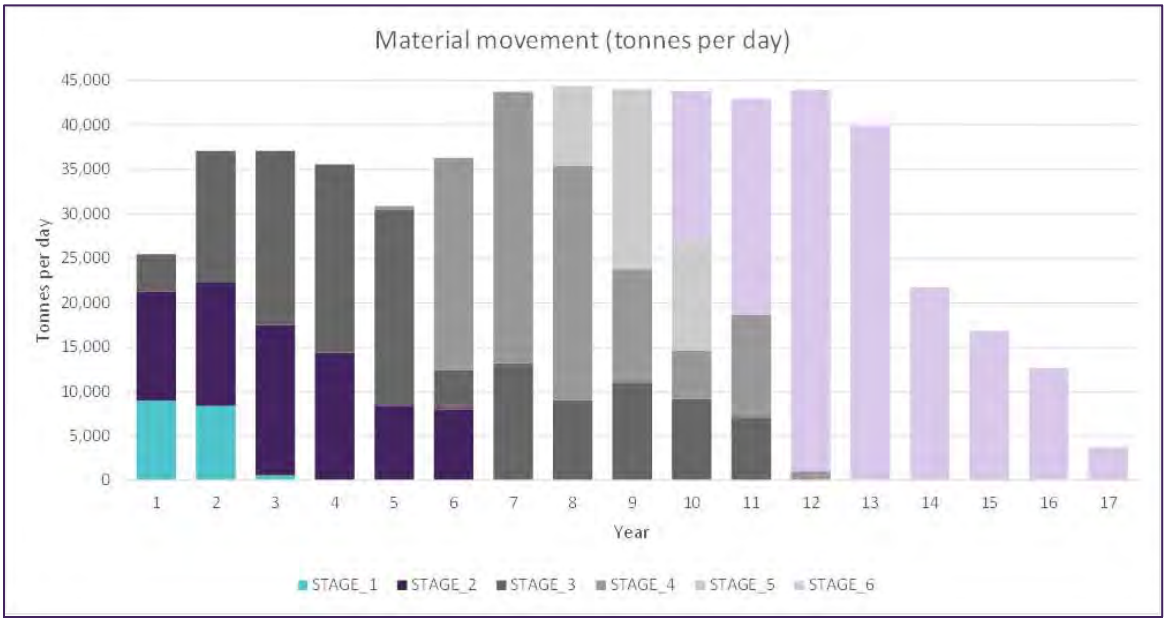
Table 5.4 Mining equipment

Area	Equipment	Quantity
Drill-and-blast	Drill Rigs (D50/D60/D65 type)	3-4
	MEMU Bulk emulsion ruck	2
Mining	CAT 6030 excavator - Loading	1
	CAT 6015 excavator - Loading	2
	CAT 777 dump trucks - Hauling	19-29
	CAT 16M grader - Road maintenance	2
	CAT D9 Dozer - ROM pad, stockpile & dump management	3
ROM pad and plant feeding	LT130 jaw crusher (150mm grizzly with 100mm Closed-Side Setting)	1
	LT120 jaw crusher (90mm grizzly with 100mm CSS)	1
	75t excavator - crusher feeding	1
	90t excavator - crusher feeding	1
	CAT 990 Front End Loader - LT130 belt clearance & stockpile	1
	CAT 988 Front End Loader - LT120 belt clearance, stockpiling & plant feeding	1
Coarse tailings haulage	CAT 988 Front End Loader - Loading	1
	CAT 980 Front End Loader - Stockpile Management	1
	CAT 745 Articulated Dump Trucks - Hauling	2-4
Supplementary support equipment	70t excavator scaling & secondary breaking	1
	GPS for scaling control & tip placement	2
	Rock breaker	1
	30t excavator	1
	Fuel/lube truck	2
	Tractor	2
	Watercart	2
	Fitters trucks	3
	Light Vehicles (4X4's)	4
	Mobile Elevated Work Platform (MEWP)	1
	Telehandler	1
	Lighting sets	14
	Mobile welfare units	6

Source: FS, Table 16.3 and Table 16.4.

To assess the appropriateness of the proposed primary mining fleet, AMC conducted an indicative productivity review. The LOM primary mining productivities on a ktpd basis are summarized in Figure 5.14.

Figure 5.14 Mine production schedule: material movement (tonnes per day)



Source: AMC.

As noted in Figure 5.14, the average daily material movements (excluding rehandle) are 26 ktpa in Year 1, up to 37 ktpd from Year 2 to Year 6, and reach a maximum of approximately 44 ktpd from Year 7 to Year 12. Some indicative productivity assumptions for the excavators generated by AMC are shown in Table 5.5.

Table 5.5 High-level excavator productivities

Productivities	**Units**	**CAT 6030**	**CAT 6015**
Shift length	hrs	12	12
Shifts per day	#	1	1
Operating weeks per year	wks	50	50
Operating days per week	days	5	5
Operating days per year	days	250	250
Calendar hours	hrs	3,000	3,000
Availability	%	88	88
Utilization	%	75	75
Operating hours	hrs	1,980	1,980
Bucket capacity	m^3	17	8
Fill factor	factor	0.9	0.9
Density	t/m^3	2.6	2.6
Swell factor	factor	1.3	1.3
Bucket load	m^3	15.3	7.2
Bucket load	tonnes	30.6	14.4
Truck payload	tonnes	90	90
Passes	passes	2.94	6.25
Practical passes rounded	passes	3.00	6.00
Est truck payload	tonnes	91.8	86.4
Load factor	factor	1.02	0.96
First bucket dump	sec/pass	5	5

Productivities	Units	CAT 6030	CAT 6015
Time per pass	secs/pass	28	28
Load time	secs	61	145
Spot	secs/spot	45	45
Load and spot in sec	secs/cycle	106	190
Load and spot in min	mins/cycle	1.8	3.2
Excavator indicative hourly productivity	**ktph**	**3.1**	**1.6**
Excavator indicative annual productivity	**Mtpa**	**6.2**	**3.2**
Excavator indicative daily productivity	**ktpd**	**24.7**	**13.0**
Fleet (1 x 6030 + 2 x 6015) annual productivity	**Mtpa**	**12.7**	
Fleet (1 x 6030 + 2 x 6015) daily productivity	**ktpd**	**50.6**	

Source: AMC.

As noted in Table 5.5, given the indicative inputs used, the proposed primary excavator fleet should be capable of moving up to 13 Mt per annum (approximately 51 kt per day). AMC is of the opinion that the selected mining fleet has sufficient capacity to achieve the LOMP.

5.6 Waste dumps and stockpiles

During previous operations, Wolf generated approximately 900 kt of ore stockpiles. These stockpiles consist of in-pit stockpiles, ex-pit stockpiles, and the previous ROM pad stockpiles safely profiled following mine closure. AMC visited these locations during the site visit in June 2021 and understands that this material will be mined in the initial stages of operations.

In the LOMP, waste and Killas ore is hauled to the existing MWF which is located approximately 1.2 km from the pit exit. The MWF contains sufficient capacity in its existing planning conditions to accommodate the waste and Killas ore stockpiling proposed in the FS. A photograph showing the view from the top of the MWF westward over the area of extension is shown in Figure 5.15.

Figure 5.15 View from top of MWF towards main road, facing west, June 2021

The MWF designs including provision for Killas ore stockpile build-up and depletion were developed by SLR and reviewed by Knight Piésold.

5.7 Current and future mine infrastructure

All required major infrastructure, excluding administration offices removed at mine closure, is in place for mining and was installed during the previous operations by Wolf. TWL is planning the following infrastructure modifications to accommodate the LOMP:

- Re-installation of administration buildings.
- Construction of explosives magazine facility to de-bottleneck drill-and-blast activities.
- Expansion of the ROM pad area to allow contract mobile crushers.
- Installation of ore sorters following the primary crushing circuit.
- Process plant modifications to improve plant performance, based on experience gained during the former Wolf operations.
- At completion of the mining phase, additional crushing capacity for increased throughput during Killas stockpile reclaim.
- Expansion to office space and storage facilities.

5.8 Cut-off strategy

The cut-off grade used for reporting the Ore Reserve is based on a WO_3 equivalent (WO_3Eq) which accounts for the contribution of both WO_3 and Sn concentrate sales to project revenue. The Ore Reserve cut-off grades applied are 0.098% WO_3Eq for granite ore and 0.134% for Killas ore. The WO_3Eq calculations are summarized as follows:

- Granite: $WO_3Eq = WO_3 + (0.5337*Sn)$.
- Killas: $WO_3Eq = WO_3 + (0.1712*Sn)$.

The key inputs to the cut-off grade calculation are summarized in Table 5.6.

Table 5.6 Cut-off grade parameters

Parameter	Units	Value
WO_3 price	USD/t	30000
Sn price	USD/t	22000
Exchange rate	USD:GBP	1.33
WO_3 recovery granite	%	56.7
WO_3 recovery Killas	%	42.3
Sn recovery granite	%	40.3
Sn recovery Killas	%	16.2
WO_3 net price (incl. offsite charges)	GBP/t	17,100
Sn net price (incl. offsite charges)	GBP/t	14,831

Source: FS, Table 15.5.

AMC is of the opinion that including the Sn contribution in a WO_3Eq calculation is appropriate.

5.9 Mining schedule

The key elements of the LOMP are as follows:

- Mine life: 18.5 years (including processing of Killas stockpiles).
- Ore process throughput: 3.4 Mtpa.
- Total ore mined: 68.0 Mt.
- Total waste mined: 77.4 Mt.
- Strip ratio: 1.14:1.

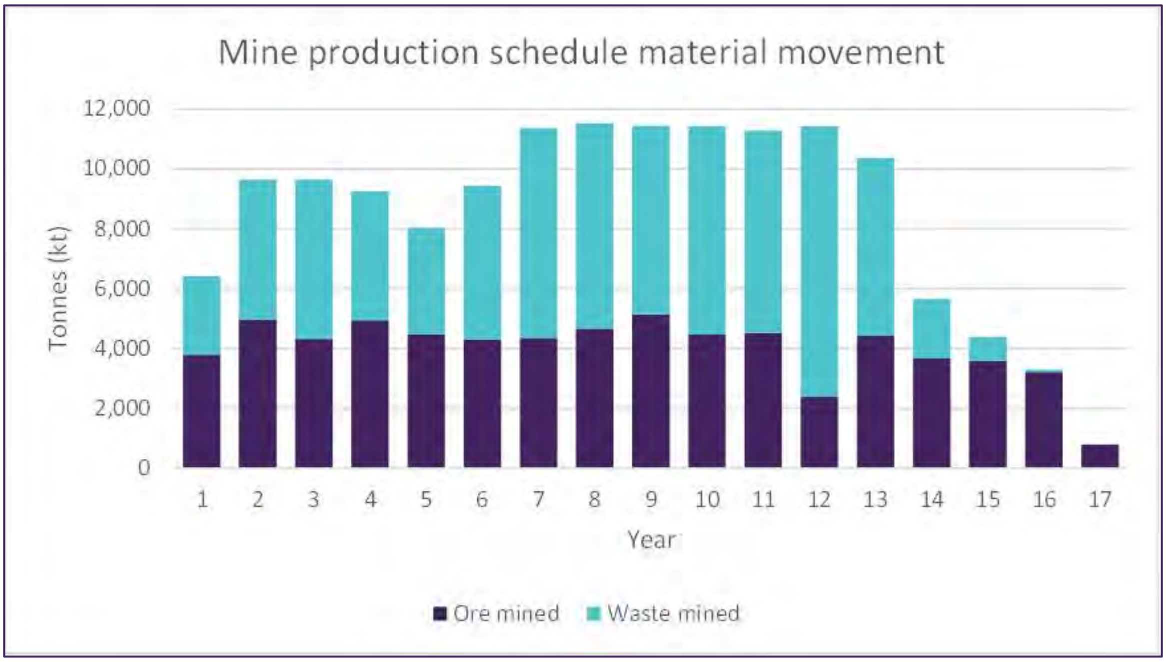
The mine production schedule provided by Mining Plus and reviewed by AMC is shown in Table 5.7.

Table 5.7 Mine production schedule

Area	Item	Description (UoM)	LOM Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Mining	Ore Mined to ROM	Volume (kbcm)	**22,137**	1,173	1,521	1,308	1,500	1,394	1,553	1,268	1,274	1,461	1,198	1,743	780	1,455	1,455	1,446	1,294	315		
		Tonnes (kt)	**53,662**	2,659	3,545	3,059	3,640	3,411	3,774	3,081	3,112	3,497	2,924	4,245	1,911	3,598	3,616	3,594	3,214	782		
		Grade WO_3%	***0.19***	0.18	0.19	0.17	0.18	0.19	0.17	0.17	0.18	0.19	0.19	0.16	0.14	0.17	0.20	0.24	0.25	0.20		
		Grade Sn%	***0.03***	0.04	0.04	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02		
	Ore Mined to Long Term Stockpiles	Volume (kbcm)	**5,715**	467	580	507	514	417	217	506	611	652	605	108	193	319	18					
		Tonnes (kt)	**14,313**	1,125	1,419	1,256	1,298	1,063	519	1,271	1,546	1,638	1,543	275	493	822	46					
		Grade WO_3%	***0.15***	0.16	0.15	0.14	0.15	0.15	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.14	0.14					
		Grade Sn%	***0.01***	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00					
	Waste Mined	Volume (kbcm)	**30,762**	1,092	1,911	2,149	1,702	1,381	2,145	2,794	2,752	2,575	2,779	2,655	3,471	2,264	758	300	31	4		
		Tonnes (kt)	**77,382**	2,637	4,679	5,323	4,310	3,557	5,141	7,009	6,871	6,303	6,966	6,770	9,020	5,934	1,987	786	80	10		
	Total Mined	Volume (kbcm)	**58,613**	2,731	4,012	3,964	3,716	3,192	3,915	4,568	4,637	4,689	4,582	4,506	4,444	4,038	2,230	1,746	1,325	318		
		Tonnage (kt)	**145,357**	6,421	9,642	9,638	9,248	8,030	9,434	11,360	11,529	11,438	11,433	11,290	11,425	10,354	5,649	4,380	3,294	791		
	Strip Ratio (Total)	*Waste : (LTSP+ROM)*	***1.14***	0.70	0.94	1.23	0.87	0.80	1.20	1.61	1.48	1.23	1.56	1.50	3.75	1.34	0.54	0.22	0.02	0.01		
	Strip Ratio (ROM)	*(Waste+LTSP) : ROM*	***1.71***	1.41	1.72	2.15	1.54	1.35	1.50	2.69	2.70	2.27	2.91	1.66	4.98	1.88	0.56	0.22	0.02	0.01		
Processing	Granite Ore To Process (all sources)	Tonnes (kt)	**54,333**	2,588	3,366	3,366	3,375	3,366	3,366	3,366	3,375	3,366	3,366	3,366	3,375	3,366	3,366	3,366	3,375	1,218		
		Grade WO_3%	***0.19***	0.19	0.19	0.17	0.18	0.19	0.18	0.17	0.18	0.19	0.19	0.16	0.15	0.17	0.19	0.23	0.25	0.22		
		Grade Sn%	***0.03***	0.04	0.04	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02		
	Killas Ore to Process (all sources)	Tonnes (kt)	**8,865**																	1,852	5,049	1,963
		Grade WO_3%	***0.15***																	0.17	0.15	0.13
		Grade Sn%	***0.03***																	0.03	0.03	0.04
	Total to Process	Tonnes (kt)	**63,198**	2,588	3,366	3,366	3,375	3,366	3,366	3,366	3,375	3,366	3,366	3,366	3,375	3,366	3,366	3,366	3,375	3,071	5,049	1,963
		Grade WO_3%	***0.18***	0.19	0.19	0.17	0.18	0.19	0.18	0.17	0.18	0.19	0.19	0.16	0.15	0.17	0.19	0.23	0.25	0.19	0.15	0.13
		Grade Sn%	***0.03***	0.04	0.04	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.03	0.04

The total material movement within the pit, excluding stockpile rehandle is shown in Figure 5.16.

Figure 5.16 Mine production schedule total material movement

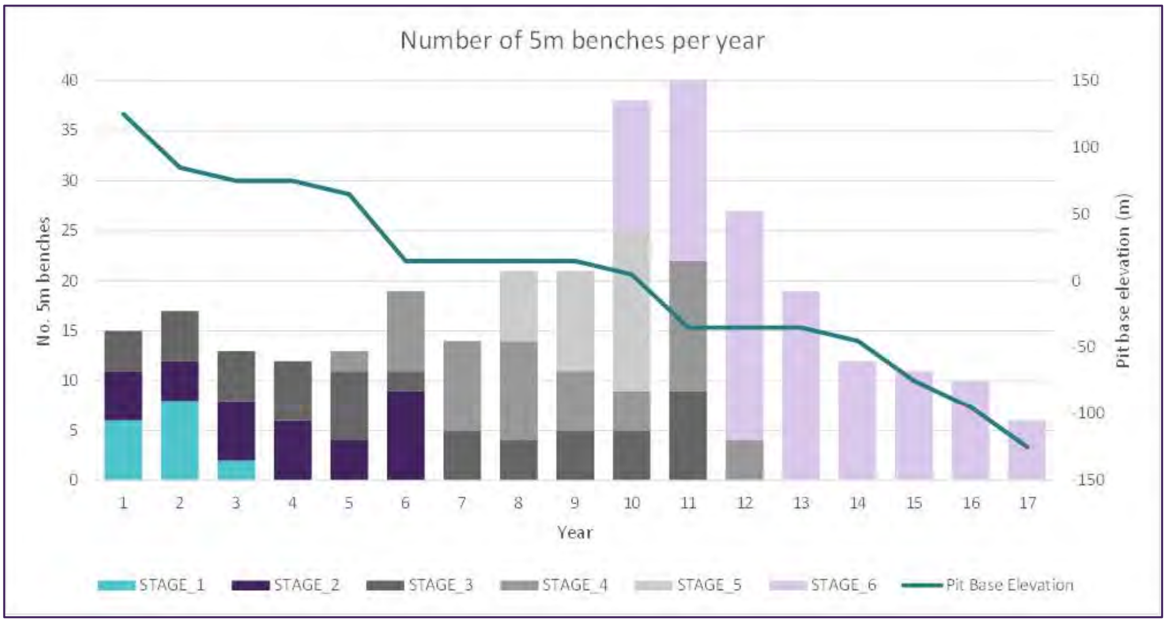


Source: AMC.

The mine production schedule was generated by Mining Plus using MineSched™ Scheduling software. AMC notes that the schedule is based on tonnage targets and does not physically model fleet productivities, haulage profiles, or detailed equipment requirements by period.

Mining Plus scheduled on a quarterly basis in MineSched™ and assigned a maximum drop rate of four benches per phase per quarter (one per month). The vertical advance rate of the pit (excluding benches <45 kt) is shown in Figure 5.17 and the average size of benches is shown in Figure 5.18.

Figure 5.17 Vertical advance rate by period



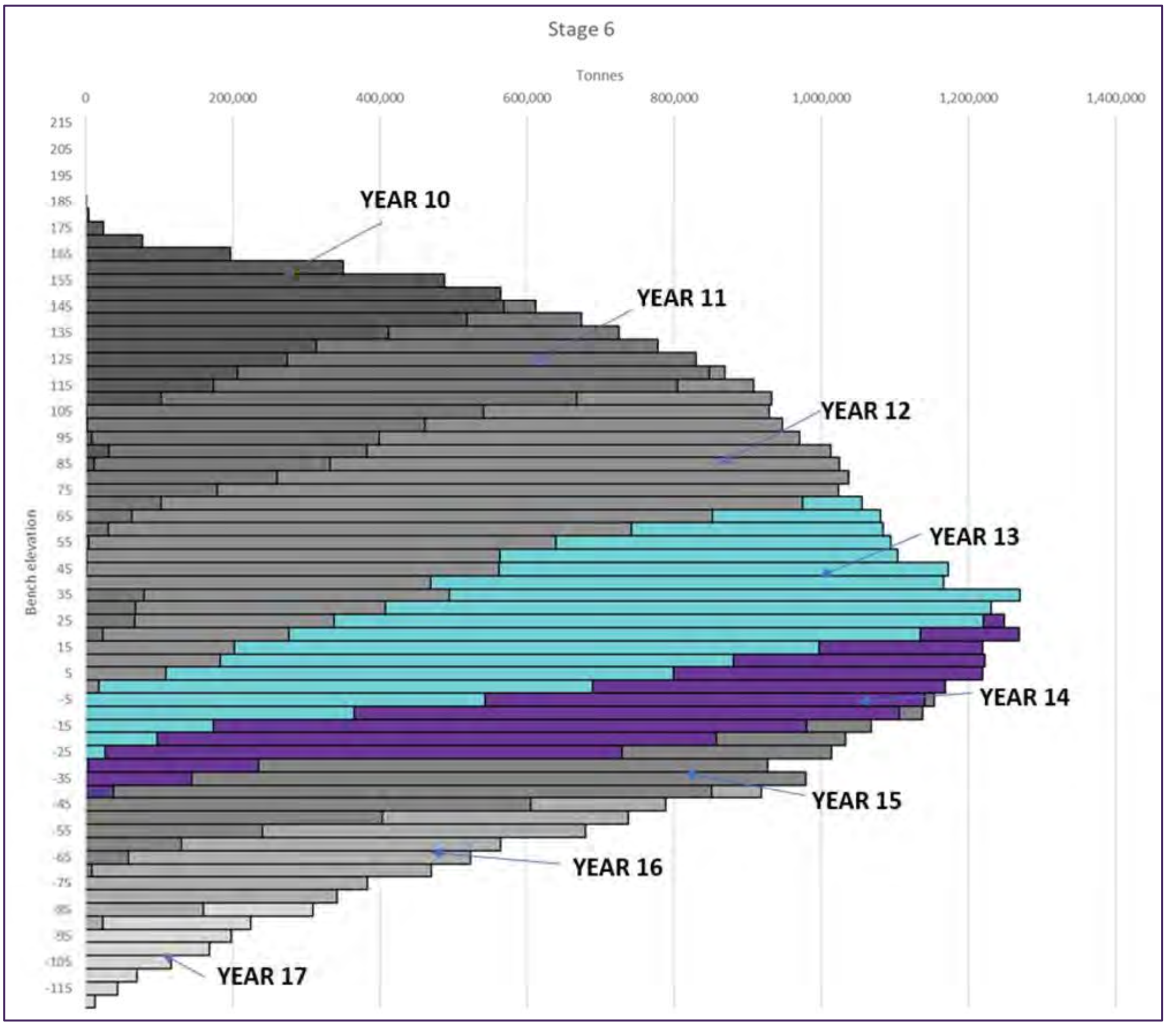
Source: AMC.

Referring to Figure 5.17, AMC notes the following:

- Years 1-9: Vertical rate of advance is within the specified limits for the individual phases.
- Years 10-13: The number of benches is optimistic, driven largely by the geometry of Stage 6 where a practical limit of four benches per quarter has been exceeded (Figure 5.18).
- Years 14-17: Mining returns to within practical limits in Stage 6 to the base of pit.

The excessive number of benches per period between Year 10 and Year 13 is caused by a stepped mining front along the entire length of the pit generating a series of low tonnage benches. The tonnages by bench and period for Stage 6 are shown in Figure 5.18.

Figure 5.18 Bench tonnages by period for Stage 6



Source: AMC.

AMC is of the opinion that the relatively high vertical advance rate is not a significant issue and can be corrected by either applying horizontal lags during detailed mine planning or by designing intermediate phases within Stage 6.

5.10 Ore Reserves Statement

The total Proved and Probable Ore Reserve for Hemerdon is 63.3 Mt at 0.18% WO_3 and 0.03% Sn reported at a cut-off grade of 0.098% WO_3Eq for granite and 0.134% WO_3Eq for Killas. The Ore Reserve includes 0.9 Mt of existing granite ore stockpiles generated during previous mining operations on-site. The Ore Reserve estimate is summarized in Table 5.8.

Table 5.8 Hemerdon Ore Reserve estimate

Category	Cut-off (% WO_3Eq)	Tonnes (Mt)	WO_3 (%)	Sn (%)	WO_3Eq (%Eq)	Contained WO_3 (Mmtu)	Contained Sn (kt)
Proved							
Granite	0.098	30.6	0.18	0.03	0.2	5.6	9.9
Killas	0.134	2.6	0.15	0.04	0.16	0.4	0.9
Stockpiles	-	0.9	0.21	0.05	0.23	0.2	0.5
Probable							
Granite	0.098	22.8	0.19	0.02	0.2	4.3	5.3
Killas	0.134	6.2	0.15	0.03	0.15	0.9	1.9
Stockpiles	-	-	-	-	-	-	-
Subtotal		**63.3**	**0.18**	**0.03**	**0.19**	**11.4**	**18.5**

Source: FS, Tables 15.1 and 15.12 (numbers may not add due to rounding, stockpile contained metal calculated directly from rounded table numbers).

5.11 AMC comments

It is AMC's opinion that the Ore Reserve estimate has been studied to a level of detail that is consistent with the requirements for public reporting of an Ore Reserve under the JORC Code (2012). AMC notes, however, that the Ore Reserve estimate includes material outside the existing mining permission boundary which, although identified as reasonable grounds for approval by TWL, still poses a risk to the Ore Reserve estimate.

An independent pit optimization completed by AMC confirms that the optimization undertaken by Mining Plus is appropriate given the inputs used, the method of pit shell selection is valid, and that the selected pit shell is appropriate for design.

AMC is of the opinion that the mine design is appropriate for a feasibility-level of study, with the exception of Stages 4 and 4b, which requires re-design. The design requires corrected switchback design criteria to allow the safe and practical operation of CAT 777 trucks. This re-design is not envisaged to have a significant impact on the mine plan.

AMC is of the opinion that the mine plan is achievable given the proposed mining fleet, calendar constraints, and operating philosophy. AMC notes, however, that operating assumptions will be challenging to execute with a high degree of fleet movement and relatively low equipment productivities. This mining practice is similar to historical practices at site and the site technical team are preparing for these known issues.

AMC identified minor issues with the scheduling work affecting Year 10 to Year 13 in the mine plan and an optimistic vertical advance rate during this period. AMC is of the opinion that these issues can be dealt with in detailed mine planning and are not envisaged to be significant.

6 Aggregates review

TWL plans to produce aggregate products at Hemerdon using ore sorter rejects, DMS rejects, and spiral tailings. To achieve this, Aggregates West Limited (AWL) has been established by TWL which is a 100% owned subsidiary of TWL. The production and marketing of the aggregates are planned to be contractor operated and AMC understands that contracts are currently in final negotiation stages with a processing contractor and a marketing and logistics partner.

Aggregates produced from primary sources in the UK are subject to the UK Aggregates Levy, currently GBP2.00 per tonne. Where projects can demonstrate that the source of aggregates is secondary to a primary process, as is the case with Hemerdon, products are exempt from the levy.

Touchstone Geological Services Ltd. (Touchstone) was engaged by TWL to provide a study into the potential quantity and quality of the aggregates. AWL has undertaken a series of aggregates trials on-site using material on surface mined during the Wolf operations. Touchstone completed testwork on samples from the trials and concluded that the products sampled demonstrate compliance with the relevant BS EN standards and specifications for highway works.

Touchstone noted that the Hemerdon deposit contains areas of high-arsenic which exceed the construction industry standard of 640 ppm. TWL has modelled elevated deleterious elements in the geological block model and identified that there are two areas: one in the north, and one in the south of the pit where the granite would not be suitable for aggregates production. This has been accounted for by a 10 Mt reduction in available tonnage in the Touchstone study. AMC is of the opinion that given the parcel approach to ore mining in the open pit, it should be possible to avoid areas of elevated deleterious elements.

AMC visited the current aggregates laydown facility located on a pad area to the north-west of the processing plant in June 2021. A range of aggregate products, both granite and Killas, are stockpiled and demarcated with signage. A weighbridge is located on the road exiting the facility and has been in-use since active sales of products began in February 2021. Screening equipment used during the trials was not on-site during the site visit. Some photographs of the aggregates area are shown in Figure 6.1 and Figure 6.2.

Figure 6.1 Aggregates storage area facing south

Figure 6.2 Aggregates storage area facing north

AMC was provided with sales records by AWL covering February 2021 to the end of April 2021. During that time, approximately 7 kt of aggregates have been sold to local aggregate companies and independent customers. AWL is actively engaged with customers in the local market and are currently determining demand for the different products.

AWL currently has a temporary planning permission for a maximum of 150 truck movements per day exiting the site. TWL has informed AMC that they are in the process of preparing a revised Section 73 agreement for submission to Devon County Council which will seek to increase the number of allowable truck movements per day. The details of this are discussed more fully in Section 11.

6.1 AMC comments

AMC is of the opinion that AWL is operating a professional and well-organized aggregates operation and has undertaken all the pre-requisite tests to produce marketable aggregate products.

AMC is also of the opinion that the aggregates operation as it is currently envisaged, is of financial benefit to TWL due the following:

- Primary mining costs will be covered by the tungsten operations.
- Secondary aggregate is exempt from the UK Aggregate Levy.
- Bulk quality testwork has been completed and samples indicate compliance with relevant standards.
- Active engagement has occurred with the local market and actual sales have been achieved since February 2021.

The only significant impediment that AMC can see to AWL achieving its planned sales production figures is the current lack of additional planning permission for the required number of truck movements.

7 Mineral processing review

7.1 Introduction

Figure 7.1 is the aerial view of the Hemerdon processing plant before closure. To the left is the ROM pad and 110 crushing building. Left of centre is the 130 tertiary crushing building. The main building houses, from left to right, the 120 classification area, the 160 fine gravity area, the 140 dense media separation (DMS) area, the 150 primary Mill area, the 180 concentrate milling and flotation Area, and the 200 concentrate processing area with the thickener and water services visible on this side. To the right are the Primary DMS Floats Bins and in the foreground are the ancillary facilities including mining offices, substation, workshops, and stores.

Figure 7.1 Aerial view of Hemerdon processing plant

7.2 Process mineralogy

The tungsten and tin mineralization is hosted in a sheeted-vein system within the Hemerdon Granite and in the surrounding "Killas" country rocks. The tungsten occurs primarily in ferberite, the iron-rich end member of the wolframite series, as well as some ancillary scheelite and russellite. The tin is almost exclusively present as cassiterite.

The tungsten and tin mineralization is coarse and centimetre-sized crystals are common, but a liberation size of 400 µm was selected, by Wolf, for the refinery end of the plant and demonstrated to show complete liberation between the two payable elements and the gangue minerals.

Deleterious elements appear chiefly in the form of arsenic, iron, thorium, and uranium. The arsenic is hosted in arsenopyrite in the fresh ore, as well as scorodite and pharmocosiderite in the weathered and transitional zones of the orebody. Problematic iron comes predominately from haematite, although some goethite is present. Uranium and thorium are hosted in zircon, xenotime, and monazite respectively and are considered to be granite-related but are naturally finer than the wolframite and cassiterite and were historically concentrated, predominately, in the fines circuit of the plant.

7.3 Process plant parameters (including commentary on historical design and operating issues)

The historical Drakelands processing plant was designed to process 514 tph (3 Mtpa). Due to original planning constraints, the plant was unable to operate on Sundays or public holidays and as such had a standard operating week of 5.5 days. This gave a total of 267.5 maximum operating days per year (6,420 hours) and once a 91% utilization factor was applied, this gave a total of 5,842 hours.

During the Wolf operating era, planning permissions were approved for 24-hours per day, seven-days per week, 365-days per year operating. Using the 91% run time value, this meant a maximum of 4.1 Mtpa of ore could be processed with the increased operating hours.

7.4 Process description at closure

The following is a description of the various plant circuits, the control system, the metallurgical control, the reagents, and the capacities of the various circuits as installed at closure.

The plant was sectioned into nine separate areas, as described in Table 7.1.

Table 7.1 Plant areas

PROCESS PLANT
AREA 110 - PRIMARY CRUSHING
AREA 120 - WASHING AND SCREENING
AREA 130 - TERTIARY CRUSHING
AREA 140 - DENSE MEDIA SEPARATION
AREA 150 - PRIMARY MILLING
AREA 160 - FINES GRAVITY SEPARATION
AREA 180 - CONCENTRATE REGRIND AND FLOTATION
AREA 200 - CONCENTRATE PROCESSING
AREA 210 - TAILINGS THICKENING

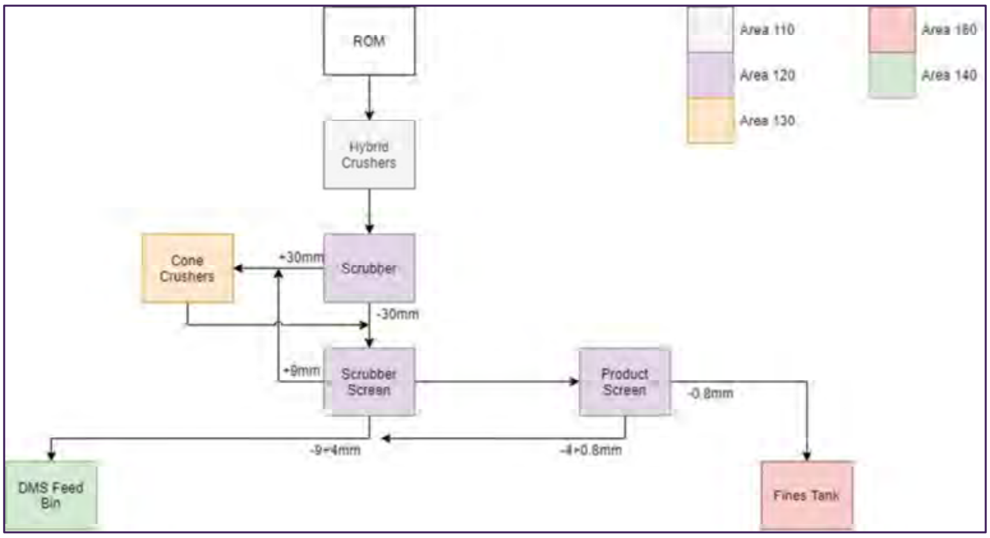
The following describes the process areas defined above in terms of the Ore Preparation area, the Concentrator, and the Concentrator Dressing Circuit.

7.5 Ore preparation circuit: Areas 110, 120,130,140, and 160

7.5.1 Introduction

The ore preparation circuit at closure of Wolf consisted of primary and secondary hybrid crushing, drum scrubbing, and closed-circuit screening with tertiary cone crushers to produce the dense medium separation (DMS) and fines feedstocks. Figure 7.2 depicts the flowsheet of the circuit at closure.

Figure 7.2 Ore preparation circuit



Area 110: Crushing

The crushing circuit contained a nominal 750 mm aperture grizzly, feeding a 250t surge bin with a 1.5 m x 8 m apron feeder. The apron feeder discharges into a Sandvik CR810/12-15 twin-shaft toothed rolls crusher equipped with a 264 kW motor. The primary crusher was designed to discharge material at nominal 250 mm ahead of feeding a second toothed rolls crusher, a Sandvik CR810/08-20 fitted with a 320 kW motor. The secondary crusher reduces the 250 mm material to nominal 65 mm before being conveyed to Area 120. A tramp metal magnet was fitted over the conveyor to protect the downstream processes.

Area 120: Washing and screening

Area 120 consisted of an 8.0 m by 3.0 m diameter (without liners) tyre-driven scrubber powered by a 4 x 75 kW motors, which was equipped with a trommel screen with 30 mm panels. The +30 mm discharged via a chute to be further crushed in the tertiary crushers, the undersize flowed onto an 8.0 m by 4.1 m double-deck banana scrubber screen driven by a 55 kW motor, which separated at 9 mm on the top deck and 4 mm on the bottom deck. The +9 mm material was conveyed to the tertiary crushers, the -9/+4 mm was conveyed to the dense media feed bin and the -4 mm pumped to the product screen. The product screen, a 7.3 m by 3.6 m single-deck flat screen driven by a 37 kW motor with original cut size of 0.5 mm which was latterly changed to 0.8 mm. The undersize pulp flowed by gravity to the fines tank and the oversize was conveyed to the dense media feed bin.

Area 130: Tertiary crushing

The tertiary crushing plant was fed with -65/+9 mm material to a feed bin ahead of two Sandvik Model CH660F Gyracone Crushers fitted with 315 kW motors. The feed conveyor was fitted with a metal detector to protect the crushers. The material was fed through two vibrating feeders into the crushers and the crushed material was returned to the scrubber screen, as shown in Figure 7.2.

Crushing circuit capacity

The primary toothed rolls crusher had a maximum capacity of 1,713 tph for soft granite and 1,772 tph for hard granite, the secondary toothed rolls crusher had a maximum capacity of 694 tph for soft granite and 626 tph for hard granite. The crusher circuit throughput would have been limited by the lowest throughput machine.

Due to the crushers being directly linked to the washing and screening sections of the plant, the throughput was limited to the throughput of the concentrator (514 tph). There was very limited surge capacity between the washing and screening section of the plant and the concentrator sections of the plant (five hours for DMS and two hours for fines). This meant that the additional capacity in the crushing circuit could not be utilized.

7.6 Concentrator: Areas 140,150,160,180, and 210

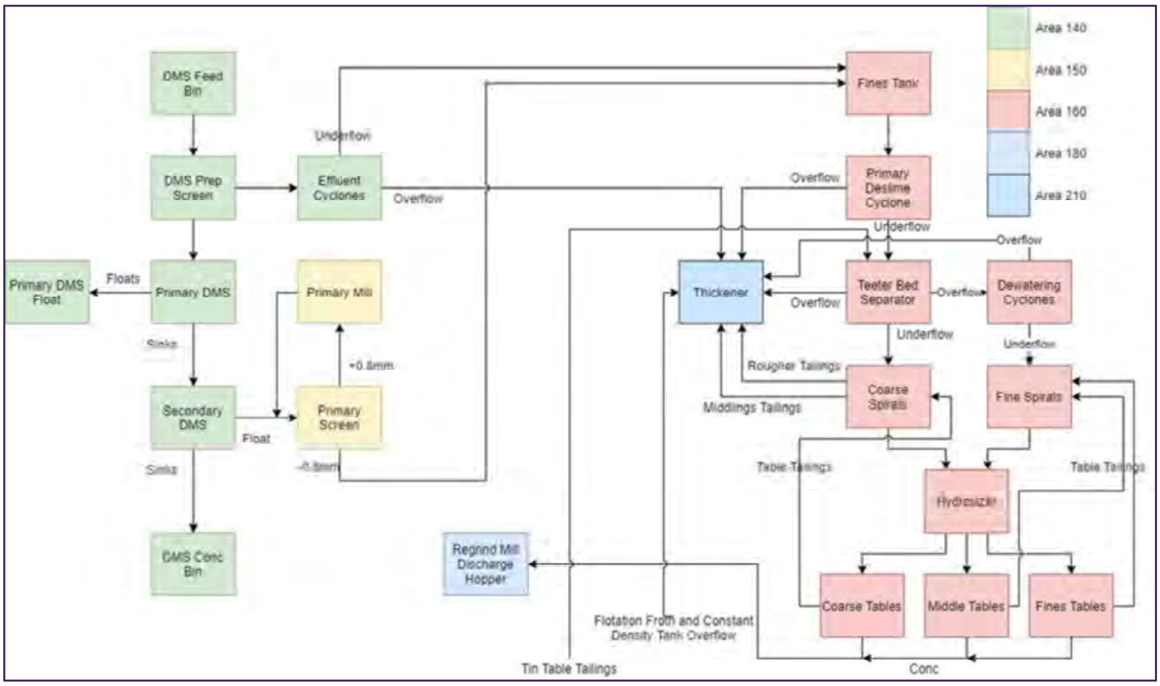
7.6.1 Introduction

The concentrator consisted of a DMS circuit and a fines spirals and tabling circuit.

The DMS section consisted of a preparation screen, two primary recovery circuits, a secondary cleaning circuit, and a scavenger circuit in closed circuit with a screen and a ball mill. The DMS circuits were all of the pump fed cyclone type. The scavenge DMS screen undersize reported to the fines feed tank. It should be noted that the scavenger DMS was taken out of service early in 2016, but the infrastructure remains in place.

The fines circuit consists of deslime cyclones, teeter bed separator, spirals, a multi–spigot hydrosizer, and shaking tables. Figure 7.3 shows the flowsheet at closure.

Figure 7.3 Concentrator flowsheet



Area 140: Dense Media Separation

The -9.0/+0.8 mm material from the Area 120 area was stored in the DMS feed bin, which had 1,500 t of live capacity, approximately five hours of storage for soft granite throughputs. DMS feed material was conveyed to the single-deck DMS preparation screen where any remaining -0.8 mm material was removed and returned via the DMS effluent circuit back to the fines tank. The +0.8 mm DMS feed discharged off the screen and into the DMS feed mix box.

On closure, the primary DMS 1 consisted of three Multotec 420 mm cyclones operating in parallel, whilst primary DMS 2 consisted of four Multotec 420 mm cyclones (modified during Wolf's tenure installed October 2018) targeting a density cut point of 2.70 g/cm^3. The dense media for the primary circuit was a combination of ferrosilicon and magnetite. The DMS floats reported to the overflow of the cyclone and the sinks reported to the underflow. The products were discharged on to drain and rinse screens for media recovery. The primary floats discharged and were transported to the floats bins where dump trucks transport the floats to the MWF.

The primary DMS sinks, once media was recovered, were transferred to the secondary DMS feed bin. From the feed bin, the secondary DMS feed is added to the secondary DMS mix box and pumped to a set of two 360 mm cyclones targeting a density cut point of 3.30 g/cm^3. Media for the secondary circuit was atomized ferrosilicon only. The floats and sinks were both screened on a single screen which had a partition to separate the two products. The discharge chute was also common to both streams with a partition. Secondary DMS floats reported to the primary mill sizing screen and the sinks reported to the DMS concentrate storage hopper.

The scavenger DMS circuit also consisted of two 360 mm cyclones and designed to be fed with material that was -1.7/+0.5 mm in size from the primary mill sizing screen. The floats and sinks both passed on to a partitioned screen similar in design to the secondary screen. Scavenger DMS floats reported to the primary mill sizing screen and the sinks reported to the DMS concentrate storage hopper. The scavenger DMS never operated optimally and was removed from circuit early in 2016 and not returned to service. This was not in service at closure.

Correct density media was collected from the drain screens and returned to the media hopper, the media from the rinse screens was recovered via densifiers and magnetic separators and returned to the correct density media hopper. The "wash" effluent for the densifier circuit was treated in 400 mm Multotec cyclones the overflow reporting to tailings and the underflow to the fines feed tank.

Area 150: Primary milling

The primary milling section consisted of a converted grate discharge Ersel 2.85 m (shell) by 3.98 m ball mill and discharge trommel with 8.0 mm panels. The oversized material discharged into a bunker and the -8.0 mm was pumped to the 5.0 m by 1.8 m double-deck primary mill sizing screen. The screen had two decks, one at 1.7 mm and the other at 0.8 mm. As the scavenger DMS was removed from circuit, the top deck was removed and all the +0.8 mm reported to the primary mill. The mill was run in closed circuit with the screen and the -0.8 mm material was pumped to the fines feed tank.

Area 160: Fines separation

The material in the 1,700 m^3 agitated fines feed tank, equivalent to under two hours of run time, was pumped to two parallel deslime cyclone clusters. One set were manufactured by Salter Cyclones and the other set by Multotec. Both sets of clusters contained eleven off 250 mm cyclones (22 total) targeting a D50 of 32 µm (quartz basis).

The deslimed feedstock was subsequently sized on a 4 m diameter MEP teeter bed separator with a nominal (quartz basis) cut point of 150 µm. The underflow was subsequently pumped to the coarse rougher spirals and the overflow dewatered through a cluster of ten gravity-fed 125 mm cyclones before being pumped to the fine rougher spirals.

The coarse spiral circuit consisted of roughers, where concentrates went directly to cleaner spirals, rougher middlings went to middling spirals, where the concentrate reported along with the rougher concentrate to cleaner spirals. Cleaner spiral concentrate reported to the multi spigot hydrosizer and cleaner spiral tailings reported to rougher spiral feed. Rougher and middling spiral tailings were both final tailings and reported to the tailings thickener.

Fines spirals consisted of roughers and middling spirals. Rougher and middling concentrates reported to the fine cleaner spirals from which concentrate reported to the multi-spigot hydrosizer. Rougher and middlings spiral tailings reported to the tailings thickener. Rougher middlings are the feed for the middlings spirals.

Spiral concentrates were sized into three size fractions through a four-spigot hydrosizer the nominal sizes were -800/+300 µm, -300/+100 µm and -100/+32 µm fractions ahead of tabling. A total of four double-deck Holman 8000 rougher shaking tables separated the sized spiral concentrates. There were a further four Holman 8000 tables used for rougher table concentrate cleaning. The shaking table tailings were recirculated back to the spirals and concentrates joined the DMS concentrate at the regrind mill. The multi-spigot hydrosizer overflow (-32 µm) reported to tailings.

Area 210: Tailings thickener

Fine tailings were transferred to an Andritz Delkor 25 m diameter high-rate thickener via a mixing box where flocculant was added. The tailings underflow was pumped to the MWF and the thickener overflow water cascaded into the process water tank. The thickener was fitted with a Clarometer for automated flocculant dosage.

Concentrator circuit capacity

The primary DMS feed rate for kaolinized granite was designed at 306 tph (153 tph per module) and for fresh granite 397 tph (197.5 tph per module), with a maximum throughput of 437 tph to both primary units.

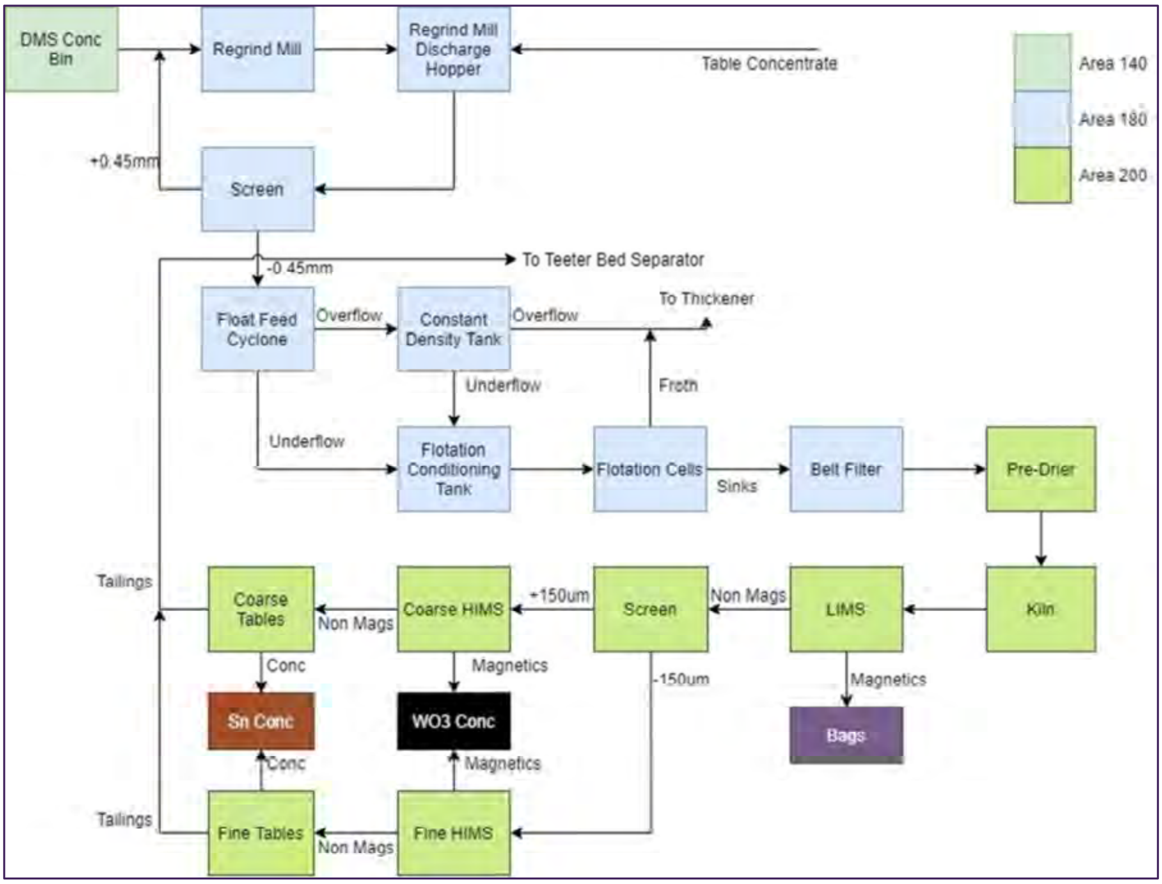
The fines gravity circuit was designed for 240 tph for kaolinized granite with a maximum throughput of 266 tph and for fresh granite, design throughput was 176 tph.

7.7 Concentrate dressing circuit: Areas 140, 180, and 200

7.7.1 Introduction

The concentrate dressing part of the plant consisted of a regrind mill, flotation circuit, vacuum filter belt, pre-drier, kiln, low-intensity magnetic separator, high-intensity magnetic separators, and shaking tables. An induced roll magnetic separator used for tin concentrate cleaning was on hire and removed at the time of closure. Figure 7.4 shows the at closure concentrate dressing circuit flowsheet. The Area 200 unit processes were also collectively known as the refinery.

Figure 7.4 Concentrate dressing flowsheet



Area 180: Concentrate regrind and flotation

The DMS and fine concentrates were combined at the regrind mill and accompanying Derrick Stacksizer screen. DMS concentrates were fed into the Ersel 1.8 m (shell) by 1.45 m (30 kW motor) regrind ball mill via a belt feeder, the mill was run in closed circuit with a Derrick Stacksizer screen with a closing size of 450 µm. Oversize from the Derrick Stacksizer returned to the regrind mill and the screen undersize flowed into the flotation feed hopper.

Flotation feed was dewatered by a cyclone and a 0.65 m^3 constant density tank. The cyclone underflow reported to the 1.0 m^3 conditioning tank and the overflow reported to the constant density tank. The constant density tank overflow was pumped back to the fines circuit and the underflow flowed into the conditioning tank.

The conditioning tank was where the activator (copper sulphate) and collector (sodium ethyl xanthate) were dosed. The flotation circuit consisted of three Outotec OK1.5 flotation cells with a nominal 1.5 m^3 volume per cell fitted with 7.5 kW motors. The flotation froth contains the sulphide minerals, including arsenopyrite and the tungsten and tin minerals remain in the flotation sinks. The flotation sinks were dewatered with a 9.1 m x 1.83 m horizontal vacuum filter belt. The sulphide froth is rejected to the final tailings thickener.

Area 200: Refinery

Filtered concentrate was dried to 0.1% moisture in a 9.0 m by 1.1 m diameter diesel burner fired Drytech pre-drier with a 1° angle and fitted with a 5.5 kW motor. The dried concentrate was transferred to the reduction kiln by a bucket elevator.

The reduction kiln reduced the weakly magnetic haematite to highly magnetic magnetite. This was achieved in a 13.0 m by 1.1 m diameter diesel burner fired Drytech reduction kiln, driven by a 7.5 kW motor. To achieve the reduction process, the atmosphere within the kiln was controlled to a 6:1 CO_2:CO ratio suitable for the conversion of the haematite to magnetite. The off gases generated from the reduction process were scrubbed to remove any impurities before being vented to atmosphere. The scrubbed impurities from the gases were complexed using lime and ferric sulphate and pumped to the wastewater treatment plant where the sludge was flocculated and filtered, and the water returned to circuit.

The reduced concentrate was cooled through a water-cooled screw feeder before transferring to the low-intensity magnetic separator via a bucket elevator and a vibrating pipe feeder.

The low-intensity magnetic separator was an Eriez Magnetics DFA50 36.40 permanent magnet (630 gauss), drum styled dry magnetic separator driven by a 7.5 kW motor. The magnetics were piped into bulk bags for storage awaiting further processing and the non-magnetics were screened on a Derrick high frequency dry screen with a 150 µm mesh.

The low-intensity magnetic separator non-magnetics, having been screened at 150 µm were processed through a total of nine Eriez Magnetics model VOG3.400S rapid disc magnetic separators. Four of the machines processed the +150 µm and five the -150 µm material. The scalper magnets removed any misplaced low-intensity magnetics, as well as protecting the disc magnets from scrap iron. The tungsten was recovered from the disc magnets, with concentrates piped into drums on the floor below. Individual drums were assayed before concentrate blends were created ready for shipment to the off takers.

The high-intensity magnetic separator non-magnetics were repulped and processed over two Holman 8000 single-deck shaking tables to concentrate the tin and produce saleable product. Tin product was dried through a diesel burner fired Drytech 5.0 m by 0.6 m diameter drier.

A pilot Boxmag Rapid Induced Roll Magnet was on hire recovering misplaced tungsten from tin concentrate but was returned to the vendor at the time of closure. The two concentrates were collected into drums in preparation for blending.

Concentrate dressing circuit capacity

The feed to flotation was designed for 1.57 tph for kaolinized granite and 1.60 tph for fresh granite.

7.7.2 Process control

The plant was controlled by a Citect supervisory control and data acquisition (SCADA) system that allowed the plant to be operated from a control room located in the plant to the west side of the concentrator building. The plant instrumentation included weightometers, density gauges, flowmeters, airflow meters, level controllers, and pressure gauges.

The main metallurgical accounting streams had automated samplers as well as the concentrate blending systems.

7.7.3 Metallurgical control

Metallurgical accounting was conducted by the former operators, but due to the complexity of the circuit, the traditional "check in check out" accounting was not conducted, and the plant effectively conducted a full balance on a shift-by-shift basis. Due to insufficient instrumentation for such an accounting system, the accounts relied significantly on the use of surveys and two-product formulas to complete the balance.

7.8 Plant refurbishment during the Wolf operation

Below is a summary list of the more significant changes that the Wolf operational and project teams made to the "as-built" plant to enhance performance through either improved grade and recovery, operability, or reliability.

- Changes to the hybrid crusher rolls constructions.
- Phase 1: Secondary segments – buttons welded to milled segment.
- Phase 2: Cast secondary segments and primary pick from the same material as Phase 1.
- Added modified lifters in, and ejector paddles at the end of, the scrubber to reduce residence time in order to reduce the attrition of ferberite.
- Installation of vents in the underpan of the (scrubber) screen to reduce low-frequency noise.
- Increased product screen size from 0.5 mm to 0.8 mm to improve fines removal and dewatering ahead of DMS.
- Construction of a DMS feed stockpile facility (unfinished).
- Changed the feeder system on the DMS feed bin including improved drainage.
- Decreased top size to DMS from 9 mm to 8 mm (and later, just under 8 mm) to improve overall recovery.
- Reduced internal diameter of feed piping to the primary DMS distributors to increase pulp velocity, therefore reducing settling and separation.
- Installed higher accuracy water valves for the primary DMS density control system.
- Primary DMS 1 and 2 cyclones changed from 2 x 510 mm cyclone to 3 x 420 mm cyclone to reduce breakaway effect and balance the existing three-way cyclone feed distributor better in conjunction with repulpers.
- Primary DMS 2 subsequently changed from 3 x 420 mm cyclones to 4 x 420 mm, with double staged two-way distributors (to provide four feeds) to stop unequal feed distribution and thus improve presentation to the cyclones, resulting in better circuit stability. This also allows for the increasing amount of feed reporting to the DMS circuit as the ore transitions from soft to hard types.
- Primary DMS cyclone over-flow and under-flow boxes redesigned, including wear-reducing inserts in the over-flow boxes.
- Increased the size of the conveyor transporting the primary DMS sink product to allow for increased mass pulls and reduce spillage (original design conveyor was too small).
- Installed a weightometer on the conveyor carrying the primary DMS sinks to monitor mass pull.
- In the primary DMS the media was changed from atomized Cyclone 60 to milled 270D Ferrosilicon and subsequently blending with magnetite to increase the stability of the media and allow for a separation at a density of c2.7 g/cc (theoretically lying between ferrosilicon and magnetite normal operating ranges).
- Addition of a new primary DMS media storage hopper with bleed/refeed circuit.
- Various pumps in the DMS circuits were changed to improve wear issues and to reduce depredation of the ferberite.
- Conversion of primary mill from overflow to grate discharge.
- Removal of the secondary deslime hydrocyclones from circuit leaving only 6 x Multotec 510 mm hydrocyclones performing a single-stage deslime function. This was a necessary intermediate step to changing the deslime circuit to the correct-sized cyclones in a single-stage deslime, bearing in mind that the plant had to be kept operational and, whilst not cutting at a low enough point, resulted in a considerable reduction of losses that were being caused by two-stage desliming.
- Phase 2 of the deslime modification: Reactivation of the previous secondary deslime cluster (11 x 250 mm hydrocyclones) as a single-stage deslime together with the addition of an 11 x 250 mm Salter hydrocyclone cluster. The two clusters were run in parallel by use of

a two-way distributor to create a total capacity of 22 x 250 mm deslime hydrocyclones. These were designed to cut at a d50 of approximately 32 µm (for quartz) hydraulically equivalent to about 16 µm for Ferberite-Wolframite with a high Ep (efficiency). Note that the generally accepted minimum-size recovered through non-enhanced gravity separation techniques is 20 µm.

- Sizing of spiral feed with a 4 m diameter Teeter Bed Separator (or Hydrosizer) to provide for coarse and fine spiral feeds (nominally -800+150 µm, coarse spiral feed, and -150+32 µm fine spiral feed) to improve spiral recovery and reduce losses of fine tungsten minerals.
- Addition of new coarse middlings spirals with the former middlings spirals repurposed for fine middlings only.
- Repurposing and changeout (for very high-grade (VHG) and fine material (FM) of the spirals (partially completed for VHG only) to provide for coarse and fine spiral circuits. Changes to the spirals pumps with new instrumentation for circuit control. Provision of a spiral middlings hopper to direct middlings fractions to the primary mill, scrubber, fines tank, or for recirculation.
- Installation of a gravity-fed 10 x 125 mm hydrocyclone cluster to thicken the fine spiral feed.
- Increased the table size fractions from two to three by installing a four spigot hydrosizer (nominal -800+300 µm, -300+100 µm and -100+32 µm fractions) to improve table recovery whilst maintaining grade and improve the rejection of thorium and uranium minerals.
- Increased the number of tables by double-decking the existing units (to provide 12 tables) allowing for a greater mass pull to be sent to them.
- Changed or modified various pumps in the 160 area to reduce concentrate attrition.
- Decoupled the pre-dryer and the reduction kiln's off-gas systems.
- Optimized the kiln operating parameters, particularly air and reductant flows, and feed system to allow the kiln to operate properly at the design capacity of approximately 2 tph. Solid reductant option investigated but not implemented.
- Redesigned heat-traced lagging, dust cyclone, and new ducting for the off-gas circuit from the kiln significantly reducing downtime caused by sublimation of arsenic oxides and dust build up, coupled with the relocation of the off-gas scrubber cyclone to the discharge end of the kiln.
- Incinerator discharge line changed for a tangential wash bowl.
- Installation of a dust extraction system for the dry high-intensity magnets to capture the dust product and make an off-spec, but saleable product as well as improve the air quality in Area 200.
- Induced roll magnetic separator installed in tin circuit for WO_3 recovery and tin table tailings returned to process for scavenging.
- Additional flow instruments installed to help with metallurgical accounting.
- Upgrade of tailings pump motors to provide for increased flow.
- Pump duties changed to better pump efficiencies and reduce attrition.
- Standby or replacement of complete pump assemblies made available.
- Pump rubber liners and impellers changed to high chrome to reduce wear and attrition.
- Tramp metal magnet on CV04 re-calibrated to prevent the flop gate from being activated and therefore removing high-grade material.
- Various pipes, and liner specifications for launders, chutes, equipment, feeders, hoppers, and sumps changed to allow for higher than originally anticipated wear (PDC Ai was too low).
- Some video cameras installed. SCADA mimic improved to be more operator friendly and provide better user information.

- Improved key-process sample assay turnaround times (reduced to approximately 12 hours).

7.9 Plant performance

7.9.1 Historical production

Pre-Wolf tenure

With the Hemerdon deposit first being discovered in 1867, there have been multiple phases of production and exploration throughout its history. Production attempts were made in both World Wars, followed by exploration in the 1960s by British Tungsten, although no re-development was undertaken. Extensive exploration and metallurgical testwork was undertaken by AMAX in a joint venture with the Hemerdon Mining and Smelting Ltd. AMAX spent in excess of USD10 million between 1979 and 1982 undertaking drilling programmes, mineralogical studies, beneficiation testwork culminating in a pilot plant which was said to have produced 65% WO_3 concentrates at 65% recoveries. Following the collapse of the International Tin Council in 1985, tin and tungsten prices fell sharply, and the project was mothballed.

Wolf tenure

Table 7.2 shows the historical annualised production against the 2011 and 2014 design criterion.

Table 7.2 Historic Wolf performance and design criteria values

Key Performance Indicator	Kaolinized (soft granite) Design 2011	Kaolinized (soft granite) Design 2014	FY 15/16	FY 16/17	FY 17/18	FY 18/19	04/10 - 10/10/18
Operating Time (%)[c]	66.7%	66.7%	49.9%	53.4%	49.6%	46.6%	66.4%
Throughput (Concentrator - tph)	502	514	354	410	468	478	436
Coarse (Mass %)	57.0%	60.0%	47.5%	47.8%	51.9%	56.0%	58.8%
Fines (Mass %)	43.0%	40.0%	52.5%	52.2%	48.1%	44.0%	41.2%
Coarse (WO_3 %)	63.0%	65.0%	47.8%	44.2%	48.3%	54.7%	59.6%
Fines (WO_3 %)	37.0%	35.0%	52.2%	55.8%	51.7%	45.3%	40.4%
DMS WO_3 Feed Grade	0.210%	0.206%	0.230%	0.201%	0.186%	0.194%	0.232%
Fines WO_3 Feed Grade	0.163%	0.166%	0.227%	0.232%	0.215%	0.204%	0.216%
Concentrator WO_3 Feed Grade	0.190%	0.190%	0.228%	0.217%	0.200%	0.199%	0.225%
Primary DMS WO_3 Stage Recovery	88.9%	90.0%	73.1%	80.1%	72.8%	71.6%	81.8%
Secondary and Scav. DMS WO_3 Stage Rec.	90.2%	96.0%	84.4%	83.7%	85.3%	82.8%	78.2%
Deslime Stage WO_3 Loss	54.0%	47.0%	52.9%	47.8%	38.0%	37.3%	38.3%
Spirals/Table Stage WO_3 Recovery	63.6%	40.5%	46.4%	44.5%	38.9%	38.6%	34.9%
Combined Deslime/Spiral/Table Recovery	29.3%	21.5%	21.9%	23.2%	24.1%	24.2%	21.5%
Preconcentrate **Overall** WO_3 Rec.	62.9%	64.0%	40.5%	43.2%	43.9%	46.1%	50.3%
WO_3 Recovery to Final Product	59.2%	57.5%	21.2%	26.9%	38.0%	37.3%	41.0%[d]
Preconcentrate **Overall** WO_3 Rec.[e]	62.9%	64.0%	40.5%	43.2%	43.9%	45.8%	46.6%
WO_3 Recovery to Final Product.[e]	59.2%	57.5%	21.2%	26.9%	38.0%	37.1%	38.0% [d]

[c] Operating time design values represented as original planning permission, 91% of 5.5 days/week = 5,842 hours/year divided by 8,760 hours available in a full calendar year.

[d] 04/10 to 10/10 2018 data will not be a fair reflection of recovery due to the refinery running two days less than the concentrator, an average of FY18/19 refinery stage recovery has been applied to the overall preconcentrate.

[e] Adjusted recoveries to account for inclusion of Ore Sorter accounts.

Operating time

Due to the 5.5 day/week operating limit, as well as no bank holiday operations, the original available operating time was limited to 66.7% of total potential available time. However, once the planning permission was approved in 2016, and all hours were available, 91% would have been the target.

The plant data shows that the operating time was approximately 50% with FY16/17 the highest at 53.4%.

The last operating week showed a large improvement in operating time, with the runtime virtually the same as the Wolf original design numbers.

Throughput

There were individual shifts, days, or weeks that achieved 514 tph nameplate tonnage, but this was never achieved for extended periods. This meant that the hourly tonnage never reached the design tonnage over the course of a financial year, although the throughput significantly improved over the course of the operating life prior to closure.

Coarse/fine split

The coarse-fine (initially +/-0.5 mm but changed to +/- 0.8 mm for the majority of the operation) split for both ore and tungsten continually coarsened over time, but never met the expected kaolinized granite design criteria. However, the last week's production was only 1.2% below this criterion, the highest during the operation. This was to be expected as the mine got increasingly deeper and the extent of the weathering decreased. The weathering profile was subsequently quantified through Wolf's Ore Body Variability study, developed and managed by the onsite Technical Services team, which showed that the geological department could accurately predict the coarse/fines split to within 1-2%. One of its key outcomes was that it became clear that the weathering profile had been looked at too simplistically from both processing and economical standpoints in the original PDC.

Feed grades

Feed grades to the plant were above the design value in all financial years, due to the severe nugget effect, meaning that the orebody reserves and resources under called on grade. This nugget effect was only quantified with the closer-spaced grade control drill spacing, and as such the grade control model always reconciled well with the mill feed from metallurgical accounts.

Primary dense media circuit

Recoveries in 2015/16 were 73.1% rising to 80.1% following changes to the ferrosilicon type and the introduction of magnetite. This gave greater stability and allowed higher mass pulls to be recovered from the primary DMS circuit.

2017/18 and 2018/19 were consistently in the low 70% recovery range partly due to an operational decision to actively reduce the primary DMS mass pull. Other factors which contributed to the poor results over this period were operational difficulties and badly out-of-specification 270D ferrosilicon being supplied to the mine and not being identified for a prolonged period.

Latterly improvements were made in the operation of the primary DMS cyclones:

- Fourth cyclone added to Primary DMS 2.
- A two stage, two-way distributor system was also added.

This provided a more consistent feed to the cyclones, which improved recovery within the primary DMS 2 circuit. Should the operation have continued, the same modification would have been made to primary DMS 1, which would have realized the same recovery increases as primary

DMS 2. With increased stability across both circuits, it would have been possible to operate at a lower cut point to increase recovery as surging in the circuit and the risk of overloading of the Secondary DMS circuit would have been minimized.

Secondary dense media circuit

The secondary DMS recovery was typically in the 83-85% range for all years, but the scavenger DMS was removed very early into the operation's life (2016) and never returned to operation. This was largely due to operational instability, high consumption of media and poor metallurgical performance. It was costing more in operating expenditure (OpEx) than the value of the tungsten and tin that were being recovered. The primary mill would also have preferentially slimed the tungsten, limiting the presentation of the ferberite to the scavenger circuit.

Reviewing the performance of the secondary DMS without any influence of the scavenger:

- 2011 PDC the stage tungsten recovery target was 78%.
- 2014 PDC the stage tungsten recovery target was 90%.

The 83-85% recovery achieved on the secondary DMS was:

- 5-7% above the 2011 PDC.
- 5-7% below the 2014 PDC.

Scavenger DMS circuit

During Wolf's operation, the primary mill and scavenger DMS circuits never performed adequately, with the scavenger DMS circuit decommissioned in mid-2016. With the decommissioning of this circuit the primary mill was used to reduce all secondary DMS floats to -0.8 mm which created loss of ferberite due to over-attrition. It is not possible for GSL to assess the resultant scavenger DMS recoveries as there no data available for review.

Deslime cyclone circuit

Deslime cyclone performance:

- The soft granite deslime cyclone losses were below the PDC 2011 target of 54% for all years.
- The soft granite deslime cyclone losses were above the PDC 2014 target of 47% in both 2015/16 and 2016/17, primarily due to the adverse coarse-fine split and the anthropogenic fines generated by the scrubber.

Following the modifications made in 2017 with the new cyclone configuration in the deslime circuit, coupled with the removal of the secondary deslime cyclones from the circuit, the losses were significantly reduced from 48-53% down to 37-38%.

Spiral and table circuits

Spiral and table stage recovery targets:

- The target as per the 2011 PDC was 63.6% stage recovery which was never achieved.
- The target as per the 2014 PDC was 40.5% stage recovery.
- FY 2015/16 and 2016/17 achieved this target.
- FY 2017/18 and 2018/19 were below target.

The two early years would potentially have had a higher stage recovery due to the deslime cyclones cutting coarser and only leaving behind easier to recover tungsten minerals. Once the cut point of the cyclones was lowered and an increased amount of finer tungsten was transferred to the spiral circuit, recovery reduced slightly.

The overall fine circuit recovery (deslime, spirals, and tables combined), showed a general tendency to increase over time with 21.8%, 23.2%, 24.1%, and 24.2% being the consecutive annual recoveries between FY2015/16 and FY2018/19.

All years were below the 2011 PDC target of 29.3%, although all fine circuit recoveries were above the 2014 PDC target of 21.5%.

Following the modifications made in 2017, the shortfalls were linked to the scrubber and operational issues namely, inadequate hydrosizer operation, poor spiral feed control and hygiene, maintenance issues, spillage, and a lack of attention paid to the table settings and cutters.

Preconcentrate and overall recoveries

Preconcentrate recovery increased through the financial years. FY15-16 started at 40.5% increasing through 43.2%, 43.6%, to 46.1% in FY18-19. The last week's preconcentrate recovery was 50.3%. Despite the continued improvements, none of the years reached the 2011 or 2014 PDC anticipated preconcentrate recoveries of 62.9% and 64.0% respectively.

Overall recovery to saleable tungsten product was increasing from 2015/16 to 2017/18 but in 2018/19 a 3% reduction in final recovery was realized.

The recoveries increased from:

- 21.2% in 2015/16
- 26.1% in 2016/17
- 38.0% in 2017/18, approximately a 90% increase in recovery in 2017/18 from 2015/16.

During the 2017/18 financial year a large amount of stored preconcentrate was reintroduced to the refinery whilst the concentrator was shut down at weekends. This allowed for continued production, but also resulted in an increase in calculated recovery.

The overall ore dressing recovery trend was increasing, highlighting the huge improvements made in the operation of the kiln, reduction in losses from the Low Intensity Magnetic Separator (LIMS), recirculating the tin table tailings and the installation of the induced roll magnetic separator on the tin concentrate to scalp out any remaining tungsten. The last week of production, prior to closure was in-line with the peak recoveries in financial year 2017/18.

The average daily mtu production in the final week of Wolf's tenure (06–09 October 2018, with stable DMS operation) was 802 against a daily average of 531 over the FY18-19. Whilst the last week's production is a small data set, the production levels from the refinery circuit of the plant were significantly higher than the remainder of the financial year.

The historic production data shows the poor performance of the plant whilst operated by Wolf. The performance improved, recovery improvement from 21.2% to 38%, as modifications were made to the process, which would confirm that the issues were more mechanical than metallurgical. GSL believes that further improvements on the equipment selection and flowsheet changes should lead to further improvements in recoveries.

7.10 Work during TWL ownership

Metallurgical testwork

TWL has commissioned a number of testwork programmes to provide confidence in the metallurgical aspects of the deposit as well as investigating opportunities for process improvements including new technologies that may improve the grades and recoveries of the plant. A description of the test programmes that have been undertaken is contained below.

Mineralogy

TWL engaged Petrolab (Redruth, Cornwall) to conduct a review of all mineralogical data available on the Hemerdon deposit from the Wolf operation (IM3463a Hemerdon Mineralogical Review 13-02-20).

Petrolab conducted a series of mineralogical assessments for Wolf during the operating life, culminating in weekly assessments of key performing streams within the plant. Those assessed included both fine and DMS streams. The review conducted, especially on the operational data, would have been during the processing of kaolinized and transitional ore zones and therefore not truly representative of what TWL is going to be processing once ramp-up is complete.

Petrolab states that both the wolframite and cassiterite are coarse, D50 2 mm and D50 1.7 mm respectively and show little association between each other. Petrolab notes that the coarse wolframite is as clusters of fine needles or blade-like crystals rather than single individual coarse crystals, as is the case with cassiterite. This would make wolframite highly susceptibility to abrasion and sliming as was experienced during Wolf's tenure.

Petrolab notes that a component of the cassiterite is paramagnetic, but do not quantify how much. This would lead to a recovery loss of tin to tungsten as well as diluting the tungsten concentrate.

The major uranium and thorium diluents are hosted in zircon, monazite, and xenotime. Whilst their densities are lower, they are hard minerals that form rounded shapes and very amenable to gravity separation. The uranium and thorium minerals are naturally finer with a D80 106 µm and a D20 40 µm compared to cassiterite grain sizes of D80 3 mm and D20 1 mm in DMS concentrate, and D80 320 µm and D20 75 µm in fines concentrates.

Petrolab highlighted that most of the arsenic minerals are altered arsenates, however, as TWL is going to be processing fresh granite predominantly, it is to be expected that most of the arsenic will be present in arsenopyrite.

Ore sorting

Following XRT sorting pilot trials that were successfully conducted on site by Wolf, where average granite ore recoveries of 74.4% WO_3 and 52.5% Sn to mass pulls of c. 24% were realized, further phases of ore sorter testwork were conducted by TWL at both TOMRA and Steinert, two world recognised suppliers of XRT sorters globally.

This testwork was designed to provide more definitive mass pull vs. recovery curves as well as throughput trials.

The results show that for granite ore using the TOMRA ore sorter, a 30% mass pull to product, delivers a 90% tungsten recovery and 80% tin recovery in the cobble size range (-90+38mm) and 88% tungsten recovery with 83% tin recovery in the pebble size fraction (-38+10mm). Reported by Tomra in 2020-07C2019-19_Tungsten West Limited -Hemerdon Mine_PT_V4.

Wardell Armstrong International

As part of the due diligence work conducted by TWL which culminated in a CPR, a programme of testwork was conducted by Wardell Armstrong International (WAI) on a range of samples including ore sorter accept products and ROM ore. The objective was to review suitable technologies including and above what was implemented in the former Drakelands concentrator to provide an indicative recovery number for the project that could be used in updated project financials.

The programme included magnetic separation (dry rolls and SLON), jigging, and tabling, with a view to producing a preconcentrate. SLON (vertically pulsating high gradient magnetic separator) bench-scale testwork was conducted by Outotec at their facility in Germany.

A second phase of work using kiln feed and roasted kiln product from the last production on site was conducted using wet and dry magnets to understand what upgrade is possible without the reduction roast.

The combination of the jigging and gravity generated a WO_3 grade of 18.5% at a recovery of 68.7% on the ore sorter accept product, whereas the ROM sample suffered inferior performance with a concentrate grade of 11.6% WO_3 at a recovery of 50.1%.

The SLON two-stage test on -1 mm feed material generated a primary product of 15.6% WO_3 at 77.8% recovery and a second stage, scavenger concentrate of 2.1% WO_3 at 6.5% recovery. This gave a combined mass pull of 4.8%, at a combined concentrate grade of 10.4% WO_3 and a recovery of 84.1%.

Scoping level testwork using a rare earth magnet on pre- and post-kiln material generated some products of greater than 42% WO_3, with a peak grade of 49.6% WO_3. These results are relatively in-line with the overall production results from the HIMS in the former Drakelands concentrator.

Geological Survey of Finland (GTK)

GTK conducted a programme of testwork for TWL including sample preparation, mineralogy, comminution studies, assay by sizes on crushed/milled products and separation testwork on two samples (ROM and ore sorter accepts).

The bond abrasion index results show a value of 0.368 for ROM ore and 0.251 for sorted ore. For granites, a value in the range of 0.39 to 0.60 is typical, which these two values are lower, significantly in the case of sorted ore. Due to the abrasion issues experienced during operation, TWL selected a value of 0.55 for the design. Taking this conservative approach will give a cautious value to the likely abrasion on the plant equipment.

Bond rod work index tests produced values of 13 kWh/t and 13.5kWh/t for the two ore types and are considered of medium hardness, which is on the lower end of the standard range for granites (17 kWh/t +/-4.5).

Assay by size results for the rod mill product indicated only a small amount of preferential tungsten enrichment in the fine fractions.

Bond ball work index tests produced values of 16 kWh/t and 16.4 kWh/t for the two ore types and would be considered hard. These are close to the average of the typical granites of 17 kWh/t.

Assay by size results for the ball mill product indicated significant increases in the proportions of tungsten reporting to finer fractions, far higher than the equivalent rod mill results, albeit that ball milling does grind finer than rod milling and so this was not unexpected.

Heavy liquid separation tests (HLS) show that with a separation density of 2.7 g/cm^3 (as per plant target operation) recoveries of >90% were produced in size fractions less than 6.7 mm with 15% mass pull to sinks for sorted ore.

Fine (-1 mm) wet magnetic separation tests were undertaken on natural fines using a high-gradient magnetic separator (HGMS). Whilst certain tests gave moderate- to high-tungsten recoveries, this was only with very high mass pulls to magnetic fractions. Magnetic concentrates were of very low-grade. Tests with more reasonable mass pulls to magnetics resulted in tungsten recoveries dropping to c.50% for sorted ore and c.60% for unsorted ore.

HGMS testwork on crushed (to -1 mm) whole ore samples generally gave poor to moderate recoveries (31% to 71%) at reasonable mass pulls (of 3% to 6%) to magnetic product and relatively low product tungsten grades (2.6% to 10.0% WO_3).

Shaking table tests on the natural fines generated recoveries of 72% to 74% for unsorted and sorted ores respectively with concentrate grades of 5.3% and 11.0% WO_3, respectively.

Knelson tests on -1 mm milled material showed recoveries of 66% to 67% on sorted ore with concentrate grades of 9.1% to 10.7% WO_3. Unsorted ore demonstrated recoveries 69% to 75% with concentrate grades of 3.3% to 3.6% WO_3.

Pilot SLON tests were undertaken with the objective to improve on the original results conducted by Outotec. Results in this phase of work were very varied with sorted ore recoveries ranging from 24% to 75% and product grades ranging from 4.2% to 7.4% WO_3. Unsorted recoveries ranging from 5% to 98% and concentrate grades ranging from 0.2% WO_3 (near feed grade and thus no upgrading) to 6.8% WO_3.

Grinding Solutions Limited (GSL)

GSL was contracted to build on previous alkaline leaching testwork conducted by SGS Minerals Services UK Ltd (now defunct) and GSL during the Wolf tenure.

The aim of this testwork was to ascertain the technical feasibility of dissolution and subsequent precipitation of a tungstate salt from preconcentrate as an alternative to the existing reduction roasting and magnetic separation circuit.

The testwork showed that the process was not sensitive to pulp density or feed grade, but sensitivity to sodium hydroxide and temperature are exhibited. NaOH concentrations of greater than 290 g/l and temperatures above 80°C deliver highest extraction rates, up to 98% tungsten dissolution.

Precipitation testwork showed that up to 96% of the tungsten could be precipitated from the pregnant leach solution using an acidified sodium carbonate precipitation method. The highest precipitate grade was 67% WO_3.

A proof-of-concept bulk leach and subsequent precipitation test delivered a 60.7% WO_3 precipitate to an overall recovery of 89.3%. The bulk leach delivered a stage recovery of 89.7% and the precipitation stage recovery was 99.5%.

The particle size leach tests show the recovery improves below 355 µm, increased from 90% to above 98% and below 106 µm, recovery increases to greater than 99%.

The programme encountered a solution assay issue which led to reconciliation issues when using the solutions to back-calculate the feed grades. With the solutions assays being erratic, the kinetic curves were unreliable and thus determining accurate residence times was not possible.

Whilst this programme was deemed very promising by TWL the Company has determined that the issue with the assay technique for the solutions needs to be addressed before proceeding with further work. In subsequent discussions with TWL and GSL, it was noted that the tungstate salt was readily precipitated and if this could be enhanced by an evaporative technique a cheaper method of final product recovery could be achieved.

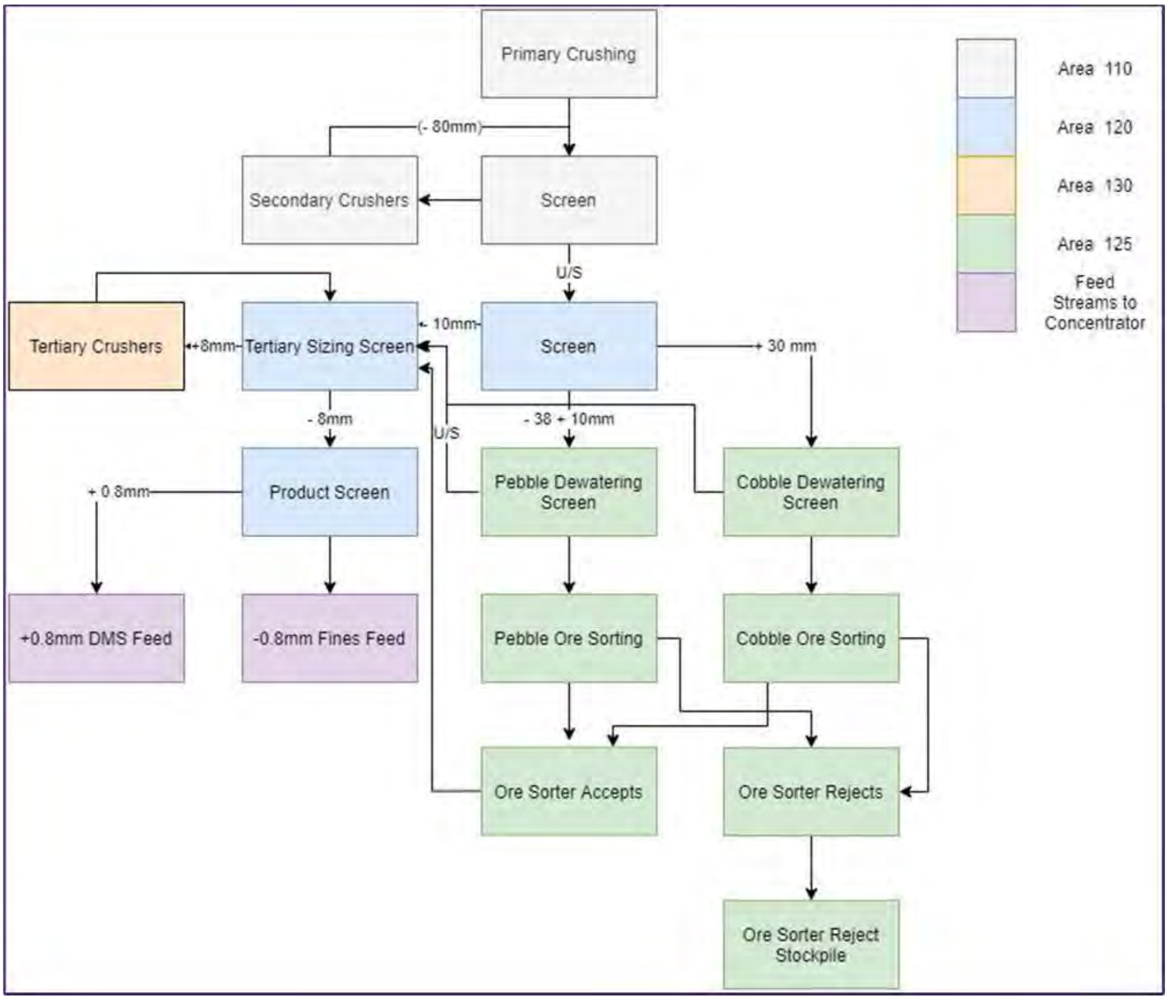
7.11 Proposed plant modifications

Introduction

New flowsheet (front-end and ore sorting only)

Figure 7.5 shows the block diagram for the modified front-end of the processing plant. The diagram highlights the integration of the ore sorting component, Area 125 as well as the new crushing and screening configurations in Areas 110 and 120.

Figure 7.5 Block diagram of new front-end plant

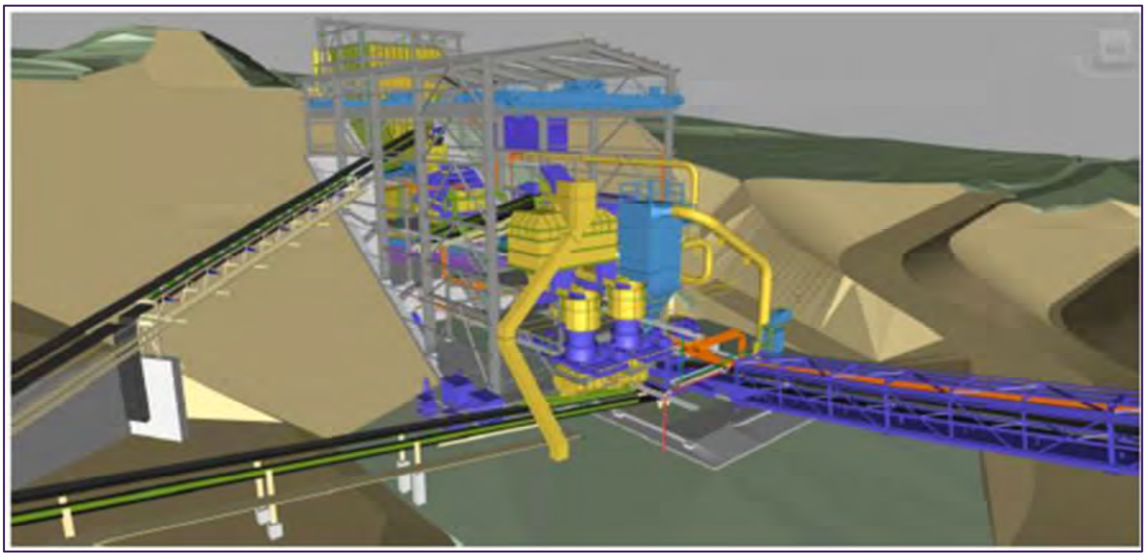


Feed preparation, primary crushing, secondary crushing, and screening section

The existing primary and secondary hybrid rolls crushers will be removed and replaced with a mobile jaw-crusher positioned either on the ROM pad or in the pit to provide primary crushing to a stock pile. Two cone crushers will be installed in closed circuit to provide secondary crushing to a product size of 80 mm.

The primary crusher product will be delivered into the ROM bin from which an apron feeder will feed a vibrating screen. The -80 mm material will cascade on to a conveyor and subsequently transferred to Area 120. The oversize will be crushed in in closed circuit with a screen and conveyors will transport material between the screen and the crushers. The following shows a "3D" image of the proposed modified Area 110, as supplied by TWL.

Figure 7.6 Proposed modified Area 110



GSL is of the opinion that the proposed modifications to this section will greatly improve the primary and secondary crushing and screening performance and also reduce the maintenance in this section with the removal of the twin roll crushers. This is partially as a function of the change of ore type from predominantly "soft rock" to predominantly "hard rock". The primary crushing being performed in the pit or on the ROM pad will enable stockpiles to be produced for capacity and blending purposes.

Ore sorter feed preparation screening section

Area 120 will have the existing scrubber, scrubber screen, and product screen removed and replaced by an ore sorter sizing screen as well as a tertiary scalping screen and a new product screen.

Currently Tomra Ore Sorters are used in four Tungsten operations globally and two of which are in Europe. Ore sorting technology is becoming commonplace in mining operations and has become more accepted, with faster computing power which has enabled the throughput per machine to be greatly increased. The sorters can work on X-Ray Transmission, Colour, Eletro-magnetic, and other sensors. In a normal operation the grade of the material can be doubled for a recovery in to 90% + range.

The sensor technology that TWL is proposing to use is X-Ray Transmission, which identifies the elements of interest and the machine then determines if the particle has met the pre-determined cut-off grade. This cut-off is initially determined in the laboratory but will be updated on-site during commissioning and operation. Laboratory and plant scale testwork has indicated that this technology will work well in the Hemerdon operation, giving a significant upgrade and minimal rejection to waste.

The ore sorter sizing screen will be a double-deck screen with the 38 mm and 10 mm apertures. The +38 mm material (cobble) will be conveyed to Area 125, new ore sorting area. The -38+10 mm material (pebble) is also transferred to Area 125.

The -10 mm will cascade on to a screen which will be fitted with an 8 mm deck. The +8 mm material will be conveyed to the tertiary crushers and the -8 mm material will cascade onto a further screen which will also size the return from the tertiary as well as the ore sorter fines from the dewatering screens.

The −8 mm product screen will be fitted with a 0.8 mm screen. The -8.0+0.8 mm material will be conveyed to the existing DMS feed bin, the -0.8 m will be pumped to the existing fines tank. These are the two feed streams for the concentrating sections of the plant.

Figure 7.7 shows a "3D" representation of the proposed changes to Area 120, supplied by TWL.

Figure 7.7 Proposed modified Area 120

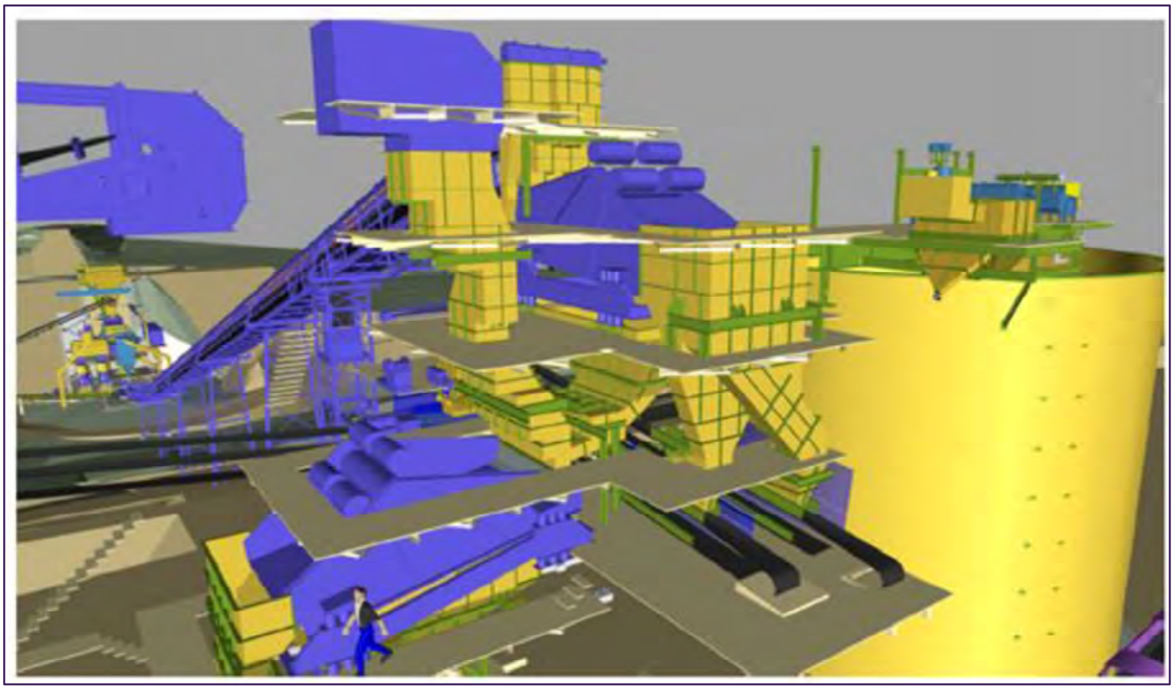


Figure 7.7 shows the feed being delivered from the Crushing Area 110 via the conveyor to the ore sorter sizing screen as described above. The two ore sorter feed conveyors can be seen in the bottom right-hand corner of the diagram.

During the Wolf operation there were issues with noise particularly Low Frequency Noise (LFN) which was generated in various areas within the process plant, this is an issue that is being addressed by TWL. It should be noted that with the new screen designs and their new locations within the 120 area, the LFN issue that was experienced during the Wolf operation should be rectified.

GSL believes that removal of the scrubber and trommel along with the large product screens will reduce the fine slimes generation and also reduce the LFN as mentioned above, the new screens will produce less noise and there will be less attrition of brittle wolframite.

Ore sorter process section

Conveyors will transfer the pebble and cobble products into the pebble and cobble ore sorter feed bins. The pebble ore sorter feeds will be conveyed on to dewatering screens before feeding four pebble ore sorters. The screen undersize will be pumped back to Area 120 and join the -8 mm crusher plant stream.

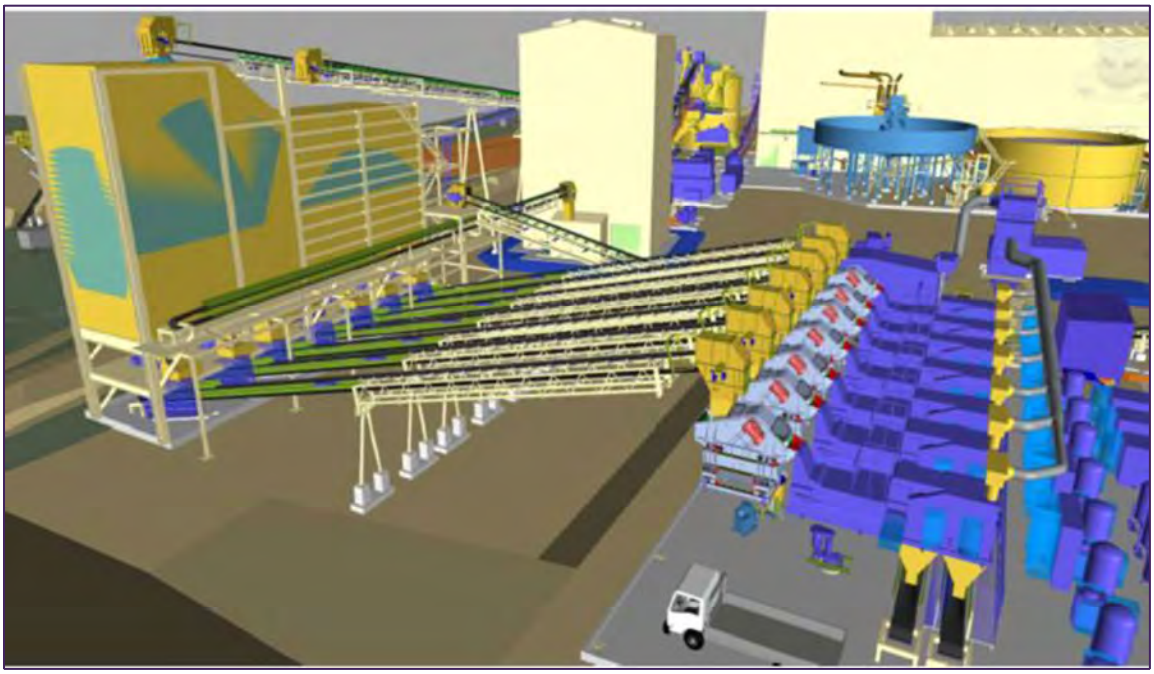
The cobble process will be identical except there are only two designated ore sorters with supporting conveyors and screens.

One spare sorter can be used on either cobble or pebble application to allow maintenance to be progressively conducted with minimum downtime requirement.

Ore sorter product from both cobble and pebble sorters will be conveyed to the tertiary crusher where they will be reduced to -8 mm in size. Ore sorter rejects are conveyed to a stockpile for sale as aggregate or for use on the mine site.

Figure 7.8 shows a "3D" representation of the proposed Area 125, showing the feed delivery system to the ore sorters and the accepts and rejects conveyors from the plant.

Figure 7.8 Proposed Area 125 (image supplied by TWL)



GSL believes that the inclusion of ore sorters into the process is one of the major improvements to the process, as it will halve the mass of material to be processed in the concentrator, this will create excess capacity of the existing equipment allowing for regular maintenance to be carried out without affecting production. It will also produce a clean aggregate-sized waste stream which will generate a revenue and not a cost for disposal.

Tertiary crushing and screening section

Area 130 will largely be unchanged in terms of large equipment, but the tertiary crusher discharge conveyor will now discharge on to the new tertiary crusher sizing screen and will also convey the ore sorter product as well as cone-crushed material.

Simplicity of handling in this section and the inclusion of a new screen should show production improvements, and therefore GSL endorses this proposed change.

Dense media cyclone separation section

Primary DMS 1 will be upgraded to match the four 420 mm cyclone configuration currently installed on primary DMS 2. With the inclusion of the ore sorters and the significant reduction in mass, only one primary DMS module will need to be operated at any one time and thus allow maintenance to be conducted on the run, minimizing downtime.

The scavenger DMS, which Wolf took out of service early in 2016, will be recommissioned and returned to service to provide additional DMS recovery.

To improve redundancy within the plant, TWL will complete the DMS storage pad and reclaim conveyor that was partially constructed during the Wolf tenure. This will decouple the feed preparation areas from the concentrator and allow DMS feed to be stockpiled and processed during maintenance periods on upstream equipment such as the crushers.

GSL is of the opinion that upgrading the Primary DMS 1 hydrocyclones will enable the flow to be changed between DMS 1 and DMS 2 without any change in metallurgical performance, allowing time for maintenance without affecting throughput. Re-introducing the DMS scavenger circuit should enhance the overall recovery from this circuit. The proposed upgrade to DMS 1 has been proven to be beneficial from the test carried out on the upgraded DMS 2 circuit.

Overall, it is GSL's opinion that the incorporation of the ore sorters will greatly enhance the mechanical and metallurgical operation of the plant by reducing the throughput in the concentrator section roughers by 50% and effectively doubling the head grade. Due to redundancy of equipment as a result of the lower throughput, maintenance can be carried out on equipment without affecting the process.

The upgrading in the dense media recovery sections will also improve availability and metallurgical recovery.

Instrumentation and samplers

With the new modifications, increased instrumentation will be installed to provide improved plant control and improvements to metallurgical accounting.

A density gauge and flowmeter will be installed on the -0.8 mm pipeline from the new product screen to the fines feed tank. This will allow for the feeds to both coarse (DMS) and fine feeds to be measured directly as well as calculated by difference as shown below:

- 120-CV-02 minus 140-CV-06 = fines feed (as per Wolf accounting) – coarse/fine split check.
- 120-CV-02 minus fines feed = 140-CV-06 – coarse/fine split check.
- 140-CV-06 plus fines feed = 120-CV-02 – back calculated feed tonnage check.
- 120-CV-02 is the secondary crushed product and 140-CV-06 is the feed to the primary DMS feed bin.

A new weightometer will be installed on the secondary crusher feed conveyor as well as an online moisture analyser on the Area 120 feed conveyor to provide live dry tonnage entering the plant. A new weightometer will also be installed on the tertiary crusher feed conveyor.

Additional weightometers will be installed on the feed belts to the cobble and pebble feed bins, as well as on cobble and pebble ore sorters to control feed rate to the sorters themselves. This will consist of one unit to control cobble feed rate; one to control pebble feed rate and one on the standby unit as this can be used for either duty. Weightometers will also be installed on both the ore sorter product and rejects conveyor belts to allow for full mass balancing of the ore sorter circuit.

New sampling towers will be included at the discharges of plant feed conveyor and the new ore sorter rejects conveyor. These sampling towers will provide the most accurate samples possible relative to the coarse size of the measured streams (80 mm). Ongoing work will be carried out to optimize the sample sizes required to obtain good results, once determined permanent equipment will be installed to maintain accurate data.

It is GSL's opinion that the above proposed changes to the instrumentation and sampling will improve the metallurgical accounting and process control.

7.12 Current activities

Refurbishment

TWL has used a database of all assets within the plant as the basis for the refurbishment. Each piece of equipment has undergone an inspection based on the knowledge of the equipment and the skills available at site. Where possible, the physical turning of equipment, stripping of internal components and electrical dead testing have been carried out to get an overview as to asset condition.

Subsequent work orders for refurbishment have been generated based on these inspections. If specialists have been required to visit for an inspection but have not been able to do so, due to COVID-19 restrictions, then the cost estimate has been based on a worst-case scenario.

Mechanical refurbishments in the plant are more advanced, with a more expansive and detailed work order list than for the electrical refurbishments.

As the electrical supervisor has only recently commenced employment and limited energization of the plant has only recently been restored, the electrical work order list is evolving at the time of writing this CPR.

Table 7.3 shows the summary of refurbishment progress by plant asset type. Overall, c19% of the assets have been refurbished.

Table 7.3 Refurbishment progress by equipment type

Equipment	Progress	Equipment	Progress	Equipment	Progress
Air Blower	0%	Feeder	20%	Shaking Table	10%
Air Compressor	0%	Filter Belt	10%	Thickener	10%
Air Dryer	0%	Gravity Concentrator	10%	Tank	10%
Agitator	10%	Loading Gate	10%	Transformers	80%
Air Receiver	0%	Heater	0%	Water Treatment Plant	10%
Building	25%	Hopper	10%	Wet Scrubber	N/A
Bucket Elevator	80%	Hoists and Cranes	40%	Weightometer	0%
Blending	10%	Heat Exchanger	0%	MCC	20%
Bin	10%	Hydrosizer	10%	Communications Panel	0%
Chute	10%	Kiln	20%	Power Factor Correction	0%
Cooler	0%	Metal Detector	0%	Rectifier	0%
Crusher	5%	Tramp Metal Magnet	10%	Bunker	0%
Conveyor	10%	Ball Mill	10%	Safety Showers	16%
Cyclone	50%	Magnet	63%	Enclosure	0%
Distribution Board	100%	Pump	5%	Rake	10%
Dust Collector	0%	Rotary Valve	29%	Valves - KGV	60%
Densifier	50%	Sampler	0%	Butterfly Valves	50%
Dryer	0%	Switchboard	100%	Large Pipelines	20%
Fan	0%	Screen	10%	Pipeline 1" & 2"	100%
Float Cell	0%				
Overall Progress *(as of 23 May 2021)*					**19%**

In the opinion of GSL, as can be seen in the above table, there is still a considerable amount of refurbishment to complete. This will be hampered by COVID-19 but will now be accelerated with the appointment of an electrical engineer and power being re-instated to areas of the plant.

Front End Engineering Design (FEED)

At the time of writing this CPR, TWL is well advanced with the Front-End project FEED study, but GSL has not reviewed any of the supporting documentation.

7.13 Forecast production

Introduction

TWL intends to operate the processing facility on a 24-hours per day, 7-days per week and 350-days per year basis, with an operating run time of 81% (90% availability with 90% utilization). The 350-day year has factored in an annual 15-day maintenance shutdown. Throughput will be nominally 500 tph of fresh feed which equates to 3.4 Mtpa of ore into the crusher. TWL believes that operating the crusher at multiple locations, and the ability to operate it during daytime only, will enable it to be operated without causing excessive noise for neighbours.

To enable 24/7 operations, work has been carried out on determining the cause of the LFN from the screens and a strategy has been developed which includes modified screen decks with "chimneys" to prevent air compression under the screens, noise cancelling devices that invert the screen sound by 180° to neutralize the emitting sound and in the last case totally enclosing the screens in a soundproof shield. Tests have been undertaken by TWL and the screen manufacturers on-site and are reported to have given excellent results. Tests have also concluded that it is possible to specifically direct the sound to locations without inhabitation.

Ramp-up production

Table 7.4 shows the proposed production levels through the eight-month ramp-up period. Production will start at an estimated 30% of nameplate capacity with 9,040 mtu of WO_3 and 12 tonnes of tin metal per month produced, before ramping up to full production after eight months, producing c.30,000 mtu of WO_3 and approximately 40 tonnes of tin metal per month at steady state.

December includes a 15-day shutdown for essential maintenance works and thus production levels are approximately halved.

TWL expects that the 12-month period including the ramp-up period will produce 258,163 mtu of WO_3 and 343.7 tonnes of tin.

Table 7.4 Year 1 ramp-up production summary

RAMP-UP	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Full Year
% of Design Feed Capacity	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**100%**	**100%**	**100%**	**100%**	**100%**	**77%**
Production													
Days Operational	31	28	31	30	31	30	31	31	30	31	30	16	**350**
Processed Tonnes	90,396	108,864	150,660	174,960	210,924	233,280	271,188	301,320	291,600	301,320	291,600	155,520	**2,581,632**
Tungsten Production													
Feed Grade-%WO_3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	**0.2**
Recovery -%WO_3	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	**50%**
Concentrate Grade-%WO_3	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	**52%**
Tonnes Tungsten Conc.	174	209	290	336	406	449	522	579	561	579	561	299	**4,965**
Tonnes Contained WO_3	90	109	151	175	211	233	271	301	292	301	292	156	**2,582**
mtu Contained WO_3	9,040	10,886	15,066	17,496	21,092	23,328	27,119	30,132	29,160	30,132	29,160	15,552	**258,163**
Tin Production													
Mill Feed Grade-%Sn	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	**0.035**
Recovery -%Sn	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	38%	**38%**
Concentrate Grade-%Sn	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	**55%**
Tonnes Tin Conc.	21.9	26.3	36.4	42.3	51.0	56.4	65.6	72.9	70.5	72.9	70.5	37.6	**624.3**
Tonnes Contained Sn Metal	12.0	14.5	20.0	23.3	28.1	31.0	36.1	40.1	38.8	40.1	38.8	20.7	**343.4**
kg Contained Tin Metal	12,023	14,479	20,038	23,270	28,053	31,026	36,068	40,076	38,783	40,076	38,783	20,684	**343,357**

GSL believes this to be a sensible and conservative approach which will enable training to be undertaken and the new improvements to be embedded into the production routine in a controlled manner. A less aggressive Wolframite concentrate grade has been negotiated with off-takers, which from historical figures, should be easily achievable.

Steady-state production

Table 7.5 shows the production levels at steady state. On average c. 33,000 mtu of tungsten trioxide will be produced per month along with approximately 41 tonnes of tin. December exhibits lower production due to the aforementioned 15-day maintenance shutdown. Target grade is 52% WO_3 and 55% Sn, both of which GSL believes are achievable.

Table 7.5 Steady-state production summary

NORMAL PRODUCTION	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Full Year
% of Design Feed Capacity	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Production													
Days Operational	31	28	31	30	31	30	31	31	30	31	30	16	350
Processed Tonnes	301,320	272,160	301,320	291,600	301,320	291,600	301,320	301,320	291,600	301,320	291,600	155,520	3,402,000
Tungsten Production													
Feed Grade-%WO_3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Recovery - %WO_3	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%
Concentrate Grade-%WO_3	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%
Tonnes Tungsten Conc.	661	597	661	639	661	639	661	661	639	661	639	341	7,458
Tonnes Contained WO_3	344	310	344	332	344	332	344	344	332	344	332	177	3,878
mtu Contained WO_3	34,350	31,026	34,350	33,242	34,350	33,242	34,350	34,350	33,242	34,350	33,242	17,729	387,828
Tin Production													
Mill Feed Grade-%Sn	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035
Recovery -%Sn	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
Concentrate Grade-%Sn	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%
Tonnes Tin Conc.	76.7	69.3	76.7	74.2	76.7	74.2	76.7	76.7	74.2	76.7	74.2	39.6	866.0
Tonnes Contained Sn Metal	42.2	38.1	42.2	40.8	42.2	40.8	42.2	42.2	40.8	42.2	40.8	21.8	476.3
kg Contained Tin Metal	42,185	38,102	42,185	40,824	42,185	40,824	42,185	42,185	40,824	42,185	40,824	21,773	476,280

There is an allowance in the production model for maintenance to be undertaken during the monthly operation. There will also be spare capacity in the concentrator due to the lower tonnage and higher grade being delivered as a result of the ore sorters inclusion in the process. In addition, the de-coupling of the feed preparation and the concentrator with a larger stockpile will allow for the benefits of the higher capacity feed preparation plant to be utilized.

The above steady-state production summary is based on ~80% time utilization with a throughput of ~405 tph compared to a nameplate capacity of 514 tph, as well as having a single 5-day operating month in December. GSL believes this is a conservative approach and should be readily achievable.

Reagents and consumables consumption estimate

Table 7.6 shows the reagents and major consumables predicted annualized consumption rates and costs. The table shows that 51.5% of the cost will be for DMS media, with a further 40.2% allocated for diesel.

Table 7.6 Reagents and consumables predicted consumption rates and costs

Reagent	Consumption (kg/t)	Annual Consumption (kg)	GBP/kg	Annual Cost GBP
Antiscalant	0.02	11,600	3.00	34,800
WWTP			0.07	58,800
Tailings Flocculant	0.05	7,283	3.35	24,397
Xanthate	0.10	1,361	2.98	4,055
Copper Sulphate	0.05	680	3.50	2,381
Frother	0.01	136	3.40	463
Grinding Media				
Primary Mill balls	0.70	106,449	0.92	97,933
Concentrate mill balls	0.60	6,287	0.93	5,847
Fuel				
Diesel - kiln predrier	29.4	307,639	0.71	217,157
Diesel - kiln burners	83.9	878,677	0.71	620,243
Diesel - kiln reductant	36.3	380,567	0.71	268,635
Diesel - tin drier	20.6	17,839	0.71	12,592
Ferrosilicon				
Ferrosilicon for Primary	1.00	1,013,796	1.07	1,084,762
Magnetite for Primary	0.35	354,829	0.39	138,383
Ferrosilicon for Sec/Scav	1.30	197,690	1.06	209,552
			Total	**2,779,999**

Killas processing

In order to demonstrate that Killas (the host rock of the granite which is also mineralized) has a reasonable prospect of eventual economic extraction (as per the 2012 edition of the JORC Code), metallurgical studies were conducted and comprised of mineralogical assessments, ore sorting both on-site and off-site, heavy liquid separation, fine gravity, and magnetic testwork.

Results from the mineralogical assessment by TWL (Review of "Killas" Metallurgical testwork programmes with recommendations on future expected recovery values - Michael Hawkins – Junior Metallurgist) shows that the Killas contains an elevated quantity of haematized wolframite compared to granite. This will have potential negative effects on both the gravity and magnetic separation stages. This is due to the lower specific gravity and will be more prone to reduction in the kiln due to haematization. Liberation of the ferberite was demonstrated to be the same to that of the granite.

Table 7.7 shows the combined results from the ore sorter, HLS and Mozley table tests on the preliminary samples taken from the metallurgical testwork. The tests clearly show that the quartz vein responded best with high concentrate grades and recoveries relative to the other material types. It should be noted that the mafic material type showed some promising recovery of tungsten, but the tungsten in the siltstone and tuff looks difficult to recover.

Table 7.7 Material type ore sorter, HLS and Mozley table results

	WO_3 Grade			WO_3 Recovery		
Material Type	**Ore Sorter**	**HLS**	**Mozley**	**Ore Sorter**	**HLS**	**Mozley**
Quartz Vein	2.94	43.10	56.75	98.00	97.79	71.18
Mafic	0.35	24.49	3.77	90.00	72.19	29.49
Siltstone	0.08	2.13	1.87	23.00	33.12	36.89
Tuff	0.11	N/A	1.50	9.00	N/A	10.27

Crushing ahead of the ore sorter showed a split of 80% of the feed will be available for ore sorting with the remaining 20% bypassing the ore sorters and joining the ore sorter accept product. Of the 80%, 52.8% (66% stage) would be cobble size range (40–80 mm) and the remaining 27.2% (33% stage) pebble size range (20–40 mm).

The ore sorting trials conducted at Tomra generated recoveries of 65% WO_3 and 41% Sn to a 30% mass pull. Separate tests were also conducted at Steinert and generated c.73% WO_3 recovery, but as the Tomra machines are due to be installed into the new plant for the granite orebody, TWL has reported the Tomra Killas recoveries. A 30% mass pull is used as a reference point for the granite orebody, recovery can be improved by increasing the mass pull to concentrate but at the expense of product grade.

Subsequent HLS and Mozley table testwork were undertaken on a sample of the Killas eject product at WAI, with the results presented in Table 7.8.

Average weight, including loss to deslime, tungsten and tin stage recoveries from the HLS and Mozley table testwork average 68.5% and 40.2% respectively with a concentrate grade of 26.4% WO_3 and 1.9% Sn.

Table 7.8 WAI Killas eject HLS and Mozley table summary

Product	**Mass (%)**	**Grade (%)**		**Overall Recovery (%)**	
		WO_3	**Sn**	**WO_3**	**Sn**
HLS 3.3 SG Sink	0.6	39.39	2.35	55.8	27.7
-0.8 +0.212 mm	0.2	14.69	1.43	7.6	6.2
-0.212 + 0.032 mm	0.3	8.24	1.23	5.1	6.3
Overall	1.1	26.40	1.87	68.5	40.2

TWL has applied a refinery stage tungsten recovery of 80% and a tin recovery of 75% to the overall preconcentrate recovery. Overall recoveries to final separate tungsten and tin concentrates of 40% and 16% respectively are realized. Should a hydrometallurgical process continue to development, recoveries could potentially rise to 45% for tungsten and 17% for tin.

An additional piece of testwork investigating the use of the magnets was conducted, where a sample was crushed down to 2mm and subjected to the Outotec SLON at 1.2 Tesla (12,000 Gauss). Results show that 60.5% of the tungsten can be recovered into 3.9% mass pull, at 1.8% WO_3.

7.14 Opportunities and risks

Opportunities

Considering the conservative approach that TWL has taken throughout the FS, which is supported by GSL, there are several areas that have opportunity for improvement.

These include:

- Operating time
- Tungsten concentrate grades
- Tungsten recoveries
- Tin concentrate grades
- Tin recoveries
- Overall Killas metallurgical performance, including ore sorter recoveries.

Risks

Skilled personnel

TWL might be unable to hire the required skilled labour for senior positions as the location might not seem desirable, project history might appear too risky to warrant moving for, salary levels might not compete with some other parts of the world.

Lack of skilled local labour

Due to the closure of the tin mines in the area in the late 1990s, skilled mining and processing personnel have either retired, re-skilled, or left the area, resulting in an unskilled workforce that will require large amounts of training. Most of the personnel from the previous operation have found employment elsewhere.

Equipment delays

Equipment delays could be a result of many factors including manufacturers workload, new customs requirements at EU borders with the UK, and the COVID-19 pandemic, to name some examples.

Conclusions and recommendations

The following conclusions and recommendations are drawn from the above discussion.

Conclusions:

1. The current owners have researched and understood the issues that caused the closure of the Drakelands operation in 2018. They have based this on the experience of the previous operators and external consultants. They have commissioned testwork to develop processes for improving both the grades, recoveries, and operating efficiencies within the plant.
2. The majority of the problematic, "soft rock", has been extracted and the remaining material (90-93%) is "hard rock" and the other material is only semi kaolinized. This removes the need for the rolls crushers, the wash barrel, and trommel to process the kaolinized material, and will reduce the wear and maintenance on the crushers/screens and remove the fines generation that was occurring in the wash barrel.
3. Inclusion of ore sorters will reduce the feed mass to the concentrator by more than 50% and effectively double the head grade to the plant. The reduction of tonnage to the concentrator will provide redundancy within the plant allowing for regular maintenance and an increased plant availability. As the radioactive minerals in the deposit are predominantly associated with the host rock rather than the mineralization, there should be a reduction of these minerals in the concentrator feed.

4. Decoupling the feed preparation areas will allow maintenance on the crushing and screening areas without affecting the operation of the concentrator. Lack of buffer storage was identified as an issue in the previous operation.
5. Improved instrumentation on the plant will allow for better control and more accurate mass balancing. The issues of obtaining accurate samples and assays from the coarse waste streams have been identified and a programme of testwork is being devised to develop a robust method to obtain representative samples for metallurgical balancing and plant control.
6. TWL has indicated that there will be a strategy of metallurgical balancing which will ensure that at a high-level incoming material can be balanced with the outgoing streams, this will then be carried down to the next level where accounting can be carried out across and between areas, the final level will be where specific plant audits are carried out to determine specific efficiencies of certain processes. This will be an improvement on the previous operations.
7. Prior operational issues have been identified which included a low-knowledge base for an operation of this type and magnitude, poor plant hygiene and attention to detail on the fine gravity plant, basic flowsheet design errors (which have mainly been addressed), and poor equipment selection in certain areas.
8. Previously the plant was operated to allow for the limitations in the quantity of material that could be processed in the refinery section of the plant. Operating the flotation cells to remove sulphides will greatly reduce the load on the kiln and trace heating the off-gas pipes will negate the condensation/precipitation of arsenic and all the ancillary issues that ensued. Having a more flexible off-take agreement will allow for lower grade material to be sold without penalties and improve the throughput of the refinery.
9. The potential of leaching of the fine out of spec/rejected material and reprecipitating a tungsten salt will enable the current stockpile of LIMS material to be processed alongside and low-grade fines that would have been rejected. This would increase the overall tungsten recovery.
10. The recovery assumptions and operating parameters were based on the historic data and subsequent testwork carried out to validate the proposed flowsheet changes.

Recommendations:

1. Complete suggested improvements to the plant in terms of equipment and installation.
2. Implement a more robust and improved metallurgical accounting system.
3. Trial several mass balancing programmes to improve the daily mass balancing.
4. Implement suggested additional instrumentation.
5. Judicious selection of staff with the correct experience.
6. Ongoing training of operators and technical staff.
7. Carry out further technical work on SLON magnets and re-visit the leaching potential and re-precipitation for increased tungsten recovery.
8. To help overcome equipment delays, it is recommended to communicate with manufacturers regarding workload, and the effects of COVID-19 and place orders for long-lead items as soon as practicable. It is also suggested that the use of freight brokers to ensure smooth arrival of equipment from the EU should be investigated.

8 Mine waste facility review

8.1 Introduction

The information presented in this chapter is based on:

1 Observations and information gained during regular site inspections by Knight Piésold Independent Geotechnical Specialist (IGS) between 2015 and 2021. The most recent MWF visit by the IGS was carried out in March 2021.

2 Study of documentation associated with tailings management, design, and construction for the MWF, principally the design and construction records by Coffey and SLR plus reports by the Competent Person and subsequently the IGS.

3 *Hemerdon Mine Waste Facility Design – Feasibility Study.* Prepared by SLR for TWL - 210318_403_10511_00001-03_R_Hemerdon Feasibility Study_TWL_MWF Redesign_Final Draft (SLR, March 2021).

8.2 Permitting

Planning Permission was granted to the operation in 1986, which defines the permitted MWF boundary and maximum elevation.

Operations at the Hemerdon site were first authorized by a bespoke Environmental Permit (EP) for a Category A Mine Waste Facility (MWF), originally issued by the Environment Agency (EA) in 2013. EP ref. EPR/FB3639RK. In 2017, a Variation to the original EP to reflect the revised SLR design described in Section 8.4.2. Hemerdon MWF Variation Application, 2016 EPR/FB3639RK/V002.

The permitted activities relating to the currently consented MWF comprise:

- The use of ROM waste and DMS rejects in the construction of a rockfill embankment to form a tailings embankment.
- Treatment of tailings slurry and excess process water within the dam by settlement and consolidation by gravity.
- Discharge of surface-water runoff from Tory Pond and Portworthy Channel to the Tory Brook.

The Environmental Permit was surrendered by the previous owner of the Mine and TWL is currently operating under a Local Enforcement Position (LEP) agreed with the EA.

TWL is consulting with the EA in relation to the permitting requirements to allow them to recommence mining in 2022 in accordance with the recently produced FS. TWL's intention is to resume mining under the current EP which will suffice for approximately ten years of operations. However, a variation to the EP will be required to reflect the proposed increase in the size of the Mine and MWF after ten years (described in Section 8.4.3).

8.3 MWF overview

The current waste management strategy comprises the construction of a combined TSF and waste rock dump (mine waste facility – MWF). The MWF lies to the north of the open pit on Crownhill Down, covering an area of approximately 175 ha extending to the lower slopes of the Tory Brook valley. The current waste disposal strategy involves waste rock from the open pit being used to progressively construct the MWF embankments, with tailings (generated from the processing plant) continuously deposited and contained in a lined basin within the MWF. A satellite image of the MWF is shown in Figure 8.1.

To date, an approximate total of 10.6 Mm^3 of waste rock and tailings have been placed within the MWF.

Figure 8.1 Hemerdon MWF, satellite image taken May 2020

8.3.1 Confining embankment

The tailings are confined by an engineered containment embankment constructed from fill materials derived principally from mine waste from the open pit. The embankment comprises a zoned earthworks structure with five main construction raises to date, Stage 1, Stage 2.1 (A and B), Stage 2.2, and Stage 3.05. The current raise is at Stage 3.05. The Stage 1 embankment includes two zones of lower permeability material at the upstream face incorporating a 1 m wide chimney drain, followed by a series of downstream raises (Stages 2 and 3), again using waste rock as the construction material with lower permeability zones of selected material at the face.

The chimney drain extends the full height of the Stage 1 and 2 embankment and connects to a blanket drain at its base. The embankment incorporates a filter drain which captures seepages that flow under gravity via buried pipelines into a control sump beyond the embankment toe for recycle and monitoring. The embankment design was modified by SLR for Stage 3 to simplify the construction process and account for unavailability of low-permeability material. The revised design comprised an engineered lining support layer with the remainder of the embankment constructed of waste-rock bulk fill. The basal drainage layer was extended beneath the full footprint of the MWF.

The embankment forms the bulk of the waste rock dump. The southern part of the waste embankment covers an area of former alluvial tin workings (tin streaming), dating back to pre-record keeping times, comprising shallow disturbed ground with occasional shafts and adits. The current design includes a double or quadruple layer arrangement of geotextile over the entire area of the tin workings and a heavily reinforced capping design for shafts.

8.3.2 Deposition basin

Tailings are deposited in the basin created by the confining embankments. The current design includes a three-layer basal lining system comprising a 2 mm high-density polyethylene (HDPE) liner, a geosynthetic clay liner (GCL) laid on a compacted clay liner (0.5 m thick). The liner incorporates a series of gravel underdrains and sumps connected into a piped control system which reports to a return pump sump beyond the embankment toe. The outlet valves for the underdrains are currently closed and consideration is being given to opening them to encourage consolidation of the tailings.

8.3.3 Tailings deposition system

The tailings are pumped through an HDPE pipeline laid in a trench from the process plant to the south-eastern corner of the MWF and extending around the full perimeter of the impoundment basin. Discharge is through valve-controlled spigots installed on the internal face of the embankment at approximately 20 m centres. The Stage 2.2 impoundment was being filled at the time mining operations ceased. The Stage 3.05 impoundment will be ready to store slurry tailings once the defects identified have been rectified.

8.3.4 Decant system

Decant from the tailings pond is from a causeway constructed of mine waste. A dual pump system was in place to return water to the process plant via two HDPE pipelines. The pumps have been removed and will require replacement ahead of production re-starting.

8.3.5 Surface-water management

The SLR redesign of surface-water management infrastructure enables runoff from the face of the MWF to be intercepted with a shallow drain excavated at the toe of the inter-bench slope. Runoff water is then shed along the benches to discharge to a peripheral collector drain via a settlement lagoon, prior to discharging into a perimeter drain. The peripheral drains then discharge either to the Portworthy Channel to the north or the Tory Pond to the south.

The current MWF surface-water infrastructure comprises the peripheral channel running around the eastern and northern toe of the MWF discharging via a series of settlement lagoons into the Tory Pond.

8.3.6 Emergency spillway

The Stage 3.05 SLR design included an emergency spillway to convey rainfall in excess of the 1 in 1,000 Annual Exceedance Probability (AEP) eight-day event up to the probable maximum flood (PMF) (considered to be the 1-in-10,000 AEP event) without overtopping the MWF embankment. The SLR 2021 Feasibility Study indicates that the Stage 3.05 spillway has been constructed on the northern boundary of the tailings deposition basin at a local high point of the natural ground surface to minimize excavation for the spillway channel. Where the spillway channel cuts through the tailings embankment, the spillway base has been protected using geosynthetics and riprap to prevent erosion of the embankment.

If operated, the spillway will discharge to the peripheral channel running around the eastern and northern toe of the MWF discharging via the settlement lagoon into the Tory Pond.

8.4 Design history summary

A brief summary of the previous TSF design stages and development at the Hemerdon MWF is provided in the below sections.

8.4.1 Initial design by Coffey

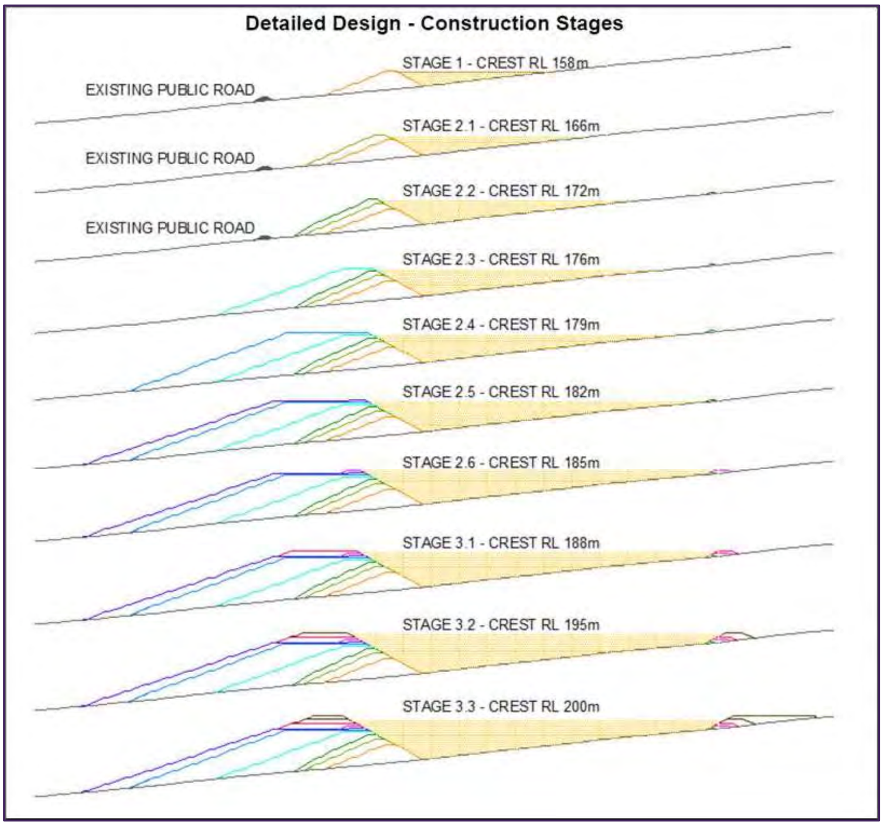
The original MWF design was completed in May 2013 by Coffey for Wolf, and work commenced with the construction of the Stage 1 embankment and containment system in July 2014. The

MWF was designed to store 7.7 Mm^3 fine tailings (with the capability of storing 10 Mm^3) and a further 30 Mm^3 waste rock/DMS reject storage as part of the design.

The Coffey design comprised a three-stage conceptual development sequence for the MWF utilizing waste rock material from the pit and the DMS reject material. The conceptual construction sequencing is shown graphically in Figure 8.2.

- The Stage 1 development comprises a single downstream raise confined to areas east of Lee Moor Road.
- The Stage 2 development comprises six interim stages which each involve a downstream raise (Stage 2.1 to 2.6). The relocation of Lee Moor Road is required prior to the commencement of Stage 2.3 works and the commencement of constructing final embankment slopes (1V:3H).
- The Stage 3 development comprises the embankment raises after final downstream embankment slopes are established in Stage 2.6. The MWF configuration and operations towards end of life are designed to facilitate reshaping and rehabilitating the MWF surface after closure.

Figure 8.2 Coffey design sequences, initial detail design 2013



Development of the MWF commenced with the construction of the Stage 1 embankment and containment system in July 2014. The initial stage of the embankment (Stage 1A) was approved to receive tailings on 17 June 2015 and the embankment had been continually raised in stages since then.

Stage 2.1 was completed in October 2016 to a crest level of 166.9 m aOD and was approved by the EA on 22 December 2016. The Stage 2.2 design was approved for construction by the EA and was completed in October 2017. Stage 2.2 raised the embankment level to 172.2 m aOD.

8.4.2 Revised design by SLR Consulting

8.4.2.1 Design

In 2015 the existing planning permission (1986) consented for the storage of 105 Mt of waste material from the mine, whereas the EP allowed for the storage of only 65 Mt of waste to be held within the current design MWF. In 2015, Wolf commissioned a detailed review of the existing MWF design with the objective of identifying a more cost-effective and pragmatic waste-management solution. The MWF design was reviewed and amended to detailed design level by SLR in 2016, with the main objective of the revised design to increase MWF capacity from 65 Mt to 104 Mt. A supporting Permit Variation was also submitted to the EA by SLR.

The design changes outlined in the SLR redesign are presented in Table 8.1, with comparison to the original design by Coffey.

Table 8.1 SLR 2016 redesign parameters

Design Parameter	Original Coffey Design	Proposed SLR Redesign
MWF Capacity	65 Mt	104 Mt
MWF Footprint	123 ha	133 ha
Maximum Elevation	200 m aOD	215 m aOD
Slope Profile	5 m wide benches at 10 m vertical intervals and inter-bench slope angle 20°, to achieve overall slope of 17°.	10 m wide benches at 20 m vertical intervals and inter-bench slope angle 26.5°, to achieve overall slope of 22°.
Basal Lining System	HDPE/Clay Composite Lining system	HDPE/GCL composite lining system
Tin Streaming Area	Foundation reinforced with geosynthetics with low-permeability clay layers and DMS to form preferential drainage path.	GCL and DMS to form preferential drainage path.
Compaction Specification	Waste rock forming the embankment with specified material and placement requirements.	End tipped waste rock forming the embankment with an engineered, compacted 6 m wide liner support layer.
Waste Rock Store Underdrainage	Layer of DMS with perforated pipes running beneath the MWF. Discharge to ditches and settling ponds.	800 mm thick DMS layer with perforated collection pipe around toe of MWF Embankment. Controlled discharge to a lined pond.
Runoff control from MWF	Surface-water drained from benches via a series of chutes.	Surface-water is collected on each bench and flows along ditches to the perimeter of the MWF.
Surface-water ponds	Located to the west of the MWF	Located around the perimeter to collect water draining off each bench.
Surface-water management during construction	N/A	Water collected on the MWF during construction is held in temporary ponds and discharged via pumping.
Decant water	Existing design tailings pond only for holding decant water.	Additional decant water storage ponds to be constructed on eastern boundary of MWF.

For the SLR revised design to achieve the required storage capacity for each of the waste streams the design elevation of the final MWF was increased, and the final perimeter slopes steepened compared to the original Coffey design, as shown in Table 8.1.

The SLR detailed design involved a facility raised in eight consecutive stages, as shown in Figure 8.3. The SLR design covered Stages 3 to 8 and was designed to tie-in with the existing Stages 1 and 2 already constructed according to the Coffey design. Each stage of the revised MWF design is divided into the construction of the tailings embankment and the waste rock store.

Every stage starts with the raising of the tailings embankment to provide containment for the tailings; once this is in place material is then placed into the waste rock store. The MWF construction staging is shown in Table 8.2.

The SLR re-design for Stage 3.1 involved changes to the upstream lining system for the containment basin, which comprises a 2 mm thick HDPE geomembrane underlain by a geosynthetic clay liner (GCL) to form a composite lining system with a geotextile protection layer on top. The front (upstream) 6 m of the tailings embankment is formed by the lining system support layer (LSSL), which forms the foundation to the lining system. The LSSL is formed from suitable waste rock placed and compacted in accordance with the SLR construction specification. The remainder of the waste rock embankment and waste rock store, downstream of the LSSL, was non-engineered and only traffic compacted.

Figure 8.3 MWF detailed design section, SLR Consulting 2016

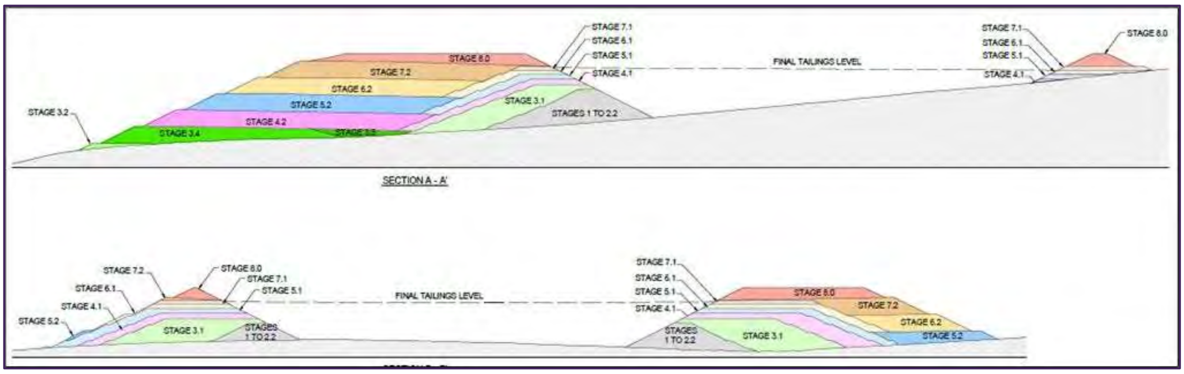


Table 8.2 MWF construction stages, SLR Consulting 2016

Stages		Tailings Embankment	Waste Rock Store (Max. Elevation	Designer
Main Stage	Sub-Stage			
1		158maoD		Coffey Design
2	2.1	166maOD		Coffey Design
	2.2	172maOD		Coffey Design
	3.1	179maOD		SLR Redesign
	3.2		106maOD	SLR Redesign
3	3.3		106maOD	SLR Redesign
	3.4		126maOD	SLR Redesign
	3.5		126maOD	SLR Redesign
4	4.1	184maOD		SLR Redesign
	4.2		146maOD	SLR Redesign
5	5.1	190maOD		SLR Redesign
	5.2		166maOD	SLR Redesign
6	6.1	195maOD		SLR Redesign
	6.2		186maOD	SLR Redesign
7	7.1	200maOD		SLR Redesign
	7.2		206maOD	SLR Redesign
8			215maOD	SLR Redesign

8.4.2.2 Construction progress

The MWF was constructed up to Stage 2.2 to an embankment crest level of 172.2 m aOD in accordance with the design by Coffey. After this point, the MWF was then developed in accordance with the SLR detailed design input.

Stage 3.1 of the MWF was designed by SLR and reviewed by Knight Piésold in March 2017. The Stage 3.1 design was to have taken the embankment to an elevation of 179 m aOD. The design was modified in July 2018 for a reduced elevation of 175.5 m aOD. This was termed Stage 3.05.

The revised Stage 3.05 elevation was reached shortly before Wolf went into liquidation (October 2018), with only a short section of lining on the upstream face left to be completed. During the closing weeks of the MWF operations, end-tipped waste rock was placed on top of the Stage 3.05 raise increasing the height of the embankment to a maximum of 179 m aOD.

The tailings embankment upstream lining was installed on a 6 m wide engineered SSL to 175.5 m aOD. This construction was supervised by SLR.

8.4.3 2021 MWF Redesign Feasibility Study by SLR Consulting

A Feasibility Study was carried out by SLR in 2021 to consider the viability of enlarging the currently consented MWF at Hemerdon with the intention of the recommencement of mining in 2022.

The Feasibility Study has been carried out as additional exploitable ore (including mineralized Killas) has extended the LOM plan. The Killas ore was previously not deemed economic or processable but is currently planned to be mined in addition to the primary granite ore and stockpiled to be processed at the end of LOM when the granite feed is exhausted.

The increase in the total LOM volumes of mine waste (waste rock, Killas ore, and tailings) targeted excavation of an additional 246 Mt rock, meaning a maximum conceptual MWF capacity of 109.2 Mm^3 according to the "2020 schedule" produced in November 2020. The 2020 LOM schedule was produced as a conservative scenario for the maximum scale of the operation based on best-available parameters at the time, as a definitive mine plan based on Ore Reserves was being developed. TWL indicates that the approach was instigated so that the design allowed for over capacity rather than under capacity of the facility on the basis that down-scaling would be an easier design process. This scenario was revised and superseded in 2021 with the "2021 schedule" based on the current Ore Reserve. The "2021 schedule" indicates a shortfall of 100 Mt mined rock (waste rock and Killas ore) compared to the conservative "2020 schedule" scenario and targets a total maximum MWF capacity of 74.7 Mm^3. For the SLR Feasibility Study, concept modelling was carried out using the conservative "2020 schedule" volumes.

A key objective of the MWF feasibility design is to allow the placement and subsequent remining of the Killas ores within the MWF. The Killas ore stockpiles are planned to be re-mined sequentially by decreasing grade through the remainder of LOM.

The FS assumes a LOM of 20 years. The previous (2016) SLR design will be followed for the first ten-years of operations, with fine tailings disposed in the tailings basin. After this point the tailings are to be dewatered and co-disposed together with waste rock, with both co-mingling and discrete cells suggested in the study. Tailings co-mingling would likely involve tailings and mine waste rock material mixed together (usually by mechanical means) at the MWF when deposited. The mixing promotes filling of the voids (mingling) to maximize density of the material. A co-disposal method involving discrete cells would involve constructing smaller scale containing cells of mine waste rock, which are filled with the dewatered fine tailings.

Open-pit mining will cease in Year 17. At this point the MWF will be at its maximum size and it then will progressively reduce in size towards closure in Year 20 as the Killas ore stockpiles are re-mined and the mined-out open-pit is backfilled.

The MWF has also to facilitate the temporary stockpiling of the ore sorter rejects and spiral tailings (granite aggregates), which are to be utilized as a secondary aggregate. These materials are to be sold off-site as an aggregate to serve as an additional revenue stream and to reduce the required stockpiling capacity of the MWF.

Options for residual restoration MWF landforms have been proposed by SLR for the facility at closure. Assuming the revised LOM volumes from the "2021 schedule" the restored MWF at closure will be contained within the currently consented MWF footprint.

8.5 Seismicity

A seismic hazard assessment was prepared by the British Geological Society in 2013 for the Hemerdon Mine to support the Coffey detailed design (described in Section 8.4.1).

The Coffey seismic stability assessment assumed UK guidance (BRE 1991) and defined the MWF as a "Hazard Category III". The annual exceedance probability (AEP) for the design basis earthquake (DBE) for a "Hazard Category III" TSF was selected as a 1:475-year AEP event.

The Operating Basis Earthquake (OBE) and Maximum Credible Earthquake (MCE) loads adopted for the Coffey stability analyses modelled horizontal peak ground accelerations (PGA) of 0.015g and 0.082g f for the OBE and the MCE, respectively.

The site is considered low-seismic risk and TWL expects that TSF designs will be appropriate to accommodate credible seismic loads.

8.6 Monitoring

The monitoring instrumentation installed at the MWF is described briefly in this section, with comment on the current frequency of monitoring (if known). There is a combination of vibrating wire piezometers (VWP), vibrating wire settlement cells, settlement markers, inclined standpipe piezometers and vertical standpipe piezometers installed at the MWF.

- A total of 17 VWPs were installed at the MWF. The VWPs have been read on recommendation of the IGS but regular reading has yet to restart:
  - Twelve (12) VWPs were installed in the first stage. Three located in the western embankment and nine installed on the Stage 1 liner within the tailings deposit. Six of the VWPs installed on the liner had a limited lifespan as maximum operating limit of 150 kPa.
  - Five (5) VWPs were installed at a second stage in 2016 to replace the instruments with a limited lifespan. Replacement VWPs have an operating limit of 1500 kPa and are installed on the 158 m aOD bench.
- Three standpipe piezometers (SP) were installed at the Stage 2.2 embankment crest (172.2 m aOD), which were decommissioned during the Stage 3.05 raise. Knight Piésold recommended placement of five new MWF embankment piezometers on the current (Stage 3.05) crest. The depths of the piezometer tips were recommended for intersection of the natural ground surface beneath the embankments. The five new SPs were installed as replacement on Stage 3.05 crest in 2020 by Geotechnics Limited. Monitoring of the standpipe piezometers had been carried out on a weekly basis.
- Three inclined SPs give the water level in the three internal sumps, which are connected to the internal underdrains. Reading of these piezometers is undertaken weekly.
- There are six vibrating wire settlement cells installed above the Stabilenka geotextile between 127.5 m aOD and 157.9 m aOD installed as a solution to the historical mining issue beneath the south embankment. The vibrating wire settlement cells gather data at hourly intervals and are downloaded monthly as of April 2021.
- There are 26 groundwater boreholes at the site which are monitored on a weekly basis.

- Daily visual inspection of the MWF and Tory Pond is carried out. The current method of visual inspection of water-management ponds and reactive operation of valves as required was considered appropriate in Knight Piésold’s latest IGS visit (March 2021).

The IGS has completed a stability assessment and set trigger levels and response actions for the SP monitoring.

8.7 Summary of Technical Review findings

8.7.1 SLR 2021 Feasibility Study

The SLR Feasibility report provides a comprehensive overview of the MWF feasibility design. The adoption of the currently permitted MWF design and operation for the first ten-years of the mine life presents no additional risks once the Stage 3.05 facility is completed and remediation of current defects has been undertaken.

Changing the currently permitted design of the MWF to the design proposed in the Feasibility Study report will require re-permitting with no guarantee of success. Although there is a ten-year opportunity to achieve this, re-permitting presents a potential risk to the longer-term project.

Knight Piésold’s review recommended additional consideration for the tailings co-mingling concept, some aspects of surface-water management infrastructure, and the development of constructability rationale were required. Knight Piésold recommended that these items were reviewed and discussed now and detailed in the next design stage.

As SLR’s feasibility modelling was based on the “2020 Schedule”, 100 Mt greater than updated “2021 Schedule” the majority of feasibility modelling has been carried out assuming a superseded mine plan. Stockpile placement and sequencing, MWF geometry assumptions, surface-water management planning, and stability modelling are assumed on superseded LOM volumes and might not be reflective of the “2021 Schedule”. If MWF configuration differs when considering waste volumes from the “2021 Schedule”, surface-water management assumptions and stability modelling of MWF geometry might not be accurate.

Optimization of design concepts and further development of the sequencing and constructability for the MWF could allow for improved MWF configuration. If additional investigation indicates more favourable material parameters and increased stability, the MWF landform slope design could potentially be refined. Therefore, there could be an opportunity to optimize the design with further detailed study.

There might be an opportunity to re-mine the existing tailings and create further storage capacity for wet tailings should wet tailings production be required to be extended if the co-mingling option prove unfeasible. Re-mining of existing tailings would present challenges with regard to mining and sequencing but should be assessed as an option.

TWL has confirmed that they will adopt the Global Industry Standard on Tailings Management (GISTM). Evidence of adherence to the GISTM will be required for public disclosure.

8.7.2 Knight Piésold comment on operations following visit

Richard Elmer’s most recent three visits to Hemerdon MWF for the role of Independent Geotechnical Specialist (IGS) were carried out on the following dates:

- March 2020.
- December 2020.
- March 2021.

Since the March 2020 visit, it has been reported that the MWF has deteriorated in areas. These are currently under repair by TWL and include:

- Bulging of the basal HDPE liner.
- Erosion of the upstream embankment through wave action.

Knight Piésold noted that completion of the lining for the full circumference of the MWF would be required before Stage 2 is filled.

8.7.2.1 Bulging HDPE basal liner

A significant bulge in HDPE basal lining on the eastern side of the tailings impoundment was first observed in September 2018, shortly before Wolf ceased trading. Water has become trapped between the HDPE and the natural ground beneath. The ground has been eroded in places, suggesting water has been flowing beneath the lining from up slope.

The previously reported bulge in the HDPE basal liner has increased in size significantly, as noted following the March 2021 visit. Initially limited to the north side of the tailings pond, in the March 2021 visit the bulging was observed to continue through to the full width of the tailings pond. It is likely that the water originates from the ground. There was no evidence of the HDPE liner lifting from the anchor trench at the eastern end of the facility. SLR made recommendations to pump water from the bulge and repair the lining in 2018, but these were not acted upon until April 2021, with bulge dewatering currently in progress (Ref: TWL personal communication June 2021).

8.7.2.2 Erosion of the upstream embankment through wave action

Beach widths around the facility were much reduced between the December 2020 and March 2021 visits, with pond water directly in contact with the north and south embankments and approaching the west embankment in places. By June 2021, water has been pumped from the pond reducing the water level and increasing beach width (Ref: TWL personal communication June 2021).

Wave erosion is evident at the eastern end of both the south and north embankment. The south embankment shows significant undercutting with a vertical face at the toe of the upstream slope. Knight Piésold recommended that material is placed at this location at the toe of the upstream slope at the tailings beach to replenish the material that has been eroded by the waves. Erosion should be monitored as it would present a risk to the facility if allowed to migrate too far into the confining embankments, as well as presenting a risk to the integrity of the tailings pipeline for when the facility comes back into use. Although the design allows for water to fill the impoundment (subject to freeboard limits), best practice is to maintain a tailings beach to minimize the hydrostatic pressure placed on the upstream side of the embankment to minimize the risk of seepage or piping failure.

Knight Piésold has been informed by TWL that repairs are now complete.

8.7.2.3 General observations

Tory Pond was observed to be in good condition, with no indications of instability although evidence of some seepage (hydrophilic vegetation and boggy ground) at the toe was observed on multiple recent visits. The continued presence of boggy ground and hydrophilic vegetation suggests that there may be some seepage emanating from the embankment. Tory Pond requires a geotechnical assessment to confirm stability, based on current groundwater levels. Similar to the MWF, trigger levels and response actions are required to be set.

8.8 2021 Knight Piésold stability assessment of current facility

Knight Piésold was commissioned to undertake an independent assessment of the stability of the current configuration of the MWF in 2019, which has been updated in 2020 and 2021. The most recent findings are summarized below, based on groundwater levels measure on 08 March 2021.

Slope stability analyses for the MWF embankment have been completed to estimate the FOS against slope failure under static and seismic loading conditions, considering the design life of the structure. The minimum acceptable FOS adopted are 1.5 and 1.0 for static and pseudo-static loads respectively. The FOS requirements meet the UK and EU standards, specifically the Quarry Regulations (QR1999), as well as internationally accepted standards such as those published by ICOLD, ANCOLD, ICMM, and the CDA.

The stability was analysed for downstream slopes of the embankments to determine the most critical potential failure surfaces that result in the minimum FOS for all surfaces considered on the slope. The operating basis earthquake (OBE) and maximum credible earthquake (MCE) loads adopted for the models are the same as those defined in the Detailed Design Report by Coffey Mining following a seismic hazard assessment by the British Geological Survey (BGS). The horizontal peak ground accelerations (PGA) are 0.015 g and 0.082 g f for the OBE and the MCE, respectively.

For the 2021 assessment by SLR, Knight Piésold considered the material parameters defined by SLR as acceptable and adopted those parameters for stability assessment. FOS greater than 1.5 were achieved for static analyses based on an estimated phreatic surface for the current pond level at 169 m aOD and reported piezometer water levels and greater than 1.0 for pseudo-static (seismic) cases. As part of the updated analyses, Knight Pièsold proposed the trigger levels presented in Table 8.3 for the standpipe piezometers and embankments be considered.

Table 8.3 Trigger levels determined for the piezometers

Embankment	Standpipe Piezometer Trigger Levels m RL		
	Red	Amber	Green
North	159.0	158.0	157.5
West	141.8	140.3	139.0
South	153.9	153.5	153.0

Actions in response to the trigger values were proposed as follows:

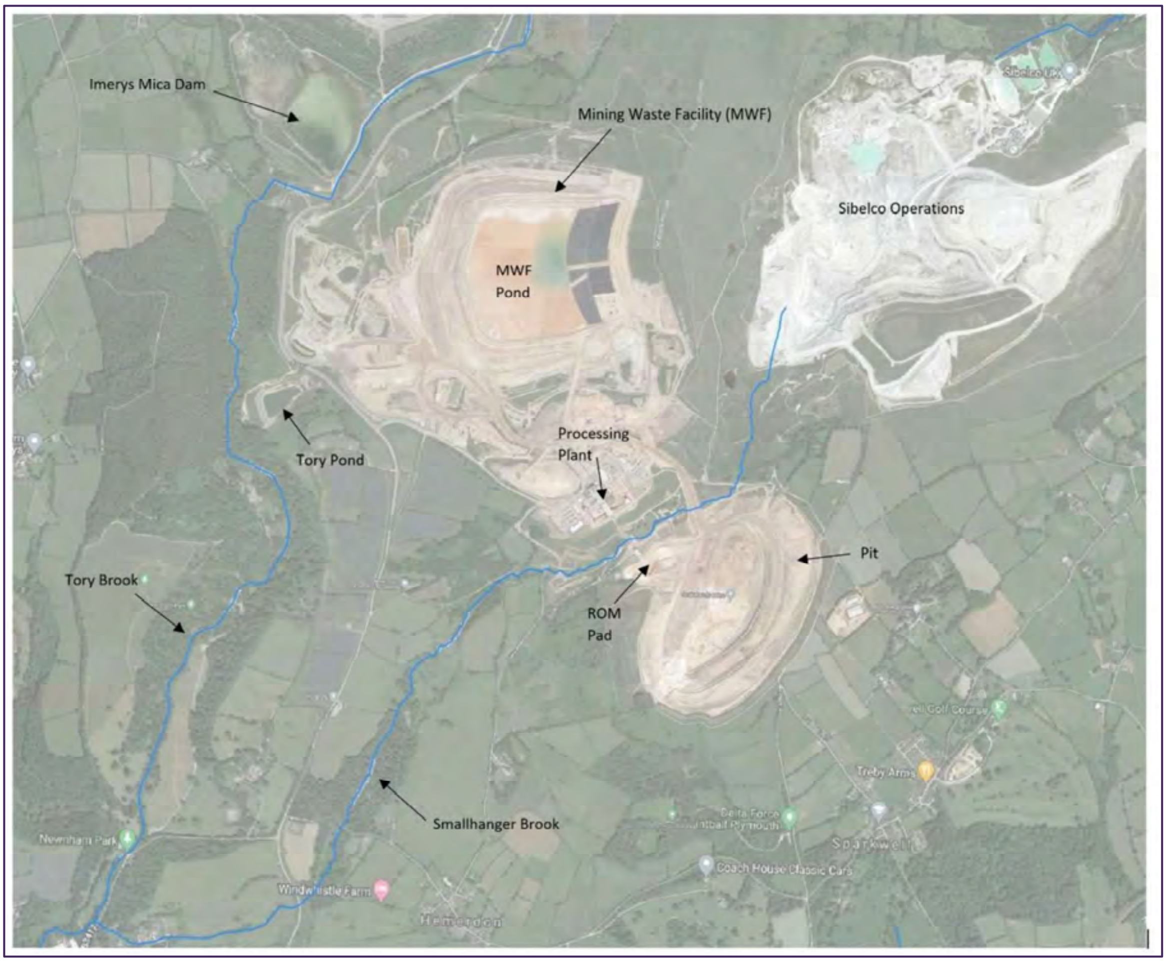
- Green:
  - Monitor in accordance with MWF operation manual.
- Amber:
  - Inspect piezometer and embankment conditions.
  - Increase monitoring and visual inspection frequency.
  - Notify the design engineer.
  - Implement action plan contingency measures as per MWF OMS manual.
- Red:
  - Cease all works on the affected embankment.
  - Increase visual monitoring frequency.
  - Notify the design engineer within 24-hours.
  - Implement action plan contingency measures as per the MWF OMS manual.

9 Water management

9.1 Introduction

Key site features are illustrated in Figure 9.1.

Figure 9.1 Key site features



Source: CSA, 2020.

Mining will recommence at the Hemerdon site with the re-instatement of the various water related permits and licences which were previously held by Wolf. Wolf previously held discharge permits for Elfords Pond (EPR/DB3290RH), Smallhanger South and North Tank (EPR/QP3420XX), and the Tory Pond and Portworthy Channel (incorporated into the MWF Environmental Permit EPR/FB3639RK). TWL currently holds discharge permits for Elfords Pond (EPR/DB3290RH) and Smallhanger South Tank (EPR/QP3420XX), and a Local Enforcement Plan (LEP) under which discharge occurs from the Tory Pond to the Tory Brook.

TWL will need to secure a discharge permit for the Smallhanger North Tank. Discharge permits are also required for the two main MWF catchment discharges (Tory Pond and the Portworthy Channel), these will be captured within the MWF Environmental Permit.

9.2 Permitting

Wolf previously held discharge permits for Elfords Pond (EPR/DB3290RH), Smallhanger South and North Tank (EPR/QP3420XX), and the Tory Pond and Portworthy Channel (incorporated into the MWF Environmental Permit EPR/FB3639RK). TWL currently holds discharge permits for Elfords Pond (EPR/DB3290RH) and Smallhanger South Tank (EPR/QP3420XX), and a Local Enforcement Position (LEP) under which discharge occurs from the Tory Pond to the Tory Brook.

9.3 Surface-water management

9.3.1 General overview

The Tory Brook and its tributary the Smallhanger Brook, are the primary rivers within the Hemerdon project area. The Tory Brook and Smallhanger Brook catchment covers an area of approximately 18 km² at the confluence of the two brooks. The land to the north and west drains into the River Plym, while the land to east drains to the Piall River and the River Yealm.

The current care and maintenance surface-water management strategy comprises water monitoring to ensure compliance with the current discharge permits in the Smallhanger Brook catchment and a Local Enforcement Position (LEP) under which site discharges occur from the MWF.

The key objectives for site surface-water management at Hemerdon includes the following:

- Maximize the diversion of "clean" surface-water from catchments not impacted by the project development (non-contact water), thus minimizing the inflow of "clean" water to the project site and minimizing the volume of water which needs to be managed (including potential treatment).
- Ensure that all surface-water and groundwater originating from impacted catchments (contact water) is captured and treated accordingly, to ensure that there are no uncontrolled releases from the project site and to ensure compliance with environmental discharge criteria.

Due to the previous operation of the mine site, most of the surface-water management infrastructure is still in place, including ponds to provide flood flow attenuation and retention time for sediment settlement prior to discharge to the Smallhanger Brook.

TWL proposes to construct a new ore sorter building (and associated conveyors) and expand the ROM pad as part of the mine re-development. This will involve modifications to some of the existing catchments. TWL has committed to appropriate surface-water management practices where this work involves ground disturbing earthworks.

TWL has provided details of stages of mine development, each stage representing an expansion of the pit crest which impacts ex-pit surface-water management. Accordingly, a surface-water management strategy has been developed for each stage of mine development.

9.3.2 Discharge locations

Groundwater discharges as spring flows and baseflow to surface-water features. The main surface-water features in the area include the Tory Brook and Smallhanger Brook (although previously prior to the MWF development there was also the Hooksbury Stream). Historically, springs feeding the Hooksbury Stream were located on the western side of Crownhill Down; with one significant spring located within the mineralized zone/tin streaming area on the western side of the old Lee Moor road. While the tin streaming area is now partially covered by the MWF, the preferential flow zones feeding this historic spring still exist.

A number of springs were identified within the Smallhanger Brook catchment, including the Bottle Hill Spring and Claymoor House Spring. A number of springs were also identified within the Tory Brook catchment, including the springs previously feeding the Hooksburry Stream and some springs to the north-west of the MWF, north of the Portworthy Road which feed into the Tory Brook.

Additional springs are evident adjacent the mire area south of Hooksbury Stream and from slopes to the north of Hooksbury Stream and are interpreted as being associated with drainage from perched waters not associated with permanent groundwater discharge via the mineralized/tin streaming zone.

A number of springs were also identified to the south-east of the pit (in the adjacent catchment), the Birchland Farm spring, and Sparkwell spring.

There are two water supplies located within 1 km of the pit; the Dartmoor Zoo well and an underground reservoir adjacent to Birchland Farm which is used to supply livestock drinking water.

Multiple ponds were developed in the catchment during previous mining operations to manage catchment runoff, with three primary discharge points to the Smallhanger Brook at Elfords Pond, Smallhanger North Tank and Smallhanger South Tank. The Smallhanger North and South Tanks were originally constructed as attenuation storage for peak flood flows from the catchments. Catchment runoff from the processing plant area and pit area is captured in upstream sedimentation ponds prior to discharge to the Smallhanger Brook via the Smallhanger North and South Tanks, respectively.

Elfords Pond operates as both a flow attenuation and sediment settlement facility prior to discharge to the Smallhanger Brook, with the pond divided to provide an initial sediment settlement facility upstream, and a storage facility downstream with a discharge control mechanism. Elfords Pond receives the majority of the runoff from the pit catchment area, via a series of upstream ponds which are either pumped to or overflow to Elfords Pond. Elfords Pond receives the majority of water via the pumping of water from the Claymoor Ponds. The Claymoor Ponds capture runoff from the eastern pit catchment area and dewatering discharge from the pit.

9.4 Hydrogeological regime

From a hydrogeological perspective, there are three main units, including a shallow subsoil/ unconsolidated rock layer which extends to 3 m to 4 m in depth; underlain by a weathered bedrock layer which varies between 10 m and 20 m in thickness; underlain by fresh rock which is generally either Killas (Devonian Slates) or granite.

Regionally, vertical or sub-vertical fault systems trend north-west to south-east and west-north-west to east-south-east. Within the mine itself, several structures have been mapped (including the F20, F30, and F40 structures) generally trending in a north-west to south-east direction.

The aquifer permeability is moderately low and is primarily derived from an interconnected network of fractures and fissures within the bedrock. The bedrock is considered to have a low storage. Faults and fracture zones can act as either zones of preferential groundwater flow or as barriers to groundwater flow.

A perched water table exists within the subsoil/weathered bedrock layer, with a deeper water table present in the underlying bedrock. The water table intersect the ground surface along the lower/western reaches of Crownhill Down leading to artesian groundwater conditions. The existence of this shallow water table in this area is supported by a number of hydrogeological features, including the presence of springs and observed artesian conditions in boreholes in the area.

Groundwater levels in the pit area range from a depth of up to approximately 55 mbgl at the top of the hill (e.g. MB16) near the Hemerdon Ball to less than 2 mbgl along the eastern banks (e.g. MB18R) of the Smallhanger Brook. Bottle Hill spring just south of the project area illustrates that groundwater reaches ground level in some areas of the Smallhanger Brook valley.

The groundwater table is close to (or above ground) surface in the vicinity of both the Smallhanger Brook and the Tory Brook, suggesting that both brooks receive groundwater baseflows and both are in hydraulic connection with bedrock aquifer. This is also supported by the numerous flow monitoring points along the Smallhanger Brook which show an increase in flow downstream.

Significant hydraulic testing has been completed across the Hemerdon site, including test pumping, airlift recovery tests, and rising/falling head tests. Based on the hydraulic testing completed to date the hydraulic conductivity values of the various lithologies can be summarized as follows:

- Kaolinized Granite: 0.01 to 0.1 m/d.
- Fresh Granite: 0.001 to 0.1 m/d.
- Weathered Killas: 0.05 to 0.5 m/d.
- Fresh Killas: 0.000 to 0.1 m/d.
- Basalt: 0.005 to 0.0005 m/d.
- Mineral Lode/Tin Streaming zones: 0.5 m/d.
- Fractures Rocks/Contact Zones: up to 1m/d.

Groundwater level monitoring commenced at the site in 2008, with regular monthly groundwater level monitoring initiated in 2011.

Depth to groundwater within the MWF catchment (Crownhill Down) varies from being above ground level (artesian conditions) at the base of the hill towards the Tory Brook (e.g. MB6 and MB12) to being over 40 mbgl at the higher elevations to the east (e.g. MB11). The depth to groundwater decreases down slope to the west towards the Tory Brook. Groundwater levels show an annual groundwater recession during the summer months, with seasonal water table fluctuations of up to 15 m observed on the higher ground. The artesian boreholes generally remain artesian throughout the year.

The depth to groundwater in the pit area varies from less than 2 m below ground level at the base of the hill adjacent to the Smallhanger Brook (MB18R) to being over 55 mbgl at the higher elevations to the south/south-east (e.g. MB16). The depth to groundwater decreases down slope to the west towards the Smallhanger Brook. Groundwater levels in the pit area similarly show an annual groundwater recession during the summer months, with seasonal water table fluctuations of up to 15 m observed on the higher ground in the vicinity of Hemerdon Ball.

The total average annual rainfall on site is between 1,400 and 1,600 mm/yr. Evaporation is estimated to be approximately 350 mm/yr. Effective rainfall at the site is therefore estimated to be of the order 1,150 mm/yr.

9.5 Monitoring data

An extensive groundwater and surface-water monitoring network was previously established by Wolf. Water monitoring commenced in 2008, initially focused on establishing a comprehensive baseline data set for the surface-water and groundwater environment. Subsequently, as the mine progressed into construction and then operation, the focus of the water monitoring changed to identifying any impact that the mine might be having on the surrounding water environment and to fulfilling the requirements of various licences/permits held by Wolf. TWL has acquired this extensive historical water-monitoring data set and, as such, have an in-depth understanding of the surface-water and groundwater regime across the project area, derived from more than 10 years of intensive data collection and analysis.

TWL's ongoing water monitoring programme will be modified and updated in-line with subsequent consultation with the Environment Agency and any related conditions captured within the new licences and permits secured.

9.6 Water-quality monitoring

Within the project area the streams flow mainly over Upper Devonian Slates. However, the Crownhill Down Granite underlies a significant proportion of the Smallhanger Brook catchment, and the Dartmoor Granite underlies the upper reaches of the Tory Brook catchment. Surface-water quality in the area is also influenced by local historical and ongoing

The Environment Agency has defined the groundwater chemical status for the area as "poor" under the River Basin Management Plan for the South Western River Basin District.

Published work suggests that groundwater in the region is mainly shallow, circulating within thin soils, weathered near-surface bedrock, and granite fractures. As a result, the groundwaters are predominantly oxic, acidic, soft, and unmineralized, and most appear to show evidence of having been recently recharged from local rainfall. This correlates well with the majority of water-quality results derived from the ongoing water monitoring programme at Hemerdon.

Locally, some parameters are naturally elevated in the groundwater environment associated with naturally elevated concentrations of these elements within the soil and rocks, and they might also have been affected by previous mining activities in the area.

Concentrations of trace elements are elevated in the shallow soils and sediments due to the widespread mineralization within the granite bodies and surrounding country rock. Mapping of soils and stream sediment geochemistry has been completed by the British Geological Survey (BGS). Maps illustrating the concentrations of arsenic and copper in shallow soils of south-west England are presented in Figure 9.2. These maps indicate that there are elevated concentrations of arsenic and copper in the shallow soils of the area. Similar distributions of elevated concentrations of other trace elements, including lead and zinc, are also observed. These naturally high metals concentrations and the acidic condition of the groundwater results in localized high concentrations of some trace elements in groundwater in the area.

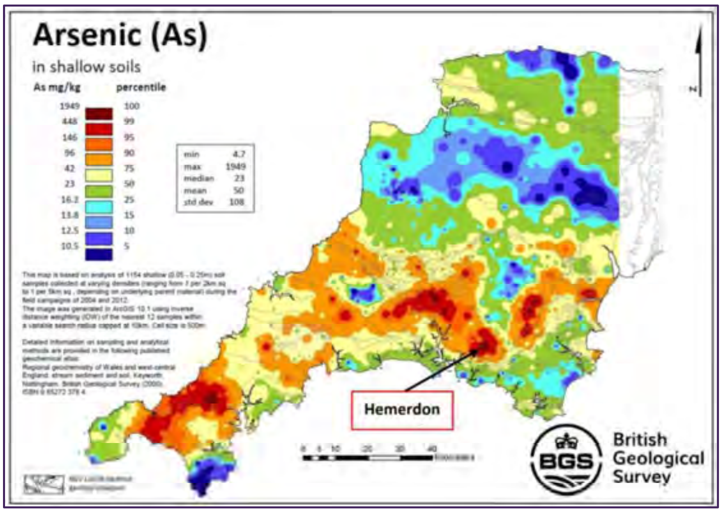
A combined groundwater and surface-water monitoring programme was established at the Hemerdon site by Wolf in 2008, with monthly water monitoring ongoing at the site until present. The average electrical conductivity in the bedrock sampling points is approximately 100 µS/cm, the average pH measured in the field is approximately 5.0, and the average hardness of the groundwater monitoring points is approximately 20 mg/l.

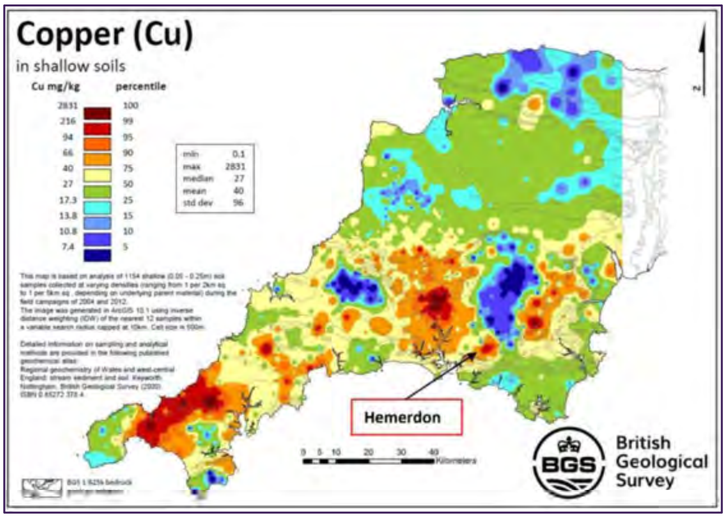
Elevated concentrations of copper (up to 520 µg/l), zinc (up to 1,600 µg/l), aluminium (up to 1,270 µg/l) and lead (up to 110 µg/l) are recorded in the groundwater monitoring locations across the whole project site.

Historical monitoring at the site indicates elevated arsenic, copper, and zinc concentrations and slightly lower pH concentrations in the pit monitoring boreholes (e.g. MB17 and MB18), with these observations consistently observed prior to Wolf initiating mining.

Historical monitoring at five boreholes on Crownhill Down (MB1, MB6S, MB6D, MB7D, and MB12) indicated naturally elevated concentrations of arsenic, iron, and manganese. Previously, arsenic concentrations exceeding 400 µg/L were recorded at MB1, MB6S, MB7D, and MB12. These boreholes were also associated with low dissolved oxygen and low redox conditions. The elevated concentrations of arsenic and iron at these five boreholes were not attributable to waste materials in the MWF due to the time at which construction activities commenced at Crownhill Down (and well in-advance of any tailings disposal). It was also noted that there is a significant difference between the magnitude of the arsenic and iron concentrations in these five boreholes compared with leachate concentrations from the waste materials.

Figure 9.2 Maps illustrating arsenic and copper concentrations in shallow soils in the south-west of England





9.7 Pit dewatering

Pit dewatering will be principally driven by surface-water components and predominantly influenced by large storm events and sustained rainfall over a prolonged wet period. While the groundwater pit inflows are consistent and significant, they consist a small proportion of total pit inflows during large rainfall events. The dewatering system will need to consider both elements as groundwater inflows will continue even during extended dry periods and will be locally significant in areas of enhanced permeability.

Pit dewatering is planned to be achieved through a combined in-pit sump and ex-pit borehole dewatering systems.

The water pumped from the boreholes may have elevated metals concentrations where mineralized zones are intercepted. Borehole water quality will be assessed at each location on completion of borehole installation to ensure water quality is suitable for intended end usage or environmental discharge.

Throughout the mine life it is proposed that the majority of mine dewatering will be discharged to the Smallhanger Brook in a controlled manner to mitigate the predicted flow losses, and the managed discharge from the Tory Pond and the MWF catchment will mitigate the predicted minor flow losses in the Tory Brook.

In-pit sump(s) capturing groundwater and surface-water pit inflows will be subsequently pumped out of the pit to a sedimentation basin.

The in-pit sump dewatering system is designed to manage all surface-water and groundwater inflows for a 24-hour 100-year return period rainfall event and during a sustained wet period.

The pumping rates required to remove the combined water volume (groundwater and surface-water) from the in-pit sumps for the design storm (24-hour 100-year return event) within three days are also presented in Table 9 1.

Table 9.1 Combined pit inflow 100-year 24-hour storm event (CSA, 2020)

Scenario	Groundwater inflow (m^3)	Surface-water inflow (m^3)	Combined inflow (m^3)	Pumping rate to dewater in <3 days
Stage 1	1,300	16,200	17,500	100 L/s
Stage 2	1,600	25,700	27,300	150 L/s
Stage 3	2,000	42,800	44,800	260 L/s
Stage 4	2,300	60,000	62,300	360 L/s
Stage 5	2,600	73,500	76,100	440 L/s

9.8 Water balance

Water balance modelling was undertaken to assess the reliability of the MWF catchment to supply the water required to meet the process plant make-up demand (identified as 100 m^3/hr) and to quantify potential additional water supply requirements if sufficient water cannot be sourced from the MWF catchment.

The water balance modelling completed indicates that surface-water harvesting from the MWF catchments alone (excluding the existing MWF Pond) is unable to meet the entire process plant make-up water demand over the mine life. The rainfall runoff yield reduces over the mine life, due to the expansion of the MWF, which generates less rainfall runoff proportionally compared to undeveloped catchments in the area. The reducing rainfall runoff yield over the mine life will results in less water being available from MWF catchment water storages.

CSA (2020) proposes that mine dewatering has the capacity to meet the full range of additional make-up water supply requirements predicted, including additional plant make-up water requirements, augmenting surface-water flows, and mitigate any impacts associated with mine dewatering.

9.9 Groundwater and surface-water modelling

Numerical groundwater and surface-water models were developed to predict potential groundwater and surface-water inflows to the pit, the potential effectiveness (and water supply potential) of ex-pit dewatering boreholes, and the impact of mine dewatering on groundwater levels and surface water flows through the life of mine.

Predicted groundwater pit inflows ranged from approximately 10 L/s to 60 L/s over the life of mine. The groundwater modelling predicts that eight ex-pit dewatering boreholes, targeting zones of enhanced permeability, can provide a combined yield of up to approximately 16 L/s, intercepting groundwater prior to it flowing into the pit and providing a water supply option for the operation, if successfully permitted.

The models indicate mine dewatering is likely to impact surface flows and groundwater levels in the area surrounding the mine.

9.10 Conclusions and recommendations

From a water perspective, AMC has identified several areas of possible concern with respect to the mining proposal:

1. Negative impacts on water flows and levels resulting from mine dewatering.
2. Water supply for mine operation.
3. Permits and licences for discharge, water impoundment, and abstraction.

Mine dewatering is predicted to impact surface flows and groundwater levels in the area surrounding the mine. CSA (2021) states, "*the impact will be gradual, and the water pumped from the pit and/or dewatering boreholes can be used to mitigate any negative impacts observed*".

In terms of project water supply, additional make-up water supplies are predicted be required in the future, particularly when the MWF Pond is no longer available to supply water. To cover this and all water shortfalls, CSA (2021) proposes a combination of additional ponds and mine dewatering will have the capacity to meet the full range of additional make-up water supply requirements predicted, including additional plant make-up water requirements, augmenting surface-water flows, and mitigate any impacts associated with mine dewatering.

While water treatment requirements are intended to be addressed prior to supply, harvested rainfall runoff from the MWF catchment from the proposed new West Pond, South Pond 3 or other ponds may be a more acceptable source of water for impacted external parties. AMC therefore recommends that the water balance be revisited to prioritize, as much as possible, dewatering and pit water for plant requirements, and non-contact water for augmenting surface-water flows and mitigating impacts associated with mine dewatering. AMC acknowledges some specific water usage within the process plant requires high quality "clean" water and the use of mine dewatering as a water supply source to the process plant which has not been licensed previously.

Given the potential future water shortfall, TWL is understood to be in the process of applying to re-secure the various discharge permits, water impoundment licences, and water abstraction licences previously held by Wolf, which were surrendered voluntarily.

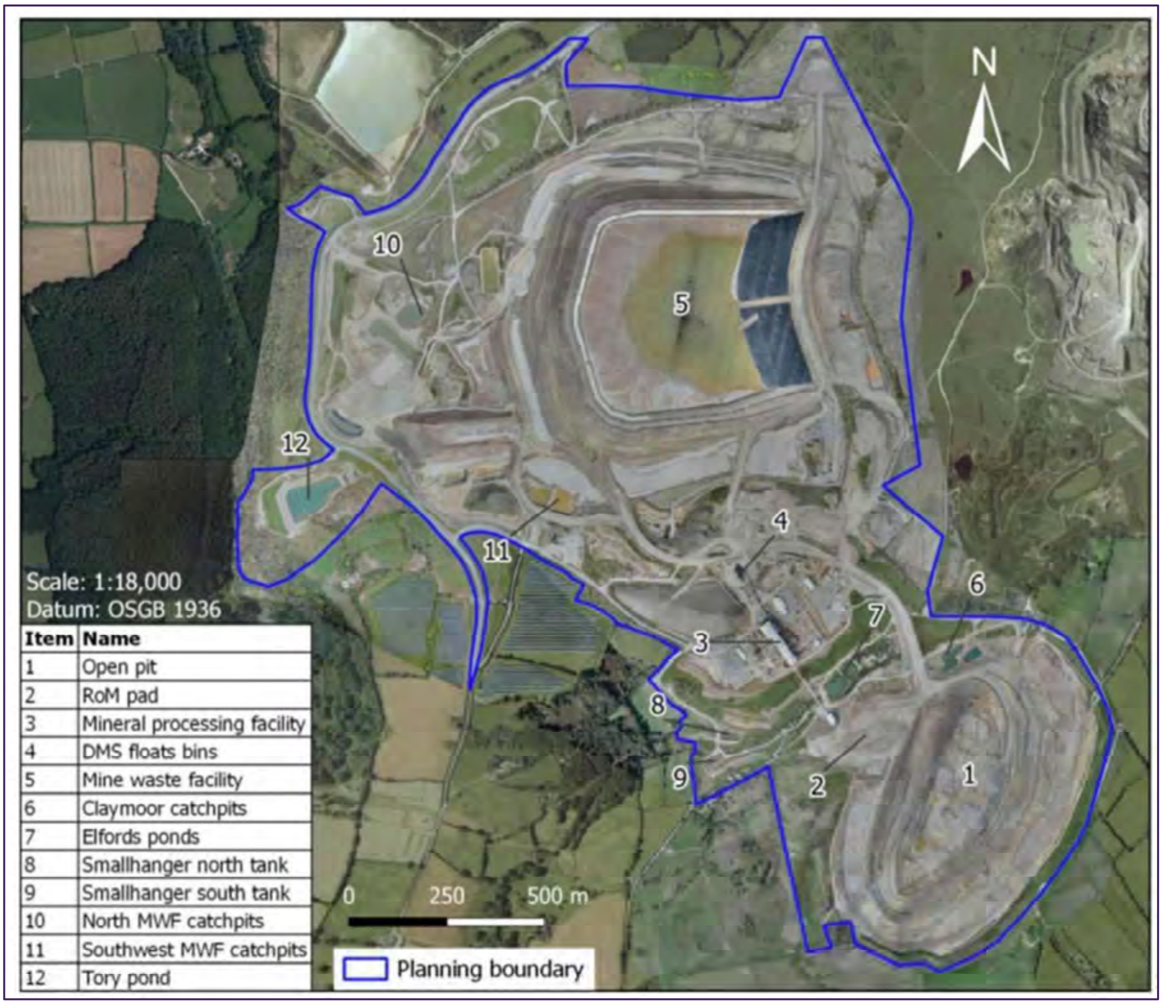
While there is no reason to believe there will be any significant impediment to re-acquiring these permits and licences, this process is not yet complete.

10 Infrastructure

10.1 Introduction

The key infrastructure required for operations at Hemerdon was constructed by Wolf during previous operations and is currently serviceable. The site layout for the mine with key existing infrastructure labelled is presented in Figure 10.1.

Figure 10.1 Hemerdon Mine-site layout



Source: FS, Figure 18.1.

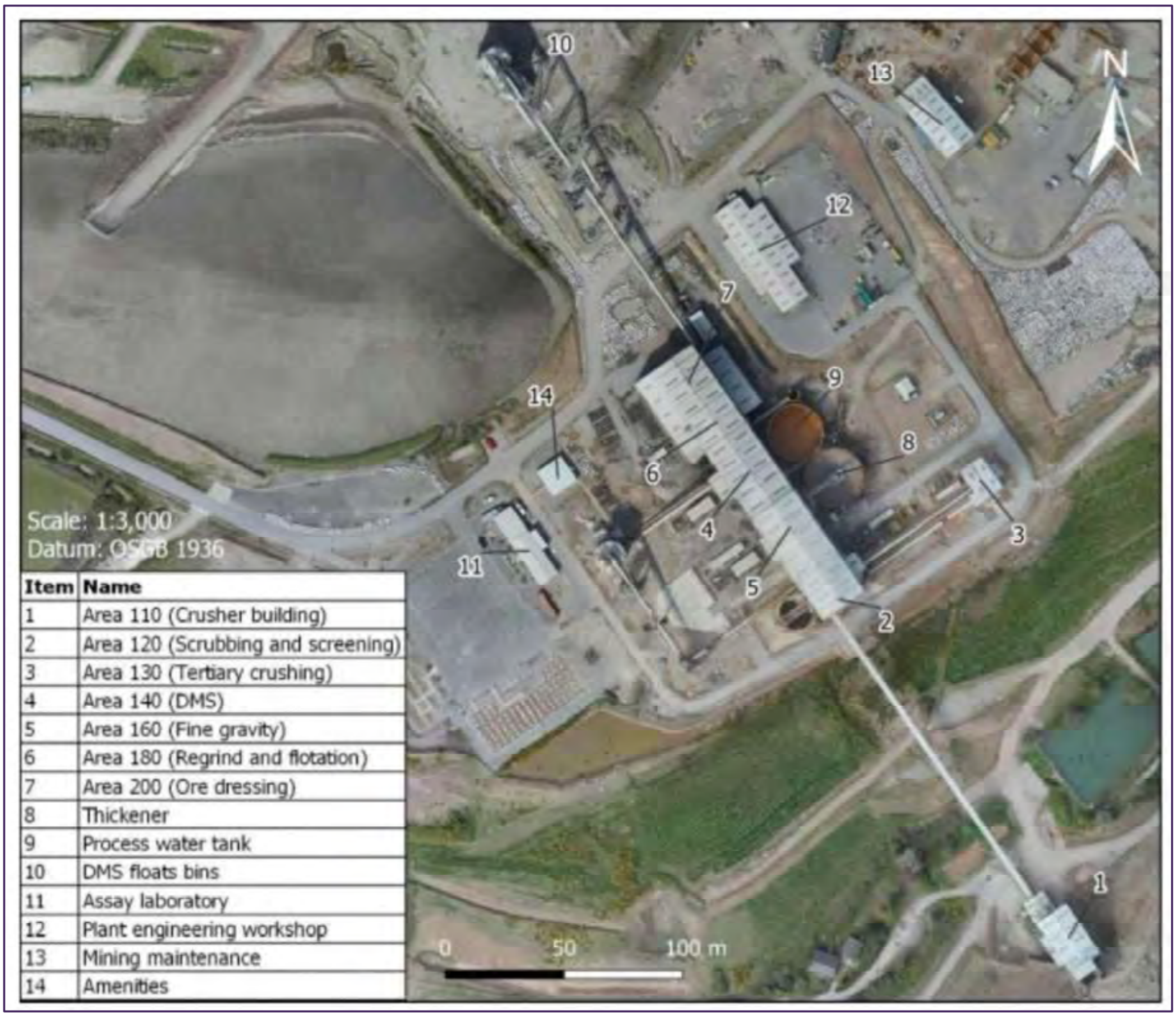
TWL plans to upgrade the existing infrastructure to accommodate the updated LOMP in the FS. The key areas that are planned to be upgraded are:

- MPF: Installation of new ore sorter building and associated conveyor infrastructure to remove waste prior to the beneficiation circuit.
- MPF: Upgrade of existing crushing circuit, scrubbing and screening area, to reduce LFN previously experienced.
- Replacement of administration buildings removed at mine closure. New buildings will be installed on the footings of the previous buildings which have all required service connections installed.

- Laboratory expansion with additional reject storage facilities. TWL has secured the purchase of the previous laboratory equipment and is currently investigating owner-operated and third-party operator options.
- Geology core yard expansion to the west side of the administration building to allow future geological and geotechnical studies.
- Engineering workshop upgrades to include steel and pipework fabrication facilities.
- Explosives magazine to allow the storage of explosives on-site and move away from the on-demand truck deliveries of previous operations.
- Increased store facilities on-site and near-site, particularly for the bulk reagents and consumables associated with DMS.
- Installation of aggregates processing equipment for AWL.

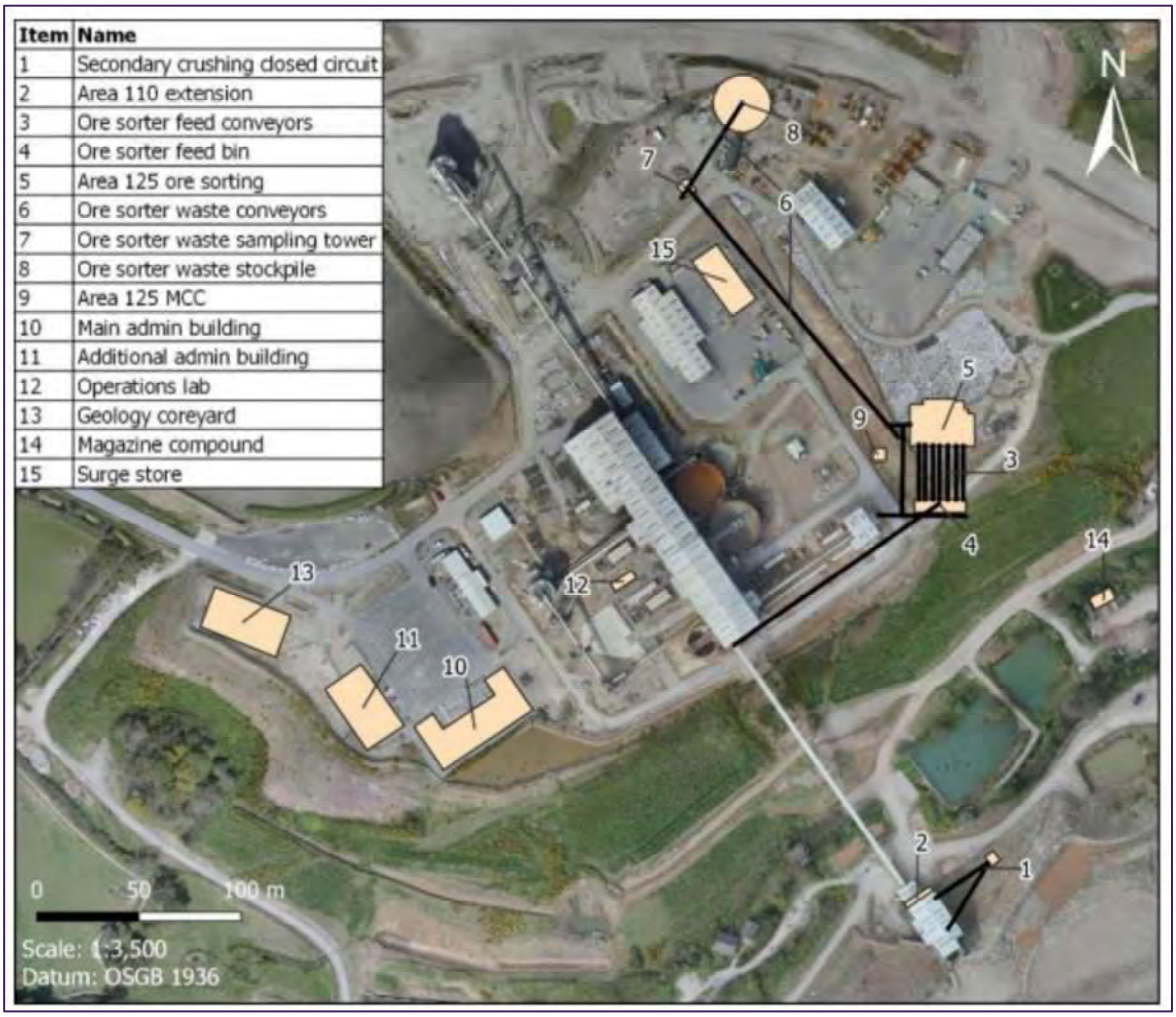
The existing MPF and associated infrastructure are shown in Figure 10.2 and the location of the planned upgrades are shown in Figure 10.3.

Figure 10.2 Hemerdon existing MPF layout



Source: FS, Figure 18.2.

Figure 10.3 Hemerdon MPF planned modifications

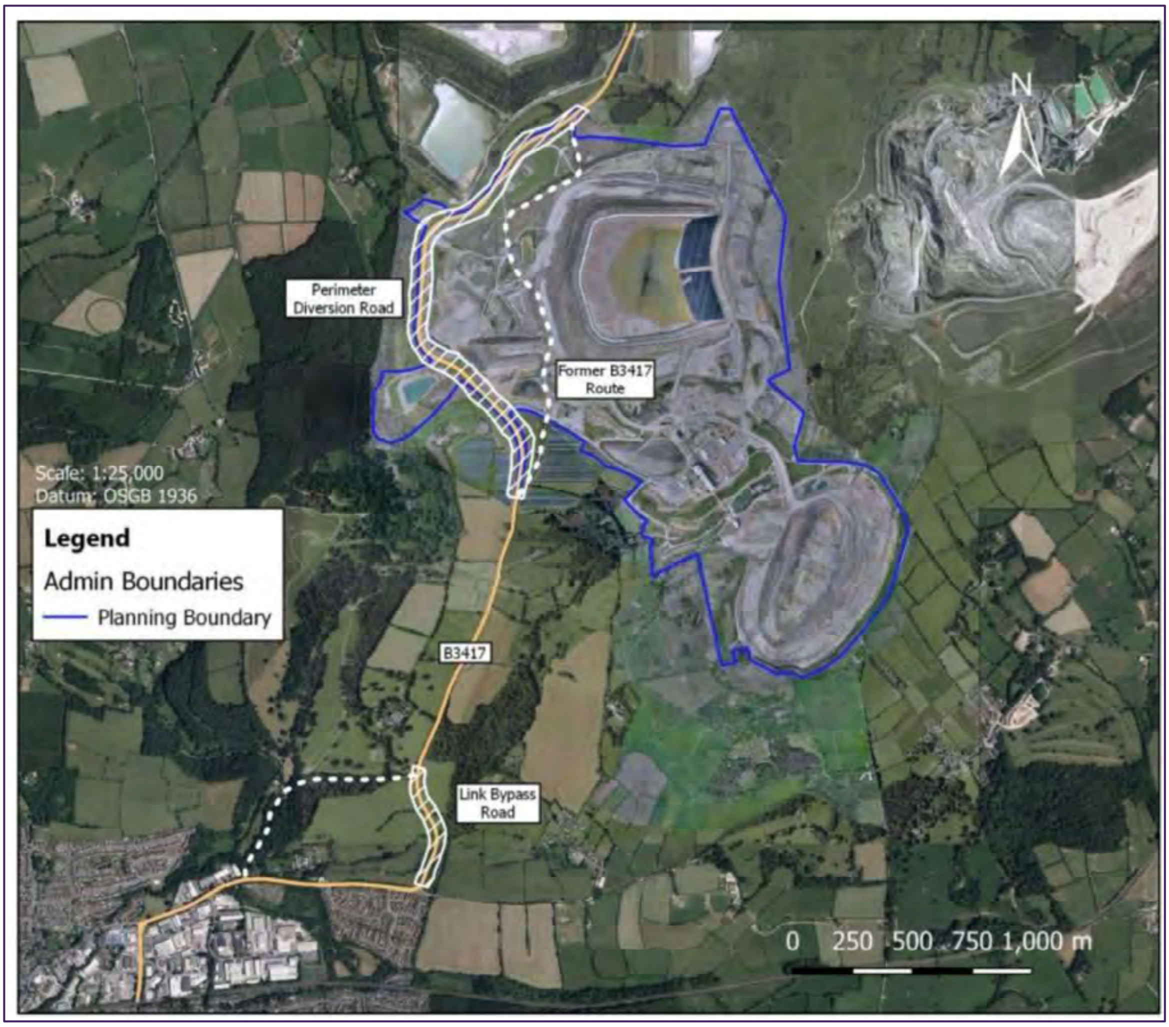


Source: FS, Figure 18.3.

10.2 Site access and road network

Hemerdon is located close to the city of Plymouth and benefits from good local-road infrastructure, with the main access being along the B3417. Wolf invested in upgrades to the local-road infrastructure, including bypasses and perimeter diversion roads. The upgrades to local-road infrastructure completed by Wolf are shown in Figure 10.4.

Figure 10.4 Hemerdon site road access



Source: FS, Figure 18.5.

The on-site road network consists of well-established paved roads connecting all key areas of infrastructure, along with haul roads connecting the mine to the ROM pad and MWF. The remainder of the site is accessible by single-track dirt roads.

Parts, consumables, and fuel will be delivered to site by road as per previous Wolf operations. Tungsten and tin concentrates along with aggregate products will be hauled from site by road.

10.3 Power supply

Power is supplied to the MPF through the UK national grid distributed by Western Power Distribution. The site has an existing 33/11 kV substation which was reconnected in March 2021.

11kV power is distributed on-site to five switchboards which are:

- Area 110 Primary Crushing Area (Future Secondary Crusher Building).
- Area 130 Tertiary Crushing and Area 210 Decant Water Return Pump.
- Area 160 Fine Gravity and Area 140 DMS.
- Area 200 Refinery and Services Area.
- Area 430 Mining contractor Area.

Power is then distributed around site to 11 kV/415 V step-down transformers via steel-wired armoured cable.

To accommodate proposed upgrades to the MPF, an additional below ground 11 kV cable will be installed to ensure power supply to the proposed ore sorter building. The proposed MPF upgrades are planned to require less total electrical load than during previous operations, therefore, AMC believes the existing power supply infrastructure is sufficient.

10.4 Water supply

Raw water will be supplied through the existing infrastructure and fed into the raw-water supply tank. The tank receives water from the Tory Pond transfer pump and Loughter Mill transfer pump pipelines.

Process water will also make use of the existing water infrastructure and due to the upgrades in the MPF, is envisaged to have a lower consumption than previous operations. Process water will be taken from decant water from the MWF, raw tank overflow, clarified water from thickener overflow, and open-pit dewatering boreholes (later in mine life).

10.5 Hospital and medical facilities

Hemerdon is located 12 km from Derriford hospital, which takes approximately 20 minutes to reach from site. The hospital is equipped with a 24-hour accident and emergency department. Medical facilities on-site are limited to first aid and sufficient trained personnel to deal with first aid care and treatment.

11 Environmental, social, and permitting

11.1 Introduction

Whilst Hemerdon could have negative impacts on the environment, extensive baseline studies from the previous operation and continued monitoring during Wolf and TWL stewardship, demonstrates that the various mitigations established are sufficient to ensure the protection of the environment. Hemerdon includes extant planning permission and a series of environmental permits that, subject to discussions with the Environment Agency (EA) and transfer into new ownership, will facilitate the immediate restart of operations at Hemerdon. The necessary obligations are outlined within the planning conditions and environmental permits previously granted for the mineral extraction operations, together with associated processing and disposal of mine waste and tailings.

Wolf did report a number of breaches in environmental legal compliance from over-extraction and breaches in discharge limits. Most significant was that initial analysis and planning did not identify the potential for LFN emissions to have negative impact on the local Noise Sensitive Receptors (NSR).

TWL has concluded extensive studies into the extraction and recovery of tungsten and has identified a number of technical and economic upsides to Hemerdon, namely:

- Expand the footprint of the open pit.
- Introduce aggregate production.
- Modify and improve recoveries in the MPF by introducing X-Ray transmission-based ore sorting.
- Modify the plans for tailings.

TWL has therefore set out to address and de-risk previous issues identified during the previous operation by commissioning a number of environmental studies under TWL's ESG requirements for Hemerdon.

11.2 Planning and permitting

A series of environmental studies were undertaken to support various applications for planning and subsequent variations. Further targeted studies were also conducted to support applications for the MPF, MWF permit, and a number of water abstraction, impoundment, and discharge licences. The most recent Environmental Statement (ES) was submitted to support a Section 73 planning and MWF permit variation granted by the MPA and the EA in 2017.

The planning variation included the continued extraction of tungsten and tin, processing, and disposal of mineral wastes until 05 June 2036 and removed the restriction on the operating hours of the primary crusher.

In addition to the planning permission, Hemerdon has specific consent requirement under UK and EU Waste Directive legislation. The mining and processing activities at Hemerdon fall under the Environmental Permitting (England and Wales) Regulations 2016 (EPR), the Water Resources Act 1991 (as amended), and the Environment Act 1995.

The EPR requires operators of "regulated facilities" to obtain a permit or to register some activities. In this way, the EPR provides ongoing supervision by regulators (The EA) of activities that could harm the environment.

The primary EPR listed activities requiring environmental permits at Hemerdon are as follows:

- Roasting or sintering metal ore, including sulphide ore, or any mixture of iron ore with or without other minerals.
- Treatment of non-hazardous waste in a plant with a capacity of more than 50 tonnes per day by physico-chemical treatment.

- Crushing grinding or other size reduction of any designated mineral or mineral product.
- A mining waste operation including mining waste facility for non-hazardous non-inert wastes.
- The deposit of non-hazardous extractive wastes in heaps.
- Discharge of trade effluent consisting of site drainage.
- Discharge of trade effluent consisting of site draining and mine dewatering.
- Abstraction from surface water or underground source.
- Abstraction from groundwater, including the abstraction of groundwater for mine dewatering.

After Wolf entered receivership, the permits and licences previously held by Wolf were transferred and maintained by the Official Receiver (OR), as described in Table 11.1. The site was then purchased from the OR in its entirety by Hargreaves Services Limited (HGSL). During the purchase, the OR and HGSL agreed to rescind the MWF and MPF permits and the impoundment and abstraction water licences in an attempt to reduce cost under care and maintenance. In lieu of the licences related to the MWF, HGSL negotiated a Local Enforcement Position (LEP) on the MWF with the EA.

Table 11.1 Environmental permits and licences transferred from Wolf to TWL

Permit reference	Notes
EPR/FB3639RK	Hemerdon Mining Waste Facility including a full licence to discharge trade effluent at ED1 and ED2.
EPR/GP3531EX	Drakelands Mineral Processing Facility
SW0470002003	Full licence to abstract water from Tory Pond
SW0470002004	Full licence to abstract water from Loughter Mill
SW0470002001	Full licence to impound water at Tory Pond
SW0470002005	Full licence to impound water at Loughter Mill
SW0470002006	Full licence to abstract water at Small Hanger North Tank
SW0470002007	Full Licence to abstract water at Small Hanger South Tank
EPR/DB3290RH	Dewatering and surface-water treatment system, including pit dewatering serving Drakelands Mine (Elfords Pond).
EPR/QP3420XX	Small Hanger South, dewatering and surface-water treatment serving Hemerdon Mine.
EPR/AB3991VL/V002	Sewage treatment plant serving Hemerdon Site Offices
EPR/WB3395DL	Radioactive Source Permit

HGSL also rescinded the sealed source permit for the management and maintenance of sealed source density gauges as part of restoration and care and maintenance works. The density gauges were removed from site and placed in long-term storage. Due to the cost and the importance of the density gauges to the commissioning process, TWL applied for, and was granted, a permit to hold and operate the original sealed source density gauges. The sources have been installed and are being managed by TWL.

The permits retained by HGSL and transferred to TWL as part of the purchase are described in Table 11.2.

Table 11.2 Environmental permits and licences held by TWL

Permit reference	Notes
EPR/QP3420XX	Dewatering and surface-water treatment serving Hemerdon Mine.
EPR/DB3290RH	Dewatering and surface-water treatment system serving Drakelands Mine (Elfords Pond).
EPR/FB3639RK	Temporary Local Enforcement Position for operation of a Mining Waste Facility at Hemerdon Mine.
EPR/VB3191DN	Sealed source permit for density gauges
EPR/FB3639RK	Extension to Temporary Local Enforcement Position for the operation of a mining waste facility, at Hemerdon Mine.

11.3 Additional project permitting requirements

The following planning and permitting strategy is required in order to address the statutory processes required by the operator to facilitate the LOMP as described in the FS.

Planning

Condition 19 of the existing planning permission allows for 50 lorry movements a day from the Hemerdon site which forms an upper ceiling for aggregate movements from site. As such, TWL has agreed an informal prior notification for the temporary uplift of aggregates from site. The agreement allows the temporary increase in export of aggregates from 50 to 150 HGV movements per day but includes the condition that TWL undertakes pre-application advice and request screening and scoping under the EIA Regulations as the export of secondary aggregates was not considered in any of the previous EIAs (DCC, 2020). The notification also requests that during this interim period the operator seeks to submit a formal Section 73. variation to make the situation permanent. TWL wishes to increase the permitted lorry movements to up to 300 per day and this application will form part of the Section 73 application.

A Section 73 of the Town & Country Planning Act 1990 allows for planning applications to be made to vary a condition on an existing planning permission, without needing to submit a full, new planning application. This makes the process much more efficient from a time and cost perspective for all parties involved.

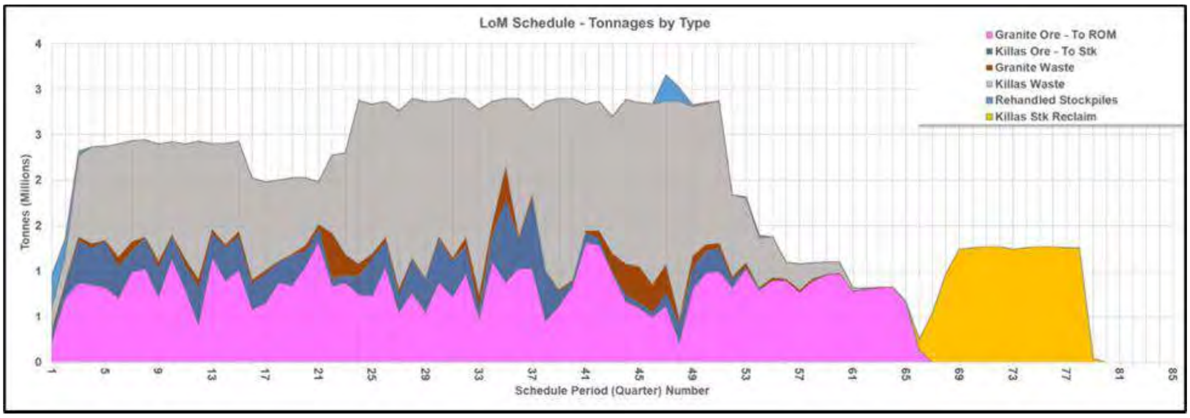
Brookbanks is of the opinion that a Section 73 application to amend Condition 19 of the extant planning permission stands a good chance of success from a technical perspective. This opinion is formed after careful consideration of several factors.

The agreement to the temporary uplift in export volumes with the relevant authorities has set a precedent which the application will build from. The fact that, having reviewed Brookbanks’ traffic data and junction assessments, the local authorities were able to grant the temporary uplift without requiring any mitigation to local roads demonstrates that there is capacity in the network. The Section 73 will request a further increase in lorry movements. Brookbanks is of the opinion that it will be possible to mitigate any perceived detrimental impact arising from the additional traffic, so that post-mitigation any impact will be deemed negligible.

The consultee responses received to date to the proposed Section 73 application do not raise any concerns which are insurmountable. As discussed at length in the pre-application meeting with Devon County Council on 23 June 2021, highways, air quality, and noise will be the main factors which the application will address. Highways has already been mentioned above. The air quality and noise mitigation work carried out in support of the temporary uplift demonstrated that these are factors which can be addressed to the satisfaction of the local authorities and so should not prevent a positive determination from a technical perspective.

The 2021 Mine schedule (Figure 11.1) presented as part of the FS includes a 18.5-year LOM, running until 2039, with mining activities terminating after 16.5 years when production moves solely to stockpile reclamation and Killas processing. The stockpile reclaim is forecast to last three years, giving an overall LOM of 21 years, running until 2042.

Figure 11.1 2021 mining schedule—tonnages by material type



Following consultation with the MPA, the FS proposals will require a new planning application to include:

- An expansion to the current permitted area of the mine to incorporate the northern and southern pushbacks in the pit.
- A new consent to include the MWF redesign to accommodate subsequent mine arisings.
- An extended duration of permission to accommodate the projected LOMP, closure and reclamation.

The planning application will need to include:

- Formal scoping exercise with the MPA.
- EIA on all proposed developments.
- An Environmental Statement.
- Statutory regulatory and public consultation.

Following the approval TWL will need to obtain:

- Remaining land and mineral access for the proposal on the northern pushback.

11.4 Permitting

Operations at Hemerdon were authorized by a bespoke Environmental Permit for a Category A MWF. The permitted activities relating to the previously consented MWF comprises:

- The use of ROM waste and dense media separation rejects in the construction of a rockfill embankment to form a tailings embankment.
- Treatment of tailings slurry and excess process water within the dam by settlement and consolidation by gravity.
- Discharge of surface water runoff from Tory Pond and Portworthy Channel to the Tory Brook.

TWL has applied to re-enact the MWF environmental permit to recommence mining without delay. However, to encompass the variations proposed in the FS, namely the change to co-disposed tailings (instead of “wet” tailings, an application to vary the current permit will be required). The FS design assumes that the fine tailings would be disposed of in the tailings basin for the first ten-years following the resumption of mining. The variation will therefore need to be in place from Year 10 until end of the LOM.

Retaining the tailings basin for ten years will not only provide an important source of water for the process but will give ample opportunity to explore alternative sources of "make-up" water. Current studies (Heaney, 2021), indicates that the open-pit dewatering and/or ex-pit dewatering will provide a suitable alternative source.

The variation will need to include:

- Temporary increase in height and volume to accommodate increased reserve from the mine.
- Co-disposal of "wet" tailings.
- Dry stacking of mine wastes on the MWF.
- Suitable alternative "make-up" water.

The environmental studies carried out to date

The environmental studies carried out to date supported the successful application for planning and permit approvals for Hemerdon as operated by Wolf. The most significant studies are:

- Wolf (UK) Michael Hughes Associates, Ecology Study 2008.
- Wolf (UK) SLR, Environmental Statement 2014.
- Wolf (UK) SLR, Environmental Statement 2017.
- Wolf (UK) SLR. Restoration Concept Update 2017.

11.5 Audible noise, Low Frequency Noise (LFN), and infrasound

Noise at Hemerdon was managed by a number of conditions within the planning permission and there was a requirement for a noise-monitoring management and mitigation strategy (NMMMS) to manage activities and implement noise abatement on the mining and processing operations. The regulatory framework was effective at mitigating nuisance noise within the audible spectrum. However, during operations by Wolf, it became apparent that there were significant levels of infrasound (0Hz-20Hz) and LFN (20Hz-200Hz) being generated.

The source of the infrasound was identified to be the deck of the mineral-sizing screens that generated infrasonic sound pressure waves at very specific tones within the 16 Hz one third octave. When operating together at slightly different speeds the screens would generate sound pressure waves that would interact causing a "beating" effect that could be felt within the local community. The screens also generated a harmonic response in the 32 Hz and 50 Hz one third octaves that contributed to LFN that was linked to an exceedance, observed by EA, using the criteria curve developed by DEFRA (Department for Environment, Food & Rural Affairs/University of Salford) in "*NANR45 –Measurement and assessment of complaints concerned with low-frequency noise*".

Wolf went to extensive lengths to reduce infrasound emissions but following the execution of numerous technical studies and engineering works, no reductions were ever reported by the regulator or the local community.

As part of refurbishment and process improvement works, TWL reports that they have been able to design-in infrasound mitigations by addressing the noise at source. By removing the most problematic screens and reducing the size and area of the sizing screens within the MPF, LFN emissions will be reduced. TWL also reports that they have been able to develop and test a number of other mitigations to reduce the generation of infrasonic sound pressure at the screen deck.

11.6 TWL Acoustic Impact Assessment (AIA)

TWL has been in constant dialogue to understand the requirements of the regulator and local community stakeholders so that TWL can incorporate considerations into the design of the MPF. TWL understands that an updated AIA is required to demonstrate compliance with the noise limits in the extant planning conditions, a Noise and Vibration Management Plan to address the Infrasound, and LFN issue and a BS4142 to establish background noise limit. The TWL study should include a Noise and Vibration Management Plan in order to demonstrate Best Available Technique (BAT) with regards to LFN emissions from the main screening processes with the MPF.

As such, TWL has retained a specialist dynamics and measurement company (Eatec Dynamics) and engaged environmental noise consultants (Noise Consultants) to produce an updated AIA.

The scope of the AIA is threefold:

- To demonstrate compliance with the noise limits within the planning conditions.
- To assess the impact of the proposed developed on background.
- To demonstrate that TWL has developed appropriate measures and has systematically explored all techniques to minimize noise and vibration from the site.

The AIA includes:

- Noise Compliance Report (BS5228).
- EPR Compliance Report (BS4142).
- Noise and Vibration Management Plan (IPPC BAT).

11.7 Noise Compliance Report, TWL 2021

The greatest contributors to the potential for noise exceedance are plant movements and the operation of a primary jaw crusher on the ROM pad. TWL noted that the predicted noise levels are considered worst-case, assuming activities are concurrent, and therefore the levels of exceedances are likely to be lower than those shown, and manageable through noise mitigation.

TWL has committed to carry out the following noise abatement measures:

- Reduce the periods when the crusher is operating to 12-hours per day, five days per week.
- Construction of noise barriers/bunds between haulage routes and NSR.
- Construction of noise barriers at the ROM pad to shield crushing operations.
- Reduction of number of plant/ operations along particular haulage routes.
- Use of local, temporary noise barriers in the vicinity of works.

11.8 EPR Compliance Report, 2021

Background noise levels are presented by summarizing all BS4142 noise assessments carried out at Hemerdon. The assessment by the Noise Consultants has demonstrated that there is a low impact from the MPF at NSR during the daytime and evening periods, apart from at Galva House where there is a less than adverse impact. During the night-time, there is a low impact at NSR apart from Galva House and Birchland Farm, where there is an adverse impact.

Overall, noise levels will be minimized by TWL using appropriate engineering controls in the design, specification and selection of the plant and mobile equipment.

11.9 TWL Noise and Vibration Management Plan (NVMP)

The NVMP presents an assessment methodology used to inform the design of noise mitigation options and infrasound reduction options being considered by TWL, and an understanding of their potential effectiveness with respect to the management of LFN (sound with a frequency below approximately 200 Hz) and infrasound (sound with a frequency of 20 Hz or lower).

The Integrated Pollution Prevention and Control (IPPC) permit guidelines and BATs is the preferred method of regulation for the EA, however, given the enigmatic nature of the issue, techniques to reduce infrasound generation are limited. The TWL NVMP presents results from a series of trials to develop noise-mitigation techniques and quantify the reduction that can be achieved.

TWL has considered LFN in the design of the updated MPF, by introducing an additional processing methodology in the form of X-Ray Transmission Ore Sorting early in the process, essentially "preconcentrating" the ore. TWL expects that ore sorting will reduce ore reporting to the concentrator plant by 57%.

TWL's plans for the refurbishment and modification of the existing MPF are in development, with a particular focus on the management and optimal reduction in noise emissions to enable the operation to resume. TWL is confident that the mitigations inherent to the design of the process and the noise mitigations options available, BAT have been identified and will be presented as part of a proposal to mitigate LFN to the EA before approval of the MPF can be granted.

11.10 Blasting

Blasting at Hemerdon was controlled by a number of conditions in the planning permission and proved to be challenging due to the fact that although Wolf's blasting results were well within the planning limits (10 mm/s), complaints were still received.

TWL is planning to design all blasts to minimize the generation of air-overpressure and ensure that the measurable ground vibration and air overpressure does not exceed the limits outlined within the planning conditions. Furthermore, TWL is planning to maintain a stakeholder engagement and public interaction record procedure to ensure that interactions with external stakeholders is formally recorded and acted upon, in compliance with regulatory obligations.

Additionally, TWL plans to develop a blast impact monitoring and minimisation scheme (BIMMS) to minimize the propagation of ground-borne vibration beyond the boundary of the mine. To ensure environmental control through best practical means the scheme will include:

- Monitoring:
  - Control of dust and fumes.
  - Comprehensive blast database.
- The development of appropriate drill-and-blast techniques.
- Maintaining Environmental Control and Best Practical Means.
- Internal and Independent Reviews.
- Community Engagement Strategy.

11.11 Hydrology and hydrogeology

All infrastructure for comprehensive water management of the site was established by Wolf. TWL proposes that mining will recommence at the Hemerdon site with the re-instatement of the various discharge permits, water impoundment licences, and water abstraction licences which were previously held by Wolf. TWL is currently undertaking water monitoring to support applications to re-secure these same permits and licences and intends adopting the same water-management approach as that previously adopted by Wolf. TWL believes that there is no significant impediment to re-acquiring these permits and licences, which will facilitate recommencement of mining operations. Whilst the final decision rests with the permitting authority (EA), AMC considers that TWL is undertaking all necessary steps for data gathering, analysis, and reporting to present a compelling case for re-acquisition of those licences.

Early engagement with the EA is required, to ensure that all necessary data is collected to secure a licence to use mine dewatering in the plant and to ensure that any concerns that the EA might have regarding potential impact can be addressed. The statutory determination period for water licences is 16 weeks and will be submitted within due course to provide water for the commissioning phase.

11.12 Water monitoring

An extensive groundwater and surface-water monitoring network was previously established by Wolf. Water monitoring commenced in 2008, initially focused on establishing a comprehensive baseline data set for the surface-water and groundwater environment.

TWL has the required water-monitoring equipment and appropriately skilled personnel to undertake all required water-monitoring on-site. TWL's ongoing water-monitoring programme is considered appropriate for the current project phase and will be modified and updated in-line with subsequent consultation with the EA and any related conditions captured within the new licences and permits secured.

11.13 Surface-water management

The existing surface-water management infrastructure is appropriate to manage surface-water within the Smallhanger Brook catchment as mining progresses and the pit expands. In the later stages of mining, it will be necessary to install additional surface-water management infrastructure, including storage capacity directly upstream of Elfords Pond, a new pond on the western side of the pit, and diversion of the upper reaches of the Smallhanger Brook. The proposed additional surface-water infrastructure is all standard engineering practice and the staged surface-water management strategy developed will effectively manage all surface-water aspects throughout the LOM.

11.14 Site water discharge permits

TWL currently holds discharge permits for Elfords Pond (EPR/DB3290RH) and Smallhanger South Tank (EPR/QP3420XX) and a Local Enforcement Position (LEP) under which discharge occurs from the Tory Pond to the Tory Brook.

Wolf previously held discharge permits for Elfords Pond (EPR/DB3290RH), Smallhanger South and North Tank (EPR/QP3420XX), and the Tory Pond and Portworthy Channel (incorporated into the MWF Environmental Permit EPR/FB3639RK), for which an approval to transfer is required.

TWL will also need to secure a discharge permit for the Smallhanger North Tank. Discharge permits are also required for the two main MWF catchment discharges (Tory Pond and the Portworthy Channel), which will need to be captured within the MWF Environmental Permit.

11.15 Water supply licences

Wolf previously held water impoundment and water abstraction licences for the Tory Pond and Tory Brook. These licences were surrendered back to the EA by HGSL during the time they managed the site. TWL is currently in the process of re-applying for impoundment and abstraction licences for the Tory Pond and Tory Brook.

Mining activities can re-commence utilizing the previous water supply options; however, in later years of the mine life, additional water abstraction licences will be required to harvest rainfall runoff from the MWF catchment and to facilitate the use of mine dewatering as a process plant water supply option. While these additional water supply options might not be required until after Year 10 of mining, the collection of supporting data (including water-monitoring data such as water levels, flows, quality, and any ongoing pumping) is recommended to be initiated immediately and that the preparation of new licence applications (and engagement with the EA) commence within the first year of operation, particularly relating to the use of mine dewatering as a water supply source to the process plant, which has not been licensed previously.

11.16 Social and community impact

Hemerdon is notable in that, unlike many mining projects, it is located adjacent to a significant population centre. It should also be noted that whilst historic mining operations have occurred in the area in the form of the Lee Moor China Clay operations, the local population are not familiar with the open-cast metalliferous mining and processing. TWL recognizes that the operations at Hemerdon must be conducted in a manner that reduces any adverse effects on neighbouring residents.

11.17 Regulatory framework and control

The planning permission and unilateral undertaking includes various conditions that have been imposed for environmental and community related reasons.

Condition 29 of the planning permission includes a requirement for the operator to keep a log of any complaints from the community/stakeholders and respond to them within 24 hours and resolve them within 14 days.

Additionally, the unilateral undertaking requires that the operator establish informal technical and local liaison groups to provide an informal forum to assist co-ordination of relevant regulation and dissemination of information. The technical group is known as the Hemerdon Mine Technical Liaison Group (TLG). The local group is known as the Hemerdon Mine Local Liaison Group (LLG). It is intended that the TLG and LLG groups will provide a forum for regulators and the local community acting independently to coordinate community grievances, the regulations, and any enforcement action required at the Hemerdon site as well as allowing the operator to report on project progress and developments.

11.18 TWL stewardship

TWL has been in frequent discussion with all regulatory stakeholders and has actively engaged with them to re-establish the TLG meetings. TWL has also engaged with the local community to establish the LLG and has ongoing conversation with the Local Parish Councils to ensure ongoing dialogue and community feedback.

Wolf employed an environmental management team operating under an EMS designed in accordance with ISO14001:2004. The system outlined all EMPs for operation aspects and contained a register of all applicable environmental legislation. The EMS in place for the project was written to be broadly in compliance of the ISO 14001:2004 reporting requirements, the Equator Principles and IFC Performance Standard 1.

TWL has built on and updated the EMS to ISO14001:2015 and has subsequently been awarded ISO14001 accreditation by Perry Johnson Registrars.

In recognition of the need to maintain good standards of ESG and to facilitate the process of planning and environmental permit approvals TWL has commissioned a number of additional studies in support of the LOMP. These include geochemical, hydrology, and hydrogeological analyses and reports.

11.19 Mine closure

The timing by which mine decommissioning and closure are required to be completed is defined by the project planning permission. Currently, a planning requirement is that all mineral working and tipping shall cease by 05 June 2036, after which the only operations permitted on site shall be those essential to achieve restoration in accordance with the approved schemes or aftercare regime, and the removal of plant, buildings and roads which shall be completed, and the land restored to the satisfaction of the MPA within three years of cessation of operations.

The original restoration concept covering the open pit, MPF, MWF, and associated infrastructure was developed in 2009. An update to the restoration concept was completed in 2017. The restoration concept is for the landscape and habitat restoration of the site to be phased to ensure that overall impacts are lessened, and the biodiversity benefits of restored habitats are realized as early as possible.

TWL and the MPA considers that the regulatory framework supporting the phased restoration of the site offers the necessary environmental protection as the project currently stands. The framework supports the immediate restart of operations; however, TWL will need to work to audit the position of the site and update the documents on commencement of mining.

Consideration will then need to be given to how the plans to expand the pit and the MWF described above impact on the planning and permitting architecture.

A closure plan will be prepared by TWL to represent a formal commitment to decommission and restore the Hemerdon site in accordance with an agreed plan and to achieve outcomes agreed through consultation with relevant stakeholders. The closure plan, including associated cost estimates, is intended to be regularly reviewed, and progressively updated on a yearly basis over time.

11.20 Conclusions

Extensive work has been undertaken by the TWL team to adequately characterize the ESG aspects of the FS. Access has been provided to extensive, related reports, information on permitting, environmental management plans, specialist third-party technical studies (noise and vibration, landscape and restoration, water supply, discharge, and management), details of MWF design and management, amongst others. Whilst the FS concentrates on establishing the technical and economic feasibility of a revised project design, however, TWL has taken full cognisance of the ESG aspects associated with the reopening and modification of site operations. These aspects are covered in detail in Section 20 of the FS but are also included as key considerations throughout the study. The need to ensure environmental protection and mitigation of ES-related impacts, allied to the need to obtain consent from permitting authorities and ensure a social licence to operate, is recognized and is a cross-cutting theme in the report. TWL has correctly identified those ESG matters of concern and where possible has assessed options to de-risk the project.

However, a small number of remaining areas for concern remain, which are further discussed below.

1. Inability to obtain EA approval of the MPF and water abstraction/discharge.

   LFN emissions emanating from the previous owner's MPF was a source of community complaint and breach of permitted limits, immediately prior to suspension of operations. Whilst TWL has commissioned expert studies, removed a generating source of LFN, devised mitigation measures, carried out an AIA and taken pre-application advice, a formal application remains to be made and considered by the EA/permitting authorities. It is noted that the EA have designated this as a matter of high public interest, and it is likely that this will impact on the extent of public engagement and time taken for determination of the application.

   TWL is actively engaged with the EA, to re-establish the rescinded permits, but at the time of writing, TWL has no indication of the likelihood of obtaining the requisite amendments. Inability to secure the necessary permit amendments could have significant consequences for the project. A delay would impact on timeline for MPF plant commissioning.

2. Inability to obtain MPA approval for variation of existing planning consent.

   Environmental baseline information, analysis, impact assessment, and mitigation/management measures are required to be undertaken prior to the submission of an application for decision by the planning authorities. Refusal of consent or the imposition of unacceptable conditions would impact on project economics, but more importantly on the capacity and design of the MWF, which would have to accommodate the displaced volume of aggregates as a waste product.

TWL has engaged with the MPA, to discuss the regulatory requirements, but at the time of writing, TWL has provided no indication of the likelihood of obtaining the requisite approval.

3. Inability to secure permit approvals for modification of MWF. As is the case with other ESG risks, permits are not in-hand and ready to go and consequently are seen as a risk factor to progress. Approval or conditions attached to the consents cannot be assumed or correctly quantified in terms of impact on the project. Inability to secure permissions would be a fatal flaw in project development although it should be noted, as discussed above, that this modification is not required until Year 10 of the operation.

4. Inability to secure long term DCC permit for aggregate transportation from the site.

   TWL currently has a Temporary Consent granted by Devon County Council to move 150 trucks per day, and an informal approval to continue at that rate for a limited duration. TWL is currently engaged in pre-application discussions and hopes to have an application for production and transport of aggregates submitted to the authorities in September 2021.

   In addition to the Temporary Consent, the local authority has formally approved the aggregate as a new mineral source for use in highways following submission of product compliance data sheets (UKAS Certificates for the materials specification).

11.21 Recommendations

1. The relevant permitting authorities should be provided with the supporting evidence that the modified MPF design, coupled with modelling, LFN attenuation, and mitigation measures as part of a formal application. The EA should also be approached in order to gain an indication of the likelihood or conditions under which the permit will be issued and a probable timeframe. TWL has identified the necessary steps and schedule of events for determination of an application prior to MPF construction. Permits and licences for water abstraction, discharge and impoundment are currently under review whilst detailed design and water requirements are finalized. Further engagement with EA has also been identified as necessary to ensure that sufficient data is collected to support later applications for licences to abstract water in the later years of mine life and for eventual mine dewatering.

2. TWL should take timely action to commence dialogue with the regulatory authorities and in undertaking studies, to seek and obtain approval for an extension to the current permitted area and date of cessation in-line with the LOMP.

3. Modification and changes to the MWF requiring a new EA consent and planning permission will require a formal scoping exercise, EIA, Environmental Statement, Statutory regulatory and public consultation. TWL to identify the necessary steps, studies, and schedule of events for determination of applications by Year 8.

4. Secure the planning consent for the increased level of lorry movement for aggregate transportation from the site.

   Through diligent application of ESG principles in dealings with permitting authorities and engagement with all stakeholders, TWL can establish themselves as good neighbours, with a good ESG track record. This will put them in a favourable position for seeking approval for extending site operations, in the event that additional resources are identified outside of the FS pit limit.

12 Production schedule and sales

12.1 Tungsten and tin production schedule

The LOM tungsten and tin metal production totals 6.5 Mmtu WO_3 and 7 kt Sn and is summarized annually in Table 12.1.

Table 12.1 LOM tungsten and tin production

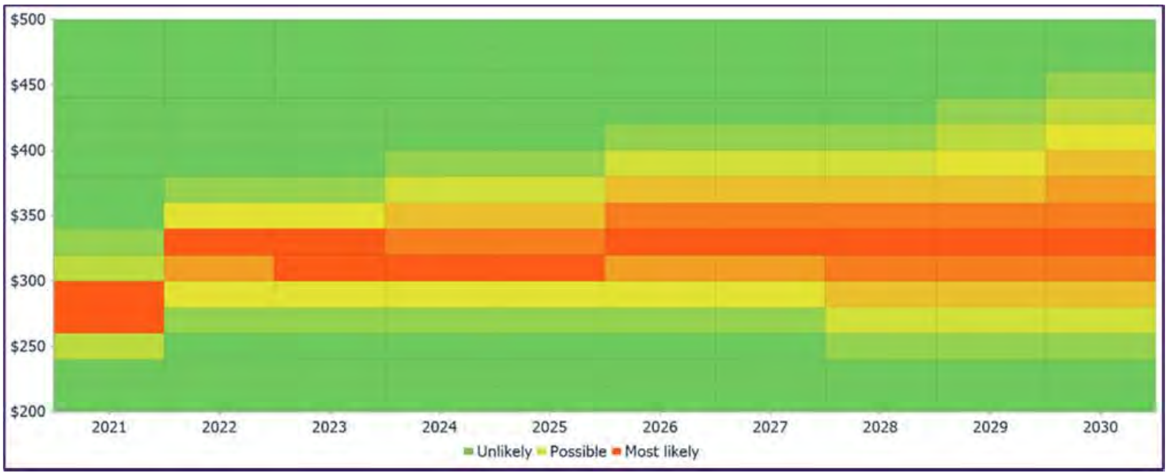
Year	Tungsten production (mtu WO_3)	Tin production (t Sn)
2022	242,181	423
2023	344,235	589
2024	328,693	544
2025	349,714	530
2026	370,684	486
2027	352,611	390
2028	331,653	295
2029	363,158	264
2030	380,197	352
2031	386,166	336
2032	338,950	394
2033	313,383	474
2034	344,025	415
2035	397,972	399
2036	478,829	377
2037	515,892	347
2038	295,884	197
2039	316,244	265
2040	105,474	117
Total	**6,555,942**	**7,194**

Source: TWL financial model.

12.2 Tungsten and tin prices

Tungsten prices are based on the Roskill ten-year outlook for APT price as of April 2021 (Roskill, 2021), a summary of which is presented in Figure 12.1.

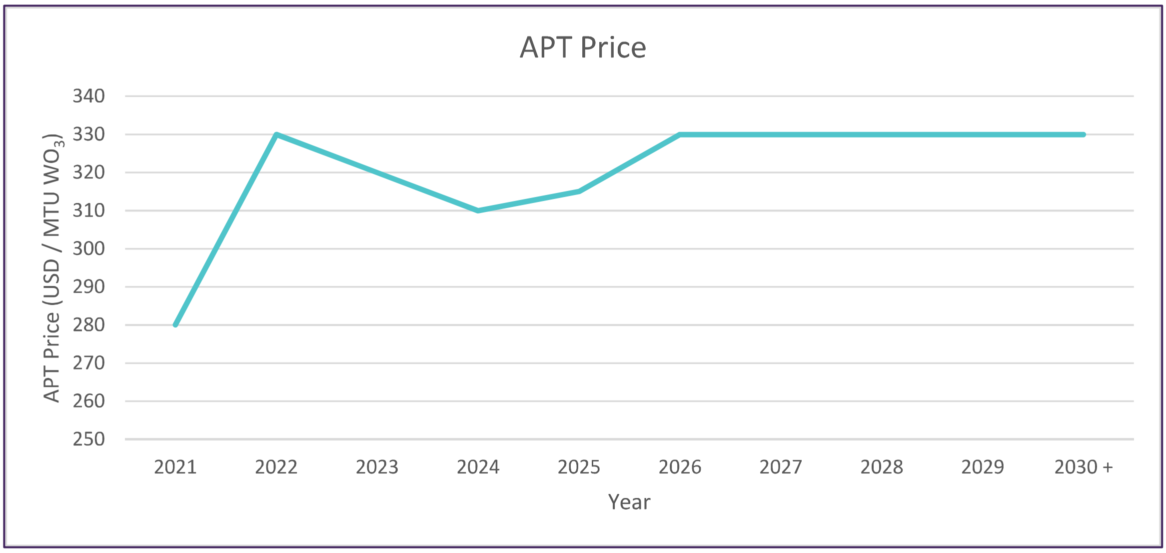
Figure 12.1 Roskill tungsten price outlook



Source: Roskill.

The APT prices selected for the economic analysis are summarized in Figure 12.2.

Figure 12.2 APT prices used in CPR economic analysis



TWL produce tungsten concentrate which is accounted for by factoring the APT price by a 78% payability factor for a +50% concentrate in the financial model (HEM_MAR2021_Cost_model_CPR_REV1_060721.xlsm).

The Sn price used in the economic analysis is USD24,000 which is based on a 20% discount from the current spot price (June 2021) of USD30,000.

12.3 Aggregates production schedule

The aggregates production schedule is based on the total of suitable process rejects to be produced from the operation (Table 12.2). TWL has commissioned market studies and identified the potential to market up to 45% of annual production with the remainder being stockpiled to provide for longer term sales at the cessation of mining activities.

Table 12.2 Potential material available for aggregate production

Year	OS Reject (Tonnes)	PDMS Floats (Tonnes)	Spiral Tails (Tonnes)	Combined (Tonnes)
2022	1,293,475	741,260	366,269	2,401,004
2023	1,866,956	964,105	476,380	3,307,441
2024	1,927,378	964,105	476,380	3,367,863
2025	1,932,659	966,746	477,685	3,377,090
2026	1,927,378	964,105	476,380	3,367,863
2027	1,927,378	964,105	476,380	3,367,863
2028	1,927,378	964,105	476,380	3,367,863
2029	1,932,659	966,746	477,685	3,377,090
2030	1,927,378	964,105	476,380	3,367,863
2031	1,927,378	964,105	476,380	3,367,863
2032	1,927,378	964,105	476,380	3,367,863
2033	1,932,659	966,746	477,685	3,377,090
2034	1,927,378	964,105	476,380	3,367,863
2035	1,927,378	964,105	476,380	3,367,863
2036	1,927,378	964,105	476,380	3,367,863
2037	1,932,659	966,746	477,685	3,377,090
2038	697,615	348,958	171,343	1,217,916
TOTAL	**30,862,462**	**15,562,359**	**7,688,533**	**54,113,354**

12.4 Aggregates prices

TWL engaged Panoptic Consultancy Ltd (Panoptic) to provide an assessment of the UK aggregates market and product prices (Panoptic, 2021). The study demonstrates a market locally, regionally, and further afield for the range of aggregate products.

The product prices used (excluding haulage) in the economic analysis for the various aggregate markets and products is dependent on the type of aggregate produced, with price ranges summarized in Table 12.3.

Table 12.3 Aggregates prices (excluding haulage)

Products (ex-gate)	General Fills (GBP)	Single Size Aggregates (GBP)	Sands (GBP)
Minimum Value	4.50	11.68	9.33
Maximum Value	7.90	18.86	12.43
Average	6.51	13.93	11.17

AMC notes that the prices used are broadly in-line with the with the Panoptic market study report (Panoptic, 2021).

13 Capital and operating costs

The following section summarizes the capital and operating cost (CapEx and OpEx) estimates provided by TWL. AMC has reviewed the mining and general and administration (G&A) components of the costs and GSL has reviewed the process plant components.

13.1 Operating costs

The basis of estimate for the TWL operating costs are as follows:

- Mine operating costs: Contractor quotations, including:
  - A multi-sourced tender for drill-and-blast.
  - A single-sourced quotation for load-and-haul and ancillary activities from HGSL.
  - A multi-sourced tender for supplementary support equipment.
- Process plant operating costs: First principles operating cost model.
- G&A operating costs: First principals and Wolf historic costs.

13.1.1 Mine operating costs

TWL conducted a drill-and blast tender with 11 companies and used the average of five quotations to generate the drill-and-blast costs as summarized in Table 13.1.

Table 13.1 Drill-and-blast mining costs

Rock type	Powder factor (kg/m^3)	Cost (GBP/BCM)	Cost with HGSL 7.5% (GBP/BCM)
Granite ore	1	1.57	1.69
Granite waste	0.8	1.31	1.41
Killas ore/waste	0.6	1.06	1.14

Source: FS, Table 21.5.

AMC is of the opinion that the drill-and-blast costs provided are reasonable.

Mine load-and-haul and ancillary activity costs were generated from a contractor quotation provided by HGSL. HGSL provided costs for load-and-haul activities by depth (Table 13.2), ROM pad, crushing, and rehandle activities (Table 13.3) and fixed contract costs (Table 13.4).

Table 13.2 Load-and-haul costs by material type and depth

Material	Depth (RL)	Cost (GBP/BCM)
Ore	140	2.24
	85	2.46
	55	2.65
	-100	3.14
	-120	3.29
Waste	190	2.6
	110	2.71
	95	2.84
	10	2.98

Source: FS, Table 21.2.

Table 13.3 Ancillary mining costs

Item	Year 1 cost (GBP/t)	Year 2+ cost (GBP/t)
Haulage of ore sorter rejects	1.33	1.01
Haulage of DMS tailings	0.60	0.60
ROM crushing and handling	1.80	1.47

Source: FS, Table 21.3.

Table 13.4 Fixed mining costs

Item	Cost (GBP/week)
Management and support staff (HGSL)	30,243
Supplementary support equipment (Other contractor quotations)	17,160

Source: FS, Table 21.4 and updated quotations for support equipment (Plant Hire Comparison_V1.xlsx).

Total mining costs over the majority of the LOM range from GBP 1.77/t to GBP 2.36/t and AMC considers these to be reasonable for the size of operation envisaged. AMC notes that given the historical operating experience of HGSL at Hemerdon, operating nuances such as the mining productivities described in Section 5 should be well-understood by the contractor.

13.1.2 Process plant operating costs

The process operating cost breakdown for the ramp-up year as well as stable production is shown in Table 13.5.

Table 13.5 Process plan operating costs

	2022 Total (Ramp-up)		2023 Forward	
% of Design Feed Capacity	77%		100%	
	Expenditure (GBP)	**Cost Split (%)**	**Expenditure (GBP)**	**Cost Split (%)**
Area 110 - Primary and Secondary Crushing	687,410	3.8	687,410	3.6
Area 120 - Washing and Screening	775,361	4.3	775,361	4.1
Area 125 - Ore Sorting	1,638,454	9.1	1,685,465	8.9
Area 130 - Tertiary Crushing	701,386	3.9	743,387	3.9
Area 140 - Dense Media Separation	3,025,334	16.7	3,420,840	18.1
Area 150 - Primary Milling	642,546	3.6	711,556	3.8
Area 160 - Fines Gravity Separation	546,369	3.0	580,257	3.1
Area 180 - Concentrate Regrind and Flotation	713,445	3.9	716,519	3.8
Area - 200 Concentrate Processing and Roasting	1,202,508	6.6	1,472,734	7.8
Area 210 - Tailings Thickening and Disposal	304,402	1.7	321,985	1.7
Area 360 - Reagent Mixing	78,319	0.4	79,714	0.4
Area 390 and 420 Services	867,103	4.8	867,103	4.6
Process Plant Other Direct Costs	6,204,300	34.3	6,204,300	32.9
Processing Plant Total Directs	17,386,936	96.1	18,266,630	96.8
Process Plant Overheads	**706,413**	**3.9**	**595,250**	**3.2**
Total	**18,093,349**		**18,861,880**	
Process Plant - GBP/t	**6.73**		**5.37**	
Plant Overhead - GBP/t	**0.27**		**0.17**	
Total Process Cost - GBP/t	**7.01**		**5.54**	
Total GBP/mtu WO_3 Produced	**70.08**		**48.63**	

TWL is taking a conservative approach to runtime with a planned run time of 81% (90% availability with 90% utilization) as well as a 15-day maintenance break, nominally set for December, to enable a large-scale overhaul and replacement of key equipment. With the previous run-time issues well-documented under the Wolf era, GSL fully supports this conservative approach.

GSL believes that all reagent consumption and estimated costs per reagent are reasonable. TWL has a large database of operating consumptions in which to draw data from, as well as make allowances for improvement projects.

Power consumptions have all been calculated from the relative power draws on the various equipment and a 2020 power cost has been applied.

Large maintenance items have been costed from the various suppliers such as Tomra, Sandvik, and CMS. In other cases, where spares have not been directly quoted, 10% of the capital cost has been allocated and equally distributed across 12 months.

Laboratory costs have been allocated based on number of samples and the cost per analysis from the contractor.

GSL notes that the salary ranges proposed by TWL are significantly higher than their Wolf counterparts and should allow TWL to attract more-experienced personnel, including expatriates to support the locally sourced less-experienced workforce.

13.1.3 G&A operating costs

The G&A costs used by TWL are based on a combination of first principles estimates and historical costs. The annual G&A costs are presented in Table 13.6.

Table 13.6 G&A operating costs

G&A Area	G&A GBP per annum
Mining-Administration	476,400
Mining-Technical Services	139,274
Environmental-Licence Admin	28,844
Environmental-Licence Support & Conditions	24,000
Environmental-Licence Monitoring	222,400
Environmental-Administration	346,645
Health & Safety	256,100
Human Resources	261,240
Planning & Estates	425,508
Administration	2,445040
TWL Corporate Fees	500,000
Total	**5,125,452**

Source: FS, Table 21.7 and CAP-Copy of Copy of 2021 05 11 - GA costs based on Wolf Analysis.xlsx.

AMC is of the opinion that the G&A costs are appropriate.

13.2 Capital costs

The total capital costs for the project are summarized in Table 13.7.

Table 13.7 Capital cost summary

Area	Capital cost (MGBP)
Mining	3.5
Process plant rebuild	27.2
Process plant spares	5.0
On-site infrastructure	2.1
Indirect costs	2.7
Corporate commitments	4.2
Total	**44.6**

Source: FS, Table 21.1.

13.2.1 Mine capital costs

The mining capital cost breakdown is presented in Table 13.8.

Table 13.8 Mine capital cost breakdown

Item	Cost (GBP)
Mobilization	618,979
Enabling Works	297,850
Mine Geology	513,991
Environmental, H&S	995,314
Mining Working Capital	1,048,862
Total	**3,474,996**

Source: TWL financial model.

AMC is of the opinion that the GBP3.5 million mining CapEx is appropriate for re-starting of mining operations. The key infrastructure required for mining is already in place and mining operations will be contractor-operated, meaning that TWL does not need to invest in a mining fleet.

13.2.2 Process plant capital costs

The process plant CapEx is summarized in Table 13.9.

Table 13.9 Process plant capital cost

Direct		Subtotal (GBP)	Contingency (GBP)	Total (GBP)	Contribution (%)
Area	Description				
110	Primary Crushing	2,322,882	71,352	2,394,234	6.93%
120	Washing and Screening	1,893,219	57,227	1,950,446	5.64%
125	Ore Sorting	10,682,228	305,165	10,987,393	31.78%
130	Tertiary Crushing	113,984	3,674	117,658	0.34%
339	Plant Piping	578,444	23,257	601,701	1.74%
370	Power and Reticulation	3,114,618	110,489	3,225,107	9.33%
420	Compressed Air	262,599	7,088	269,687	0.78%
600	Preliminaries and General	322,870	7,521	330,391	0.96%
800	Import Duties and Taxes	0	0	0	0.00%
804	Construction Equipment	1,026,851	30,520	1,057,371	3.06%
Total		20,317,695	616,293	20,933,988	60.56%
Indirect					
500	Project, Procurement, and Construction Management	1,127,355	54,964	1,182,319	3.42%
501	Design and Drafting	1,066,165	53,308	1,119,473	3.24%
515	Commissioning	424,279	18,297	442,576	1.28%
Total		2,617,799	126,569	2,744,368	7.94%
Projects					
Replacement of 140-SN-04 and 05		551,644	110,329	661,973	1.91%
Plant Refurbishment		3,466,994	346,699	3,813,693	11.03%
DMS Feed Stockpile		519,000	0	519,000	1.50%
Primary DMS 1 Upgrade		77,600	15,520	93,120	0.27%
SLON		559,926	0	559,926	1.62%
Total		5,175,164	472,548	5,647,712	16.34%
Operational readiness					
First Fill		232,189	11,609	243,798	0.71%
Spare Parts and Materials Initial Stockholding		5,000,000	0	5,000,000	14.46%
Total		5,232,189	11,609	5,243,798	15.17%
Overall total		**33,342,847**	**1,227,019**	**34,569,866**	**100.00%**

GSL is of the opinion that the CapEx is a fair representation of the work required to get the processing plant back into operation with the improvements stated by TWL, as shown in Table 13.9. Total costs are GBP34.57 million split GBP20.93 million direct costs (60.56%), GBP2.74 million indirect costs (7.94%), GBP5.65 million projects (16.34%), and GBP5.24 million operational readiness (first fill and spares stock, 15.17%) as shown in Table 13.9.

As expected, a large part of the CapEx is associated with the front-end redesign. 31.78% of the overall outlay (all costs inclusive) is the installation of the ore sorters and associated infrastructure. The other two large contributors to the overall CapEx cost are the operational readiness first fills and spares stockholding at (15.17%), and the plant refurbishment (11.03%).

The GBP5 million of spares stockholding would be considered industry practice and GSL understands that this is in-line with the Wolf stock holding at the time of liquidation. Towards the end operations, Wolf held a number of insurance spares such as complete pump assemblies suitable for effective plug-and-play installations and TWL intends to do the same, which should allow for improved availability and runtime of the processing plant.

Some areas will undergo no modifications such as the tailings thickener, water, reagent services, and the primary mill, hence have no CapEx listed against them.

The CapEx estimate contains no costs associated with import tariffs or taxes. The mineral processing equipment is expected to continue to have no tariffs or taxes levied with the UK exiting the European Union.

13.3 Other capital costs

Other capital costs include laboratory, administration buildings, and restoration bonds and are presented in Table 13.10.

Table 13.10 Other capital costs

Area	**Capital cost (MGBP)**
Laboratory	335,404
Workshop	202,333
Admin block	1,195,000
IT infrastructure	662,500
Restoration Bond	1,000,000
Hargreaves Commencement Fee	1,000,000
Royalty Fee	1,000,000
Environmental Bond	850,000
Purchasing Commitments	342,620
Total	**6,587,858**

14 Project economics

The financial model (HEM_MAR2021_Cost_Model_CPR_REV1_060721.xlsm) summarized in this section was generated by TWL for this CPR and reviewed by AMC. The base-case model differs from the FS as follows:

- APT prices have been increased based on an updated Roskill information (Roskill, 2021).
- 5.4 Mt of inferred Killas material processed in the final two years of mine life which were included in the FS economic analysis have been removed.
- The ownership structure of AWL has been changed from a 50% joint venture in the FS to a 100% owned subsidiary of TWL. Operating costs associated with 100% ownership have been included. However, the new arrangement for the aggregates business sees AWL paying an 18% marketing and logistics fee to third party for the transport and sales of aggregates.
- G&A operating costs have been revised based on an updated first principles estimate completed by TWL reducing from approximately GBP6.5 million to GBP 5.1 million per annum.
- Mining costs have been updated to reflect contractor quotations received.
- Additional capital of GBP2 million of additional purchasing commitments has been included.
- The base-case discount rate for this CPR is 10% where 5% was used in the FS.

The economic analysis demonstrates a positive cashflow and a base-case net present value (NPV) 10% of GBP161.0 million and internal rate of return (IRR) of 45%. The key economic results at the base-case discount rate of 10% and rates comparable with those used in the FS are presented in Table 14.1.

Table 14.1 Economic analysis results at varying discount rate

Discount rate					
5%		7.5%		10%	
NPV (GBP)	IRR (%)	NPV (GBP)	IRR (%)	NPV (GBP)	IRR (%)
271.5	45	207.8	45	161.0	45

The LOM project cashflow is presented in Table 14.2.

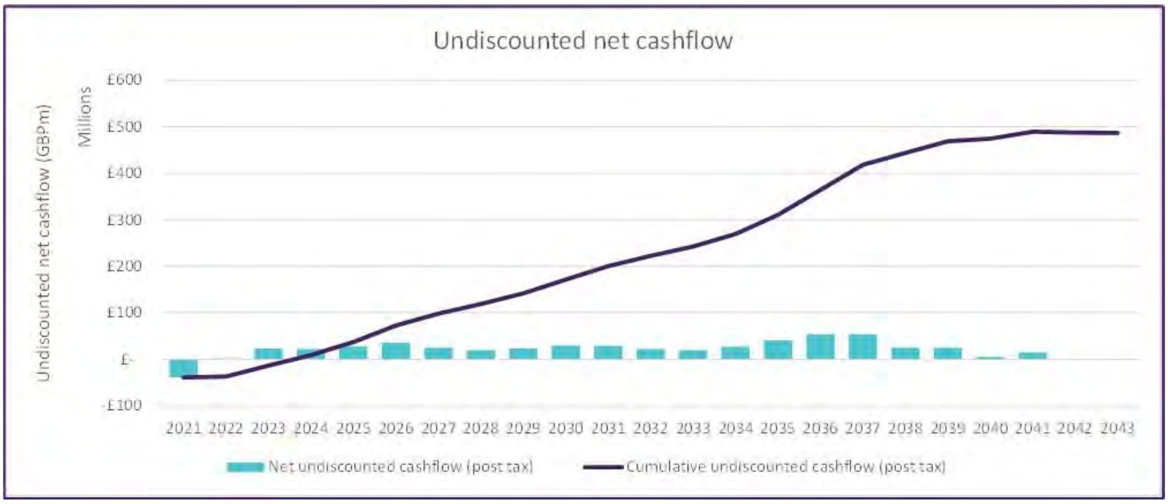
Table 14.2 LOM project cashflow

Cashflow Statement	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
NPAT[f] (GBPm)	**(11.4)**	**6.6**	**22.7**	**21.2**	**25.8**	**33.7**	**24.1**	**18.4**	**21.8**	**27.9**	
Depreciation (GBPm)	1.1	3.0	3.0	3.2	3.2	3.1	3.0	2.9	2.7	2.6	
Change in working capital (GBPm)	(3.0)	(4.8)	(.1)	.1	.3	(.1)	(.5)	(.0)	(.0)	(.0)	
Operating cashflow (GBPm)	**(12.6)**	**5.5**	**25.5**	**24.4**	**29.3**	**36.8**	**26.7**	**21.3**	**24.5**	**30.5**	
CapEx (GBPm)	(29.8)	(3.8)	(1.9)	(1.9)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	
Cashflow investing (GBPm)	**(29.8)**	**(3.8)**	**(1.9)**	**(1.9)**	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	
Net cashflow (GBPm)	**(38.9)**	**1.8**	**23.6**	**22.6**	**28.2**	**35.6**	**25.6**	**20.1**	**23.4**	**29.3**	
Cumulative free cashflow (GBPm)	**(38.9)**	**(37.1)**	**(13.5)**	**9.1**	**37.3**	**72.9**	**98.5**	**118.7**	**142.1**	**171.4**	
Cashflow Statement	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**
NPAT (GBPm)	**27.9**	**20.5**	**18.8**	**25.4**	**39.8**	**52.8**	**58.0**	**23.5**	**23.9**	**4.1**	**6.1**
Depreciation (GBPm)	2.5	2.3	2.2	2.1	2.0	1.9	2.0	2.2	2.1	2.0	1.9
Change in working capital (GBPm)	(.2)	.2	.0	.6	.4	.0	.2	1.0	.0	.6	4.6
Operating cashflow (GBPm)	**30.2**	**23.0**	**21.1**	**28.2**	**42.2**	**54.8**	**60.3**	**26.7**	**26.1**	**6.7**	**12.6**
CapEx (GBPm)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(6.1)	(1.1)	(1.1)	(1.1)	2.0
Cashflow investing (GBPm)	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**(6.1)**	**(1.1)**	**(1.1)**	**(1.1)**	**2.0**
Net cashflow (GBPm)	**29.1**	**21.9**	**19.9**	**27.0**	**41.1**	**53.7**	**54.1**	**25.6**	**25.0**	**5.6**	**14.6**
Cumulative free cashflow (GBPm)	**200.6**	**222.5**	**242.4**	**269.4**	**310.5**	**364.3**	**418.4**	**444.0**	**469.0**	**474.6**	**489.2**

[f] Net profit after tax.

The undiscounted net cashflow of the project is shown in Figure 14.1.

Figure 14.1 Project LOM undiscounted cashflow



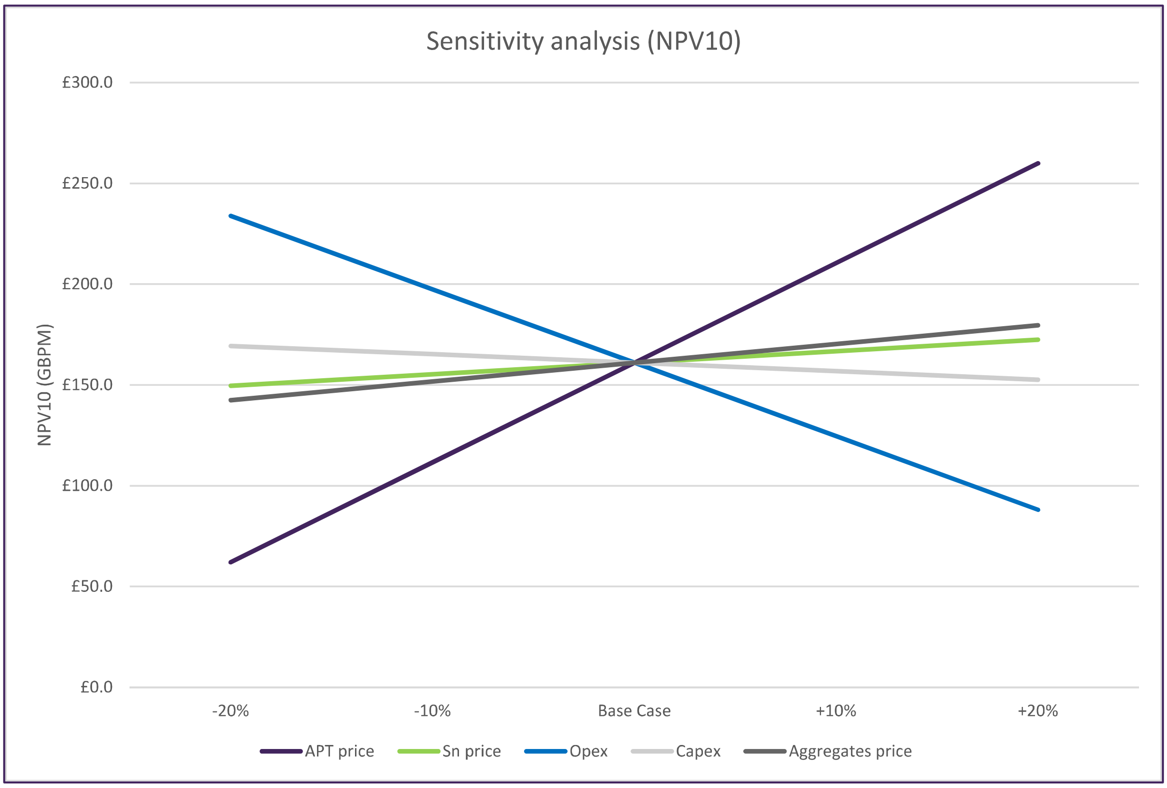
14.1 Sensitivity analysis

AMC varied the APT price, Sn price, OpEx (mine, process, and G&A), CapEx (initial and sustaining), and aggregates prices by ±20%. The resulting sensitivity analysis to NPV10 is presented in Table 14.3.

Table 14.3 Sensitivity analysis to NPV10

Parameter	-20% (GBP)	-10% (GBP)	Base Case (GBP)	+10% (GBP)	+20% (GBP)
APT price	£62.1	£111.5	£161.0	£210.5	£259.9
Sn price	£149.5	£155.3	£161.0	£166.7	£172.5
OpEx	£233.9	£197.5	£161.0	£124.6	£88.1
CapEx	£169.4	£165.2	£161.0	£156.8	£152.6
Aggregates price	£142.4	£151.7	£161.0	£170.3	£179.6

Figure 14.2 Sensitivity analysis to NPV10



As shown in Figure 14.2, the project is most sensitive to the APT price and operating costs.

15 References

Geology and Mineral Resources

AMC, 2017. "*Drakelands Geometallurgical Modelling and Pit Optimization Reviews and Support*". February 2017.

AMC, 2018a. "*AMAX Legacy Core Review*" (draft). August 2018.

AMC, 2020. "*Tungsten West Volume Variance Review*". June 2020.

Bailey, E. 2020. "*Statement Pertaining to the Suitability of Tailings in the Mine Waste Facility at Hemerdon Mine, as a Resource of Construction Aggregates*".

Mining Plus. 2021a. "*Review and Update of the 2021 Hemerdon JORC Mineral Resource Estimate*". Rev 08, 23 February 2021.

Mining Plus. 2021b. "*The Hemerdon Mine Waste Facility Tailings Mineral Resource*". Rev 01, 13 January 2021.

Selwood, E.B., Durrance, E.M., Bristow, C.M. 1999. "*The Geology of Cornwall*". Published by University of Exeter Press.

Tungsten West Limited (TWL). March 2021. "*Hemerdon Tungsten-Tin Project, Bankable Feasibility Study. NI 43-101 Technical Report for the Restart of Mining Operations*". (Internal company document).

Wolf Minerals, 2018. "*Pilot Trial 3 (Hard Granite) report".* (Internal company document).

Open-pit geotechnical and Mine waste facility

British Geological Survey, 2013. "*Seismic Hazard Assessment for Hemerdon Mine*". Earth Hazards and Systems Programme Technical Report CR/13/045.

Call & Nicholas, 1981. "*Hemerdon Project Preliminary Slope Design Report*" prepared for Amax Hemerdon Ltd.

CDA, 2019. "*Technical Bulletin: Application of Dam Safety Guidelines to Mining Dams*", s.l.: Canadian Dam Association.

Coffey Mining Pty Ltd. 31 January 2014. "*Mine Waste Facility, Detailed Design Report".* Report Ref. MWP00494AE-AB MWF Detailed Design (Rev 0).

Cube Consulting, 2010. "*Hemerdon Ball Project Feasibility Study Mining Report*" prepared for Wolf Minerals Ltd.

George Orr and Associates, 2010. "*Geotechnical Evaluation for Open Pit Mining Feasibility*" Purposes prepared for Wolf Minerals Ltd.

Knight Piésold, 2020. "*Hemerdon Mine Waste Facility - Independent Stability Analysis*", LO501-00029/09-02 REV0.

Knight Piésold, 2021. "*Hemerdon Mine Waste Facility And Tory Pond – Independent Geotechnical Specialist Site Visit Report December 2020 and March 2021*", LO501-00029/08-04 REV0.

GISTM, 2020. "*Global Industry Standard on Tailings Management*" - International Council on Mining and Metals (ICMM), United Nations Environment programme (UNEP) and Principals for Responsible Investment (PRI) launched the Global Industry Standard on Tailings Management (GISTM). Available: www.globaltailingsreview.org.

Peter Gash, 1982. "*Review of Slope Design for Hemerdon Mine Review*" prepared for Amax Hemerdon Ltd.

SLR Consulting Ltd, 2015. "*Geotechnical stability study*" prepared for Wolf Minerals Ltd.

SLR Consulting Ltd, 2016. MWF Redesign - Design Report (Stages 3 to 8).

SLR Consulting Ltd, 2018. "*Geotechnical Face Mapping at Drakelands Tungsten Mine, Devon*" (SLR Ref: 416.01939.00060). Prepared for Wolf Minerals Ltd.

SLR Consulting Ltd, 2018. "*Interim Assessment of Open Pit Rock Mass Geotechnical Conditions*" (SLR Ref: 403.01939.00015). Prepared for Wolf Minerals Ltd.

SLR Consulting Ltd, 2016. Hemerdon Mine Waste Facility EA Environmental Permit Stage 3.1 Detailed Design Report 427.01939.00023. SLR. doi:December 2016.

SLR Consulting Ltd, 2021. "*Geotechnical Report in Support of Open Pit Design*". Prepared by SLR for TWL – "210226 403.10511.00001.002 Hemerdon Open Pit Design Report_FINAL DRAFT (SLR, March 2021".

SLR Consulting Ltd, 2021. "*Hemerdon Mine Waste Facility Design – Feasibility Study*. Prepared by SLR for TWL – "*210318_403_10511_00001-03_R_Hemerdon Feasibility Study_TWL_MWF Redesign_Final Draft*".

Mining

AMC, 2018b. "*Operational Health Check-Drakelands Mine*". July 2018.

AMC, 2021. "*Tungsten West-Feasibility Study Review*". May 2021.

TWL, 2021. "*NI 43-101 technical report for the restart of mining operations*", March 2021HEM_MAR2021_Cost_Model_CPR_REV1_060721.xlsm – TWL financial model – Max Denning – 06/07/2021.

Plant Hire Comparison_V1.xlsx – TWL support equipment tender comparison – Max Denning – 28/06/2021.

CAP-Copy of Copy of 2021 05 11 - GA costs based on Wolf Analysis.xlsx – TWL G&A cost model – Max Denning – 28/06/2021.

Mineral processing

Sorting Tungsten from the Hemerdon Project - Tomra Sorting Solutions – Christian Korsten, Jens-Michael Bergman – April 2020.

Feasibility Study Costing v15 – Tungsten West – Damian Andrews , Andy Fretsome – 05/05/21.

Wolf Minerals Update – Quoted Data – 28/11/21.

TWL - Capital Cost Estimate – GR Engineering Services – 07/01/21.

Review of Tungsten West Limited Proposed Modifications to the Hemerdon Tungsten Mine Process Plant – Fairport Engineering – Richard Maslen – August 2020.

Review of "Killas" Metallurgical test work programmes with recommendations on future expected recovery values – Tungsten West - Michael Hawkins – 01/02/21.

Technical Note 3 – Design Review Areas 110/120 – MetCaf (Independent Metallurgical Consultants) - 16/09/21.

MPH Review of Tungsten West Limited Layout Concepts June 2020 – M P Hallewell – 15/06/2020.

MPH Review of Tungsten West Limited Process Re-design April 2020 – M P Hallewell – 10/04/2020.

Hemerdon Sorting Circuit Review Prepared For Tungsten West – Nexus Bonum (Pty) Ltd – T Parry , G Nunes - 09/12/2020.

Opex Estimate FRESH Normal 2023 Onwards Rev.3 201211.xlsx – TWL – Steve Turnley (GR Engineering Services) – 07/01/21.

Opex Estimate FRESH Ramp Up 2022 Rev.3 201211.xlsx – Steve Turnley (GR Engineering Services) – 07/01/21.

Opex Estimate MIXED Normal 2023 Onwards Rev.3 201211.xlsx – Steve Turnley -(GR Engineering Services) – 13/12/2020.

Opex Estimate MIXED Ramp Up 2022 Rev.3 201211.xlsx -– Steve Turnley -(GR Engineering Services) – 08/01/2021.

Mineralogical assessment of the misreporting of WO3 and Sn to concentrate – TWL - Michael Hawkins - 25/01/2021.

Alteration and Replacement of Wolframite in Hemerdon Deposit – W. Keats – PhD CSM – 1980.

ZT640665, Wolf Minerals, Gravity Testwork Final Report V1.0 – Ben Simpson – Wardell Armstrong International – 14/09/2018.

Plant layout concepts – Steve Kendrick – (GR Engineering Services) – 21/05/2020.

Finalising Plant Layout Concepts - Steve Kendrick – (GR Engineering Services) – 05/06/2020.

Plant Layout Document Review – Phil Hingston – Grinding Solutions Limited – 27/06/2010.

Hemerdon Plant and Site Diagrams Review_Rev01 – Phil Hingston- Grinding Solutions Limited – 21/10/2020.

Process Design Criteria and Mass Balance - Steve Kendrick – (GR Engineering Services) – 17/09/2020.

Metallurgical Strategy Review for the Restart of the Hemerdon Tungsten and Tin Deposit – Phil Hingston – Grinding Solutions Limited – 28/05/2020.

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PART 7

ADDITIONAL INFORMATION

1. Persons responsible

Each of the Directors, whose names and functions appear on pages 27 to 29 of this document, and the Company accept responsibility, both collectively and individually, for the information contained in this document and for its compliance with the AIM Rules for Companies. To the best of the knowledge and belief of each of the Directors and the Company, who have taken all reasonable care to ensure that such is the case, the information contained in this document is in accordance with the facts and does not omit anything likely to affect the import of such information.

2. Incorporation and status of the Company

2.1 The Company was incorporated and registered in England and Wales under the laws of England and Wales on 16 April 2018 as a private company limited by shares with the name Tungsten West Plc. The registered number of the Company is 11310159. On 29 September 2021, the Company was re-registered as a public company pursuant to the Companies Act.

2.2 The registered office of the Company is Shakespeare Martineau LLP, 6th Floor, 60 Gracechurch Street, London, United Kingdom, EC3V 0HR. The principal place of business of the Company is England and Wales. The telephone number of the principal place of business of the Company is +44 1752 278 500.

2.3 The Company's principal activity is the mining of tungsten and tin at the Hemerdon Mine.

2.4 The principal legislation under which the Company operates is the Companies Act.

2.5 The Company is a public company and accordingly liability of the Shareholders is limited to the amount paid up or to be paid up on their shares.

2.6 The address of the Company's website, at which the information required by Rule 26 of the AIM Rules for Companies can be found, is https://www.tungstenwest.com.

2.7 As at the date of this document, the Company is the parent company of the Group and has the following subsidiary undertakings, all of which are wholly owned by the Company:

Name	*Company number*	*Country of incorporation*	*Proportion of ownership interest held*	*Trading status*
Tungsten West Services Limited	12430582	England	100%	Active
Aggregates West Limited	12575686	England	100%	Active
Drakelands Restoration Limited	11854467	England	100%	Active

3. Share capital and Pre-Admission Reorganisation

3.1 As at the date of this document, the amount of the Company's issued share capital is £760,113.71 divided into 76,011,371 Ordinary Shares. The Ordinary Shares are issued and fully paid up.

3.2 On 7 July 2021, the Company completed the Pre–Admission Investment and issued 6,283,165 ordinary shares of £0.0001 each to certain new and existing Shareholders to raise £3,769,908.02.

3.3 Immediately prior to the Pre-Admission Reorganisation, the Company's issued share capital was £7,601.13 divided into 76,011,371 ordinary shares of £0.0001 each.

3.4 Pursuant to resolutions of the members of the Company passed on 22 July 2021 in connection with the Pre-Admission Reorganisation:

(a) the Directors were authorised to allot Ordinary Shares up to a maximum nominal amount of £752,512.57 prior to the proposed bonus issue described at (b) below;

(b) the Directors were authorised to capitalise £752,512.57 of the amount standing to the credit of the share premium account of the Company and apply the amount capitalised in paying up in full at par 7,525,125,729 bonus shares of £0.0001 each to be allotted to Shareholders;

(c) the 7,601,137,100 ordinary shares of £0.0001 each in the issued share capital of the Company were consolidated and divided into 76,011,371 ordinary shares of £0.01 each; and

(d) the amount standing to the credit of the share premium account of the Company was reduced by £10,000,000 (the **"Capital Reduction"**). In order to effect the Capital Reduction, a solvency statement was signed by the Directors on 22 July 2021, having regard to the balance sheet for the Company for the year ended 31 March 2021, the interim accounts to 5 July 2021 and cashflow projections which had been prepared by the Company.

The Capital Reduction was carried out on 28 July 2021.

Immediately following the Pre-Admission Reorganisation, the Company's issued share capital was £760,113.71 divided into 76,011,371 Ordinary Shares.

3.5 Pursuant to resolutions of the members of the Company passed on 17 September 2021, the Directors were authorised, *inter alia,* to allot Ordinary Shares:

(a) for cash up to a maximum nominal amount of £833,333.33 to persons applying for New Ordinary Shares in connection with the Fundraising;

(b) up to a maximum aggregate nominal amount of £1,301,865.90 in connection with an offer by way of a rights issue; and

(c) otherwise than pursuant to (a) or (b) above, up to a maximum aggregate nominal amount of £650,932.

3.6 Changes in the amount of the issued share capital of the Company during the two years covered by the financial information set out in Part 3 (*Historical Financial Information)* of this document are as follows:

	As of 31 March 2020	*As of 31 March 2021*
Share Capital		
Ordinary Shares	51,390,000	68,560,000

3.7 The Company's issued share capital as at the date of this document is:

Class	*Number*	*Nominal per share (£)*
Ordinary Shares	76,011,371	£0.01

3.8 Assuming that the Fundraising is fully subscribed, immediately following Admission, the issued and fully paid up share capital of the Company will be 177,071,571 Ordinary Shares:

3.9 On Admission, the New Ordinary Shares will rank *pari passu* in all respects with the Existing Ordinary Shares, including the right to receive all dividends or other distributions declared, made or paid after Admission.

3.10 ***Warrants***

Existing Warrants

The Company granted warrants over 2,437,411 Ordinary Shares to the Warrant Holders (representing 1.38 per cent. of the Enlarged Share Capital) on various dates between December 2019 and June 2021 (the "**Existing Warrants**"). The Existing Warrants grant rights to the respective holders to subscribe for Ordinary Shares at prices that range between 25 pence and 56 pence per Ordinary Share. All of the Existing Warrants are outstanding and will not expire prior to Admission. The Existing Warrants are not exercisable prior to Admission.

The Existing Warrants include the warrants over 126,760 Ordinary Shares granted to Corrado in relation to investors introduced by Corrado to the Company pursuant to an introductory services agreement entered into between the Company (1) and Corrado (2) on 1 September 2021 (the "**Corrado Introducer Agreement**").

On 7 October 2021, the Company entered into a warrant instrument with Panoptic (the "**Panoptic Warrant Instrument**") pursuant to which it issued warrants over 150,000 Ordinary Shares to Panoptic at a subscription price of £0.01 per Ordinary Share (the "**Panoptic Warrants**"), which shall expire on or around the second anniversary from Admission. 75,000 of the Panoptic Warrants are exercisable on Colin Perkins of Panoptic starting his assignment as Programme Director for the Company and 75,000 of the Panoptic Warrants are exercisable on commissioning of the processing plant at the Mine. Colin Perkins is an employee and shareholder of Panoptic and is engaged as a consultant for the Company pursuant to the Panoptic Programme Lead Consultancy Agreement (further details of which are set out in paragraph 11.22 of Part 7 (*Additional Information*)).

On 8 October 2021, the Company entered into a warrant agreement with each of H&P and VSA (the "**Joint Broker Warrant Agreements**"), pursuant to which the Company has agreed to issue Broker Warrants to H&P and VSA, conditional on Admission. The Broker Warrants equal an aggregate of 3 per cent. of the gross proceeds of the Fundraising and are split equally between H&P and VSA at a subscription price per Ordinary Share equal to the Issue Price. The Broker Warrants are exercisable following Admission for a period of 24 months from Admission, after which the Broker Warrants shall lapse if not already exercised.

Details of the Corrado Introducer Agreement, the Panoptic Warrant Instrument and the Joint Broker Warrant Agreements are set out in paragraph 11 of Part 7.

3.11 ***Convertible Loan Notes***

The Company has issued Convertible Loan Notes to the Convertible Loan Note Holders in the aggregate principal amount of £9,300,000 on and subject to the terms and conditions of the Convertible Loan Note Deed.

Pursuant to clause 7.7. of the Convertible Note Deed, the Convertible Loan Notes will convert in full, at the Company's election, on any "Qualifying IPO", which is defined as an initial public offering of the Ordinary Shares raising at least £10,000,000 at a price in excess of 60p per share. It is expected that Admission will constitute a "Qualifying IPO". The Convertible Loan Notes will convert into such number of Ordinary Shares as determined by dividing the prevailing principal amount of such Convertible Loan Notes, which is £10,044,000, together with any accrued (but unpaid) interest thereon, which at the date of this document is £736,560, by the effective conversion price, which is 30p. The Convertible Loan Notes will convert into 35,935,200 Ordinary Shares in full on Admission in accordance with the terms and conditions of the Convertible Loan Deed (representing 20.29 per cent. of the Enlarged Share Capital) (the "**Convertible Loan Note Shares**"). Summaries of the Convertible Loan Notes can be found in paragraph 11.26 of Part 7 of this Document.

4. CREST

4.1 CREST is a paperless settlement procedure enabling securities to be evidenced otherwise than by a certificate and transferred otherwise than by written instrument. The Articles permit the holding of Ordinary Shares under the CREST system. The Company has applied for the Ordinary Shares to be admitted to CREST with effect from Admission and it is expected that the Ordinary Shares will be admitted with effect from that time. Accordingly, settlement of transactions in the Ordinary Shares following Admission may take place within the CREST system if any investor so wishes.

4.2 CREST is a voluntary system and investors who wish to receive and retain certificates for their securities will be able to do so. Placees may elect to receive Ordinary Shares in uncertificated form if such investor is a system member (as defined in the CREST Regulations) in relation to CREST.

4.3 The holders of the Ordinary Shares will participate on a *pari passu* basis and proportionately to their shareholdings in all distributions of capital or income by the Company or any surplus arising on liquidation of the Company. There are no fixed dates for dividend payments on the Ordinary Shares. Each Ordinary Share affords the holder of such share the right to one vote. There are no restrictions on the transferability of the Ordinary Shares.

4.4 The New Ordinary Shares will be issued on Admission, which is expected to occur on 21 October 2021. The ISIN of the Ordinary Shares is GB00BP6QM557.

5. Articles and related rights

The following is a summary of certain provisions of the Articles that were adopted by the Company on 17 September and which will take effect from Admission. This summary does not purpose to be complete and is qualified in its entirety by the full terms of the Articles.

5.1 *Shares and rights attaching to them*

(a) *Voting rights*

Subject to any other provisions of the Articles and without prejudice to any special rights, privileges or restrictions as to voting attached to any shares forming part of the Company's share capital, the voting rights of members is as follows. On a show of hands, each member present in person, and each duly authorised representative present in person of a member that is a corporation, has one vote. On a show of hands, each proxy present in person who has been duly appointed by one or more members has one vote but a proxy has one vote for and one vote against a resolution if, in certain circumstances, the proxy is instructed by more than one member to vote in different ways on a resolution. On a poll each member present in person or by proxy or (being a corporation) by a duly authorised representative has one vote for each share held by the member. The Company itself is prohibited (to the extent specified by the CA06) from exercising any rights to attend or vote at meetings in respect of any shares held by it as treasury shares.

(b) *Restrictions on voting where sums overdue on shares*

No member of the Company shall be entitled to vote at any general meeting of the Company or at any separate class meeting of the Company in respect of any share held by him unless all calls or other sums payable by him in respect of that share have been paid.

5.2 *Dividends*

Subject to the Companies Act and the provisions of all other relevant legislation, the Company may by ordinary resolution declare dividends in accordance with the respective rights of members but no such dividend shall exceed the amount recommended by the Directors. If, in the opinion of the Directors, the profits of the Company available for distribution justify such payments, the Directors may pay fixed dividends payable on any shares of the Company with preferential rights, half-yearly or otherwise, on fixed dates and from time to time pay interim dividends to the holders of any class of shares. Subject to any special rights attaching to or terms of issue of any shares, all dividends shall be declared and paid according to the amounts paid up on the shares on which the dividend is paid. No dividend shall be payable to the Company itself in respect of any shares held by it as treasury shares.

The Company may, upon the recommendation of the Directors, by ordinary resolution, direct payment of a dividend wholly or partly by the distribution of specific assets.

All dividends unclaimed may be invested or otherwise used at the Directors' discretion for the benefit of the Company until claimed (subject as provided in the Articles), and all dividends unclaimed after a period of 12 years from the date when such dividend became due for payment shall be forfeited and shall revert to the Company.

The Directors may, if so authorised by ordinary resolution passed at any general meeting of the Company, offer any holders of the Ordinary Shares the right to elect to receive in lieu of that dividend an allotment of ordinary shares credited as fully paid.

The Company or the Directors may specify a "record date" on which persons registered as the holders of shares shall be entitled to receipt of any dividend.

5.3 ***Distribution of assets on winding-up***

In the event of any voluntary or involuntary liquidation, dissolution or winding-up of the Company, the holders of Ordinary Shares shall be entitled to receive all the assets of the Company available for distribution to its Shareholders, ratably in proportion to the number of Ordinary Shares held by them.

On any winding up of the Company (whether the liquidation is voluntary, under supervision or by the Court), the liquidator may with the authority of an extraordinary resolution of the Company and any other sanction required by the Statutes, divide among the Company's members (excluding the Company itself to the extent that it is a member by virtue of its holding any shares or treasury shares) *in specie* or in kind the whole or any part of the assets of the Company (subject to any special rights attached to any shares issued by the Company in the future) and may for that purpose set such value as he deems fair upon any one or more class or classes of property and may determine how that division shall be carried out as between the members or different classes of members. The liquidator may, with that sanction, vest the whole or any part of the assets in trustees upon such trusts for the benefit of the members as he with the relevant authority determines, and the liquidation of the Company may be closed and the Company dissolved, but so that no members shall be compelled to accept any shares or other property in respect of which there is a liability.

5.4 ***Variation of rights***

The rights or privileges attached to any class of shares may (unless otherwise provided by the terms of the issue of the shares of that class) be varied or abrogated with the consent in writing of the holders of three-fourths in nominal amount of the issued shares of that class (excluding any shares of that class held as treasury shares) or with the sanction of an extraordinary resolution passed at a separate general meeting of the holders of the shares of that class, but not otherwise. These conditions are not more significant than is required by law.

The provisions of the Articles relating to general meetings will apply to every general meeting of the holders of one class of shares except that the necessary quorum will be two persons' present holding or representing by proxy at least one-third of the issued shares of the class and that any holder of shares of the class present in person or by proxy may demand a poll.

The rights conferred upon the holders of the shares of any class issued with preferred or other rights will not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking *pari passu* therewith.

5.5 ***Transfer of shares***

All shares in the Company are in registered form and may be transferred by a transfer in any usual or common form or any form acceptable to the Directors and permitted by the Companies Act and the London Stock Exchange. All transfers of uncertificated shares shall be made in accordance with and subject to the provisions of the CREST Regulations and the facilities and requirements of a relevant system and subject thereto in accordance with any arrangements made by the Directors.

The Directors may decline to register a transfer of a share which is:

(a) not fully paid or on which the Company has a lien provided that, where any such share is admitted to trading on the London Stock Exchange or AIM that discretion may not be exercised in such a way as to prevent dealings in shares of that class from taking place on an open and proper basis; or

(b) (except where uncertificated shares are transferred without a written instrument) not lodged duly stamped at the registered office of the Company or at such other place as the Directors may appoint; or

(c) (except where a certificate has not been issued) not accompanied by the certificate of the share to which it relates or such other evidence reasonably required by the Directors to show the right of the transferor to make the transfer; or

(d) in respect of more than one class of share; or

(e) in the case of a transfer to joint holders of a share, the number of joint holders to whom the share is to be transferred exceeds four.

5.6 ***Pre-emption rights***

There are no rights of pre-emption under the Articles in respect of transfers of issued Ordinary Shares. In certain circumstances, the Shareholders may have statutory pre-emption rights under the Companies Act in respect of the allotment of new shares in the Company. These statutory pre-emption rights would require the Company to offer new shares for allotment to existing Shareholders on a *pro rata* basis before allotting them to other persons. In such circumstances, the procedure for the exercise of such statutory pre-emption rights would be set out in the documentation by which such shares would be offered to the Shareholders.

5.7 ***Directors***

(a) The Company may by ordinary resolution appoint any person to be a director or may by special resolution remove any director.

(b) The Directors may from time to time permit any person appointed to be a Director to continue in any executive office or employment held by him before he was so appointed.

(c) Unless and until the Company in a general meeting shall otherwise determine, the number of Directors shall not be less than two.

(d) Subject to the provisions of the Articles, the Directors may otherwise regulate their meetings as they think fit. Questions arising at any meeting shall be determined by a majority of votes. In case of an equality of votes the Chairman of the meeting shall have a second or casting vote.

(e) Members of the Board, or any committee or sub-committee of the Directors, may participate in a meeting of the Directors or of such committee by means of a conference telephone or similar communications equipment allowing all persons participating in the meeting to hear each other at the same time.

Borrowing powers

Subject as provided in the Articles and to the provisions of any relevant legislation, the Directors may exercise all the powers of the Company to borrow money and to mortgage or charge its undertaking, property and uncalled capital or parts thereof and to issue debentures and other securities whether outright or as collateral security for any debt, liability or obligation of the Company or of any third party

Directors' interests and restrictions

(a) Subject to the provisions of any relevant legislation and provided that he has disclosed to the Directors the nature and extent of any material interest of his, a Director may be a party to, or otherwise interested in, any transaction, contract or arrangement with the Company and he may be a Director or other officer of, or employed by, or a party to any transaction or arrangement with, or otherwise interested in any body corporate promoted by the Company or in which the Company is otherwise interested and that Director shall not, by reason of his office, be accountable to the Company for any benefit which he derives from any such office or employment or from any such transaction or arrangement or from any interest in any such body corporate; and no such transaction or arrangement shall be liable to be avoided on the ground of any such interest or benefit.

(b) Save as provided in the Articles, a Director shall not vote at a meeting of the Directors in respect of any contract or arrangement or any other proposal whatsoever in which he has an interest which (together with any person connected with him within the meaning of s252 CA06) is to his knowledge a material interest, other than an interest in shares or debentures or other securities of the Company, a Director shall not be counted in the quorum at a meeting in relation to any resolution on which his is not entitled to vote.

(c) A Director shall (in the absence of some material interest other than those indicated below) be entitled to vote (and be counted in the quorum) in respect of any resolution concerning any of the following matters namely:

(i) the giving of any guarantee, security or indemnity in respect of money lent or obligations incurred by him at the request of or for the benefit of the Company or any of its subsidiaries;

(ii) the giving of any guarantee, security or indemnity in respect of a debt or obligation of the Company or any of its subsidiaries for which he himself has assumed responsibility in whole or in part under a guarantee or indemnity or by the giving of security;

(iii) any proposal concerning an offer of shares or debentures or other securities of or by the Company or any of its subsidiaries for subscription or purchase or exchange in which offer he is or will be interested as a participant in the underwriting or sub-underwriting of such offer;

(iv) any proposal concerning any other company in which he is interested, directly or indirectly and whether as an officer or Shareholder or otherwise, provided that he (together with persons connected with him) does not to his knowledge hold an interest in shares representing one per cent. or more of the issued shares of any class of such company (or of any third company through which his interest is derived) or of the voting rights available to members of the relevant company;

(v) any proposal concerning the adoption, modification or operation of a pension, superannuation fund or retirement death or disability benefits scheme or an employees' share scheme (within the meaning of s1166 CA06) under which he may benefit and which relates to employees and/or Directors of the Company and does not accord to such Director any privilege or benefit not generally accorded to the persons to whom such scheme relates;

(vi) any proposal under which he may benefit concerning the giving of indemnities to Directors or other officers of the Company which the Directors are empowered to give under the Articles;

(vii) any proposal concerning the purchase, funding and/or maintenance of insurance which the Company is empowered to purchase fund and/or maintain for or for persons who include any Director or other officer of the Company under which he may benefit; and

(viii) any proposal under which he may benefit concerning the provision to Directors of funds to meet expenditure defending proceedings.

(d) Where proposals are under consideration to appoint two or more Directors to offices or employments with the Company or with any company in which the Company is interested or to fix or vary the terms of such appointments, such proposals may be divided and considered in relation to each Director separately and in such case each of the Directors concerned (if not debarred from voting under paragraph I(iv) above) shall be entitled to vote (and be counted in the quorum) in respect of each resolution except that concerning his own appointment.

(e) If any question shall arise at any meeting as to the materiality of a Director's interest or as to the entitlement of any Director to vote and such question is not resolved by his agreeing voluntarily to abstain from voting, such question shall be referred to the chairman of the meeting (or where the interest concerns the chairman himself to the deputy chairman of the meeting) and his ruling in relation to any Director shall be final and conclusive except in a case where the nature or extent of the interests of the Director concerned have not been disclosed fairly.

Appointment and retirement of Directors

(a) The Directors shall have power to appoint any person who is willing to act to be a Director, either to fill a casual vacancy or as an additional director but so that the total number of Directors shall not exceed the maximum number fixed (if any) by or in accordance with the Articles. Any director so appointed shall retire from office at the annual general meeting of the Company next following such appointment. Any director so retiring shall be eligible for re-election.

(b) Subject as provided in the Articles, the Company may by ordinary resolution elect any person who is willing to act as a Director either to fill a casual vacancy or as an addition to the existing Directors or to replace a Director removed from office under the Articles but so that the total number of Directors shall not at any one time exceed any maximum number fixed by or in accordance with the Articles.

(c) At each annual general meeting a minimum number equal to one-third of the number of those Directors who are not due to retire at the annual general meeting under sub-paragraph (a) above (for the purposes of this paragraph **"Relevant Directors"**) (or, if their number is not a multiple of three, the number nearest to but not greater than one-third) shall retire from office. Directors retiring under paragraph (e) below shall be counted as part of this minimum number.

(d) The Directors to retire by rotation pursuant to paragraph I above shall include (so far as necessary to obtain the minimum number required and after taking into account the Directors to retire under paragraph (e) below) any Relevant Director who wishes to retire and not to offer himself for re-election. Any further Directors so to retire shall be those of the other Relevant Directors who have been longest in office since their last re-election or appointment and so that as between persons who became or were last re-elected Directors on the same day those to retire shall (unless they otherwise agree among themselves) be determined by lot. A retiring Director shall be eligible for re-election.

(e) In any event, each Director shall retire and shall (unless his terms of appointment with the Company specify otherwise) be eligible for re-election at the annual general meeting held in the third calendar year (or such earlier calendar year as may be specified for this purpose in his terms of appointment with the Company) following his last appointment, election or re-election at any general meeting of the Company held at the date of adoption of the Articles.

(f) At the meeting at which a Director retires under any provision of the Articles, the Company may by ordinary resolution fill the vacated office by appointing a person to it, and in default the retiring Director shall be deemed to have been re-appointed except where:

(i) that Director has given notice to the Company that he is unwilling to be elected; or

(ii) at such meeting it is expressly resolved not to fill such vacated office or a resolution for the reappointment of such Director shall have been put to the meeting and not passed.

(g) In the event of the vacancy not being filled at such meeting, it may be filled by the Directors as a casual vacancy in accordance with sub-paragraph (a) above.

Indemnity of officers

Subject to the provisions of any relevant legislation, every Director and other officer of the Company is entitled to be indemnified by the Company against all costs, charges, losses, expenses and liabilities incurred by him in the execution and discharge of his duties or in relation to those duties.

5.8 ***Shareholder meetings***

The Company shall in each year hold a general meeting as its annual general meeting in addition to any other meetings in that year, and shall specify the meeting as such in the notice convening it. The annual general meeting shall be held at such time and place as the Directors may appoint.

The Directors may call a general meeting (other than an annual general meeting) whenever they think fit, and shall proceed with proper expedition to convene a general meeting if the members and the Companies Act require them to do so.

An annual general meeting shall be called by at least 21 clear days' notice in writing and any other general meeting shall be called by at least 14 clear days' notice in writing, such notice to be given in accordance with the Articles.

Every notice of meeting of the Company shall:

(a) be sent or supplied to all members other than those who under the provisions of the Articles are not entitled to receive such notices from the Company;

(b) specify the place and the day and time of the meeting;

(c) may appoint: (i) a proxy to exercise all or any of the member's rights to attend, speak and vote at the meeting; and (ii) more than one proxy in relation to the meeting if each proxy is appointed to exercise the rights attached to a different share or shares held by the member;

(d) in the case of an annual general meeting, specify the meeting as such;

(e) in the case of any general meeting at which business other than ordinary business is to be transacted, specify the general nature of such business; and

(f) if the meeting is called to consider a special resolution, include the text of the resolution and the intention to propose the resolution as a special resolution.

For the purposes of determining which people may attend or vote at a meeting and how many votes such people have, the notice of meeting may give a time by which people must be entered on the register in order to be entitled to attend or vote at the meeting. This time must not be more than 48 hours before the time fixed for the meeting and, when calculating this 48-hour period, no account is to be taken of any part of a day that is not a working day.

No business shall be transacted at any general meeting unless a quorum is present when the meeting proceeds to business but the absence of a quorum shall not preclude the appointment of a chairman which shall not be treated as part of the business of a meeting. Two persons present and entitled to vote upon the business to be transacted, each being either a member or a proxy for a member or a duly authorised representative of a corporation which is a member shall be a quorum for all purposes.

6. Share-based incentive arrangements

A summary of the Company's share-based incentive arrangements is set out in the following paragraphs. This summary does not form any part of the arrangements, and should not be taken as affecting the interpretation of their detailed terms and conditions.

6.1 *2021 Share Option Plan*

The Company adopted the 2021 Share Option Plan on 7 October 2021. It provides for the grant of options to acquire Ordinary Shares, which can be in the form of tax-advantaged EMI options where the relevant criteria are met. The plan is intended to be an employees' share scheme, as defined in the Companies Act, so that shareholder authority is not needed for the Directors to allot shares pursuant to it, nor do the statutory pre-emption rights apply to those shares.

Operation

The 2021 Share Option Plan is to be operated principally by the Board, or a duly constituted committee of the Board appointed for the purposes of the plan. It is envisaged that the powers of the Board under the plan will primarily be operated by the Remuneration Committee.

Timing of grant of options

Options will only be granted within the period of forty-two days after the adoption date or the end of a closed period, save where the Board determines that exceptional circumstances justify the grant of options at a different time. Options may not be granted at any time when the grant would be prohibited by, or in breach of, MAR or any other law, regulation with the force of law or the AIM Rules for Companies. Options may not be granted after the tenth anniversary of the date the plan was adopted.

Exercise price

Options may not normally be granted with an exercise price per share less than the closing price of an Ordinary Share on the business day immediately preceding the date of grant.

Eligibility

Options can be granted to any employee of the Company or of any subsidiary of the Company. EMI options can only be granted to employees who meet the relevant legislative requirement for the amount of their working time that is committed to the Company and its subsidiaries.

Overall limit

An option may not be granted if it would cause the number of "dilutive shares" to exceed 10 per cent. of the Company's issued share capital at the time. Dilutive shares on any date are all shares of the Company that have been issued on the exercise of options or the satisfaction of other awards granted under any share incentive scheme of the Company (including the 2021 Share Option Plan), or that remain capable of issue under any such options or awards, in each case where the grant of the option or award occurred during the shorter of the period of ten years ending on and including that date and the period since the date the Shares were first admitted to AIM. The Founder Options are not taken into account in this limit. For these purposes shares transferred from treasury are treated as shares that are issued.

Performance conditions

The Board may, but is not obliged to, specify one or more appropriate performance conditions for an option at the time it is granted, which determines whether and to what extent the option may be exercised. Any performance condition may be varied or waived at the Board's discretion provided that it is fairer measure of performance and not more difficult or materially easier to satisfy than the original performance condition.

Exercise of options

Options not subject to a performance condition will normally become exercisable on the vesting date specified when the option was granted (which may not normally be before the first anniversary of the date of grant). Where performance conditions apply, options will normally only become exercisable if and to the extent such conditions have been satisfied. No option may be exercised later than the tenth anniversary of the grant date. Options may not be exercised at a time when that grant would be prohibited by, or in breach of, MAR or any other law, regulation with the force of law or the AIM Rules for Companies or the Share Dealing Code.

Cessation of employment

Where an option holder ceases to be a group employee, or dies, before the option has become exercisable, the option will lapse in relation to a number of shares, determined by reference to the time from cessation or death to the time the option would normally become exercisable compared to the time from the date of grant to the time the option would normally become exercisable. If the option holder is a good leaver, he can exercise the remainder of the option during the period of 90 days beginning on the earlier of the normal vesting date or the date the option becomes exercisable in relation to a corporate event. If the option holder dies, the remainder of his option may be exercised in the 12 months following the date of death, subject to any reduction applied by the Board to reflect the extent to which any performance condition was not satisfied at the date of death. For other leavers, exercise would be at the discretion of the Board. A good leaver is an option holder who ceases to be a group employee by reason of: injury, ill-health or disability; retirement; or the sale of the company or business that employs the option holder. Where an option holder ceases to be a group employee after the option has become exercisable, he may exercise the option for a period following the cessation, save where he is summarily dismissed. An option holder will not be treated as ceasing to be an employee until he is no longer an employee or director of any group company.

Corporate events

Where control of the Company is acquired by a person (together with any persons acting in concert with that person), options will generally be exercisable for a period of 90 days after the change of control. Where the change of control is as a result of a compromise or arrangement sanctioned by the court under s899 of the Companies Act, the options may be exercised during the period specified by the Board. The Board may also allow the exercise of options in circumstances where it considers a change of control is likely to occur. Where options are exercised early in connection with a change of control, the number of shares in relation to which the option may be exercised will be reduced by a time based pro-ration (but on the assumption that the change of control occurs one year later than its actual date), and may be subject to a further reduction to reflect the extent to which any performance condition is not met at the time of the change of control. However, the Board may, in its discretion, elect not to apply either or both of these reductions. If options are not exercised during the relevant period they will lapse.

Exchange of options

Subject to the satisfaction of certain conditions, each option holder may, by agreement with the acquiring company within a specified period, exchange an old option for a new replacement option. Any new option granted is treated as if it was acquired at the same time as the old option that it replaces.

Variation of share capital

In the event of a variation of the Company's share capital (whether by way of capitalisation issue (other than a scrip dividend), rights issue, consolidation, sub-division or reduction of capital or otherwise), the number of shares subject to an option may be adjusted by the Board in a manner that, in its reasonable opinion, it considers to be fair and appropriate. However, the total amount payable on the exercise of an option in full may not be increased.

Options not transferable

Options granted under the 2021 Share Option Plan are non-assignable and non-transferable (although transmission to an option holder's personal representatives on the death of the option holder is permitted). Any attempt to assign or transfer will result in the lapse of the options.

Relationship with employment contract

Participation in the 2021 Share Option Plan will not be a term of an option holder's contract of employment, and options will not form part of an option holder's pensionable earnings.

Amendment

The Board may amend the 2021 Share Option Plan from time to time. However, no amendment may apply to options granted before the amendment was made if it would materially adversely affects the interests of the option holders.

6.2 ***EMI Scheme***

The EMI Scheme was adopted by the Company on 30 April 2021. The EMI Scheme provided for the Company to grant options to acquire Ordinary Shares to employees of the Company, which are intended to qualify as enterprise management incentives under Schedule 5 to the Income Tax (Earnings and Pensions) Act 2003. No further options will be granted under the EMI Scheme following Admission.

As at Admission, options under the EMI Scheme are outstanding over total of 2,030,559 Ordinary Shares with exercise prices ranging from £0.01 to £0.45 per share. The exercise of the options is generally not subject to performance conditions, although an option to acquire 400,000 shares granted to Max Denning is subject to the conditions that one half of the option cannot be exercised until the Company achieves Financial Close, and the other half cannot be exercised until the Company achieves Commercial Production. Some of the options are subject to time based vesting such that the option holder must generally remain an employee of a group company until a specified date before the option can be exercised. Vesting accelerates on a change of control and certain other events, but will not accelerate as a result of Admission. As at Admission, the options are vested to the extent of 624,309 shares.

Options lapse upon the option holder ceasing to be a group employee, save for cessation for certain specified reasons including death, injury, disability, illness and retirement, or where the Board permits exercise after cessation. Where exercise is permitted after cessation, the option holder has six months to exercise (twelve months in the case of death).

6.3 ***Founder Options***

The Founder Shareholders have certain rights to acquire Ordinary Shares pursuant to a shareholders' agreement between the current Shareholders and the Company. This agreement will terminate on Admission, and the Company will grant the Founder Options to the Founder Shareholders with effect from Admission or shortly before Admission to replace, formalise and clarify these rights.

Pursuant to the Founder Options, each Founder Shareholder will be granted an option to acquire up to 4,971,586 Ordinary Shares at an exercise price of £0.01 per share, which is 2.5 per cent. of the "fully diluted issued share capital", where the fully diluted share capital is to be determined by the Directors as the sum of (a) the Enlarged Share Capital immediately following Admission; (b) the number of shares of the Company subject to options granted to employees of the Company outstanding at Admission; and (c) the number of shares to be subject to the Founder Options. Accordingly, the total number of shares subject to the Founder Options will be 10 per cent. of the fully diluted issued share capital. One third of each Founder Option will be exercisable following Admission, one third following the Company achieving Financial Close and the remaining third following the Company achieving Commercial Production. The Founder Options may be exercised prior to these conditions being met in the event of a change of control of the Company.

The timing of exercise is at the discretion of the relevant Founder Shareholder, provided that the Founder Options may generally not be exercised after the fifth anniversary of Admission, and they may not be exercised where to do so would be a breach of MAR or any other applicable laws or rules or the Share Dealing Code.

Upon exercise, the Founder Shareholders must reimburse any income tax or employee national insurance contributions (or equivalent in any jurisdiction) for which the Company or any subsidiary is liable to account (or make arrangements for its payment) in connection with the exercise.

7. Interests of the Directors

7.1 The interests of the Directors and their immediate families (all of which are beneficial unless otherwise stated) in the issued share capital of the Company, as at the date of this document and as expected to be immediately following Admission are as follows:

	As at the date of this document		*On Admission*	
Name	*Number of Ordinary Shares*	*Percentage of existing share capital*	*Number of Ordinary Shares*	*Percentage of Enlarged Share Capital*
Richard Maxey*	11,411,393	15.01%	16,434,593	9.28%
Max Denning**	4,921,819	6.48%	12,649,819	7.14%
Mark Thompson***	4,317,238	5.68%	4,317,238	2.44%
Francis Johnstone	33,750	0.04%	33,750	0.02%

**Held by Richard Maxey's brother, Henry Maxey.*
***Held by Max Denning and his mother and father, Sarah Veronica Denning and Mark Edward Denning.*
****Held by Mark Thompson and his wife, Nicola Zoe Haylings.*

7.2 Options over the Ordinary Shares are held by the Directors on Admission are as set out below:

Name	*Number of Ordinary Shares under Option*	*Percentage of share capital*	*Exercise price (in £ per Ordinary Share)*	*Exercise period*
Max Denning	400,000	0.23	£0.45	29 September 2031
Nigel Widdowson	300,000	0.17	£0.45	29 September 2031

7.3 Save as set out in paragraphs 7.1 and 7.2 of this Part 7 (*Additional Information*), none of the Directors is or has been interested in any transaction which is or was unusual in its nature or conditions or significant to the business of the Company during the current or immediately preceding financial year and which was affected by the Company and remains in any respect outstanding or unperformed. There are no loans made or guarantees granted or provided by the Company to or for the benefit of any of the Directors which are outstanding.

7.4 None of the Directors or any major Shareholders have different voting rights to the other Shareholders.

7.5 None of the Directors or members of their respective families has a financial product whose value in whole or in part is determined directly or indirectly by reference to the price of Ordinary Shares.

8. Additional Information on the Directors

8.1 The Directors have not held any directorships of any company (other than the Company) or partnerships within the five years prior to the date of this document, except as set forth below:

Name	*Current*	*Past (last five years)*
Robert Ashley	Galena Asset Management S.A. Galena Asset Management (Asia) Pte. Ltd.	Galena Asset Management Limited
Mark Thompson	Aggregates West Limited Anglo Saxony Mining Limited Drakelands Restoration Limited Godolphin Minerals Limited Meridian Mining UK Societas MET Trading Limited Romcem Limited Stannum Resources Limited Tungsten West Services Limited	Anglo Saxony Mining Limited (08917992) DTF Holdings Limited Godolphin Mining (UK) Limited Margaret Lake Diamonds Inc Margaret Lake Diamonds Ltd North River Resources plc Pella Rwanda Resources Ltd Saxony Mines Ltd Treliver Minerals Trustees Limited
Max Denning	Aggregates West Limited Carter-Denning Consultancy Limited Drakelands Restoration Limited Tungsten West Services Limited	Brazil Tungsten Holdings Ltd DTF Holdings Limited
Nigel Widdowson		Oxton Associates Limited
Francis Johnstone	Bilboes Gold Limited Bilboes Holdings (Private) Limited Mysterybelle Limited Nussir ASA	
Richard Maxey	BAT 22 Limited Mersey Reactive Power Limited CC Trade LLP	
David Cather	AK Altynalmas JSC Cather Mining Consultancy Limited Galantas Gold Corporation Metals Exploration PLC	Avocet Mining plc Fengro Industries Corp. (now Elemental Royalties Corp.)
Grace Stevens	Legal & General Resources Limited Tarranbrae Freehold Limited Women In Prison Limited	Women's Breakout

8.2 None of the Directors have:

(a) any unspent convictions in relation to indictable offences;

(b) had any bankruptcy order made against him or entered into any voluntary arrangements;

(c) been a director of a company which has been placed in receivership, compulsory liquidation, administration, been subject to a voluntary arrangement or any composition or arrangement with its creditors generally or any class of its creditors whilst he was a director of that company or within the 12 months after he ceased to be a director of that company;

(d) been a partner in any partnership which has been placed in compulsory liquidation, administration or been the subject of a partnership voluntary arrangement whilst he was a partner in that partnership or within the 12 months after he ceased to be a partner in that partnership;

(e) been the owner of any assets or a partner in any partnership which has been placed in receivership whilst he was a partner in that partnership or within the 12 months after he ceased to be a partner in that partnership;

(f) been publicly criticised by any statutory or regulatory authority (including recognised professional bodies); or

(g) been disqualified by a court from acting as a director of any company or from acting in the management or conduct of the affairs of a company.

8.3 Save as disclosed in this document, none of the Directors is or has been interested in any transaction which is or was unusual in its nature or conditions or significant to the business of the Company and which was effected by the Company and remains in any respect outstanding or unperformed.

8.4 No loans made or guarantees granted or provided by the Company to or for the benefit of any of the Directors are outstanding.

9. Significant Shareholders

9.1 Insofar as is known to the Company and the Directors as at the Latest Practicable Date, the following persons are, and will following the Fundraising and Admission, be interested directly or indirectly, in 3 per cent. or more of the Ordinary Shares:

	As at the date of this document		*On Admission*	
Name	*Number of Ordinary Shares*	*Percentage of existing share capital*	*Number of Ordinary Shares*	*Percentage of Enlarged Share Capital*
Baker Steel Resources Trust Limited	7,869,319	10.35%	27,189,319	15.35%
Schroders Investment Management Ltd	–	–	16,666,666	9.41%
Lansdowne Partners (UK) LLP	–	–	16,666,666	9.41%
Henry Maxey	11,411,393	15.01%	16,434,593	9.28%
Simon Nixon	11,111,110	14.62%	11,111,110	6.27%
David Lilley	9,118,059	12.00%	9,118,059	5.15%
Mark Denning	90,000	0.12%	7,818,000	4.42%
AXA Investment Managers UK Ltd	–	–	8,000,000	4.52%
Orion Mine Finance	–	–	7,000,000	3.95%
Eden Rock	5,811,110	7.65%	5,811,110	3.28%
Ian Hannam	1,569,444	2.06%	5,433,444	3.07%

9.2 No significant holder of Ordinary Shares, as listed above in paragraph 9.1 of this Part 7, has voting rights different to other Shareholders.

9.3 Save as disclosed in paragraph 9.1 of this Part 7, none of the Directors are aware of any persons who, directly or indirectly, jointly or severally, exercise or could exercise control over the Company. To the best knowledge of the Company there are no arrangements which may at a date subsequent to Admission result in a change of control of the Company.

10. Directors' service agreements and letters of appointment

10.1 *Executive Directors*

Service agreement of Mark Thompson

Mark Thompson was appointed to the Board on 25 March 2019. Mark entered into a new service agreement with the Company dated 8 October 2021, which will come into effect on Admission (the **"Vice Chairman Agreement"**). Pursuant to the Vice Chairman Agreement, Mark shall continue to receive his current gross salary of £120,000 per annum (which is subject to annual review by the Remuneration Committee).

The Vice Chairman Agreement is terminable by either party on not less than six months' written notice, although such notice may not be served to expire before the first anniversary of Admission. Mark is eligible for an annual discretionary bonus and is entitled to 30 days paid holiday (in additional to the usual bank and public holidays) and to participate in the Company's private medical insurance scheme and occupational pension scheme. Mark is subject to restrictive covenants including non-competition and non-solicitation covenants for a period of 12 months following the termination of his employment with the Company. The duration of the non-competition covenant shall be reduced by any time spent by Mark on garden leave during his notice period.

Service agreement of Max Denning

Max Denning was appointed to the Board on 25 March 2019. Max entered into a new service agreement with the Company dated 8 October 2021, which will come into effect on Admission (the **"CEO Agreement"**). Pursuant to the CEO Agreement, Max shall continue to receive his current gross salary of £120,000 per annum (which is subject to annual review by the Remuneration Committee).

The CEO Agreement is terminable by either party on not less than six months' written notice, although such notice may not be served to expire before the first anniversary of Admission. Max is eligible for an annual discretionary bonus and is entitled to 30 days paid holiday (in additional to the usual bank and public holidays) and to participate in the Company's private medical insurance scheme and occupational pension scheme. Max is subject to restrictive covenants including non-competition and non-solicitation covenants for a period of 12 months following the termination of his employment with the Company. The duration of the non-competition covenant shall be reduced by any time spent by Max on garden leave during his notice period.

Service agreement of Nigel Widdowson

Nigel Widdowson was appointed to the Board on 21 July 2021. Nigel entered into a new service agreement with the Company dated 8 October 2021, which will come into effect on Admission (the **"CFO Agreement"**). Pursuant to the CFO Agreement, Nigel shall continue to receive his current gross salary of £120,000 per annum (which is subject to annual review by the Remuneration Committee).

The CFO Agreement is terminable by either party on not less than six months' written notice, although such notice may not be served to expire before the first anniversary of Admission. Nigel is eligible for an annual discretionary bonus and is entitled to 25 days paid holiday (in additional to the usual bank and public holidays) and to participate in the Company's private medical insurance scheme and occupational pension scheme. He is also entitles to participate in the Company's EMI share option scheme. Nigel is subject to restrictive covenants including non-competition and non-solicitation covenants for a period of 12 months following the termination of his employment with the Company. The duration of the non-competition covenant shall be reduced by any time spent by Nigel on garden leave during his notice period.

10.2 ***Non-Executive Directors' Letters of Appointment***

There are five Non-Executive Directors including the chair. The principal terms of each letter of appointment (each, a "**Letter of Appointment"**) are set out below:

Name	*Title*	*Date of first appointment to the Board*
Francis Johnstone	Non-Executive Director	23 May 2019
Richard Maxey	Non-Executive Director	9 December 2020
Grace Stevens	Independent Non-Executive Director	7 September 2021
Robert Ashley	Independent Non-Executive Chairman	7 September 2021
David Cather	Senior Independent Non-Executive Director	7 September 2021

Letter of Appointment of Francis Johnstone

Francis Johnstone has been appointed to the Board pursuant to the terms of an appointment letter dated 23 November 2020. Francis was formally appointed to the Board on 23 May 2019. Francis' appointment is for an initial period of five years commencing on 23 May 2019 and thereafter shall continue unless terminated by either Francis or the Company by giving one months' prior written notice. The monthly fee payable to Francis is £2,000.

Letter of Appointment of Richard Maxey

Richard Maxey has been appointed to the Board pursuant to the terms of an appointment letter dated 23 November 2020. Richard was formally appointed to the Board on 9 December 2020. Richard's appointment is for an initial period of five years commencing on 9 December 2020 and thereafter shall continue unless terminated by either Richard or the Company by giving one months' prior written notice. The monthly fee payable to Richard is £2,000.

Letter of Appointment of Grace Stevens

Grace Stevens has been appointed to the Board pursuant to the terms of an appointment letter dated 10 August 2021. Grace was formally appointed to the Board on 7 September 2021. Grace's appointment is for an initial period of three years and thereafter shall continue unless terminated by either Grace or the Company by giving one months' prior written notice. The monthly fee payable to Grace for her role as Non-Executive Director is £2000. Grace's Letter of Appointment states that it is expected that Grace's monthly salary will increase to £2500 post Admission, however this is to be confirmed by the Company at the relevant time and is not a commitment by the Company. In addition, Grace has been appointed as Chair of the Audit Committee and she is entitled to an additional £5,000 per annum for this responsibility.

Letter of Appointment of Robert Ashley

Robert Ashley (Non-Executive Chair) has been appointed to the Board pursuant to the terms of an appointment letter dated 31 August 2021. Robert was formally appointed to the Board on 7 September 2021 and his appointment at Chair of the Board commenced on 21 September 2021. Robert's appointment is for an initial period of three years and thereafter shall continue unless terminated by either Robert or the Company by giving one months' prior written notice. The monthly fee payable to Robert for his role as Non-Executive Director is £3,333.33.

Letter of Appointment of David Cather

David Cather has been appointed to the Board pursuant to the terms of an appointment letter dated 31 August 2021. David was formally appointed to the Board on 7 September 2021. David's appointment is for an initial period of three years and thereafter shall continue unless terminated by either David or the Company by giving one months' prior written notice. The monthly fee payable to David is £2,000. In addition, David is paid an annual fee of £5,000 for his role as Senior Non-Executive Director.

10.3 ***General***

(a) Save as disclosed in this paragraph 10, the Company has not amended or entered into any service agreements with any Director within the last six months and no Director has a service agreement that has more than 12 months to run.

(b) Save as disclosed in paragraphs 10.1 and 10.2 above, there are no service contracts or agreements existing or proposed between any Director, or parties in which they are interested, and the Company.

(c) There are no proposals existing in connection with the Admission whereby any member of the administrative or management bodies of the Company or any other person and the Company which provide for benefits upon termination of employment or in connection with retirement from office.

(d) No amount has been set aside or accrued by the Company to provide pension, retirement or other benefits to the Directors.

(e) It is estimated that under the arrangements in force at the date of this document, the maximum aggregate remuneration and benefits in kind which will be paid for the services of the Directors for the financial period ending 31 March 2021 will be approximately £712,521.

11. Material contracts

The following contracts, not being contracts entered into in the ordinary course of business, have been entered into by any member of the Group during the two years immediately preceding the date of this document and contain provisions under which any member of the Group has an obligation or entitlement which is material at the date of this document.

11.1 ***Engagement letter between the Company and H&P***

On 28 April 2021, the Company entered into an engagement letter with H&P pursuant to which H&P agreed to act as financial advisor and joint corporate broker to the Company in respect of the Placing, Admission and pre-Admission research services. The Company agreed to pay H&P the following in respect of the services provided:

- £50,000 in cash upon Admission;
- an annual retainer of £50,000 for corporate broking services in respect of and payable following Admission;
- a cash payment equal to 2.5 per cent. of funds raised pursuant to an equity fundraising conducted as part of Admission; and
- the issue of warrants equal to 1.5 per cent. of the funds raised pursuant to an equity fundraising conducted as part of Admission.

The Company provided a standard indemnity to H&P in respect of claims that may be made against H&P in providing services under the engagement letter. Please see paragraph 11.4 of this Part 7 (*Additional Information*) for further description of the Placing Agreement which further documents the agreement between the Company and H&P in respect of their acting as joint broker pursuant to the Placing. Please see paragraph 11.25 of this Part 7 (*Additional Information*) for further description of the Broker Warrants which further documents the agreement between the Company and H&P in respect of the warrants issued pursuant to the engagement letter.

11.2 ***Engagement letter between the Company and VSA***

On 7 May 2021, the Company entered into an engagement letter with VSA pursuant to which VSA agreed to act as joint corporate broker to the Company in respect of the Placing and Admission and pre-Admission research services. The Company agreed to pay VSA the following in respect of the services provided:

- £55,000 in cash upon Admission;
- a monthly retainer of £15,000 which was payable each month to 7 August 2021. If Admission does not occur by 1 October, the monthly retainer is reinstated to £5,000 a month until Admission occurs.
- £20,000 cash fee in relation to the pre Admission research;
- a cash payment equal to 2.5 per cent. of funds raised pursuant to an equity fundraising conducted as part of Admission;
- sales commission relating to any debt funding equal to 2 per cent. of any debt investors introduced by VSA;
- the issue of warrants equal to 1.5 per cent. of the funds raised pursuant to an equity fundraising conducted as part of Admission; and
- a joint broker fee following Admission of £40,000 per annum.

The Company provided a standard indemnity to VSA in respect of claims that may be made against VSA in providing services under the engagement letter. Please see paragraph 11.4 of this Part 7 (*Additional Information*) for further description of the Placing Agreement which further documents the agreement between the Company and VSA in respect of their acting as joint broker pursuant to the Placing. Please see paragraph 11.6 of this Part 7 (*Additional Information*) for further description of the VSA Broker Agreement which further documents the agreement between the Company and VSA in respect of their acting as corporate broker and providing research searches following Admission. Please see paragraph 11.25 of this Part 7 (*Additional Information*) for further description of the Broker Warrants which further documents the agreement between the Company and VSA in respect of the warrants issued pursuant to the engagement letter.

11.3 ***Engagement letter between the Company and Strand Hanson***

On 28 April 2021, the Company entered into an engagement letter with Strand Hanson pursuant to which Strand Hanson agreed to act as nominated advisor and financial advisor to the Company in respect of the Placing and Admission. The Company agreed to pay Strand Hanson the following in respect of the services provided:

- a corporate finance fee in connection with Admission; and
- the issue of 125,000 Ordinary Shares at the Issue Price.

Please see paragraph 11.4 of this Part 7 (*Additional Information*) for further description of the Placing Agreement which further documents the agreement between the Company and Strand Hanson in respect of the Placing. Please see paragraph 11.5 of this Part 7 (*Additional Information*) for further description of the Nominated Adviser Agreement which further documents the agreement between the Company and Strand Hanson in respect of their acting as Nominated Adviser to the Company following Admission.

11.4 ***Placing Agreement between the Company, the Directors, Strand Hanson, H&P and VSA***

In connection with the Fundraising, the Company, the Directors, Strand Hanson, H&P and VSA have entered into a placing agreement pursuant to which, conditional upon, among other things, the fulfilment by the Company of its obligations under the Placing Agreement; the Company having allotted the New Ordinary Shares; the Advisers not having exercised their respective right to terminate the Placing Agreement; and Admission occurring not later than 8.00 a.m. on 21 October 2021 or such later time and/or date as the Company and the Advisers may agree, but in any event not later than 8.00 a.m. on 31 December 2021, H&P and VSA has agreed to use their respective reasonable endeavours to procure placees for the Placing Shares and to introduce to the Company potential subscribers for the Subscription Shares, in each case at the Issue Price.

Pursuant to the Placing Agreement, the Company has agreed to pay:

(i) H&P a broking commission of 2.5 per cent. of that amount of the Aggregate Proceeds represented by those Placees it has procured or Subscribers it has introduced to the Company;

(ii) VSA a broking commission of 2.5 per cent. of that amount of the Aggregate Proceeds represented by those Placees it has procured or Subscribers it has introduced to the Company; and

(iii) Strand Hanson a cash payment and 125,000 Ordinary Shares at the Issue Price each payable on Admission.

The Placing and the Placing Shares (for these purposes) includes 7,000,000 New Ordinary Shares at the Issue Price issued to Orion under a separate agreement with the Company, but on terms *pari passu* with the Placing.

The Company has agreed to pay all of the costs and expenses of and incidental to the Fundraising, together with any applicable VAT. The Company and the Directors have given certain warranties to each Adviser as to the accuracy of the information in this document and as to other matters relating to the Company. The liability of the Directors under these warranties is limited in time and amount, save in certain circumstances. The Company has given an indemnity to the Advisers against any losses or liabilities arising out of the proper performance by each Adviser of its respective duties under the Placing Agreement. The Advisers (or any one Adviser) may terminate the Placing Agreement before Admission in certain circumstances, including for material breach of the warranties referred to above.

The Placing Agreement is governed by English law.

11.5 ***Agreement with Strand Hanson to act as nominated adviser on an ongoing basis***

Pursuant to a nominated adviser agreement dated 10 October 2021 between Strand Hanson and the Company (the "**Nominated Adviser Agreement**"), Strand Hanson has agreed to act as the Company's nominated adviser from Admission for the purpose of the AIM Rules for Companies. The Nominated Adviser Agreement provides that Strand Hanson shall be paid an annual retainer fee for the provision of nominated adviser services. No sum shall be payable more than once under the Nominated Adviser Agreement and the Placing Agreement.

The appointment of Strand Hanson as nominated adviser under the Nominated Adviser Agreement shall (subject to certain early termination provisions in the agreement) continue thereafter unless and until terminated by either the Company or Strand Hanson giving to the other not less than three months' notice.

The Nominated Adviser Agreement also contains indemnities and undertakings given by the Company.

The Nominated Adviser Agreement is governed by English law.

11.6 ***Agreement with VSA to act as Joint Broker on an ongoing basis***

Pursuant to a joint broker agreement dated 10 October 2021 between VSA and the Company, VSA has agreed to act as a Joint Broker to the Company from Admission for the purpose of the AIM Rules for Companies (the "**VSA Broker Agreement**"). The VSA Broker Agreement provides that VSA shall be paid an annual retainer fee for the provision of broker services of £50,000.

The appointment of VSA as a Joint Broker under the VSA Broker Agreement shall (subject to certain early termination provisions in the agreement) continue thereafter unless and until terminated by either the Company or VSA giving to the other not less than three months' notice.

The VSA Broker Agreement also contains indemnities and undertakings given by the Company.

The VSA Broker Agreement is governed by English law.

11.7 ***Lock-in and Orderly Market Agreements between each of the Lock-In Shareholders, the Company, Strand Hanson, H&P and VSA***

Lock-in and Orderly Market Agreements were entered into between each of the Lock-in Shareholders, the Company, Strand Hanson, H&P and VSA on or around 10 October 2021. Pursuant to the terms of the Lock-in and Orderly Market Agreements, the Lock-in Shareholders have agreed not to dispose of any interest in Ordinary Shares for the period ending on the first anniversary of Admission. The Lock-In Shareholders have also agreed that for a further six months following the first anniversary of Admission, only to dispose of an interest in Ordinary Shares following consultation with the Joint Brokers and provided such disposal is effected through the Joint Brokers (or the broker for the time being of the Company, if it is not the Joint Brokers) and in such manner as they may reasonably require with a view to maintenance of an orderly market in the Ordinary Shares. There are certain exceptions to these lock-in and orderly provisions. In respect of the Lock-in Shareholders who are required to enter into the Lock-in and Orderly Market Agreements pursuant to Rule 7 of the AIM Rules, those exceptions are limited in accordance with Rule 7 to an intervening court order, the death of the Lock-in Shareholder or in respect of an acceptance of a takeover offer for the Company which is open to all Shareholders. Those Lock-in Shareholders who are not required to enter into the Lock-in and Orderly Market Agreements pursuant to Rule 7 of the AIM Rules have an additional exception which allows them to dispose of their Ordinary Shares to family members and trusts provided those persons are also subject to Lock-in and Orderly Market Agreements.

Each of the Lock-in and Orderly Market Agreements are governed by English law.

11.8 ***Subscription Letters***

Each Subscriber has entered into a Subscription Letter with the Company to subscribe for the Subscription Shares at the Issue Price. The Subscription Letters contain customary certifications and undertakings from the Subscribers as to its identity and level of sophistication. The Subscriber's obligation to subscribe for the Subscription Shares is conditional upon, amongst other things, the Placing Agreement becoming unconditional and not being terminated prior to Admission and on Admission taking place on or before 21 October 2021 (or such later time and/or date as the Company and the Advisers may agree, but in any event not later than 8.00 a.m. on 31 December 2021).

11.9 ***Hargreaves Option Agreement***

The Company entered into an option agreement with Hargreaves Services dated 18 November 2019 (the **"Hargreaves Option Agreement"**), pursuant to which Hargreaves Services granted the Company an option to purchase the one ordinary share in the capital of Drakelands Restoration on or before 29 November 2019 or such later time as the parties may agree in writing. The option to purchase Drakelands Restoration could only be exercised if certain conditions were met, including but not limited to the terms of the Drakelands SPA and the Mining Services Contract having been agreed to the satisfaction of both parties and the requisite lender consents having been obtained. The conditions were satisfied and the option was exercised by the Company, following which the Company entered into the Drakelands SPA in respect of Drakelands Restoration, which is summarised at paragraph 11.10 of this Part 7. The Company paid £100,000 to Hargreaves Service upon exercise of this option (the **"Hargreaves Option Payment"**) and £1,000,000 to a secured lender in order to obtain their consent to enter into the Hargreaves Option Agreement, which are also considered in paragraph 11.10 of this Part 7 below.

11.10 ***Drakelands SPA***

The Company entered into the Drakelands SPA to purchase the entire issued share capital of Drakelands Restoration on 29 November 2019. The consideration payable by the Company to Hargreaves Services under the Drakelands SPA comprised the following amounts (which have all been paid):

(i) £2,800,000 for Drakelands Restoration (minus the Hargreaves Option Payment);

(ii) £72,000 for costs of security at the Mine;

(iii) £1,000,000 to a secured lender in order to obtain their consent to enter into the Hargreaves Option Agreement; and

(iv) £2,600,000 owed by Drakelands Restoration to Hargreaves Land (South) Limited for associated land and property.

The Drakelands SPA includes an obligation on the Company to pay or procure the payment of all amounts due and payable (if any) in respect of the business rates payable in connection with the Mine to South Hams Council and to indemnify Hargreaves Services and its group against any liability it may incur in respect of the same. The business rates payable by the Group are still being assessed, however it is anticipated that, if the Group is assessed on the current rateable value of £477,500 at 51 per cent. per year, the Group would be liable for (i) £81,175 in respect of the period from December 2019 to March 2020; and (ii) £243,525 in respect of the period from April 2020 to March 2021. The Group has challenged the rateable value and is liaising with South Hams Council.

11.11 ***Mining Services Contract***

Drakelands Restoration entered into the Mining Services Contract with Hargreaves UKS on 29 November 2019.

Pursuant to the Mining Services Contract, Hargreaves UKS agreed to provide the following mining services at the Mine:

(i) Phase 1: care and maintenance, starting on the date of the Mining Services Contract, being 29 November 2019 (the **"Phase 1 Commencement Date"**);

(ii) Phase 2: reinstatement of operating facilities/conditions and development of new infrastructure, plant trials and plant commissioning activities, to be commenced on instructions from Drakelands Restoration; and

(iii) Phase 3: mine production (excluding exploration drilling, grade control drilling, drilling and equipping perimeter dewatering bores and demolition of existing facilities), to be commenced on instructions from Drakelands Restoration (the **"Phase 3 Mining Services"**).

The term of the Mining Services Contract is 12 years from the Phase 1 Commencement Date, save where the Phase 3 Mining Services are instructed, in which case the term is nine years commencing on the date of commencement of the Phase 3 Mining Services (the **"Phase 3 Commencement Date"**). Drakelands Restoration can terminate the Mining Services Contract on 60 days' written notice and upon such termination would be required to pay the balance of the Commencement Fee (as defined below), the balance of the Annual Mining Services Fee (as defined below), an expiration payment of £1,500,000 and an early termination amount calculation in accordance with the Mining Services Contract.

Pursuant to the Mining Services Contract, Drakelands is under an obligation to pay a commencement fee to Hargreaves UKS of £3,000,000 (plus VAT) paid by Drakelands Restoration as follows:

(a) £1,000,000 payable on the earlier of 12 months after the Final Annual Mining Services Payment Date (as defined in the Mining Services Contract) and seven years from the Phase 1 Commencement Date;

(b) £1,000,000 payable on the first anniversary of the payment at (a) above; and

(c) £1,000,000 payable on the second anniversary of the payment at (a) above,

(together, the **"Commencement Fee"**).

The Commencement Fee payments are accelerated if the Mining Services Contract is terminated in accordance with its term or if the term expires.

Drakelands is also under an obligation to pay an annual mining services fee under the Mining Services Contract, which is the greater of £1,000,000 (excluding VAT) and 15 per cent. of Drakeland Restoration's EBITDA paid by Drakelands Restoration for the relevant accounting period (save that for the first year only, it is fixed at £1,000,000 (excluding VAT)) (the **"Annual Mining Services Fee"**). The Annual Mining Services Fee is payable as follows:

(a) the first instalment to be paid on the earlier of the Phase 3 Commencement Date (as yet not specified) and two years from the Phase 1 Commencement Date; and

(b) thereafter, within three months of Drakelands Restoration's accounting reference date (which on 29 November 2019 was 31 May and is (at the date of this document) 31 December). As such, Drakelands Restoration is required to make a payment of £1,000,000 on or before 31 August on account of the Annual Mining Services Fee.

The aggregate Annual Mining Services Fee is capped at £5,000,000 (excluding VAT).

11.12 ***Parent company guarantee in relation to the Mining Services Contract***

The Mining Services Contract is supported by a parent company guarantee entered into between the Company and Hargreaves Services dated 29 November 2019. Pursuant to this agreement, the Company guarantees the payment of the Commencement Fee and the Annual Mining Services Fee under the Mining Services Contract to Hargreaves UKS in consideration for Hargreaves UKS entering into the Mining Services Contract with Drakelands Restoration. Hargreaves UKS is obliged to pursue any remedy or means of recourse against Drakelands Restoration before being entitled to enforce the Parent Guarantee against the Company, save in the event that any of the insolvency events referred to in the Mining Services Contract occurs in relation to Drakelands Restoration.

11.13 ***Wolfram Offtake Agreement***

Drakelands Restoration entered into a supply agreement for the sale of tungsten concentrates with Wolfram Bergbau on 3 August 2021 (the **"Wolfram Offtake Agreement"**), pursuant to which Wolfram Bergbau has agreed to purchase a minimum of 285,000 mtu wolframite concentrate mined and processed at the Mine (the **"Concentrates"**), which is to be delivered regularly during the term and in accordance with the Wolfram Offtake Agreement (the **"Wolfram Total Contracted Quantity"**).

The Wolfram Offtake Agreement shall end on the later of (i) the last day of the last month set out in Exhibit 1, which is Q1 2028; or (ii) the day on which the Wolfram Total Contracted Quantity has been delivered for Wolfram Bergbau.

The Wolfram Offtake Agreement is conditional upon Drakelands Restoration having entered into committed funding facilities for amounts sufficient to develop the Mine operation to a capacity of at least 110 per cent. of all committed long-term offtake agreements by 31 March 2022 or any later date agreed by Wolfram Bergbau and Drakelands Restoration. In such case, should the parties be unable to agree on a later date, Wolfram Bergbau may terminate the Wolfram Offtake Agreement by written notice to Drakelands Restoration unilaterally with immediate effect. Wolfram Bergbau may also terminate the Wolfram Offtake Agreement with immediate effect by notice in writing to Drakelands Restoration if (i) specified project milestones are missed and Drakelands Restoration cannot reasonably demonstrate that mitigation efforts are being implemented that ensure that the Mine is reaching a capacity of at least 125 per cent. of the then committed offtake agreements by 31 December 2023; (ii) Drakelands Restoration fails to deliver the Wolfram Contracted Quarterly Quantity minus an additional allowance of 20t WO_3 in Concentrate for two consecutive quarters; (iii) a material breach of this agreement by Drakelands Restoration occurs, which is either not capable of remedy or, if capable of remedy, has not been remedied within 45 days of Drakelands Restoration receiving notice of such breach from Wolfram Bergbau; or (iv) a direct competitor of Wolfram Bergbau obtains a stake of more than 49.99 per cent. of the project or Drakelands Restoration, directly or by way of assignment.

Drakelands Restoration may terminate the Wolfram Offtake Agreement if any of the following events occurs and is continuing in relation to Wolfram Bergbau, upon written notice to Wolfram Bergbau: (i) a breach of any payment obligation of Wolfram Bergbau under the Wolfram Offtake Agreement involving an amount in excess of US$500,000 which is not in dispute between Wolfram Bergbau and Drakelands Restoration and which has not been so remedied within fifteen

Business Days of Wolfram Bergbau receiving notice of such breach from Drakelands Restoration and which identifies that breach as potentially giving rise to a right in Drakelands Restoration to terminate the Wolfram Offtake Agreement; (ii) a material breach of the Wolfram Offtake Agreement by Wolfram Bergbau occurs which is either not capable of remedy or of capable of remedy has not been remedied within 30 days of Wolfram Bergbau receiving notice of such breach from Drakelands Restoration; or (iii) Wolfram Bergbau is the subject of receivership, administration, liquidation, or bankruptcy or subject to any other form of insolvency proceedings or analogous proceedings in any applicable jurisdiction..

11.14 ***GTP Offtake Agreement***

Drakelands Restoration entered into a supply agreement for the sale of tungsten concentrates with GTP on 28 September 2021 (the **"GTP Offtake Agreement"**) pursuant to which GTP has agreed to purchase a total contracted quantity of 20,400 ton WO_3 of Wolframite mined and processed at the Mine (the **"Material"**) in accordance with GTP's specifications (the **"GTP Total Contracted Quantity"**).

The operative terms of the GTP Offtake Agreement will enter into full force and effect on the date of first completion of any financing or fundraising concerned with the Mine (the **"GTP Effective Date"**), which is expected to be the date of Admission.

The term of the GTP Offtake Agreement shall be from the GTP Effective Date until the later of the following: (i) 10 years from the date of first delivery of the Material (**"GTP Initial Term"**); or (ii) delivery of the GTP Total Contracted Quantity.

Upon completion of the Initial Term only, the GTP Offtake Agreement will be automatically extended for an additional two years unless any party provides written notice to the other party not less than 12 months prior the end of the Initial Term that it wishes the term to expire at the end of the Initial Term.

GTP shall have the right to terminate the GTP Offtake Agreement in the event that Drakelands Restoration defaults under the GTP Offtake Agreement, provided that the default is not remedied within 30 Business Days after GTP provides Drakelands Restoration with a written notice.

11.15 ***Afrimet Offtake Agreement***

Drakelands Restoration entered into a supply agreement for the sale of tin concentrates with Afrimet Resources AG (**"Afrimet"**) on 27 September 2021 (the **"Afrimet Offtake Agreement"**), pursuant to which Afrimet has agreed to purchase any mineral bearing tin concentrate (Cassiterite) mined from the Mine, which is expected to be 2,375 dmt +/-10 per cent. for the term of the Afrimet Offtake Agreement.

The Afrimet Offtake Agreement commenced on 27 September 2021 and will continue for five years commencing with the first delivery pursuant to the Afrimet Offtake Agreement, unless terminated in accordance with its terms. Both Afrimet and Drakelands Restoration have a right to terminate the Afrimet Offtake Agreement on 10 days written notice if Drakelands Restoration fails to commission the processing plant, or fails to deliver the first container of 25 MT of marketable product within 24 months from the execution of the Afrimet Offtake Agreement.

Pursuant to the Afrimet Offtake Agreement, Afrimet has agreed to make a prepayment facility available to Drakelands Restoration, which is subject to the terms and conditions of the Afrimet Prepayment Facility Agreement summarised at paragraph 11.16 of this Part 7.

11.16 ***Afrimet Prepayment Facility Agreement***

Drakelands Restoration entered into tin concentrates prepayment facility agreement with Afrimet Resources AG (**"Afrimet"**) on 7 October 2021 (the **"Afrimet Prepayment Facility Agreement"**), pursuant to which Afrimet has agreed to make a prepayment facility available to Drakelands Restoration in an aggregate amount equal to US$2,000,000 (to the extent not cancelled or reduced pursuant to the Afrimet Prepayment Facility Agreement), excluding accrued interest, which is to be used by Drakelands Restoration for general financing needs of the business. The rate of ordinary interest applicable to each prepayment drawn down is calculated as the percentage rate per annum equal to the applicable interest rate, which is calculated as LIBOR plus 6.5 per cent. per annum. The Afrimet Prepayment Facility Agreement includes standard conditions precedent which must be met by Drakelands Restoration before any prepayment is drawn down. Prepayment can be drawn down in tranches of US$500,000, subject to any new prepayment being conditional upon any previous outstanding amount being repaid or offset. The repayment amount (which is equal to the prepayment amount and any accrued interest) shall be repaid in full by Drakelands Restoration two years from the initial drawdown.

11.17 ***GRS Aggregates Contract***

The Company and Aggregates West entered into an aggregates contract with GRS Roadstone on 30 August 2021 (the **"GRS Aggregates Contract"**).

Pursuant to the GRS Aggregates Contract, Aggregates West warrants and undertakes that the aggregates production contractor appointed at the Mine (responsible for processing the Mine's waste streams) (the **"Aggregates Operator"**) will produce a specified quantity of aggregates product. From 1 October 2022, Aggregates West warrants and undertakes that the Aggregates Operator will produce aggregates to a prescribed specification. Pursuant to the GRS Aggregates Contract, GRS Roadstone may provide support systems and staff as listed in the GRS Aggregates Contract to assist the Aggregates West's representative.

11.18 ***DUO Agreement***

Aggregates West entered into a subcontractor agreement with DUO Operations Limited ("**DUO**") on 2 November 2020 (the "**DUO Agreement**") in relation to aggregates processing at the Mine.

Pursuant to the DUO Agreement, DUO has agreed to supply a supervisor, operator, excavator and loading shovel at the Mine and has agreed to provide services including repairs and maintenance, generator, installation, decommissioning and loading out from the wash plant area at the Mine (the "**Sub-Contract works**"). DUO is entitled to payments under the DUO Agreement, which are predetermined amounts based on production tonnages: (i) one year contract price per tonne up to 372,000t at a specified price; (ii) after one year or 372,000t at a specified price; and (iii) the repayment of investment monies at a specified price. The period for completion of the sub-contract works is 12 months or such other period as shall be agreed between the parties in accordance with the terms governing an extension of time. Either party may terminate the DUO Agreement on 30 days' written notice.

11.19 ***Orion Senior Loan Agreement***

The Company entered into a senior loan agreement with Orion on 10 October 2021 (the **"Orion Senior Loan Agreement**") as a guarantor.

Under the Orion Senior Loan Agreement, Orion agreed to provide to the project company which is a subsidiary of the Company (the "**Borrower**"), US$28,000,000 senior secured term facilities (the "**Orion Loan**"). Under the terms of the Orion Senior Loan Agreement, the Orion Loan is made available to the Borrower in two equal tranches of US$14,000,000 to be drawn no later than 30 June 2023 and 31 December 2023, respectively. An original issue discount of 1 per cent. applies to the Orion Loan and accordingly, the proceeds available to the Borrower under each tranche will be discounted by 1 per cent. of the requested drawdown amount. The final maturity of Orion Loan is five (5) years from the first drawdown.

Interest will accrue on the Orion Loan daily at a rate of 3-month LIBOR (subject to a floor of 2 per cent.) plus 9 per cent per annum. During the period starting on the date of the first drawdown until the earlier to occur of, 31 December 2023 and the project completion date, the interest will be capitalised on a quarterly basis and thereafter, interest will be payable quarterly in arrears. The principal is to be repaid in 12 equal quarterly instalments based on the agreed repayment schedule, starting on the earlier to occur of 1 January 2024 and the first day of the next quarter starting after the project completion date.

Orion has an option to convert the remaining Orion Loan into a royalty once the outstanding Orion Loan amount is reduced to US$10,000,000, and if any of the Loan commitment is cancelled by US$10,000,000 or more then Orion has the option to enter into a royalty (under which the royalty purchase price shall be up to US$10,000,000). The royalty shall be on substantially the same terms as the royalty granted under the Orion Royalty Agreement (summarised below) except that the rate shall be 1 per cent. on the value of tungsten, tin and aggregates produced by the Hemerdon Mine and shall exclude the Planning Permission Event of Default (as defined below) and the grantor does not have any buy back right.

The first drawdown is subject to certain conditions precedent including evidence that 90 per cent. of the Orion Investment and Orion's equity investment have been invested in the project.

The Orion Loan will have customary events of default which will enable Orion to accelerate the Orion Loan and demand early repayment. These events of default, and others, will also apply to the Orion Royalty (as set out below).

11.20 ***Orion Investment***

The project company, being a subsidiary of the Company (the "**Grantor**") entered into a royalty agreement with Orion on 10 October 2021 (the "**Orion Royalty Agreement**").

Under the Orion Royalty Agreement, the Grantor agreed to pay Orion on the gross revenue received from sales of tungsten, tin and aggregates produced by the Hemerdon Mine, and on the value of tolled third party material, for an upfront purchase price of US$21,000,000 (the "**Orion Royalty**"). The purchase price is to be funded in one tranche on the closing date (following satisfaction of CPs), which is expected to occur in the H2 2021. The Orion Royalty will be payable quarterly on gross revenue received from sales without deducting for any costs (except for any freight cost of aggregates) initially at the royalty rate of 3 per cent. to be reduced to 1.5 per cent. once the project produces and pays under the royalty in respect of 7 million metric tonne units of contained WO_3.

The Grantor shall have the right to buy back from Orion 50 per cent. of the Orion Royalty on any of the first four anniversaries of the closing of the financing on a one off basis for a price of US$21,000,000.

On the occurrence of an event of default, Orion has, amongst other usual remedies, the right to receive an early termination amount equivalent to the greater of: (a) an amount which would generate a 14 per cent. IRR to Orion (inclusive of all payments previously made to Orion under the Orion Royalty); and (b) the NPV of the Orion Royalty, calculated (i) using an 8 per cent. discount rate, (ii) using future cash flow, etc. contained in the then current financial model, and (iii) using Duff & Phelps consensus pricing for the relevant material.

Common terms to the Orion Senior Loan Agreement and the Orion Royalty Agreement

Both the Orion Royalty Agreement and the Orion Loan are fully and unconditionally guaranteed on a joint and several basis by the Company and its Subsidiaries.

Obligations of the Borrower under the Orion Senior Loan Agreement will be secured on a first priority basis and the Grantor's obligations under the Orion Royalty Agreement will benefit from second ranking rights in the security over the Secured Assets (as defined below).

The Secured Assets are to comprise all of the assets of the Company, the Borrower and all of the assets of the direct and indirect Subsidiaries of the Company from time to time, including, without limitation, all tangible and intangible real and personal property and assets (including bank account balances, receivables, instruments, chattel paper, cash, cash equivalents, deposit accounts, certificates of deposit, evidence of indebtedness owing to the Company, the Borrower and the Subsidiaries of any kind or description including all shares, equity interest, investment property, loans or advances made to the Company, the Borrower and the Subsidiaries of the Company) (the "**Secured Assets**"). The security must be perfected.

Under the terms of the Orion Royalty Agreement and the Orion Senior Loan Agreement, the project company gives certain representations, warranties and covenants typical for the financing including, but not be limited to, those relating to corporate existence, compliance with laws, corporate power, authorisation, binding obligations, no material litigation and no material adverse change, ownership of property and assets, acquisition and validity of authorisations, permissions and permits, enforceability of mineral rights, intellectual property, taxes, insurance, solvency, use of proceeds, implementation of appropriate security, debt service cover ratio covenants.

Events of default include, but are not be limited to, material adverse change in relation to the project and the obligor parties, non-payment, breach of a covenant or representation, cross default to other indebtedness (subject to *de minimis* amount), insolvency, unsatisfied judgments, invalidity, illegality or unenforceability of any finance or transaction documents or material project documents, cessation or suspension of operations, abandonment of the project, failure to obtain and maintain all material project permits and authorisations, expropriation, imposition or enforcement of exchange or currency controls, export restrictions on the production or on payments to Orion and a failure to obtain by 01 January 2027 planning permission and authorisations to expand aggregates production to at least 1,500,000 mtpa. In addition, the Planning Permission Event of Default applies to the Orion Royalty Agreement and could lead to a cross-default under the Orion Senior Loan Agreement.

"**Planning Permission Event of Default**" shall occur if as of 1 January 2028, either (a) the project has not received full planning permission that would permit for a mine life of at least 20 years (based on the rate of production outlined in the financial model at closing of the Orion financing) or (b) the tailings facility is either not designed and completed and maintained to the feasibility study level and in accordance with global best practice, or the tailings facility does not receive full permitting for a mine life of at least 20 years (based on the rate of production outlined in the financial model at first drawdown of the Orion Loan).

11.21 ***Hargreaves Charge***

Drakelands Restoration granted a charge over the Mine Lease in favour of Hargreaves UKS pursuant to a legal charge dated 29 November 2019 (the **"Hargreaves Charge"**). The Hargreaves Charge covers all property, assets and rights of Drakelands Restoration, specifically the mines and minerals and unworked metals contained on, in or under the Mine Lease.

The Hargreaves Charge secures the payment of the Commencement Fee and the Annual Mining Services Fee to Hargreaves UKS (as well as costs, charges and interest) under the Mining Services Contract, as described in paragraph 11.11 of this Part 7. The aggregate amount of the commencement fee and the annual mining services fee under the Mining Services Contract is £8,000,000.

By way of continuing security for these payments, Drakelands granted: (i) a charge by way of legal mortgage over the property (being the lease of title number DN643856), (ii) an assignment of the proceeds of any disposal in respect of the charged assets and (iii) an assignment of its property rights.

The Hargreaves Charge also restricts how Drakelands Restoration can use the property until it has satisfied in full its obligation to pay the Commencement Fee and Annual Mining Services Fee. Hargreaves has powers under the Hargreaves Charge, including but not limited to the ability to appoint a receiver, release certain assets from the Hargreaves Charge and obtain (at Drakelands' expense) a valuation of the property.

Hargreaves UKS has provisionally agreed with Orion and the Company to release the security under the Hargreaves Charge on the date of purchase by Orion of the Orion Royalty under the Orion Royalty Agreement. The release is subject to approval by Hargreaves UKS' board and contingent upon, inter alia, a guarantee being granted by the Company and its Subsidiaries to Hargreaves for the obligation of Drakelands Restoration under the Mining Services Contract, a direct agreement being entered into by Hargreaves with Orion and the Company being admitted to AIM on the London Stock Exchange.

11.22 ***Panoptic consultancy agreements***

The Company entered into a consultancy agreement with Panoptic on 13 July 2021, pursuant to which Panoptic provides strategic advisory services for the business development of the Company and Aggregates West. The Company pays Panoptic £8,000 a month for 30 hours service per week pursuant to this consultancy agreement. The term of this consultancy agreement is 12 months in relation to the Company's retained consultancy services and 48 months in relation to the services provided in relation to the sale of aggregates products by Aggregates West.

Tungsten West Services entered into a separate consultancy agreement with Panoptic on 5 July 2021 in relation to the Tungsten West Services and Aggregates West rebuild projects at the Mine (the "**Panoptic Programme Lead Consultancy Agreement**"). Pursuant to the Panoptic Programme Lead Consultancy Agreement, Panoptic shall provide a programme lead to deliver commercial, operation, projects and contracting division of the Tungsten West Services and Aggregates West team in order to help with (but not limited to) the front end rebuild, the aggregates wash plant, the contractor/subcontractor interface, cash-flow forecast and to enable successful delivery of a working mining project. Pursuant to the Panoptic Programme Lead Consultancy Agreement, the Company shall pay Panoptic £13,000 per month (exclusive of VAT) based on a 22 month renewable contract.

11.23 ***Panoptic Warrant Instrument***

On 7 October 2021, the Company entered into the Panoptic Warrant Instrument pursuant to which it issued the Panoptic Warrants at a subscription price of £0.01 per Ordinary Share, which shall expire on 7 October 2023. 75,000 of the Panoptic Warrants are exercisable on Colin Perkins of Panoptic starting his assignment as Programme Director for the Company and 75,000 of the Panoptic Warrants are exercisable on commissioning of the processing plant at the Mine.

11.24 ***Corrado Introducer Agreement***

The Company entered into an introductory services agreement with Corrado on 1 September 2021 (the "**Corrado Introducer Agreement**"). Pursuant to the Corrado Introducer Agreement, Corrado agreed to introduce potential investors to the Company and the Company agreed to pay Corrado an introductory fee equal to 5 per cent. in cash and 5 per cent. in warrants of the aggregate investment made by an investor introduced by Corrado during the period from 1 May 2021 until 30 September 2021. Corrado were issued warrants over 126,760 Ordinary Shares in connection with the Pre-Admission Investment pursuant to the Corrado Introducer Agreement.

11.25 ***Joint Broker Warrant Agreements***

The Company entered into the Joint Broker Warrant Agreements with each of H&P and VSA on 8 October 2021. Pursuant to the Joint Broker Warrant Agreements, the Company has agreed to issue the Broker Warrants to the Joint Brokers, conditional on Admission. The Broker Warrants equal an aggregate of 3 per cent. of the gross proceeds of the Fundraising and are split equally between H&P and VSA at a subscription price per Ordinary Share equal to the Issue Price. The Broker Warrants are exercisable following Admission for a period of 24 months from Admission, after which the Broker Warrants shall lapse if not already exercised.

11.26 ***Convertible Loan Note Deed***

The Company entered into the Convertible Loan Note Deed on 28 November 2019, pursuant to which the Company issued 31,000,0000 unsecured convertible redeemable loan notes, with a face value of 30 pence each (for an aggregate amount of £9,300,000) to the Convertible Loan Note Holders.

Pursuant to clause 7.7. of the Convertible Note Deed, the Convertible Loan Notes will convert in full, at the Company's election, on any "Qualifying IPO", which is defined as an IPO raising at least £10,000,000 at a price in excess of 60p per share, which will be satisfied on Admission. The Convertible Loan Note Holders were notified of the expected conversion of the Convertible Loan Notes on Admission on 6 September 2021.

As at the date of this document, the prevailing principal amount of the Convertible Loan Notes is £10,044,000 and the accrued interest for the Convertible Loan Notes is £736,560. The Convertible Loan Notes will convert into 35,935,200 Ordinary Shares in full on Admission in accordance with the terms and conditions of the Convertible Loan Deed (representing 20.29 per cent. of the Enlarged Share Capital). Following Admission, and conversion of the Convertible Loan Notes the Convertible Loan Note Holders will have no further rights for repayment of the Convertible Loan Notes.

11.27 ***Registrar agreement***

On 15 June 2021, the Company entered into a registrar agreement under which the Registrar will provide services connected with the maintenance of the Company's register. The registrar agreement provides for payment of an annual fee, with activity charges and additional services invoiced quarterly. Either party may terminate the registrar agreement by giving 6 weeks' notice.

The Registrar agreement is governed by English law.

11.28 ***Receiving agent agreement***

On 8 October 2021, the Company entered into a receiving agent agreement pursuant to which the Company has appointed the Registrar to act as its receiving agent in respect of the Fundraising. The Registrar will receive a fixed fee per Placee in respect of the receiving agent services connected to the Fundraising. Unless terminated earlier in accordance with the customary termination provisions, the receiving agent agreement shall continue until completion of the services.

The receiving agent agreement is governed by English law.

12. Related party transactions

Save as described elsewhere in this document, there are no related party transactions (within the meaning of the requirements of the AIM Rules for Companies in relation to the contents of an admission document) which, as a single transaction or in their entirety, are or may be material to the Company and have been entered into by the Company during the periods for which historical financial information appears in this document.

13. No governmental, legal or arbitration proceedings

The Company is not or has not been involved in any governmental, legal or arbitration proceedings which may have, or have had during the last 12 months preceding the date of this document, a significant effect on the Company's financial position or profitability and, so far as the Directors are aware, there are no such proceedings pending or threatened against the Company.

14. Significant change

Save as disclosed in this document, there has been no significant change in the trading or financial position of the Company since 31 March 2021, being the date to which the historical financial information of the Company set out in Part 3 (*Historical Financial Information*) of this document was prepared.

15. Working capital

The Directors are of the opinion, having made due and careful enquiry, and taking into account the net proceeds of the Fundraising, that the Company will have sufficient working capital for its present requirements, that is for at least the period of 12 months following the date of Admission.

16. Intellectual Property

Save as disclosed in this document, the Company is not aware of any patents, licences, industrial or commercial or financial contracts or new manufacturing processes on which the Company is dependent.

17. Environmental

Save as disclosed in this document, there are no environmental issues that the Directors have determined may affect the Company's utilisation of tangible fixed assets.

18. Consents

Strand Hanson and the Joint Brokers have each respectively given and not withdrawn their consent to the issue of this document with the inclusion of their name and references to them in the form and context in which they appear.

PKF Francis Clark, the auditor to the Company, is a firm of chartered accountants regulated by the Institute of Chartered Accountants in England and Wales. PKF Francis Clark has given and not withdrawn its written consent to the inclusion in this document of its reports in relation to the historical financial information included in Part 3 (*Historical Financial Information*) of this document and accepts responsibility for the same pursuant to Schedule Two of the AIM Rules for Companies.

AMC has given and not withdrawn its written consent to the inclusion in this document of its Competent Person's Report included in Part 6 (*Competent Person's Report*) of this document and accepts responsibility for the same pursuant to Schedule Two of the AIM Rules for Companies.

19. General

Save as disclosed below and elsewhere in this document, no person (other than the Company's professional advisers named in this document and trade suppliers) has at any time within the 12 months preceding the date of application for admission to AIM received, directly or indirectly, from the Company or entered into any contractual arrangements to receive, directly or indirectly, from the Company on or after Admission any fees, securities in the Company or any other benefit to the value of £10,000 or more.

The percentage dilution as a result of the Fundraising is 46.1 per cent.

The total costs, charges and expenses of the Fundraising and Admission are estimated to amount to approximately £3.07 million (excluding any amounts in respect of VAT thereon).

The Company confirms that where information in this document has been sourced from a third party, the source of this information has been provided and information has been accurately reproduced. So far as the Company and the Directors are aware and are able to ascertain from information published by that third party, no facts have been omitted which would render the reproduced information inaccurate or misleading.

20. Availability of document

Copies of this document will be available for inspection during normal business hours on any day (except Saturdays, Sundays and UK public holidays) at the registered office of the Company and on the Company's website at https://www.tungstenwest.com from the date of this document until the date which is one month after Admission.

15 October 2021

PART 8

TERMS AND CONDITIONS OF THE PLACING

THE TERMS AND CONDITIONS SET OUT IN THIS PART 8 OF THE DOCUMENT (THE "**TERMS AND CONDITIONS**") DO NOT CONSTITUTE AN OFFER OR INVITATION TO ACQUIRE, UNDERWRITE OR DISPOSE OF, OR ANY SOLICITATION OF ANY OFFER OR INVITATION TO ACQUIRE, UNDERWRITE OR DISPOSE OF, ANY SHARES OR OTHER SECURITIES OF THE COMPANY TO ANY PERSON IN ANY JURISDICTION TO WHOM IT IS UNLAWFUL TO MAKE SUCH OFFER, INVITATION OR SOLICITATION IN SUCH JURISDICTION. PERSONS WHO SEEK TO PARTICIPATE IN THE PLACING MUST INFORM THEMSELVES ABOUT AND OBSERVE ANY SUCH RESTRICTIONS AND MUST BE PERSONS WHO ARE ABLE TO LAWFULLY RECEIVE THIS DOCUMENT IN THEIR JURISDICTION.

MEMBERS OF THE PUBLIC ARE NOT ELIGIBLE TO TAKE PART IN THE PLACING. THIS PART 8 AND THE TERMS AND CONDITIONS SET OUT HEREIN ARE FOR INFORMATION PURPOSES ONLY AND ARE DIRECTED ONLY AT: (A) IN A MEMBER STATE OF THE EUROPEAN ECONOMIC AREA ("**EEA**"), PERSONS WHO ARE "**QUALIFIED INVESTORS**" AS DEFINED IN ARTICLE 2(E) OF THE EU PROSPECTUS REGULATION (WHICH MEANS REGULATION (EU) 2017/1129 AND INCLUDES ANY RELEVANT IMPLEMENTING MEASURE IN ANY MEMBER STATE) (THE "**EU PROSPECTUS REGULATION**"); AND (B) IN THE UNITED KINGDOM, PERSONS WHO ARE PERSONS FALLING WITHIN THE MEANING OF ARTICLE 2(E) OF PROSPECTUS REGULATION (EU) 2017/1129 AS IT FORMS PART OF DOMESTIC LAW BY VIRTUE OF THE EUROPEAN UNION (WITHDRAWAL) ACT 2018 ("EUWA") AND AS FROM TIME TO TIME MODIFIED BY OR UNDER EUWA OR OTHER ENGLISH LAW AND ANY SUBORDINATE LEGISLATION MADE UNDER IT (THE "UK PROSPECTUS REGULATION"), AND WHO ARE: (I) "INVESTMENT PROFESSIONALS" WITHIN THE MEANING OF ARTICLE 19(5) OF THE FINANCIAL SERVICES AND MARKETS ACT 2000 (FINANCIAL PROMOTION) ORDER 2005 (THE "**ORDER**"); (II) PERSONS FALLING WITHIN ARTICLE 49(2)(A) TO (D) ("HIGH NET WORTH COMPANIES, UNINCORPORATED ASSOCIATIONS, ETC") OF THE ORDER; OR (III) PERSONS TO WHOM IT MAY OTHERWISE BE LAWFULLY COMMUNICATED (ALL SUCH PERSONS TOGETHER BEING REFERRED TO AS "**RELEVANT PERSONS**"). THIS PART 8 AND THE TERMS AND CONDITIONS SET OUT HEREIN MUST NOT BE ACTED ON OR RELIED ON BY PERSONS WHO ARE NOT RELEVANT PERSONS. ANY INVESTMENT OR INVESTMENT ACTIVITY TO WHICH THIS PART 8 AND THE TERMS AND CONDITIONS SET OUT HEREIN RELATE IS AVAILABLE ONLY TO RELEVANT PERSONS AND WILL BE ENGAGED IN ONLY WITH RELEVANT PERSONS. PERSONS INTO WHOSE POSSESSION THIS DOCUMENT (INCLUDING THIS PART 8) COMES ARE REQUIRED BY THE COMPANY AND THE JOINT BROKERS TO INFORM THEMSELVES ABOUT AND TO OBSERVE ANY SUCH RESTRICTIONS.

THIS DOCUMENT IS NOT AN OFFER FOR SALE OR SUBSCRIPTION IN ANY JURISDICTION IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL UNDER THE SECURITIES LAWS OF ANY JURISDICTION. THIS DOCUMENT DOES NOT ITSELF CONSTITUTE AN OFFER FOR SALE OR SUBSCRIPTION OF ANY SECURITIES IN THE COMPANY.

THIS DOCUMENT IS NOT FOR PUBLICATION OR DISTRIBUTION, DIRECTLY OR INDIRECTLY, IN OR INTO THE UNITED STATES OF AMERICA. THIS DOCUMENT IS NOT AN OFFER OF SECURITIES FOR SALE IN THE UNITED STATES. THE SECURITIES REFERRED TO HEREIN HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE OFFERED OR SOLD, RESOLD, TRANSFERRED OR DELIVERED, DIRECTLY OR INDIRECTLY, IN OR INTO THE UNITED STATES, EXCEPT PURSUANT TO AN APPLICABLE EXEMPTION FROM REGISTRATION. NO PUBLIC OFFERING OF SECURITIES IS BEING MADE IN THE UNITED STATES.

THE SECURITIES MENTIONED HEREIN HAVE NOT BEEN AND WILL NOT BE APPROVED OR DISAPPROVED BY THE US SECURITIES AND EXCHANGE COMMISSION (THE SEC), ANY STATE SECURITIES COMMISSION OR ANY OTHER REGULATORY AUTHORITY IN THE UNITED STATES, NOR HAVE ANY OF THE FOREGOING AUTHORITIES PASSED UPON OR ENDORSED THE MERITS OF THE PLACING OR THE ACCURACY OR ADEQUACY OF THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENCE IN THE UNITED STATES.

EACH PLACEE SHOULD CONSULT WITH ITS OWN ADVISERS AS TO LEGAL, TAX, BUSINESS AND RELATED ASPECTS OF AN INVESTMENT IN PLACING SHARES. THE PRICE OF SHARES AND THE INCOME FROM THEM (IF ANY) MAY GO DOWN AS WELL AS UP AND INVESTORS MAY NOT GET BACK THE FULL AMOUNT INVESTED ON DISPOSAL OF SHARES.

The relevant clearances have not been, nor will they be, obtained from the securities commission of any province or territory of Canada; no prospectus has been lodged with or registered by the Australian Securities and Investments Commission or the Japanese Ministry of Finance or the South African Reserve Bank; and the Placing Shares have not been, nor will they be, registered under or offered in compliance with the securities laws of any state, province or territory of Australia, Canada, Japan or the Republic of South Africa. Accordingly, the Placing Shares may not (unless an exemption under the relevant securities laws is applicable) be offered, sold, resold or delivered, directly or indirectly, in or into Australia, Canada, Hong Kong, Japan, New Zealand or the Republic of South Africa or any other jurisdiction in which such offer, sale, resale or delivery would be unlawful.

These Terms and Conditions apply to persons making an offer to subscribe for Placing Shares. Each Placee will be deemed to have read and understood this document (including these Terms and Conditions) and hereby agrees with each Joint Broker and the Company to be bound by these Terms and Conditions as being the terms and conditions upon which Placing Shares will be issued. A Placee shall, without limitation, become so bound if a Joint Broker confirms to such Placee its allocation of Placing Shares.

Upon being notified of its allocation of Placing Shares, a Placee shall be contractually committed to subscribe for the number of Placing Shares allocated to it at the Issue Price and, to the fullest extent permitted by law, will be deemed to have agreed not to exercise any rights to rescind or terminate or otherwise withdraw from such commitment.

In these Terms and Conditions, unless the context otherwise requires, "**Placee**" means a Relevant Person (including individuals, funds or others) who has been invited to participate in the Placing and on whose behalf a commitment to subscribe for Placing Shares has been given.

Details of the Placing Agreement and the Placing Shares

H&P, VSA, Strand Hanson, the Company and Directors of the Company have entered into a Placing Agreement, under which each Joint Broker has, on the terms and subject to the conditions set out therein, conditionally undertaken to use its respective reasonable endeavours to procure subscribers for the Placing Shares at the Issue Price, including a direct subscription of 7,000,000 New Ordinary Shares by Orion. The Company is also raising additional funds through a direct Subscription from certain high net worth entities and individuals. Strand Hanson has also agreed to assist the Company in seeking Admission. It is expected that the Placing will raise approximately £38.7 million in gross proceeds. The Placing is not being underwritten by H&P, VSA or Strand Hanson.

The Placing Shares will, when issued, be subject to the articles of association of the Company, will be credited as fully paid and will rank *pari passu* in all respects with the existing Ordinary Shares, including the right to receive all dividends and other distributions (if any) declared, made or paid on or in respect of Ordinary Shares after the date of issue of the Placing Shares.

The Placing Agreement is subject to customary conditions and termination rights.

The Placing Shares will trade on AIM under ATM with ISIN GB00BP6QM557.

Application for admission to trading of the Placing Shares

Application will be made to the London Stock Exchange for the New Ordinary Shares (including the Placing Shares) to be admitted to trading on AIM. It is expected that Admission will become effective and dealings in the New Ordinary Shares will commence at 8.00 a.m. on or around 21 October 2021 (**"Admission"**). In any event, the latest date for Admission is 31 December 2021 (the **"Long Stop Date"**).

Placing

These Terms and Conditions give details of the terms and conditions of, and the mechanics of participation in, the Placing. No commissions will be paid to Placees or by Placees in respect of any Placing Shares.

Participation in, and principal terms of, the Placing are as follows:

1. H&P and VSA are each arranging the Placing as agent for the Company.
2. The number of Placing Shares to be issued and the Issue Price will be agreed between the Joint Brokers and the Company.
3. Participation in the Placing is only available to persons who are lawfully able to be, and have been, invited to participate by each Joint Broker. Each Joint Broker and its affiliates are entitled to participate in the Placing as principal.
4. The Company and each Joint Broker reserve the right (i) to scale back the number of Placing Shares to be subscribed for by any Placee in the event of the Placing being over-subscribed; and (ii) not to accept offers for Placing Shares or to accept such offers in part rather than in full. The Company reserves the right to reduce the amount to be raised pursuant to the Placing, in agreement with the Joint Brokers.
5. Each Placee's allocation of Placing Shares has been or will be confirmed to Placees orally, or in writing (which can include email), by each Joint Broker and a trade confirmation or contract note has been or will be dispatched as soon as possible thereafter. A Joint Brokers' oral or written confirmation will give rise to an irrevocable, legally binding commitment by that person (who at that point becomes a Placee), in favour of the relevant Joint Broker and the Company, under which it agrees to acquire by subscription the number of Placing Shares allocated to it at the Issue Price and otherwise on the terms and subject to the conditions set out in these Terms and Conditions and in accordance with the Company's articles of association. Except with the relevant Joint Broker's consent, such commitment will not be capable of variation or revocation.
6. Each Placee's allocation will, unless otherwise agreed between the Placee and the Joint Brokers, be evidenced by a trade confirmation or contract note issued to each such Placee by the relevant Joint Broker. These Terms and Conditions will be deemed to be incorporated in that trade confirmation, contract note or such other confirmation and will be legally binding on the Placee on behalf of which it is made and except with the relevant Joint Broker's consent will not be capable of variation or revocation from the time at which it is issued.
7. Each Placee will have an immediate, separate, irrevocable and binding obligation, owed to the relevant Joint Broker (as agent for the Company), to pay to that Joint Broker (or as that Joint Broker may direct) in cleared funds an amount equal to the product of the Issue Price and the number of Placing Shares such Placee has agreed to subscribe for and the Company has agreed to allot and issue to that Placee.
8. Except as required by law or regulation, no press release or other announcement will be made by either Joint Broker or the Company using the name of any Placee (or its agent), in its capacity as Placee (or agent), other than with such Placee's prior written consent.
9. Irrespective of the time at which a Placee's allocation pursuant to the Placing is confirmed, settlement for all Placing Shares to be subscribed for pursuant to the Placing will be required to be made at the same time, on the basis explained below under "Registration and Settlement".
10. All obligations of each Joint Broker under the Placing will be subject to fulfilment or (where applicable) waiver of the conditions referred to below "Conditions of the Placing" and to the Placing not being terminated on the basis referred to below under "Right to terminate under the Placing Agreement".
11. By participating in the Placing, each Placee agrees that its rights and obligations in respect of the Placing will terminate only in the circumstances described below and will not be capable of rescission or termination by the Placee after confirmation (oral or otherwise) by a Joint Broker.
12. To the fullest extent permissible by law and the applicable rules of the FCA, none of H&P, VSA, Strand Hanson or the Company (nor any of their respective directors, officers, employees, agents or affiliates) shall have any liability to Placees (or to any other person whether acting on behalf of a Placee or otherwise whether or not a recipient of these Terms and Conditions) in respect of the

Placing. Each Placee acknowledges and agrees that the Company is responsible for the allotment of the Placing Shares to the Placees and none of H&P, VSA, Strand Hanson or any of their respective directors, officers, employees, agents or affiliates shall have no liability to the Placees for the failure of the Company to fulfil those obligations. In particular, neither of the Joint Brokers nor the Company (nor any of their respective directors, officers, employees, agents or affiliates) shall have any liability (including to the extent permissible by law, any fiduciary duties) in respect of the Joint Brokers' conduct of the Placing.

Pursuant to the Placing Agreement, the Company has agreed that it will not, *inter alia*, issue or sell any Ordinary Shares for a period of 90 days after Admission without prior consent from the Joint Brokers.

Conditions of the Placing

Each Joint Broker's obligations under the Placing Agreement in respect of, amongst other things, the Placing are conditional on, *inter alia*:

1. the Company having complied with all of its material obligations under the Placing Agreement to the extent that such obligations fall to be performed prior to Admission;
2. the warranties given by the Company and the Directors in the Placing Agreement not being untrue, inaccurate or misleading at any time between the date of the Placing Agreement and Admission;
3. Admission taking place on or before 8.00 a.m. on 21 October 2021 (or such later time as may be agreed between the Company and each Joint Broker, being not later than 8.00 a.m. on the Long Stop Date); and
4. the Placing Agreement not having been terminated by H&P, VSA or Strand Hanson.

If: (i) any of the conditions contained in the Placing Agreement, including those described above, are not fulfilled or (where applicable) waived by either Joint Broker by the respective time or date where specified (or such later time or date as either Joint Broker may notify to the Company); (ii) any of such conditions becomes incapable of being fulfilled; or (iii) the Placing Agreement is terminated in the circumstances specified below, the Placing will not proceed and the Placees' rights and obligations hereunder in relation to the Placing Shares shall cease and terminate at such time and each Placee agrees that no claim can be made by or on behalf of the Placee (or any person on whose behalf the Placee is acting) in respect thereof. Any such extension or waiver granted by either Joint Broker will not affect Placees' commitments as set out in these Terms and Conditions.

None of H&P, VSA or the Company (nor any of their respective affiliates) shall have any liability to any Placee (or to any other person whether acting on behalf of a Placee or otherwise) in respect of any decision they may make as to whether or not to waive or to extend the time and/or date for the satisfaction of any condition to the Placing nor for any decision they may make as to the satisfaction of any condition or in respect of the Placing generally and by participating in the Placing each Placee agrees that any such decision is within the absolute discretion of the Joint Brokers. Placees will have no rights against H&P, VSA, the Company or any of their respective members, directors or employees under the Placing Agreement pursuant to the Contracts (Rights of Third Parties) Act 1999 (as amended) or otherwise.

Right to terminate the Placing Agreement

Each of H&P, VSA and Strand Hanson are each entitled to terminate the Placing Agreement by giving notice to the Company in certain circumstances, including, *inter alia*, if before Admission (in respect of the Placing):

1. in the opinion of H&P, VSA or Strand Hanson (acting in good faith), the Company is in breach of any of its obligations under of the Placing Agreement (to the extent such obligations fall to be performed prior to Admission) and that failure is material in the context of the Fundraising;
2. in the opinion of H&P, VSA or Strand Hanson (acting in good faith), any of the warranties given by the Company in the Placing Agreement being untrue or misleading in any respect or misleading prior to Admission in a way which is material in the context of the Fundraising;
3. in the opinion of H&P, VSA or Strand Hanson (acting in good faith), there has been a development or event (or any development or event involving a prospective change of which the Company is, or

might reasonably be expected to be, aware) which will or is likely to have a material adverse effect on or affecting the operations, the condition (financial or otherwise), prospects, management, results of operations, financial position, business or general affairs of the Group as a whole whether or not foreseeable and whether or not arising in the ordinary course of business;

4. there has occurred or, in the opinion of H&P, VSA, Strand Hanson (or any of them), it being reasonably likely that there will occur, any adverse change in national or international financial, economic, market or political conditions or in the financial position or prospects of the Company or the Group (taken as a whole) as a result of force majeure and which in the opinion of H&P, VSA, Strand Hanson (or any of them), the effect of such change would be materially adverse to the success of the Fundraising or would render proceeding with the Fundraising impracticable or inadvisable; or

5. there having occurred or, in the opinion of H&P, VSA, Strand Hanson (or any of them), it being reasonably likely that there will occur, a general moratorium on commercial banking activities in London declared by the relevant authorities or a material disruption in commercial banking or securities settlement or clearance services in the United Kingdom,

If the Placing Agreement is terminated prior to Admission then the Fundraising will not occur.

The rights and obligations of the Placees will not be subject to termination by the Placees or any prospective Placees at any time or in any circumstances. By participating in the Placing, Placees agree that the exercise by of H&P, VSA, Strand Hanson (or any of them) of any right of termination or other discretion under the Placing Agreement shall be within the absolute discretion of H&P, VSA, Strand Hanson (or any of them) and that of H&P, VSA, Strand Hanson (or any of them) need not make any reference to Placees in this regard and that none of H&P, VSA, Strand Hanson or any of their respective affiliates shall have any liability to Placees whatsoever in connection with any such exercise or failure so to exercise.

Registration and Settlement

Settlement of transactions in the Placing Shares will, unless otherwise agreed, take place on a delivery versus payment basis within CREST. Each Placee will be deemed to agree that it will do all things necessary to ensure that delivery and payment is completed as directed by H&P or VSA in accordance with the standing CREST settlement instructions which they have in place with H&P or VSA (as applicable).

The Company has applied for the Shares to be held in CREST and settlement of the Placing Shares will take place in CREST.

Placing Shares will be delivered direct into your CREST account, provided payment has been made in terms satisfactory to H&P and VSA (or their respective nominees) and the details provided by you have provided sufficient information to allow the CREST system to match to the CREST account specified. Placing Shares comprised in your Placing Participation are expected to be delivered to the CREST account which you specify by telephone to your usual sales contact at H&P or VSA.

If you do not provide any CREST details or if you provide insufficient CREST details to match within the CREST system to your details, H&P or VSA (as applicable) may at its discretion deliver your Placing Participation in certificated form provided payment has been made in terms satisfactory to H&P and VSA and all conditions in relation to the Placing have been satisfied or waived.

Subject to the conditions set out above, payment in respect of your Placing Participation is due as set out below. The Company will arrange for the Placing Shares to be delivered to a CREST account operated by the relevant Joint Broker (or by its nominee) and the relevant Joint Broker will enter (or shall procure that its nominee will enter, if applicable) appropriate delivery instructions into the CREST system. You should provide your settlement details in order to enable instructions to be successfully matched by the Joint Brokers (or its nominee, where applicable) in CREST.

The relevant settlement details for VSA Placees are as follows:

Settlement Agent's CREST Participant ID:	**7RA11**
Settlement Agent's CREST Member Account ID:	**PLACING**
Expected Trade Date:	19 October 2021
Settlement Date:	21 October 2021
SDRT Status:	**W** (Issuing House Exemption)
Transaction Report Marker:	**D** (No Report)
Place of Trade MIC:	**AIMX**
ISIN code for the Placing Shares:	**GB00BP6QM557**
Deadline to input instructions into CREST:	12.00 p.m. on 18 October 2021

The relevant settlement details for H & P are as follows:

Settlement Agent's CREST Participant ID:	**KBUAG**
Expected Trade Date:	19 October 2021
Settlement Date:	21 October 2021
ISIN code for the Placing Shares:	**GB00BP6QM557**
Deadline to input instructions into CREST:	12.00.pm. on 18 October 2021

Settlement of transactions in the Placing Shares (ISIN: GB00BP6QM557) following Admission will take place within the system administered by CREST provided that, subject to certain exceptions, H&P and VSA each reserve the right to require settlement for, and delivery of, the Placing Shares (or a portion thereof) to Placees by such other means that it deems necessary if delivery or settlement is not possible or practicable within CREST or would not be consistent with the regulatory requirements in any Placee's jurisdiction.

Each Placee is deemed to agree that, if it does not comply with these obligations, H&P and/or VSA may sell (or, if applicable, arrange for its nominee to sell) any or all of the Placing Shares allocated to that Placee on such Placee's behalf and retain from the proceeds, for H&P's or VSA's account and benefit (as agent for the Company), an amount equal to the aggregate amount owed by the Placee plus any interest due (chargeable daily on payments not received from Placees on the date due). The relevant Placee will, however, remain liable and shall indemnify H&P and VSA on demand for any shortfall below the aggregate amount owed by it and may be required to bear any stamp duty or stamp duty reserve tax or securities transfer tax (together with any interest or penalties) or other stamp, securities, transfer, registration, execution, duty or tax imposed in any jurisdiction (together with any interest, fines or penalties) which may arise upon the sale of such Placing Shares on such Placee's behalf. By communicating a bid for Placing Shares, each Placee confers on H&P and VSA such authorities and powers necessary to carry out any such sale and agrees to ratify and confirm all actions which H&P or VSA lawfully takes in pursuance of such sale. Legal and/or beneficial title in and to any Placing Shares shall not pass to the relevant Placee until it has fully complied with its obligations hereunder.

If Placing Shares are to be delivered to a custodian or settlement agent, Placees must ensure that any form of confirmation is copied and delivered immediately to the relevant person within that organisation.

Insofar as Placing Shares are registered in a Placee's name or that of its nominee or in the name of any person for whom a Placee is contracting as agent or that of a nominee for such person, such Placing Shares should, subject as provided below, be so registered free from any liability to UK stamp duty or stamp duty reserve tax or securities transfer tax. None of H&P, VSA and the Company will be liable in any circumstances for the payment of stamp duty, stamp duty reserve tax or securities transfer tax in connection with any of the Placing Shares. Placees will not be entitled to receive any fee or commission in connection with the Placing.

No Prospectus

The Placing Shares are being offered to a limited number of specifically invited persons only and have not been nor will be offered in such a way as to require the publication of a prospectus in the United Kingdom or any equivalent document in any other jurisdiction. No prospectus has been or will be submitted to be approved by the FCA or the London Stock Exchange in relation to the Placing, and Placees' commitments will be made solely on the basis of the information contained in this document (including these Terms and Conditions). Each Placee, by accepting a participation in the Placing, agrees that the content this document (including these Terms and Conditions) is exclusively the responsibility of the Company and confirms that it has neither received nor relied on any other information, representation, warranty, or statement made by or on behalf of the Company, H&P, VSA or Strand Hanson or any other person and none of H&P, VSA, Strand Hanson or the Company (nor any other person) will be liable for any Placee's decision to participate in the Placing based on any other information, representation, warranty or statement which the Placees may have obtained or received and, if given or made, such information, representation, warranty or statement must not be relied upon as having been authorised by H&P, VSA, Strand Hanson or the Company or their respective officers, directors, employees or agents. Each Placee acknowledges and agrees that it has relied on its own investigation of the business, financial or other position of the Company in accepting a participation in the Placing. Neither the Company nor H&P, VSA or Strand Hanson are making any undertaking or warranty to any Placee regarding the legality of an investment in the Placing Shares by such Placee under any legal, investment or similar laws or regulations. Each Placee should not consider any information in this document to be legal, tax or business advice. Each Placee should consult its own solicitor, tax adviser and financial adviser for independent legal, tax and financial advice regarding an investment in the Placing Shares. Nothing in this paragraph shall exclude the liability of any person for fraudulent misrepresentation.

Representations, Warranties and Further Terms

By participating in the Placing, each Placee (and any person acting on such Placee's behalf) will be deemed to make the following representations, warranties, acknowledgements, agreements and undertakings (as the case may be) to each of H&P, VSA and Strand Hanson (for themselves and on behalf of the Company):

1. that it has read and understood these Terms and Conditions in their entirety and that its subscription for Placing Shares is subject to and based upon all the terms, conditions, representations, warranties, acknowledgements, agreements and undertakings and other information contained herein and undertakes not to redistribute or duplicate this document;
2. it is relying solely on the information contained in this document (including these Terms and Conditions) and not on any other information given, or representation or statement made at any time, by any person concerning the Company, the Placing Shares or the Fundraising. It agrees that none of the Company, H&P, VSA and Strand Hanson (nor any of their respective officers, agents, employees or affiliates) will have any liability for any other information or representation. It irrevocably and unconditionally waives any rights it may have in respect of any other information or representation;
3. that its obligations are irrevocable and legally binding and shall not be capable of rescission or termination by it in any circumstances;
4. that the exercise by H&P, VSA or Strand Hanson of any right or discretion under the Placing Agreement shall be within the absolute discretion of H&P, VSA or Strand Hanson and H&P, VSA and Strand Hanson need not have any reference to it and shall have no liability to it whatsoever in connection with any decision to exercise or not to exercise any such right and each Placee agrees that it has no rights against H&P, VSA or Strand Hanson or the Company, or any of their respective officers, directors or employees, under the Placing Agreement pursuant to the Contracts (Rights of Third Parties Act) 1999;
5. that these Terms and Conditions represent the whole and only agreement between it, H&P, VSA and the Company in relation to its participation in the Placing and supersedes any previous agreement between any of such parties in relation to such participation. Accordingly, each Placee, in accepting its participation in the Placing, is not relying on any information or representation or warranty in relation to the Company or any of its subsidiaries or any of the Placing Shares other than as contained in this document, such information being all that it deems necessary to make an investment decision in respect of the Placing Shares. Each Placee agrees that none of the Company, H&P, VSA and Strand Hanson (nor any of their respective officers, directors or employees) will have any liability for any such other information, representation or warranty, express or implied;
6. it acknowledges that no person is authorised in connection with the Placing to give any information or make any representation other than as contained in this document and, if given or made, any

information or representation must not be relied upon as having been authorised by H&P, VSA, Strand Hanson or the Company;

7. that in the case of any Placing Shares acquired by it as a financial intermediary, as that term is used in the UK Prospectus Regulation and the EU Prospectus Regulation, (i) the Placing Shares acquired by it in the Placing have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in the United Kingdom or in any Member State of the EEA which has implemented the Prospectus Regulation other than Qualified Investors or in circumstances in which the prior consent of H&P and VSA has been given to the offer or resale; or (ii) where Placing Shares have been acquired by it on behalf of persons in the United Kingdom or in any member state of the EEA other than Qualified Investors, the offer of those Placing Shares to it is not treated under the UK Prospectus Regulation or the EU Prospectus Regulation (as applicable) as having been made to such persons;

8. that neither it nor, as the case may be, its clients expect H&P or VSA to have any duties or responsibilities to such persons similar or comparable to the duties of "best execution" and "suitability" imposed by the FCA's Conduct of Business Source Book, and that neither H&P nor VSA are not acting for it or its clients, and that neither H&P or VSA will be responsible for providing the protections afforded to customers of H&P and VSA or for providing advice in respect of the transactions described herein;

9. that it has made its own assessment of the Placing Shares and has relied on its own investigation of the business, financial or other position of the Company in accepting a participation in the Placing and none of H&P, VSA, Strand Hanson and the Company (and any of their respective affiliates, agents, directors, officers or employees or any person acting on behalf of any of them) has provided, and will not provide, it with any material regarding the Placing Shares or the Company or any other person other than the information in this document or the Publicly Available Information; nor has it requested H&P, VSA, Strand Hanson, the Company or any of their respective affiliates, agents, directors, officers or employees or any person acting on behalf of any of them to provide it with any such information;

10. that it and the person(s), if any, for whose account or benefit it is subscribing for the Placing Shares is not subscribing for and/or purchasing Placing Shares as a result of any "directed selling efforts" as defined in Regulation S under the Securities Act;

11. that, unless specifically agreed with H&P or VSA (as applicable), it is not and was not acting on a non-discretionary basis for the account or benefit of a person located within the United States at the time the undertaking to subscribe for and/or purchase Placing Shares was given and it is not acquiring Placing Shares with a view to the offer, sale, resale, transfer, delivery or distribution, directly or indirectly, of any Placing Shares into the United States and it will not reoffer, resell, pledge or otherwise transfer the Placing Shares except pursuant to an exemption from the registration requirements of the Securities Act and otherwise in accordance with any applicable securities laws of any state or jurisdiction of the United States;

12. that, unless specifically agreed with each Joint Broker, it is not a national or resident of Australia, Canada, Hong Kong, Japan, New Zealand or the Republic of South Africa or a corporation, partnership or other entity organised under the laws of Australia, Canada, Hong Kong, Japan, New Zealand or the Republic of South Africa and that it will not offer, sell, renounce, transfer or deliver, directly or indirectly, any of the Placing Shares in Australia, Canada, Hong Kong, Japan, New Zealand or the Republic of South Africa or to or for the benefit of any person resident in Australia, Canada, Hong Kong, Japan, New Zealand or the Republic of South Africa and each Placee acknowledges that the relevant exemptions are not being obtained from the Securities Commission of any province of Canada, that no document has been or will be lodged with, filed with or registered by the Australian Securities and Investments Commission or Japanese Ministry of Finance and that the Placing Shares are not being offered for sale and may not be, directly or indirectly, offered, sold, transferred or delivered in or into Australia, Canada, Hong Kong, Japan, New Zealand or the Republic South Africa;

13. if it is outside the United Kingdom, neither this document nor any other offering, marketing or other material in connection with the Placing constitutes an invitation, offer or promotion to, or arrangement with, it or any person whom it is procuring to subscribe for Placing Shares pursuant to the Placing unless, in the relevant territory, such offer, invitation or other course of conduct could lawfully be made to it or such person and such documents or materials could lawfully be provided

to it or such person and Placing Shares could lawfully be distributed to and subscribed and held by it or such person without compliance with any unfulfilled approval, registration or other regulatory or legal requirements;

14. that it does not have a registered address in, and is not a citizen, resident or national of, any jurisdiction in which it is unlawful to make or accept an offer of the Placing Shares and it is not acting on a non-discretionary basis for any such person;

15. that it has not, directly or indirectly, distributed, forwarded, transferred or otherwise transmitted, and will not, directly or indirectly, distribute, forward, transfer or otherwise transmit, any presentation or offering materials concerning the Placing or the Placing Shares to any persons within the United States;

16. that it (and any person acting on its behalf) will make payment for the Placing Shares allocated to it in accordance with this document on the due time and date set out herein, failing which the relevant Placing Shares may be placed with other subscribers or sold as H&P or VSA (as applicable) may in its discretion determine and without liability to such Placee;

17. that it is entitled to subscribe for and/or purchase Placing Shares under the laws of all relevant jurisdictions which apply to it and that it has fully observed such laws and obtained all governmental and other consents which may be required thereunder or otherwise and complied with all necessary formalities and that it has not taken any action which will or may result in the Company, H&P, VSA or Strand Hanson (or any of their respective directors, officers, employees or agents) acting in breach of any regulatory or legal requirements of any territory in connection with the Placing or its acceptance;

18. that it has obtained all necessary consents and authorities to enable it to give its commitment to subscribe for and/or purchase the Placing Shares and to perform its subscription and/or purchase obligations;

19. that where it is acquiring Placing Shares for one or more managed accounts, it is authorised in writing by each managed account: (a) to acquire the Placing Shares for each managed account; (b) to make on its behalf the representations, warranties, acknowledgements, undertakings and agreements in these Terms and Conditions; and (c) to receive on its behalf any investment letter relating to the Placing in the form provided to it by H&P or VSA;

20. that it is either: (a) a person of a kind described in paragraph 5 of Article 19 (persons having professional experience in matters relating to investments and who are investment professionals) of the Order; or (b) a person of a kind described in paragraph 2 (a) to (d) of Article 49 (high net worth companies, unincorporated associations, partnerships or trusts or their respective directors, officers or employees) of the Order; or (c) a person to whom it is otherwise lawful for this document to be communicated and in the case of (a) and (b) undertakes that it will acquire, hold, manage or dispose of any Placing Shares that are allocated to it for the purposes of its business;

21. that, unless otherwise agreed by H&P or VSA, it is a qualified investor (as defined in section 86(7) of the Financial Services and Markets Act 2000, as amended ("**FSMA**"));

22. that, unless otherwise agreed by H&P or VSA, it is a "professional client" or an "eligible counterparty" within the meaning of Chapter 3 of the FCA's Conduct of Business Sourcebook and it is purchasing Placing Shares for investment only and not with a view to resale or distribution;

23. it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) relating to the Placing Shares in circumstances in which section 21(1) of FSMA does not require approval of the communication by an authorised person;

24. that any money held in an account with H&P or VSA (or their respective nominees) on its behalf and/or any person acting on its behalf will not be treated as client money within the meaning of the rules and regulations of the FCA. Each Placee further acknowledges that the money will not be subject to the protections conferred by the FCA's client money rules. As a consequence, this money will not be segregated from H&P or VSA (or its nominee) money in accordance with such client money rules and will be used by H&P or VSA in the course of its own business and each Placee will rank only as a general creditor of H&P or VSA;

25. that it will (or will procure that its nominee will) if applicable, make notification to the Company of the interest in its ordinary shares in accordance with the Disclosure Guidance and Transparency Rules published by the FCA;

26. that it is not, and it is not acting on behalf of, a person falling within subsections (6), (7) or (8) of sections 67 or 70 respectively or subsections (2) and (3) of section 93 or subsection (1) of section 96 of the Finance Act 1986;

27. that it will not deal or cause or permit any other person to deal in all or any of the Placing Shares which it is subscribing for and/or purchasing under the Placing unless and until Admission of the relevant Placing Shares becomes effective;

28. that it appoints irrevocably any director of H&P and VSA as its agent for the purpose of executing and delivering to the Company and/or its registrars any document on its behalf necessary to enable it to be registered as the holder of the Placing Shares;

29. that, as far as it is aware it is not acting in concert (within the meaning given in The City Code on Takeovers and Mergers) with any other person in relation to the Company;

30. these Terms and Conditions and the document of which it forms part do not constitute a securities recommendation or financial product advice and that none of H&P, VSA and the Company has considered its particular objectives, financial situation and needs;

31. that it has sufficient knowledge, sophistication and experience in financial, business and investment matters as is required to evaluate the merits and risks of subscribing for or purchasing the Placing Shares and is aware that it may be required to bear, and it, and any accounts for which it may be acting, are able to bear, the economic risk of, and is able to sustain, a complete loss in connection with the Placing;

32. that it will indemnify and hold the Company, H&P, VSA and Strand Hanson and their respective affiliates harmless from any and all costs, claims, liabilities and expenses (including legal fees and expenses) arising out of or in connection with any breach of the representations, warranties, acknowledgements, agreements and undertakings in these Terms and Conditions and further agrees that the Company, H&P VSA and Strand Hanson will rely on the truth and accuracy of the confirmations, warranties, acknowledgements and undertakings herein and, if any of the foregoing is or becomes no longer true or accurate, the Placee shall promptly notify H&P, VSA, Strand Hanson and the Company. All confirmations, warranties, acknowledgements and undertakings given by the Placee, pursuant to these Terms and Conditions are given to H&P, VSA and Strand Hanson for itself and on behalf of the Company and will survive completion of the Placing and Admission;

33. that time shall be of the essence as regards obligations pursuant to these Terms and Conditions;

34. that it is responsible for obtaining any legal, financial, tax and other advice that it deems necessary for the execution, delivery and performance of its obligations in accepting the terms and conditions of the Placing, and that it is not relying on the Company, H&P, VSA or Strand Hanson to provide any legal, financial, tax or other advice to it;

35. that all dates and times in this document (including these Terms and Conditions) may be subject to amendment and that H&P, VSA and Strand Hanson shall notify it of such amendments;

36. that (i) it has complied with its obligations under the Criminal Justice Act 1993, Part VIII of FSMA and UK MAR, (ii) in connection with money laundering and terrorist financing, it has complied with its obligations under the Proceeds of Crime Act 2002 (as amended), the Terrorism Act 2000 (as amended), the Terrorism Act 2006 and the Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 and (iii) it is not a person: (a) with whom transactions are prohibited under the applicable law or any economic sanction programmes administered by, or regulations promulgated by, the Office of Foreign Assets Control of the U.S. Department of the Treasury; (b) named on the Consolidated List of Financial Sanctions Targets maintained by HM Treasury of the United Kingdom; or (c) subject to financial sanctions imposed pursuant to a regulation of the European Union or a regulation adopted by the United Nations (together, the **"Regulations"**); and, if making payment on behalf of a third party, that satisfactory evidence has been obtained and recorded by it to verify the identity of the third party as required by the Regulations and, if making payment on behalf of a third party, that satisfactory evidence has been obtained and recorded by it to verify the identity of the third party as required by the Regulations and has obtained all governmental and other consents (if any) which may be required

for the purpose of, or as a consequence of, such purchase, and it will provide promptly to H&P or VSA such evidence, if any, as to the identity or location or legal status of any person which H&P or VSA may request from it in connection with the Placing (for the purpose of complying with such Regulations or ascertaining the nationality of any person or the jurisdiction(s) to which any person is subject or otherwise) in the form and manner requested by H&P or VSA on the basis that any failure by it to do so may result in the number of Placing Shares that are to be subscribed for and/or purchased by it or at its direction pursuant to the Placing being reduced to such number, or to nil, as H&P or VSA may decide in its absolute discretion;

37. that it will not make any offer to the public of those Placing Shares to be subscribed for and/or purchased within the meaning of section 85(1) of the FSMA or an offer to the public in any EEA member state within the meaning of the EU Prospectus Regulation;

38. that it will not distribute any document relating to the Placing Shares and it will be acquiring the Placing Shares for its own account as principal or for a discretionary account or accounts (as to which it has the authority to make the statements set out herein) for investment purposes only and it does not have any contract, understanding or arrangement with any person to sell, pledge, transfer or grant a participation therein to such person or any third person with respect of any Placing Shares; save that if it is a private client stockbroker or fund manager it confirms that in purchasing the Placing Shares it is acting under the terms of one or more discretionary mandates granted to it by private clients and it is not acting on an execution only basis or under specific instructions to purchase the Placing Shares for the account of any third party;

39. that it acknowledges that these Terms and Conditions and any agreements entered into by it pursuant to these Terms and Conditions shall be governed by and construed in accordance with the laws of England and Wales and it submits (on behalf of itself and on behalf of any person on whose behalf it is acting) to the exclusive jurisdiction of the English courts as regards any claim, dispute or matter arising out of any such contract, except that enforcement proceedings in respect of the obligation to make payment for the Placing Shares (together with any interest chargeable thereon) may be taken by the Company, H&P or VSA in any jurisdiction in which the relevant Placee is incorporated or in which its assets are located or any of its securities have a quotation on a recognised stock exchange;

40. that any documents sent to Placees will be sent at the Placees' risk. They may be sent by post to such Placees at an address notified to H&P or VSA;

41. that none of H&P, VSA or Strand Hanson owe any fiduciary or other duties to any Placee in respect of any representations, warranties, undertakings or indemnities in the Placing Agreement;

42. H&P, VSA, Strand Hanson and the Company are entitled to exercise any of their rights under the Placing Agreement or any other right in their absolute discretion without any liability whatsoever to them;

43. any of the Placee's clients, whether or not identified to H&P or VSA, will remain its sole responsibility and will not become clients of H&P, VSA or Strand Hanson for the purposes of the rules of the FCA or for the purposes of any other statutory or regulatory provision;

44. that H&P, VSA or Strand Hanson or any of its Affiliates may, at its absolute discretion, agree to become a Placee in respect of some or all of the Placing Shares; and

45. that no prospectus has been or will be prepared in connection with the Placing and it has not received and will not receive a prospectus in connection with the Placing or the Placing Shares.

The Company, H&P, VSA and Strand Hanson (and their respective directors, officers, employees, agents or affiliates) will rely upon the truth and accuracy of each of the foregoing representations, warranties, acknowledgements and undertakings which are given to H&P, VSA or Strand Hanson for themselves and on behalf of the Company and are irrevocable.

The provisions of these Terms and Conditions may be waived, varied or modified as regards specific Placees or on a general basis by H&P, VSA and Strand Hanson.

The agreement to settle a Placee's subscription and/or purchase (and/or the subscription of a person for whom such Placee is contracting as agent) free of stamp duty and stamp duty reserve tax depends on the settlement relating only to a subscription by it and/or such person direct from the Company for the Placing Shares in question. Such agreement assumes that the Placing Shares are not being subscribed for in connection with arrangements to issue depositary receipts or to transfer the Placing Shares into a clearance service. If there are any such arrangements, or the settlement relates to any other subsequent dealing in the Placing Shares, stamp duty or stamp duty reserve tax may be payable, for which none of the Company, H&P, VSA and Strand Hanson will be responsible, and the Placee to whom (or on behalf of whom, or in respect of the person for whom it is participating in the Placing as an agent or nominee) the allocation, allotment, issue or delivery of Placing Shares has given rise to such UK stamp duty or stamp duty reserve tax undertakes to pay such UK stamp duty or stamp duty reserve tax forthwith and to indemnify on an after-tax basis and to hold harmless the Company, H&P, VSA and Strand Hanson in the event that any of the Company and/or H&P and/or VSA and/or Strand Hanson have incurred any such liability to UK stamp duty or stamp duty reserve tax. If this is the case, each Placee should seek its own advice and notify H&P, VSA and Strand Hanson accordingly.

In addition, Placees should note that they will be liable for any stamp duty and all other stamp, issue, securities, transfer, registration, documentary or other duties or taxes (including any interest, fines or penalties relating thereto) payable outside the UK by them or any other person on the subscription or purchase by them of any Placing Shares or the agreement by them to subscribe for or purchase any Placing Shares.

PART 9

DEFINITIONS

"**19.03.2019 Deed of Variation**"	the deed of variation of the Mine Lease dated 19 March 2019 and made between Thomas Woollcombe Blaikie, Catriona Jennet Edington Woollcombe Gambrill, Holly Down LLP (1), Anne Margaret Andrews Justin John Lawrence Andrews (2), Thomasina Mary Blaikie, Catriona Jennet Edington Woollcombe Gambrill, Susannah Marion Ruth Woollcombe-Morris (3), Carolyn Ann Cobbold, Simon Hugh Gregory, Timothy Algernoon Greenland Humphrey Michael Cobbold (4), Holly Down LLP (5), Hemerdon Land LLP (6), David Michael Strode Cobbold (7), and the Company (8);
"**22.07.2021 Deed of Variation**"	the deed of variation of the Mine Lease dated 22 July 2021 and made between Thomas Woollcombe Blaikie, Catriona Jennet Edington Woollcombe Gambrill, Holly Down LLP (1), Claire Mary Moulding-Reeve and Justin John Lawrence Andrews (2), Thomasina Mary Blaikie, Catriona Jennet Edington Woollcombe Gambrill, Susannah Marion Ruth Woollcombe-Morris, Thomas Woollcombe Blaikie (3), Carolyn Ann Cobbold, Simon Hugh Gregory, Timothy Algernoon Greenland Humphrey Michael Cobbold (4), Holly Down LLP (5), Hemerdon Land LLP (6), David Michael Strode Cobbold (7), and the Company (8);
"**2021 Share Option Plan**"	the Tungsten West 2021 Employee Share Option Plan;
"**29.11.2019 Deed of Variation**"	the deed of variation of the Mine Lease dated 29 November 2019 and made between Thomas Woollcombe Blaikie, Catriona Jennet Edington Woollcombe Gambrill, Holly Down LLP (1), Anne Margaret Andrews Justin John Lawrence Andrews (2), Thomasina Mary Blaikie, Catriona Jennet Edington Woollcombe Gambrill, Susannah Marion Ruth Woollcombe-Morris (3), Carolyn Ann Cobbold, Simon Hugh Gregory, Timothy Algernoon Greenland Humphrey Michael Cobbold (4), Holly Down LLP (5), Hemerdon Land LLP (6), David Michael Strode Cobbold (7). and the Company (8);
"**Admission**"	the admission of the Enlarged Share Capital to trading on AIM becoming effective in accordance with Rule 6 of the AIM Rules for Companies;
"**Advisers**"	in relation to the Placing Agreement, together Strand Hanson, H&P and VSA and with each of them being an **Adviser**;
"**Afrimet**"	Afrimet Resources AG, a company incorporated in Switzerland;
"**Aggregate Proceeds**"	an amount equal to the sum of the aggregate number of New Ordinary Shares issued pursuant to the Fundraising to Placees procured by or Subscribers introduced by, the Joint Brokers, multiplied by the Issue Price;
"**Aggregates West**"	Aggregates West Limited, incorporated and registered in England and Wales with company number 12575686, a wholly owned subsidiary of the Company;
"**AIM**"	the market of that name operated by the London Stock Exchange;

"**AIM Rules for Companies**"	the AIM Rules for Companies published by the London Stock Exchange from time to time (including, without limitation, any guidance notes or statements of practice) and those other rules of the London Stock Exchange which govern the admission of securities to trading on, and the regulation of AIM;
"**AMC**" or "**Competent Person**" or "**CP**"	AMC Consultants (UK) Limited, the competent person responsible for the information contained within the CPR in accordance with the AIM rules;
"**Articles**"	the articles of association of the Company to be effective at Admission;
"**Audit and Risk Management Committee**"	the audit and risk management committee of the Board constituted in accordance with the Articles;
"**Bankable Feasibility Study**"	the bankable feasibility study in relation to the Hemerdon Mine prepared by the Company dated March 2021, which is a detailed study of the economics of the Hemerdon Mine project based on technical calculations and specific mine designs undertaken to a sufficiently high degree of confidence to justify a decision on construction;
"**Board**"	the board of Directors from time to time;
"**Broker Warrants**"	the warrants to subscribe for an aggregate of 1,950,000 Ordinary Shares to be issued to H&P and VSA at the Issue Price, conditional upon Admission and the Placing, pursuant to a warrant instrument, details of which are set out in paragraph 11.25 of Part 7 (*Additional Information*) of this document;
"**Business Day**"	any day on which banks are generally open in London for the transaction of business other than a Saturday or Sunday or public holiday;
"**certificated**" or "**in certificated form**"	a share or other security which is not in uncertificated form (i.e., not in CREST);
"**Commercial Production**"	the Company mining 750,000 tonnes of ore at the Hemerdon Mine during a consecutive 90 day period and producing and selling a final product at a profit to the operating cost;
"**Companies Act**"	Companies Act 2006;
"**Company**" or "**Tungsten West**"	Tungsten West Plc, a company incorporated in England and Wales with registered number 11310159 and having its registered office at Shakespeare Martineau LLP, 6th Floor, 60 Gracechurch Street, London, United Kingdom, EC3V 0HR;
"**Competent Person's Report**" or "**CPR**"	the report prepared by the Competent Person, as set out in Part 6 of this document;
"**Convertible Loan Note Deed**"	the convertible loan note deed entered into between (1) the Company; and (2) each of Convertible Loan Note Holders dated 28 November 2019;
"**Convertible Loan Note Holders**"	Baker Steel Resources Trust Limited; Henry Maxey; Mark Denning; and Ian Hannam, who each hold the Convertible Loan Notes;

"**Convertible Loan Notes**"	the unsecured convertible loan notes issued by the Company to the Convertible Loan Note Holders pursuant to the Convertible Loan Note Deed;
"**Convertible Loan Note Shares**"	has the meaning given in paragraph 3.11 of Part 7 (*Additional Information*);
"**Corrado**"	Corrado Nominees Limited a company incorporated in England and Wales and having its registered office at 6 Derby Street, London, England, W1J 7AD;
"**CREST**"	the relevant system (as defined in the CREST Regulations) which enable title to securities to be evidenced and transferred without a written instrument, administered by Euroclear as the Operator (as defined in the CREST Regulations);
"**CREST Credit Date**"	21 October 2021;
"**CREST Regulations**"	the Uncertificated Securities Regulations 2001 (SI 2001 no. 3755) and any applicable rules made under those regulations;
"**Directors**"	prior to Admission, the directors of the Company whose names and functions are set out on pages 27 to 29 of this document, and following Admission, the directors of the Company from time to time, as required by the context;
"**Drakelands Restoration**"	Drakelands Restoration Limited, incorporated and registered in England and Wales with company number 11854467, a wholly owned subsidiary of the Company, which was acquired by the Company from Hargreaves Services and holds the Hemerdon Mine assets;
"**Drakelands SPA**"	the agreement for the purchase of the entire issued share capital of Drakelands Restoration entered into between the Company (1) and Hargreaves Services (2) dated 29 November 2019;
"**EBITDA**"	Earnings before interest, taxes, depreciation and amortisation;
"**Eden Rock**"	Eden Rock Capital Management LLP;
"**EEA**"	European Economic Area;
"**EMI Scheme**"	the Tungsten West Plc Enterprise Management Incentive Scheme;
"**Enlarged Share Capital**"	the entire issued share capital of the Company immediately following Admission, comprising the Existing Ordinary Shares and the New Ordinary Shares;
"**Environment Agency**"	the environment agency, a non-departmental public body in the UK;
"**EU**"	the European Union;
"**Euroclear**"	Euroclear UK & International Limited;
"**EUWA**"	the EU (Withdrawal) Act 2018 as amended by the EU (Withdrawal) Act 2020;

"**Existing Lease Grantors**"	Thomas Woollcombe Blaikie, Holly Down LLP and Catriona Jennet Edington Woollcombe Gambrill (1), Clare Mary Moulding-Reeve and Justin John Lawrence Andrews (2), Thomasina Mary Blaikie, Catriona Jennet Edington Woollcombe Gambrill, Susannah Marion Ruth Woollcombe-Morris and Thomas Woollcombe Blaikie (3), Carolyn Ann Cobbold, Simon Hugh Gregory, Timothy Algernon Greenland and Humphrey Michael Cobbold (4), David Michael Strode Cobbold (5), Holly Down LLP (6), and Hemerdon Land LLP (7);
"**Existing Ordinary Shares**"	76,011,371 Ordinary Shares in issue at the date of this document;
"**FCA**"	the Financial Conduct Authority or any successor thereof, the single statutory regulator under FSMA;
"**Fee Shares**"	the 125,000 New Ordinary Shares to be allotted and issued to Strand Hanson, conditional on Admission, at the Issue Price;
"**Financial Close**"	the Company having raised sufficient finance (whether in the form of debt or equity or otherwise) to recommence mining operations at the Hemerdon Mine for a mine restart;
"**Founder Options**"	options to acquire Ordinary Shares to be granted to the Founder Shareholders on or shortly before Admission, further details of which are set out in paragraph 6.3 of Part 7 (*Additional Information*) of this document;
"**Founder Shareholders**"	Maximillian Campbell Denning, Stephen Leslie Fabian, Mark Edward Thompson and Baker Steel Resources Trust Limited;
"**FSMA**"	the Financial Services and Markets Act 2000;
"**Fundraising**"	together, the Placing and the Subscription;
"**GDPR**"	General Data Protection Regulation (EU) 2016/679, which forms part of UK domestic law pursuant to the EUWA;
"**Group**"	the Company and the Subsidiaries;
"**GRS Roadstone**"	GRS (Roadstone) Limited, incorporated and registered in England and Wales with company number 03261275;
"**GTP**"	Global Tungsten & Powders Corp., a company incorporated in the United States;
"**H&P**"	H & P Advisory Limited, incorporated and registered in England and Wales with company number 11120795;
"**Hargreaves Option Agreement**"	the option agreement entered into between the Company (1) and Hargreaves Services (2) dated 18 November 2019;
"**Hargreaves Services**"	Hargreaves Services plc, a mining contractor incorporated in England and Wales, which acquired the Hemerdon Mining assets out of receivership through Drakelands Restoration;
"**Hargreaves UKS**"	Hargreaves (UK) Services Limited, incorporated in England and Wales (company number 03735251);
"**Hemerdon**" or **the** "**Hemerdon Mine**"	a historically operational tungsten and tin mine located near Plymouth in southern Devon, England;

"**Hemerdon Mining Association**"	a consortium of land and mineral rights representatives to act on behalf of the interests of the Land and Mineral Rights holders of the area of land covering the Hemerdon mining operations that are subject to a leasehold agreement;
"**HM Land Registry**"	HM Land Registry, the register of land and property ownership in England and Wales;
"**HMRC**"	Her Majesty's Revenue & Customs;
"**IP**"	intellectual property;
"**ISIN**"	International Securities Identification Number;
"**Issue Price**"	£0.60 per New Ordinary Share;
"**Joint Brokers**"	together, H&P and VSA, acting as the Company's joint brokers and with each of them being a **Joint Broker**;
"**Latest Practicable Date**"	14 October 2021;
"**LEI**"	Legal Entity Identifier;
"**Licence to Assign**"	a licence to assign and deed of variation dated 19 March 2019 made between the Mine Lease Landlords (1) to (7), Wolf Minerals (8) Kenneth David Beasley (Official Receiver) (9), and the Company (10) made between relation to the Mine Lease as varied by the 29.11.2019 Deed of Variation;
"**Lock-in and Orderly Market Agreements**"	the lock-in and orderly market agreements described in paragraph 17 of Part 1 (*Information on Tungsten West*) of this document;
"**Lock-in Shareholders**"	the persons who have entered into the Lock-in and Orderly Market Agreements which includes all Shareholders who hold more than 10 per cent. of the voting rights of the Company on Admission, the Directors (and their associates as defined in the AIM Rules) who hold Ordinary Shares and certain other Shareholders;
"**London Stock Exchange**"	London Stock Exchange plc;
"**MAR**"	the retained UK law version of MAR pursuant to the Market Abuse (Amendment) (EU Exit) Regulations 2019 (SI 2019/310);
"**MiFID II**"	Markets in Financial Instruments Directive 2004/39/EC;
"**MiFID II Requirements**"	the MiFID II product governance requirements contained within: (a) MiFID II; (b) Articles 9 and 10 of Commission Delegated Directive (EU) 2017/593 supplementing MiFID II; and (c) local implementing measures;
"**Mine Lease**"	the lease dated 10th February 2014 of the Demised Minerals and the grant of the Rights and made between Thomas Woollcombe Blaikie and Catriona Jennet Edington Woollcombe Gambrill and Holly Down LLP (1), Joseph Edwin Hess and Anne Margaret Andrews (2), Thomasina Mary Blaikie and Catriona Jennet Edington Woollcombe Gambrill and Susannah Marion Ruth Woollcombe-Morris (3), Judith Eileen Strode Cobbold and Anthony Alan Russell Cobbold and Simon Hugh Gregory and

	Christopher James Hutton (4), Holly Down LLP (5), Hemerdon Land LLP (6), David Michael Strode Cobbold (7), Wolf Minerals (UK) (8), and Wolf Minerals Limited (9) registered at the Land Registry under title number DN643856 as varied by (1) the 19.03.2019 Deed of Variation, (2) the Licence to Assign, (3) the 29.11.2019 Deed of Variation, and (4) the 22.07.2021 Deed of Variation;
"**Mine Lease Landlords**"	the landlords under the Mine Lease from time to time;
"**Mine Waste Facility**" or "**MWF**"	the tailings storage facility at the Hemerdon Mine;
"**Mining Plus**"	Mining Plus UK Limited, incorporated and registered in England and Wales with company number 11527309,
"**Mining Services Contract**"	the mining services contract entered into between Hargreaves UKS (1) and Drakelands Restoration (2) dated 29 November 2019;
"**Money Laundering Regulations**"	Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, the Criminal Justice Act 1993, the Proceeds of Crime Act 2002;
"**New Ordinary Shares**"	the Ordinary Shares to be issued in connection with the Fundraising (comprising the Placing Shares the Subscription Shares, the Convertible Loan Note Shares and the Fee Shares);
"**Order**"	Financial Services and Markets Act 2000 (Financial Promotion) Order 2005;
"**Ordinary Shares**" or "**Shares**"	ordinary shares of the Company with par value of £0.01 per share;
"**Orion**"	Orion Resource Partners (UK) LLP or a fund managed by Orion Resource Partners (UK) LLP or a designated affiliate;
"**Orion Financing**"	the Orion Loan and the Orion Investment;
"**Orion Investment**"	has the meaning given in paragraph 11.20 of Part 7 (*Additional Information*);
"**Orion Loan**"	has the meaning given in paragraph 11.19 of Part 7 (*Additional Information*);
"**Orion Royalty**"	has the meaning given in paragraph 11.20 of Part 7 (*Additional Information*);
"**Panoptic**"	Panoptic Consultancy Group Limited;
"**Placees**"	the subscribers for New Ordinary Shares at the Issue Price pursuant to the Placing;
"**Placing**"	the conditional placing of the Placing Shares pursuant to the Placing Agreement;
"**Placing Agreement**"	the conditional agreement dated 10 October 2021 between Strand Hanson (1), H&P (2), VSA(3), the Company (4), and the Directors (5) relating to the Fundraising;

“**Placing Participation**”	acceptance of any offer incorporating the Placing terms (whether orally or in writing or evidenced by way of a contract note) to subscribe and pay for the relevant number of New Ordinary Shares;
“**Placing Shares**”	64,419,972 New Ordinary Shares to be issued at the Issue Price by the Company pursuant to the Placing;
“**Placing Terms**”	the terms and conditions set out in Part 8 of this document, pursuant to which Placees will irrevocably undertake, conditionally upon Admission to subscribe for Placing Shares;
“**Pre-Admission Reorganisation**”	the share capital reorganisation of the Company effected by the Company prior to Admission, details of which are set out in paragraph 3 of Part 7 (*Additional Information*);
“**Prospectus Regulation**”	Prospectus Regulation (Regulation EU 2017/1129) and amendments thereto;
“**Prospectus Regulation Rules**”	the rules published by the FCA made in accordance with the Prospectus Regulation Rules (Amendment) Instrument 2020 (FCA 2020/73);
“**QCA**”	the Quoted Companies Alliance;
“**QCA Code**”	the corporate governance code published by the Quoted Companies Alliance as in effect from time to time;
“**Qualified Investors**”	“qualified investors” within the meaning of Article 2(1)(e) of the Prospectus Directive;
“**Registrar**”	Neville Registrars Limited;
“**Regulation S**”	Regulation S under the US Securities Act;
“**Regulations**”	UK Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 and/or any amendment, modification, and/or re-enactment of the same;
“**Relevant Persons**”	Qualified Investors who (i) are persons who have professional experience in matters relating to investments falling within article 19(5) of the Order, (ii) are persons who are high net worth entities falling within article 49(2)(a) to (d) of the Order, (iii) are persons who are certified sophisticated investors falling within article 50 of the Order; or (iv) are other persons to whom it may otherwise lawfully be communicated;
“**Remuneration Committee**”	the remuneration committee of the Board constituted in accordance with the Articles;
“**Restricted Jurisdiction**”	each and any of the United States, Australia, Canada, Hong Kong, Japan, New Zealand and the Republic of South Africa and any other jurisdiction where the extension or the availability of the Placing would breach any applicable law;
“**RIS**”	the Regulatory Information Service, an incoming information society service that disseminates regulated information in accordance with the applicable minimum standards;
“**SEC**”	the US Securities and Exchange Commission;

"**SEDOL**"	the Stock Exchange Daily Official List, a list of security identifiers used in the United Kingdom and Ireland for clearing purposes;
"**Senior Management**"	the Company's senior management team from time to time;
"**Share Dealing Code**"	the code to be adopted by the Company from Admission which governs the restrictions imposed on persons discharging managerial responsibility and persons closely associated with them in relation to dealings in the Company's securities;
"**Shareholders**"	the holders of Ordinary Shares;
"**SLR Consulting**"	SLR Consulting Limited, incorporated and registered in England and Wales with company number 03880506;
"**South Extension Option Grantors**"	Thomas Woollcombe Blaikie, Holly Down LLP and Catriona Jennet Edington Woollcombe Gambrill (1), Thomasina Mary Blaikie, Catriona Jennet Edington Woollcombe Gambrill, Susannah Marion Ruth Woollcombe-Morris and Thomas Woollcombe Blaikie (2), Carolyn Ann Cobbold, Simon Hugh Gregory, Timothy Algernon Greenland and Humphrey Michael Cobbold (3), and Hemerdon Land LLP (4);
"**Strand Hanson**" or "**Nominated Adviser**" or "**Nomad**"	Strand Hanson Limited, incorporated and registered in England and Wales with company number 02780169, acting as the Company's nominated adviser;
"**Subscribers**"	those persons introduced to the Company by the Joint Brokers who have agreed to subscribe for the Subscription Shares directly with the Company;
"**Subscription**"	the subscription of the Subscription Shares to be issued and allotted to the Subscribers pursuant to the Subscription Letters;
"**Subscription Letters**"	conditional letter agreements entered into between the Company and the Subscribers;
"**Subscription Shares**"	the 580,028 New Ordinary Shares to be allotted and issued by the Company at the Issue Price pursuant to the Subscription;
"**Subsidiaries**"	Drakelands Restoration; Tungsten West Services; and Aggregates West;
"**Takeover Code**"	the City Code on Takeovers and Mergers issued by the Takeover Panel, as amended from time to time;
"**Technical Committee**"	the technical committee of the Board constituted in accordance with the Articles;
"**TIDM**"	Tradable Instrument Display Mnemonic, a short, unique code used to identify UK-listed shares;
"**UK**" or "**United Kingdom**"	the United Kingdom of Great Britain and Northern Ireland;
"**UK Prospectus Regulation**"	the Prospectus Regulation, which forms part of retained EU law in the United Kingdom by virtue of the EUWA;
"**UK Qualified Investors**"	"qualified investors" within the meaning of Article 2(1)(e) of the UK Prospectus Regulation;

"**US**" or "**United States**"	the United States of America, its territories and possession, any state in the United States, the District of Colombia and all other areas subject to its jurisdiction;
"**US Person**"	a US person for the purposes of Regulation S under the US Securities Act;
"**US Securities Act**"	the United States Securities Act of 1933, as amended;
"**VAT**"	value added tax;
"**VSA**"	VSA Capital Limited, incorporated and registered in England and Wales with company number 02405923;
"**Warrant Holders**"	Corrado; H&P; Henry Maxey; Morebath Limited; Gallega Capital Ltd; Drakewood Capital Management Limited; and Fox-Davies Capital Limited;
"**Warrants**"	warrants to subscribe for Ordinary Shares at the relevant subscription price as more particularly described in paragraph 3.10 of Part 7 (*Additional Information*);
"**Wolf Minerals**"	Wolf Minerals Limited, a company incorporated in Australia and previously listed on the Australian Stock Exchange and AIM;
"**Wolf Minerals (UK)**"	Wolf Minerals (UK) Limited, a company incorporated in England and Wales and a wholly owned subsidiary of Wolf Minerals which formerly owned and operated the Hemerdon Mine assets; and
"**Wolfram Bergbau**"	Wolfram Bergbau und Hütten AG, a company incorporated in Austria.

PART 10

GLOSSARY

"**APT**"	ammonium paratungstate;
"**deposit**"	a naturally occurring accumulation of minerals that may be considered economically valuable;
"**Diamond Drilling**"	a method of obtaining cylindrical core of rock by drilling with a diamond set or diamond impregnated bit;
"**DMS**"	Dense Media Separation;
"**ESG**"	environmental, social and governance;
"**Fe**"	iron;
"**ferberite**"	iron-rich end member of the manganese-iron wolframite solid solution series, mineral formula $FeWO_4$;
"**$FeWO_4$**"	Ferberite/iron tungstate;
"**friable**"	describes the tendency of a solid substance to break into smaller pieces under duress or contact, especially by rubbing;
"**G&A**"	general and administration;
"**granite**"	a medium to coarse grained plutonic igneous rock usually light coloured and consisting largely of quartz and feldspar;
"**grinding**"	further reduction, after crushing, of size of mined rocks by mechanical action;
"**Hz**"	hertz;
"**Indicated Mineral Resource**"	part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a probable mineral reserve;
"**Inferred Mineral Resource**"	part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a mineral reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resource with continued exploration. An Inferred Mineral Resource is based on limited information and sampling gathered

through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes;

"**IRR**" internal rate of return;

"**JORC Code (2012)**" Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code 2012 Edition. Effective 20 December 2012 and mandatory from 1 December 2013. Prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia (JORC);

"**kaolinization**" high-temperature hydrothermal alteration and replacement of feldspar minerals to kaolinite;

"**killas**" a Cornish term metamorphic rock unites which are altered by the heat supplied by the Cornish granites. At Hemerdon, specifically refers to Devonian metasedimentary, metavolcanic rocks and mafics surrounding the Hemerdon granite;

"**ktpa**" thousand tonnes per annum;

"**LOM**" life-of-mine;

"**LOMP**" life-of-mine plan;

"**mafics**" magnesium and iron-rich ingenious rock unit typically containing minerals such as olivine, pryroxene, amphibole, and biotite;

"**metasediments**" metamorphic rock comprising a former sedimentary unit that has been subjected to high temperatures and pressures resulting in recrystallization;

"**metavolcanics**" Metamorphic rock comprising former rock unit was formed by volcanic activity such as lava or tephra, that has been subjected to high temperatures and pressures resulting in recrystallization;

"**Measured Mineral Resource**" part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with confidence sufficient to allow the application of mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a proven mineral reserve or to a probable mineral reserve;

"**Mineral Resource**" a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade, (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated, or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into inferred, indicated, and measured categories;

"**Mineral Resource Estimate**" and "**Ore Resource Estimate**"	an estimate of the ore tonnage and grade of a geological deposit, from the developed block model. The estimate will comprise of Inferred, Indicated and Measured Mineral Resource;
"**$MnWO_4$**"	manganese tungstate;
"**MPA**"	mineral planning authority;
"**Mt**"	million tonnes;
"**Mtpa**"	million tonnes per annum;
"**mtu**"	metric tonne unit;
"**NPV**"	net present value;
"**Ore Reserves**"	the economically mineable part of a Measured Mineral Resource and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which might occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably by justified;
"**Probable Ore Reserve**"	is the part of indicated, and in some circumstances, measured mineral resources that can be mined in an economically viable fashion. It includes diluting material and allowances for losses which may occur when the material is mined. A Probable Ore Reserve has a lower level of confidence than a Proved Ore Reserve but is of sufficient quality to serve as the basis for decision on the development of deposit;
"**Proved Ore Reserve**"	is the part of Measured Mineral Resources that can be mined in an economically viable fashion. It includes diluting materials and allowances for losses which occur when the material is mined;
"**quartz**"	a very common mineral in sedimentary, magmatic, metamorphic and hydrothermal environments;
"**Reserves**"	the part of a Mineral Resource which has been demonstrated to be economically exploitable;
"**Reverse Circulation**"	a method of drilling which uses drill rods that consist of an outer drill rod with an inner tube allowing the drill cuttings to be transported back to the surface in a continuous, steady flow;
"**ROM**"	run-of-mine;
"**sintering**"	A thermal process of converting loose fine particles into a solid coherent mass by heat and/or pressure without fully melting the particles to the point of smelting;
"**steady state production**"	production levels at the Hemerdon Mine that are steady state, as set out in the CPR;
"**Sn**"	tin;
"**strike**"	direction taken by a structural surface, e.g. fault or bedding plane as it intersects the horizontal plane;

“**tpa**”	tonnes per annum;
“**tph**”	tonnes per hour;
“**UK Aggregates Levy**”	UK tax on the commercial exploitation of rock, sand and gravel;
“**WO_3**”	tungsten trioxide;
“**WO_3Eq**”	WO_3 equivalent;
“**wolframite**”	an iron-manganese tungstate mineral that is the intermediate between ferberite and hübnerite; and
“**XRT**”	x-ray transmission.

Perivan 262041

TUNGSTEN WEST